MINUTES
TOWN OF AMHERST
AMHERST PLANNING BOARD MEETING
April 20, 2023
6:30 PM

The Planning Board will hold a public work session at 6:00 pm in the Amherst Municipal Building, 5583 Main Street, Williamsville, NY 14221 on the same date.

This meeting is being video recorded.

The plans and documents that are available below for each Planning Board hearing item were submitted by the project applicant and are intended to provide general information about the proposal.

The official, complete sets of submittal documents and materials that provide more detailed information about the projects are available in the Planning Department, which is located in Amherst Town Hall, 5583 Main Street, Williamsville, NY 14221. Hours are 9 am to 5 pm, Monday through Friday. If you have any questions, please contact the Planning Department at (716) 631-7051.

Revised plans are submitted on an ongoing basis throughout the review process to address comments on the project. Every effort will be made to post the most recent version of the plans and application materials in a timely manner.

ROLL CALL

Attendee Name	Organization	Title	Status	Arrived
Robert J. Gilmour	Town of Amherst	Chair	Present	
Michael Chmiel	Town of Amherst	Board Member	Present	
Harbinder Gill	Town of Amherst	Board Member	Present	
Dal Giuliani	Town of Amherst	Board Member	Present	
Brittany Lee Penberthy	Town of Amherst	Board Member	Present	
Joseph P. Raffaele	Town of	Board Member	Present	

Jr.	Amherst			
Carrie H. Kahn	Town of Amherst	Board Member	Present	
Dan Howard	Town of Amherst	Planning Director	Present	
Daniel J. Ulatowski	Town of Amherst	Assistant Planning Director/ZEO	Present	
Scott Marshall	Town of Amherst	Principal Planner	Present	
Thomas J. Voigt	Town of Amherst	Assistant Planner	Present	
Gary Palumbo	Town of Amherst	Associate Planner	Present	
Amy Carrato	Town of Amherst	Community Development Assistant	Present	
Jacqualine Berger	Town of Amherst	Councilmember	Present	
Ann Demopoulos	Town of Amherst	Deputy Town Attorney	Present	

Note: There will be no public hearing or opportunity to speak for the projects listed under the Unfinished Business section of this agenda.

Please note the following time limits for speakers at public hearings:

- **Presentation by Petitioner: 15 minutes**
- **Rebuttal by neighborhood/resident spokesperson: 15 minutes**
- **Individual speakers: 3 minutes**

PUBLIC HEARINGS

SITE PLANS & RELIEF FROM CONDITIONS OF SITE PLANS

1. PROPOSED DENTISTRY SCHOOL AND PARKING LOT EXPANSION, SP-2022-02
Property located at 2525 Kensington Avenue
Philipps Bros Supply Inc., Petitioner

April 21, 2022
No comments were heard on this proposal. The Petitioner requested an adjournment. Ms. Penberthy moved to adjourn until the May Planning Board meeting. The motion was seconded by Mr. Chmiel and carried. Ayes 6, Noes 0, Absent 1 (Gilmour).

May 19, 2022
No comments were heard on this proposal. Mr. Chmiel moved to adjourn the proposal. The motion was seconded by Mr. Raffaele and carried. Ayes 6, Noes 0, Absent 1 (Giuliani).

October 20, 2022
No comments were heard on this proposal. Mr. Giuliani moved to adjourn the proposal. The motion was seconded by Ms. Kahn and carried. Ayes 6, Noes 0, Absent 1 (Gill).

April 20, 2023

Proposed conversion of a portion of the existing 29,350 s.f. Philips Bros. retail/warehouse building for the Shatkin School of Dentistry (16,253 s.f.). The project includes an approximately 4,000 s.f. second floor build-out, as well as redevelopment of Ridgewood Drive for public parking under a license agreement with the Town. Improvements in the Ridgewood Drive right-of-way are not subject to zoning ordinance requirements and are under the jurisdictional review of the Town of Amherst Highway Superintendent.

Joseph Molek, Stieglitz Snyder, represented the petitioner, explained the proposal and was available to answer questions from the Board. Michael Brogan, Daemen University; Dr. Todd Shatkin; Phil Snyder, Stieglitz Snyder; and Matt and Pat Phillips, Philipps Bros. Supply Inc. were also present.

In response to the Board's questions, Dr. Shatkin stated there will be 40 students per year in the program, the clinic will have 40-50 dental chairs and will be open to the public, the students will pair up, there should be 20-30 patients at any given time, most students will have completed their undergraduate courses and will receive training at the clinic, the clinic will be open from 9 am to 7 or 8 pm, there will also be weekend hours, there will be a maximum of 120 students at the clinic at one time, there will be 80 parking spots on site, students will be shuttled to/from Daemen University. Mr. Brogan stated the University currently shuttles students from student housing and the campus, the shuttle frequency will be as needed, commuter students will park on campus and the shuttle will pick up students from student housing.

David Borden, 627 King Hwy. and Linda Prout, 2418 Kensington Ave. spoke in opposition of the proposal. Ari Goldberg, Barclay Damon, representing Grindstone, is in favor of the project but has parking/signage concerns.

No further comments were heard on this proposal. The hearing was closed.

Following discussion, Mr. Chmiel moved to approve the Negative Declaration. The motion was seconded by Mr. Raffaele and carried. Ayes 7, Noes 0.

Following the approval of the Negative Declaration, Mr. Chmiel moved to approve the request based on the resolution. The motion was seconded by Ms. Penberthy and carried. Ayes 7, Noes 0.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Michael Chmiel, Board Member
SECONDER:	Brittany Lee Penberthy, Board Member
AYES:	Gilmour, Chmiel, Gill, Giuliani, Penberthy, Raffaele Jr., Kahn

2. PROPOSED OFFICE/WAREHOUSE ADDITION, SP-1987-64A
Property located at 80 Creekside Drive
80 Creekside Drive LLC, Petitioner

This project consists of a 10,525 square foot building addition on the north side of an existing warehousing building. The addition is 1-story (16.5 feet tall) and is constructed of steel siding and a metal roof. Other site work includes the addition of 8 parking stalls adjacent to the building addition and a dumpster enclosure. A new stormwater detention pond is also included in the site work to offset the additional pavement required in order to facilitate the building addition.

Chris Wood, Carmina Wood Design, represented the petitioner, explained the proposal and was available to answer questions from the Board. Joe Manzella and Kevein Curry were also present.

In response to the Board's questions, Mr. Wood stated there no existing sidewalks.
No further comments were heard on this proposal. The hearing was closed.
Following discussion, Mr. Giuliani moved to approve the Negative Declaration. The motion was seconded by Mr. Gill and carried. Ayes 7, Noes 0.

Following the approval of the Negative Declaration, Mr. Chmiel moved to approve the request based on the resolution. The motion was seconded by Ms. Penberthy and carried. Ayes 7, Noes 0.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Michael Chmiel, Board Member
SECONDER:	Brittany Lee Penberthy, Board Member
AYES:	Gilmour, Chmiel, Gill, Giuliani, Penberthy, Raffaele Jr., Kahn

SUBDIVISIONS & RELIEF FROM CONDITIONS OF SUBDIVISIONS

None

REZONING & RELIEF FROM CONDITIONS OF REZONINGS

None

3. REQUEST TO REZONE 0.77± ACRES OF LAND FROM OB TO MFR-5, Z-2023-01
Property located at 2350 Sweet Home Road
Essex Homes of WNY, Petitioner

The purpose of this rezoning request is to rezone strips of land on the south and west sides of the site adjacent to the existing MFR-5 zoning to allow for the construction of future sunrooms on the back sides of the existing residential buildings. The rezoning area on the west side of the site ranges in width from 4.13 feet on the north to 9.55 feet on the south and a consistent width of 8 feet along the south of the existing MFR-5 zoning.

Sean Hopkins, Esq., Hopkins Sorgi & McCarthy, represented the petitioner, explained the proposal and was available to answer questions from the Board. Kevin Curry, Essex Homes, was also present.

In response to the Board's questions, Mr. Hopkins stated they have been diligently working with the neighbors.

Laura Stone, 550 N. Ellicott Creek Rd.; Elliott Bartley, 574 N. Ellicott Creek Rd.; John Blitstein, 540 N. Ellicott Creek Rd.; Andrew Fenster, 520 N. Ellicott Creek Rd.; George Rusk, 70 Lamarck Dr.; spoke in opposition of the proposal.

No further comments were heard on this proposal. The hearing was closed.

Following discussion, Mr. Giuliani moved to approve the request based on the resolution. The motion was seconded by Mr. Gilmour and failed. Ayes 3, Noes 4 (Chmiel, Gill, Penberthy, Raffaele).

Ms. Penbrthy moved to deny the request based on the resolution. The motion was seconded by Mr. Chmiel and carried. Ayes 4, Noes 3 (Gilmour, Giuliani, Kahn).

RESULT:	**DENIED [4 TO 3]**
MOVER:	Brittany Lee Penberthy, Board Member
SECONDER:	Michael Chmiel, Board Member
AYES:	Chmiel, Gill, Penberthy, Raffaele Jr.
NAYS:	Gilmour, Giuliani, Kahn

4. REQUEST TO AMEND A DECLARATION OF RESTRICTIONS AS PART OF A REZONING DECISION THAT RESTRICTS WINDOWS FROM BEING CONSTRUCTED ON THE REAR OF BUILDINGS AND LIMITING THE MINIMUM SETBACK, Z-2016-16D & Z-2017-11B
Property located at 2350 & 2360 Sweet Home Road
Essex Homes of WNY, Petitioner

The purpose of this rezoning request is to allow the petitioner to construct sunrooms or enclosed porches on the units which abut the west and south sides of the development and to allow for second story windows on the rear of interior buildings within the development.

Sean Hopkins, Esq., Hopkins Sorgi & McCarthy, represented the petitioner, explained the proposal and was available to answer questions from the Board. Kevin Curry, Essex Homes, was also present.

In response to the Board's questions, Mr. Curry showed the location where a window was accidentally constructed and removed.

Corey Fenster, 520 N. Ellicott Creek Rd.; Kim Bartley, 574 N. Ellicott Creek Rd.; and John Blitstein, 540 N. Ellicott Creek Rd. spoke in opposition of the proposal.

No further comments were heard on this proposal. The hearing was closed.

Following discussion, Mr. Chmiel moved to deny the request based on the resolution. The motion was seconded by Ms. Penberthy and carried. Ayes 4, Noes 3 (Gilmour, Giuliani, Kahn).

RESULT:	**DENIED [4 TO 3]**
MOVER:	Michael Chmiel, Board Member
SECONDER:	Brittany Lee Penberthy, Board Member
AYES:	Chmiel, Gill, Penberthy, Raffaele Jr.
NAYS:	Gilmour, Giuliani, Kahn

5. REQUEST TO REZONE 0.50± ACRES OF LAND FROM R4 TO CTR-5, Z-2023-02
Property located at 3945 Rensch Road
Rensch Group LLC, Petitioner

Rezoning approximately 0.57± acres to the CTR-5 mixed-use district to allow development of a three-story multi-family building containing 12 apartments, recreation space and parking.

Sean Hopkins, Esq., Hopkins Sorgi & McCarthy, represented the petitioner, explained the proposal and was available to answer questions from the Board.

In response to the Board's questions, Mr. Hopkins stated having the building sprinklered will be addressed during the site plan process.

No further comments were heard on this proposal. The hearing was closed.

Following discussion, Ms. Penberthy moved to approve the request based on the resolution. The motion was seconded by Mr. Chmiel and carried. Ayes 7, Noes 0.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Brittany Lee Penberthy, Board Member
SECONDER:	Michael Chmiel, Board Member
AYES:	Gilmour, Chmiel, Gill, Giuliani, Penberthy, Raffaele Jr., Kahn

MISCELLANEOUS

None

6. PROPOSED LOCAL LAW TO AMEND CHAPTER 203 OF TOWN CODE (ZONING ORDINANCE), SECTION 1-13 - ZONING IMMUNITY, ZTA-2023-01
Town of Amherst Law Department, Petitioner

This request is being initiated by the Town Attorney's Office on behalf of the Town Board. The purpose of this zoning text change is to exempt the Town from adhering to the requirements of the Town Zoning Ordinance for certain public uses.

Martin Polowy, Town Attorney, represented the petitioner, explained the proposal and was available to answer questions from the Board.

Samantha Smith, 60 Fruehauf Ave., spoke in opposition of the proposal.

No further comments were heard on this proposal. The hearing was closed.

Following discussion, Mr. Giuliani moved to approve the request based on the resolution. The motion was seconded by Mr. Gilmour. Mr. Giuliani withdrew his motion to approve.

Following discussion, Ms. Penberthy moved to deny the request based on the resolution. The motion was seconded by Mr. Raffaele and carried. Ayes 4, Noes 3 (Gilmour, Giuliani, Kahn).

RESULT:	**DENIED [4 TO 3]**
MOVER:	Brittany Lee Penberthy, Board Member
SECONDER:	Joseph P. Raffaele Jr., Board Member
AYES:	Chmiel, Gill, Penberthy, Raffaele Jr.
NAYS:	Gilmour, Giuliani, Kahn

OTHER COMMUNICATIONS

None

All public hearings are completed and closed at the termination of public discussion for each agenda item unless otherwise specified by the Chair.

UNFINISHED BUSINESS

Note: All public hearings have been completed. There will be no public hearings for items listed under this section.

SITE PLANS & RELIEF FROM CONDITIONS OF SITE PLANS

7. PROPOSED SNYDER MIXED-USE BUILDING, SP-2022-11
Property located at 4548 & 4564 Main Street, 17 Fruehauf Avenue and 22 Chateau Terrace
Benderson Development, Petitioner

February 16, 2023
Proposal's to:
1. Request for design exception in accordance with §203-5A-7-19 of Town Code for the length of the building abutting Chateau Terrace and Fruehauf Avenue and for the requirement of tree grates along the frontage of Chateau Terrace and Fruehauf Avenue of the development to satisfy particular design standards in the Mixed Use Districts.

2. Demolish all existing structures located on the subject parcels and construct a proposed 2½ story mixed use building containing 48 apartment units (22 one bedroom, 24 two bedroom & 2 three bedroom) with 2 commercial (restaurant) tenant spaces totaling 6,624 sq. ft. Parking is provided for 76 vehicles and is internal to the building. 54 parking spaces are located in the basement level which will be controlled via gate arm and accessed via Chateau Terrace with 22 parking spaces being located on the 1st floor level and accessed via Fruehauf Avenue. Refuse will be contained within a trash storage room in the basement level and bike racks are provided on the basement and first floor levels.

James Boglioli, Esq., Benderson Development Co., represented the petitioner, explained the proposal and was available to answer questions from the Board.

In response to the Board's questions, Mr. Boglioli stated there will be designated parking spaces on Main Street for loading and unloading of trucks, one current parking space on Main Street will be eliminated, the proposed building size is less than Town Code requires, electronic bicycles could be required to be stored outdoors, the building will be fully sprinklered, the power lines on Main Street cannot be moved, the proposed building is not much higher than the existing building, the parking meets the Town's requirement, tenants will not use the space if the parking is inadequate, Samantha Smith, 60 Fruehauf Ave.; Joy Testa-Cinquino, 74 Fruehauf Ave.; Jerry O'Conner, 27 Chateau Ter.; Cheri Cejka, 30 Chateau Ter.; Jim Kalinowski, 46 Chateau Ter.; Chris Drongosky, 1250 Youngs Rd; Robbie Illos-Gerth, 11 Chateau S.; Cathy Skora, 90 Fruehauf Ave.; Amanda Casali, 23 Fruehauf Ave.; John Casali, 23 Fruehauf Ave.; Mike Kozelsky, 60 Fruehauf Ave.; Katie Buonanno, 63 Fruehauf Ave.; Mark Buonanno, 63 Fruehauf Ave.; Christina Coyle-Lenz, 64 Chateau Ter. E.; Jessica Black, 79 Fruehauf Ave.; Eric Anson, 57 Fruehauf Ave.; Bob Drdul, 92 Chateau Ter.; Lisa Drdul, 92 Chateau Ter.; Jane Cox, 4584 Harlem Rd.; Kalinowski, 46 Chateau Ter. E.; Blake Kalinowski, 46 Chateau Ter. E.; Jeff Druzbik, 70 Fruehauf Ave.; Jacob Edelman, 4885 Main St., Matt Lingle, 47 Fruehauf Ave.; Claudia Drdul, 4885 Main St.; Paul Zarcone, Hamilton and Chateau Ter.; Fred Lenz, 64 Chateau Ter.; Dave 101 Fruehauf Ave. and Dave Kimball, 104 Fruehauf Ave. spoke in opposition of the proposal.
No further comments were heard on this proposal. The hearing was closed.
Following discussion, Mr. Giuliani moved to adjourn the proposal. The motion was seconded by Ms. Penberthy and carried. Ayes 7, Noes 0.

April 20, 2023
After Roll Call the Chairman asked for a motion to move unfinished item (No.7) Snyder Mixed-Use Building to item number 1 on the agenda for consideration. Mr. Giuliani motioned to move item number 7. The motion was seconded by Ms. Kahn and carried. Ayes 6, Noes 0, Abstain 1 (Chmiel).

Mr. Gilmour asked for a motion to adjourn the request because a (SEQR) State Environmental Quality Review Act determination cannot be made by the Planning Board at this time for the following reasons:

1. The Planning Department must coordinate with the NYS Office of Parks Recreation & Historic Preservation (SHPO) pursuant to section 617.6(b)(4)(ii) of the SEQR regulations. Based on the resource evaluation report created March 23, 2023, SHPO has now determined that the building at 4548 Main Street is eligible for inclusion on the State and National Register as an Historic Place.

2. The Town of Amherst Historic Preservation Committee (HPC) has received a local landmark designation application for 4548 Main Street. Accordingly, the Planning Board requests a determination from the HPC requiring the designation of 4548 Main Street.

3. The property at 22 Chateau Terrace is identified in the 2011 Reconnaissance Level Survey of Historic Resources for the Town of Amherst as part of a potential local historic district. The HPC has received a landmark designation application for 22 Chateau Terrace. Accordingly, the Planning Board requests a determination from the HPC regarding the designation at 22 Chateau Terrace.

Mr. Giuliani motioned to adjourn the request. The motion was seconded by Mr. Gill and carried. Ayes 6, Noes 0, Abstain 1 (Chmiel).

RESULT:	**ADJOURNED [6 TO 0]**	**Next: 5/18/2023 6:30 PM**
MOVER:	Dal Giuliani, Board Member	
SECONDER:	Harbinder Gill, Board Member	
AYES:	Gilmour, Gill, Giuliani, Penberthy, Raffaele Jr., Kahn	
ABSTAIN:	Chmiel	

8. REQUEST FOR EXTENSION OF SITE PLAN APPROVAL, SP-2016-04B & SP-2016-04C
Property located at 6569 Main Street
Gurdwara Cultural Center, Petitioner

Proposal to expand the existing Gurdwara Cultural Center to include demolition of an office building and construction of a 2-story free-standing building with an 8,475± sq. ft. footprint in its place, redesign of the parking lot to create 52 parking spaces, and closure of the Main Street driveway. This development site includes the existing Gurdwara Cultural Center building and a single-family residence to the south of the main building that is associated with the cultural center. Parking spaces will be added behind the proposed new building. The site will continue utilizing two of the three existing curb cuts - one to Ridge Court North and one to Amherston Drive for the residence. The existing Main Street driveway will be closed; this development will be able to exit only at a shared driveway with the property to the east (6589 Main Street).

No comments were heard on this proposal.

Following discussion, Mr. Chmiel moved to adjourn the proposal until the variances needed to implement the site plan are obtained. The motion was seconded by Ms. Penberthy and carried. Ayes 7, Noes 0.

RESULT:	**ADJOURNED [UNANIMOUS]**	**Next: 6/15/2023 6:30 PM**
MOVER:	Michael Chmiel, Board Member	
SECONDER:	Brittany Lee Penberthy, Board Member	
AYES:	Gilmour, Chmiel, Gill, Giuliani, Penberthy, Raffaele Jr., Kahn	

SUBDIVISIONS & RELIEF FROM CONDITIONS OF SUBDIVISIONS

None

REZONING & RELIEF FROM CONDITIONS OF REZONINGS

None

MISCELLANEOUS

None

OTHER COMMUNICATIONS

None

DIRECTOR'S REPORT

MINUTES APPROVAL

March 16, 2023
Mr. Chmiel moved to approve the minutes. The motion was seconded by Ms. Penberthy and carried. Ayes 7, Noes 0.

ADJOURNMENT

The Planning Board meeting of April 20, 2023 was adjourned at 9:15 pm.

TOWN OF AMHERST

APPLICATION & REVIEW PROCEDURE

MAJOR SITE PLAN

MATERIALS MUST BE PROVIDED IN AN ELECTRONIC FORMAT THAT CONTAINS PDF FILES OF THE APPLICATION, EAF, SITE PLAN DRAWING SET SURVEY, LANDSCAPE PLAN, PRELIMINARY BUILDING FLOO PLANS / ELEVATIONS & ANY OTHER SUPPORTING INFORMATION. THIS MUST BE SUBMITTED WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE TRANSMITTED WITHOUT THIS ELECTRONIC INFORMATION.

THIS ALSO APPLIES TO REVISED MATERIALS THAT AR SUBMITTED.

This application package includes the following:

- Application Procedures
- Application Form & Checklist
- Stormwater Pollution Prevention Plan Checklist
- Appendix A Town of Amherst EAF Addendum
- Appendix B Criteria for Required 8½" x 11" Sketches
- Appendix C Erie Sewer District No. 5 – Commercial / Industrial New & Existing Buildings Requirements

- IMPORTANT-

1. A pre-submittal consultation with Planning Department staff is *strongly recommended* prior to submitting an application. The pre-submittal meeting gives the applicant an opportunity to discuss with staff such items as:
   - classifying the action as a major site plan, minor site plan, or minor site plan adjustment;
   - determining what specific information will be required to be submitted with the application;
   - identifying and discussing issues that must be addressed as part of the SEQR review;
   - identifying any potential variances required to implement the project as proposed.

   An appointment is required for all meetings with Planning Department staff.

2. This site plan petition is subject to the requirements of 6 NYCRR Part 617, State Environmental Quality Review Act (SEQR), and Chapter 104 of the Town of Amherst Code, as amended. The Planning Board cannot make a SEQR determination unless a complete Environmental Assessment Form (EAF), including Town of Amherst EAF Addendum, and any required supplementary information such as traffic impact studies, archaeological reports, wetland delineations or geotechnical reports, are submitted. SEQR issues may be discussed with Planning Department staff at a recommended pre-submittal meeting. Unlisted Actions require a Short EAF; Type I Actions require a Full EAF. The following is a link to the NYSDEC website and fillable forms with instructions*:*
   http://www.dec.ny.gov/permits/6191.html.

3. **Review by the Town Design Advisory Board (DAB) is required for Major Site Plans located in the following Mixed-Use zoning districts:**

   Traditional Infill 2.5 (TI-2.5)
   Traditional Infill 4 (TI-4)
   Shallow Corridor 3 (SC-3)
   Deep Corridor 3 (DC-3)
   Deep Corridor 5 (DC-5)
   Center 2.5 (CTR-2.5)
   Center 5 (CTR-5)
   Center 8 (CTR-8)

   The application for DAB review is required to be filed in conjunction with the major site plan application.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

4. The application shall be executed or consented to in writing by the owner of the property.

5. **Any variances from the Zoning Board of Appeals, or any decision from the Town Board (e.g. removal of deed restrictions) must be obtained prior to action by the Planning Board on a Site Plan application.**

6. Submittal of an application grants permission to Town staff and Planning Board members to access the parcel(s) under consideration.

7. All site plan drawings must be prepared by a Registered Architect, Professional Engineer, Landscape Architect, or Land Surveyor (as applicable) licensed to practice in New York State.

8. If you wish to include a Coordinated Sign Plan application with the site plan petition, a separate application must be completed. Contact the Planning Department for a copy of a Coordinated Sign Plan application package.

9. All drawings should be no larger than 24 in. x 36 in. If site characteristics warrant larger plan sheets, they may be accepted subject to Planning Department concurrence. All drawings must also reserve a 4 in. x 6 in. area in the lower right hand corner for official Town use.

APPLICATION PROCEDURES

1. Applicant secures application package from the Planning Department, 5583 Main Street, Williamsville, NY 14221. (716) 631-7051. Forms are also available online at: www.amherst.ny.us, (keyword: Planning).

2. Applicant prepares information as required on the Site Plan Submittal Checklist, attached. NOTE: Some proposals may not require all items on the checklist; please verify with the Planning Department.

3. Applicant schedules an appointment with the Planning Department to review the following:
   - a complete set of site plan drawings, preliminary building elevations and floor plans (no larger than 24" x 36" in size)
   - Environmental Assessment Form (EAF) & Town EAF Addendum
   - any supporting reports and materials
   - verification from the Town Assessor that the address in the application is correct

4. Applicant schedules an application submittal appointment with the Planning Department. NO SITE PLAN WILL BE ACCEPTED FOR REVIEW WITHOUT A PRE-SET SUBMITTAL APPOINTMENT.

5. At the submittal appointment, applicant provides fourteen (14) complete and collated sets of drawings and application information to the Planning Department **(materials will not be accepted unless folded into 9" x 12" in size),** including**:**
   - application form
   - Environmental Assessment Form (EAF)
   - supporting reports / materials
   - complete set of site plan drawings, preliminary building elevations and floor plans (**at least one (1) set of drawings must bear a raised or wet seal and signature of the design professional** who prepared the plans; the remaining copies may be submitted with a facsimile of the seal and signature)
   - digital files of all materials in pdf format
   - an 8½" x 11" reduction of the sketch plan or plat drawing (see Appendix B)

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

6. After approval for filing by the Planning Department, applicant submits all necessary fees to the Town Clerk. **(See Schedule of Fees on first page of application and make checks payable to: Town of Amherst.)**

7. The applicant returns a copy of the filing receipt to the Planning Department.

8. The Planning Department transmits remaining thirteen (13) copies of the application and supporting materials to:
   - Assessor
   - Commissioner of Building
   - Town Engineer
   - Superintendent of Highways
   - Traffic/Safety Board
   - Fire Chiefs' Association
   - Plumbing Division
   - Right-of-Way Agent
   - Police Department (if applicable)
   - Zoning Enforcement Officer
   - Other Town and outside agencies, as applicable

9. Within 30 days of its receipt of the complete application for Site Plan approval, each agency completes its review and notifies the Planning Department in writing of its comments or recommendations as required by Ordinance.

10. The applicant may be required to submit revised plans, reports, or materials to address review agency comments. The procedures for submittal of revised plans are as follows:

    - A cover letter addressing all comments received to date is required.
    - "Highlight" the area of change on the drawings and provide a notation describing the change.
    - Revised plans/materials are required. Planning staff should be contacted to determine the number of sets needed.
    - All revised plans and materials must also be provided in an electronic format that contains pdf files of the revised information.

11. The Planning Board reviews the EAF to determine whether a Draft Environmental Impact Statement (DEIS) is required. The petitioner will be advised in the event that a DEIS is required and afforded the opportunity to prepare it. If the petitioner declines, the Planning Board will prepare the DEIS at the petitioner's expense. The public hearing will be held on the DEIS concurrently with the Planning Board hearing on the application.

12. Planning Board Meeting Procedures:

    The applicant or representative presents the project at the public hearing before the Planning Board and is available to answer any questions. The Planning Board may take any of the following actions:

    - Adjourn the hearing to a future Planning Board meeting (hearing remains open).
    - Close the hearing and table action on the site plan to a future Planning Board meeting. (The Planning Board may remove the item from the agenda until such time as all required information is provided.)
    - Close the hearing and make a decision on the site plan.

    All determinations on matters before the Planning Board are made after all public hearings on that meeting's agenda are completed.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

13. A copy of the Planning Board's determination will be provided to the applicant, his / her representative, the Building Commissioner and the Town Clerk approximately 1 week following the Planning Board meeting at which it was heard.

14. If the Planning Board approves a Site Plan with conditions, the Planning Department will work with the applicant to ensure that all conditions of the approval are satisfactorily addressed. When all conditions are satisfied, the applicant submits **seven (7) final copies** of the complete set of all site plan drawings, folded into 9" x 12". For site plans in the Mixed-Use zoning districts, building elevations will also be required.

    All 7 sets must have original wet seals and include the required 4 in. x 6 in area in the lower right hand corner for official Town use. These drawings will be stamped and signed "Approved" by the Planning Director and transmitted to Town Departments for their files and use.

15. A building permit will not be issued by the Building Department until the stamped and signed Site Plan is issued by the Planning Director.

NOTE: Please check with the Planning Department to determine the deadline date for filing applications. Due to the public hearing notice requirements and department reviews, no site plan application will be placed on the Planning Board agenda after the deadline for filing has closed. Scheduling may be delayed if an application is incomplete.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Major Site Plan Review

For Official Use

File #: _____ **Acreage** _____ **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Received by Planning Department _____ RECEIVED BY DATE

Fee Paid to Town Clerk _____ RECEIVED BY DATE

Site Plan Review		**Fill In Applicable Fees**
1 acre or less	$1,250.00	_____
Each additional acre or fraction thereof	$ 650.00/acre	_____
Amendments to Site Plans	$1,200.00	_____
Request for Relief of / Change to Conditions of Site Plan Approval	$1,200.00	_____
Request for Extension of Site Plan Approval	$ 450.00	_____
Stormwater Pollution Prevention Plan		
1 - 4.99 Acres	$ 500.00	_____
5 - 10 Acres	$ 750.00	_____
>10 Acres	$1,000.00	_____
Affidavit Fee for Public Hearing	$ 15.00	_____
	TOTAL FEE:	**$**_____

To Be Completed By Applicant

Petitioner:

Name: Philipps Bros Supply Inc.

Address: 2525 Kensington Ave

Amherst (city) NY (state) 14226 (zip code)

Phone: 716-839-4800 Fax: 716-839-4051

E Mail: pphilipps@philippsbros.com

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

MAJOR SITE PLAN APPLICATION (con't) ***Page 2***

Representative (Architect, Engineer, Landscape Architect, Surveyor, or Attorney)**:**

Name: Joseph Molek

Address: 425 Franklin Street

Buffalo (city) NY (state) 14202 (zip code)

Phone: 716 - 222-3752 Fax: _____

E Mail: jmolek@stieglitzsnyder.com

Project Location (must be verified by Town Assessor's Office)**:**

Address: 2525 KENSINGTON AVE

SBL No(s): *Deed Reference: Liber 11117, Page 3180*
Tax ID: 80.11-1-6.2

Project Name: SHATKIN SCHOOL OF DENTISTRY AT DAEMEN COLLEGE / IMIT

Project Description:

MULTI-TENANT BUILD-OUT AND PARKING LOT EXPANSION ONTO RIDGEWOOD DRIVE

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

MAJOR SITE PLAN APPLICATION (con't) ***Page 3***

If this petition is an amendment to a previously approved site plan, please describe the proposed changes (include type and size of existing structures and number of existing parking spaces):

	existing	proposed	total
Gross Floor Area (non-residential):	29,350	4,400	33,750
Gross Floor Area Residential:			
Number of Residential Units:			
Number of Parking Spaces:	26	46	72

Acreage of Parcel: 1.24 AC

(list each parcel separately)

Frontage on Public Roads: 165.18'+333.61'+280.01'=778.8'

(list each road separately)

Existing Zoning District(s) GB - GENERAL BUSINESS

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Site Plan Submittal Requirements and Checklist

The following checklist outlines the information required by the Planning Department to accept a Site Plan application for review. ***It is strongly recommended that you make an appointment with Planning Staff to determine which items apply to your application***.

Item No.	Item	Submitted	Official use
I Basic Drawing Information			
1.0	**Drawing size not to exceed 24" x 36"**		
2.0	**Title of Drawing**		
3.0	**Name and address of Applicant**		
4.0	**Name of person preparing drawing**		
5.0	**Wet seal/raised seal and signature of NYS licensed architect, engineer, landscape architect, or surveyor (as applicable)**		
6.0	**Project address**		
7.0	**Zoning of subject property and adjacent parcels**		
8.0	**North point, scale, date, and revision date(s)**		
9.0	**4" x 6" reserved area in lower right hand corner for official Town use**		
II Structures, Paved Areas, & Open Space			
1.0	**Existing and Proposed Streets**		
1.1	Names of all existing and proposed streets		
1.2	Width and radii of proposed curb-cuts		
1.3	Existing curb-cuts on adjacent and opposite properties		
1.4	Show ROW width, pavement dimensions, lane widths, pavement markings, and proposed signage on proposed streets		
1.5	Show proposed ROW consistent with planned NYSDOT, Erie County, or Town road projects (if applicable)		
1.6	Show location of proposed cross access to adjacent parcels along with a draft easement		
1.7	Designation of Fire Lanes (if applicable)		
1.8	Fire apparatus access roads		
1.9	Label any proposed roads as public or private		
1.10	Location and dimensions of sidewalks		
1.11	Typical cross sections and profiles of proposed streets, pedestrian walkways, and bikeways		
2.0	**Proposed Structures**		
2.1	Location and complete dimensions of proposed structures		
2.2	Setback dimensions of structure(s) to all property lines		
2.3	Proposed use of structures		
2.4	Gross square feet area of each structure		
2.5	Location of all building entrances		
2.6	Indicate type of roof construction/materials		
2.7	Location, height, and design detail of existing and proposed fences and walls		
2.8	Location of light standards and building mounted lights		
2.9	Location of dumpster and detail of dumpster enclosure with gate		
2.10	Layout and dimensions of the lot(s) proposed for development		

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.	Item	Submitted	Official use
II Structures, Paved Areas, & Open Space (cont'd)			
3.0	**Floor Plans with individual rooms and spaces labeled** (fully dimensioned)		
4.0	**Building elevations with height dimensions from finished grade to the highest point of the roof and to midpoint of gable or hip of a pitched roof.** (fully dimensioned)		
4.1	Show screening of mechanical equipment		
5.0	**Parking/Loading/Stacking Areas**		
5.1	Location and complete dimensions of all paved areas		
5.2	Setback dimensions of all paved areas to property lines		
5.3	Dimension of typical parking space and drive aisles		
5.4	Location and layout of handicapped parking spaces & access aisles		
5.5	Detail of vertical signage for handicapped parking and access aisles		
5.6	Indicate minimum parking requirement & number of spaces provided		
5.7	Proposed signage for directing and guiding traffic		
5.8	Curb cut permits from NYS, Erie County, or Town (if applicable)		
5.9	Pedestrian connections (from proposed structures to public sidewalk network)		
6.0	**Location and proposed development of all open spaces, including parks, playgrounds, and open reservations**		
III Utilities and Drainage			
1.0	**Engineers Report** (bound separately from the Stormwater Pollution Prevention Plan [SWPPP])		
1.1	Stamped/sealed and signed by NYS licensed architect or professional engineer		
1.2	Proposed water service sizing, RPZ pressure and fire safety flow and pressure calculations		
1.3	Proposed sanitary sewer facility load calculations (avg. & peak flows) including calculation of the peaking factor		
1.4	Proposed storm drainage facility calculations (see information included with this application)		
2.0	**Grading Plan**		
2.1	Existing and proposed grades indicated (proposed grades may not exceed 1 on 3)		
3.0	**Water Service**		
3.1	Location, size and material of existing and proposed facilities		
3.2	Location of existing and proposed fire hydrant location(s)		
3.3	Indicate use of sprinklers, location of Fire Department connection, and proposed fire protection systems		
3.4	Existing and proposed meter/RPZ size and location		
3.5	Applicable construction details		
4.0	**Sanitary Sewers**		
4.1	Locations, sizes, slopes, inverts, and materials of all existing and proposed facilities		

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
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Item No.		Submitted	Official use
III Utilities and Drainage (cont'd)			
4.2	Applicable construction details		
4.3	Proposed water/oil/grease interceptor sizing calculations by a professional engineer (if applicable)		
5.0	**Storm Drainage**		
5.1	Locations, sizes, slopes, inverts, and materials of existing and proposed storm drainage facilities		
5.2	Connection of roof drains to proposed drainage system		
5.3	Applicable Town Standard construction details		
5.4	Existing and proposed swales and ditches		
5.5	Detention area cross-section and high-level elevations		
5.6	County and State approval for tie-in to existing sewers		
6.0	**Stormwater Pollution Prevention Plan (SWPPP) as applicable** (bound separately from the Engineer's Report) **See attached checklist.**		
7.0	**Natural Gas Service**		
8.0	**Location of transformers, generators and other mechanical equipment; include detail drawings (if applicable)**		
9.0	**Downstream Sanitary Capacity Analysis (DSCA) Report** (must be submitted if proposed average flows are greater than 2,500 gallons per day)		
9.1	The DSCA Report must include a detailed downstream sewer capacity analysis and the calculations of and commitment to (via Developer commitment letter) the required financial contribution to the Town's I/I mitigation fund based on peak flow conditions. The contribution must be based on $250 per gallon per minute of mitigated flow		
IV Lighting Plan			
1.0	**Photometric plan showing light spread in foot candles at property lines**		
1.1	Detail of all light standards, including dimension of height from finished grade		
1.2	Detail of all exterior lighting fixtures		
V Landscape Plan			
1.0	**Wet/raised seal and signature of a licensed Landscape Architect**		
2.0	**Provide a calculation of the total Parking area and a calculation of interior parking area in square feet and as a percentage**		
3.0	**Indicate location, size, number and type of proposed landscape materials**		
4.0	**Indicate location, type and size of <u>all</u> existing trees 4" caliper or larger and indicate which will be removed or retained**		
VI Other Required Information/General Requirements			
1.0	**Complete boundary survey that includes all existing structures, acreage, legal description with reference to a property line, street, or other known feature, and easements plotted to scale by a NYS licensed land surveyor**		

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official Use
VI Other Required Information/General Requirements (cont'd)			
1.1	Copies of all easements, reciprocal access agreement or similar leag documents		
2.0	**Topographic Survey with a 30 ft. buffer outside all property lines by a NYS licensed land surveyor**		
3.0	**Draft of any deed restrictions, covenants, provisions for home associations and common ownership, and reciprocal easement agreements (as applicable).**		
4.0	**For assessment purposes, state intent to apply for condominium status (if applicable).**		
5.0	**Completed and signed Environmental Assessment Form**		
5.1	Soil boring report and geotechnical report prepared by a qualified Professional Engineer (if applicable)		
5.2	Traffic Impact Study (if applicable)		
5.3	Archaeological survey (if applicable		
5.4	Wetland Delineation report (if applicable)		
6.0	**Show existing zoning(s) of both the subject property and adjacent parcels on the Site Plan and the Landscape Plan**		
7.0	**Location of NYSDEC wetlands (including buffer area) and/or federal wetlands; indicate jurisdictional status**		
8.0	**Location of Floodway and floodplain** (if applicable)		
9.0	**Documentation pertaining to any conditions of zonings, including copies of required deed restrictions; indicate date of rezoning and the parcel address under which it was rezoned (if applicable)**		
10.0	**Documentation related to any required variances granted by the ZBA**		
11.0	**For residential site plans, provide a statement from the appropriate school district that adequate school sites and facilities are available.**		
12.0	**8 1/2" X 11" reduction of primary site plan drawing (see appendix "B" of application package for specifications)**		
13.0	**A CD containing a PDF of all site plan drawings (Must also be provided with revised drawings)**		
VII Additional Required Information for Projects in the Mixed Use Districts			
1.0	**Design Advisory Board Application**		
1.1	Required for Major Site Plan		
1.2	Required at the Planning Directors Discretion for Minor Site Plans		
2.0	**Block & Street Network Plan**		
2.1	Designation of Core, Local & Alley streets		
2.2	Dimensions of Blocks		
3.0	**Block Usage Plan (as applicable)**		
3.1	Designation of site usage for each block including open space areas		
4.0	**Phasing Plan**		

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

For official use only:

_____
Approved/Date

X:\Current_Planning\Application Forms 2013 Working Doc\Major Site Plan\Site Plan Submittal Requirements and Checklist (3).doc

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Urban Soil	severe	severe	severe	severe	severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   ____ Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes X No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes X No
   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes X No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   No

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes X No
   Describe

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project Reference traffic study
   Source:

8. Will blasting occur during construction? □ Yes X No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? X Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    _1120_____ average flow _4400_____ peak flow.
    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes X No

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
Shatkin School of Dentistry / Philipps Bros Supply

Project Location (describe, and attach a location map):
2525 Kensington Ave at Bentham Pkwy and Ridgewood Drive

Brief Description of Proposed Action:
Shatkin School of Dentistry at Daemen College & Institute for Mobility and Technology on 1.2 acre existing developed parcel -plus- redevelopment of Ridgewood Drive into a new private paved surface parking lot.

Name of Applicant or Sponsor:	Telephone: 716-839-4800
Pat Philipps	E-Mail: pphilipps@philippsbros.com

Address:
2525 Kensington Avenue

City/PO:	State:	Zip Code:
Amherst	NY	14226

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Amherst Site Plan, building permit	☐	☑

3. a. Total acreage of the site of the proposed action? 1.24 acres
   b. Total acreage to be physically disturbed? 0.50 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.24 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☐	☑
b. Consistent with the adopted comprehensive plan?	☐	☐	☑

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES
If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES
If the proposed action will exceed requirements, describe design features and technologies:		
REFER TO ARCHITECTURAL SET	☐	☑
10. Will the proposed action connect to an existing public/private water supply?	NO	YES
If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities?	NO	YES
If No, describe method for providing wastewater treatment: _____	☐	☑
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES
	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe: EXISTING PUBLIC DRAINAGE IN RIDGEWOOD DRIVE		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: joseph molek Date: March 28 2022

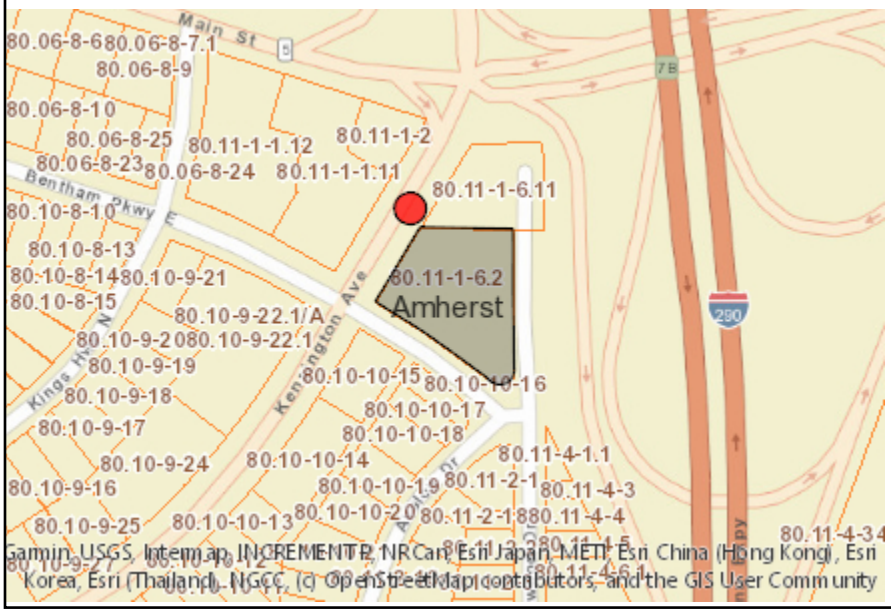
Signature: _____ Title: Architect

PRINT FORM

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

EAF Mapper Summary Report

Monday, February 14, 2022 1:50 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

March 28 2022

5583 Main Street Williamsville NY 14221
Town of Amherst Planning Department

STIEGLITZ SNYDER ARCHITECTURE

RE: 2525 Kensington Avenue – Philipps Bros. Supply / The Shatkin School of Dentistry and Parking expansion.

Dear Mr. Gary Palumbo,

We are submitting to the Planning Department our response to Major Site Plan review comments submitted by the following Departments:

Amherst Fire Chief Comments March 16 2022:

1. What fuel is used for generator? If diesel, provide specs on tank and quantity.

Fuel type is Diesel. See accompanying documents for tank specifications.

2. fire lane no parking signs are required on north side of the building

Signage will be provided.

3-Show location of fire department connection. Should be located on street side of building

Fire department connection will be provided at northwest corner of the building just north of the loading doc.

Engineering Department Comments March 9 2022:

1.An executed copy of the proposed access easement from the adjacent parcel to the north must be copied to this office prior to issuance of any town of Amherst plumbing permits for this project.

To be resolved with Town Board.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

2. An executed copy of the Town of Amherst License Agreement / Land lease regarding the use and improvement of Ridgewood drive must be copied to this office prior to the issuance of any Town of Amherst Plumbing permits for this project.

To be resolved with Town Board.

Planning Department comments March 7 2022:

Zoning Enforcement Officer Review:

Item #1

Owner/applicant to pursue 0 feet setback at proposed canopy addition location. We are requesting an Area Variance from the Ridgewood Drive Right-of-way.

Item #2

Owner/applicant to pursue 0 feet area setback for paved parking at the right-of-ways and north property line. We are requesting an Area Variance.

Item #3

Existing parking lot modified to comply with minimum size and spacing of car-parks and including a new curbed and landscaped end cap.

Item #4

Owner/applicant to pursue 0 feet setback at proposed trash enclosure location. We are requesting an Area Variance from the Ridgewood Drive and Bentham Pkwy Right-of-way.

Item #5

Landscape plan is sealed by NYS licensed Landscape Architect.

Item #6

Additional landscape screening is provided to screen Transformer and Generator. See accompanying transformer photo (similar size transformer will be used) and diesel fuel generator and tank.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Item #7

A foundation planting bed is now shown cut-out from the existing sidewalk fronting the west wall of the existing facility. Shrubs are added in the planting schedule.

Item #8

Site Lighting Plan – the intent is to illuminate Ridgewood Drive parking lot for safety. See accompanying revised drawing for lighting at south end of parking.

Item #9

Alternative parking analysis – See accompanying Traffic Study prepared by SRF Associates.

Planning Department Staff Review:

Item #1

Owner/Applicant will work with the Town of Amherst Board to remove parking restriction on Ridgewood Drive.

Item #2

Owner/Applicant will provide a license agreement for maintenance and use of Ridgewood Drive right of way.

Item #3

Boulders stones in the Kensington Avenue Right- of- way are shown to be removed.

Item #4

Northerly curb cut and driveway on Kensington Ave. is required for Fire Truck access along the north side of the building therefore we do not suggest removing this curb cut. We would agree to remove the southerly curb cut if deemed necessary however, we did not receive comment from NYSDOT to determine what concerns they may have, and therefore have not modified the site plan for such.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Item #5

See accompanying transformer photo (similar size transformer will be used) and diesel fuel generator and tank.

Item #6

See accompanying cut sheets for site and building mounted lighting fixtures.

Item #7

No other site features are anticipated.

Item #8

We hereby request a waiver for the sidewalk requirement along Ridgewood Drive. The area of concern contains proposed foundation plantings instead to augment the façade treatment.

Item #9

Signage will be submitted under separate cover for review by the Town of Amherst.

Item #10

SEAF – see accompanying document with applicant's name.

Item #11

See accompanying Application complete with Item #1, #5 and #7.

Item #12

We have provided 4"x6" in the lower right hand corner of all drawings that did not have the space available for Town use.

Item #13

An 8 1/2" x11" reduction of the modified site plan is included.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Landscape Architect Review:

Item #1

Bollards surrounding explosive mechanical equipment will contain a plastic covering *color safety yellow* for visible warning to motorists to avoid impact. Disguising bollards in this application is not recommended.

Item #2

Ridgewood Drive right-of-way contains various underground utilities, including ECWA water on each side of the roadway, that must remain as-is. We do not recommend planting trees atop these public utilities.

Item #3

Additional landscaping screening is shown on the south side of the transformer and west side of the generator to further restrict view from the public roadway.

Item #4

We do not intend to install landscaping on Thruway property. There is approximately 4-ft between the right-of-way/edge of pavement and the Thruway fence remaining that is shown re-planted as lawn.

Item #5

Existing trees or shrubs are shown with a legend for removals, if any. Brush shall be cleared from along the Thruway fence.

Item #6

See Item #5 – note on plan indicates where contractor is to protect or remove existing plantings.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Highway Dept. Review March 24 2022:

Item #1 – Applicant has requested abandonment of the portion of Ridgewood Drive running north of Bentham Pkwy. However, the underlying utilities including storm sewers, shall remain owned and maintained by the Town of Amherst.

End of comments.

If you would like to discuss these comments further, please don't hesitate to contact me at 716-222-3040 or via e-mail at jmolek@stieglitzsnyder.com.

Sincerely,

STIEGLITZ SNYDER ARCHITECTURE



Joseph Molek, RA

Project Architect

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Engineer's Report

for

SHATKIN SCHOOL OF DENTISTRY/IMIT
2525 KENSINGTON AVE
TOWN OF AMHERST, NY

February 22, 2022

Prepared By:

tredo
ENGINEERS

CIVIL | STRUCTURAL | ENGINEERING

755 Seneca Street, Suite 202
Buffalo, New York 14210
716.876.7147 ph



Seal

For:

Stieglitz Snyder Architecture
Buffalo, NY

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

tredo
ENGINEERS

I. SUMMARY

This project includes a mixed-use redevelopment and internal expansion in an existing 1-story retail/warehouse facility to include a dental school on a 1.2± acre parcel located at Kensington Avenue, Bentham Pkwy. and Ridgewood Drive in the Town of Amherst, New York. The GB-zoned site is located adjacent to the north terminal end of Ridgewood Drive, to which the applicant is requesting abandonment, and proposed replacement with a paved parking lot in a land-lease. The subject parcel is currently fully developed with replacement utility services planned for the uprated occupancy.

Sanitary wastewater is currently conveyed by 4-inch gravity piping from the building to an 8-inch public sewer found in Ridgewood Drive. New interior plumbing and partial replacement of the existing 4inch PVC lateral is planned.

New water service for domestic and fire-protection use of the multi-tenant build-out shall replace the existing tap and connect to the 6-inch main found in Kensington Ave. A new 6-inch tap with 4-inch DIP tee reducing to 3-inch and running to the water meter room and 6-inch DIP fire protection runs together in the same trench. The Erie County Water Authority (ECWA) regulates the water main. Metering and backflow prevention for the private services are contained within the facility mechanical room with application made by others.

Currently, storm water runoff generated by the site flows overland towards and into the existing surrounding roadway drainage systems. Replacement receivers are proposed for redevelopment of Ridgewood Drive from a roadway to a perpendicular car-park. New storm piping shall connect to existing manholes. One manhole rim is proposed to be raised-up to new grade of the proposed parking lot.

This development will not result in an increase in impervious surfaces on this site and does not involve soil disturbance greater than one (1) acre, thus stormwater detention is not provided. The site is not located within a 100-year floodplain. The site is currently fully developed and does not contain wetland.

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755 Seneca Street, Suite 202
Buffalo, New York 14210
716.876.7147 ph

www.tredoengineers.com

II. SANITARY SEWER SERVICE

The existing public 8-inch gravity sanitary sewer located on the west side of Ridgewood Drive will provide a sanitary sewer connection point. All public utilities within Ridgewood Drive shall remain operational and accessible for maintenance during and after reconstruction. One public sewer manhole rim is proposed to be raised-up to new grade of the proposed parking lot.

A replacement for the private 4-inch PVC (SDR35) sewer lateral will be installed to the proposed building sanitary sewer entry point at the north wall of the building from the existing tap per the building plumbing plans. The proposed facilities will generate a calculated 1120 gal/day (gpd) average of residential wastewater load* as per the following:

Day School: (30 empl x 15 gpd)+(52 students x 10 gpd) ~ 970
Existing retail/warehouse: (10 empl x 15 gpd) ~ 150

*Reference “NYS Design Standards for Intermediate Sized Treatment Works, March 2014”

III. WATER SERVICE

A new 6-inch water line for domestic and fire-protection will be connected to the existing 6-inch public main located on the east side (near side) of Kensington Ave. The following data pertains to the public watermain and private demands:

- Subsurface investigations indicates a somewhat shallow, till overburden on weathered shale bedrock. The presence of bedrock measurement approx. 7-ft below grade is indicated.
- The static pressure of the existing 6-inch public main is reported by ECWA as __ psi, and a residual (open hydrant) reading of __ psi. (Note that a recent pressure test is not available and a new test cannot be made at this time and until spring thaw)
- New domestic demand is limited to the proposed uses as a day school and retail/warehouse facility. New fire-protection demand design shall be by the building fire-protection engineer which may include a booster pump as required.

Erie County Water Authority (ECWA) governs the proposed tap and backflow prevention. ECWA provides the tapping sleeve and valve and the 4-inch gate valve and 6-inch gate valve installed at the property line. Metering and backflow prevention is contained within the facility. Meter set is also provided by ECWA. A Backflow Prevention Application shall be provided under separate cover on behalf of the water customer.

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IV. STORMWATER MANAGEMENT

I. Existing (Pre-Development) Conditions

The subject parcel is currently built-out with building and pavements. No on-site stormwater receivers were found. Ridgewood Drive contains curb inlets and storm piping conveyances owned and maintained by the Town of Amherst.

II. Proposed (Post-Development) Conditions

The proposed development includes the construction of a new canopy entry structure and associated paved parking in a land-lease agreement to use Ridgewood Drive as a car-park. Storm water receivers are replaced, existing piping abandoned, with new piping connections made to existing manholes. Storm pipe sizing for conveyance of the 10-year storm event is included in Appendix A for new drainage in Ridgewood Drive.

V. PERMITS

The proposed construction of the building addition, abandonment of public rights-of-way, new parking areas and drainage must receive approval from the Town of Amherst. An application for backflow prevention for private service must be made to the Erie County Water Authority (ECWA).

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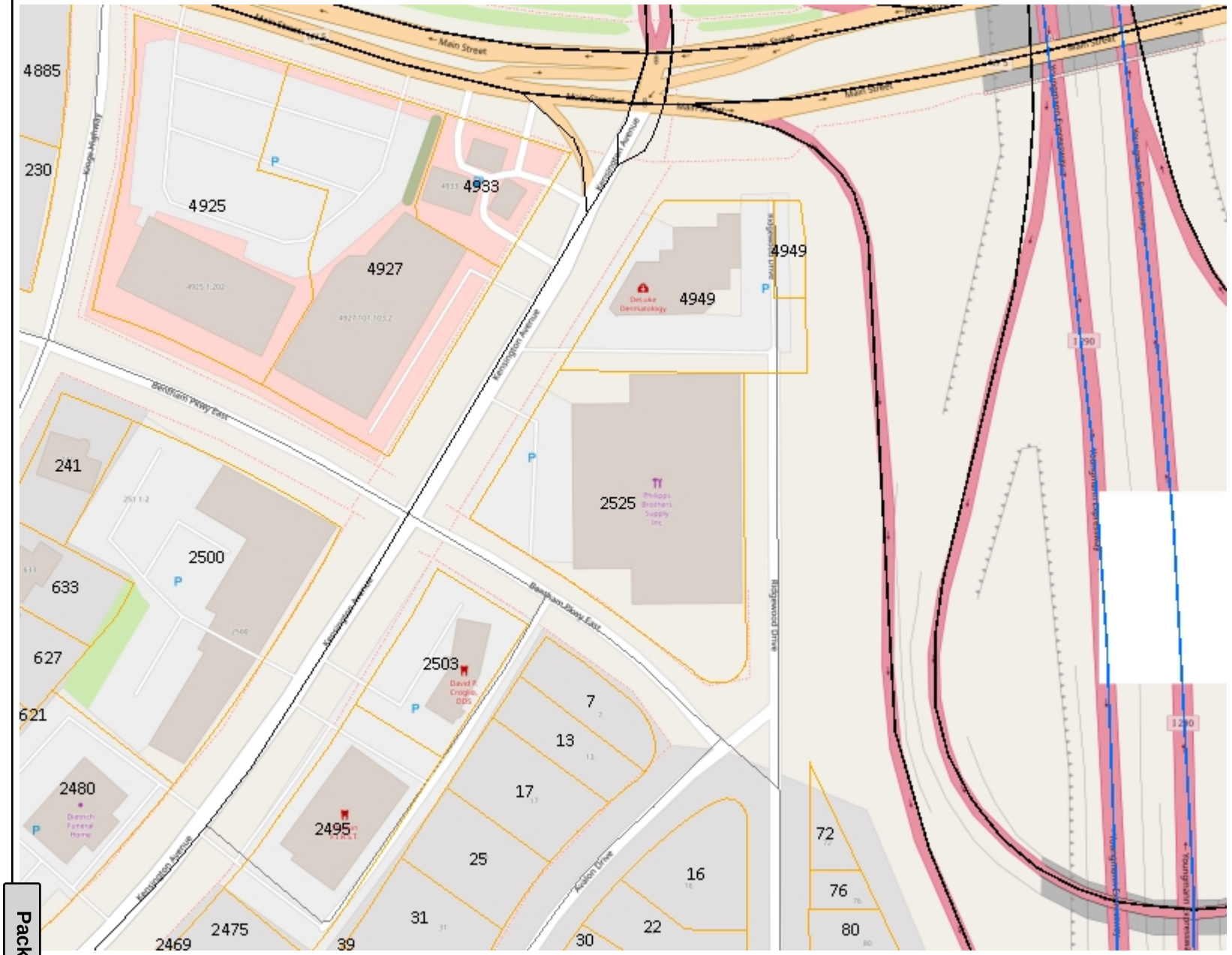
APPENDIX A

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

Erie County On-Line Mapping Application





Legend

- Parcels
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road

0.04 0.1 Miles

VGS_1984_Web_Mercator_Auxiliary_Sphere

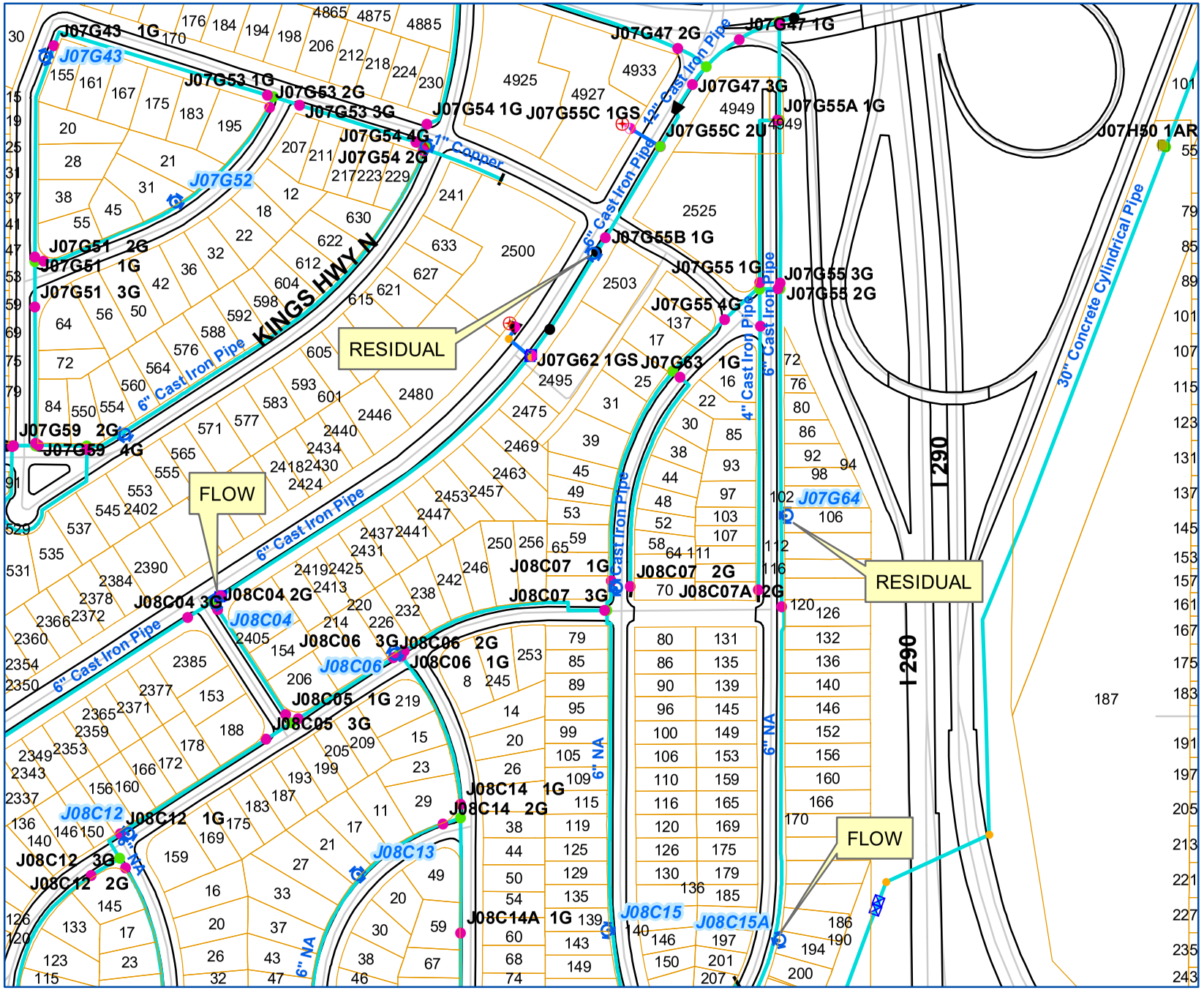
HIS MAP IS NOT TO BE USED FOR NAVIGATION

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

1: 2,257

2525 KENSINGTON



STORM SEWER COMPUTATIONS (10 yr)

	RUNOFF AND FLOW																
	SEWER LOCATION			TRIBUTARY AREA (acres)		RUNOFF COEFFICIANT C									TIME OF CONC. T_c (min)	INTENSITY I (in/hr)	FLOW Q (cfs)
	area	from	to	A	SUM A	c	cA	SUM cA	LENGTH	SLOPE	PREV. Tc	T. of conc. c	RUNOFF Tc				
43.49																	
7.75																	
0.78	1	CB-1	ex mh1	0.10	0.10	0.90	0.09	0.09	70.00	1.50		0.90	2.63	2.63	10.00	4.6	0.43
	2	CB-2	CB-3	0.10	0.10	0.90	0.09	0.09	70.00	1.50		0.90	2.63	2.63	10.00	4.6	0.41
	3	CB-3	CB-4	0.32	0.41	0.90	0.28	0.37	70.00	1.50	10.57	0.90	2.63	10.57	10.57	4.5	1.67
	4	CB-4	ex mh2	0.13	0.54	1.90	0.24	0.61	70.00	1.50	10.83	1.90	10.52	10.83	10.83	4.5	2.72
					0.51												

	DESIGN								
	MANNING n	SLOPE S (%)	DIAMETER D (in)	CAPACITY Q (cfs)	CAPACITY VELOCITY V (ft/sec)	% capacity	peak factor	FLOW VELOCITY V (ft/sec)	LENGTH L (ft)
1	0.012	0.50	6	0.43	2.19	0.99	1.16	2.55	40
2	0.012	0.50	6	0.43	2.19	0.94	1.15	2.52	70
3	0.012	0.50	10	1.68	3.09	0.99	1.16	3.58	85
4	0.012	0.50	12	2.74	3.48	0.99	1.16	4.04	40

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APPENDIX B

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

APPENDIX C

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

October 18, 2021 Job No: 21-599

Shatkin School of Dentistry
2500 Kensington Avenue
Amherst, New York 14226

ATTN: Dr. Todd Shatkin, DDS

RE: Geotechnical Engineering Report
Proposed Mezzanine & Canopy at
Shatkin School of Dentistry
2525 Kensington Avenue
Town of Amherst, Erie Co., New York 14226

Dr. Shatkin:

This report presents the findings of the subsurface investigation program and geotechnical engineering recommendations for the above referenced project. The geographic orientation of the project site is illustrated on the U.S. Geologic Survey (USGS) site location map in Figure No. 1. The project site is illustrated in Figure No. 2, entitled "Test Boring and Concrete Core Location Plan", which includes: the approximate location of one exterior test boring and two interior concrete floor slab cores that were drilled by Buffalo Drilling Company, Inc. (BDC); relative ground surface elevations; and additional site details.

EXPLORATION METHODS

Sampling Method: A truck-mounted CME 55 rotary drill rig was used to drill one boring to shallow auger refusal by using 4-1/4 inch inside diameter (ID), continuous flight hollow stem augers. Samples were recovered by driving a standard split-spoon sampler (2-foot long by 1-3/8 inch inside diameter) 24 inches with a 140-pound hammer falling 30 inches per blow per the American Society of Testing and Materials (ASTM) Standard D1586. The number of blows from six to 18 inches of penetration is defined as the Standard Penetration Test (SPT) N-value. Auger refusal, which may infer the top of bedrock, was encountered approximately seven feet below ground surface. Inside the existing structure, an electric core machine with six-inch ID, diamond impregnated bit was used to core through the concrete floor slab to gain access to subsurface soils at two locations, C-1 and C-2. Subsurface samples were retrieved via hand sampler beneath concrete floor slab.

Bedrock was confirmed by coring boring B-1 to a depth of approximately five feet below auger refusal. Bedrock coring efforts were done with an Nx-sized (2-1/8-inch I.D.) core barrel and impregnated diamond bit in accordance with ASTM Method D2113.

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Any encountered groundwater conditions are documented in the field on the driller's logs for each test boring. If indicators of groundwater are observed on the sampling equipment, the depth to groundwater is also checked and measured through the hollow stem augers at the completion of the sampling efforts.

Classification: The retrieved soil samples were initially logged in the field by the driller, and a portion of each sample was placed and sealed in a glass jar. The boring logs, which are included in Appendix A, were based upon the field logs and a second visual classification of recovered samples in the laboratory by a geologist. Classification/identification of samples, as noted on the boring logs, is based on the Unified Soil Classification System (USCS) in ASTM D2487/D2488. Refer to Appendix B entitled, "Geotechnical Reference Standards", for an explanation of the terminology that is used for soil and rock descriptions.

Each rock core was examined on a run-by-run basis to determine the percentage of core recovery and Rock Quality Designation (RQD). Core recovery percentage is the ratio of the sample length recovered divided by the length of the core run times 100 percent. RQD is defined as the total length of all pieces of core that are greater than four inches divided by the length of the core run times 100 percent. Core recovery and RQD percentages are noted on the boring logs.

Each core sample of the existing concrete floor slab was observed, measured, and photographed for review. Details can be found on the test boring/core logs C-1 and C-2 in Appendix A and the photographs are available in Appendix C, entitled "Floor Slab Core Photographs".

SITE AND SUBSURFACE CONDITIONS

General: The proposed site for development is the existing Phipps Brothers Supply, Inc. building addressed as 2525 Kensington Avenue, in the Town of Amherst, Erie County, New York. The project will include the construction of an interior mezzanine and an exterior canopy over the drop off area along the east side of the building. The site topography is generally flat across test boring locations.

Subsurface Soil Conditions: In general, subsurface conditions, underlying the exterior asphalt pavement or interior concrete floor slab, consist of one to two feet of granular fill material atop naturally deposited cohesive/fine-grained glacial till that extends to auger refusal.

Beneath the asphalt at B-1, granular fill material was encountered and extends two feet below ground surface. This fill consists of fine to coarse-grained sand to gravel sized crushed limestone and is believed to be the aggregate base course for the asphalt pavement. Relative density of the granular fill is medium dense with moisture contents of retrieved samples noted to be in a moist state. Beneath interior concrete floor slab at boring/cores C-1 and C-2, the granular fill is a loose to medium dense silty sand with trace quantities of gravel. This fill is described as a spent foundry sand typical of the metal casting industry which has a historic common reuse in this region as concrete slab/rigid pavement base layers.

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Beneath the fills, a naturally deposited cohesive/fine-grained glacial till exists and extends to auger refusal at B-1 and the remain depths advanced at C-1 and C-2. The till generally consists of slightly to moderately plastic, silt and clay with lesser amounts of sub-rounded fine-sized to coarse-sized sand and gravel. The consistency of this soil is primarily stiff to hard with moisture contents of retrieved samples noted to be moist. Spoon refusal conditions are also noted in the lower depths of the unit closer to soil bedrock interface. The proposed footing bearing grades for the proposed structures are assumed to be within this soil.

Bedrock: Auger refusal, which is generally inferred to be the top of the apparent bedrock surface, was encountered at B-1 approximately seven feet below ground surface. Confirmatory rock coring was advanced five feet beneath the refusal condition and bedrock samples collected. The bedrock type is the Onondaga Limestone, which is described as hard, slightly weathered, medium dark gray, thinly bedded, porous and calcareous limestone. Percent recovery is lightly more than 50 percent with rock quality designations (RQD) noted as 30 percent. These RQD values suggest that the rock is poor quality.

Groundwater: Groundwater was not encountered during subsurface exploration efforts. Note that the groundwater readings were taken at the completion of drilling efforts and, therefore, an adequate amount of time for the groundwater level to recharge to static conditions was probably not allowed. Fluctuations in the groundwater level may occur due to other factors than those present during field operations.

EARTHQUAKE/SEISMIC CONSIDERATIONS

Site Class Definition: For the given site conditions, the most applicable site definition is Site Class C, in accordance with Section 1613.2.2 of Building Code of New York State © 2020 and listed in Table 20.3-1 of Chapter 20 of American Society of Civil Engineers (ASCE) Standard 7-16.

Liquefaction Potential: For the Site Class C, the design spectral response acceleration parameters S_{DS}, at 0.2 seconds, and S_{D1}, at one second, are 0.146g and 0.045g (g = 32.2 feet/sec^2), respectively, for this part of Erie County, New York (see Appendix D). These values have a two percent probability of being exceeded in 50 years. Based upon the above conditions and an approximate magnitude 6.0 earthquake on the Richter Scale, the potential for liquefaction or settlement of Site Class C soil is considered extremely low.

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FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS

General: This section will present and discuss recommendations on foundation design and construction and placement of controlled fills, and subgrade and base layer requirements for concrete floor slabs.

As shown in Figure No. 2, a mezzanine will be constructed inside the northern warehouse portion of the existing building. Additionally, a canopy will be constructed to cover the drop off area at the rear of the structure. The existing ground surface is generally flat across the development area and final exterior grades are assumed to closely match the existing at relative elevation 100.00 ± feet. The maximum design exterior and interior column loads are not expected to exceed 100 kips. The maximum live floor load is taken as 100 pounds per square foot (psf).

Site Preparation and Earthwork: General site preparation will include the demolition and complete removal of any encountered foundations and floor slabs, and removing all unsuitable surficial material (i.e., asphalt pavement, concrete, brick, expansive slag, organic or topsoil layer, and construction and demolition-like fill) to a depth where firm, granular or cohesive fills or naturally occurring soils are encountered. It is recommended, particularly in the location of the proposed structure, that any slag and/or cinder/ash containing material, if encountered, should be tested to determine the expansion and corrosion characteristics (where applicable for direct or potential contact with foundation elements and buried utilities) of these materials prior to their use on-site. Any rubble-like and brick fill, boulders, or wood fill in particular, if encountered, will require undercutting. Building pad and paved areas are to be proof rolled with a fully loaded ten-wheel dump truck. All encountered soft and disturbed zones should be undercut and stabilized with granular fill that is placed in compacted lifts prior to placement of additional fill materials above. Refer to Appendix E entitled "General Earthwork Specification" for definition of the fill types and gradations, recommended minimum compaction requirements for various site developments, and placement and compaction methods. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components that are included in the select granular fill category as are as follows: Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred; or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size).

It is unknown if any former residential/commercial structures existed at the project site for the proposed renovations and if any former footings and foundation walls may be buried at the proposed site. Septic tank and system locations and the abandonment conditions or practices are normally unknown. If encountered during site development, it is recommended that any tanks and systems should be properly removed/treated/remediated relative to the proposed development and under the applicable local and state regulations. The remaining cavities, from the aforementioned items, should be backfilled with select/approved granular fill that is placed in thin lifts and compacted to the minimum recommendation, as presented in this report, for the proposed development at that cavity location.

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Shallow Foundation: The recommended foundation type is shallow footings. Individual interior and exterior spread column footings would bear at an elevation of 42-inches or lower below final grade, at relative elevation 96.50 ± feet or lower. A 42-inches minimum footing depth (as required by local or New York State code) is needed to provide adequate protection from frost for exterior footings.

The exterior and interior footings are recommended to bear at the same relative elevation on stable, naturally deposited, stiff (Nvalues > 10 blows) cohesive/fine-grained glacial till or on thin layers of thoroughly compacted (minimum of 95 percent of the maximum dry density by ASTM D 1557) select/approved granular fill that is placed on approved subgrade. If needed, a geotextile strength and filter fabric (such as, Mirafi 600X) may be used to line the excavation bottom for the purpose of stabilizing the excavation and placement of the select/approved granular fill. Alternatively, in heated buildings the interior footings are recommended to bear two and one-half feet or lower below finish floor at relative elevation 97.50 ± feet and on the same soil/fill conditions as the exterior footings.

Undercut areas beneath proposed foundations must extend laterally beyond each vertically projected edge of the foundation by a minimum distance equal to one-half the total depth of the undercut or equating to a slope of two vertical to one horizontal from the bottom foundation corner. The undercuts and placement of compacted select/approved granular fill are required to ensure a suitable and more uniform bearing media for the footings, and to prevent unacceptable differential settlements.

Column footings should have a minimum three-foot width. Based on the above described conditions, the recommended maximum net allowable foundation bearing pressure is 2,500 pounds per square foot (psf) of bearing area. All footings for the proposed building are recommended to be designed near the same contact pressure. The recommended maximum net allowable foundation bearing pressure is based on generally accepted design methods for cohesive/fine-grained soil conditions. Based on the provisions of the above recommendations and estimated design requirements and utilization of proper construction procedures and experienced field supervision and testing personnel, total and differential settlements are estimated to be less than one inch and 3/4's inch, respectively. Refer to Appendix D for additional foundation design and construction details.

Additional Foundation Considerations: In addition to the above, the following recommendations will provide additional assurances with regard to proper foundation construction.

a) All fill placed beneath, adjacent, or above foundations must comply with the "General Earthwork Specification", included as Appendix E.

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b) Backfill of foundations with approved select granular fill must be completed prior to placement of substantial superstructure loads, except for basement walls or substructure areas that may additionally require superstructure loads and possibly internal bracing.

c) The upper silty materials may rut and “pump” if exposed to excessive surface water and repeated construction traffic. Proper site management and fill placement operations are needed to minimize costly undercuts and subgrade repairs prior to placement of concrete slabs and asphalt pavement. It is noted that construction during wet/rainy and/or Fall and Spring conditions may require added precautions and possibly a thicker base layer to maintain a stable subgrade condition.

d) Step footings, if utilized, should have a rise to run ratio of 1:2, with a two-foot maximum rise and a four-foot minimum run between steps or as recommended by the design structural engineer.

e) The recommended at rest (rigid wall), active, and passive static earth pressure coefficients for unsaturated, select granular sandy gravel fill against an earth retaining structure/wall are 0.76, 0.24, and 2.8 (with an ultimate value of 4.2), respectively. The respective equivalent static lateral fluid pressures are recommended to be 90, 30 and 330 (with an ultimate value of 500) pounds per square foot (psf) per foot depth which are based upon a moist, compacted unit backfill weight of 120 pounds per cubic foot (pcf). The at rest value would account for the average expected compaction induced stresses and/or the potential influences of hydrostatic pressure. The static lateral fluid pressures can be directly proportioned for other unit weights.

Stabilization of Excavations: The trench/excavation sidewall stability concerns can be addressed with the Occupational Safety and Health Act (OSHA) requirements as set forth in Subpart P of 29 CFR Part 1926, Sections 1926.650 to 1926.652. In lieu of a properly designed shoring system, side slopes of the trench excavation should be one on one (vertical to horizontal distance) or flatter in cohesive soils or one on one and one-half or flatter in the granular materials, as required by OSHA.

Water must not be allowed to accumulate or pond on exposed foundation bearing grades. Surface water and groundwater from within the excavation must be either pumped, diverted or channelized by gravity flow to effectuate the construction of the proposed foundation. Pockets of localized perched groundwater may seasonally be expected to be encountered at footing and/or footing undercut bearing grades. At these locations, dewatering with surface sumps may be required to maintain stable side slopes and excavation bottom.

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Concrete Interior Floor Slab(s)/Pad: A geotextile fabric (such as, Mirafi 600X or equal) that separates the subgrade and the approved/select granular base layer is recommended for sensitive cohesive/fine-grained/silty subgrade soil/fills. This approach will stabilize and provide a workable building pad condition with minimal required repairs. The approved subgrades will most likely consist of stiff or better/thoroughly compacted (i.e., minimum 92 percent of the maximum dry density by ASTM D 1557) cohesive silt and clay, and/or a thoroughly compacted imported select/approved granular fill.

Above the approved subgrades, a minimum eight-inch thick for lightly loaded areas and minimum 12-inch thick for heavily loaded areas select granular fill (i.e., number two crusher run stone or equal) layer is recommended as the base course for concrete floor slabs. The NYSDOT specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum). This select granular base layer would be compacted to a minimum 95 percent of the maximum dry density by ASTM D 1557. The floor slabs in any lightly loaded areas are recommended to have a minimum four-inch thickness, while heavily loaded areas are recommended to have a minimum six-inch thickness or as determined by the design structural engineer. The floor slab reinforcement should be provided through placement of wire mesh or plastic fibers and is also as determined by the design structural engineer.

At the discretion of the design architect, a vapor barrier may be considered for use in the proposed structure. The use of a thin gravel cushion, as a capillary break, or a thin sand cushion over a vapor barrier that is placed beneath the concrete slab(s) are at the discretion of the design architect/engineer or as required by local code. Gradations of gravels that are satisfactory capillary breaks include 1 ¼-inch or ¾-inch crushed stone or aggregate per the ASTM D2321 Types IA, IB and II with less than 5 % fines. A number two crusher run stone may also be applicable, but the gradation and material property specifications must qualify.

At the assumed final site grade and based upon the thickness and character of the underlying natural soils, the subgrade modulus is recommended not to exceed 150 pounds per cubic inch (pci). A Poisson Ratio of 0.4 is recommended for design purposes. Isolation of the floor slabs from the footings-piers-columns and walls do appear to be warranted. Based upon the subgrade modulus and slab mechanical properties and thickness, the design structural engineer may accordingly adjust the granular aggregate base thickness.

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Exterior Concrete Slabs-On-Grade/Pad/Parking and Roadway Facilities: The characteristics of the cohesive natural glacial till, and the known frost penetration in Western New York require that specific attention is provided to the design and construction of paved roadway and parking areas. For new pavement sections, isolated pockets of surficial silty/cohesive/fine-grained soil/fill may be encountered and may be too soft and wet in the proposed parking and roadway areas. These types of soil/fill may be adequately conditioned (i.e., dried and blended) and compacted (i.e., minimum 90 percent compaction) to support necessary construction equipment and normal pavement section. Otherwise, the removal/undercutting of the silty/cohesive/fine-grained soil/fill to a firm, approved subgrade and subsequent placement and compaction of select or approved granular fill will be required in order to accommodate the recommended pavement sections.

For new pavement sections, it is recommended that the subgrade surface is adequately graded and/or underdrains are installed to prevent water accumulation. Above the approved subgrade surface (i.e., minimum 90 percent compaction), a minimum eight-inch thick select granular layer is recommended as the base course for lightly traveled roadway and parking areas (standard duty section). A geotextile filter and strength fabric (such as, Mirafi 600X or equal) on silty/cohesive/fine-grained soil subgrades and minimum 12-inch thick base course are recommended for all truck routes and heavily traveled roadways (heavy duty section). If “pumping” of the silty/cohesive/fine-grained soil subgrade occurs or is difficult to stabilize during construction, an increase in the base thickness to that of the heavy-duty section and/or a geotextile filter and strength fabric is recommended to be placed on the prepared and approved subgrade for the standard duty section. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size). The granular aggregate base layer is recommended to be compacted to at least 95 percent of maximum dry density by ASTM D1557.

The thickness of top and binder course layers should be determined in accordance with AASHTO methods. In summary, the minimum recommended asphalt thicknesses for the heavy-duty section and standard duty section are three and one-half inches and three inches, respectively. The top and binder course layers are recommended to be designed and constructed in accordance with New York State Department of Transportation Standard Specification.

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Limitations, Field Inspections and Monitoring: This report is based on the preliminary information that is provided by project representatives and the subsurface conditions that were encountered at the test boring locations. Due to the nature of the investigation method, test pit excavation will provide a greater level of delineation of the subsurface soil/fill/rock conditions than can be defined by the test boring data alone. As detailed in Appendix F "Limitations", modification regarding proposed building/structure locations and other site developments can result in changes to provided recommendations. It is recommended that the geotechnical engineer be provided the opportunity to generally review the final detailed design and contract specifications. Required earthwork and foundation construction should be done under the supervision of experienced construction personnel and in a manner consistent with proven methods. All site work should be carefully monitored and tested by experienced geotechnical personnel to assure compliance with earthwork and foundation construction specifications.

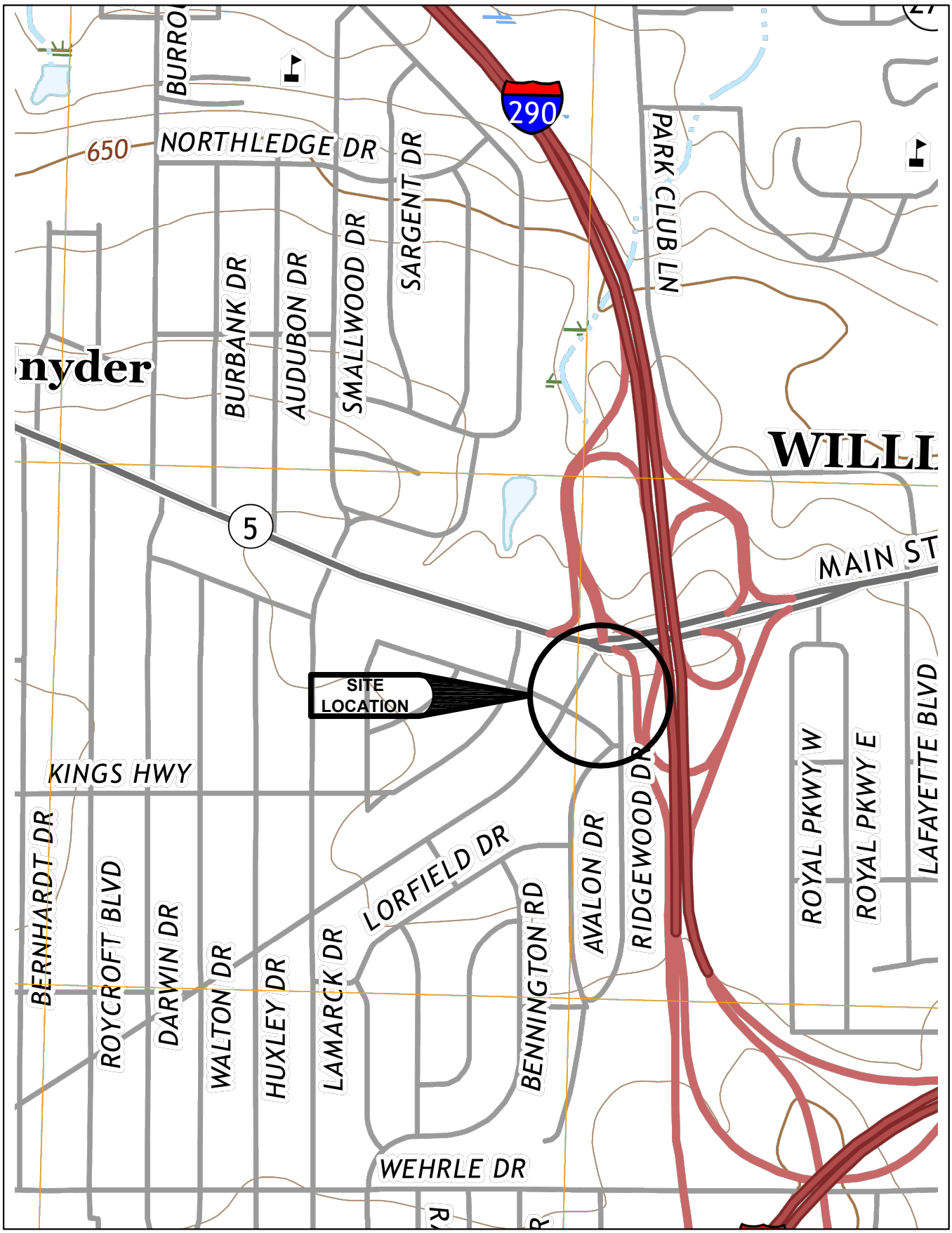
Thank you for the opportunity to assist on this project. If questions should arise, please call the undersigned at your earliest convenience.

Very truly yours,
BARRON & ASSOCIATES, INC.
and
BUFFALO DRILLING COMPANY, INC.

Andrew J. Camping, PG
Senior Geologist

James S. Barron, PE
President/Geotechnical Engineer

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)



BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

CLIENT: MR. TODD SHATKIN, D.D.S.
2500 KENSINGTON AVENUE
AMHERST, NEW YORK 14226

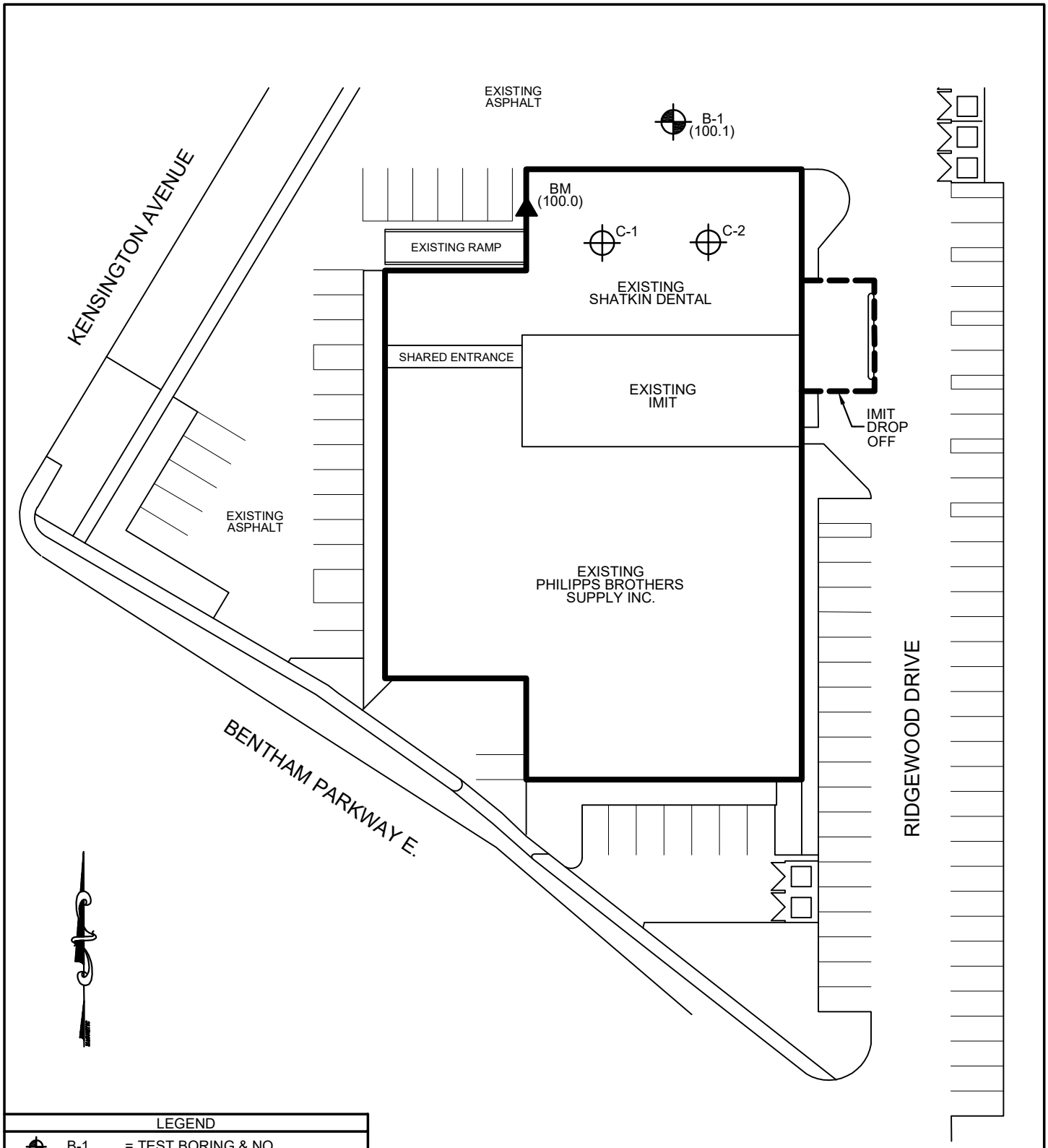
PROJECT: PROPOSED MEZZANINE AT
SHATKIN SCHOOL OF DENTISTRY
2525 KENSINGTON AVENUE
TOWN OF AMHERST,ERIE CO., NEW YORK 14226

NEW YORK STATE
SITE LOCATION

USGS SITE LOCATION PLAN
BUFFALO NE
2019

JOB NO.: 21-599 | SCALE: N.T.S.
DATE: 8/10/2021 | FIGURE NO. 1

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)



LEGEND

⊕	B-1	= TEST BORING & NO.
⊕	C-2	= CONCRETE CORE & NO.
	(100.1)	= RELATIVE GROUND SURFACE ELEVATION (FT.)
▲	BM	= BENCH MARK (FINISH FLOOR OF EXISTING BUILDING)

NOTES:

1. BORING, CONCRETE CORES, BUILDINGS, SITE FEATURES, PROPERTY LINE LOCATIONS, & SCALE OF DRAWING ARE APPROXIMATE.
2. BASE MAP REFERENCE PROVIDED BY STIEGLITZ SNYDER ARCHITECTURE, TITLED "SITE PLAN - SHATKIN SCHOOL OF DENTISTRY DAMEN COLLEGE - INSTITUTE FOR MOBILITY AND TECHNOLOGY", DATED 6/1/2021.

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

CLIENT: MR. TODD SHATKIN, D.D.S.
2500 KENSINGTON AVENUE
AMHERST, NEW YORK 14226

PROJECT: PROPOSED MEZZANINE AT
SHATKIN SCHOOL OF DENTISTRY
2525 KENSINGTON AVENUE
TOWN OF AMHERST,ERIE CO., NEW YORK 14226

TEST BORING AND CONCRETE CORE LOCATION PLAN

0 25 50 100

JOB NO.: 21-599	SCALE: 1" = 50' ±
DATE: 8/10/2021	FIGURE NO. 2

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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APPENDIX A

TEST BORING AND CORE LOGS

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

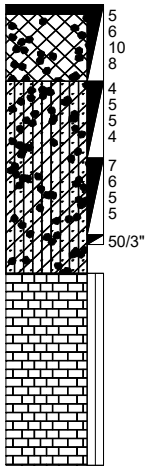
TEST BORING LOG

1.a

JOB No.: 21-599 **BORING No.:** B-1

PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

DRILLER:	D. Rimbeck	**TYPE OF DRILL RIG:**	CME 55 (Truck)
SAMPLING METHODS:	ASTM D1586 & D2113	**SIZE AND TYPE OF BIT:**	4 1/4" H.S.A. & Nx Core
DATE STARTED:	8/13/21	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	8/13/21	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0					
		S-1 : 0.0'- 2.0'	16	30	Asphalt (3"+/-) Gray, m. dense f/c sand to gravel-sized Crushed Limestone, moist (GV Fill)
		S-2 : 2.0'- 4.0'	10	50	Brown, stiff CLAY, and SILT, little f/c Sand, tr. Gravel, sl. to mod. plast wet (CL-Till)
95 — 5		S-3 : 4.0'- 6.0'	11	0	Same as S-2 (No Recovery)
		S-4 : 6.0'- 6.3'	50+	0	...grade: hard (No Recovery)
90 — 10		C-1 : 7.0'- 12.0'	-	53 (30)	ONONDAGA LIMESTONE: med. dark gray, finely crystalline, thin bedded, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE) # pieces > 1": 8 # pieces > 4": 4 longest piece: 5" *(Vertical fracture observed in lower half of retrieved core sample.)*
85 — 15					Depth to Bottom of Hole: 12.0 feet
80 — 20					
75 — 25					
70 — 30					
65 — 35					

Logged by: B. Smith

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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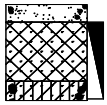
TEST BORING LOG

1.a

JOB No.: 21-599 **BORING No.:** C-1

PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

DRILLER:	D. Rimbeck	**TYPE OF DRILL RIG:**	Hand Sampler
SAMPLING METHODS:	ASTM D420	**SIZE AND TYPE OF BIT:**	2" I.D. Split Spoon
DATE STARTED:	8/13/21	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	8/13/21	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0					Concrete Floor Slab (5.5")
		S-1 : 0.5'- 2.5'	-	70	Dk. gray, f. Sand, little to tr. Silt, tr. Gravel, moist (SM-Fill) *(Appears to be foundry sand.)*
					Brown, stiff CLAY and SILT, little f/c Sand, tr. Gravel, sl. to mod. plasti moist (CL-Till)
					Depth to Bottom of Hole: 2.5 feet
95 — 5					
90 — 10					
85 — 15					
80 — 20					
75 — 25					
70 — 30					
65 — 35					

1. Concrete floor slab approximately 5.5" thick with welded wire mesh 1.75 inches from bottom.
2. Manually advanced split spoon sampler into ground to retrieve samples after coring.

Logged by: B. Smith

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

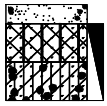
TEST BORING LOG

1.a

JOB No.: 21-599 **BORING No.:** C-2

PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

DRILLER:	D. Rimbeck	**TYPE OF DRILL RIG:**	Hand Sampler
SAMPLING METHODS:	ASTM D420	**SIZE AND TYPE OF BIT:**	2" I.D. Split Spoon
DATE STARTED:	8/13/21	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	8/13/21	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0					Concrete Floor Slab (6")
		S-1 : 0.5'- 2.5'	-	65	Dk. gray, loose, f. Sand, little to tr. Silt, tr. Gravel, moist (SM-Fill) *(Appears to be foundry sand.)*
					Brown, stiff CLAY and SILT, little f/c Sand, tr. Gravel, mod. to sl. plasti moist (CL-Till)
					Depth to Bottom of Hole: 2.5 feet
95 — 5					
90 — 10					
85 — 15					
80 — 20					
75 — 25					
70 — 30					
65 — 35					

1. Concrete floor slab approximately 6" thick with welded wire mesh 0.5 inches from bottom.
2. Welded wire mesh is not fulling integrated within floor slab at this location.
3. Manually advanced split spoon sampler into ground to retrieve samples after coring.

Logged by: B. Smith

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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APPENDIX B

GEOTECHNICAL REFERENCE STANDARDS

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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Column Header Descriptions

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CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

JOB No.: BORING No.:

PROJECT:

EXAMPLE

DRILLER:
SAMPLING METHODS:
DATE STARTED:
DATE COMPLETED:

TYPE OF DRILL RIG:
SIZE AND TYPE OF BIT:
SURFACE ELEVATION (ft.):
GROUNDWATER DEPTH (ft.):
(measured at completion unless indicated below)

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0	1 1 1 2 / 6 8 11 14	S-1 : 0.0'- 2.0'	2	50	Dk. brown, soft, CLAY, some Silt, little f. Sand, tr. Gravel, tr. Roots, tr. Organic matter, mod. plastic, wet (CL)
		S-2 : 2.0'- 4.0'	19	50	Brown, m. dense f. SAND, some Silt, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM)

Elevation/Depth: The depth column provides the vertical scale of the boring log in feet below ground surface.

Sample No. : Range: Disturbed samples are identified with “S” preceding the sample number. Undisturbed (Shelby-tube) samples are identified with “U” preceding the sample number. Rock core samples identified with “C” preceding the core run. The range of elevation/depth where the sample was taken is identified in one-tenth foot increments.

N-value: The Standard Penetration Test N-value, as specified by ASTM D1586, is defined as the number of blows required by a 140-pound hammer falling 30 inches, each blow, to drive a 2-in outside diameter split-spoon sampler 12 inches.

% REC (RQD): “Percent Recovery” is the length of samples recovered divided by the total length sampled. The result is numerically expressed as a percent. The Rock Quality Designation (RQD) is the total length of places >4 inches divided by the total length of core run.

Soil and Rock Description / Remarks: This column denotes the exact depth of recovery and general documentation of drilling efforts. Description and classification are based on visual inspection of samples and boring operations. The stratum lines shown on the boring logs are based upon interpretation and may not represent precise subsurface conditions. Water-level readings have been made in the drill holes at time under conditions stated on the boring logs. Fluctuations in the water level may occur due to other factors than those present the time measurement was taken. See attached sheet.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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Soil and Rock Description / Remarks: Terminology Used for Soil Description

Density Description of Granular Soil

Number of Blows per ft., N	*Relative Density*
0 - 4	Very Loose
4 - 10	Loose
10 - 30	Medium
30 - 50	Dense
Over 50	Very Dense

Abbreviations Used in Soil Sample Classification

f - fine	v - very
m - medium	gr - gray
c - coarse	bn - brown
f/m - fine to medium	yel - yellow
f/c - fine to coarse	sl - slight
tr - trace	dk - dark

Consistency Description of Cohesive Soil

Number of Blows per ft., N	*Consistency*
Below 2	Very Soft
2 - 4	Soft
4 - 8	Medium
8 - 15	Stiff
15 - 30	Very Stiff
Over 30	Hard

Bedding

Parting	Less than 0.02 ft.
Band	0.02 - 0.2 ft.
Thin bed	0.2 - 0.5 ft.
Medium bed	0.5 - 1.0 ft.
Thick bed	1.0 - 2.0 ft.
Massive	Over 2.0 ft.

Grain Size

	Passing / Retained on
Boulder	LARGE / 12-in sieve
Cobble	12-in / 3-in sieve
Gravel	3-in sieve / No. 4 sieve
	No. 4 sieve / No. 10 sieve
Sand	No. 10 sieve / No. 40 sieve
	No. 40 sieve / No. 200 sieve
Silt	No. 200 sieve / 0.005 mm sieve
Clay	Smaller than 0.005 mm

Hardness

Very Soft or Plastic	Can be indented with thumb
Soft	Can be scratched with fingernail
Moderately Hard	Can be scratched with knife
Hard	Difficulty to scratch with knife
Very hard	Cannot be scratched with knife

Percentage Terminology Used in Soil Classification

Trace	0 - 10 %	Some	20 - 35 %
Little	10 - 20 %	And	35 - 50 %

Moisture

Dry	Absence of moisture, dusty, dry to the touch.
Moisture	Small quantity of moisture. Soil usually above groundwater level.
Wet	Moisture noticeable to the touch. Soil may be below groundwater level.
Saturated	Visible free water, usually soil is below groundwater level.

Plasticity

Non-plastic	An 1/8-in thread cannot be rolled at any water content.
Slight plasticity	Thread can be barley rolled.
Moderate plasticity	Thread is easy to roll and little time is required to reach the plastic limit (PL).
Plasticity	Considerable time is required to reach PL. Thread can be re-rolled several times after reaching the PL.

Crystallinity or Texture

Dense	Crystals are to small they cannot be distinguished with the naked eye.
Very Fine Crystalline	Crystals barely discernable with the naked eye.
Crystalline	Crystals are medium size, up to 1/8-in diameter.
Very Coarsely Crystalline	Crystals larger than 1/8-in diameter.

Voids

Porous	Smaller than pinhead. Their presence is indicated by the degree of absorbency.
Pitted	Pinhead size to 1/4 in. If thin walls separate the individuals pits, the core may be described as honeycomb.
Vug	1/4 inch to the diameter of the core. The upper limit will vary with core size.
Cavity	Larger than the diameter of the core.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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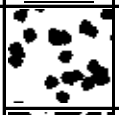
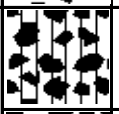
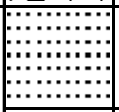
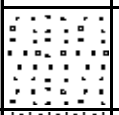
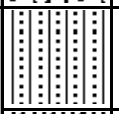
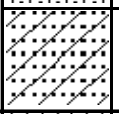
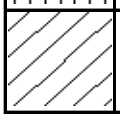
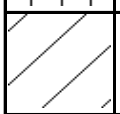
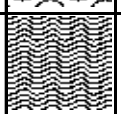
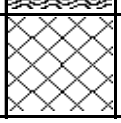
Soil Classification Chart: Unified Soil Classification System (USCS)

Major Divisions			Pattern	USCS ID	Typical Descriptions
Coarse-Grained Soils: More than 50% of material larger than No. 200 sieve	**Gravels**: More than 50% of coarse fraction larger than No. 4 sieve	Clean Gravels (little or no fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with appreciable amounts of fines		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-silt mixtures
	Sands: Less than 50% of coarse fraction larger than No. 4 sieve	Clean sands (little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sands, little or no fines
		Sand with appreciable amount of fines		SM	Silty sands, silt-sand mixtures
				SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils: Less than 50% of material larger than No. 200 sieve	**Silts and Clays, Low plasticity**: Liquid Limit < 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravely clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays, High plasticity: Liquid Limit > 50%			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils				Pt	Peat, humus, swamp soils with organic contents
Miscellaneous Fill				FILL	Miscellaneous fill may belong in any division but is identified as FILL

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Clarence, NY 14031 www.barronandassociatespc.com

APPENDIX C

FLOOR SLAB CORE PHOTOGRAPHS

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-1; Top View



Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-1; Side View



Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-2; Top View



Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)



21-599 Floor Slab Core, C-2; Side View

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-2; Bottom View



Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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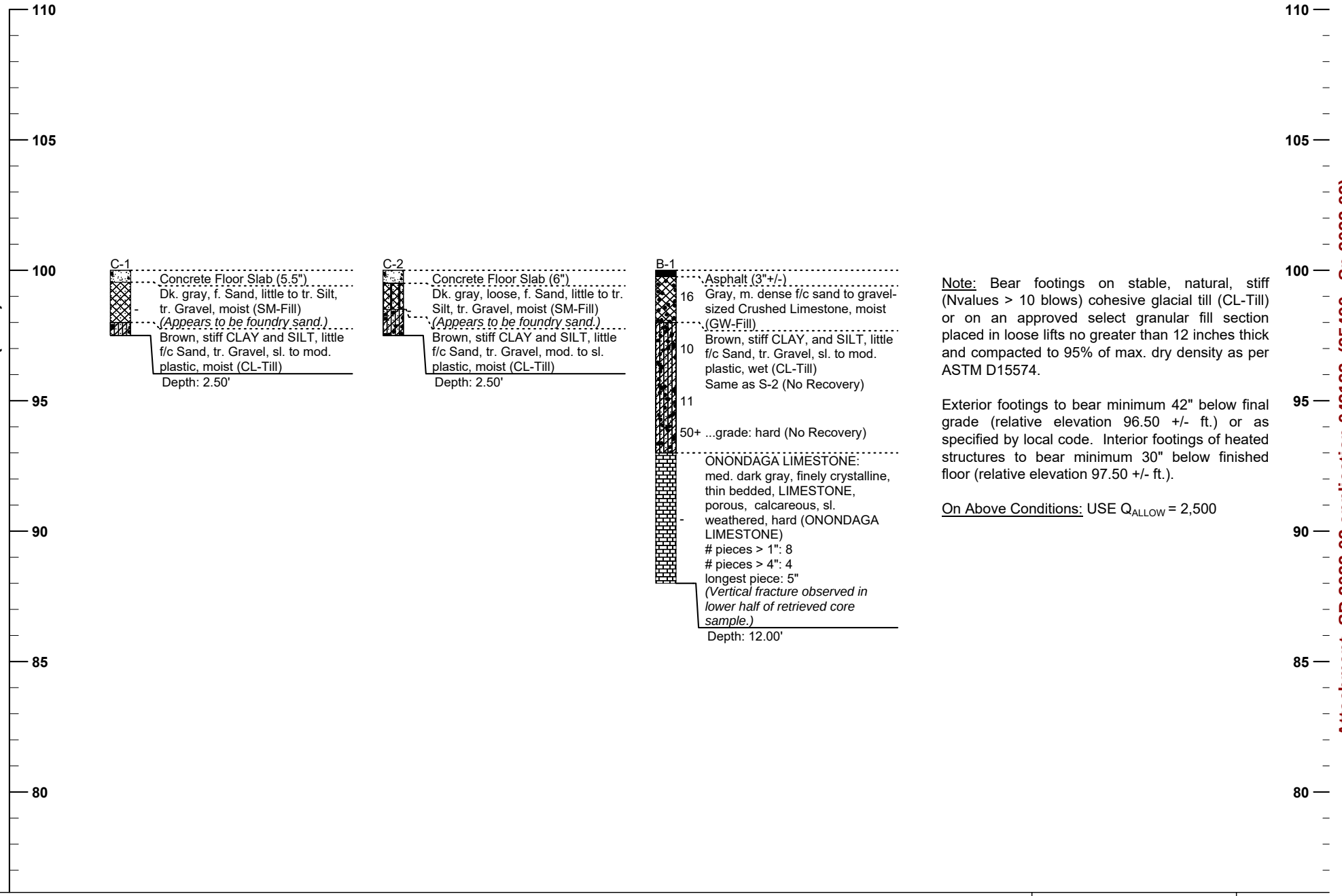
APPENDIX D

ENGINEERING COMPUTATIONS AND SCHEMATICS

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

"PROFILE OF BORINGS"



Note: Bear footings on stable, natural, stiff (Nvalues > 10 blows) cohesive glacial till (CL-Till) or on an approved select granular fill section placed in loose lifts no greater than 12 inches thick and compacted to 95% of max. dry density as per ASTM D15574.

Exterior footings to bear minimum 42" below final grade (relative elevation 96.50 +/- ft.) or as specified by local code. Interior footings of heated structures to bear minimum 30" below finished floor (relative elevation 97.50 +/- ft.).

On Above Conditions: USE Q_{ALLOW} = 2,500

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C. & BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET, CLARENCE, NEW YORK 14031

PLOTTED: 10/14/2021 **BY:** A. Camping

JOB NO.: 21-599

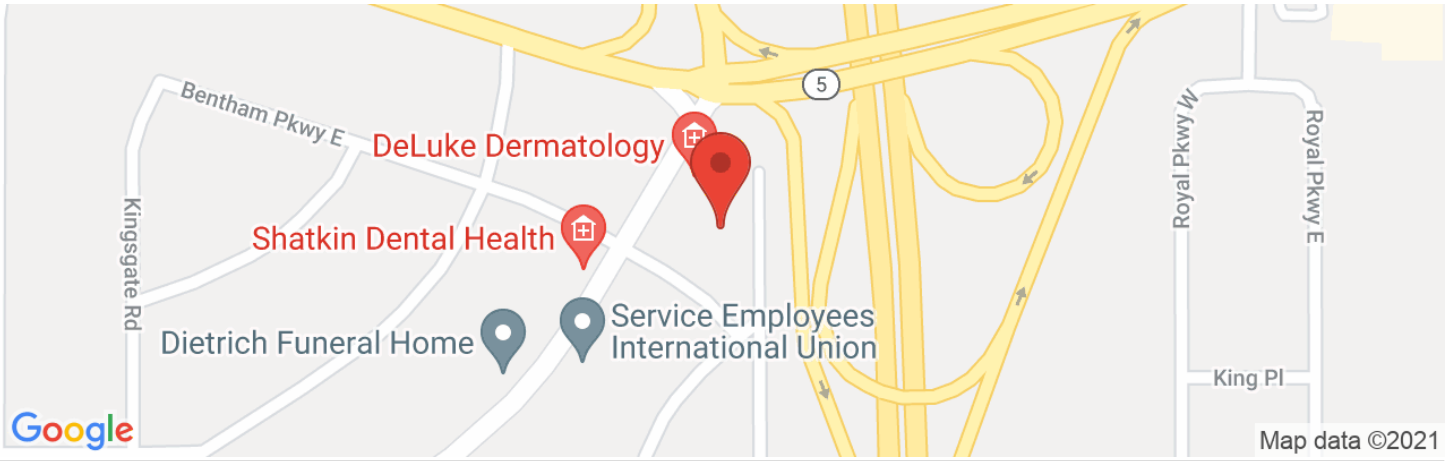
PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

PAGE NO.: 1 of 3

FIGURE NO.:

Mezzanine and Canopy, 2525 Kensington Ave., Amherst, NY 14226

Latitude, Longitude: 42.9580, -78.7680



Date	10/14/2021, 3:49:34 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	C - Very Dense Soil and Soft Rock

Type	Value	Description
S_S	0.169	MCE_R ground motion. (for 0.2 second period)
S_1	0.045	MCE_R ground motion. (for 1.0s period)
S_{MS}	0.22	Site-modified spectral acceleration value
S_{M1}	0.068	Site-modified spectral acceleration value
S_{DS}	0.146	Numeric seismic design value at 0.2 second SA
S_{D1}	0.045	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	A	Seismic design category
F_a	1.3	Site amplification factor at 0.2 second
F_v	1.5	Site amplification factor at 1.0 second
PGA	0.094	MCE_G peak ground acceleration
F_{PGA}	1.3	Site amplification factor at PGA
PGA_M	0.123	Site modified peak ground acceleration
T_L	6	Long-period transition period in seconds
SsRT	0.169	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.176	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.045	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.048	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.958	Mapped value of the risk coefficient at short periods

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Clarence, NY 14031 www.barronandassociatespc.com

B&A JOB NO.: 21-599

DATE: 10/14/21

LATERAL EARTH PRESSURE ON GENERIC BLOCK FOUNDATIONS FOR SIGNS, FREE-STANDING RETAINING WALLS, OR BELOW GRADE/BASEMENT/TANK/POOL RETAINING WALLS (Less Than 20 Feet High)

a) Porous filter media, in contact with the basement/below grade foundation wall or retaining walls, protects and is in contact with a minimum 4 inch diameter perforated drainage pipes at the footing/base of the foundation/structural wall (exterior backfill side and interior basement side) and/or weep pipes through the wall, as needed and as applicable.

b) Where recommended, a geotextile filter fabric will protect the gravel filter media from the earth backfill. Overlap unsewn seams as per the manufacturer's recommendations.

c) Waterproof earth side of wall, as is customarily provided in practice.

d) Drainage pipes are connected to an appropriately designed collector pipe, conveyance, and/or sump pump system as is applicable for the intended purpose of the wall and as customarily provided/installed in practice.

e) For potential groundwater table conditions above the top of the basement slab-on-grade condition, install continuous waterstops (with no joints in stop) at wall and floor construction joints, as is customarily provided in practice. Interior intermediate drainage pipes beneath the slab, that are spaced on-center and in both directions, do appear to be needed.

f) Assume a uniformly graded, clean coarse sand or sandy gravel backfills:

* equivalent N-value in a dense state: $(N_1)_{60}$ = 40 blows/foot
* friction angle: ϕ' = 38 degrees {Teng, pg. 12}
* average in-place densities: moist - γ_m = 120 pcf
  saturated - γ_{sat} = 132 pcf submerged - $\gamma' = (\gamma_{sat} - \gamma_w)$ = 70 pcf

g) Assume at base of wall/footing, coefficient of friction against sliding (f_s) at base of wall (Refer to Teng, pg. 320-1):

f_s = tan (0.58 x ϕ') = 0.40 (AREA silty soil to silty coarse-grained soil)

h) Use equivalent fluid pressure design approach {Hough, pg. 249 and NAVFAC pg. 7-10-9}:

* at rest pressure coefficient - K_0 = 1 - sin (ϕ') = 0.38
* effective lateral pressure of soil - γ'_l = K_o x γ' = 26.6 pcf
* hydrostatic pressure - γ_w = 62.4 pcf
* equivalent fluid pressure with water level at the top of the grade at the wall - γ_{eo} = $\gamma'_l + \gamma_w$ = 89 pcf (say 90 pcf)
* equivalent fluid pressure with compaction induced lateral stress increase (W&F, pg 409) - γ_{eo} = 2 x K_o x γ_m = 91 pcf (say 90 pcf)
* active pressure case - K_a = [1 - sin (ϕ')] / [1 + sin (ϕ')] = 0.24
  γ_{ea} = K_a x γ_m = 29 pcf (say 30 pcf)
* passive pressure case - K_p = [1 + sin (ϕ')] / [1 - sin (ϕ')] = 4.2
  γ_{ep} = K_p x γ_m = 504 pcf (say 330 pcf with a F.S. = 1.5)

			Thoroughly Compacted ⇒⇒ Uniformly Graded & Clean Coarse Sand or Sandy Gravel Fill	Non-Plastic Silty Sand or Sandy Silt Fill	
USE:	Earth Pressure Coefficient	Static Active =	0.24	0.33	
		Static At-Rest =	0.76	1.00	
		Static Passive =	2.80	2.00	(with F.S. = 1.5)
		Static Passive =	4.20	3.00	(with F.S. = 1.0)
USE:	Equivalent Fluid Pressure	Static Active =	30 pcf		
		Static At-Rest =	90 pcf (for rigid walls)		
		Static Passive =	330 pcf (with F.S. = 1.5)	[500 pcf with (with F.S. = 1.0)]	

[For earthquakes, structural engineer may elect to use the above Static Passive case instead of the below Earthquake Lateral Load for Non-Yielding Wall movement into the soil backfill.]

USE: Simplified Model for Earthquake Lateral Load/Ft. Wall Length @ 0.6 H_{bw} above base. Loads for Non-Yielding Wall.

H_{bw} = Earth Height Behind Wall (feet)

Reduce load by 33% for Yielding Wall (active case) = (6.8 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.25 g)

(γ_m = 120 pcf for S_{ds} value. Add to Static At Rest/ Active Pressure/Load for unsaturated backfill case) = (13.5 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.50 g)

= (17.5 psf / foot) x H_{bw}^2 (NEern NYS, $S_{ds} \leq 0.65$ g)

[Above for Site Class C to E soils. Interpolate for other S_{ds} values.
Use 1.75 x values for walls on Class B/A rock or on rigid foundation base. (FEMA NEHRP Guidelines)]

Saturated/Liquified Soil During Earthquake = 132 pcf
(Equivalent Fluid Pressure. Add to inertial hydrodynamic pressure, not presented here.)

{For looser/denser backfills, adjust above pressures by the ratio = new density / 120 pcf or / 132 pcf (for saturated case)}

USE:	Coefficient of Friction Against Sliding (f_s)	= 0.45	(on compacted NYSDOT Item #304.12 or #304.14 gravels)
	(use lowest f_s with no underlying weaker layers)	= 0.35	(on compacted granular soil & non-plastic silt)
		= 0.20	(slab-on-grade on polyethylene on granular fill)
	[with a F.S. = 1.0]	= 0.60/0.50	(on clean, rough, & sound bedrock/smooth bedrock)
	Min. Factor of Safety Against Sliding	= 1.5	*[Rev.9-30-09]*

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BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street
Clarence, NY 14031
(716) 759-7821
www.barronandassociatespc.com

APPENDIX E

GENERAL EARTHWORK SPECIFICATION

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

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Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

GENERAL EARTHWORK SPECIFICATIONS

1. GENERAL

1.1. SITE AND SUBSURFACE CONDITIONS

1.1.1. Overview

This specification is included as a courtesy to the clients of *Barron & Associates, PC* and addresses earthwork site preparation. Additions and modifications are necessary to create a job-specific specification. This specification may serve as a basis for the development for a technical specification under Division 31 (Earthwork) and Division 32 (Exterior Improvements).

1.1.2. Site Conditions

The site-specific conditions are described under separate cover or may be available from the OWNER.

1.1.3. Subsurface Conditions

The site-specific subsurface conditions are described under separate cover or may be available from the OWNER.

1.2. REFERENCES

1.2.1. American Standard for Testing and Measurement (ASTM)

- ASTM C136 Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
- ASTM D6938 Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
- ASTM D7928 Standard Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis
- ASTM D1140 Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing
- ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3))
- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)

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- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D1883 Standard Test Method for California Bearing Ratio (CBR) of Laboratory-Compacted Soils

1.2.2. Other

- 2018 International Building Code (IBC)
- 2020 Building Code of New York State
- 2020 Residential Code of New York State
- 2021 MasterSpec

1.3. DEFINITIONS

1.3.1. Unacceptable Material

Soil material containing debris, wood, scrap material, vegetation, refuse, soft unsound particles, and other organic, frozen, deleterious, or objectionable materials. Contaminated soils shall be properly documented and removed or remediated on site. If necessary, remediation procedure will be defined by the OWNER.

1.3.2. Unsuitable Material

Brown, organic topsoil and underlying soft pockets of organic silt or wet, reworked silty clay.

1.3.3. Ordinary Fill

Friable soil containing no stone greater than two-thirds loose lift thickness and no unacceptable or unsuitable materials. In general, existing random fill is expected to be acceptable for reuse as ordinary fill given proper sorting, blending, drying, and controlled placement methods.

1.3.4. Granular Fill

Ordinary fill meeting the designation of ASTM D2487 classification of GW with a maximum of 10 percent by weight passing ASTM D1140, No. 200 sieve.

1.3.5. Select Granular Fill

Clean, uncoated soil which contains no unacceptable materials and conforms to the gradation requirements defined in Table A: Select Granular Fill.

Table A: Select Granular Fill

Sieve Size	Percent Finer by Weight
⅔ of the loose lift thickness	100
No. 10	30 - 95
No. 40	10 - 70
No. 200	0 - 15

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1.3.6. Sand and Gravel

Clean, hard, durable, uncoated particle of sand and gravel, free from lumps of clay, containing no unacceptable matter, and conforming to gradation requirements of Table B: Sand and Gravel.

Table B: Sand and Gravel	
Sieve Size	Percent Finer by Weight
*	100
No. 4	50 - 85
No. 10	
No. 40	10 - 35
No. 100	
No. 200	0 - 8

* Job-Specific. To be determined by the ENGINEER

1.3.7. Crushed Stone

Clean, durable, sharp-angled fragments of rock or crushed gravel stone of uniform quality, containing no unacceptable matter, free from coatings, and conforming to gradation requirements of Table C: Crushed Stone.

Table C: Crushed Stone		
Sieve Size	Percent Finer by Weight	
	¾-inch Stone	1 ¼-inch Stone
1 ½-inch		100
1 ¼-inch		85 - 100
1-inch	100	
¾-inch	90 - 100	10 - 40
⅝-inch		
½-inch	10 - 50	0 - 8
⅜-inch	0 - 20	
No. 4	0 - 5	

1.3.8. Flowable Fill

Also known as Controlled Low Strength Material – Controlled Density Fill (CLSM-CDF), this material is available under a variety of producer names (e.g., K-Krete©, M-Crete, Flash Fill©, Flowable Mortar, Unshrinkable Fill, etc.). This non-settling backfill mixture is most commonly used for its flowable characteristics, its support strength under traffic loads, and its removability at a later date. The material may be produced on-site or off-site. In either case, the producer

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of such materials and the product must meet certain certification criteria. Such information is beyond the scope of this specification and will be considered on a site-specific basis.

Flowable fill may be acceptable for use as a backfill for utility trenches of other low-lying areas which require a compacted granular fill. Its use and warranty of performance is left to the CONTRACTOR in such applications.

The use of flowable fill under load-bearing structural components in place of properly placed and compacted granular fill is NOT common and is questionable. The localized use of such material may have profound effects on the performance of a foundation system. Site-specific conditions and the extent of anticipated use of flowable fill must be examined by geotechnical engineer. Cost of such consultation shall be borne by the CONTRACTOR unless specifically directed by the OWNER to seek such consultation. Without such consultation, warranty of performance for such use is left to the CONTRACTOR.

1.4. SUBMITTALS

The following submittals shall be provided in accordance with approved submittals procedures.

(1) Fill Source: Provide name and source locations of fill material.

(2) Field Test Reports: Field tests will be performed by OWNER's Representative as needed. CONTRACTOR may be required to perform such tests on proposed off-site fill materials.

(a) Fill material grain size analyses per ASTM C136, D7928, D1140, D2487

(b) Moisture/Density test results per ASTM D2216

(c) Liquid limit, plastic limit, and plasticity index per ASTM D4318

(d) Compaction/Density test results per ASTM D6938 and D1557

(3) Sample: Geotextile fabric

2. PRODUCTS

Geotextile Fabric: Mirafi 600X or equal. (Also referred to as synthetic fabric).

3. EXECUTION

3.1. PROTECTION

3.1.1. General

Manner of excavation shall minimize disturbance of underlying natural ground. If deemed necessary by the Engineer, alter construction procedures to reduce subgrade disturbance.

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Excavate areas which have been excessively disturbed to firm ground and backfill with properly compacted granular fill.

3.1.2. Roads and Walks

Keep roads and walks free of dirt and debris at all times.

3.1.3. Trees, Shrubs, and Existing Facilities

Protect from any damage all vegetation and facilities identified to remain.

3.1.4. Utility Lines

Locate all utilities within the area of disturbance prior to the start of work. Show locations on initial plans. Protect utility lines from damage. Notify the ENGINEER immediately of damage to or an encounter with an unknown utility. Damage to utility lines are to be repaired by the CONTRACTOR at no additional cost. The CONTRACTOR shall have underground utility owners stake out utility locations prior to the start of clearing and excavation operations.

3.2. VERIFICATION OF CONDITIONS / PROOF-ROLLING

Prior to placement of the initial layer of fill over the natural ground, proof-roll the exposed natural ground above the groundwater table elevation by making two passes with a fully-loaded ten-wheel truck. Excavate unstable areas detected by this process and replace with compacted granular fill.

3.3. PREPARATION

3.3.1. Surface Preparation

Within the site limits indicated on the drawings, excavate all unsuitable material to firm natural ground in the manner specified herein. Follow a construction procedure which permits visual identification of firm natural ground. In the even that groundwater is encountered, the ENGINEER may require that the size of the open excavation be limited to that which can be handled by open pumping to allow visual inspection of the excavation bottom and the performance of backfill operations to be conducted in a dry state.

Excavation of unsuitable material shall be limited to the greater of the following:

- A distance of 5 feet beyond building lines or
- The area defined by a one-horizontal to one-vertical line sloping down from the outside bottom edge of exterior footings to firm natural ground.

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3.4. PLACEMENT AND COMPACTION

3.4.1. General

Place fill in accordance with Table D: Compaction Alternatives. These alternatives are provided as minimum compaction standards only and in no way relieve the CONTRACTOR of his obligation to achieve any specified degree of compaction by whatever means may be necessary.

Grade to provide positive drainage and a smooth surface which will readily shed water. To the extent practicable, compact each layer to the specified density on the same day placed. Place fill in horizontal layers. Where horizontal layers meet a natural slope, key layer into slope by cutting a bench.

Fill that is too wet for proper compaction: Disc, harrow, or otherwise dry to proper moisture content for compaction to the required density.

Fill that is too dry for proper compaction: Uniformly apply water over the surface of the loose layer in sufficient quantity to allow compaction to the required density.

Table D: Compaction Alternatives

Compaction Method	Maximum Stone Size	Maximum Loose Lift Thickness (inches)		Maximum Number of Passes	
		Below Structure and Pavements	Less-Critical Areas	Below Structure and Pavements	Less-Critical Areas
Hand operated vibratory plate of light roller in confined areas.	3	4	4	4	4
Hand operated vibratory drum rollers weighing at least 1,000 pounds in confined areas.	4	6	8	4	4
Loaded 10-wheel truck or D-8 crawler.	6	10	12	4	2
Light vibratory drum roller; Min. weight at drum 8,000lbs; Min. dynamic force 10,000lbs.	8	12	12	6	2
Minimum vibratory drum; Min. weight at drum 10,000lbs; Min. dynamic force 20,000lbs.	8	18	18	6	4

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3.4.2. Dewatering

Provide adequate pumping and drainage facilities to keep excavated areas sufficiently dry of groundwater and surface run-off. Dewatering shall avoid adversely affection construction procedures or causing excessive disturbance of underlying natural ground. Drain all pumped water in such a manner as to avoid damage to adjacent property.

If requested by the ENGINEER, place a 6-inch to 12-inch layer of sand and gravel or crushed stone over the natural underlying soil to stabilize area which have been disturbed due to groundwater seepage pressures and to expedite dewatering operations. Particular attention shall be given areas under proposed foundations.

3.5. FIELD QUALITY CONTROL

3.5.1. Compaction Requirements

Allow the ENGINEER sufficient time to make necessary observations and tests. Base the degree of compaction on maximum dry density as determined by ASTM D1557. The minimum degree of compaction for placed fill shall be as indicated in Table E: Compaction Requirements.

Table E: Compaction Requirements

Area	Minimum Degree of Compaction (%)
Below foundation.	95
Pavement and building subbase and base courses.	95
Below building slab base course and above bottom of foundation.	92
Below pavement subbase and base courses.	90
Trench backfill outside of building.	90
Trench backfill inside of building.	Refer to one of the above- listed categories
Ordinary fill within 5 feet of grade.	90
Vegetated areas below 5 feet of grade.	85

3.5.2. Testing

Site work should be monitored and tested by geotechnical ENGINEER or his representative and in accordance with requirements of the design team to assure compliance with earthwork and foundation construction specifications.

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The owner will retain a geotechnical ENGINEER or his representative to perform on-site observations and testing during this phase of construction operations. The geotechnical ENGINEER or his representative will:

- Observe excavation and dewatering of building and controlled fill areas;
- Observe backfill and compaction within building and controlled fill areas;
- Laboratory test and analyze fill material; and
- Observe construction – and performing water content, gradation, and compaction tests.

On a timely basis, the CONTRACTOR will receive copies of test results submitted to the OWNER. In addition, during construction the geotechnical ENGINEER will advise the OWNER and CONTRACTOR in writing of conditions which fail to conform to the Contract Documents. The CONTRACTOR shall take immediate action to remedy indicated deficiencies.

The geotechnical ENGINEER or his representative will not supervise or direct the actual work of the CONTRACTOR or employees and representatives of the CONTRACTOR. The presence of, observations by, and testing performed by the geotechnical ENGINEER or his representatives shall not excuse the CONTRACTOR from defects discovered in the work.

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Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

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APPENDIX F

LIMITATIONS

LIMITATIONS

1. This report is based on the data that was obtained from the subsurface explorations and on the design of the proposed interior mezzanine and exterior canopy as submitted to the geotechnical engineer. A geotechnical engineer, who is experienced in foundation construction and earthwork, should be engaged to review the final design and specifications in order to determine whether any change in concept may have any effect on the validity of the conclusions presented herein, and whether these conclusions have, in fact, been implemented in the design and specifications.

2. The subsurface conditions, including thickness, between the exploration locations are approximate and simplified representations of the strata and transitions. There is the possibility that variations in soil and rock conditions and boundaries will be encountered during construction. In order to permit correlation between the exploratory soil data and the actual soil conditions encountered during construction and so as to assess conformance with the plans and specifications as originally contemplated, it is recommended that a geotechnical engineer, who is experienced in foundation construction and earthwork monitoring, should be retained to perform continuous construction review during the site preparation and foundation construction operations.

3. The subsurface exploration logs and subsurface conditions may aid in estimating material quality and quantities, such as topsoil/organic matter, fills, natural soils, and rock, but are not to be relied upon as the exclusive means for bid preparation purposes. It is the responsibility of the contractor to perform any additional site examinations and explorations and to prepare an accurate bid.

4. Disclaimers:

   a. In the event that any changes in the nature, design or location of the structure are planned, the conclusions that are contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing.

   b. The geotechnical engineering report has been prepared for this project by Barron & Associates, P.C. This report is for assistance in design only and is not a sufficient basis on which to prepare an accurate bid.

   c. This report has been prepared for the exclusive use of Dr. Todd Shatkin (Shatkin School of Dentistry), and their designated design representatives, for specific application to the construction of an interior mezzanine and exterior drop off canopy at 2525 Kensington Avenue, in the Town of Amherst, New York and in accordance with generally accepted geotechnical engineering practice. No other warranty, expressed or implied, is made.

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SRF ASSOCIATES
Transportation Planning / Engineering / Design

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

(585) 272-4660
www.srfa.net

Mr. Daniel J. Ulatowski, AICP
Principal Planner/ZEO
Town of Amherst Planning Department
5583 Main Street
Williamsville, New York 14221

February 22, 2022

RE: Proposed Shatkin School of Dentistry, Town of Amherst, NY
Shared Parking Demand Assessment Letter

Dear Mr. Ulatowski:

This technical letter provides a Shared Parking Demand Assessment related to the proposed project located at 2525 Kensington Avenue in the Town of Amherst, NY in connection with a request for the approval of an Alternate Parking Study per Section 7-1-7A of the Zoning Code.

When evaluating the parking supply needs for the proposed project, our firm projected the parking demand considering shared parking (mixed-use) principles using nationally accepted methodology developed, in part, by the Urban Land Institute (ULI), Institute of Transportation Engineers (ITE), International Council of Shopping Centers (ICSC), and National Parking Association (NPA). Specifically, the assessment includes an estimation of future parking demands for the proposed project using national standards for similar developments, as documented by the ITE Parking Generation Manual (5th Edition).

This evaluation then provides a comparison to Town requirements, as set forth within Section 7-1-6A of the Town of Amherst's Zoning Code.

All supporting materials are included as an attachment to this letter.

PROJECT DESCRIPTION

Currently, the ±29,350 square foot (SF) building is owned and occupied by Phillips Brothers Supply, a business that has been in operation for over 30 years. Under the proposed development Phillips Brothers Supply will have ±5,736 SF of retail space and ±12,019 SF of warehouse space.

Shatkin Dental Health is developing the remaining ±12,253 SF which includes a ±4,400 SF of a new mezzanine that will be constructed within part of the existing warehouse space for a total of ±16,653 SF. The Shatkin Dental Health space will be used for a new dental (±7,853 SF) school associated with Daemen College and an out-patient rehab center also associated with Daemen College (±4,000 SF).

The project will provide 75 surface parking spaces.

Relative to the proposed uses, the following information was obtained from the applicant:

Daemen College Dental School (8-hour day)
Employees: 8 general staff and 10 teaching staff.

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Students: 40 students for 8 hours each day. Each student will have four patients total throughout the day. (Many students will be bussed from the main campus.)

Daemen College IMIT (9-hour day)
Staff: 12 general staff, 12 students.
Visitors: Six patients per hour plus allow for an accompanying family member with each patient.

PARKING REQUIREMENTS IN THE TOWN OF AMHERST ZONING CODE

Section 7-1-6A of the Zoning Code sets forth the off-street parking requirements for different categories of land uses. Strict application of the parking requirements per Section 7-1-6A of the Zoning Code is depicted in **Table 1**.

TABLE 1: TOWN CODE PARKING REQUIREMENTS

USE TYPE	REQUIRED PARKING RATIO	SIZE	TOTAL REQUIRED PARKING SPACES
Retail Sales, >2,000 SF and <25,000 SF	5.5 per 1,000 SF of net floor area	±4,302 SF	24
Warehouse	1 per 1,000 SF of gross floor area	±12,019 SF	12
Medical Office	1 per 150 SF of net floor area	±8,889 SF	60
Total Parking Spaces Required			**96**

Notes:
1. Net Floor Area = For a multistory, multiple tenant building — 75 percent of gross floor area.

Strict application of the off-street parking standards in the Zoning Code results in a parking requirement of 96 spaces, as depicted in **Table 1**. The total number of parking spaces to be provided is 75 spaces. Thus, there is a deficit of 21 parking spaces per strict application of Section 7-1-6A of the Zoning Code.

SHARED PARKING PRINCIPLES

Shared parking studies are conducted to establish the total number of spaces necessary by mixed-use developments to effectively serve expected parking demands. The shared parking concept builds upon the premise that land uses in a mixed-use development often do not share the same peak demand period, so spaces can be shared between the different land uses during different peak periods. Each land use typically has a peak demand period where it would occupy the maximum number of spaces that the use requires and an off-peak period where a lesser percentage of the maximum spaces would be occupied; be it by time of day, day of week, or even month of the year. This allows for the project to provide fewer spaces than would be required if the land uses on a project site were to be treated separately with individual parking demands. The concept of shared parking is well recognized within the real estate and regulatory community and is proven to work.

SHARED PARKING METHODOLOGY

To estimate the number of parking spaces required for the proposed project, this assessment used ULI and ITE methodology for shared parking. This methodology is utilized by transportation engineers and planners when evaluating the parking demand for a mixed-use project. The ULI Shared Parking 3rd Edition includes state-of-the-art practice methodologies for determining parking demand in these types of projects. Accompanying the publication is an interactive Shared Parking Calculation Model (Model) that is used to estimate the shared parking demand. However, given that the Model does not

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have a warehouse land use, parking accumulation percentages for each land use were obtained from the ITE Parking Generation Manual.

The peak hour demand is projected to occur at 10:00 AM on a typical weekday. The projected peak hour demand for the mixed-use project (i.e., the busiest hour of the busiest weekday) is ±77 spaces. Parking demand accumulations are presented in **Table 2**.

TABLE 2: SHARED PARKING DEMAND PROJECTIONS

LAND USE	SIZE	PARKING DEMAND	
		UNADJUSTED DEMAND	**SHARED DEMAND**
Warehouse (ITE LUC 150)	±12,019 SF	5	**4**
Hardware Supplies (ITE LUC 862)	±5,736 SF	19	**19**
Medical Office (ITE LUC 720)	±15,995 SF	54	**54**
Total Parking Spaces		78	**77**
Shared Parking Reduction		**1.28%**	

Note:
1. ITE LUC = ITE Land Use Code

When considering the site's 75 total parking spaces, there is a projected deficit of two parking spaces. However, it should be noted that the parking demands of the proposed land use may vary given that students may campus busing instead of private vehicles.

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CONCLUSIONS AND RECOMMENDATIONS

This detailed analysis assessed the projected shared parking demands associated with the proposed mixed-use project. The following summarizes the findings of this assessment:

1. The proposed project consists of retail hardware supply, warehouse, and medical office space.

2. The proposed project will provide 75 total parking spaces.

3. Strict application of the unshared off-street parking standards in the Zoning Code results in a parking requirement of 96 spaces.

4. The peak hour demand is projected to occur at 10:00 AM on a typical weekday. The projected peak hour demand for the mixed-use project (i.e., the busiest hour of the busiest weekday) is ±77 spaces.

5. When considering the site's 75 total parking spaces, there is a projected deficit of two parking spaces. However, it should be noted that the parking demands of the proposed land use may vary given that students may campus busing instead of private vehicles.

6. Transportation Demand Management (TDM) strategies may be considered to reduce the parking demands during the peak period. They include, but are not limited to:

    a. Carpooling
    b. Off-site parking agreements
    c. Promoting non-motorized travel (e.g., install bike racks, NFTA transit)

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
SRF Associates, D.P.C.

David Kruse, AICP, PTP
Senior Transportation Planner

Attachments

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

ATTACHMENT

February 22, 2022

Letter to
Mr. Daniel J. Ulatowski, AICP
Town of Amherst

Proposed Shatkin School of Dentistry
2525 Kensington Avenue

Shared Parking Demand Assessment

Town of Amherst
Erie County, New York

SRF ASSOCIATES

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

UNSHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	12	5	3%	8%	27%	57%	79%	83%	87%	91%	91%	97%	100%	91%	74%	47%	26%	20%	17%	1%	1%	1%
Hardware Store	862	5.763	19	0%	0%	9%	55%	73%	100%	64%	95%	68%	91%	50%	45%	36%	5%	0%	0%	0%	0%	0%	0%
Medical Office	720	11.853	54	0%	0%	12%	43%	88%	99%	100%	83%	74%	94%	93%	86%	54%	0%	0%	0%	0%	0%	0%	0%
			78																				

SHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	12	5	0	0	1	3	4	4	4	4	4	5	5	4	4	2	1	1	1	0	0	0
Hardware Store	862	5.763	19	0	0	2	10	14	19	12	18	13	17	9	8	7	1	0	0	0	0	0	0
Medical Office	720	11.853	54	0	0	7	23	48	54	54	45	40	51	51	47	29	0	0	0	0	0	0	0
Total Shared Demand			**78**	**0**	**0**	**10**	**36**	**65**	**77**	**71**	**67**	**57**	**73**	**65**	**60**	**40**	**3**	**1**	**1**	**1**	**0**	**0**	**0**

ITE PARKING RATES

Warehouse 0.39 spaces per 1,000 SF
Hardware Store 3.25 spaces per 1,000 SF
Medical Office 4.59 spaces per 1,000 SF

Note: Results may be affected by small rounding errors.

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

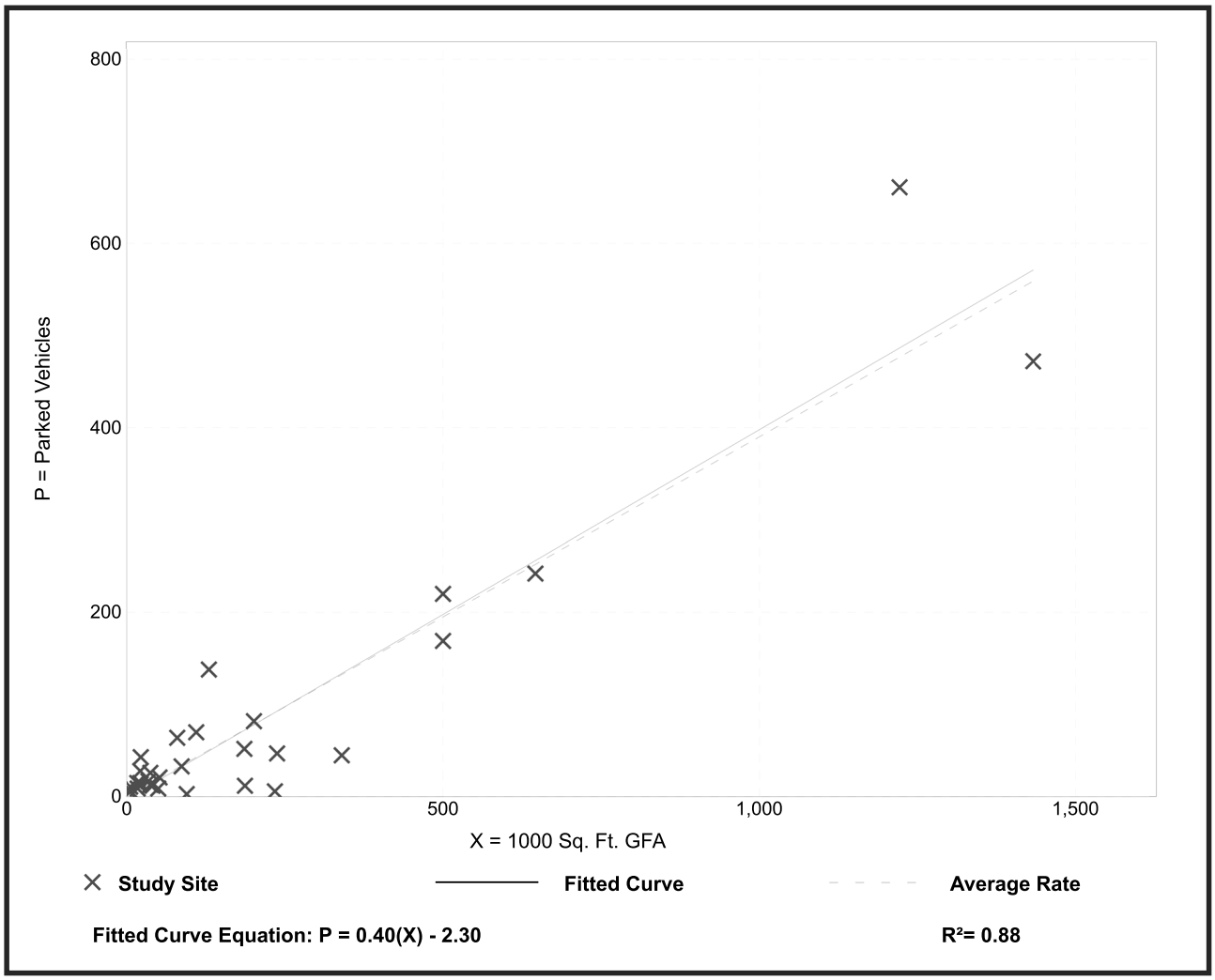
Warehousing
(150)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **11:00 a.m. - 4:00 p.m.**
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 212

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.39	0.03 - 1.96	0.34 / 1.11	0.31 - 0.47	0.22 (56%)

Data Plot and Equation



Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

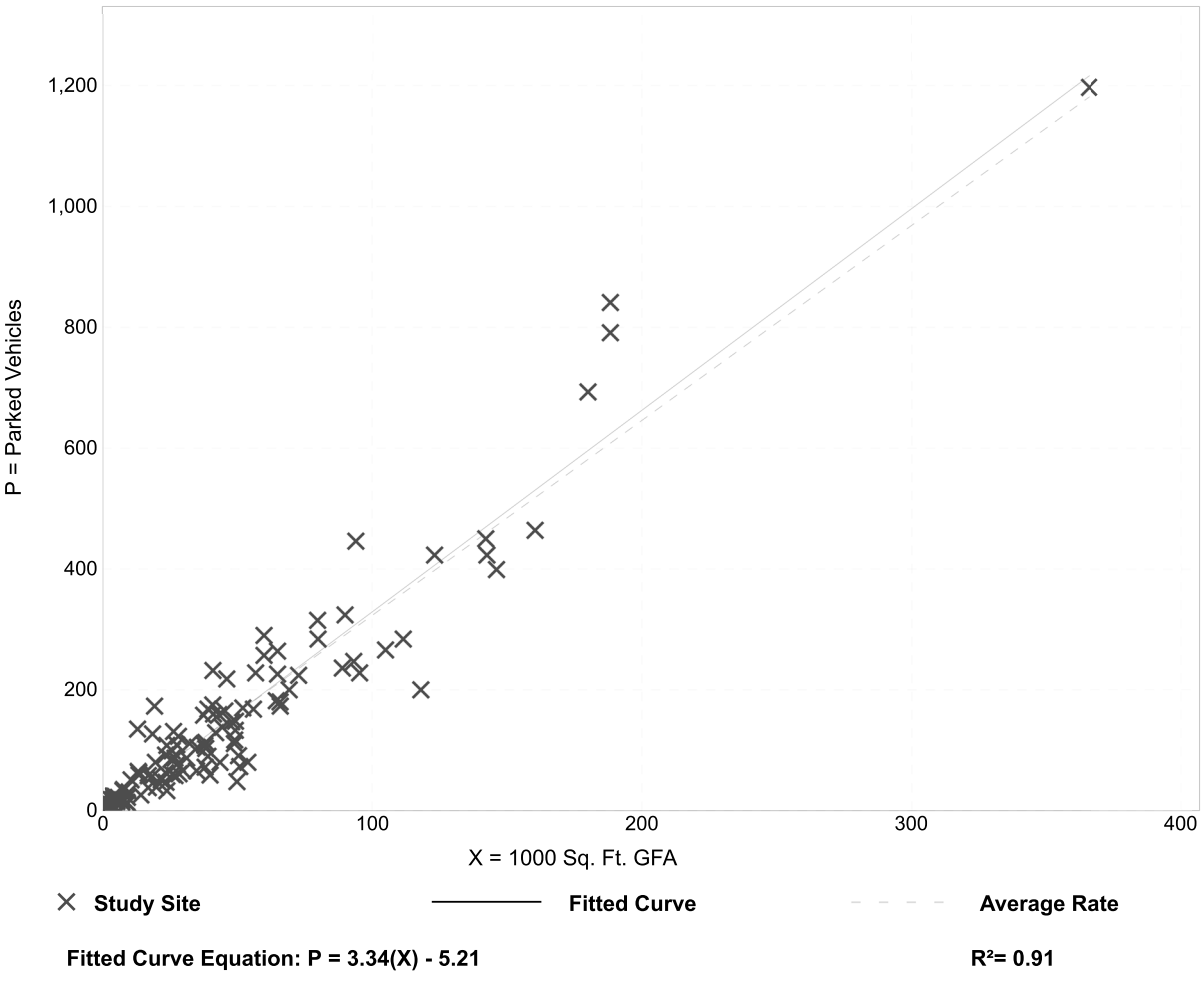
Medical-Dental Office Building
(720)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **9:00 a.m. - 4:00 p.m.**
Number of Studies: 117
Avg. 1000 Sq. Ft. GFA: 46

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
3.23	0.96 - 10.27	2.73 / 4.59	3.04 - 3.42	1.05 (33%)

Data Plot and Equation



Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)

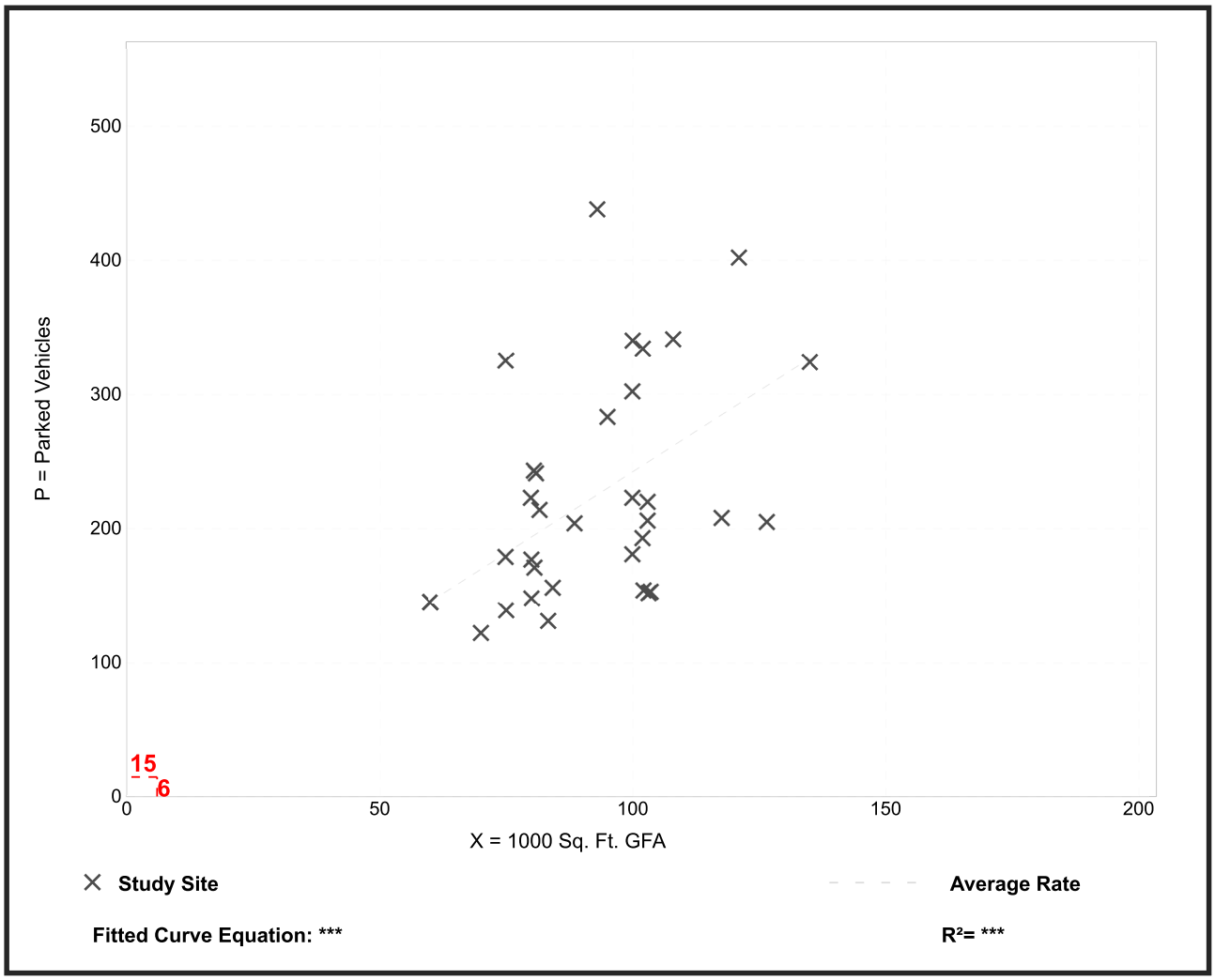
Home Improvement Superstore
(862)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Friday**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **10:00 a.m. - 4:00 p.m.; 8:00 - 9:00 p.m.**
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 93

Peak Period Parking Demand per 1000 Sq. Ft. GFA

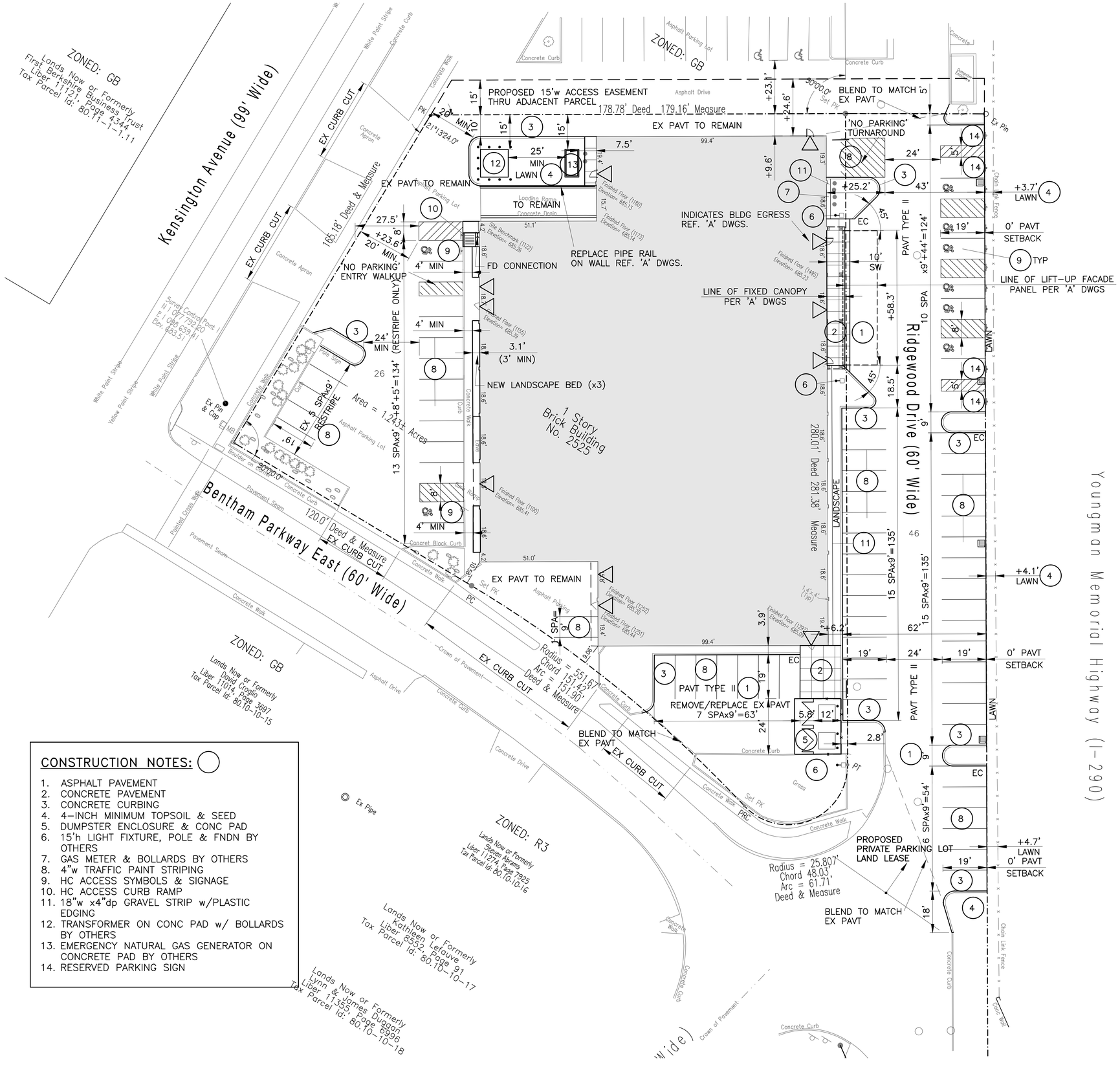
Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.42	1.47 - 4.71	1.87 / 3.25	2.15 - 2.69	0.79 (33%)

Data Plot and Equation



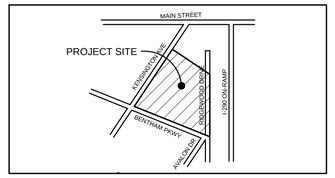
Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 application 042122 (25490 : Sp-2022-02)



CONSTRUCTION NOTES:

1. ASPHALT PAVEMENT
2. CONCRETE PAVEMENT
3. CONCRETE CURBING
4. 4-INCH MINIMUM TOPSOIL & SEED
5. DUMPSTER ENCLOSURE & CONC PAD
6. 15'h LIGHT FIXTURE, POLE & FNDN BY OTHERS
7. GAS METER & BOLLARDS BY OTHERS
8. 4"w TRAFFIC PAINT STRIPING
9. HC ACCESS SYMBOLS & SIGNAGE
10. HC ACCESS CURB RAMP
11. 18"w x4"dp GRAVEL STRIP w/PLASTIC EDGING
12. TRANSFORMER ON CONC PAD w/ BOLLARDS BY OTHERS
13. EMERGENCY NATURAL GAS GENERATOR ON CONCRETE PAD BY OTHERS
14. RESERVED PARKING SIGN



SITE LOCATION MAP

SITE LAYOUT PLAN

1" = 20'

N

SITE DATA

CURRENT ZONING: GB

PARCEL AREA: +1.24 ACRES (AC)

TOTAL AREA OF DISTURBANCE (INCL R.O.W.): 22,000SF~0.51AC

NEW PARKING LOT LICENSED AREA: 19636SF ~0.45 AC

INTERIOR GREENSPACE: 984SF (5.5% OF NEW PARKING LOT)

ANTICIPATED AVERAGE DAILY SEWER LOADING: 1120 GPD
OFFICES/DAY SCHOOL: (30 EMPLx15 GPD)+(52 STUDENTSx10 GPD = 450+520 =970 GPD
RETAIL/WAREHOUSE PER EMPLOYEE: (10 EMPLx15 GPD)= 150 GPD

PARKING DATA

SPACES REQUIRED BY NET SF, 2-STY (MEZZ), MULT-TENANT (75% OF GROSS SF), GENERAL OFFICE, RETAIL/WAREHOUSE USES:

GENERAL OFFICE: 15995NSF (INCLUDES MEZZ) x1/200NSF=80;
RETAIL AT >2000SF<25000SF: 5763NSFx 5.5/1000NSF=32;
WAREHOUSE: 12019NSFx 1= 12

TOTAL CAR-PARKS REQUIRED = 80+32+12=124
ACCESSIBLE SPA REQUIRED = CAR-PARKS/25=124/25=5

SPACES PROVIDED: 72
REGULAR: 60
ACCESSIBLE: 8; RESERVED STALLS: 4

DEFICIENT 53 CAR-PARKS, ALTERNATE PARKING PLAN REQUIRED

NOTES:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING IS FOR INFORMATION ONLY. REFER TO SURVEY(S) PROVIDED BY NIAGARA BOUNDARY & MAPPING JOB No 11187-21, DATED 6/2021.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES, AND UTILITY CONNECTIONS.
3. SITE LIGHTING, POWER AND GAS LINES ARE SHOWN FOR INFORMATION ONLY, AND ARE NOT DESIGNED BY TREDO ENGINEERS.
4. A KNOX BOX KEY HOLDER SHALL BE LOCATED AT THE BUILDING MAIN ENTRANCE.
5. THE BUILDING SHALL CONTAIN A SPRINKLER FIRE-PROTECTION SYSTEM.

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

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716.633.5300

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REVISIONS	
1: REVISED	3/28/22

DRAWN BY	CHECKED BY
avm	AVM

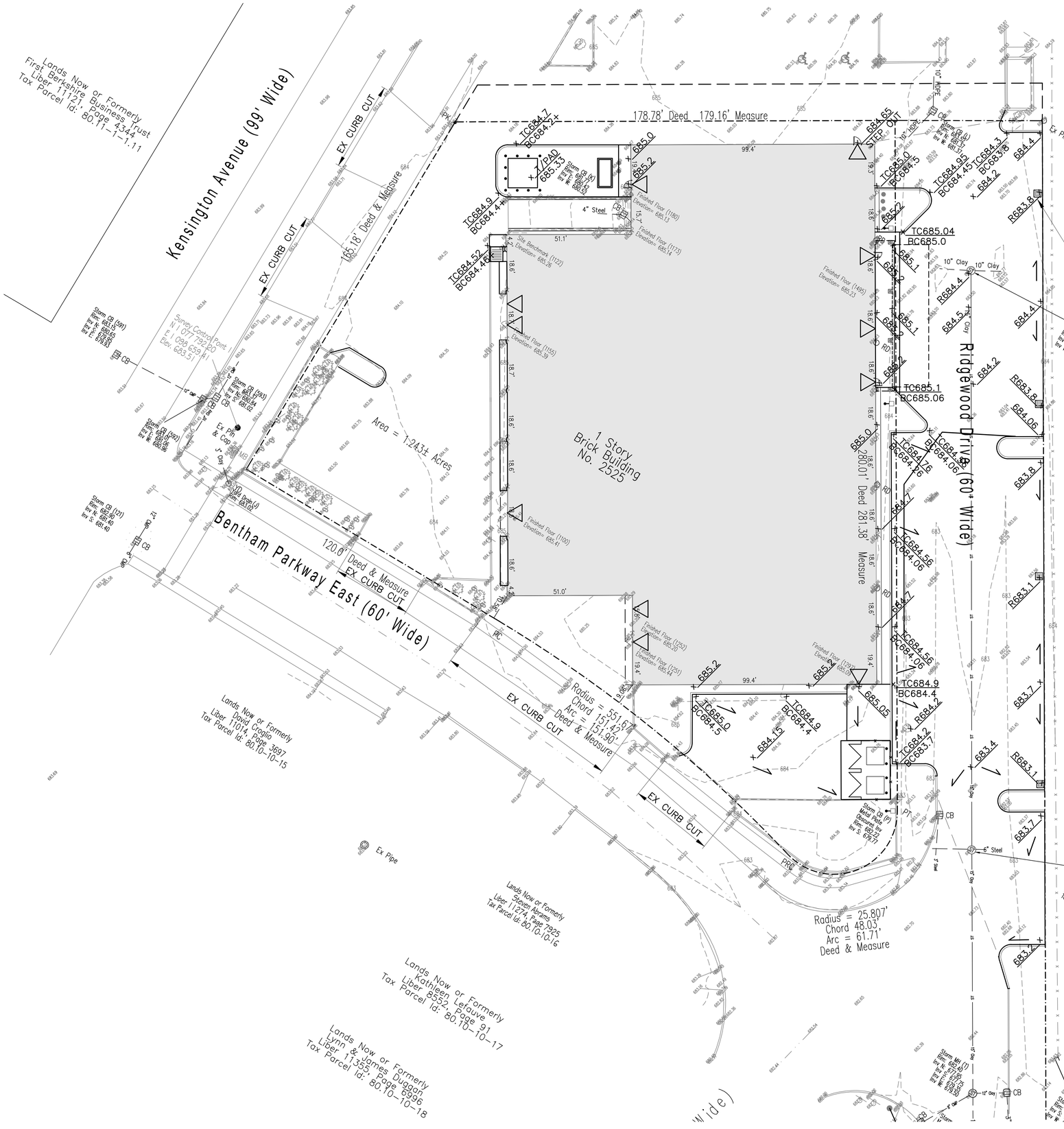
SCALE: AS NOTED

DATE: Feb 22, 2022

SITE LAYOUT PLAN

SP101

Attachment: SP-2022-02 drawings 042122 (2549 : Sp-2022-02)



SITE GRADING PLAN

1" = 20'

N

LEGEND:

×	DENOTES PROPOSED SPOT ELEVATIONS	·	DENOTES EXISTING SPOT ELEVATIONS
■ ●	DENOTES PROPOSED CATCH BASIN/MANHOLE	DI	DENOTES EXISTING STORM SEWER DROP INLET
CO	DENOTES PROPOSED CLEANOUT	ST	DENOTES EXISTING STORM SEWER MANHOLE
C	DENOTES CONNECTION TO EXISTING UTILITY	SA	DENOTES EXISTING SANITARY SEWER MANHOLE
			DENOTES EXISTING HYDRANT
	DENOTES PROPOSED LIGHT POLE		DENOTES EXISTING LIGHT POLE
RD	DENOTES PROPOSED ROOF DRAIN		DENOTES EXISTING WATER VALVE
ELEV	DENOTES NEW CONTOURS	ELEV	DENOTES EXISTING CONTOURS
		X	DENOTES EXISTING CHAIN LINK FENCE
		OHE	DENOTES EXISTING UTILITY POLE AND OVERHEAD UTILITIES
		ST	DENOTES EXISTING STORM SEWER LINE
		SAN	DENOTES EXISTING SANITARY SEWER LINE
W		W	DENOTES EXISTING WATER LINE
E		E	DENOTES EXISTING ELECTRIC LINE
G		G	DENOTES EXISTING GAS LINE
ST			DENOTES PROPOSED STORM SEWER LINE
SAN			DENOTES PROPOSED SANITARY SEWER LINE
W			DENOTES PROPOSED WATER LINE

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STATE OF NEW YORK
MATTHEW VAN METER
102395
LICENSED PROFESSIONAL ENGINEER

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REVISIONS
1: REISSUED 3/28/22

DRAWN BY avm
CHECKED BY AVM

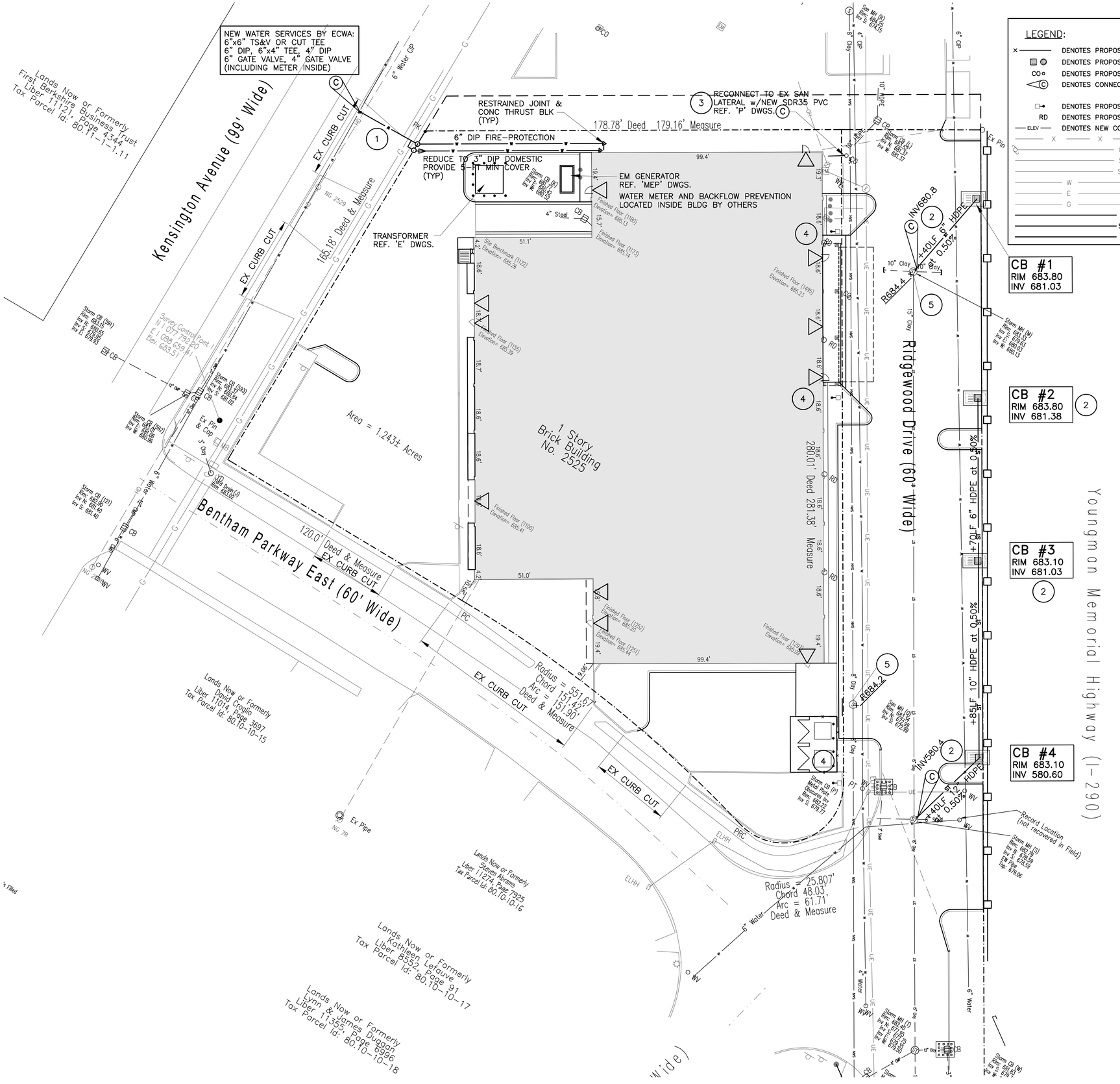
SCALE
AS NOTED

DATE
Feb 22, 2022

SITE GRADING PLAN

SP102

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)



LEGEND:

×	DENOTES PROPOSED SPOT ELEVATIONS	·	DENOTES EXISTING SPOT ELEVATIONS
■ ●	DENOTES PROPOSED CATCH BASIN/MANHOLE	DI	DENOTES EXISTING STORM SEWER DROP INLET
CO	DENOTES PROPOSED CLEANOUT	ST	DENOTES EXISTING STORM SEWER MANHOLE
C	DENOTES CONNECTION TO EXISTING UTILITY	SA	DENOTES EXISTING SANITARY SEWER MANHOLE
			DENOTES EXISTING HYDRANT
	DENOTES PROPOSED LIGHT POLE		DENOTES EXISTING LIGHT POLE
RD	DENOTES PROPOSED ROOF DRAIN		DENOTES EXISTING WATER VALVE
ELEV	DENOTES NEW CONTOURS	ELEV	DENOTES EXISTING CONTOURS
		X X X X	DENOTES EXISTING CHAIN LINK FENCE
		OHE	DENOTES EXISTING UTILITY POLE AND OVERHEAD UTILITIES
		ST	DENOTES EXISTING STORM SEWER LINE
		SAN	DENOTES EXISTING SANITARY SEWER LINE
		W W	DENOTES EXISTING WATER LINE
		E E	DENOTES EXISTING ELECTRIC LINE
		G G	DENOTES EXISTING GAS LINE
	ST		DENOTES PROPOSED STORM SEWER LINE
	SAN		DENOTES PROPOSED SANITARY SEWER LINE
	W		DENOTES PROPOSED WATER LINE

SITE UTILITIES & EROSION CONTROL PLAN

1" = 20'

CONSTRUCTION NOTES:

1. NEW WATER SERVICE TO BLDG WATER ROOM –RPZ & METERING INSIDE FACILITY REF. 'P' & 'FP' DWGS
2. NEW STORM RECEIVER & HDPE PIPING –CORE–DRILL & GROUT NEW PIPING TO EXISTING MANHOLE (VERIFY CONDITIONS & NOTIFY ENGINEER OF CONFLICTS PRIOR TO PREPARING SHOP DRAWINGS AND ORDERING MATERIAL)
3. REPLACE WASTEWATER LATERAL CONN IN SAME LOCATION AS EXISTING (FIELD VERIFY) –REF. 'P' DWGS FOR NEW SAN PIPING & CONNECTION TO EXISTING.
4. SITE LIGHTING –REF. 'E' DWGS FOR POLE, FNDN, FIXTURE, CIRCUITING & CONDUIT
5. RAISE MH FRAME & COVER w/CONC RINGS TO ELEVATION SHOWN

SILT FENCE OR 12"DIA COMPOST FILTER SOCK

STONE & BLOCK DROP INLET PROTECTION STRUCTURE

EXCAVATED DROP INLET PROTECTION

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STATE OF NEW YORK
MATTHEW JOHN RO
087285
LICENSED PROFESSIONAL ENGINEER

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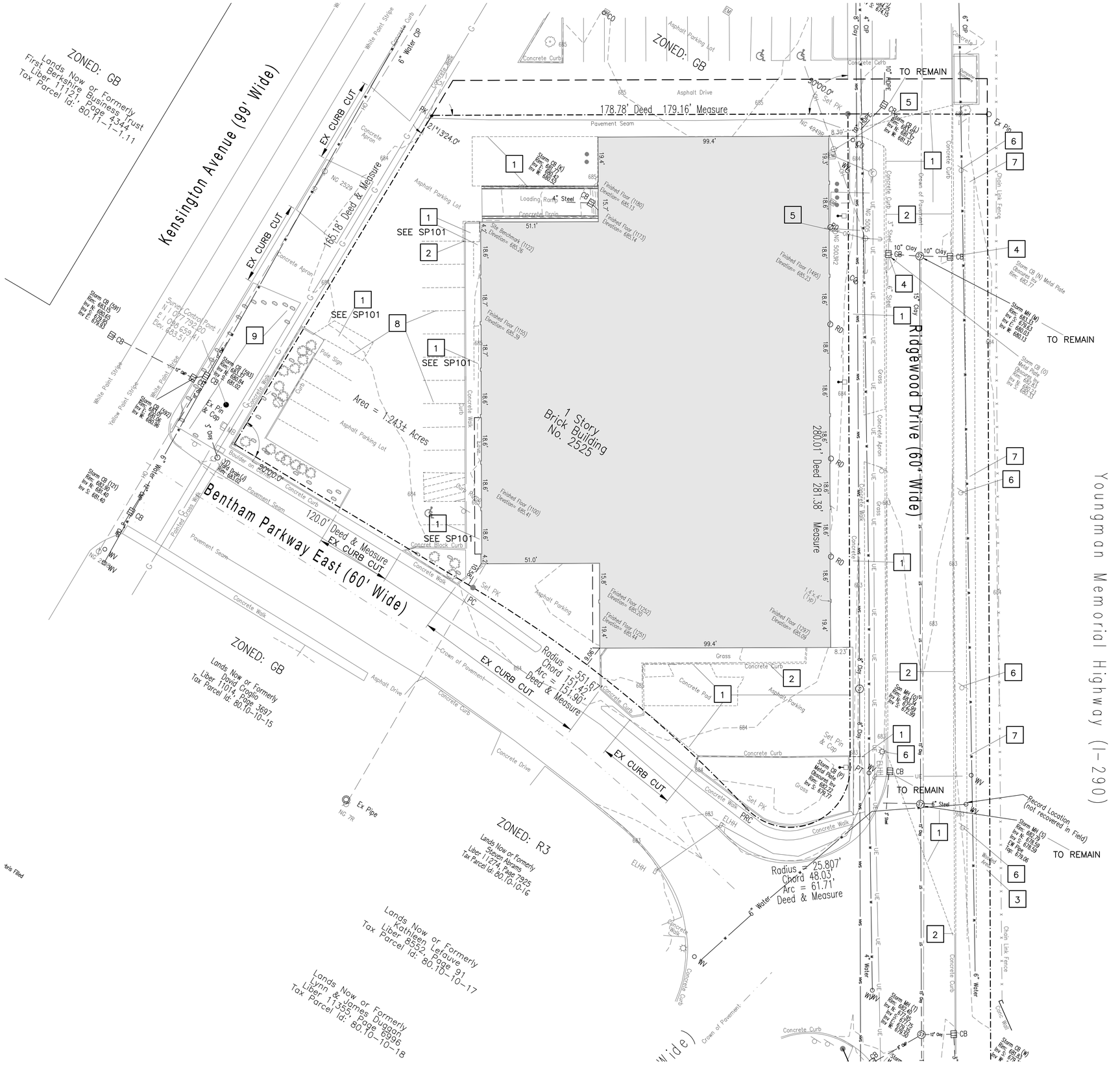
REVISIONS	
1: REISSUED	3/28/22
DRAWN BY: avm	CHECKED BY: AVM
SCALE: AS NOTED	
DATE: Feb 22, 2022	

SITE UTILITIES & EROSION CONTROL PLAN

SP103

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)


Kensington Avenue (99' Wide)
Bentham Parkway East (60' Wide)
Ridgewood Drive (60' Wide)
Youngman Memorial Highway (I-290)
ZONED: GB
Lands Now or Formerly
First Berkshire Business Trust
Liber 11121, Page 4344
Tax Parcel Id: 80.11-1-1.11
ZONED: GB
Lands Now or Formerly
David Coglio
Liber 11014, Page 3697
Tax Parcel Id: 80.10-10-15
ZONED: R3
Lands Now or Formerly
Steven Abrams
Liber 11274, Page 7925
Tax Parcel Id: 80.10-10-16
Lands Now or Formerly
Kathleen Lefauve
Liber 8552, Page 91
Tax Parcel Id: 80.10-10-17
Lands Now or Formerly
Lynn & James Duggan
Liber 11355, Page 6996
Tax Parcel Id: 80.10-10-18
1 Story Brick Building No. 2525
Area = 1.243± Acres
178.78' Deed 179.16' Measure
280.01' Deed 281.38' Measure
165.18' Deed & Measure
120.0' Deed & Measure
Radius = 551.67'
Chord = 151.42'
Arc = 151.90'
Deed & Measure
Radius = 25.807'
Chord 48.03'
Arc = 61.71'
Deed & Measure
TO REMAIN
SEE SP101
EX CURB CUT
Asphalt Parking Lot
Asphalt Drive
Concrete Walk
Concrete Curb
Concrete Apron
Pavement Seam
Crown of Pavement
Loading Ramp
Concrete Drive
Grass
Chain Link Fence
Ex Pipe
Set PK
Set Pin & Cap
Record Location (not recovered in Field)
Finished Floor (1190) Elevation= 685.13
Finished Floor (1173) Elevation= 685.14
Finished Floor (1156) Elevation= 685.19
Finished Floor (1100) Elevation= 685.47
Finished Floor (1252) Elevation= 685.20
Finished Floor (1251) Elevation= 685.44
Finished Floor (1297) Elevation= 685.06
Finished Floor (1495) Elevation= 685.23
Site Benchmark (1122) Elevation= 685.76
Storm CB (5R) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5S) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5T) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5U) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5V) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5W) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5X) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5Y) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5Z) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AD) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AE) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AF) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AG) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AI) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AJ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AN) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AR) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AT) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5AZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BD) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BE) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BF) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BG) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BI) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BJ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BN) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BR) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BT) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5BZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CD) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CE) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CF) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CG) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CI) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CJ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CN) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CR) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CT) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5CZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DD) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DE) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DF) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DG) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DI) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DJ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5DO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DR) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DT) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5DZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5EB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5ED) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EE) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EF) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EG) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EI) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EJ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5EM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5EO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5ER) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5ES) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5EW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5EZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5FA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5FB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5FC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5FN) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5FP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5FQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5FV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5FW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5FX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5FY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5FZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5GL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GN) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5GS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5GU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5GZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HD) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5HH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HI) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HJ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5HP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HR) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HT) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5HZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5ID) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IE) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IF) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IG) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5II) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5IK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IN) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IR) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IT) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5IZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JD) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JE) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JF) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JG) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JI) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JJ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JN) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JR) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JT) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5JZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KD) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KE) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KF) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KG) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KI) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KJ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KN) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KR) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KT) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5KZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LD) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LE) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LF) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LG) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LH) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LI) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LJ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LL) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LM) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LN) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LO) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LP) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LQ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LR) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LS) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LT) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LU) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LV) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LW) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LX) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LY) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5LZ) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5MA) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5MB) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5MC) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
Storm CB (5MD) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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Storm CB (5MK) Inv In: 682.55 Inv Out: 682.45 Inv E: 678.55
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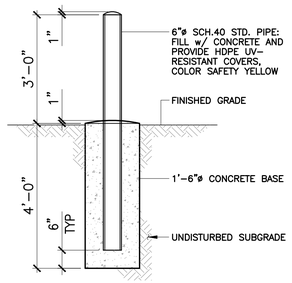
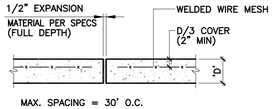
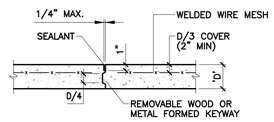


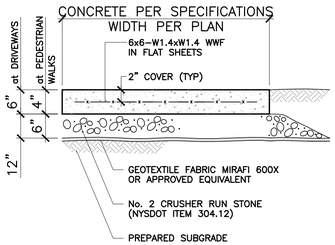
STEEL PIPE BOLLARD



EXPANSION JOINT IN EXTERIOR CONC PAVEMENT



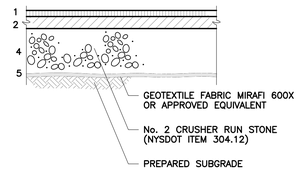
CONSTRUCTION JOINT IN EXTERIOR CONC PAVEMENT



NOTE: CONC. SHALL BE 4000 PSI at 28-DAYS, 6% AIR-ENTRAINED, 4" MAX. SLUMP-PROVIDE LT. BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAFFIC

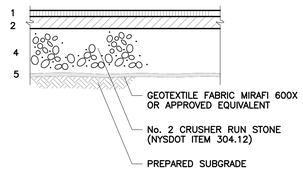
TYPICAL CONCRETE SIDEWALK

ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	3"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	18"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



TYPICAL TYPE II BITUMINOUS PAVEMENT SECTION DRIVEWAYS

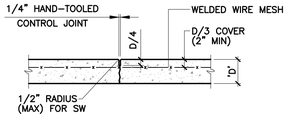
ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	2"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	12"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



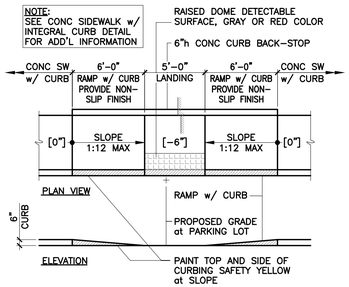
TYPICAL TYPE I BITUMINOUS PAVEMENT SECTION PARKING STALLS

GENERAL SITE NOTES

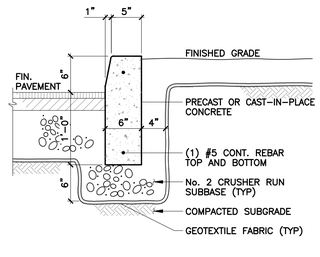
1. ALL WATERLINE, SANITARY SEWER AND OTHER WORK WITHIN THE R.O.W. SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE TOWN OF AMHERST, THE ERIE COUNTY WATER AUTHORITY AND NYSDOT SPECIFICATIONS.
2. INSTALL ALL MATERIALS TO THE MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF THE TRADE INVOLVED.
3. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER APPROVAL AND SHALL BE EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
4. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
5. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER OF ANY DISCREPANCIES IN CONDITIONS SHOWN ON THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
6. CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
7. CONTRACTOR SHALL KEEP THE JOB SITE FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF THE OWNER.
8. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK DOES NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
9. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NECESSARY TO PERFORM THE WORK.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CONTROL OF EROSION FROM THE SITE. SEE PROJECT EROSION CONTROL PLAN AND SWPPP MANUAL.
11. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS, FEATURES AND UTILITY CONNECTIONS.
12. ALL UTILITY TRENCHES UNDER PAVEMENT, CURBS, SIDEWALKS, AND DRIVEWAYS SHALL BE FULLY BACKFILLED WITH No 2 CRUSHER RUN STONE AND PROPERLY COMPACTED TO AVOID SETTLEMENT.
13. CONTRACTOR SHALL REPLACE IN KIND ANY EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CURBS, ROAD PAVEMENTS, SIDEWALKS, AND EXISTING UTILITIES.



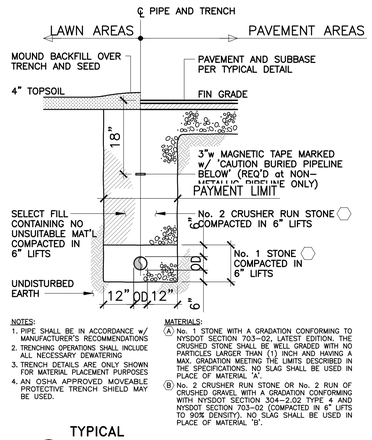
CONTROL JOINT IN EXTERIOR CONC PAVEMENT



HANDICAP ACCESS RAMP



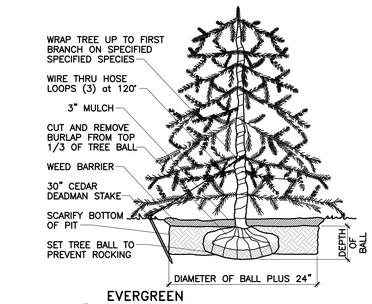
TYPICAL CONCRETE CURB



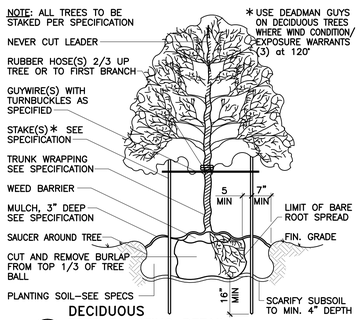
NOTES:
1. PIPE SHALL BE IN ACCORDANCE w/ MANUFACTURER'S RECOMMENDATIONS
2. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.
3. TRENCH DETAILS ARE ONLY SHOWN FOR MATERIAL PLACEMENT PURPOSES
4. AN OSHA APPROVED MOVEABLE PROTECTIVE TRENCH SHIELD MAY BE USED.

MATERIALS:
(A) No. 1 STONE WITH A GRADATION CONFORMING TO NYSDOT SECTION 703-02, LATEST EDITION. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN (1) INCH AND HAVING A MAX. GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'A'.
(B) No. 2 CRUSHER RUN STONE OR No. 2 RUN OF CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02 (COMPACTED IN 6" LIFTS TO 95% DENSITY). NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'B'.

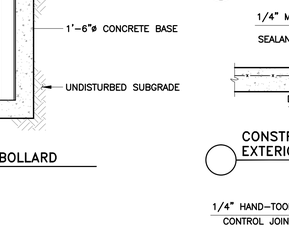
TYPICAL UTILITY TRENCH SECTION



EVERGREEN TREE PLANTING DETAIL



DECIDUOUS TREE PLANTING DETAIL



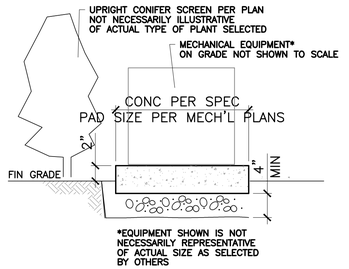
SHRUB PLANTING DETAIL

DUMPSTER ENCLOSURE WITH CONCRETE PAD

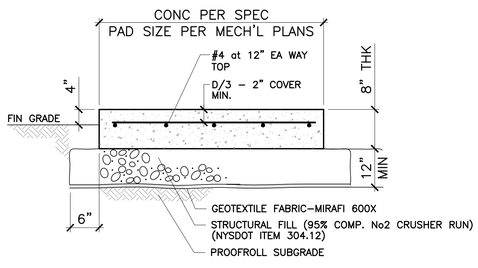
NOTES:
1. HANDICAPPED PARKING SIGNAGE SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS
2. A 'NO PARKING' SIGN SHALL BE PROVIDED at DISCHARGE AISLE BETWEEN HANDICAP PARKING STALLS

HANDICAPPED PARKING SIGNAGE
LOCATED IN LAWN AREAS

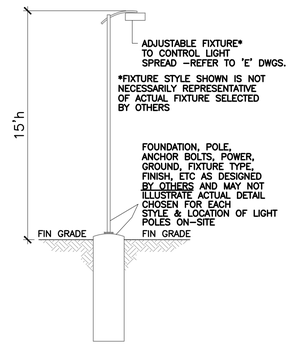
HANDICAP SYMBOL DETAIL



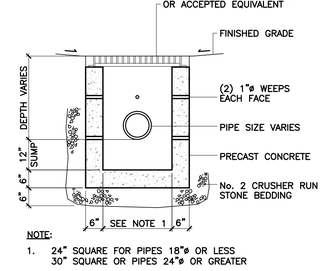
MECHANICAL EQUIP. SCREEN



GENERATOR PAD SECTION



LIGHT POLE HEIGHT DETAIL



NOTE:
1. 24" SQUARE FOR PIPES 18"ø OR LESS
30" SQUARE OR PIPES 24"ø OR GREATER

TYPICAL CATCH BASIN

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

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CIVIL ENGINEERS
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716.633.5300

SHATKIN SCHOOL OF DENTISTRY AT DAEMEN COLLEGE / INSTITUTE FOR MOBILITY AND TECHNOLOGY

2525 KENSINGTON AVENUE, AMHERST NY

STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)



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REVISIONS	
1: REISSUED	3/28/22

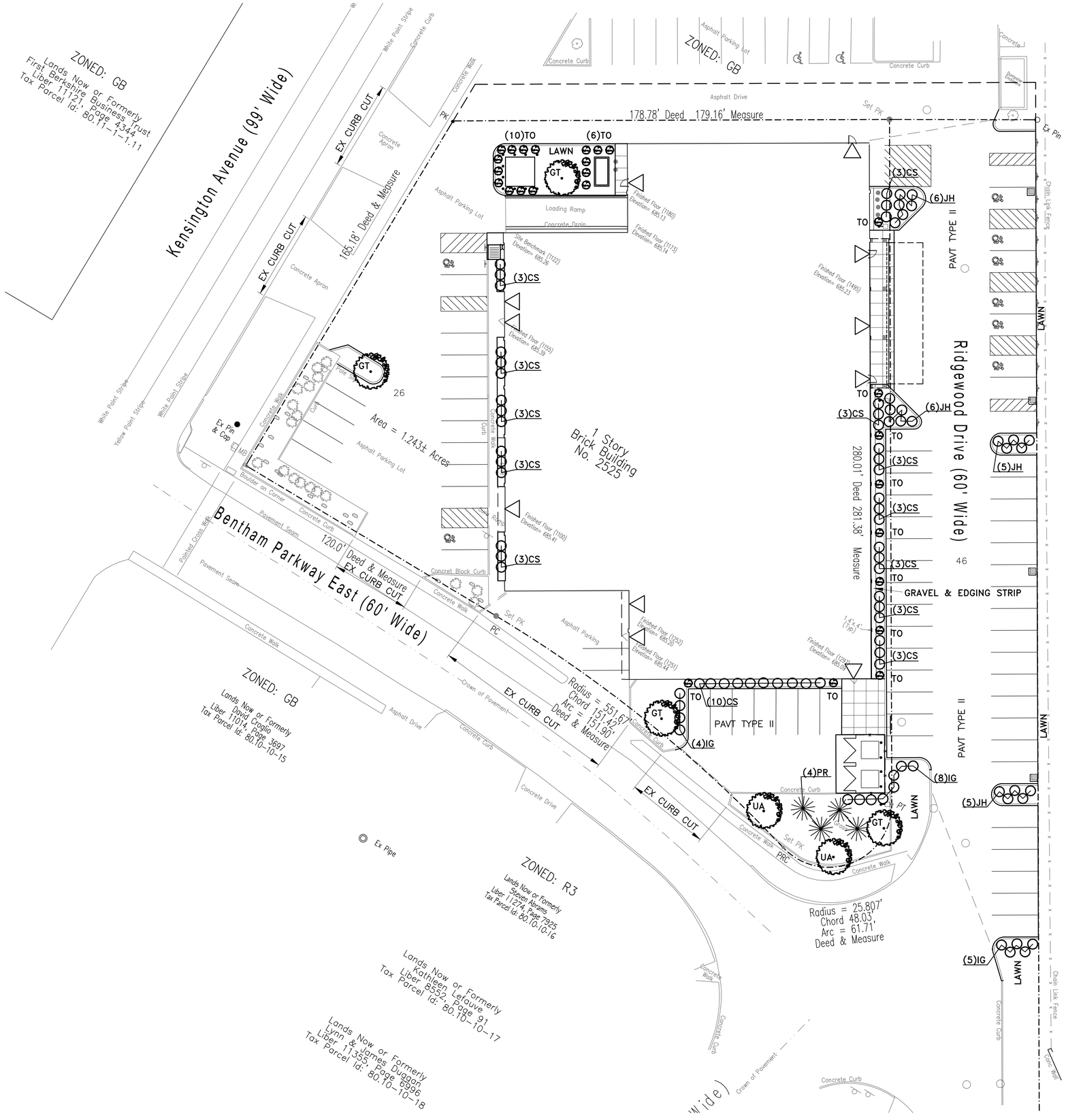
DRAWN BY	CHECKED BY
avm	AVM

SCALE: AS NOTED

DATE: Feb 22, 2022

SITE DETAILS

SP201



PLANTING SCHEDULE

MARK	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHRUBS/GRASSES					
TO	26	THUJA OCCIDENTALIS	EMERALD ARBORVITE	4'h MIN.	B&B
CS	46	CORNUS STOLONIFERA	ARCTIC FIRE DOGWOOD	24"h	CONT.
JH	22	JUNIPERUS HORIZONTALIS	BAR HARBOR JUNIPER	24"sp	CONT.
IG	17	ILEX GLABRA COMPACTA	SHAMROCK INKBERRY	24"h 5'OC	B&B
TREES					
GT	3	GLEDITSIA TRIACANTHOS INERMIS SUNBURST	SUNBURST LOCUST	2 1/2" CAL	B&B
UA	2	ULMUS AMERICANA 'PRINCETON'	AMERICAN ELM	2–1/2"CAL	B&B
PR	4	PINUS RESINOSA	RED PINE	6'h MIN.	

LANDSCAPE PLAN

1" = 20'

N

NOTES:

1. CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING TREES AND PLANTINGS INDICATED TO REMAIN FROM ALL TYPES OF ROOT, TRUNK AND LIMB DAMAGE DURING DEMOLITION AND CONSTRUCTION.
2. EXISTING PLANTED AREAS SHALL REMAIN UNLESS OTHERWISE NOTED.
3. ALL DISTURBED AREAS SHALL RECEIVE 4" MIN. TOPSOIL AND GRASS SEED UNLESS OTHERWISE NOTED.
4. TREE AND SHRUB BEDS SHALL BE COVERED WITH 3" OF HARDWOOD MULCH. ALL ROOTS AND STONES OVER 1 1/2" SHALL BE REMOVED PRIOR TO SEEDING/ PLANTING.
5. ALL STREET AND ISLAND TREES SHALL HAVE FIRST BRANCHING at 6–FOOT MIN.
6. IF A CONFLICT EXISTS BETWEEN THE PLAN AND PLANTING SCHEDULE, THE PLAN SHALL GOVERN.
7. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES & UTILITY CONNECTIONS
8. REFER TO GRADING AND UTILITY PLAN(S) FOR ADDITIONAL INFORMATION NOT SHOWN HEREIN.

LEGEND:

INDICATES NEW TREE PLANTING PER SCHEDULE

INDICATES NEW SHRUB PLANTING PER SCHEDULE

EXISTING TREE/SHRUB TO REMAIN & BE PROTECTED THRU–OUT CONSTRUCTION

EXISTING TREE/SHRUB TO BE REMOVED

LAWN SEED SCHEDULE

Mixtures		Rate per Acre (lbs)	Rate per 1,000 sq. ft. (lbs)
A.	Birdsfoot trefoil or ladino clover	8	0.20
	Tall fescue or mooth bromegrass	20	0.45
	Redtop	2	0.05
		30	0.70
OR			
B.	Kentucky bluegrass	25	0.60
	Creeping red fescue	20	0.50
	Perennial ryegrass	10	0.20
		55	1.30

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REVISIONS
1: REVISED 3/28/22

DRAWN BY avm | CHECKED BY AVM

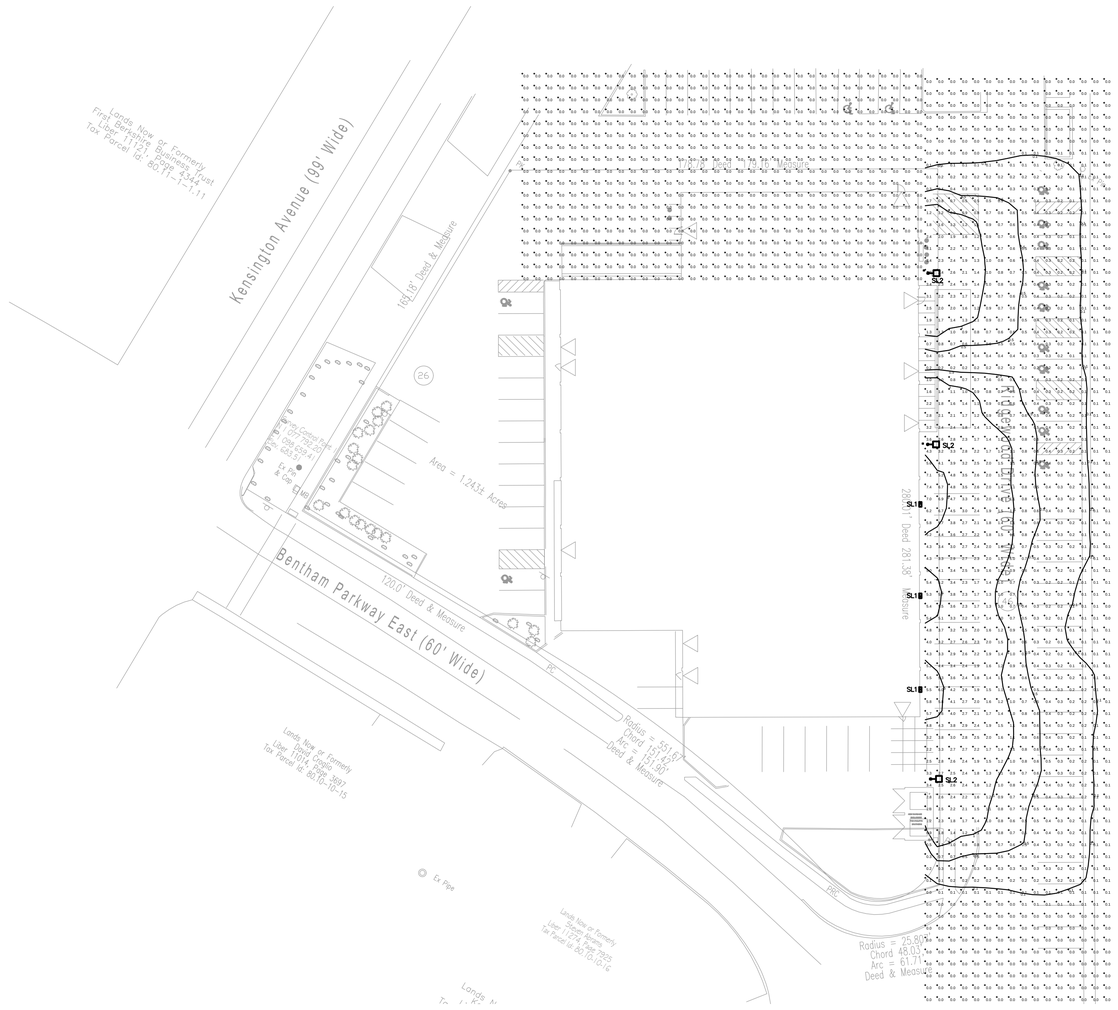
SCALE AS NOTED

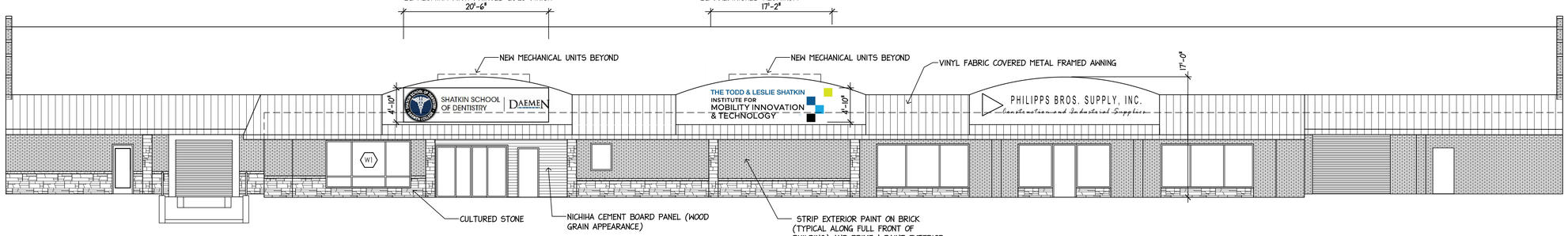
DATE Feb 22, 2022

LANDSCAPE PLAN

L101

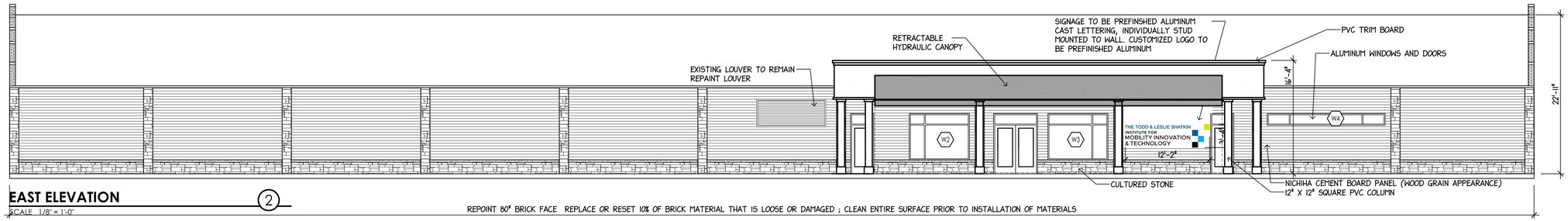
SP-2022-02 drawings 042122 (2549) : Sp-2022-02)
Attachment: SP-2022-02 (2549 : Sp-2022-02)


Kensington Avenue (99' Wide)
Lands Now or Formerly
First Bethune Business Assn. Inc.
Liber 11111 Page 11111
Tax Parcel Id. 80.11-1-11.11
Ex Fire Hydrant
Ex Pipe
Ex Pipe
Ex Pipe



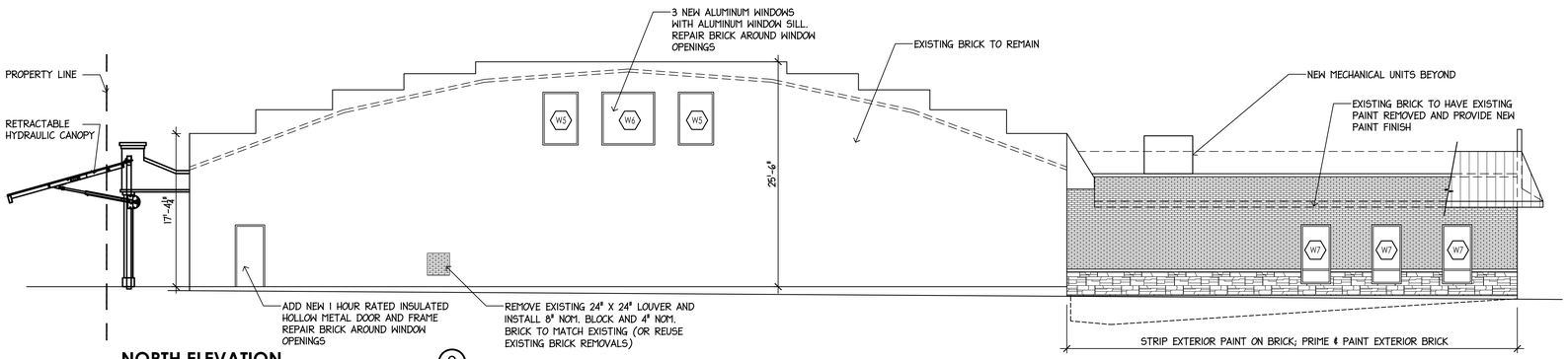
WEST ELEVATION ①

SCALE 1/8" = 1'-0"



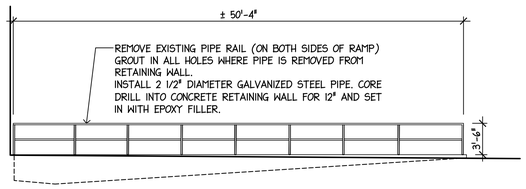
EAST ELEVATION ②

SCALE 1/8" = 1'-0"



NORTH ELEVATION ③

SCALE 1/8" = 1'-0"



RAMP RAILING ELEVATION ⑤

SCALE 1/8" = 1'-0"



ENLARGED CANOPY ELEVATION ④

SCALE 1/8" = 1'-0"

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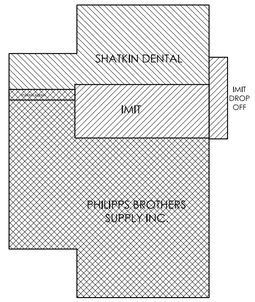
AS NOTED

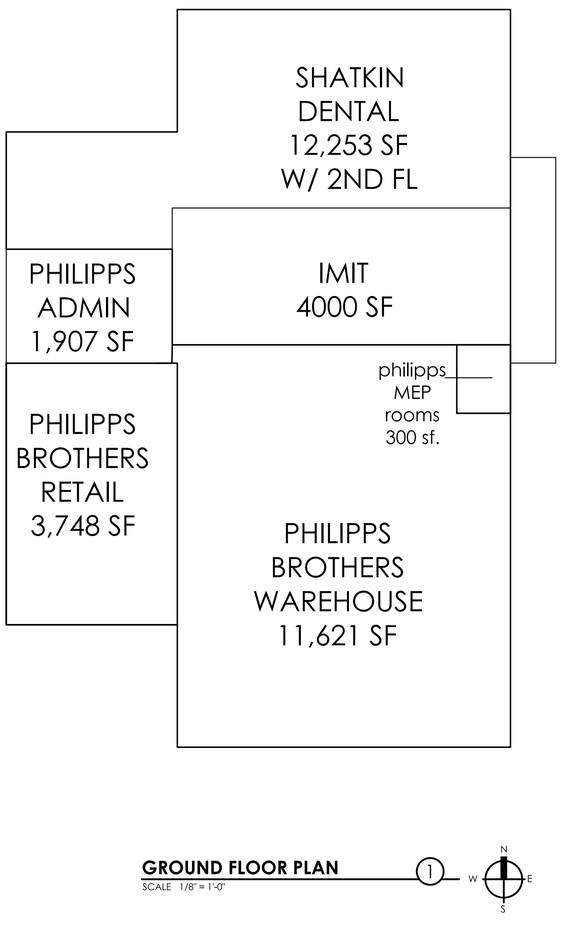
DATE
March 29 2022

EXTERIOR ELEVATIONS

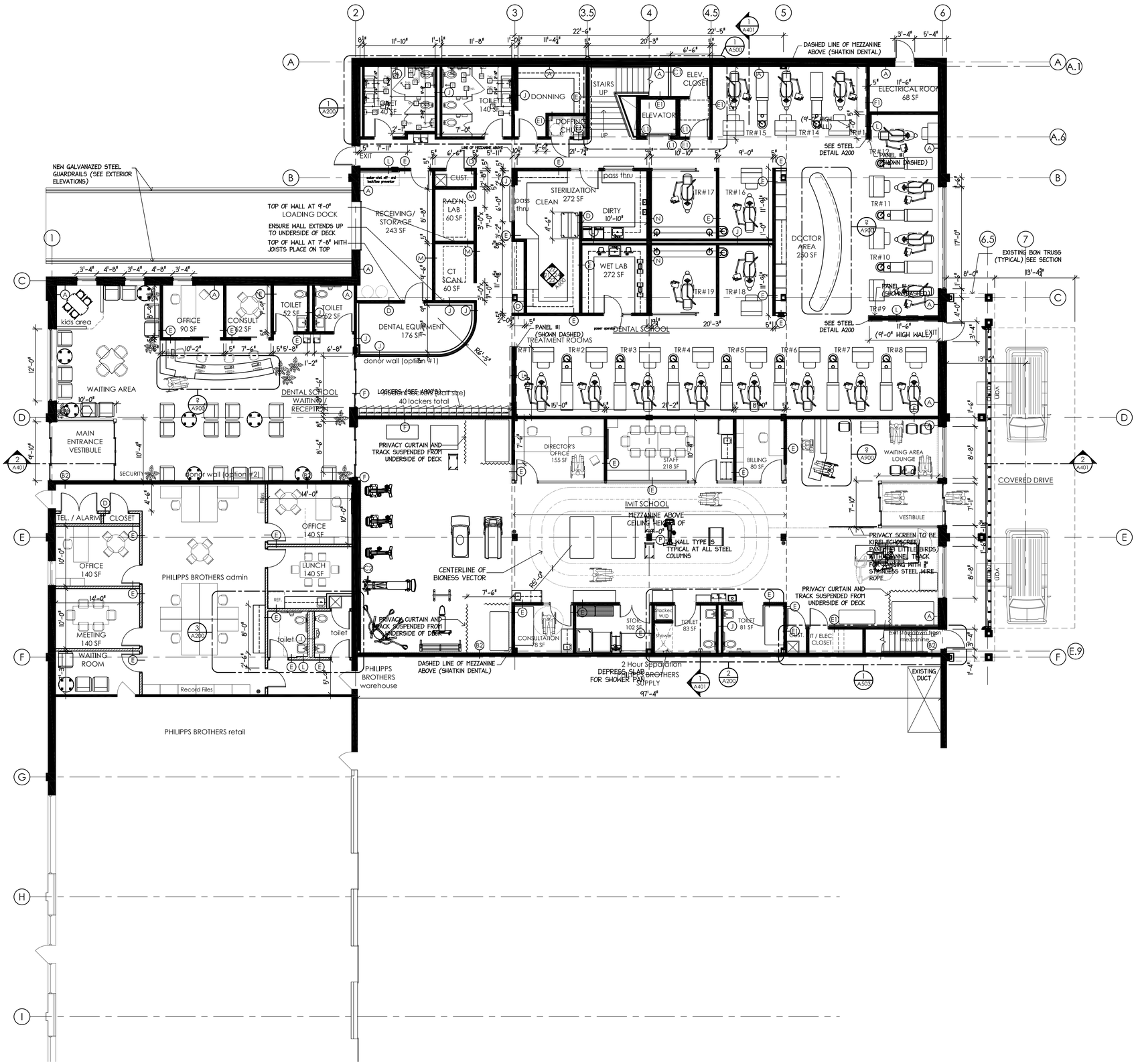
A300



KEY PLAN
SCALE NTS



GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"



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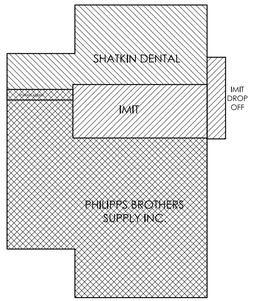
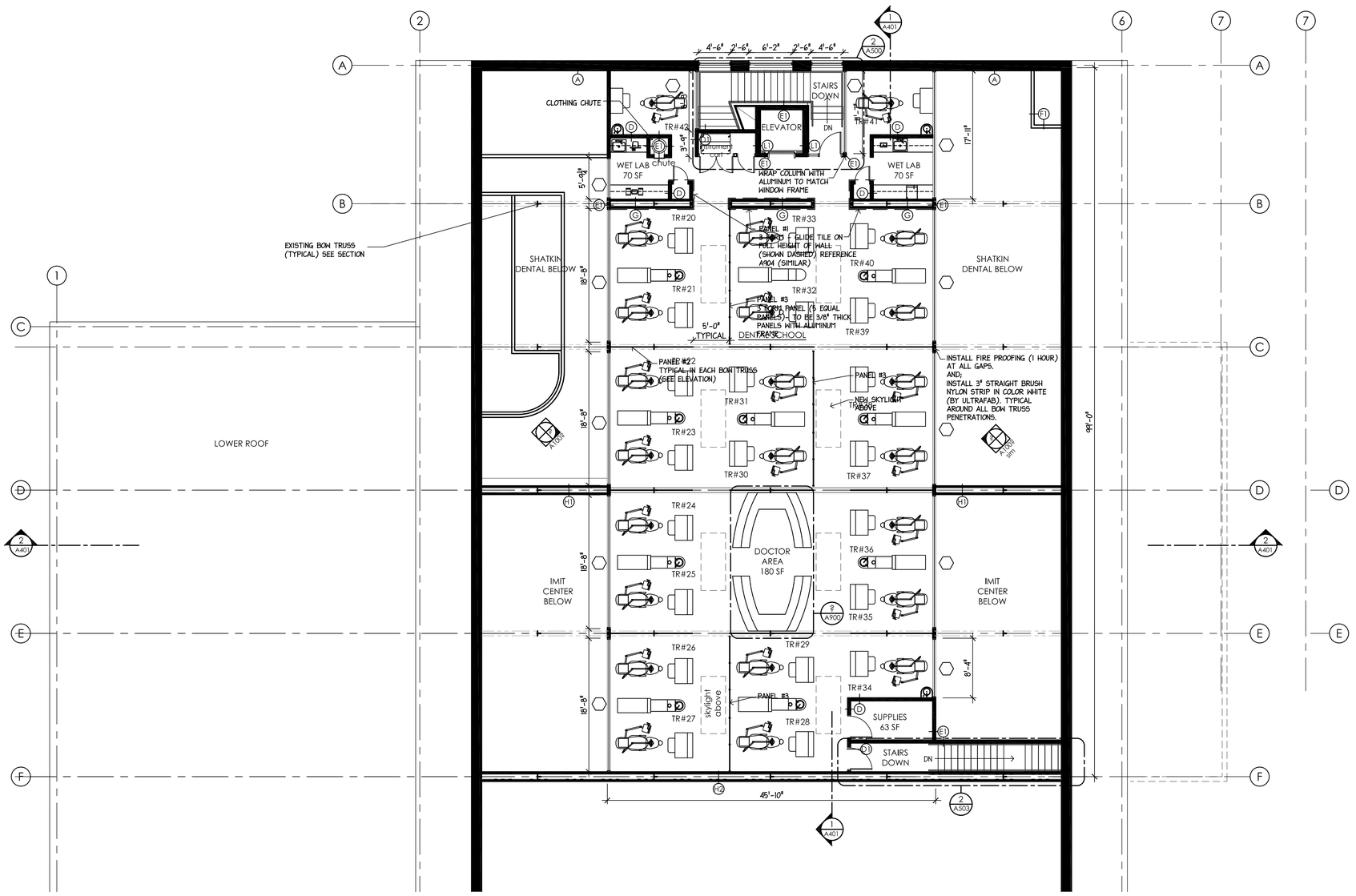
GROUND FLOOR PLAN

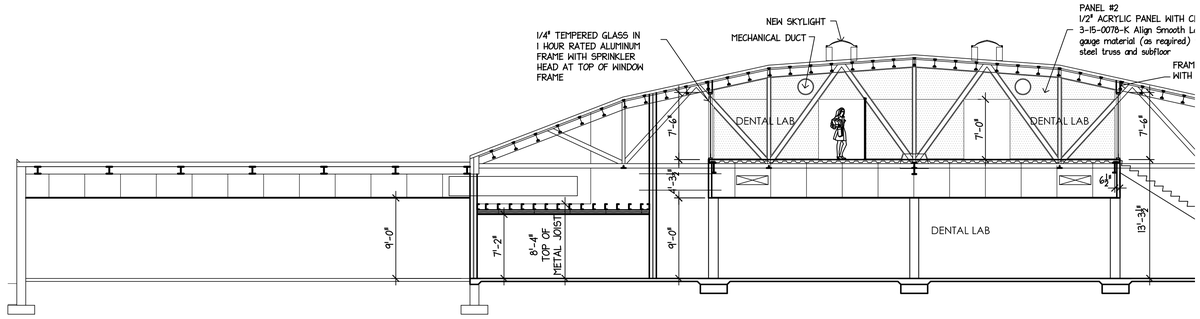
A101



KEY PLAN 1
SCALE NTS



UPPER FLOOR PLAN 1
SCALE 1/8" = 1'-0"



TYPICAL CROSS SECTION 2
SCALE 1/8" = 1'-0"

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SECOND FLOOR PLAN

A102

KOHLER

Model: 200REOZJF

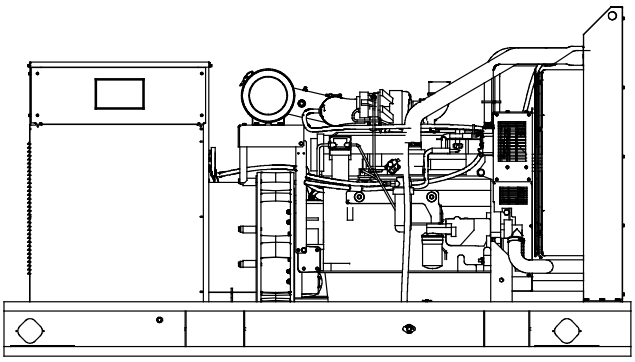
208- 600 V **Diesel**

ISO 9001 KOHLER NATIONALLY REGISTERED

Tier 3 EPA-Certified for Stationary Emergency Applications

Ratings Range

		60 Hz
Standby:	**kW**	168- 200
	kVA	195- 250
Prime:	**kW**	158- 180
	kVA	175- 225



Generator Set Ratings

Alternator	Voltage	Ph	Hz	130°C Rise Standby Rating kW/kVA	130°C Rise Standby Rating Amps	105°C Rise Prime Rating kW/kVA	105°C Rise Prime Rating Amps
4S13X	120/208	3	60	184/230	638	173/216	600
	127/220	3	60	194/243	636	180/225	590
	120/240	3	60	184/230	553	173/216	520
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	168/210	319	158/198	300
	277/480	3	60	200/250	301	180/225	271
4UA9	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217
4UA13	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	120/240	1	60	195/195	813	175/175	729
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
  - The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
    (4S13X alternator)
  - The unique Fast-Response® II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
    (4UA9 and 4UA13 alternators)
  - The brushless, rotating-field alternator has broadrange reconnectability.
- Other features:
  - Kohler designed controllers for one-source system integration and remote communication. See Controllers on page 3.
  - The low coolant level shutdown prevents overheating (standard on radiator models only).
  - Integral vibration isolation eliminates the need for under-unit vibration spring isolators.
- Multiple circuit breaker configurations.
- Mount up to three circuit breakers to allow circuit protection of selected priority loads.

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. *Standby Ratings:* The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. *Prime Power Ratings:* At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet
Leads: quantity, type	
4SX, 4UA	12, Reconnectable
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

Specifications		Alternator
Peak motor starting kVA:		(35% dip for voltages below)
480 V	4S13X (12 lead)	570
480 V	4UA9 (12 lead)	700
480 V	4UA13 (12 lead)	960

Application Data

Engine

Engine Specifications	
Manufacturer	John Deere
Engine model	6068HFG85A
Engine type	4-Cycle, Turbocharged, Charge Air-Cooled
Cylinder arrangement	6 Inline
Displacement, L (cu. in.)	6.8 (415)
Bore and stroke, mm (in.)	106 x 127 (4.19 x 5.00)
Compression ratio	17.0:1
Piston speed, m/min. (ft./min.)	457 (1500)
Main bearings: quantity, type	7, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	235 (315)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Valve material:	
Intake	Chromium-Silicon Steel
Exhaust	Stainless Steel
Governor: type, make/model	JDEC Electronic L14 Denso HP3
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m^3/min. (cfm)	42.8 (1510)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	527 (980)
Maximum allowable back pressure, kPa (in. Hg)	Min. 4 (1.2) Max. 10 (3.0)
Exhaust outlet size at engine hookup, mm (in.)	98 (3.86)

Engine Electrical

Engine Electrical System	
Battery charging alternator:	24 Volt
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	45
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each	Two, 925
Battery voltage (DC)	12

Fuel

Fuel System	
Fuel supply line, min. ID, mm (in.)	11.0 (0.44)
Fuel return line, min. ID, mm (in.)	6.0 (0.25)
Max. lift, fuel pump: type, m (ft.)	Mechanical, 1.8 (6.0)
Max. fuel flow, Lph (gph)	92.7 (24.5)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel prime pump	Manual
Fuel filter	
Primary	30 Microns
Secondary	2 Microns @ 98% Efficiency
Water Separator	Yes
Recommended fuel	#2 Diesel

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.) §	32.5 (34.4)
Oil pan capacity with filter, L (qt.) §	33.4 (35.3)
Oil filter: quantity, type §	1, Cartridge
Oil cooler	Water-Cooled

§ Kohler recommends the use of Kohler Genuine oil and filters.

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

Application Data

Cooling

Radiator System	
Ambient temperature, °C (°F) *	50 (122)
Engine jacket water capacity, L (gal.)	11.3 (3.0)
Radiator system capacity, including engine, L (gal.)	27.6 (7.3)
Engine jacket water flow, Lpm (gpm)	230.9 (61)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	94.2 (5360)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	56.1 (3190)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	787 (31)
Fan, kWm (HP)	8.6 (11.5)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H_2O)	0.125 (0.5)

* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

Operation Requirements

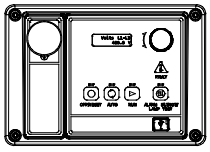
Air Requirements	
Radiator-cooled cooling air, m^3/min. (scfm)‡	368.1 (13000)
Combustion air, m^3/min. (cfm)	17.6 (620)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	46.9 (2670)
Alternator, kW (Btu/min.)	18.5 (1050)

‡ Air density = 1.20 kg/m^3 (0.075 lbm/ft^3)

Fuel Consumption

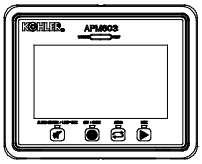
Diesel, Lph (gph) at % load	Standby Rating	
100%	58.0	(15.3)
75%	43.3	(11.4)
50%	31.4	(8.3)
25%	19.7	(5.2)
Diesel, Lph (gph) at % load	**Prime Rating**	
100%	50.1	(13.2)
75%	36.1	(9.5)
50%	25.7	(6.8)
25%	16.6	(4.4)

Controllers



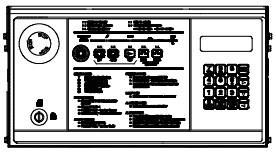
APM402 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-161 for additional controller features and accessories.



APM603 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- 7-inch graphic display with touch screen and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other APM603 controllers only
- Generator management to turn paralleled generators off and on as required by load demand
- Load management to connect and disconnect loads as required
- Controller supports Modbus® RTU, Modbus® TCP, SNMP and BACnet®
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- UL-listed overcurrent protective device
- NFPA 110 Level 1 capability

Refer to G6-162 for additional controller features and accessories.



Decision-Maker® 6000 Paralleling Controller
Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other Decision-Maker® 6000 controllers only
- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-107 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.

BACnet® is a registered trademark of ASHRAE.

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KOHLERPower.com

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Customer Connection
  (standard with Decision-Maker® 6000 controller only)
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Circuit Breakers

Type

- ❑ Magnetic Trip
- ❑ Thermal Magnetic Trip
- ❑ Electronic Trip (LI)
- ❑ Electronic Trip with Short Time (LSI)
- ❑ Electronic Trip with Ground Fault (LSIG)

Rating

- ❑ 80%
- ❑ 100%

Operation

- ❑ Manual
- ❑ Electrically Operated (for paralleling)

Circuit Breaker Mounting

- ❑ Generator Mounted
- ❑ Remote Mounted
- ❑ Bus Bar (for remote mounted breakers)

Enclosures for Remote Mounted Circuit Breakers

- ❑ NEMA 1
- ❑ NEMA 3R

Approvals and Listings

- ❑ California OSHPD Pre- Approval
- ❑ CSA Certified
- ❑ IBC Seismic Certification
- ❑ UL 2200 Listing
- ❑ Hurricane Rated Enclosure

Enclosed Unit

- ❑ Sound Enclosure (with enclosed critical silencer)
- ❑ Weather Enclosure (with enclosed critical silencer)

Open Unit

- ❑ Exhaust Silencer, Critical (kit: PA-354809)
- ❑ Flexible Exhaust Connector, Stainless Steel

Fuel System

- ❑ Flexible Fuel Lines
- ❑ Fuel Pressure Gauge
- ❑ Subbase Fuel Tanks

Controller

- ❑ Common Failure Relay
  (Decision-Maker® 6000 and APM603 controllers only)
- ❑ Decision-Maker® Paralleling System (DPS)
  (Decision-Maker® 6000 controller only)
- ❑ Dry Contact (isolated alarm)
  (Decision-Maker® 6000 controller only)
- ❑ Two Input/Five Output Module (APM402 controller only)
- ❑ Four Input/Fifteen Output Module (APM603 controller only)
- ❑ Lockable Emergency Stop Switch
- ❑ Remote Emergency Stop Switch
- ❑ Remote Serial Annunciator Panel
- ❑ Run Relay (standard with APM603, optional with others)
- ❑ Manual Key Switch (APM603 controller only)
- ❑ Manual Speed Adjust (APM402 controller only)

Cooling System

- ❑ Block Heater, 1800 W, 90- 120 V, 1 Ph
- ❑ Block Heater, 2000 W, 190- 240 V, 1 Ph
  Required for ambient temperature below 0°C (32°F)
- ❑ Radiator Duct Flange

Electrical System

- ❑ Generator Heater
- ❑ Battery
- ❑ Battery Charger, Equalize/Float Type
- ❑ Battery Heater

Miscellaneous

- ❑ Air Cleaner, Heavy Duty
- ❑ Air Cleaner Restriction Indicator
- ❑ Certified Test Report
- ❑ Crankcase Emissions Canister
- ❑ Engine Fluids Added
- ❑ Rated Power Factor Testing
- ❑ Rodent Guards

Literature

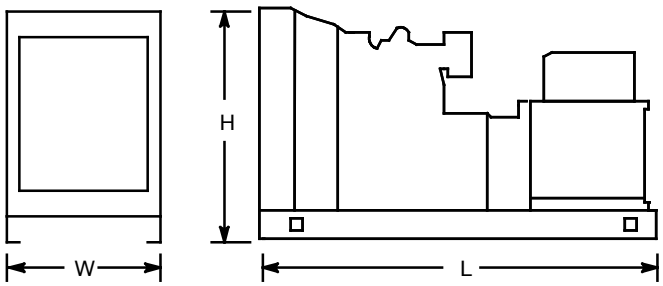
- ❑ General Maintenance
- ❑ NFPA 110
- ❑ Overhaul
- ❑ Production

Warranty

- ❑ 2-Year Basic Limited Warranty
- ❑ 5-Year Basic Limited Warranty
- ❑ 5-Year Comprehensive Limited Warranty

Dimensions and Weights

Overall Size, L x W x H, mm (in.):	3000 x 1300 x 1672 (118.1 x 51.2 x 65.8)
Weight (radiator model), wet, kg (lb.):	1923 (4240)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

DISTRIBUTED BY:

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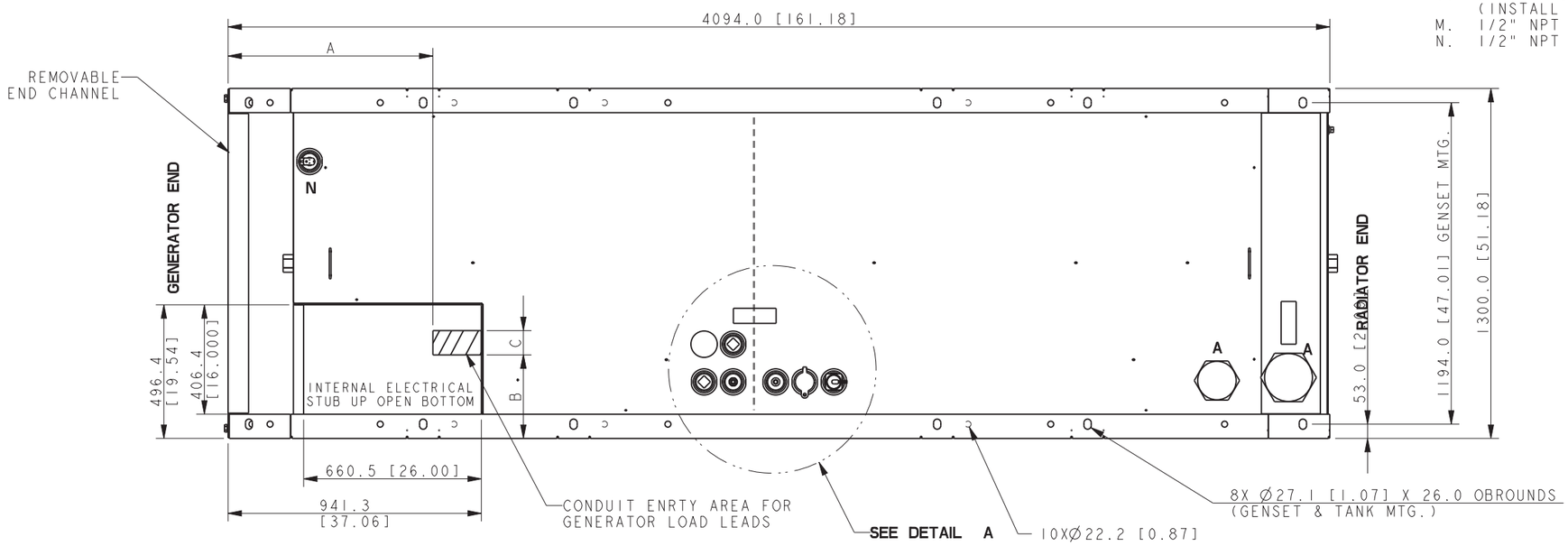
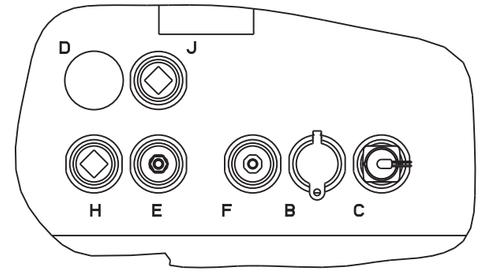
Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	1514	400	933	2057	482.6	19.0	4.0	2.0
180/200kW	2871	758	1327	2926	889.0	35.0	5.0	2.0

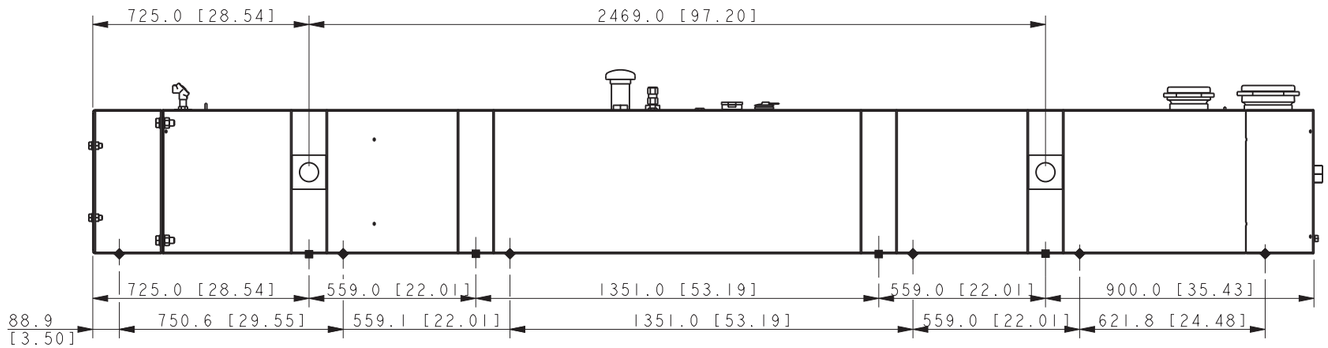
TANK FITTINGS:

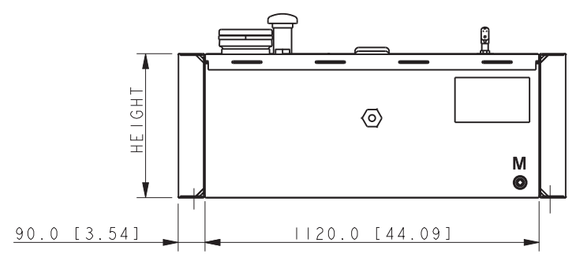
A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 2" NPT FUEL FILL FITTING WITH LOCKABLE CAP
C. 2" NPT FUEL LEVEL GAUGE FITTING
D. 2" NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE)
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE)
H. 2" NPT FOR LOW LEVEL SWITCH (SET AT 50% FULL, SILICONE PACKED)
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY (INSTALL STEEL 2" NPT PIPE PLUG)
M. 1/2" NPT BASIN DRAIN (INSTALL STEEL 1/2" NPT PIPE PLUG)
N. 1/2" NPT FOR FUEL IN BASIN SWITCH (INSTALL STEEL 1/2" NPT PIPE PLUG)





DETAIL A
SCALE 0.20





■ 8XØ25.4 [1.0] STANDARD MOUNTING

◆ 12XØ22.2 [0.88] IBC/WINDLOAD MOUNTING

GENSET	A	B	C
180KW	761 [30.0]	310 [12.2]	90 [3.5]
200KW	561 [22.1]	303 [11.9]	100 [3.9]

STANDARD TANK

180 MODEL 60HZ 4S15, 4S12X & 4S13X
200 MODEL 4UA9, 4UA13 & 4S13X
RECONNECTABLE
IMPROVED MOTOR STARTING (IMS) &
600V ALTERNATOR
JOHN DEERE 6068HF485, TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
F	08-11-14	(A-4) STANDARD TANK NOTE ADDED & SEE SHEET 2 [CT89102]	PAS
G	2-28-17	(A-8, A-7) 761 WAS 571, 303 WAS 195, (8-D, C-7) DELETE 50.0 UPDATE CONDUIT AREA, SEE SHEET 2, [CT170607]	RMJ
H	2-19-18	SEE SHEET 3 [CT184671]	PAS
J	2-26-19	(A-5) IBC/WINDLOAD MOUNTING WAS IBC MOUNTING; SEE SHEET 2 & 3 [CT193852]	TKK
K	7-2-19	SEE SHEET 2 [CT196925]	JB2

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS	DATE
DRAWN PKD	1-20-10
CHECKED AJD	1-20-10
APPROVED AJD	1-20-10

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TITLE
DIMENSION PRINT

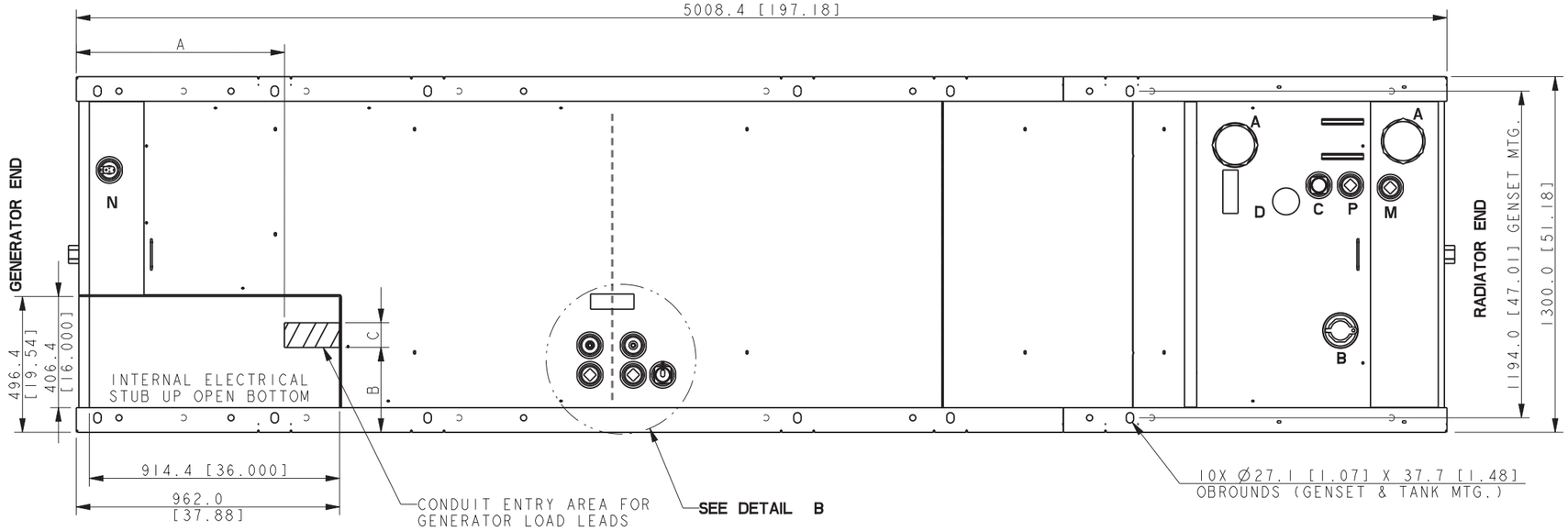
SCALE 0.10 | CAD NO. | SHEET 1 of 3
DWG NO. ADV-

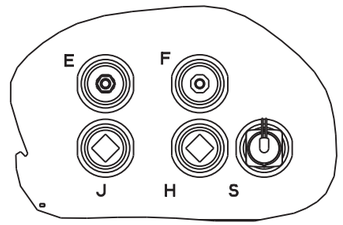
Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	1576	416	1234	2721	457.2	18.0	5.0	2.0
180/200kW	2896	765	1560	3440	762.0	30.0	5.0	2.0

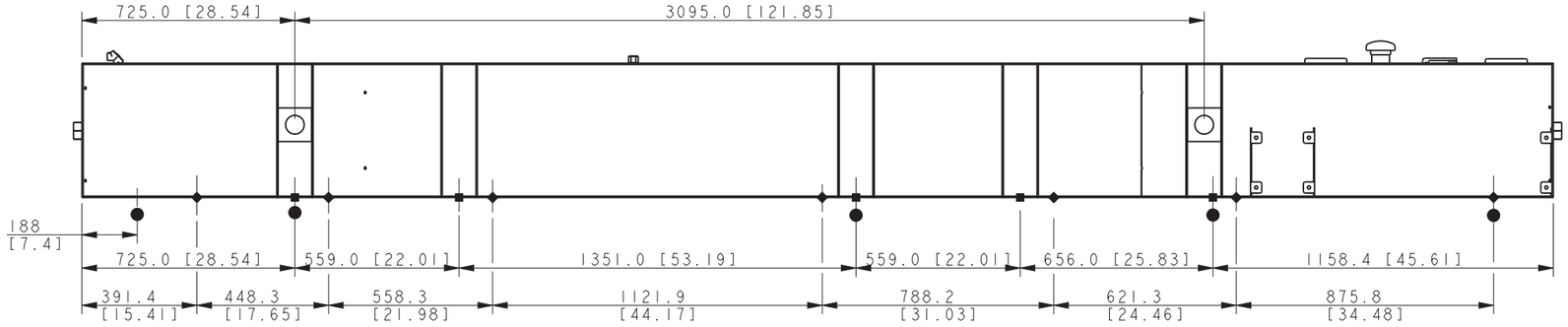
TANK FITTINGS:

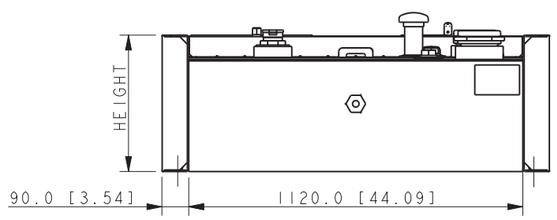
A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 4" NPT FUEL FILL FITTING WITH LOCKABLE CAP AND RISER. PLUG & SHIP WITH TANK IN BOX ATTACHED TO TANK
C. 2" NPT FUEL LEVEL GAUGE FITTING
D. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER.
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE)
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE)
H. 2" NPT FOR LOW LEVEL SWITCH (SET AT 50% FULL, SILICONE PACKED)
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY (INSTALL 2" NPT PIPE PLUG)
M. 2" NPT BASIN DRAIN (PLUGGED
N. 2" NPT FOR FUEL IN BASIN SWITCH
P. 2" NPT ADDITIONAL FITTING FOR OTPIONAL ACCESORY (INSTALL 2" NPT PIPE PLUG)
S. 2" NPT FUEL LEVEL GAUGE FITTING WITH SENDER





DETAIL B
SCALE 0.20





■ 10XØ25.4 [1.0] STANDARD MOUNTING
◆ 14XØ22.2 [0.88] IBC/WINDLOAD MOUNTING
● 10XØ25.4 [1.0] BOTTOM BEAM MOUNTING

GENSET	A	B	C
180KW	761 [30.0]	310 [12.2]	90 [3.5]
200KW	561 [22.1]	303 [11.9]	100 [3.9]

STATE TANK
180 MODEL 60HZ 4S15, 4S12X & 4S13X
200 MODEL 4UA9, 4UA13 & 4S13X
RECONNECTABLE
IMPROVED MOTOR STARTING (IMS) &
600V ALTERNATOR
JOHN DEERE 6068HF485, TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
G	2-28-17	(A-8, A-7) 761 WAS 571, 303 WAS 195,	
		(8-D, C-7) DELETE 50.0 UPDATE CONDUIT AREA,	
		SEE SHEET 1, [CT170607]	RMJ
H	2-19-18	SEE SHEET 3 [CT184671]	PAS
J	2-26-19	(A-5,6) IBC/WINDLOAD MOUNTING WAS IBC	
		MOUNTING; SEE SHEET 1 & 3 [CT193852]	TKK
K	7-2-19	(D-6)5.0 WAS 4.0, (B-4) CORRECTED ACCURACY	
		TO GENSET / TANK MOUNTING [CT196925]	JB2

UNLESS OTHERWISE SPECIFIED: - 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30' — SURFACE FINISH MAX. — THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	PKD	1-20-10
CHECKED	AJD	1-20-10
APPROVED	AJD	1-20-10

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TITLE: **DIMENSION PRINT**

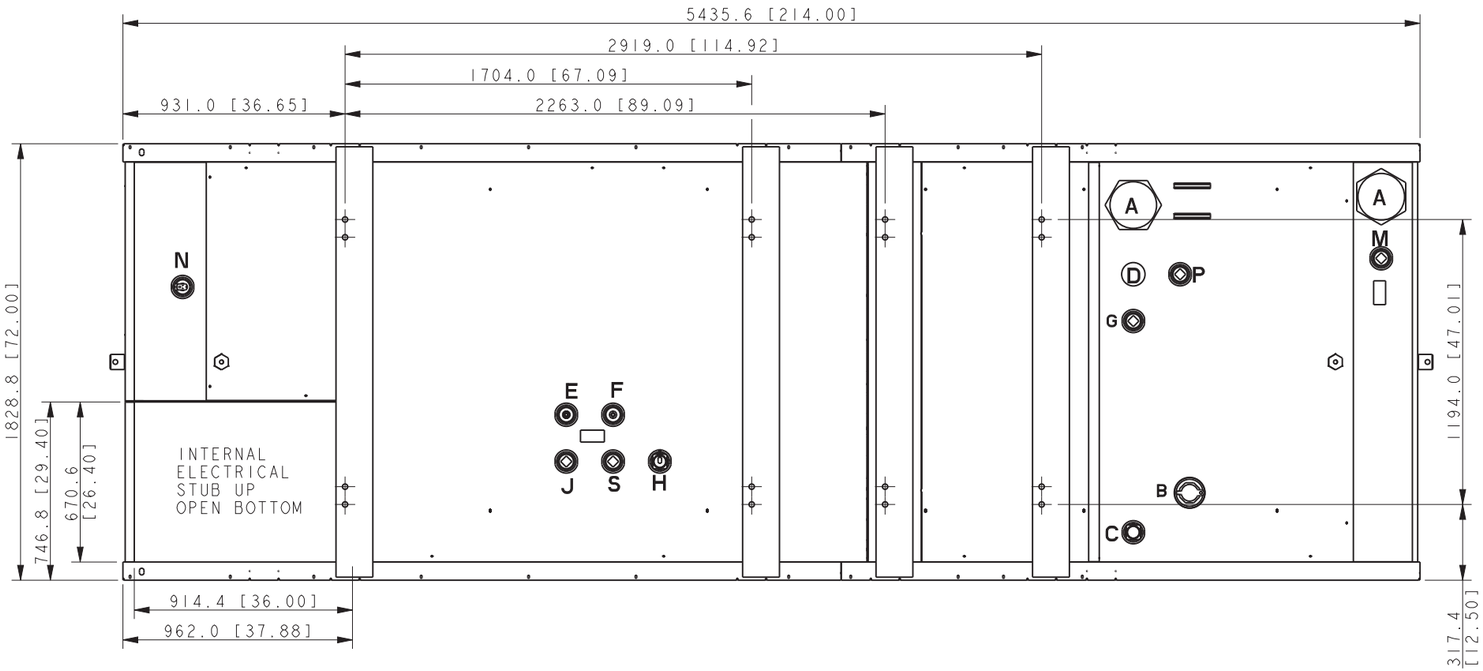
SCALE 0.10 | CAD NO. | SHEET 2 of 3
DWG NO. **ADV-**

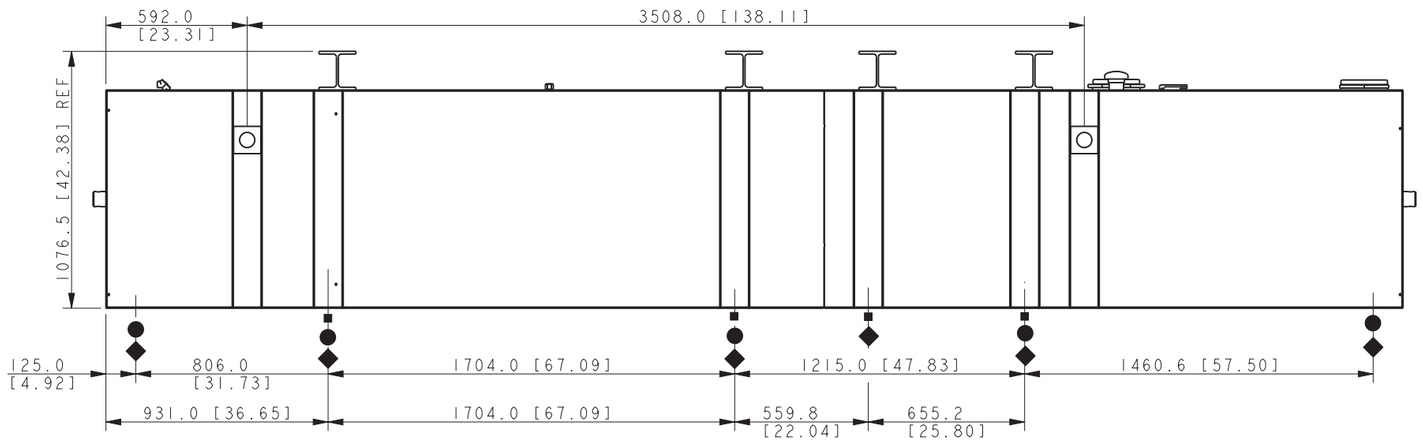
Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

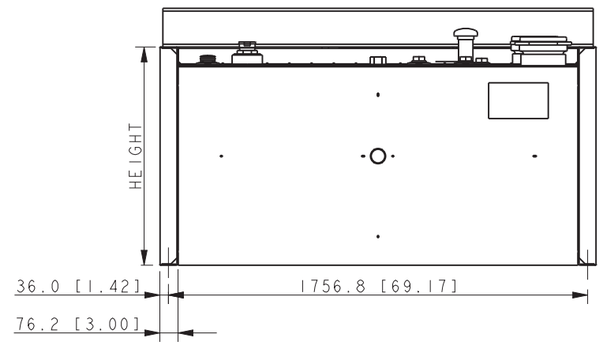
MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	5742	1517	1727	3809	914.4	36.0	6.0	2.0

TANK FITTINGS:

A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 4" NPT FUEL FILL FITTING WITH LOCKABLE CAP AND RISER.
C. 2" NPT FUEL LEVEL GAUGE FITING WITH DIRECT READING MECHANICAL GAUGE.
D. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER.
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE).
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE).
G. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).
H. 2" NPT FOR FUEL LEVEL SENDING UNIT.
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).
M. 2" NPT BASIN DRAIN (INSTALL STEEL 2" NPT PIPE PLUG).
N. 2" NPT FOR FUEL IN BASIN SWITCH.
P. 2" NPT ADDITIONAL FITTING FOR OTPIONAL ACCESORY (INSTALL STEEL 2" NPT PIPE PLUG).
S. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).







NOTE:
FOR FURTHER TANK DETAIL SEE INDIVIDUAL DRAWINGS

■ 8X Ø25.40 [1.0] STANDARD MOUNTING
● 10X Ø25.40 [1.0] BOTTOM BEAM MOUNTING
◆ 12X Ø25.40 [1.0] WINDLOAD MOUNTING

96 HOUR STATE TANK

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
H	2-19-18	SHEET 3 ADDED [CTI84671]	PAS
J	2-26-19	(A-4,5) 12X Ø25.40 [1.0] WINDLOAD MOUNTING	
		NOTE ADDED; SEE SHEET 1 & 2 [CTI93852]	TKK
K	7-2-19	SEE SHEET 2 [CTI96925]	JB2

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	PAS	2-19-18
CHECKED	JB2	2-19-18
APPROVED	KJB	2-19-18

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TITLE
DIMENSION PRINT

SCALE 0.08 | CAD NO. | SHEET 3 of 3
DWG NO. ADV-

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Product Features

LumenSafe Technology

Light ARchitect™

Product Certifications

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

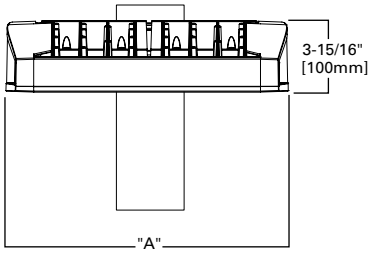
Quick Facts

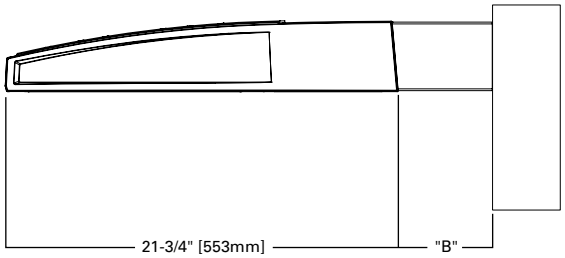
- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt
- Options to meet Buy American and other domestic preference requirements

Connected Systems

- WaveLinx
- Enlighted

Dimensional Details





Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length [1]	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

Ordering Information

SAMPLE NUMBER: **GLEON-SA4C-740-U-T4FT-GM**

Product Family [1, 2]	Light Engine		Color Temperature	Voltage	Distribution	Mounting	Finish
	Configuration	Drive Current					
GLEON=Galleon **BAA-GLEON**=Galleon, Buy American Act Compliant [35] **TAA-GLEON**=Galleon, Trade Agreements Act Compliant [35]	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares **SA5**=5 Squares [4] **SA6**=6 Squares **SA7**=7 Squares [5] **SA8**=8 Squares [5] **SA9**=9 Squares [6] **SA0**=10 Squares [6]	**A**=600mA **B**=800mA **C**=1000mA **D**=1200mA [16]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [14, 16]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [7, 8] **9**=347V [7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [9] **MA**=Mast Arm Adapter [10] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [11] **QML**=Quick Mount Arm (Standard Length, Large) [37] **QMEA**=Quick Mount Arm (Extended Length) [12]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **RALXX**=Custom Color

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)[35]
DIM=External 0-10V Dimming Leads [19, 20] **F**=Single Fuse (120, 277 or 347V Specify Voltage) **FF**=Double Fuse (208, 240 or 480V Specify Voltage) **20K**=Series 20kV UL 1449 Surge Protective Device **2L**=Two Circuits [17, 18] **HA**=50°C High Ambient **HSS**=Installed House Side Shield [28] **GRSBK**=Glare Reducing Shield, Black [23] **GRSWH**=Glare Reducing Shield, White [23] **LCF**=Light Square Trim Painted to Match Housing [27] **MT**=Installed Mesh Top **TH**=Tool-less Door Hardware **CC**=Coastal Construction finish [3] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **CE**=CE Marking [29] **AHD145**=After Hours Dim, 5 Hours [22] **AHD245**=After Hours Dim, 6 Hours [22] **AHD255**=After Hours Dim, 7 Hours [22] **AHD355**=After Hours Dim, 8 Hours [22] **DALI**=DALI Drivers	**BPC**=Button Type Photocontrol **PR**=NEMA 3-PIN Photocontrol Receptacle **PR7**=NEMA 7-PIN Photocontrol Receptacle [21] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8′ - 20′ Mounting [34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21′ - 40′ Mounting [34] **MS-L20**=Motion Sensor for ON/OFF Operation, 9′ - 20′ Mounting Height [24] **MS-L40W**=Motion Sensor for ON/OFF Operation, 21′ - 40′ Mounting Height [24] **MS/X-L20**=Bi-Level Motion Sensor, 9′ - 20′ Mounting Height [24, 25] **MS/X-L40W**=Bi-Level Motion Sensor, 21′ - 40′ Mounting Height [24, 25] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9′ - 20′ Mounting Height [24] **MS/DIM-L40W**=Motion Sensor for Dimming Operation, 21′ - 40′ Mounting Height [24] **ZW**=WaveLinx Module and 4-PIN Receptacle **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle **SWPD4XX**=WaveLinx Sensor Only, 7′-15′ [13, 32, 33] **SWPD5XX**=WaveLinx Sensor Only, 15′-40′ [13, 32, 33] **WOBXX**=WaveLinx Sensor with Bluetooth, 7′-15′ [13, 32] **WOFXX**=WaveLinx Sensor with Bluetooth, 15′-40′ [13, 32] **LWR-LW**=Enlighted Sensor, 8′–16′ Mounting Height [26] **LWR-LN**=Enlighted Sensor, 16′–40′ Mounting Height [26] **DIM10-MS/DIM-L08**=Synapse Occupancy Sensor (<8′ Mounting) [19] **DIM10-MS/DIM-L20**=Synapse Occupancy Sensor (9′-20′ Mounting) [19] **DIM10-MS/DIM-L40**=Synapse Occupancy Sensor (21′-40′ Mounting) [19]	**OA/RA1016**=NEMA Photocontrol Multi-Tap - 105-285V **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1014**=120V Photocontrol **MA1252**=10kV Surge Module Replacement **MA1036-XX**=Single Tenon Adapter for 2-3/8″ O.D. Tenon **MA1037-XX**=2@180° Tenon Adapter for 2-3/8″ O.D. Tenon **MA1197-XX**=3@120° Tenon Adapter for 2-3/8″ O.D. Tenon **MA1188-XX**=4@90° Tenon Adapter for 2-3/8″ O.D. Tenon **MA1189-XX**=2@90° Tenon Adapter for 2-3/8″ O.D. Tenon **MA1190-XX**=3@90° Tenon Adapter for 2-3/8″ O.D. Tenon **MA1191-XX**=2@120° Tenon Adapter for 2-3/8″ O.D. Tenon **MA1038-XX**=Single Tenon Adapter for 3-1/2″ O.D. Tenon **MA1039-XX**=2@180° Tenon Adapter for 3-1/2″ O.D. Tenon **MA1192-XX**=3@120° Tenon Adapter for 3-1/2″ O.D. Tenon **MA1193-XX**=4@90° Tenon Adapter for 3-1/2″ O.D. Tenon **MA1194-XX**=2@90° Tenon Adapter for 3-1/2″ O.D. Tenon **MA1195-XX**=3@90° Tenon Adapter for 3-1/2″ O.D. Tenon **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [24] **GLEON-MT1**=Field Installed Mesh Top for 1-4 Light Squares **GLEON-MT2**=Field Installed Mesh Top for 5-6 Light Squares **GLEON-MT3**=Field Installed Mesh Top for 7-8 Light Squares **GLEON-MT4**=Field Installed Mesh Top for 9-10 Light Squares **GLEON-QM**=Quick Mount Arm Kit [11] **GLEON-QMEA**=Quick Mount Extended Arm Kit [12] **LS/HSS**=Field Installed House Side Shield [28, 30] **LS/GRSBK**=Glare Reducing Shield, Black [23, 30] **LS/GRSWH**=Glare Reducing Shield, White [23, 30] **LS/PFS**=Perimeter Shield, Black [15] **WOLC-7P-10A**=WaveLinx Outdoor Control Module [19, 31] **SWPD4-XX**=Wavelinx Wireless Sensor, 7′–15′ Mounting Height [13, 19, 32, 33] **SWPD5-XX**=Wavelinx Wireless Sensor, 15′–40′ Mounting Height [13, 19, 32, 33]

NOTES:

1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Not available with TH option.
4. Not compatible with MS/4-LXX or MS/1-LXX sensors.
5. Not compatible with extended quick mount arm (QMEA).
6. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
7. Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
8. 480V must utilize Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems.)
9. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
10. Factory installed.
11. Maximum 8 light squares.
12. Maximum 6 light squares.
13. Requires ZW or ZD receptacle.
14. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
15. Set of 4 pcs. One set required per Light Square.
16. Not available with HA option.
17. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in SA2 through SA4 requires a larger housing, normally used for SA5 or SA6. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
18. Not available with Enlighted wireless sensors.
19. Cannot be used with other control options.
20. Low voltage control lead brought out 18″ outside fixture.
21. Not available if any "MS" sensor is selected. Motion sensor has an integral photocell.
22. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
23. Not for use with T4FT, T4W or SL4 optics. See IES files for details.
24. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
25. Replace X with number of Light Squares operating in low output mode.
26. Enlighted wireless sensors are factory installed only requiring network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities.
27. Not available with house side shield (HSS).
28. Not for use with 5NQ, 5MQ, 5WQ or RW optics. A black trim plate is used when HSS is selected.
29. CE is not available with the LWR, MS, MS/X, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
30. One required for each Light Square.
31. Requires PR7.
32. Replace XX with sensor color (WH, BZ or BK.)
33. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
34. Smart device with mobile application required to change system defaults. See controls section for details.
35. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
36. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
37. Available for 7-10 squares.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

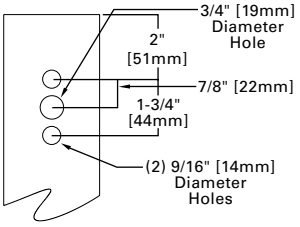
Product Family	Camera Type	Data Backhaul	
L=LumenSafe Technology LumenSafe Technology	**D**=Standard Dome Camera **H**=Hi-Res Dome Camera **Z**=Remote PTZ Camera	**C**=Cellular, No SIM **A**=Cellular, AT&T **V**=Cellular, Verizon **S**=Cellular, Sprint	**R**=Cellular, Rogers **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

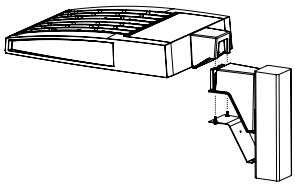
Mounting Details

Standard Arm (Drilling Pattern)

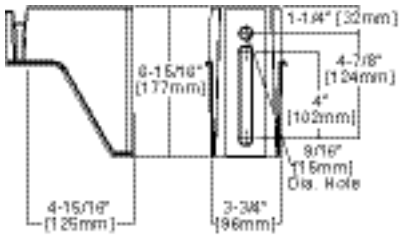
TYPE "N"



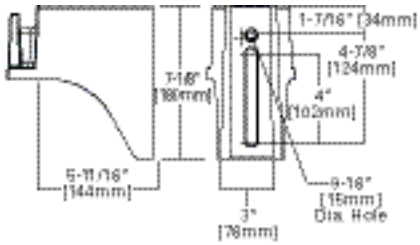
Quick Mount Arm (Includes fixture adapter)



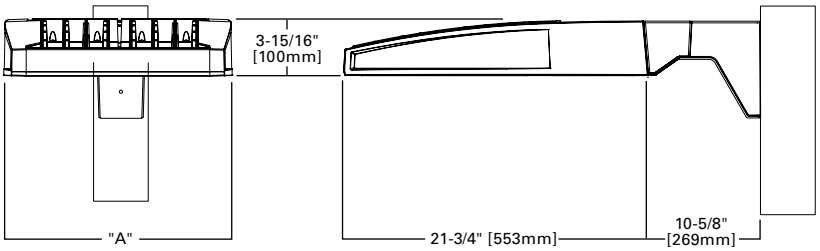
QM and QMEA Pole Mount



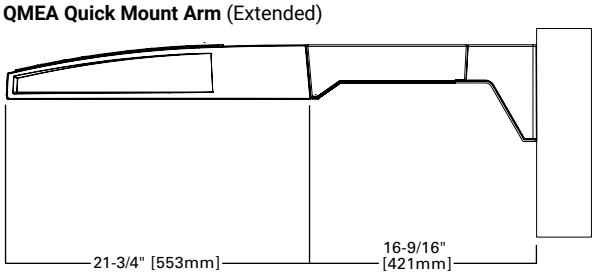
QML Pole Mount



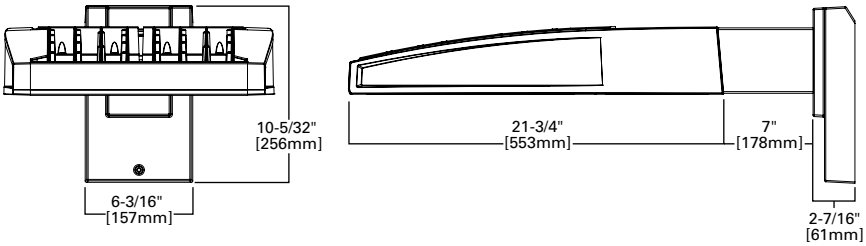
QM Quick Mount Arm (Standard)



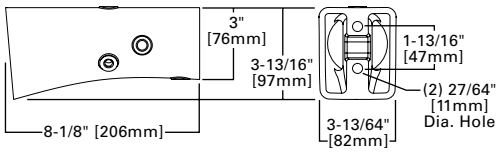
QMEA Quick Mount Arm (Extended)



Standard Wall Mount

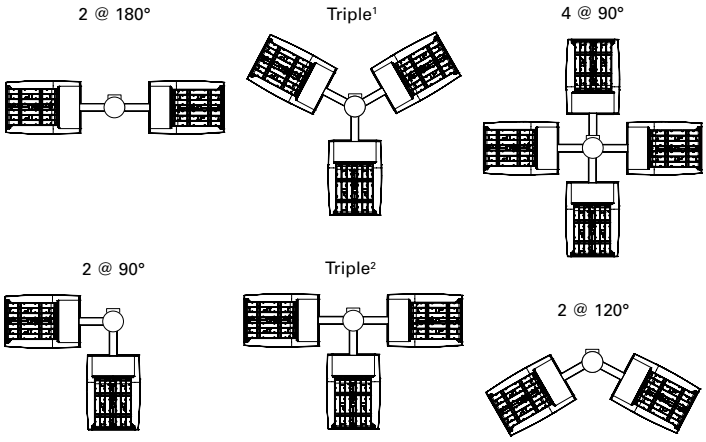


Mast Arm Mount



Arm Mounting Requirements

Number of Light Squares	Standard Arm @ 90° Apart	Standard Arm @ 120° Apart	Quick Mount Arm @ 90° Apart	Quick Mount Arm @ 120° Apart
1	Standard	Standard	QM Extended	Quick Mount
2	Standard	Standard	QM Extended	Quick Mount
3	Standard	Standard	QM Extended	Quick Mount
4	Standard	Standard	QM Extended	Quick Mount
5	Extended	Standard	QM Extended	Quick Mount
6	Extended	Standard	QM Extended	Quick Mount
7	Extended	Extended	--	Quick Mount
8	Extended	Extended	--	Quick Mount
9	Extended	Extended	--	--
10	Extended	Extended	--	--



NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2** Round poles are 3 @ 90°. **3** Shown with 4 square configurations.

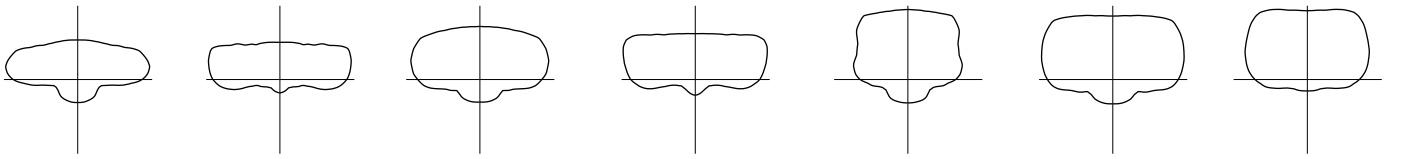
Fixture Weights and EPAs

Number of Light Squares	Weight with Standard and Extended Arm (lbs.)	EPA with Standard and Extended Arm (Sq. Ft.)	Weight with QM Arm (lbs.)	EPA with QM Arm (Sq. Ft.)	Weight with QML (lbs.)	EPA with QML (Sq. Ft.)	Weight with QMEA (lbs.)	EPA with QMEA (Sq. Ft.)
1-4	33	0.96	35	1.11	--	--	38	1.11
5-6	44	1.00	46	1.11	--	--	49	1.11
7-8	54	1.07	56	1.11	58	1.11	--	--
9-10	63	1.12	--	--	67	1.11	--	--

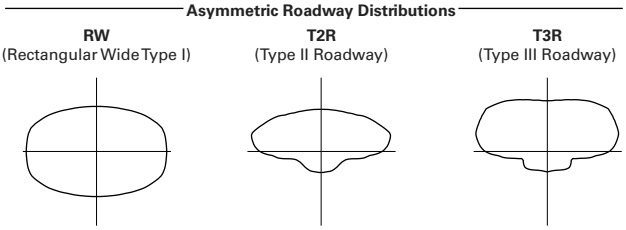
Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

Optical Distributions

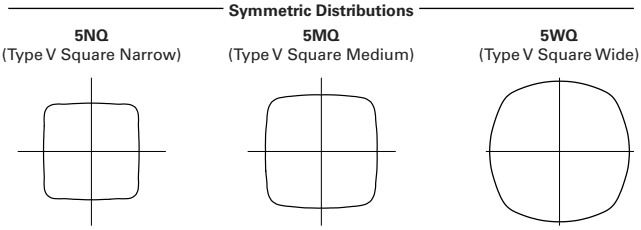
Asymmetric Area Distributions



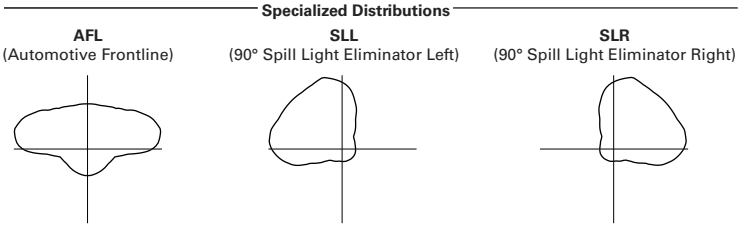
Asymmetric Roadway Distributions



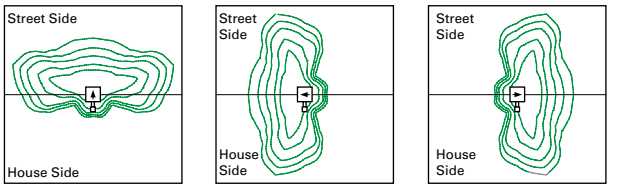
Symmetric Distributions



Specialized Distributions



Rotated Optics



Product Specifications

Construction

- Extruded aluminum driver enclosure
- Heavy-wall, die-cast aluminum end caps
- Die-cast aluminum heat sinks
- Patent pending interlocking housing and heat sink

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 16 optical distributions
- 3 shielding options including HSS, GRS and PFS
- IDA Certified (3000K CCT and warmer only)

Electrical

- LED drivers are mounted to removable tray assembly for ease of maintenance
- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting

- Standard extruded arm includes internal bolt guides and round pole adapter
- Extended arms (EA and QMEA) may be required in 90° or 120° pole mount configurations, see arm mounting requirements table
- Mast arm (MA) factory installed
- Wall mount (WM) option available
- Quick mount arm (QM and QMEA) includes pole adapter and factory installed fixture mount for fast installation to square or round poles

Finish

- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty

- Five year warranty

Energy and Performance Data

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

* Supported by IES TM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

View GLEON IES files

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (1.2A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		67	129	191	258	320	382	448	511	575	640
Input Current @ 120V (A)		0.58	1.16	1.78	2.31	2.94	3.56	4.09	4.71	5.34	5.87
Input Current @ 208V (A)		0.33	0.63	0.93	1.27	1.57	1.87	2.22	2.52	2.8	3.14
Input Current @ 240V (A)		0.29	0.55	0.80	1.10	1.35	1.61	1.93	2.18	2.41	2.71
Input Current @ 277V (A)		0.25	0.48	0.70	0.96	1.18	1.39	1.69	1.90	2.09	2.36
Input Current @ 347V (A)		0.20	0.39	0.57	0.78	0.96	1.15	1.36	1.54	1.72	1.92
Input Current @ 480V (A)		0.15	0.30	0.43	0.60	0.73	0.85	1.03	1.16	1.28	1.45
Optics											
T2	4000K Lumens	7,972	15,580	23,245	30,714	38,056	45,541	53,857	61,024	68,072	75,366
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	122	119	119	119	120	119	118	118
T2R	4000K Lumens	8,462	16,539	24,680	32,609	40,401	48,348	57,176	64,783	72,266	80,010
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	129	126	126	127	128	127	126	125
T3	4000K Lumens	8,125	15,879	23,693	31,307	38,787	46,417	54,893	62,197	69,381	76,818
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	122	123	122	121	120
T3R	4000K Lumens	8,306	16,232	24,220	32,001	39,651	47,447	56,114	63,580	70,924	78,523
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
T4FT	4000K Lumens	8,173	15,970	23,831	31,488	39,014	46,686	55,212	62,558	69,783	77,261
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	122	124	125	122	122	122	123	122	121	121
T4W	4000K Lumens	8,067	15,764	23,522	31,080	38,510	46,082	54,499	61,751	68,881	76,263
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	120	122	123	120	120	121	122	121	120	119
SL2	4000K Lumens	7,958	15,552	23,206	30,662	37,989	45,462	53,763	60,920	67,952	75,235
	BUG Rating	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	121	119	119	119	120	119	118	118
SL3	4000K Lumens	8,124	15,877	23,690	31,302	38,784	46,410	54,885	62,189	69,372	76,805
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	121	123	122	121	120
SL4	4000K Lumens	7,719	15,085	22,510	29,741	36,850	44,097	52,148	59,089	65,913	72,977
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	115	117	118	115	115	115	116	116	115	114
5NQ	4000K Lumens	8,380	16,375	24,436	32,287	40,003	47,870	56,610	64,144	71,552	79,221
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	125	127	128	125	125	125	126	126	124	124
5MQ	4000K Lumens	8,534	16,676	24,885	32,881	40,739	48,752	57,653	65,326	72,868	80,679
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	127	129	130	127	127	128	129	128	127	126
5WQ	4000K Lumens	8,556	16,723	24,951	32,968	40,847	48,881	57,808	65,499	73,063	80,894
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	128	130	131	128	128	128	129	128	127	126
SLL/ SLR	4000K Lumens	7,140	13,951	20,817	27,506	34,081	40,783	48,231	54,649	60,959	67,492
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	107	108	109	107	107	107	108	107	106	105
RW	4000K Lumens	8,304	16,228	24,215	31,994	39,641	47,437	56,100	63,566	70,907	78,504
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
AFL	4000K Lumens	8,335	16,287	24,302	32,110	39,784	47,610	56,303	63,796	71,163	78,790
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	125	126	125	124	123

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (1A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		59	113	166	225	279	333	391	445	501	558
Input Current @ 120V (A)		0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.60	5.07
Input Current @ 208V (A)		0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75
Input Current @ 240V (A)		0.26	0.48	0.71	0.96	1.19	0.41	1.67	1.89	2.12	2.39
Input Current @ 277V (A)		0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09
Input Current @ 347V (A)		0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68
Input Current @ 480V (A)		0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28
Optics											
T2	4000K Lumens	7,267	14,201	21,190	28,000	34,692	41,515	49,096	55,627	62,053	68,703
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	126	128	124	124	125	126	125	124	123
T2R	4000K Lumens	7,715	15,077	22,497	29,725	36,829	44,073	52,122	59,056	65,876	72,937
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	131	133	136	132	132	132	133	133	131	131
T3	4000K Lumens	7,408	14,475	21,598	28,539	35,358	42,313	50,039	56,698	63,246	70,024
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
T3R	4000K Lumens	7,571	14,798	22,078	29,172	36,145	43,253	51,153	57,959	64,653	71,581
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
T4FT	4000K Lumens	7,451	14,559	21,725	28,703	35,564	42,558	50,330	57,027	63,613	70,430
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	129	131	128	127	128	129	128	127	126
T4W	4000K Lumens	7,354	14,371	21,442	28,333	35,105	42,007	49,681	56,291	62,792	69,521
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	125	127	129	126	126	126	127	126	125	125
SL2	4000K Lumens	7,254	14,178	21,155	27,951	34,631	41,443	49,011	55,533	61,944	68,584
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	125	127	124	124	124	125	125	124	123
SL3	4000K Lumens	7,406	14,474	21,596	28,534	35,355	42,307	50,033	56,690	63,237	70,014
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
SL4	4000K Lumens	7,037	13,751	20,519	27,112	33,592	40,198	47,538	53,864	60,087	66,524
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	119	122	124	120	120	121	122	121	120	119
5NQ	4000K Lumens	7,640	14,928	22,275	29,431	36,465	43,637	51,606	58,472	65,226	72,218
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	129	132	134	131	131	131	132	131	130	129
5MQ	4000K Lumens	7,779	15,203	22,684	29,973	37,137	44,441	52,555	59,549	66,427	73,545
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	133	133	133	134	134	133	132
5WQ	4000K Lumens	7,800	15,243	22,744	30,052	37,236	44,560	52,697	59,708	66,603	73,742
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	134	133	134	135	134	133	132
SLL/ SLR	4000K Lumens	6,510	12,719	18,977	25,075	31,067	37,176	43,967	49,817	55,569	61,525
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	110	113	114	111	111	112	112	112	111	110
RW	4000K Lumens	7,570	14,793	22,073	29,165	36,137	43,243	51,140	57,945	64,637	71,564
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
AFL	4000K Lumens	7,598	14,847	22,154	29,272	36,267	43,400	51,326	58,156	64,872	71,824
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	129	131	133	130	130	130	131	131	129	129

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (800mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		44	85	124	171	210	249	295	334	374	419
Input Current @ 120V (A)		0.39	0.77	1.13	1.54	1.90	2.26	2.67	3.03	3.39	3.80
Input Current @ 208V (A)		0.22	0.44	0.62	0.88	1.06	1.24	1.50	1.68	1.87	2.12
Input Current @ 240V (A)		0.19	0.38	0.54	0.76	0.92	1.08	1.30	1.46	1.62	1.84
Input Current @ 277V (A)		0.17	0.36	0.47	0.72	0.83	0.95	1.19	1.31	1.42	1.67
Input Current @ 347V (A)		0.15	0.24	0.38	0.49	0.63	0.77	0.87	1.01	1.15	1.52
Input Current @ 480V (A)		0.11	0.18	0.29	0.37	0.48	0.59	0.66	0.77	0.88	0.96
Optics											
T2	4000K Lumens	5,871	11,474	17,121	22,622	28,029	33,542	39,667	44,944	50,134	55,508
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	135	134	135	134	132
T2R	4000K Lumens	6,233	12,181	18,176	24,016	29,756	35,608	42,111	47,714	53,224	58,929
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5
	Lumens per Watt	142	143	147	140	142	143	143	143	142	141
T3	4000K Lumens	5,986	11,695	17,450	23,057	28,568	34,186	40,430	45,809	51,099	56,576
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
T3R	4000K Lumens	6,117	11,955	17,838	23,569	29,203	34,946	41,328	46,827	52,235	57,832
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
T4FT	4000K Lumens	6,019	11,763	17,551	23,190	28,734	34,384	40,663	46,074	51,396	56,904
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	137	138	142	136	137	138	138	138	137	136
T4W	4000K Lumens	5,942	11,610	17,324	22,891	28,363	33,940	40,138	45,480	50,732	56,169
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	135	137	140	134	135	136	136	136	136	134
SL2	4000K Lumens	5,862	11,454	17,091	22,583	27,980	33,484	39,598	44,867	50,048	55,411
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	134	134	134	134	132
SL3	4000K Lumens	5,985	11,694	17,447	23,053	28,565	34,182	40,424	45,804	51,092	56,568
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
SL4	4000K Lumens	5,685	11,111	16,577	21,905	27,140	32,478	38,409	43,520	48,546	53,748
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	129	131	134	128	129	130	130	130	130	128
5NQ	4000K Lumens	6,172	12,061	17,997	23,778	29,462	35,256	41,694	47,242	52,699	58,347
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	140	142	145	139	140	142	141	141	141	139
5MQ	4000K Lumens	6,285	12,283	18,328	24,217	30,004	35,907	42,462	48,112	53,669	59,421
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	144	144	144	144	142
5WQ	4000K Lumens	6,303	12,317	18,377	24,281	30,085	36,001	42,575	48,241	53,812	59,579
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	145	144	144	144	142
SLL/ SLR	4000K Lumens	5,260	10,276	15,332	20,259	25,101	30,037	35,522	40,249	44,898	49,708
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	120	121	124	118	120	121	120	121	120	119
RW	4000K Lumens	6,116	11,952	17,834	23,563	29,196	34,938	41,317	46,817	52,224	57,819
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
AFL	4000K Lumens	6,139	11,996	17,899	23,650	29,302	35,064	41,468	46,987	52,412	58,030
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4
	Lumens per Watt	140	141	144	138	140	141	141	141	140	138

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (600mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		34	66	96	129	162	193	226	257	290	323
Input Current @ 120V (A)		0.30	0.58	0.86	1.16	1.44	1.73	2.03	2.33	2.59	2.89
Input Current @ 208V (A)		0.17	0.34	0.49	0.65	0.84	0.99	1.14	1.30	1.48	1.63
Input Current @ 240V (A)		0.15	0.30	0.43	0.56	0.74	0.87	1.00	1.13	1.30	1.43
Input Current @ 277V (A)		0.14	0.28	0.41	0.52	0.69	0.81	0.93	1.04	1.22	1.33
Input Current @ 347V (A)		0.11	0.19	0.30	0.39	0.49	0.60	0.69	0.77	0.90	0.99
Input Current @ 480V (A)		0.08	0.15	0.24	0.30	0.38	0.48	0.53	0.59	0.71	0.77
Optics											
T2	4000K Lumens	4,787	9,357	13,961	18,448	22,856	27,353	32,347	36,651	40,884	45,265
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	141	142	145	143	141	142	143	143	141	140
T2R	4000K Lumens	5,083	9,934	14,822	19,585	24,266	29,038	34,341	38,911	43,404	48,055
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	150	151	154	152	150	150	152	151	150	149
T3	4000K Lumens	4,880	9,537	14,231	18,803	23,296	27,878	32,970	37,358	41,671	46,137
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	148	146	144	144	146	145	144	143
T3R	4000K Lumens	4,988	9,749	14,547	19,220	23,814	28,497	33,703	38,188	42,598	47,162
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	147	148	152	149	147	148	149	149	147	146
T4FT	4000K Lumens	4,909	9,591	14,312	18,911	23,432	28,040	33,161	37,574	41,913	46,404
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	149	147	145	145	147	146	145	144
T4W	4000K Lumens	4,845	9,468	14,128	18,668	23,130	27,678	32,732	37,088	41,371	45,805
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	143	143	147	145	143	143	145	144	143	142
SL2	4000K Lumens	4,779	9,341	13,937	18,416	22,818	27,305	32,292	36,589	40,813	45,188
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	141	142	145	143	141	141	143	142	141	140
SL3	4000K Lumens	4,879	9,536	14,229	18,800	23,294	27,874	32,965	37,351	41,666	46,130
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	144	144	148	146	144	144	146	145	144	143
SL4	4000K Lumens	4,637	9,059	13,519	17,863	22,132	26,486	31,322	35,490	39,589	43,831
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	136	137	141	138	137	137	139	138	137	136
5NQ	4000K Lumens	5,033	9,835	14,676	19,392	24,026	28,751	34,002	38,526	42,975	47,581
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	148	149	153	150	148	149	150	150	148	147
5MQ	4000K Lumens	5,126	10,015	14,946	19,747	24,468	29,281	34,628	39,236	43,766	48,457
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	151	152	156	153	151	152	153	153	151	150
5WQ	4000K Lumens	5,139	10,043	14,985	19,801	24,533	29,359	34,721	39,339	43,883	48,586
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	151	152	156	153	151	152	154	153	151	150
SLL/ SLR	4000K Lumens	4,289	8,380	12,502	16,520	20,469	24,494	28,967	32,823	36,613	40,537
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	126	127	130	128	126	127	128	128	126	126
RW	4000K Lumens	4,987	9,746	14,543	19,215	23,808	28,491	33,695	38,178	42,587	47,151
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	147	148	151	149	147	148	149	149	147	146
AFL	4000K Lumens	5,007	9,782	14,597	19,285	23,896	28,594	33,817	38,317	42,742	47,322
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	Lumens per Watt	147	148	152	149	148	148	150	149	147	147

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

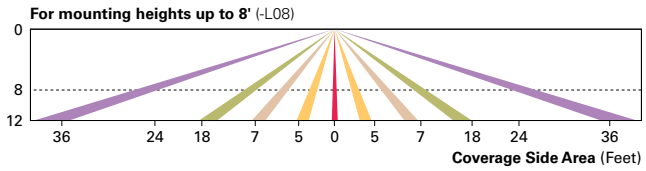
Control Options

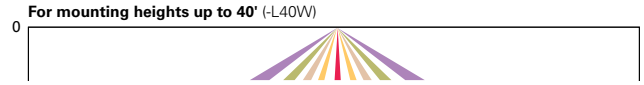
0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

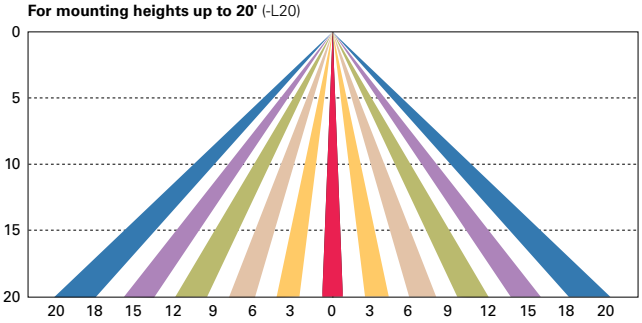
Photocontrol (BPC, PR and PR7)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

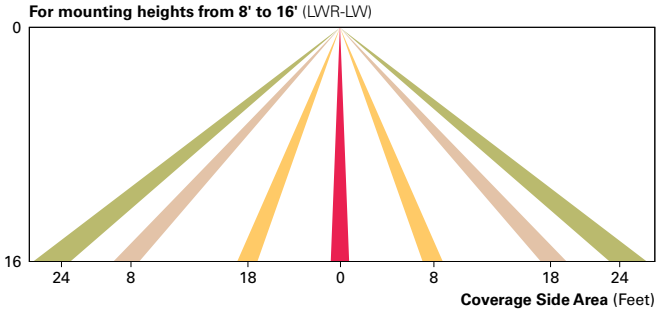
Dimming Occupancy Sensor (SPB, MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

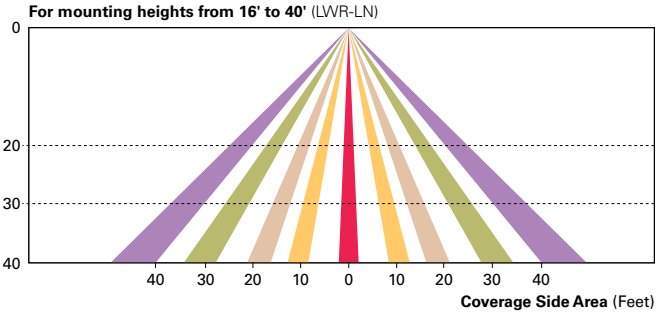






Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.





WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)
The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

LumenSafe Integrated Network Security Camera (LD)
Cooper Lighting Solutions brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows security integrators to design the optimal solution for active surveillance. As the ideal solution to meet the needs for active surveillance, the LumenSafe integrated network camera is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. This IP camera is optimally designed for deployment in the video management system or security software platform of choice.

Synapse (DIM10)
SimplySNAP integrated wireless controls system by Synapse. Includes factory installed DIM10 Synapse control module and MS/DC motion sensor; requires additional Synapse system components for operation. Contact Synapse at www.synapsewireless.com for product support, warranty and terms and conditions.

Attachment: SP-2022-02 drawings 042122 (25490 : Sp-2022-02)

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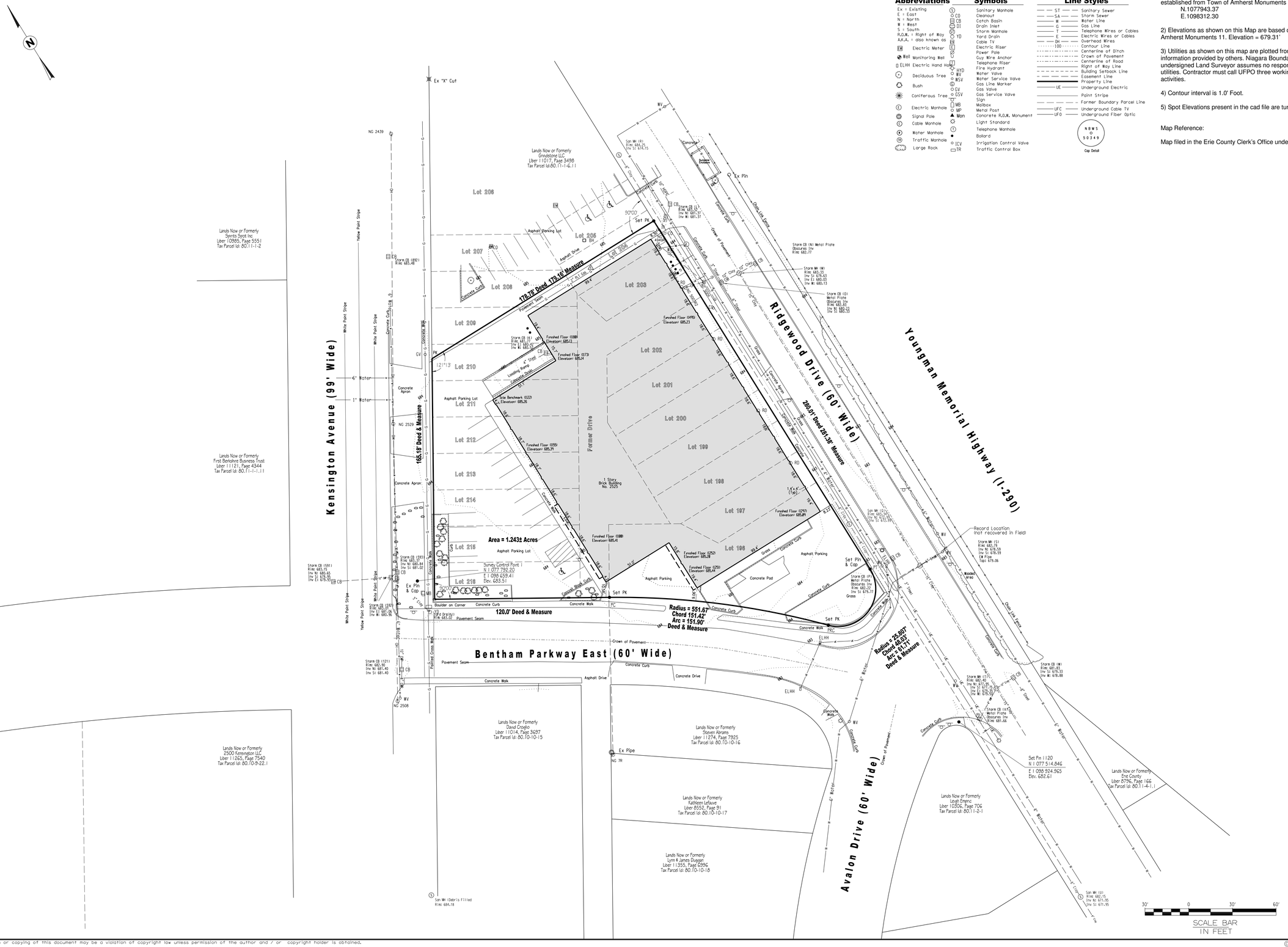
Specifications and dimensions
subject to change without notice.



Legend

Abbreviations

Ex = Existing
E = East
N = North
W = West
S = South
R.O.W. = Right of Way
A.K.A. = also known as
EM Electric Meter
MW Monitoring Well
ELHH Electric Hand Hole
Deciduous Tree
Bush
Coniferous Tree
Electric Manhole
Signal Pole
Cable Manhole
Water Manhole
Traffic Manhole
Large Rock

Symbols

Sanitary Manhole
CO Cleanout
CB Catch Basin
DI Drain Inlet
SD Storm Manhole
YD Yard Drain
TV Cable TV
ER Electric Riser
PP Power Pole
GA Guy Wire Anchor
TR Telephone Riser
HYD Fire Hydrant
WV Water Valve
WSV Water Service Valve
GM Gas Line Marker
GV Gas Valve
GSV Gas Service Valve
Sign
MB Mailbox
MP Metal Post
Mon Concrete R.O.W. Monument
LS Light Standard
TH Telephone Manhole
Bollard
ICV Irrigation Control Valve
TR Traffic Control Box

Line Styles

ST Sanitary Sewer
SA Storm Sewer
W Water Line
G Gas Line
T Telephone Wires or Cables
E Electric Wires or Cables
OH Overhead Wires
100 Contour Line
Centerline of Ditch
Crown of Pavement
Centerline of Road
Right of Way Line
Building Setback Line
Easement Line
Property Line
UE Underground Electric
Point Stripe
Former Boundary Parcel Line
UFC Underground Cable TV
UFO Underground Fiber Optic

NBMS 50349
Cap Detail

Notes:

1) North as Shown on this Map is True North at 78°35' Meridian of West Longitude, as based on the New York State Plane Coordinate System NAD 83/92 HARN, West Zone 3103, as established from Town of Amherst Monuments 11.
N.1077943.37
E.1098312.30

2) Elevations as shown on this Map are based on NAVD 88, as established from Town of Amherst Monuments 11. Elevation = 679.31'

3) Utilities as shown on this map are plotted from field locations of visble structures and information provided by others. Niagara Boundary & Mapping Services, along with the undersigned Land Surveyor assumes no responsibility as to the accuracy of underground utilities. Contractor must call UFPO three working days prior to any excavation construction activities.

4) Contour interval is 1.0' Foot.

5) Spot Elevations present in the cad file are turned off for clarity.

Map Reference:

Map filed in the Erie County Clerk's Office under Cover 1374

Niagara Boundary
And Mapping Services
PO Box 1120
Lewiston, NY 14092
(716) 297-9584
E-Mail:
lee@niagaraboundary.com

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE AND IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED BY AN EXAMINATION OF SUCH.

Map
Showing Boundary & Topographic Survey
of
Property Owned
by

Philipps Bros Realty Company LLC

Deed Reference: Liber 11117, Page 3180
Tax ID: 80.11-1-8.2

LOT	SECTION	TOWNSHIP	RANGE
28		12	7

Town	Amherst
COUNTY	Erie
STATE	New York
DATE	June 11, 2021
SCALE	1" = 20'
JOB NO.	11187-21
RESURVEYED	
⚠	Show Field Marked Gas Line 10-1-21

"ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."

THIS SURVEY WAS PREPARED FOR THE PARTIES AND PURPOSE INDICATED HEREON. ANY EXTENSION OF THE USE BEYOND THE PARTIES OR PURPOSE INDICATED IS EXPRESSLY FORBIDDEN WITHOUT WRITTEN RELEASE OR PERMISSION OF THE UNDERSIGNED.

USE OF THIS SURVEY IN CONJUCTION WITH AN AFFIDAVIT OF NO CHANGE IS FORBIDDEN

Kenneth L. Slaugenhoupt Lic. No. 50349

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FILE: Z:\Projects\Nbsvr01\IZ\WARCHIVE_PROJECTS\BNBMS 11100-11199\11187 2525 Kensington Ave\11187 September 2021.dgn

Attachment: SP-2022-02 drawings 042122 (2549 : Sp-2022-02)

Amherst

Town of Amherst Planning Department *Erie County, New York*

Brian J. Kulpa
Supervisor
Daniel C. Howard, AICP
Planning Director
Daniel J. Ulatowski, AICP
Assistant Planning Director

April 26, 2022

Philipps Bros. Supply Inc.
2525 Kensington Ave.
Amherst, NY 14226

SUBJECT: MAJOR SITE PLAN REVIEW, **SP-2022-02**; PROPOSED PHILIPPS BROS./SHATKIN SCHOOL OF DENTISTRY AND PARKING EXPANSION; PROPERTY LOCATED AT **2525 KENSINGTON AVENUE**.

Dear Sir/Madam:

At its meeting of April 21, 2022 the Planning Board voted to **adjourn** the subject site plan at your request.

This request will be placed on the Planning Board agenda for the May 19, 2022 meeting.

Please submit revised plans or required materials by May 6, 2022 so they may be reviewed prior to the meeting.

Should you have any questions regarding the Planning Board's decision, please do not hesitate to call us.

Very truly yours,

Daniel C. Howard, AICP
Planning Director

DH/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-02_(2525_Kensington_Ave)_2022\SP-2022-02_Adjournment Letter_042122.doc
cc: Joseph Molek, Stieglitz Snyder, 425 Franklin St., Buffalo, NY 14202
Andrew V. Marino, Tredo Engineers, 755 Seneca Street, Ste. 202, Buffalo, NY 14210

Attachment: SP-2022-02_adjournment_042122 (25490 : Sp-2022-02)

April 25 2022

5583 Main Street Williamsville NY 14221
Town of Amherst Planning Department

STIEGLITZ SNYDER
ARCHITECTURE

RE: 2525 Kensington Avenue

Dear Mr. Thomas Voigt,

We are submitting to the Planning Department our application and supporting documents related to 2525 Kensington Avenue based on comments made by the Town of Amherst individual departments in April,

All documents submitted herein, contain responses to each item in question along with related changes to drawings and forms based on the comments.

Please review accompanying documents for overall compliance and variances that will be required for this application.

We look forward in working further with the Town of Amherst towards further development of this key medical and educational hub.

If you would like to discuss this application further, please don't hesitate to contact me at 716-222-3040 or via e-mail at jmolek@stieglitzsnyder.com.

Sincerely,

STIEGLITZ SNYDER ARCHITECTURE

Joseph Molek, RA

Project Architect

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

April 25 2022

5583 Main Street Williamsville NY 14221
Town of Amherst Planning Department

STIEGLITZ SNYDER ARCHITECTURE

RE: 2525 Kensington Avenue – Philipps Bros. Supply / The Shatkin School of Dentistry and Parking expansion.

Dear Mr. Gary Palumbo,

We are submitting to the Planning Department our response to Major Site Plan review comments submitted by the following Departments:

Engineering Department comments April 6 2022:

Item #1

Executed copy for access easement from adjacent parcel to the north is in progress.

Item #2

Executed copy of the Town of Amherst License Agreement / Land Lease regarding use of Ridgewood drive in progress.

Traffic Safety comments April 6 2022:

Item #1

Cross walk had been provided for Handicapped spaces located on east side of ridgewood drive.

Item #2

Cross walk had been provided at southwest corner of site from Ridgewood to patio beside refuse enclosure.

Item #3

We are providing landscape rather than walkway because, large amounts of snow tends to slide of the bowed roof. Therefore, we prefer not to have a sidewalk and put walkers at risk.

Item #4

Boulders stones in the Kensington Avenue Right- of- way are annotated to be removed as noted on drawing SP104.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Planning Department comments April 1 2022:

Zoning Enforcement Officer Review:

Item #1

Owner/applicant to pursue a variance of 1'-6' minimum setback at proposed canopy addition along Ridgewood Drive. We require a canopy covering to protect users of the building from snow sliding off the top off the bow truss roof. The snow is an ongoing issue in which snow guards cannot stop the snow from sliding off the roof.

Item #2

We have removed the single parking space along Bentham Drive and plan to leave a existing non-conforming.

Parking along Ridgewood Drive to be part of legal approvals.

Item #3

We have adjusted plans to accommodate a 5'-0" setback for garbage enclosure

Item #4

The transformer height will be a maximum height of 5'-0" high. Landscape Plantings (Emerald Arborvitaes) at planted height will be 4'-0" tall. These planting will grow beyond 5'-0" within a couple years.

Item #5

Photometric plan to be coordinated with legal department. Either lighting to be a mix of pole mounted and wall mounted, which is preferred. But this will depend on the outcome of Ridgewood Drive and the owner of building.

Item #6

Parking count has increased as per plan but it will not be possible to comply with off-street parking study.

Planning Department Staff Review:

Item #1

Condition of approval by Town Board and legal department.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Item #2

Owner/Applicant will provide a license agreement for maintenance and use of Ridgewood Drive right of way.

Item #3

Boulders stones in the Kensington Avenue Right- of- way are annotated to be removed as noted on drawing SP104.

Item #4

Northerly curb cut and driveway on Kensington Ave. is required for Fire Truck access along the north side of the building therefore we do not suggest removing this curb cut. We would agree to remove the southerly curb cut if deemed necessary however, we did not receive comment from NYSDOT to determine what concerns they may have, and therefore have not modified the site plan for such.

Item #5

Transformer is part of National Grid design. We currently do not have their final design but we anticipate a 5'-0" tall transformer and will screen the transformer with 4'-0" tall Emerald Arborvitae's as shown on landscape plan L101. See accompanying transformer photo (similar size transformer will be used) and diesel fuel generator and tank. The planted 4'-0" tall arborvitaes will grow within a couple years to 5'-0" tall and continually become taller

Item #6

Diesel Generator is indicated on the drawings which will be screened with 5'-0" tall Emerald Arborvitae's as shown on landscape plan L101.

Condensing units will be placed on rooftop of main building. all Rooftop equipment will be screened by awning covering facing Kensington avenue. The awning covering will extend past the roofline in order to cover all condensing units and mechanical units. See West Elevation and North Elevation on drawing A300.

Electric Meters are located on the north side of the building. See general location on drawing A300.

Item #7

We hereby request a waiver for the sidewalk requirement along Ridgewood Drive. The area of concern contains proposed foundation plantings instead to augment the façade treatment.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Item #8

Signage will be submitted under separate cover for review by the Town of Amherst.

Landscape Architect Review:

Item #1

Bollards surrounding explosive mechanical equipment will contain a plastic covering *color safety yellow* for visible warning to motorists to avoid impact. Disguising bollards in this application is not recommended.

Item #2

Ridgewood Drive right-of-way contains various underground utilities along the full length of Ridgewood Drive under the proposed parking / landscaped islands (see attached site survey prepared by Niagara Boundary), including ECWA water on each side of the roadway, that must remain as-is. We do not recommend planting trees atop these public utilities.

Item #3

Diesel Generator is indicated on the drawings which will be screened with 5'-0" tall Emerald Arborvitae's as shown on landscape plan L101.

Condensing units will be placed on rooftop of main building. all Rooftop equipment will be screened by awning covering facing Kensington avenue. The awning covering will extend past the roofline in order to cover all condensing units and mechanical units. See West Elevation and North Elevation on drawing A300.

Item #4

We do not intend to install landscaping along Thruway property. There is approximately 4-ft between the right-of-way/edge of pavement and the Thruway fence remaining that is shown re-planted as lawn.

Item #5

All existing trees or shrubs are shown with a legend for removals on drawing SP104. Brush shall be cleared from along the Thruway fence. The accompanying image shows various shrubs to be removed. No large trees are located on the Ridgewood drive side of the site, only on the thruway side.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

All other existing shrubs and plantings on this site to be preserved.



End of comments.

If you would like to discuss these comments further, please don't hesitate to contact me at 716-222-3040 or via e-mail at jmolek@stieglitzsnyder.com.

Sincerely,

STIEGLITZ SNYDER ARCHITECTURE

Joseph Molek, RA

Project Architect

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

TOWN OF AMHERST

APPLICATION & REVIEW PROCEDURE

MAJOR SITE PLAN

MATERIALS MUST BE PROVIDED IN AN ELECTRONIC FORMAT THAT CONTAINS PDF FILES OF THE APPLICATION, EAF, SITE PLAN DRAWING SET SURVEY, LANDSCAPE PLAN, PRELIMINARY BUILDING FLOO PLANS / ELEVATIONS & ANY OTHER SUPPORTING INFORMATION. THIS MUST BE SUBMITTED WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE TRANSMITTED WITHOUT THIS ELECTRONIC INFORMATION.

THIS ALSO APPLIES TO REVISED MATERIALS THAT AR SUBMITTED.

This application package includes the following:

- Application Procedures
- Application Form & Checklist
- Stormwater Pollution Prevention Plan Checklist
- Appendix A Town of Amherst EAF Addendum
- Appendix B Criteria for Required 8½" x 11" Sketches
- Appendix C Erie Sewer District No. 5 – Commercial / Industrial New & Existing Buildings Requirements

- IMPORTANT-

1. A pre-submittal consultation with Planning Department staff is *strongly recommended* prior to submitting an application. The pre-submittal meeting gives the applicant an opportunity to discuss with staff such items as:
   - classifying the action as a major site plan, minor site plan, or minor site plan adjustment;
   - determining what specific information will be required to be submitted with the application;
   - identifying and discussing issues that must be addressed as part of the SEQR review;
   - identifying any potential variances required to implement the project as proposed.

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2. This site plan petition is subject to the requirements of 6 NYCRR Part 617, State Environmental Quality Review Act (SEQR), and Chapter 104 of the Town of Amherst Code, as amended. The Planning Board cannot make a SEQR determination unless a complete Environmental Assessment Form (EAF), including Town of Amherst EAF Addendum, and any required supplementary information such as traffic impact studies, archaeological reports, wetland delineations or geotechnical reports, are submitted. SEQR issues may be discussed with Planning Department staff at a recommended pre-submittal meeting. Unlisted Actions require a Short EAF; Type I Actions require a Full EAF. The following is a link to the NYSDEC website and fillable forms with instructions*:*
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3. **Review by the Town Design Advisory Board (DAB) is required for Major Site Plans located in the following Mixed-Use zoning districts:**

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   Traditional Infill 4 (TI-4)
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   Deep Corridor 3 (DC-3)
   Deep Corridor 5 (DC-5)
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   Center 5 (CTR-5)
   Center 8 (CTR-8)

   The application for DAB review is required to be filed in conjunction with the major site plan application.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

4. The application shall be executed or consented to in writing by the owner of the property.

5. **Any variances from the Zoning Board of Appeals, or any decision from the Town Board (e.g. removal of deed restrictions) must be obtained prior to action by the Planning Board on a Site Plan application.**

6. Submittal of an application grants permission to Town staff and Planning Board members to access the parcel(s) under consideration.

7. All site plan drawings must be prepared by a Registered Architect, Professional Engineer, Landscape Architect, or Land Surveyor (as applicable) licensed to practice in New York State.

8. If you wish to include a Coordinated Sign Plan application with the site plan petition, a separate application must be completed. Contact the Planning Department for a copy of a Coordinated Sign Plan application package.

9. All drawings should be no larger than 24 in. x 36 in. If site characteristics warrant larger plan sheets, they may be accepted subject to Planning Department concurrence. All drawings must also reserve a 4 in. x 6 in. area in the lower right hand corner for official Town use.

APPLICATION PROCEDURES

1. Applicant secures application package from the Planning Department, 5583 Main Street, Williamsville, NY 14221. (716) 631-7051. Forms are also available online at: www.amherst.ny.us, (keyword: Planning).

2. Applicant prepares information as required on the Site Plan Submittal Checklist, attached. NOTE: Some proposals may not require all items on the checklist; please verify with the Planning Department.

3. Applicant schedules an appointment with the Planning Department to review the following:
   - a complete set of site plan drawings, preliminary building elevations and floor plans (no larger than 24" x 36" in size)
   - Environmental Assessment Form (EAF) & Town EAF Addendum
   - any supporting reports and materials
   - verification from the Town Assessor that the address in the application is correct

4. Applicant schedules an application submittal appointment with the Planning Department. NO SITE PLAN WILL BE ACCEPTED FOR REVIEW WITHOUT A PRE-SET SUBMITTAL APPOINTMENT.

5. At the submittal appointment, applicant provides fourteen (14) complete and collated sets of drawings and application information to the Planning Department **(materials will not be accepted unless folded into 9" x 12" in size),** including**:**
   - application form
   - Environmental Assessment Form (EAF)
   - supporting reports / materials
   - complete set of site plan drawings, preliminary building elevations and floor plans (**at least one (1) set of drawings must bear a raised or wet seal and signature of the design professional** who prepared the plans; the remaining copies may be submitted with a facsimile of the seal and signature)
   - digital files of all materials in pdf format
   - an 8½" x 11" reduction of the sketch plan or plat drawing (see Appendix B)

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

6. After approval for filing by the Planning Department, applicant submits all necessary fees to the Town Clerk. **(See Schedule of Fees on first page of application and make checks payable to: Town of Amherst.)**

7. The applicant returns a copy of the filing receipt to the Planning Department.

8. The Planning Department transmits remaining thirteen (13) copies of the application and supporting materials to:
   - Assessor
   - Commissioner of Building
   - Town Engineer
   - Superintendent of Highways
   - Traffic/Safety Board
   - Fire Chiefs' Association
   - Plumbing Division
   - Right-of-Way Agent
   - Police Department (if applicable)
   - Zoning Enforcement Officer
   - Other Town and outside agencies, as applicable

9. Within 30 days of its receipt of the complete application for Site Plan approval, each agency completes its review and notifies the Planning Department in writing of its comments or recommendations as required by Ordinance.

10. The applicant may be required to submit revised plans, reports, or materials to address review agency comments. The procedures for submittal of revised plans are as follows:

    - A cover letter addressing all comments received to date is required.
    - "Highlight" the area of change on the drawings and provide a notation describing the change.
    - Revised plans/materials are required. Planning staff should be contacted to determine the number of sets needed.
    - All revised plans and materials must also be provided in an electronic format that contains pdf files of the revised information.

11. The Planning Board reviews the EAF to determine whether a Draft Environmental Impact Statement (DEIS) is required. The petitioner will be advised in the event that a DEIS is required and afforded the opportunity to prepare it. If the petitioner declines, the Planning Board will prepare the DEIS at the petitioner's expense. The public hearing will be held on the DEIS concurrently with the Planning Board hearing on the application.

12. Planning Board Meeting Procedures:

    The applicant or representative presents the project at the public hearing before the Planning Board and is available to answer any questions. The Planning Board may take any of the following actions:

    - Adjourn the hearing to a future Planning Board meeting (hearing remains open).
    - Close the hearing and table action on the site plan to a future Planning Board meeting. (The Planning Board may remove the item from the agenda until such time as all required information is provided.)
    - Close the hearing and make a decision on the site plan.

    All determinations on matters before the Planning Board are made after all public hearings on that meeting's agenda are completed.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

13. A copy of the Planning Board's determination will be provided to the applicant, his / her representative, the Building Commissioner and the Town Clerk approximately 1 week following the Planning Board meeting at which it was heard.

14. If the Planning Board approves a Site Plan with conditions, the Planning Department will work with the applicant to ensure that all conditions of the approval are satisfactorily addressed. When all conditions are satisfied, the applicant submits **seven (7) final copies** of the complete set of all site plan drawings, folded into 9" x 12". For site plans in the Mixed-Use zoning districts, building elevations will also be required.

    All 7 sets must have original wet seals and include the required 4 in. x 6 in area in the lower right hand corner for official Town use. These drawings will be stamped and signed "Approved" by the Planning Director and transmitted to Town Departments for their files and use.

15. A building permit will not be issued by the Building Department until the stamped and signed Site Plan is issued by the Planning Director.

NOTE: Please check with the Planning Department to determine the deadline date for filing applications. Due to the public hearing notice requirements and department reviews, no site plan application will be placed on the Planning Board agenda after the deadline for filing has closed. Scheduling may be delayed if an application is incomplete.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Major Site Plan Review

For Official Use

File #: _____ **Acreage** _____ **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Received by Planning Department _____ RECEIVED BY DATE

Fee Paid to Town Clerk _____ RECEIVED BY DATE

Site Plan Review		**Fill In Applicable Fees**
1 acre or less	$1,250.00	_____
Each additional acre or fraction thereof	$ 650.00/acre	_____
Amendments to Site Plans	$1,200.00	_____
Request for Relief of / Change to Conditions of Site Plan Approval	$1,200.00	_____
Request for Extension of Site Plan Approval	$ 450.00	_____
Stormwater Pollution Prevention Plan		
1 - 4.99 Acres	$ 500.00	_____
5 - 10 Acres	$ 750.00	_____
>10 Acres	$1,000.00	_____
Affidavit Fee for Public Hearing	$ 15.00	_____
	TOTAL FEE:	**$**_____

To Be Completed By Applicant

Petitioner:

Name: Philipps Bros Supply Inc.

Address: 2525 Kensington Ave

Amherst (city) NY (state) 14226 (zip code)

Phone: 716-839-4800 Fax: 716-839-4051

E Mail: pphilipps@philippsbros.com

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

MAJOR SITE PLAN APPLICATION (con't) ***Page 2***

Representative (Architect, Engineer, Landscape Architect, Surveyor, or Attorney)**:**

Name: Joseph Molek

Address: 425 Franklin Street

Buffalo (city) NY (state) 14202 (zip code)

Phone: 716 - 222-3752 Fax: _____

E Mail: jmolek@stieglitzsnyder.com

Project Location (must be verified by Town Assessor's Office)**:**

Address: 2525 KENSINGTON AVE

SBL No(s): *Deed Reference: Liber 11117, Page 3180*
Tax ID: 80.11-1-6.2

Project Name: SHATKIN SCHOOL OF DENTISTRY AT DAEMEN COLLEGE / IMIT

Project Description:

MULTI-TENANT BUILD-OUT AND PARKING LOT EXPANSION ONTO RIDGEWOOD DRIVE

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

MAJOR SITE PLAN APPLICATION (con't) ***Page 3***

If this petition is an amendment to a previously approved site plan, please describe the proposed changes (include type and size of existing structures and number of existing parking spaces):

	existing	proposed	total
Gross Floor Area (non-residential):	29,350	4,400	33,750
Gross Floor Area Residential:			
Number of Residential Units:			
Number of Parking Spaces:	26	46	72

Acreage of Parcel: 1.24 AC

(list each parcel separately)

Frontage on Public Roads: 165.18'+333.61'+280.01'=778.8'

(list each road separately)

Existing Zoning District(s) GB - GENERAL BUSINESS

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Site Plan Submittal Requirements and Checklist

The following checklist outlines the information required by the Planning Department to accept a Site Plan application for review. ***It is strongly recommended that you make an appointment with Planning Staff to determine which items apply to your application***.

Item No.	Item	Submitted	Official use
I Basic Drawing Information			
1.0	**Drawing size not to exceed 24" x 36"**		
2.0	**Title of Drawing**		
3.0	**Name and address of Applicant**		
4.0	**Name of person preparing drawing**		
5.0	**Wet seal/raised seal and signature of NYS licensed architect, engineer, landscape architect, or surveyor (as applicable)**		
6.0	**Project address**		
7.0	**Zoning of subject property and adjacent parcels**		
8.0	**North point, scale, date, and revision date(s)**		
9.0	**4" x 6" reserved area in lower right hand corner for official Town use**		
II Structures, Paved Areas, & Open Space			
1.0	**Existing and Proposed Streets**		
1.1	Names of all existing and proposed streets		
1.2	Width and radii of proposed curb-cuts		
1.3	Existing curb-cuts on adjacent and opposite properties		
1.4	Show ROW width, pavement dimensions, lane widths, pavement markings, and proposed signage on proposed streets		
1.5	Show proposed ROW consistent with planned NYSDOT, Erie County, or Town road projects (if applicable)		
1.6	Show location of proposed cross access to adjacent parcels along with a draft easement		
1.7	Designation of Fire Lanes (if applicable)		
1.8	Fire apparatus access roads		
1.9	Label any proposed roads as public or private		
1.10	Location and dimensions of sidewalks		
1.11	Typical cross sections and profiles of proposed streets, pedestrian walkways, and bikeways		
2.0	**Proposed Structures**		
2.1	Location and complete dimensions of proposed structures		
2.2	Setback dimensions of structure(s) to all property lines		
2.3	Proposed use of structures		
2.4	Gross square feet area of each structure		
2.5	Location of all building entrances		
2.6	Indicate type of roof construction/materials		
2.7	Location, height, and design detail of existing and proposed fences and walls		
2.8	Location of light standards and building mounted lights		
2.9	Location of dumpster and detail of dumpster enclosure with gate		
2.10	Layout and dimensions of the lot(s) proposed for development		

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.	Item	Submitted	Official use
II Structures, Paved Areas, & Open Space (cont'd)			
3.0	**Floor Plans with individual rooms and spaces labeled** (fully dimensioned)		
4.0	**Building elevations with height dimensions from finished grade to the highest point of the roof and to midpoint of gable or hip of a pitched roof.** (fully dimensioned)		
4.1	Show screening of mechanical equipment		
5.0	**Parking/Loading/Stacking Areas**		
5.1	Location and complete dimensions of all paved areas		
5.2	Setback dimensions of all paved areas to property lines		
5.3	Dimension of typical parking space and drive aisles		
5.4	Location and layout of handicapped parking spaces & access aisles		
5.5	Detail of vertical signage for handicapped parking and access aisles		
5.6	Indicate minimum parking requirement & number of spaces provided		
5.7	Proposed signage for directing and guiding traffic		
5.8	Curb cut permits from NYS, Erie County, or Town (if applicable)		
5.9	Pedestrian connections (from proposed structures to public sidewalk network)		
6.0	**Location and proposed development of all open spaces, including parks, playgrounds, and open reservations**		
III Utilities and Drainage			
1.0	**Engineers Report** (bound separately from the Stormwater Pollution Prevention Plan [SWPPP])		
1.1	Stamped/sealed and signed by NYS licensed architect or professional engineer		
1.2	Proposed water service sizing, RPZ pressure and fire safety flow and pressure calculations		
1.3	Proposed sanitary sewer facility load calculations (avg. & peak flows) including calculation of the peaking factor		
1.4	Proposed storm drainage facility calculations (see information included with this application)		
2.0	**Grading Plan**		
2.1	Existing and proposed grades indicated (proposed grades may not exceed 1 on 3)		
3.0	**Water Service**		
3.1	Location, size and material of existing and proposed facilities		
3.2	Location of existing and proposed fire hydrant location(s)		
3.3	Indicate use of sprinklers, location of Fire Department connection, and proposed fire protection systems		
3.4	Existing and proposed meter/RPZ size and location		
3.5	Applicable construction details		
4.0	**Sanitary Sewers**		
4.1	Locations, sizes, slopes, inverts, and materials of all existing and proposed facilities		

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Item No.		Submitted	Official use
III Utilities and Drainage (cont'd)			
4.2	Applicable construction details		
4.3	Proposed water/oil/grease interceptor sizing calculations by a professional engineer (if applicable)		
5.0	**Storm Drainage**		
5.1	Locations, sizes, slopes, inverts, and materials of existing and proposed storm drainage facilities		
5.2	Connection of roof drains to proposed drainage system		
5.3	Applicable Town Standard construction details		
5.4	Existing and proposed swales and ditches		
5.5	Detention area cross-section and high-level elevations		
5.6	County and State approval for tie-in to existing sewers		
6.0	**Stormwater Pollution Prevention Plan (SWPPP) as applicable** (bound separately from the Engineer's Report) **See attached checklist.**		
7.0	**Natural Gas Service**		
8.0	**Location of transformers, generators and other mechanical equipment; include detail drawings (if applicable)**		
9.0	**Downstream Sanitary Capacity Analysis (DSCA) Report** (must be submitted if proposed average flows are greater than 2,500 gallons per day)		
9.1	The DSCA Report must include a detailed downstream sewer capacity analysis and the calculations of and commitment to (via Developer commitment letter) the required financial contribution to the Town's I/I mitigation fund based on peak flow conditions. The contribution must be based on $250 per gallon per minute of mitigated flow		
IV Lighting Plan			
1.0	**Photometric plan showing light spread in foot candles at property lines**		
1.1	Detail of all light standards, including dimension of height from finished grade		
1.2	Detail of all exterior lighting fixtures		
V Landscape Plan			
1.0	**Wet/raised seal and signature of a licensed Landscape Architect**		
2.0	**Provide a calculation of the total Parking area and a calculation of interior parking area in square feet and as a percentage**		
3.0	**Indicate location, size, number and type of proposed landscape materials**		
4.0	**Indicate location, type and size of <u>all</u> existing trees 4" caliper or larger and indicate which will be removed or retained**		
VI Other Required Information/General Requirements			
1.0	**Complete boundary survey that includes all existing structures, acreage, legal description with reference to a property line, street, or other known feature, and easements plotted to scale by a NYS licensed land surveyor**		

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official Use
VI Other Required Information/General Requirements (cont'd)			
1.1	Copies of all easements, reciprocal access agreement or similar leag documents		
2.0	**Topographic Survey with a 30 ft. buffer outside all property lines by a NYS licensed land surveyor**		
3.0	**Draft of any deed restrictions, covenants, provisions for home associations and common ownership, and reciprocal easement agreements (as applicable).**		
4.0	**For assessment purposes, state intent to apply for condominium status (if applicable).**		
5.0	**Completed and signed Environmental Assessment Form**		
5.1	Soil boring report and geotechnical report prepared by a qualified Professional Engineer (if applicable)		
5.2	Traffic Impact Study (if applicable)		
5.3	Archaeological survey (if applicable		
5.4	Wetland Delineation report (if applicable)		
6.0	**Show existing zoning(s) of both the subject property and adjacent parcels on the Site Plan and the Landscape Plan**		
7.0	**Location of NYSDEC wetlands (including buffer area) and/or federal wetlands; indicate jurisdictional status**		
8.0	**Location of Floodway and floodplain** (if applicable)		
9.0	**Documentation pertaining to any conditions of zonings, including copies of required deed restrictions; indicate date of rezoning and the parcel address under which it was rezoned (if applicable)**		
10.0	**Documentation related to any required variances granted by the ZBA**		
11.0	**For residential site plans, provide a statement from the appropriate school district that adequate school sites and facilities are available.**		
12.0	**8 1/2" X 11" reduction of primary site plan drawing (see appendix "B" of application package for specifications)**		
13.0	**A CD containing a PDF of all site plan drawings (Must also be provided with revised drawings)**		
VII Additional Required Information for Projects in the Mixed Use Districts			
1.0	**Design Advisory Board Application**		
1.1	Required for Major Site Plan		
1.2	Required at the Planning Directors Discretion for Minor Site Plans		
2.0	**Block & Street Network Plan**		
2.1	Designation of Core, Local & Alley streets		
2.2	Dimensions of Blocks		
3.0	**Block Usage Plan (as applicable)**		
3.1	Designation of site usage for each block including open space areas		
4.0	**Phasing Plan**		

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
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For official use only:

_____
Approved/Date

X:\Current_Planning\Application Forms 2013 Working Doc\Major Site Plan\Site Plan Submittal Requirements and Checklist (3).doc

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
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TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Urban Soil	severe	severe	severe	severe	severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   ____ Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes X No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes X No
   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes X No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   No

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes X No
   Describe_____
   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project Reference traffic study
   Source: _____

8. Will blasting occur during construction? □ Yes X No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? X Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    _1120_____ average flow _4400_____ peak flow.
    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes X No

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TOWN OF AMHERST

APPLICATION & REVIEW PROCEDURE

MAJOR SITE PLAN

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9. All drawings should be no larger than 24 in. x 36 in. If site characteristics warrant larger plan sheets, they may be accepted subject to Planning Department concurrence. All drawings must also reserve a 4 in. x 6 in. area in the lower right hand corner for official Town use.

APPLICATION PROCEDURES

1. Applicant secures application package from the Planning Department, 5583 Main Street, Williamsville, NY 14221. (716) 631-7051. Forms are also available online at: www.amherst.ny.us, (keyword: Planning).

2. Applicant prepares information as required on the Site Plan Submittal Checklist, attached. NOTE: Some proposals may not require all items on the checklist; please verify with the Planning Department.

3. Applicant schedules an appointment with the Planning Department to review the following:
   - a complete set of site plan drawings, preliminary building elevations and floor plans (no larger than 24" x 36" in size)
   - Environmental Assessment Form (EAF) & Town EAF Addendum
   - any supporting reports and materials
   - verification from the Town Assessor that the address in the application is correct

4. Applicant schedules an application submittal appointment with the Planning Department. NO SITE PLAN WILL BE ACCEPTED FOR REVIEW WITHOUT A PRE-SET SUBMITTAL APPOINTMENT.

5. At the submittal appointment, applicant provides fourteen (14) complete and collated sets of drawings and application information to the Planning Department **(materials will not be accepted unless folded into 9" x 12" in size),** including**:**
   - application form
   - Environmental Assessment Form (EAF)
   - supporting reports / materials
   - complete set of site plan drawings, preliminary building elevations and floor plans (**at least one (1) set of drawings must bear a raised or wet seal and signature of the design professional** who prepared the plans; the remaining copies may be submitted with a facsimile of the seal and signature)
   - digital files of all materials in pdf format
   - an 8½" x 11" reduction of the sketch plan or plat drawing (see Appendix B)

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

6. After approval for filing by the Planning Department, applicant submits all necessary fees to the Town Clerk. **(See Schedule of Fees on first page of application and make checks payable to: Town of Amherst.)**

7. The applicant returns a copy of the filing receipt to the Planning Department.

8. The Planning Department transmits remaining thirteen (13) copies of the application and supporting materials to:
   - Assessor
   - Commissioner of Building
   - Town Engineer
   - Superintendent of Highways
   - Traffic/Safety Board
   - Fire Chiefs' Association
   - Plumbing Division
   - Right-of-Way Agent
   - Police Department (if applicable)
   - Zoning Enforcement Officer
   - Other Town and outside agencies, as applicable

9. Within 30 days of its receipt of the complete application for Site Plan approval, each agency completes its review and notifies the Planning Department in writing of its comments or recommendations as required by Ordinance.

10. The applicant may be required to submit revised plans, reports, or materials to address review agency comments. The procedures for submittal of revised plans are as follows:

    - A cover letter addressing all comments received to date is required.
    - "Highlight" the area of change on the drawings and provide a notation describing the change.
    - Revised plans/materials are required. Planning staff should be contacted to determine the number of sets needed.
    - All revised plans and materials must also be provided in an electronic format that contains pdf files of the revised information.

11. The Planning Board reviews the EAF to determine whether a Draft Environmental Impact Statement (DEIS) is required. The petitioner will be advised in the event that a DEIS is required and afforded the opportunity to prepare it. If the petitioner declines, the Planning Board will prepare the DEIS at the petitioner's expense. The public hearing will be held on the DEIS concurrently with the Planning Board hearing on the application.

12. Planning Board Meeting Procedures:

    The applicant or representative presents the project at the public hearing before the Planning Board and is available to answer any questions. The Planning Board may take any of the following actions:

    - Adjourn the hearing to a future Planning Board meeting (hearing remains open).
    - Close the hearing and table action on the site plan to a future Planning Board meeting. (The Planning Board may remove the item from the agenda until such time as all required information is provided.)
    - Close the hearing and make a decision on the site plan.

    All determinations on matters before the Planning Board are made after all public hearings on that meeting's agenda are completed.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

13. A copy of the Planning Board's determination will be provided to the applicant, his / her representative, the Building Commissioner and the Town Clerk approximately 1 week following the Planning Board meeting at which it was heard.

14. If the Planning Board approves a Site Plan with conditions, the Planning Department will work with the applicant to ensure that all conditions of the approval are satisfactorily addressed. When all conditions are satisfied, the applicant submits **seven (7) final copies** of the complete set of all site plan drawings, folded into 9" x 12". For site plans in the Mixed-Use zoning districts, building elevations will also be required.

    All 7 sets must have original wet seals and include the required 4 in. x 6 in area in the lower right hand corner for official Town use. These drawings will be stamped and signed "Approved" by the Planning Director and transmitted to Town Departments for their files and use.

15. A building permit will not be issued by the Building Department until the stamped and signed Site Plan is issued by the Planning Director.

NOTE: Please check with the Planning Department to determine the deadline date for filing applications. Due to the public hearing notice requirements and department reviews, no site plan application will be placed on the Planning Board agenda after the deadline for filing has closed. Scheduling may be delayed if an application is incomplete.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Major Site Plan Review

For Official Use

File #: _____ **Acreage** _____ **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Received by Planning Department _____ RECEIVED BY DATE

Fee Paid to Town Clerk _____ RECEIVED BY DATE

Site Plan Review		**Fill In Applicable Fees**
1 acre or less	$1,250.00	_____
Each additional acre or fraction thereof	$ 650.00/acre	_____
Amendments to Site Plans	$1,200.00	_____
Request for Relief of / Change to Conditions of Site Plan Approval	$1,200.00	_____
Request for Extension of Site Plan Approval	$ 450.00	_____
Stormwater Pollution Prevention Plan		
1 - 4.99 Acres	$ 500.00	_____
5 - 10 Acres	$ 750.00	_____
>10 Acres	$1,000.00	_____
Affidavit Fee for Public Hearing	$ 15.00	_____
	TOTAL FEE:	**$**_____

To Be Completed By Applicant

Petitioner:

Name: Philipps Bros Supply Inc.

Address: 2525 Kensington Ave

Amherst (city) NY (state) 14226 (zip code)

Phone: 716-839-4800 Fax: 716-839-4051

E Mail: pphilipps@philippsbros.com

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

MAJOR SITE PLAN APPLICATION (con't) ***Page 2***

Representative (Architect, Engineer, Landscape Architect, Surveyor, or Attorney)**:**

Name: Joseph Molek

Address: 425 Franklin Street

Buffalo (city) NY (state) 14202 (zip code)

Phone: 716 - 222-3752 Fax: _____

E Mail: jmolek@stieglitzsnyder.com

Project Location (must be verified by Town Assessor's Office)**:**

Address: 2525 KENSINGTON AVE

SBL No(s): *Deed Reference: Liber 11117, Page 3180*
Tax ID: 80.11-1-6.2

Project Name: SHATKIN SCHOOL OF DENTISTRY AT DAEMEN COLLEGE / IMIT

Project Description:

MULTI-TENANT BUILD-OUT AND PARKING LOT EXPANSION ONTO RIDGEWOOD DRIVE

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

MAJOR SITE PLAN APPLICATION (con't) ***Page 3***

If this petition is an amendment to a previously approved site plan, please describe the proposed changes (include type and size of existing structures and number of existing parking spaces):

	existing	proposed	total
Gross Floor Area (non-residential):	29,350	4,400	33,750
Gross Floor Area Residential:			
Number of Residential Units:			
Number of Parking Spaces:	26	46	72

Acreage of Parcel: 1.24 AC

(list each parcel separately)

Frontage on Public Roads: 165.18'+333.61'+280.01'=778.8'

(list each road separately)

Existing Zoning District(s) GB - GENERAL BUSINESS

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Site Plan Submittal Requirements and Checklist

The following checklist outlines the information required by the Planning Department to accept a Site Plan application for review. ***It is strongly recommended that you make an appointment with Planning Staff to determine which items apply to your application***.

Item No.	Item	Submitted	Official use
I Basic Drawing Information			
1.0	**Drawing size not to exceed 24" x 36"**		
2.0	**Title of Drawing**		
3.0	**Name and address of Applicant**		
4.0	**Name of person preparing drawing**		
5.0	**Wet seal/raised seal and signature of NYS licensed architect, engineer, landscape architect, or surveyor (as applicable)**		
6.0	**Project address**		
7.0	**Zoning of subject property and adjacent parcels**		
8.0	**North point, scale, date, and revision date(s)**		
9.0	**4" x 6" reserved area in lower right hand corner for official Town use**		
II Structures, Paved Areas, & Open Space			
1.0	**Existing and Proposed Streets**		
1.1	Names of all existing and proposed streets		
1.2	Width and radii of proposed curb-cuts		
1.3	Existing curb-cuts on adjacent and opposite properties		
1.4	Show ROW width, pavement dimensions, lane widths, pavement markings, and proposed signage on proposed streets		
1.5	Show proposed ROW consistent with planned NYSDOT, Erie County, or Town road projects (if applicable)		
1.6	Show location of proposed cross access to adjacent parcels along with a draft easement		
1.7	Designation of Fire Lanes (if applicable)		
1.8	Fire apparatus access roads		
1.9	Label any proposed roads as public or private		
1.10	Location and dimensions of sidewalks		
1.11	Typical cross sections and profiles of proposed streets, pedestrian walkways, and bikeways		
2.0	**Proposed Structures**		
2.1	Location and complete dimensions of proposed structures		
2.2	Setback dimensions of structure(s) to all property lines		
2.3	Proposed use of structures		
2.4	Gross square feet area of each structure		
2.5	Location of all building entrances		
2.6	Indicate type of roof construction/materials		
2.7	Location, height, and design detail of existing and proposed fences and walls		
2.8	Location of light standards and building mounted lights		
2.9	Location of dumpster and detail of dumpster enclosure with gate		
2.10	Layout and dimensions of the lot(s) proposed for development		

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.	Item	Submitted	Official use
II Structures, Paved Areas, & Open Space (cont'd)			
3.0	**Floor Plans with individual rooms and spaces labeled** (fully dimensioned)		
4.0	**Building elevations with height dimensions from finished grade to the highest point of the roof and to midpoint of gable or hip of a pitched roof.** (fully dimensioned)		
4.1	Show screening of mechanical equipment		
5.0	**Parking/Loading/Stacking Areas**		
5.1	Location and complete dimensions of all paved areas		
5.2	Setback dimensions of all paved areas to property lines		
5.3	Dimension of typical parking space and drive aisles		
5.4	Location and layout of handicapped parking spaces & access aisles		
5.5	Detail of vertical signage for handicapped parking and access aisles		
5.6	Indicate minimum parking requirement & number of spaces provided		
5.7	Proposed signage for directing and guiding traffic		
5.8	Curb cut permits from NYS, Erie County, or Town (if applicable)		
5.9	Pedestrian connections (from proposed structures to public sidewalk network)		
6.0	**Location and proposed development of all open spaces, including parks, playgrounds, and open reservations**		
III Utilities and Drainage			
1.0	**Engineers Report** (bound separately from the Stormwater Pollution Prevention Plan [SWPPP])		
1.1	Stamped/sealed and signed by NYS licensed architect or professional engineer		
1.2	Proposed water service sizing, RPZ pressure and fire safety flow and pressure calculations		
1.3	Proposed sanitary sewer facility load calculations (avg. & peak flows) including calculation of the peaking factor		
1.4	Proposed storm drainage facility calculations (see information included with this application)		
2.0	**Grading Plan**		
2.1	Existing and proposed grades indicated (proposed grades may not exceed 1 on 3)		
3.0	**Water Service**		
3.1	Location, size and material of existing and proposed facilities		
3.2	Location of existing and proposed fire hydrant location(s)		
3.3	Indicate use of sprinklers, location of Fire Department connection, and proposed fire protection systems		
3.4	Existing and proposed meter/RPZ size and location		
3.5	Applicable construction details		
4.0	**Sanitary Sewers**		
4.1	Locations, sizes, slopes, inverts, and materials of all existing and proposed facilities		

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official use
III Utilities and Drainage (cont'd)			
4.2	Applicable construction details		
4.3	Proposed water/oil/grease interceptor sizing calculations by a professional engineer (if applicable)		
5.0	**Storm Drainage**		
5.1	Locations, sizes, slopes, inverts, and materials of existing and proposed storm drainage facilities		
5.2	Connection of roof drains to proposed drainage system		
5.3	Applicable Town Standard construction details		
5.4	Existing and proposed swales and ditches		
5.5	Detention area cross-section and high-level elevations		
5.6	County and State approval for tie-in to existing sewers		
6.0	**Stormwater Pollution Prevention Plan (SWPPP) as applicable** (bound separately from the Engineer's Report) **See attached checklist.**		
7.0	**Natural Gas Service**		
8.0	**Location of transformers, generators and other mechanical equipment; include detail drawings (if applicable)**		
9.0	**Downstream Sanitary Capacity Analysis (DSCA) Report** (must be submitted if proposed average flows are greater than 2,500 gallons per day)		
9.1	The DSCA Report must include a detailed downstream sewer capacity analysis and the calculations of and commitment to (via Developer commitment letter) the required financial contribution to the Town's I/I mitigation fund based on peak flow conditions. The contribution must be based on $250 per gallon per minute of mitigated flow		
IV Lighting Plan			
1.0	**Photometric plan showing light spread in foot candles at property lines**		
1.1	Detail of all light standards, including dimension of height from finished grade		
1.2	Detail of all exterior lighting fixtures		
V Landscape Plan			
1.0	**Wet/raised seal and signature of a licensed Landscape Architect**		
2.0	**Provide a calculation of the total Parking area and a calculation of interior parking area in square feet and as a percentage**		
3.0	**Indicate location, size, number and type of proposed landscape materials**		
4.0	**Indicate location, type and size of <u>all</u> existing trees 4" caliper or larger and indicate which will be removed or retained**		
VI Other Required Information/General Requirements			
1.0	**Complete boundary survey that includes all existing structures, acreage, legal description with reference to a property line, street, or other known feature, and easements plotted to scale by a NYS licensed land surveyor**		

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official Use
VI Other Required Information/General Requirements (cont'd)			
1.1	Copies of all easements, reciprocal access agreement or similar leag documents		
2.0	**Topographic Survey with a 30 ft. buffer outside all property lines by a NYS licensed land surveyor**		
3.0	**Draft of any deed restrictions, covenants, provisions for home associations and common ownership, and reciprocal easement agreements (as applicable).**		
4.0	**For assessment purposes, state intent to apply for condominium status (if applicable).**		
5.0	**Completed and signed Environmental Assessment Form**		
5.1	Soil boring report and geotechnical report prepared by a qualified Professional Engineer (if applicable)		
5.2	Traffic Impact Study (if applicable)		
5.3	Archaeological survey (if applicable		
5.4	Wetland Delineation report (if applicable)		
6.0	**Show existing zoning(s) of both the subject property and adjacent parcels on the Site Plan and the Landscape Plan**		
7.0	**Location of NYSDEC wetlands (including buffer area) and/or federal wetlands; indicate jurisdictional status**		
8.0	**Location of Floodway and floodplain** (if applicable)		
9.0	**Documentation pertaining to any conditions of zonings, including copies of required deed restrictions; indicate date of rezoning and the parcel address under which it was rezoned (if applicable)**		
10.0	**Documentation related to any required variances granted by the ZBA**		
11.0	**For residential site plans, provide a statement from the appropriate school district that adequate school sites and facilities are available.**		
12.0	**8 1/2" X 11" reduction of primary site plan drawing (see appendix "B" of application package for specifications)**		
13.0	**A CD containing a PDF of all site plan drawings (Must also be provided with revised drawings)**		
VII Additional Required Information for Projects in the Mixed Use Districts			
1.0	**Design Advisory Board Application**		
1.1	Required for Major Site Plan		
1.2	Required at the Planning Directors Discretion for Minor Site Plans		
2.0	**Block & Street Network Plan**		
2.1	Designation of Core, Local & Alley streets		
2.2	Dimensions of Blocks		
3.0	**Block Usage Plan (as applicable)**		
3.1	Designation of site usage for each block including open space areas		
4.0	**Phasing Plan**		

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

For official use only:

_____
Approved/Date

X:\Current_Planning\Application Forms 2013 Working Doc\Major Site Plan\Site Plan Submittal Requirements and Checklist (3).doc

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Urban Soil	severe	severe	severe	severe	severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   ____ Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes X No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes X No
   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes X No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   No

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes X No
   Describe

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project Reference traffic study
   Source:

8. Will blasting occur during construction? □ Yes X No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? X Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    _1120_____ average flow _4400_____ peak flow.
    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes X No

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
Shatkin School of Dentistry / Philipps Bros Supply

Project Location (describe, and attach a location map):
2525 Kensington Ave at Bentham Pkwy and Ridgewood Drive

Brief Description of Proposed Action:
Shatkin School of Dentistry at Daemen College & Institute for Mobility and Technology on 1.2 acre existing developed parcel -plus- redevelopment of Ridgewood Drive into a new private paved surface parking lot.

Name of Applicant or Sponsor:	Telephone: 716-839-4800
Pat Philipps	E-Mail: pphilipps@philippsbros.com

Address:
2525 Kensington Avenue

City/PO:	State:	Zip Code:
Amherst	NY	14226

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Amherst Site Plan, building permit	☐	☑

3. a. Total acreage of the site of the proposed action? 1.24 acres
   b. Total acreage to be physically disturbed? 0.50 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.24 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☐	☑
b. Consistent with the adopted comprehensive plan?	☐	☐	☑

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES
If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES
If the proposed action will exceed requirements, describe design features and technologies:		
REFER TO ARCHITECTURAL SET	☐	☑
10. Will the proposed action connect to an existing public/private water supply?	NO	YES
If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities?	NO	YES
If No, describe method for providing wastewater treatment: _____	☐	☑
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____			

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe: EXISTING PUBLIC DRAINAGE IN RIDGEWOOD DRIVE		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: joseph molek Date: March 28 2022

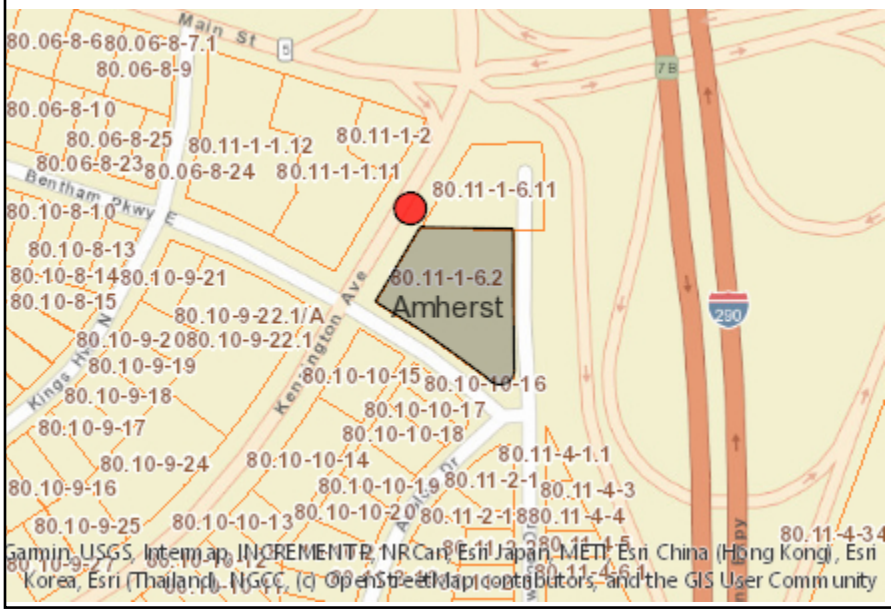
Signature: Title: Architect

PRINT FORM

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

EAF Mapper Summary Report

Monday, February 14, 2022 1:50 P.M.



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

March 28 2022

5583 Main Street Williamsville NY 14221
Town of Amherst Planning Department

STIEGLITZ SNYDER ARCHITECTURE

RE: 2525 Kensington Avenue – Philipps Bros. Supply / The Shatkin School of Dentistry and Parking expansion.

Dear Mr. Gary Palumbo,

We are submitting to the Planning Department our response to Major Site Plan review comments submitted by the following Departments:

Amherst Fire Chief Comments March 16 2022:

1. What fuel is used for generator? If diesel, provide specs on tank and quantity.

Fuel type is Diesel. See accompanying documents for tank specifications.

2. fire lane no parking signs are required on north side of the building

Signage will be provided.

3-Show location of fire department connection. Should be located on street side of building

Fire department connection will be provided at northwest corner of the building just north of the loading doc.

Engineering Department Comments March 9 2022:

1.An executed copy of the proposed access easement from the adjacent parcel to the north must be copied to this office prior to issuance of any town of Amherst plumbing permits for this project.

To be resolved with Town Board.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

2. An executed copy of the Town of Amherst License Agreement / Land lease regarding the use and improvement of Ridgewood drive must be copied to this office prior to the issuance of any Town of Amherst Plumbing permits for this project.

To be resolved with Town Board.

Planning Department comments March 7 2022:

Zoning Enforcement Officer Review:

Item #1

Owner/applicant to pursue 0 feet setback at proposed canopy addition location. We are requesting an Area Variance from the Ridgewood Drive Right-of-way.

Item #2

Owner/applicant to pursue 0 feet area setback for paved parking at the right-of-ways and north property line. We are requesting an Area Variance.

Item #3

Existing parking lot modified to comply with minimum size and spacing of car-parks and including a new curbed and landscaped end cap.

Item #4

Owner/applicant to pursue 0 feet setback at proposed trash enclosure location. We are requesting an Area Variance from the Ridgewood Drive and Bentham Pkwy Right-of-way.

Item #5

Landscape plan is sealed by NYS licensed Landscape Architect.

Item #6

Additional landscape screening is provided to screen Transformer and Generator. See accompanying transformer photo (similar size transformer will be used) and diesel fuel generator and tank.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Item #7

A foundation planting bed is now shown cut-out from the existing sidewalk fronting the west wall of the existing facility. Shrubs are added in the planting schedule.

Item #8

Site Lighting Plan – the intent is to illuminate Ridgewood Drive parking lot for safety. See accompanying revised drawing for lighting at south end of parking.

Item #9

Alternative parking analysis – See accompanying Traffic Study prepared by SRF Associates.

Planning Department Staff Review:

Item #1

Owner/Applicant will work with the Town of Amherst Board to remove parking restriction on Ridgewood Drive.

Item #2

Owner/Applicant will provide a license agreement for maintenance and use of Ridgewood Drive right of way.

Item #3

Boulders stones in the Kensington Avenue Right- of- way are shown to be removed.

Item #4

Northerly curb cut and driveway on Kensington Ave. is required for Fire Truck access along the north side of the building therefore we do not suggest removing this curb cut. We would agree to remove the southerly curb cut if deemed necessary however, we did not receive comment from NYSDOT to determine what concerns they may have, and therefore have not modified the site plan for such.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Item #5

See accompanying transformer photo (similar size transformer will be used) and diesel fuel generator and tank.

Item #6

See accompanying cut sheets for site and building mounted lighting fixtures.

Item #7

No other site features are anticipated.

Item #8

We hereby request a waiver for the sidewalk requirement along Ridgewood Drive. The area of concern contains proposed foundation plantings instead to augment the façade treatment.

Item #9

Signage will be submitted under separate cover for review by the Town of Amherst.

Item #10

SEAF – see accompanying document with applicant's name.

Item #11

See accompanying Application complete with Item #1, #5 and #7.

Item #12

We have provided 4"x6" in the lower right hand corner of all drawings that did not have the space available for Town use.

Item #13

An 8 1/2" x11" reduction of the modified site plan is included.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Landscape Architect Review:

Item #1

Bollards surrounding explosive mechanical equipment will contain a plastic covering *color safety yellow* for visible warning to motorists to avoid impact. Disguising bollards in this application is not recommended.

Item #2

Ridgewood Drive right-of-way contains various underground utilities, including ECWA water on each side of the roadway, that must remain as-is. We do not recommend planting trees atop these public utilities.

Item #3

Additional landscaping screening is shown on the south side of the transformer and west side of the generator to further restrict view from the public roadway.

Item #4

We do not intend to install landscaping on Thruway property. There is approximately 4-ft between the right-of-way/edge of pavement and the Thruway fence remaining that is shown re-planted as lawn.

Item #5

Existing trees or shrubs are shown with a legend for removals, if any. Brush shall be cleared from along the Thruway fence.

Item #6

See Item #5 – note on plan indicates where contractor is to protect or remove existing plantings.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Highway Dept. Review March 24 2022:

Item #1 – Applicant has requested abandonment of the portion of Ridgewood Drive running north of Bentham Pkwy. However, the underlying utilities including storm sewers, shall remain owned and maintained by the Town of Amherst.

End of comments.

If you would like to discuss these comments further, please don't hesitate to contact me at 716-222-3040 or via e-mail at jmolek@stieglitzsnyder.com.

Sincerely,

STIEGLITZ SNYDER ARCHITECTURE



Joseph Molek, RA

Project Architect

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Engineer's Report

for

SHATKIN SCHOOL OF DENTISTRY/IMIT
2525 KENSINGTON AVE
TOWN OF AMHERST, NY

February 22, 2022

Prepared By:

tredo
ENGINEERS

CIVIL | STRUCTURAL | ENGINEERING

755 Seneca Street, Suite 202
Buffalo, New York 14210
716.876.7147 ph



Seal

For:

Stieglitz Snyder Architecture
Buffalo, NY

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

tredo
ENGINEERS

I. SUMMARY

This project includes a mixed-use redevelopment and internal expansion in an existing 1-story retail/warehouse facility to include a dental school on a 1.2± acre parcel located at Kensington Avenue, Bentham Pkwy. and Ridgewood Drive in the Town of Amherst, New York. The GB-zoned site is located adjacent to the north terminal end of Ridgewood Drive, to which the applicant is requesting abandonment, and proposed replacement with a paved parking lot in a land-lease. The subject parcel is currently fully developed with replacement utility services planned for the uprated occupancy.

Sanitary wastewater is currently conveyed by 4-inch gravity piping from the building to an 8-inch public sewer found in Ridgewood Drive. New interior plumbing and partial replacement of the existing 4inch PVC lateral is planned.

New water service for domestic and fire-protection use of the multi-tenant build-out shall replace the existing tap and connect to the 6-inch main found in Kensington Ave. A new 6-inch tap with 4-inch DIP tee reducing to 3-inch and running to the water meter room and 6-inch DIP fire protection runs together in the same trench. The Erie County Water Authority (ECWA) regulates the water main. Metering and backflow prevention for the private services are contained within the facility mechanical room with application made by others.

Currently, storm water runoff generated by the site flows overland towards and into the existing surrounding roadway drainage systems. Replacement receivers are proposed for redevelopment of Ridgewood Drive from a roadway to a perpendicular car-park. New storm piping shall connect to existing manholes. One manhole rim is proposed to be raised-up to new grade of the proposed parking lot.

This development will not result in an increase in impervious surfaces on this site and does not involve soil disturbance greater than one (1) acre, thus stormwater detention is not provided. The site is not located within a 100-year floodplain. The site is currently fully developed and does not contain wetland.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

755 Seneca Street, Suite 202
Buffalo, New York 14210
716.876.7147 ph

www.tredoengineers.com

II. SANITARY SEWER SERVICE

The existing public 8-inch gravity sanitary sewer located on the west side of Ridgewood Drive will provide a sanitary sewer connection point. All public utilities within Ridgewood Drive shall remain operational and accessible for maintenance during and after reconstruction. One public sewer manhole rim is proposed to be raised-up to new grade of the proposed parking lot.

A replacement for the private 4-inch PVC (SDR35) sewer lateral will be installed to the proposed building sanitary sewer entry point at the north wall of the building from the existing tap per the building plumbing plans. The proposed facilities will generate a calculated 1120 gal/day (gpd) average of residential wastewater load* as per the following:

Day School: (30 empl x 15 gpd)+(52 students x 10 gpd) ~ 970
Existing retail/warehouse: (10 empl x 15 gpd) ~ 150

*Reference "NYS Design Standards for Intermediate Sized Treatment Works, March 2014"

III. WATER SERVICE

A new 6-inch water line for domestic and fire-protection will be connected to the existing 6-inch public main located on the east side (near side) of Kensington Ave. The following data pertains to the public watermain and private demands:

- Subsurface investigations indicates a somewhat shallow, till overburden on weathered shale bedrock. The presence of bedrock measurement approx. 7-ft below grade is indicated.
- The static pressure of the existing 6-inch public main is reported by ECWA as __ psi, and a residual (open hydrant) reading of __ psi. (Note that a recent pressure test is not available and a new test cannot be made at this time and until spring thaw)
- New domestic demand is limited to the proposed uses as a day school and retail/warehouse facility. New fire-protection demand design shall be by the building fire-protection engineer which may include a booster pump as required.

Erie County Water Authority (ECWA) governs the proposed tap and backflow prevention. ECWA provides the tapping sleeve and valve and the 4-inch gate valve and 6-inch gate valve installed at the property line. Metering and backflow prevention is contained within the facility. Meter set is also provided by ECWA. A Backflow Prevention Application shall be provided under separate cover on behalf of the water customer.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

IV. STORMWATER MANAGEMENT

I. Existing (Pre-Development) Conditions

The subject parcel is currently built-out with building and pavements. No on-site stormwater receivers were found. Ridgewood Drive contains curb inlets and storm piping conveyances owned and maintained by the Town of Amherst.

II. Proposed (Post-Development) Conditions

The proposed development includes the construction of a new canopy entry structure and associated paved parking in a land-lease agreement to use Ridgewood Drive as a car-park. Storm water receivers are replaced, existing piping abandoned, with new piping connections made to existing manholes. Storm pipe sizing for conveyance of the 10-year storm event is included in Appendix A for new drainage in Ridgewood Drive.

V. PERMITS

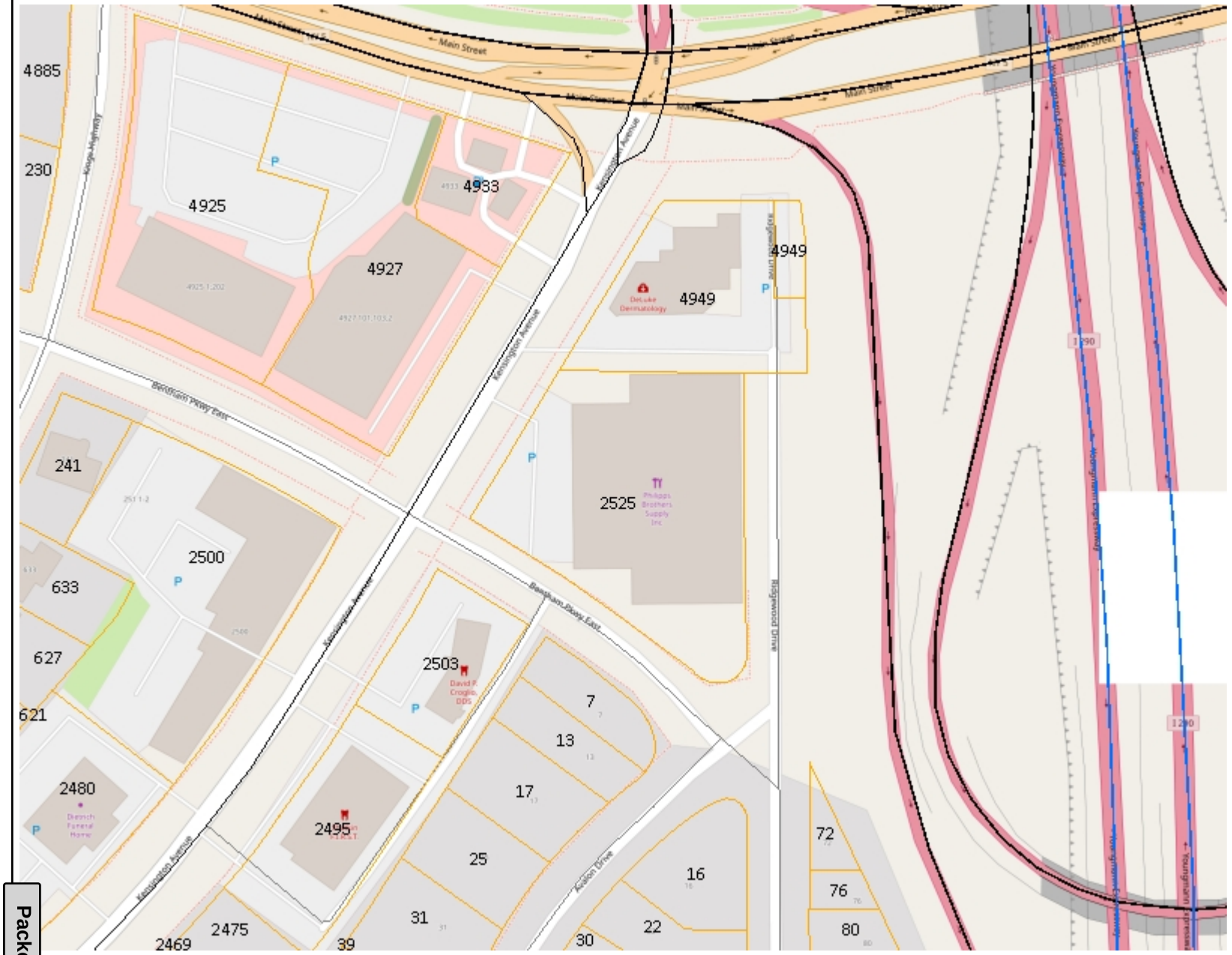
The proposed construction of the building addition, abandonment of public rights-of-way, new parking areas and drainage must receive approval from the Town of Amherst. An application for backflow prevention for private service must be made to the Erie County Water Authority (ECWA).

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

APPENDIX A

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Erie County On-Line Mapping Application





Legend

- Parcels
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road

0.04 0.1 Miles

VGS_1984_Web_Mercator_Auxiliary_Sphere

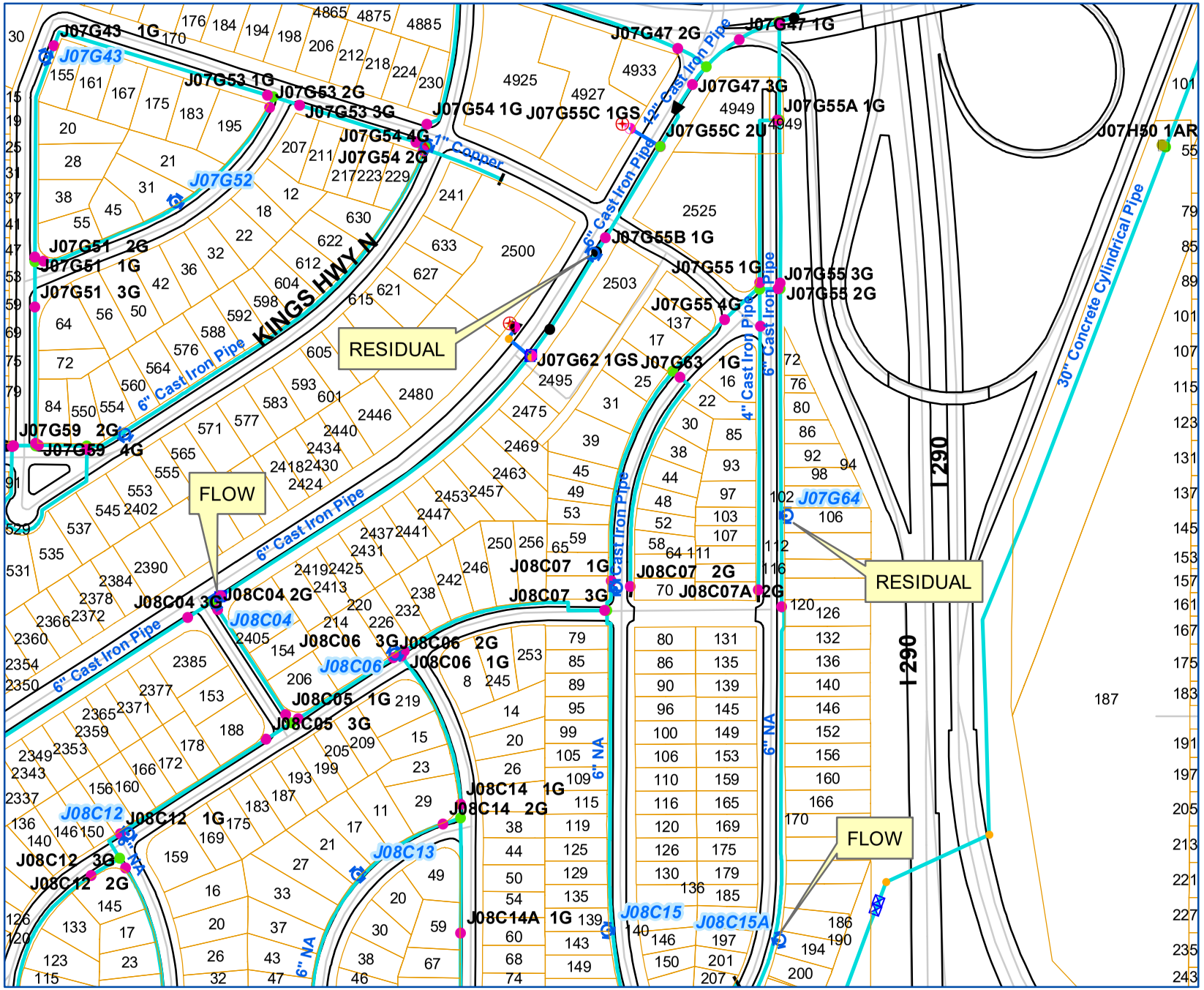
HIS MAP IS NOT TO BE USED FOR NAVIGATION

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

1: 2,257

2525 KENSINGTON



Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

STORM SEWER COMPUTATIONS (10 yr)

	RUNOFF AND FLOW																
	SEWER LOCATION			TRIBUTARY AREA (acres)		RUNOFF COEFFICIANT C									TIME OF CONC. T_c (min)	INTENSITY I (in/hr)	FLOW Q (cfs)
	area	from	to	A	SUM A	c	cA	SUM cA	LENGTH	SLOPE	PREV. Tc	T. of conc. c	RUNOFF Tc				
43.49																	
7.75																	
0.78	1	CB-1	ex mh1	0.10	0.10	0.90	0.09	0.09	70.00	1.50		0.90	2.63	2.63	10.00	4.6	0.43
	2	CB-2	CB-3	0.10	0.10	0.90	0.09	0.09	70.00	1.50		0.90	2.63	2.63	10.00	4.6	0.41
	3	CB-3	CB-4	0.32	0.41	0.90	0.28	0.37	70.00	1.50	10.57	0.90	2.63	10.57	10.57	4.5	1.67
	4	CB-4	ex mh2	0.13	0.54	1.90	0.24	0.61	70.00	1.50	10.83	1.90	10.52	10.83	10.83	4.5	2.72
					0.51												

	DESIGN								
	MANNING n	SLOPE S (%)	DIAMETER D (in)	CAPACITY Q (cfs)	CAPACITY VELOCITY V (ft/sec)	% capacity	peak factor	FLOW VELOCITY V (ft/sec)	LENGTH L (ft)
1	0.012	0.50	6	0.43	2.19	0.99	1.16	2.55	40
2	0.012	0.50	6	0.43	2.19	0.94	1.15	2.52	70
3	0.012	0.50	10	1.68	3.09	0.99	1.16	3.58	85
4	0.012	0.50	12	2.74	3.48	0.99	1.16	4.04	40

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

APPENDIX B

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

APPENDIX C

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

October 18, 2021 Job No: 21-599

Shatkin School of Dentistry
2500 Kensington Avenue
Amherst, New York 14226

ATTN: Dr. Todd Shatkin, DDS

RE: Geotechnical Engineering Report
Proposed Mezzanine & Canopy at
Shatkin School of Dentistry
2525 Kensington Avenue
Town of Amherst, Erie Co., New York 14226

Dr. Shatkin:

This report presents the findings of the subsurface investigation program and geotechnical engineering recommendations for the above referenced project. The geographic orientation of the project site is illustrated on the U.S. Geologic Survey (USGS) site location map in Figure No. 1. The project site is illustrated in Figure No. 2, entitled "Test Boring and Concrete Core Location Plan", which includes: the approximate location of one exterior test boring and two interior concrete floor slab cores that were drilled by Buffalo Drilling Company, Inc. (BDC); relative ground surface elevations; and additional site details.

EXPLORATION METHODS

Sampling Method: A truck-mounted CME 55 rotary drill rig was used to drill one boring to shallow auger refusal by using 4-1/4 inch inside diameter (ID), continuous flight hollow stem augers. Samples were recovered by driving a standard split-spoon sampler (2-foot long by 1-3/8 inch inside diameter) 24 inches with a 140-pound hammer falling 30 inches per blow per the American Society of Testing and Materials (ASTM) Standard D1586. The number of blows from six to 18 inches of penetration is defined as the Standard Penetration Test (SPT) N-value. Auger refusal, which may infer the top of bedrock, was encountered approximately seven feet below ground surface. Inside the existing structure, an electric core machine with six-inch ID, diamond impregnated bit was used to core through the concrete floor slab to gain access to subsurface soils at two locations, C-1 and C-2. Subsurface samples were retrieved via hand sampler beneath concrete floor slab.

Bedrock was confirmed by coring boring B-1 to a depth of approximately five feet below auger refusal. Bedrock coring efforts were done with an Nx-sized (2-1/8-inch I.D.) core barrel and impregnated diamond bit in accordance with ASTM Method D2113.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Any encountered groundwater conditions are documented in the field on the driller's logs for each test boring. If indicators of groundwater are observed on the sampling equipment, the depth to groundwater is also checked and measured through the hollow stem augers at the completion of the sampling efforts.

Classification: The retrieved soil samples were initially logged in the field by the driller, and a portion of each sample was placed and sealed in a glass jar. The boring logs, which are included in Appendix A, were based upon the field logs and a second visual classification of recovered samples in the laboratory by a geologist. Classification/identification of samples, as noted on the boring logs, is based on the Unified Soil Classification System (USCS) in ASTM D2487/D2488. Refer to Appendix B entitled, "Geotechnical Reference Standards", for an explanation of the terminology that is used for soil and rock descriptions.

Each rock core was examined on a run-by-run basis to determine the percentage of core recovery and Rock Quality Designation (RQD). Core recovery percentage is the ratio of the sample length recovered divided by the length of the core run times 100 percent. RQD is defined as the total length of all pieces of core that are greater than four inches divided by the length of the core run times 100 percent. Core recovery and RQD percentages are noted on the boring logs.

Each core sample of the existing concrete floor slab was observed, measured, and photographed for review. Details can be found on the test boring/core logs C-1 and C-2 in Appendix A and the photographs are available in Appendix C, entitled "Floor Slab Core Photographs".

SITE AND SUBSURFACE CONDITIONS

General: The proposed site for development is the existing Phipps Brothers Supply, Inc. building addressed as 2525 Kensington Avenue, in the Town of Amherst, Erie County, New York. The project will include the construction of an interior mezzanine and an exterior canopy over the drop off area along the east side of the building. The site topography is generally flat across test boring locations.

Subsurface Soil Conditions: In general, subsurface conditions, underlying the exterior asphalt pavement or interior concrete floor slab, consist of one to two feet of granular fill material atop naturally deposited cohesive/fine-grained glacial till that extends to auger refusal.

Beneath the asphalt at B-1, granular fill material was encountered and extends two feet below ground surface. This fill consists of fine to coarse-grained sand to gravel sized crushed limestone and is believed to be the aggregate base course for the asphalt pavement. Relative density of the granular fill is medium dense with moisture contents of retrieved samples noted to be in a moist state. Beneath interior concrete floor slab at boring/cores C-1 and C-2, the granular fill is a loose to medium dense silty sand with trace quantities of gravel. This fill is described as a spent foundry sand typical of the metal casting industry which has a historic common reuse in this region as concrete slab/rigid pavement base layers.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Beneath the fills, a naturally deposited cohesive/fine-grained glacial till exists and extends to auger refusal at B-1 and the remain depths advanced at C-1 and C-2. The till generally consists of slightly to moderately plastic, silt and clay with lesser amounts of sub-rounded fine-sized to coarse-sized sand and gravel. The consistency of this soil is primarily stiff to hard with moisture contents of retrieved samples noted to be moist. Spoon refusal conditions are also noted in the lower depths of the unit closer to soil bedrock interface. The proposed footing bearing grades for the proposed structures are assumed to be within this soil.

Bedrock: Auger refusal, which is generally inferred to be the top of the apparent bedrock surface, was encountered at B-1 approximately seven feet below ground surface. Confirmatory rock coring was advanced five feet beneath the refusal condition and bedrock samples collected. The bedrock type is the Onondaga Limestone, which is described as hard, slightly weathered, medium dark gray, thinly bedded, porous and calcareous limestone. Percent recovery is lightly more than 50 percent with rock quality designations (RQD) noted as 30 percent. These RQD values suggest that the rock is poor quality.

Groundwater: Groundwater was not encountered during subsurface exploration efforts. Note that the groundwater readings were taken at the completion of drilling efforts and, therefore, an adequate amount of time for the groundwater level to recharge to static conditions was probably not allowed. Fluctuations in the groundwater level may occur due to other factors than those present during field operations.

EARTHQUAKE/SEISMIC CONSIDERATIONS

Site Class Definition: For the given site conditions, the most applicable site definition is Site Class C, in accordance with Section 1613.2.2 of Building Code of New York State © 2020 and listed in Table 20.3-1 of Chapter 20 of American Society of Civil Engineers (ASCE) Standard 7-16.

Liquefaction Potential: For the Site Class C, the design spectral response acceleration parameters S_{DS}, at 0.2 seconds, and S_{D1}, at one second, are 0.146g and 0.045g (g = 32.2 feet/sec^2), respectively, for this part of Erie County, New York (see Appendix D). These values have a two percent probability of being exceeded in 50 years. Based upon the above conditions and an approximate magnitude 6.0 earthquake on the Richter Scale, the potential for liquefaction or settlement of Site Class C soil is considered extremely low.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS

General: This section will present and discuss recommendations on foundation design and construction and placement of controlled fills, and subgrade and base layer requirements for concrete floor slabs.

As shown in Figure No. 2, a mezzanine will be constructed inside the northern warehouse portion of the existing building. Additionally, a canopy will be constructed to cover the drop off area at the rear of the structure. The existing ground surface is generally flat across the development area and final exterior grades are assumed to closely match the existing at relative elevation 100.00 ± feet. The maximum design exterior and interior column loads are not expected to exceed 100 kips. The maximum live floor load is taken as 100 pounds per square foot (psf).

Site Preparation and Earthwork: General site preparation will include the demolition and complete removal of any encountered foundations and floor slabs, and removing all unsuitable surficial material (i.e., asphalt pavement, concrete, brick, expansive slag, organic or topsoil layer, and construction and demolition-like fill) to a depth where firm, granular or cohesive fills or naturally occurring soils are encountered. It is recommended, particularly in the location of the proposed structure, that any slag and/or cinder/ash containing material, if encountered, should be tested to determine the expansion and corrosion characteristics (where applicable for direct or potential contact with foundation elements and buried utilities) of these materials prior to their use on-site. Any rubble-like and brick fill, boulders, or wood fill in particular, if encountered, will require undercutting. Building pad and paved areas are to be proof rolled with a fully loaded ten-wheel dump truck. All encountered soft and disturbed zones should be undercut and stabilized with granular fill that is placed in compacted lifts prior to placement of additional fill materials above. Refer to Appendix E entitled "General Earthwork Specification" for definition of the fill types and gradations, recommended minimum compaction requirements for various site developments, and placement and compaction methods. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components that are included in the select granular fill category as are as follows: Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred; or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size).

It is unknown if any former residential/commercial structures existed at the project site for the proposed renovations and if any former footings and foundation walls may be buried at the proposed site. Septic tank and system locations and the abandonment conditions or practices are normally unknown. If encountered during site development, it is recommended that any tanks and systems should be properly removed/treated/remediated relative to the proposed development and under the applicable local and state regulations. The remaining cavities, from the aforementioned items, should be backfilled with select/approved granular fill that is placed in thin lifts and compacted to the minimum recommendation, as presented in this report, for the proposed development at that cavity location.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Shallow Foundation: The recommended foundation type is shallow footings. Individual interior and exterior spread column footings would bear at an elevation of 42-inches or lower below final grade, at relative elevation 96.50 ± feet or lower. A 42-inches minimum footing depth (as required by local or New York State code) is needed to provide adequate protection from frost for exterior footings.

The exterior and interior footings are recommended to bear at the same relative elevation on stable, naturally deposited, stiff (Nvalues > 10 blows) cohesive/fine-grained glacial till or on thin layers of thoroughly compacted (minimum of 95 percent of the maximum dry density by ASTM D 1557) select/approved granular fill that is placed on approved subgrade. If needed, a geotextile strength and filter fabric (such as, Mirafi 600X) may be used to line the excavation bottom for the purpose of stabilizing the excavation and placement of the select/approved granular fill. Alternatively, in heated buildings the interior footings are recommended to bear two and one-half feet or lower below finish floor at relative elevation 97.50 ± feet and on the same soil/fill conditions as the exterior footings.

Undercut areas beneath proposed foundations must extend laterally beyond each vertically projected edge of the foundation by a minimum distance equal to one-half the total depth of the undercut or equating to a slope of two vertical to one horizontal from the bottom foundation corner. The undercuts and placement of compacted select/approved granular fill are required to ensure a suitable and more uniform bearing media for the footings, and to prevent unacceptable differential settlements.

Column footings should have a minimum three-foot width. Based on the above described conditions, the recommended maximum net allowable foundation bearing pressure is 2,500 pounds per square foot (psf) of bearing area. All footings for the proposed building are recommended to be designed near the same contact pressure. The recommended maximum net allowable foundation bearing pressure is based on generally accepted design methods for cohesive/fine-grained soil conditions. Based on the provisions of the above recommendations and estimated design requirements and utilization of proper construction procedures and experienced field supervision and testing personnel, total and differential settlements are estimated to be less than one inch and 3/4's inch, respectively. Refer to Appendix D for additional foundation design and construction details.

Additional Foundation Considerations: In addition to the above, the following recommendations will provide additional assurances with regard to proper foundation construction.

a) All fill placed beneath, adjacent, or above foundations must comply with the "General Earthwork Specification", included as Appendix E.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

b) Backfill of foundations with approved select granular fill must be completed prior to placement of substantial superstructure loads, except for basement walls or substructure areas that may additionally require superstructure loads and possibly internal bracing.

c) The upper silty materials may rut and "pump" if exposed to excessive surface water and repeated construction traffic. Proper site management and fill placement operations are needed to minimize costly undercuts and subgrade repairs prior to placement of concrete slabs and asphalt pavement. It is noted that construction during wet/rainy and/or Fall and Spring conditions may require added precautions and possibly a thicker base layer to maintain a stable subgrade condition.

d) Step footings, if utilized, should have a rise to run ratio of 1:2, with a two-foot maximum rise and a four-foot minimum run between steps or as recommended by the design structural engineer.

e) The recommended at rest (rigid wall), active, and passive static earth pressure coefficients for unsaturated, select granular sandy gravel fill against an earth retaining structure/wall are 0.76, 0.24, and 2.8 (with an ultimate value of 4.2), respectively. The respective equivalent static lateral fluid pressures are recommended to be 90, 30 and 330 (with an ultimate value of 500) pounds per square foot (psf) per foot depth which are based upon a moist, compacted unit backfill weight of 120 pounds per cubic foot (pcf). The at rest value would account for the average expected compaction induced stresses and/or the potential influences of hydrostatic pressure. The static lateral fluid pressures can be directly proportioned for other unit weights.

Stabilization of Excavations: The trench/excavation sidewall stability concerns can be addressed with the Occupational Safety and Health Act (OSHA) requirements as set forth in Subpart P of 29 CFR Part 1926, Sections 1926.650 to 1926.652. In lieu of a properly designed shoring system, side slopes of the trench excavation should be one on one (vertical to horizontal distance) or flatter in cohesive soils or one on one and one-half or flatter in the granular materials, as required by OSHA.

Water must not be allowed to accumulate or pond on exposed foundation bearing grades. Surface water and groundwater from within the excavation must be either pumped, diverted or channelized by gravity flow to effectuate the construction of the proposed foundation. Pockets of localized perched groundwater may seasonally be expected to be encountered at footing and/or footing undercut bearing grades. At these locations, dewatering with surface sumps may be required to maintain stable side slopes and excavation bottom.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Concrete Interior Floor Slab(s)/Pad: A geotextile fabric (such as, Mirafi 600X or equal) that separates the subgrade and the approved/select granular base layer is recommended for sensitive cohesive/fine-grained/silty subgrade soil/fills. This approach will stabilize and provide a workable building pad condition with minimal required repairs. The approved subgrades will most likely consist of stiff or better/thoroughly compacted (i.e., minimum 92 percent of the maximum dry density by ASTM D 1557) cohesive silt and clay, and/or a thoroughly compacted imported select/approved granular fill.

Above the approved subgrades, a minimum eight-inch thick for lightly loaded areas and minimum 12-inch thick for heavily loaded areas select granular fill (i.e., number two crusher run stone or equal) layer is recommended as the base course for concrete floor slabs. The NYSDOT specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum). This select granular base layer would be compacted to a minimum 95 percent of the maximum dry density by ASTM D 1557. The floor slabs in any lightly loaded areas are recommended to have a minimum four-inch thickness, while heavily loaded areas are recommended to have a minimum six-inch thickness or as determined by the design structural engineer. The floor slab reinforcement should be provided through placement of wire mesh or plastic fibers and is also as determined by the design structural engineer.

At the discretion of the design architect, a vapor barrier may be considered for use in the proposed structure. The use of a thin gravel cushion, as a capillary break, or a thin sand cushion over a vapor barrier that is placed beneath the concrete slab(s) are at the discretion of the design architect/engineer or as required by local code. Gradations of gravels that are satisfactory capillary breaks include 1 ¼-inch or ¾-inch crushed stone or aggregate per the ASTM D2321 Types IA, IB and II with less than 5 % fines. A number two crusher run stone may also be applicable, but the gradation and material property specifications must qualify.

At the assumed final site grade and based upon the thickness and character of the underlying natural soils, the subgrade modulus is recommended not to exceed 150 pounds per cubic inch (pci). A Poisson Ratio of 0.4 is recommended for design purposes. Isolation of the floor slabs from the footings-piers-columns and walls do appear to be warranted. Based upon the subgrade modulus and slab mechanical properties and thickness, the design structural engineer may accordingly adjust the granular aggregate base thickness.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Exterior Concrete Slabs-On-Grade/Pad/Parking and Roadway Facilities: The characteristics of the cohesive natural glacial till, and the known frost penetration in Western New York require that specific attention is provided to the design and construction of paved roadway and parking areas. For new pavement sections, isolated pockets of surficial silty/cohesive/fine-grained soil/fill may be encountered and may be too soft and wet in the proposed parking and roadway areas. These types of soil/fill may be adequately conditioned (i.e., dried and blended) and compacted (i.e., minimum 90 percent compaction) to support necessary construction equipment and normal pavement section. Otherwise, the removal/undercutting of the silty/cohesive/fine-grained soil/fill to a firm, approved subgrade and subsequent placement and compaction of select or approved granular fill will be required in order to accommodate the recommended pavement sections.

For new pavement sections, it is recommended that the subgrade surface is adequately graded and/or underdrains are installed to prevent water accumulation. Above the approved subgrade surface (i.e., minimum 90 percent compaction), a minimum eight-inch thick select granular layer is recommended as the base course for lightly traveled roadway and parking areas (standard duty section). A geotextile filter and strength fabric (such as, Mirafi 600X or equal) on silty/cohesive/fine-grained soil subgrades and minimum 12-inch thick base course are recommended for all truck routes and heavily traveled roadways (heavy duty section). If “pumping” of the silty/cohesive/fine-grained soil subgrade occurs or is difficult to stabilize during construction, an increase in the base thickness to that of the heavy-duty section and/or a geotextile filter and strength fabric is recommended to be placed on the prepared and approved subgrade for the standard duty section. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size). The granular aggregate base layer is recommended to be compacted to at least 95 percent of maximum dry density by ASTM D1557.

The thickness of top and binder course layers should be determined in accordance with AASHTO methods. In summary, the minimum recommended asphalt thicknesses for the heavy-duty section and standard duty section are three and one-half inches and three inches, respectively. The top and binder course layers are recommended to be designed and constructed in accordance with New York State Department of Transportation Standard Specification.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Limitations, Field Inspections and Monitoring: This report is based on the preliminary information that is provided by project representatives and the subsurface conditions that were encountered at the test boring locations. Due to the nature of the investigation method, test pit excavation will provide a greater level of delineation of the subsurface soil/fill/rock conditions than can be defined by the test boring data alone. As detailed in Appendix F "Limitations", modification regarding proposed building/structure locations and other site developments can result in changes to provided recommendations. It is recommended that the geotechnical engineer be provided the opportunity to generally review the final detailed design and contract specifications. Required earthwork and foundation construction should be done under the supervision of experienced construction personnel and in a manner consistent with proven methods. All site work should be carefully monitored and tested by experienced geotechnical personnel to assure compliance with earthwork and foundation construction specifications.

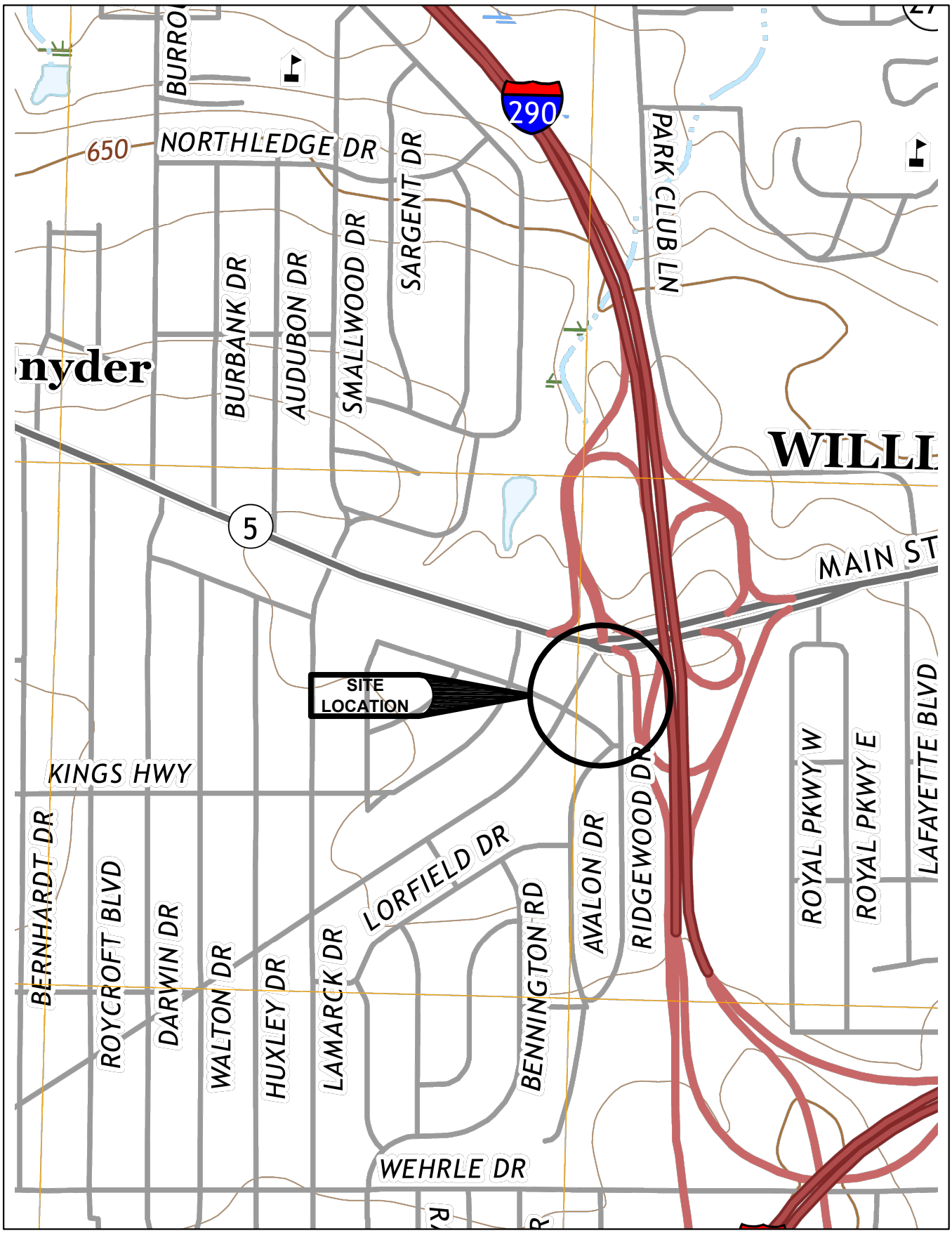
Thank you for the opportunity to assist on this project. If questions should arise, please call the undersigned at your earliest convenience.

Very truly yours,
BARRON & ASSOCIATES, INC.
and
BUFFALO DRILLING COMPANY, INC.

Andrew J. Camping, PG
Senior Geologist

James S. Barron, PE
President/Geotechnical Engineer

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)



BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

CLIENT: MR. TODD SHATKIN, D.D.S.
2500 KENSINGTON AVENUE
AMHERST, NEW YORK 14226

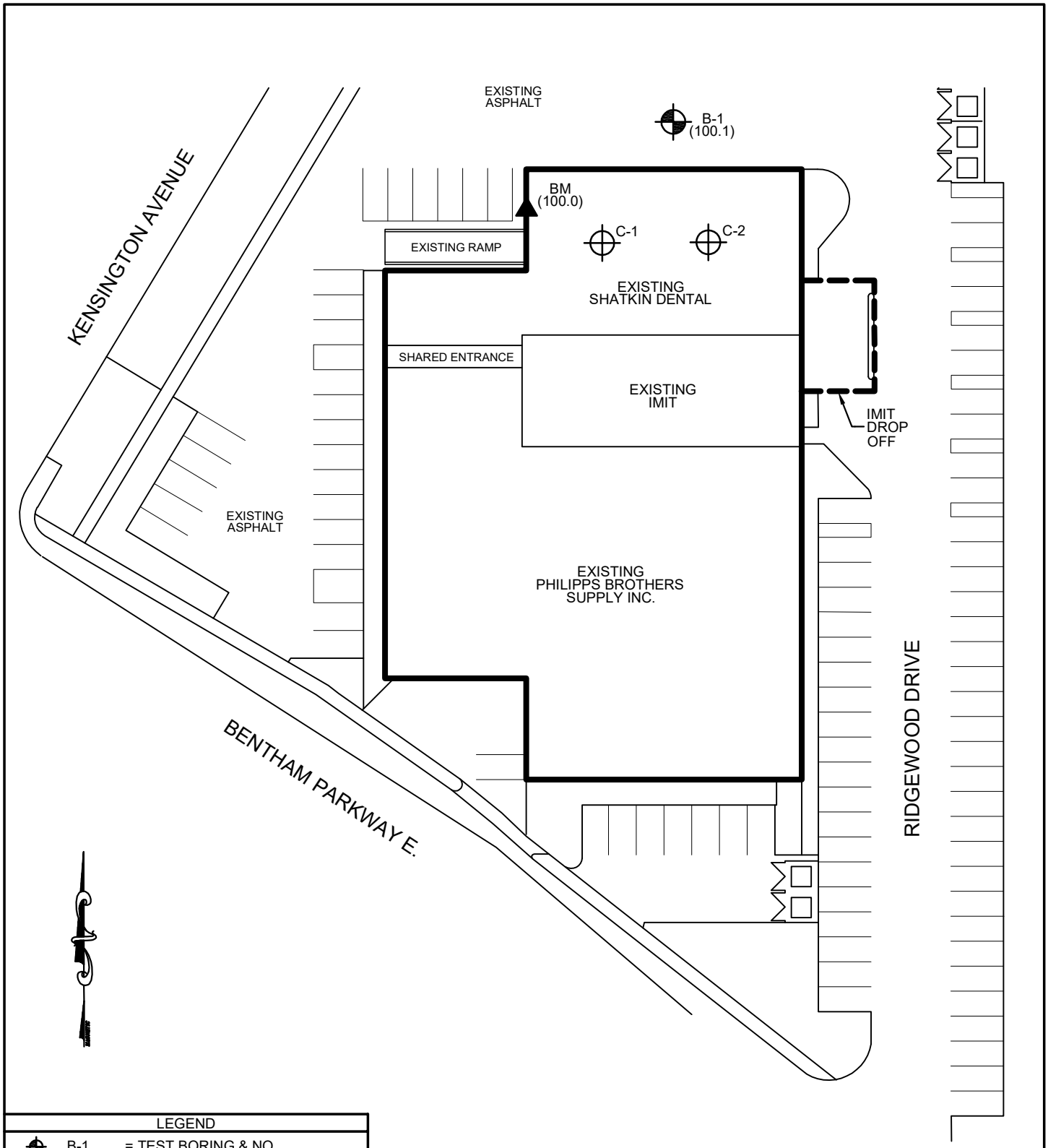
PROJECT: PROPOSED MEZZANINE AT
SHATKIN SCHOOL OF DENTISTRY
2525 KENSINGTON AVENUE
TOWN OF AMHERST,ERIE CO., NEW YORK 14226

NEW YORK STATE SITE LOCATION

USGS SITE LOCATION PLAN
BUFFALO NE
2019

JOB NO.: 21-599 | SCALE: N.T.S.
DATE: 8/10/2021 | FIGURE NO. 1

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)



LEGEND

⊕	B-1	= TEST BORING & NO.
⊕	C-2	= CONCRETE CORE & NO.
	(100.1)	= RELATIVE GROUND SURFACE ELEVATION (FT.)
▲	BM	= BENCH MARK (FINISH FLOOR OF EXISTING BUILDING)

NOTES:

1. BORING, CONCRETE CORES, BUILDINGS, SITE FEATURES, PROPERTY LINE LOCATIONS, & SCALE OF DRAWING ARE APPROXIMATE.
2. BASE MAP REFERENCE PROVIDED BY STIEGLITZ SNYDER ARCHITECTURE, TITLED "SITE PLAN - SHATKIN SCHOOL OF DENTISTRY DAMEN COLLEGE - INSTITUTE FOR MOBILITY AND TECHNOLOGY", DATED 6/1/2021.

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

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AMHERST, NEW YORK 14226

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2525 KENSINGTON AVENUE
TOWN OF AMHERST,ERIE CO., NEW YORK 14226

TEST BORING AND CONCRETE CORE LOCATION PLAN

0 25 50 100

JOB NO.: 21-599	SCALE: 1" = 50' ±
DATE: 8/10/2021	FIGURE NO. 2

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

APPENDIX A

TEST BORING AND CORE LOGS

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

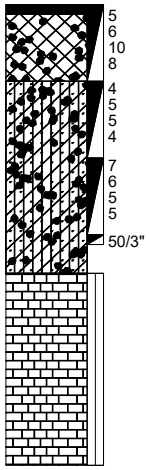
TEST BORING LOG

1.d

JOB No.: 21-599 **BORING No.:** B-1

PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

DRILLER:	D. Rimbeck	**TYPE OF DRILL RIG:**	CME 55 (Truck)
SAMPLING METHODS:	ASTM D1586 & D2113	**SIZE AND TYPE OF BIT:**	4 1/4" H.S.A. & Nx Core
DATE STARTED:	8/13/21	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	8/13/21	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0					
		S-1 : 0.0'- 2.0'	16	30	Asphalt (3"+/-) Gray, m. dense f/c sand to gravel-sized Crushed Limestone, moist (GV Fill)
		S-2 : 2.0'- 4.0'	10	50	Brown, stiff CLAY, and SILT, little f/c Sand, tr. Gravel, sl. to mod. plast wet (CL-Till)
95 — 5		S-3 : 4.0'- 6.0'	11	0	Same as S-2 (No Recovery)
		S-4 : 6.0'- 6.3'	50+	0	...grade: hard (No Recovery)
90 — 10		C-1 : 7.0'- 12.0'	-	53 (30)	ONONDAGA LIMESTONE: med. dark gray, finely crystalline, thin bedded, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE) # pieces > 1": 8 # pieces > 4": 4 longest piece: 5" *(Vertical fracture observed in lower half of retrieved core sample.)*
85 — 15					Depth to Bottom of Hole: 12.0 feet
80 — 20					
75 — 25					
70 — 30					
65 — 35					

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Logged by: B. Smith

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

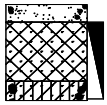
TEST BORING LOG

1.d

JOB No.: 21-599 **BORING No.:** C-1

PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

DRILLER:	D. Rimbeck	**TYPE OF DRILL RIG:**	Hand Sampler
SAMPLING METHODS:	ASTM D420	**SIZE AND TYPE OF BIT:**	2" I.D. Split Spoon
DATE STARTED:	8/13/21	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	8/13/21	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0					Concrete Floor Slab (5.5")
		S-1 : 0.5'- 2.5'	-	70	Dk. gray, f. Sand, little to tr. Silt, tr. Gravel, moist (SM-Fill) *(Appears to be foundry sand.)*
					Brown, stiff CLAY and SILT, little f/c Sand, tr. Gravel, sl. to mod. plasti moist (CL-Till)
					Depth to Bottom of Hole: 2.5 feet
95 — 5					
90 — 10					
85 — 15					
80 — 20					
75 — 25					
70 — 30					
65 — 35					

1. Concrete floor slab approximately 5.5" thick with welded wire mesh 1.75 inches from bottom.
2. Manually advanced split spoon sampler into ground to retrieve samples after coring.

Logged by: B. Smith

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

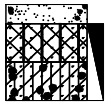
TEST BORING LOG

1.d

JOB No.: 21-599 **BORING No.:** C-2

PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

DRILLER:	D. Rimbeck	**TYPE OF DRILL RIG:**	Hand Sampler
SAMPLING METHODS:	ASTM D420	**SIZE AND TYPE OF BIT:**	2" I.D. Split Spoon
DATE STARTED:	8/13/21	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	8/13/21	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0					Concrete Floor Slab (6")
		S-1 : 0.5'- 2.5'	-	65	Dk. gray, loose, f. Sand, little to tr. Silt, tr. Gravel, moist (SM-Fill) *(Appears to be foundry sand.)*
					Brown, stiff CLAY and SILT, little f/c Sand, tr. Gravel, mod. to sl. plasti moist (CL-Till)
					Depth to Bottom of Hole: 2.5 feet
95 — 5					
90 — 10					
85 — 15					
80 — 20					
75 — 25					
70 — 30					
65 — 35					

1. Concrete floor slab approximately 6" thick with welded wire mesh 0.5 inches from bottom.
2. Welded wire mesh is not fulling integrated within floor slab at this location.
3. Manually advanced split spoon sampler into ground to retrieve samples after coring.

Logged by: B. Smith

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street
Clarence, NY 14031
(716) 759-7821
www.barronandassociatespc.com

APPENDIX B

GEOTECHNICAL REFERENCE STANDARDS

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

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10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

Column Header Descriptions

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

JOB No.: BORING No.:

PROJECT:

EXAMPLE

DRILLER:
SAMPLING METHODS:
DATE STARTED:
DATE COMPLETED:

TYPE OF DRILL RIG:
SIZE AND TYPE OF BIT:
SURFACE ELEVATION (ft.):
GROUNDWATER DEPTH (ft.):
(measured at completion unless indicated below)

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0	1 1 1 2 / 6 8 11 14	S-1 : 0.0'- 2.0'	2	50	Dk. brown, soft, CLAY, some Silt, little f. Sand, tr. Gravel, tr. Roots, tr. Organic matter, mod. plastic, wet (CL)
		S-2 : 2.0'- 4.0'	19	50	Brown, m. dense f. SAND, some Silt, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM)

Elevation/Depth: The depth column provides the vertical scale of the boring log in feet below ground surface.

Sample No. : Range: Disturbed samples are identified with “S” preceding the sample number. Undisturbed (Shelby-tube) samples are identified with “U” preceding the sample number. Rock core samples identified with “C” preceding the core run. The range of elevation/depth where the sample was taken is identified in one-tenth foot increments.

N-value: The Standard Penetration Test N-value, as specified by ASTM D1586, is defined as the number of blows required by a 140-pound hammer falling 30 inches, each blow, to drive a 2-in outside diameter split-spoon sampler 12 inches.

% REC (RQD): “Percent Recovery” is the length of samples recovered divided by the total length sampled. The result is numerically expressed as a percent. The Rock Quality Designation (RQD) is the total length of places >4 inches divided by the total length of core run.

Soil and Rock Description / Remarks: This column denotes the exact depth of recovery and general documentation of drilling efforts. Description and classification are based on visual inspection of samples and boring operations. The stratum lines shown on the boring logs are based upon interpretation and may not represent precise subsurface conditions. Water-level readings have been made in the drill holes at time under conditions stated on the boring logs. Fluctuations in the water level may occur due to other factors than those present the time measurement was taken. See attached sheet.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

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10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

Soil and Rock Description / Remarks: Terminology Used for Soil Description

Density Description of Granular Soil

Number of Blows per ft., N	*Relative Density*
0 - 4	Very Loose
4 - 10	Loose
10 - 30	Medium
30 - 50	Dense
Over 50	Very Dense

Abbreviations Used in Soil Sample Classification

f - fine	v - very
m - medium	gr - gray
c - coarse	bn - brown
f/m - fine to medium	yel - yellow
f/c - fine to coarse	sl - slight
tr - trace	dk - dark

Consistency Description of Cohesive Soil

Number of Blows per ft., N	*Consistency*
Below 2	Very Soft
2 - 4	Soft
4 - 8	Medium
8 - 15	Stiff
15 - 30	Very Stiff
Over 30	Hard

Bedding

Parting	Less than 0.02 ft.
Band	0.02 - 0.2 ft.
Thin bed	0.2 - 0.5 ft.
Medium bed	0.5 - 1.0 ft.
Thick bed	1.0 - 2.0 ft.
Massive	Over 2.0 ft.

Grain Size

	Passing / Retained on
Boulder	LARGE / 12-in sieve
Cobble	12-in / 3-in sieve
Gravel	3-in sieve / No. 4 sieve
	No. 4 sieve / No. 10 sieve
Sand	No. 10 sieve / No. 40 sieve
	No. 40 sieve / No. 200 sieve
Silt	No. 200 sieve / 0.005 mm sieve
Clay	Smaller than 0.005 mm

Hardness

Very Soft or Plastic	Can be indented with thumb
Soft	Can be scratched with fingernail
Moderately Hard	Can be scratched with knife
Hard	Difficulty to scratch with knife
Very hard	Cannot be scratched with knife

Percentage Terminology Used in Soil Classification

Trace	0 - 10 %	Some	20 - 35 %
Little	10 - 20 %	And	35 - 50 %

Moisture

Dry	Absence of moisture, dusty, dry to the touch.
Moisture	Small quantity of moisture. Soil usually above groundwater level.
Wet	Moisture noticeable to the touch. Soil may be below groundwater level.
Saturated	Visible free water, usually soil is below groundwater level.

Plasticity

Non-plastic	An 1/8-in thread cannot be rolled at any water content.
Slight plasticity	Thread can be barley rolled.
Moderate plasticity	Thread is easy to roll and little time is required to reach the plastic limit (PL).
Plasticity	Considerable time is required to reach PL. Thread can be re-rolled several times after reaching the PL.

Crystallinity or Texture

Dense	Crystals are to small they cannot be distinguished with the naked eye.
Very Fine Crystalline	Crystals barely discernable with the naked eye.
Crystalline	Crystals are medium size, up to 1/8-in diameter.
Very Coarsely Crystalline	Crystals larger than 1/8-in diameter.

Voids

Porous	Smaller than pinhead. Their presence is indicated by the degree of absorbency.
Pitted	Pinhead size to 1/4 in. If thin walls separate the individuals pits, the core may be described as honeycomb.
Vug	1/4 inch to the diameter of the core. The upper limit will vary with core size.
Cavity	Larger than the diameter of the core.

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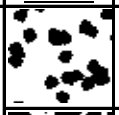
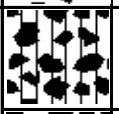
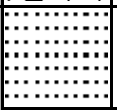
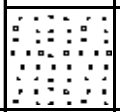
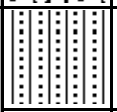
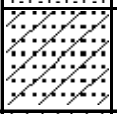
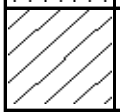
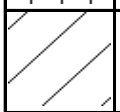
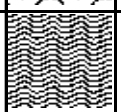
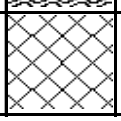
BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

Soil Classification Chart: Unified Soil Classification System (USCS)

Major Divisions			Pattern	USCS ID	Typical Descriptions
Coarse-Grained Soils: More than 50% of material larger than No. 200 sieve	**Gravels**: More than 50% of coarse fraction larger than No. 4 sieve	Clean Gravels (little or no fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with appreciable amounts of fines		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-silt mixtures
	Sands: Less than 50% of coarse fraction larger than No. 4 sieve	Clean sands (little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sands, little or no fines
		Sand with appreciable amount of fines		SM	Silty sands, silt-sand mixtures
				SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils: Less than 50% of material larger than No. 200 sieve	**Silts and Clays, Low plasticity**: Liquid Limit < 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravely clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays, High plasticity: Liquid Limit > 50%			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils				Pt	Peat, humus, swamp soils with organic contents
Miscellaneous Fill				FILL	Miscellaneous fill may belong in any division but is identified as FILL

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APPENDIX C

FLOOR SLAB CORE PHOTOGRAPHS

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-1; Top View



Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-1; Side View



Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-2; Top View



Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)



21-599 Floor Slab Core, C-2; Side View

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-2; Bottom View



Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

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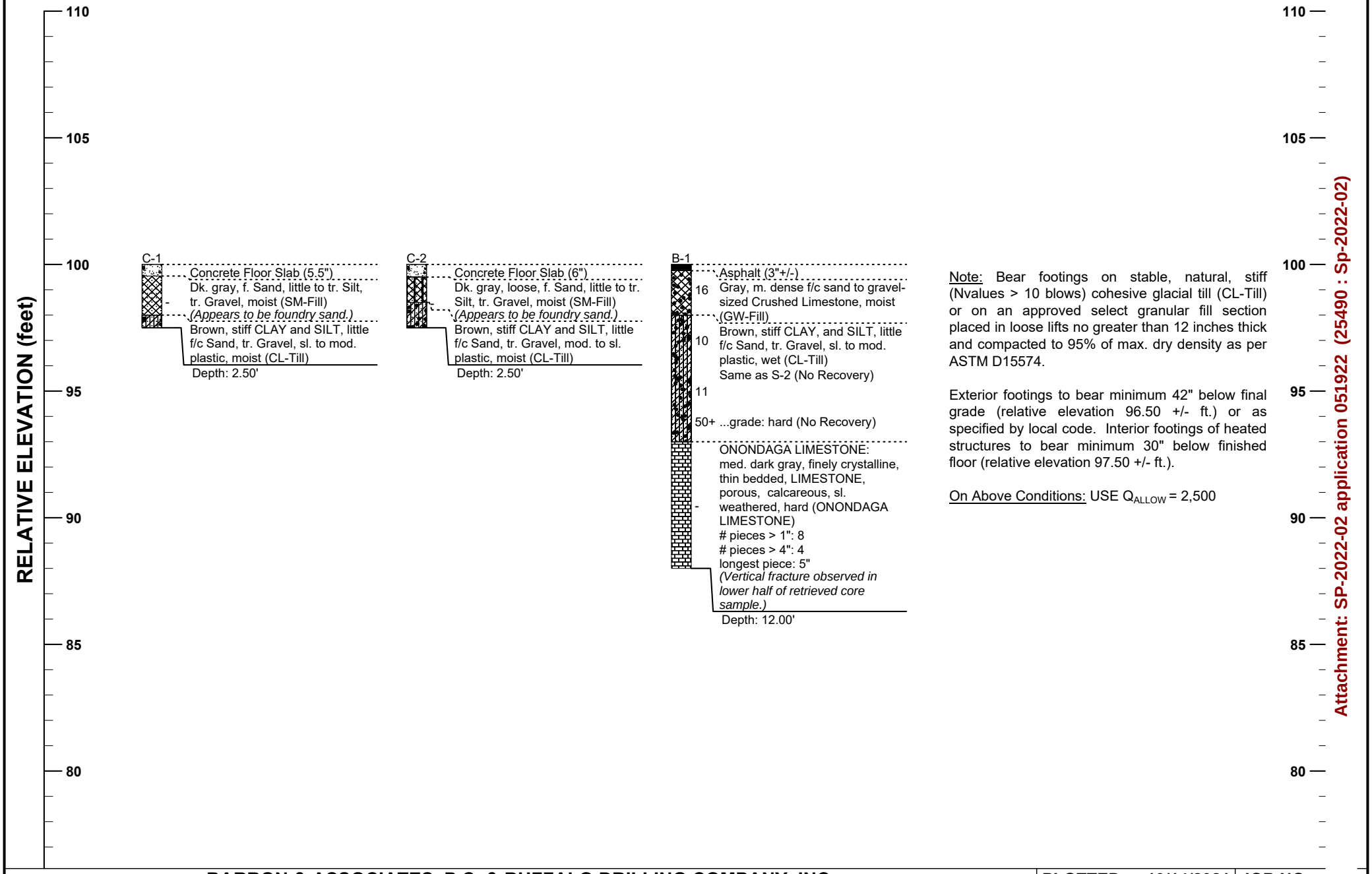
APPENDIX D

ENGINEERING COMPUTATIONS AND SCHEMATICS

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

"PROFILE OF BORINGS"



Note: Bear footings on stable, natural, stiff (Nvalues > 10 blows) cohesive glacial till (CL-Till) or on an approved select granular fill section placed in loose lifts no greater than 12 inches thick and compacted to 95% of max. dry density as per ASTM D15574.

Exterior footings to bear minimum 42" below final grade (relative elevation 96.50 +/- ft.) or as specified by local code. Interior footings of heated structures to bear minimum 30" below finished floor (relative elevation 97.50 +/- ft.).

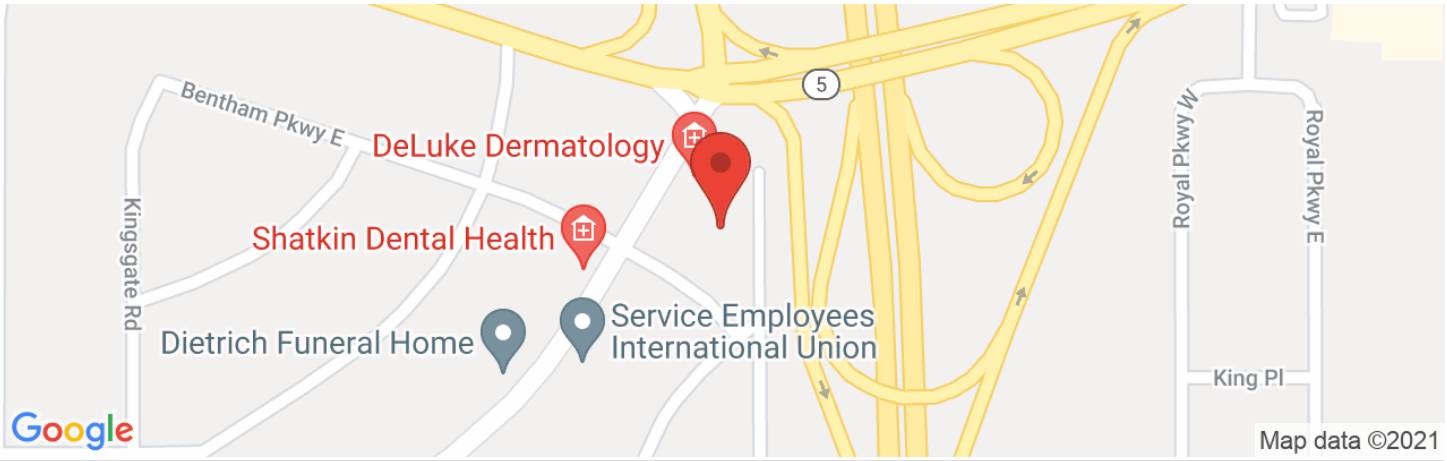
On Above Conditions: USE Q_{ALLOW} = 2,500

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C. & BUFFALO DRILLING COMPANY, INC. 10440 MAIN STREET, CLARENCE, NEW YORK 14031	PLOTTED: 10/14/2021 BY: A. Camping	JOB NO.: 21-599
PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry 2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226	PAGE NO.: 1 of 3	FIGURE NO.:

Mezzanine and Canopy, 2525 Kensington Ave., Amherst, NY 14226

Latitude, Longitude: 42.9580, -78.7680



Date	10/14/2021, 3:49:34 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	C - Very Dense Soil and Soft Rock

Type	Value	Description
S_S	0.169	MCE_R ground motion. (for 0.2 second period)
S_1	0.045	MCE_R ground motion. (for 1.0s period)
S_{MS}	0.22	Site-modified spectral acceleration value
S_{M1}	0.068	Site-modified spectral acceleration value
S_{DS}	0.146	Numeric seismic design value at 0.2 second SA
S_{D1}	0.045	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	A	Seismic design category
F_a	1.3	Site amplification factor at 0.2 second
F_v	1.5	Site amplification factor at 1.0 second
PGA	0.094	MCE_G peak ground acceleration
F_{PGA}	1.3	Site amplification factor at PGA
PGA_M	0.123	Site modified peak ground acceleration
T_L	6	Long-period transition period in seconds
SsRT	0.169	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.176	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.045	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.048	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.958	Mapped value of the risk coefficient at short periods

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B&A JOB NO.: 21-599

DATE: 10/14/21

LATERAL EARTH PRESSURE ON GENERIC BLOCK FOUNDATIONS FOR SIGNS, FREE-STANDING RETAINING WALLS, OR BELOW GRADE/BASEMENT/TANK/POOL RETAINING WALLS (Less Than 20 Feet High)

a) Porous filter media, in contact with the basement/below grade foundation wall or retaining walls, protects and is in contact with a minimum 4 inch diameter perforated drainage pipes at the footing/base of the foundation/structural wall (exterior backfill side and interior basement side) and/or weep pipes through the wall, as needed and as applicable.

b) Where recommended, a geotextile filter fabric will protect the gravel filter media from the earth backfill. Overlap unsewn seams as per the manufacturer's recommendations.

c) Waterproof earth side of wall, as is customarily provided in practice.

d) Drainage pipes are connected to an appropriately designed collector pipe, conveyance, and/or sump pump system as is applicable for the intended purpose of the wall and as customarily provided/installed in practice.

e) For potential groundwater table conditions above the top of the basement slab-on-grade condition, install continuous waterstops (with no joints in stop) at wall and floor construction joints, as is customarily provided in practice. Interior intermediate drainage pipes beneath the slab, that are spaced on-center and in both directions, do appear to be needed.

f) Assume a uniformly graded, clean coarse sand or sandy gravel backfills:

* equivalent N-value in a dense state: $(N_1)_{60}$ = 40 blows/foot
* friction angle: ϕ' = 38 degrees {Teng, pg. 12}
* average in-place densities: moist - γ_m = 120 pcf
  saturated - γ_{sat} = 132 pcf submerged - $\gamma' = (\gamma_{sat} - \gamma_w)$ = 70 pcf

g) Assume at base of wall/footing, coefficient of friction against sliding (f_s) at base of wall (Refer to Teng, pg. 320-1):

f_s = tan (0.58 x ϕ') = 0.40 (AREA silty soil to silty coarse-grained soil)

h) Use equivalent fluid pressure design approach {Hough, pg. 249 and NAVFAC pg. 7-10-9}:

* at rest pressure coefficient - K_0 = 1 - sin (ϕ') = 0.38
* effective lateral pressure of soil - γ'_l = K_o x γ' = 26.6 pcf
* hydrostatic pressure - γ_w = 62.4 pcf
* equivalent fluid pressure with water level at the top of the grade at the wall - γ_{eo} = $\gamma'_l + \gamma_w$ = 89 pcf (say 90 pcf)
* equivalent fluid pressure with compaction induced lateral stress increase (W&F, pg 409) - γ_{eo} = 2 x K_o x γ_m = 91 pcf (say 90 pcf)
* active pressure case - K_a = [1 - sin (ϕ')] / [1 + sin (ϕ')] = 0.24
  γ_{ea} = K_a x γ_m = 29 pcf (say 30 pcf)
* passive pressure case - K_p = [1 + sin (ϕ')] / [1 - sin (ϕ')] = 4.2
  γ_{ep} = K_p x γ_m = 504 pcf (say 330 pcf with a F.S. = 1.5)

			Thoroughly Compacted ⇒⇒ Uniformly Graded & Clean Coarse Sand or Sandy Gravel Fill	Non-Plastic Silty Sand or Sandy Silt Fill	
USE:	Earth Pressure Coefficient	Static Active =	0.24	0.33	
		Static At-Rest =	0.76	1.00	
		Static Passive =	2.80	2.00	(with F.S. = 1.5)
		Static Passive =	4.20	3.00	(with F.S. = 1.0)
USE:	Equivalent Fluid Pressure	Static Active =	30 pcf		
		Static At-Rest =	90 pcf (for rigid walls)		
		Static Passive =	330 pcf (with F.S. = 1.5)	[500 pcf with (with F.S. = 1.0)]	

[For earthquakes, structural engineer may elect to use the above Static Passive case instead of the below Earthquake Lateral Load for Non-Yielding Wall movement into the soil backfill.]

USE: Simplified Model for Earthquake Lateral Load/Ft. Wall Length @ 0.6 H_{bw} above base. Loads for Non-Yielding Wall.

H_{bw} = Earth Height Behind Wall (feet)

Reduce load by 33% for Yielding Wall (active case) = (6.8 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.25 g)

(γ_m = 120 pcf for S_{ds} value. Add to Static At Rest/ Active Pressure/Load for unsaturated backfill case) = (13.5 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.50 g)

= (17.5 psf / foot) x H_{bw}^2 (NEern NYS, $S_{ds} \leq 0.65$ g)

[Above for Site Class C to E soils. Interpolate for other S_{ds} values.
Use 1.75 x values for walls on Class B/A rock or on rigid foundation base. (FEMA NEHRP Guidelines)]

Saturated/Liquified Soil During Earthquake = 132 pcf
(Equivalent Fluid Pressure. Add to inertial hydrodynamic pressure, not presented here.)

{For looser/denser backfills, adjust above pressures by the ratio = new density / 120 pcf or / 132 pcf (for saturated case)}

USE:	Coefficient of Friction Against Sliding (f_s)	= 0.45	(on compacted NYSDOT Item #304.12 or #304.14 gravels)
	(use lowest f_s with no underlying weaker layers)	= 0.35	(on compacted granular soil & non-plastic silt)
		= 0.20	(slab-on-grade on polyethylene on granular fill)
	[with a F.S. = 1.0]	= 0.60/0.50	(on clean, rough, & sound bedrock/smooth bedrock)
	Min. Factor of Safety Against Sliding	= 1.5	*[Rev.9-30-09]*

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

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APPENDIX E

GENERAL EARTHWORK SPECIFICATION

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

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GENERAL EARTHWORK SPECIFICATIONS

1. GENERAL

1.1. SITE AND SUBSURFACE CONDITIONS

1.1.1. Overview

This specification is included as a courtesy to the clients of *Barron & Associates, PC* and addresses earthwork site preparation. Additions and modifications are necessary to create a job-specific specification. This specification may serve as a basis for the development for a technical specification under Division 31 (Earthwork) and Division 32 (Exterior Improvements).

1.1.2. Site Conditions

The site-specific conditions are described under separate cover or may be available from the OWNER.

1.1.3. Subsurface Conditions

The site-specific subsurface conditions are described under separate cover or may be available from the OWNER.

1.2. REFERENCES

1.2.1. American Standard for Testing and Measurement (ASTM)

- ASTM C136 Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
- ASTM D6938 Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
- ASTM D7928 Standard Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis
- ASTM D1140 Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing
- ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3))
- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)

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- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D1883 Standard Test Method for California Bearing Ratio (CBR) of Laboratory-Compacted Soils

1.2.2. Other

- 2018 International Building Code (IBC)
- 2020 Building Code of New York State
- 2020 Residential Code of New York State
- 2021 MasterSpec

1.3. DEFINITIONS

1.3.1. Unacceptable Material

Soil material containing debris, wood, scrap material, vegetation, refuse, soft unsound particles, and other organic, frozen, deleterious, or objectionable materials. Contaminated soils shall be properly documented and removed or remediated on site. If necessary, remediation procedure will be defined by the OWNER.

1.3.2. Unsuitable Material

Brown, organic topsoil and underlying soft pockets of organic silt or wet, reworked silty clay.

1.3.3. Ordinary Fill

Friable soil containing no stone greater than two-thirds loose lift thickness and no unacceptable or unsuitable materials. In general, existing random fill is expected to be acceptable for reuse as ordinary fill given proper sorting, blending, drying, and controlled placement methods.

1.3.4. Granular Fill

Ordinary fill meeting the designation of ASTM D2487 classification of GW with a maximum of 10 percent by weight passing ASTM D1140, No. 200 sieve.

1.3.5. Select Granular Fill

Clean, uncoated soil which contains no unacceptable materials and conforms to the gradation requirements defined in Table A: Select Granular Fill.

Table A: Select Granular Fill

Sieve Size	Percent Finer by Weight
⅔ of the loose lift thickness	100
No. 10	30 - 95
No. 40	10 - 70
No. 200	0 - 15

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1.3.6. Sand and Gravel

Clean, hard, durable, uncoated particle of sand and gravel, free from lumps of clay, containing no unacceptable matter, and conforming to gradation requirements of Table B: Sand and Gravel.

Table B: Sand and Gravel	
Sieve Size	Percent Finer by Weight
*	100
No. 4	50 - 85
No. 10	
No. 40	10 - 35
No. 100	
No. 200	0 - 8

* Job-Specific. To be determined by the ENGINEER

1.3.7. Crushed Stone

Clean, durable, sharp-angled fragments of rock or crushed gravel stone of uniform quality, containing no unacceptable matter, free from coatings, and conforming to gradation requirements of Table C: Crushed Stone.

Table C: Crushed Stone		
Sieve Size	Percent Finer by Weight	
	¾-inch Stone	1 ¼-inch Stone
1 ½-inch		100
1 ¼-inch		85 - 100
1-inch	100	
¾-inch	90 - 100	10 - 40
⅝-inch		
½-inch	10 - 50	0 - 8
⅜-inch	0 - 20	
No. 4	0 - 5	

1.3.8. Flowable Fill

Also known as Controlled Low Strength Material – Controlled Density Fill (CLSM-CDF), this material is available under a variety of producer names (e.g., K-Krete©, M-Crete, Flash Fill©, Flowable Mortar, Unshrinkable Fill, etc.). This non-settling backfill mixture is most commonly used for its flowable characteristics, its support strength under traffic loads, and its removability at a later date. The material may be produced on-site or off-site. In either case, the producer

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

of such materials and the product must meet certain certification criteria. Such information is beyond the scope of this specification and will be considered on a site-specific basis.

Flowable fill may be acceptable for use as a backfill for utility trenches of other low-lying areas which require a compacted granular fill. Its use and warranty of performance is left to the CONTRACTOR in such applications.

The use of flowable fill under load-bearing structural components in place of properly placed and compacted granular fill is NOT common and is questionable. The localized use of such material may have profound effects on the performance of a foundation system. Site-specific conditions and the extent of anticipated use of flowable fill must be examined by geotechnical engineer. Cost of such consultation shall be borne by the CONTRACTOR unless specifically directed by the OWNER to seek such consultation. Without such consultation, warranty of performance for such use is left to the CONTRACTOR.

1.4. SUBMITTALS

The following submittals shall be provided in accordance with approved submittals procedures.

(1) Fill Source: Provide name and source locations of fill material.

(2) Field Test Reports: Field tests will be performed by OWNER's Representative as needed. CONTRACTOR may be required to perform such tests on proposed off-site fill materials.

(a) Fill material grain size analyses per ASTM C136, D7928, D1140, D2487

(b) Moisture/Density test results per ASTM D2216

(c) Liquid limit, plastic limit, and plasticity index per ASTM D4318

(d) Compaction/Density test results per ASTM D6938 and D1557

(3) Sample: Geotextile fabric

2. PRODUCTS

Geotextile Fabric: Mirafi 600X or equal. (Also referred to as synthetic fabric).

3. EXECUTION

3.1. PROTECTION

3.1.1. General

Manner of excavation shall minimize disturbance of underlying natural ground. If deemed necessary by the Engineer, alter construction procedures to reduce subgrade disturbance.

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Excavate areas which have been excessively disturbed to firm ground and backfill with properly compacted granular fill.

3.1.2. Roads and Walks

Keep roads and walks free of dirt and debris at all times.

3.1.3. Trees, Shrubs, and Existing Facilities

Protect from any damage all vegetation and facilities identified to remain.

3.1.4. Utility Lines

Locate all utilities within the area of disturbance prior to the start of work. Show locations on initial plans. Protect utility lines from damage. Notify the ENGINEER immediately of damage to or an encounter with an unknown utility. Damage to utility lines are to be repaired by the CONTRACTOR at no additional cost. The CONTRACTOR shall have underground utility owners stake out utility locations prior to the start of clearing and excavation operations.

3.2. VERIFICATION OF CONDITIONS / PROOF-ROLLING

Prior to placement of the initial layer of fill over the natural ground, proof-roll the exposed natural ground above the groundwater table elevation by making two passes with a fully-loaded ten-wheel truck. Excavate unstable areas detected by this process and replace with compacted granular fill.

3.3. PREPARATION

3.3.1. Surface Preparation

Within the site limits indicated on the drawings, excavate all unsuitable material to firm natural ground in the manner specified herein. Follow a construction procedure which permits visual identification of firm natural ground. In the even that groundwater is encountered, the ENGINEER may require that the size of the open excavation be limited to that which can be handled by open pumping to allow visual inspection of the excavation bottom and the performance of backfill operations to be conducted in a dry state.

Excavation of unsuitable material shall be limited to the greater of the following:

- A distance of 5 feet beyond building lines or
- The area defined by a one-horizontal to one-vertical line sloping down from the outside bottom edge of exterior footings to firm natural ground.

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3.4. PLACEMENT AND COMPACTION

3.4.1. General

Place fill in accordance with Table D: Compaction Alternatives. These alternatives are provided as minimum compaction standards only and in no way relieve the CONTRACTOR of his obligation to achieve any specified degree of compaction by whatever means may be necessary.

Grade to provide positive drainage and a smooth surface which will readily shed water. To the extent practicable, compact each layer to the specified density on the same day placed. Place fill in horizontal layers. Where horizontal layers meet a natural slope, key layer into slope by cutting a bench.

Fill that is too wet for proper compaction: Disc, harrow, or otherwise dry to proper moisture content for compaction to the required density.

Fill that is too dry for proper compaction: Uniformly apply water over the surface of the loose layer in sufficient quantity to allow compaction to the required density.

Table D: Compaction Alternatives

Compaction Method	Maximum Stone Size	Maximum Loose Lift Thickness (inches)		Maximum Number of Passes	
		Below Structure and Pavements	Less-Critical Areas	Below Structure and Pavements	Less-Critical Areas
Hand operated vibratory plate of light roller in confined areas.	3	4	4	4	4
Hand operated vibratory drum rollers weighing at least 1,000 pounds in confined areas.	4	6	8	4	4
Loaded 10-wheel truck or D-8 crawler.	6	10	12	4	2
Light vibratory drum roller; Min. weight at drum 8,000lbs; Min. dynamic force 10,000lbs.	8	12	12	6	2
Minimum vibratory drum; Min. weight at drum 10,000lbs; Min. dynamic force 20,000lbs.	8	18	18	6	4

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3.4.2. Dewatering

Provide adequate pumping and drainage facilities to keep excavated areas sufficiently dry of groundwater and surface run-off. Dewatering shall avoid adversely affection construction procedures or causing excessive disturbance of underlying natural ground. Drain all pumped water in such a manner as to avoid damage to adjacent property.

If requested by the ENGINEER, place a 6-inch to 12-inch layer of sand and gravel or crushed stone over the natural underlying soil to stabilize area which have been disturbed due to groundwater seepage pressures and to expedite dewatering operations. Particular attention shall be given areas under proposed foundations.

3.5. FIELD QUALITY CONTROL

3.5.1. Compaction Requirements

Allow the ENGINEER sufficient time to make necessary observations and tests. Base the degree of compaction on maximum dry density as determined by ASTM D1557. The minimum degree of compaction for placed fill shall be as indicated in Table E: Compaction Requirements.

Table E: Compaction Requirements

Area	Minimum Degree of Compaction (%)
Below foundation.	95
Pavement and building subbase and base courses.	95
Below building slab base course and above bottom of foundation.	92
Below pavement subbase and base courses.	90
Trench backfill outside of building.	90
Trench backfill inside of building.	Refer to one of the above- listed categories
Ordinary fill within 5 feet of grade.	90
Vegetated areas below 5 feet of grade.	85

3.5.2. Testing

Site work should be monitored and tested by geotechnical ENGINEER or his representative and in accordance with requirements of the design team to assure compliance with earthwork and foundation construction specifications.

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The owner will retain a geotechnical ENGINEER or his representative to perform on-site observations and testing during this phase of construction operations. The geotechnical ENGINEER or his representative will:

- Observe excavation and dewatering of building and controlled fill areas;
- Observe backfill and compaction within building and controlled fill areas;
- Laboratory test and analyze fill material; and
- Observe construction – and performing water content, gradation, and compaction tests.

On a timely basis, the CONTRACTOR will receive copies of test results submitted to the OWNER. In addition, during construction the geotechnical ENGINEER will advise the OWNER and CONTRACTOR in writing of conditions which fail to conform to the Contract Documents. The CONTRACTOR shall take immediate action to remedy indicated deficiencies.

The geotechnical ENGINEER or his representative will not supervise or direct the actual work of the CONTRACTOR or employees and representatives of the CONTRACTOR. The presence of, observations by, and testing performed by the geotechnical ENGINEER or his representatives shall not excuse the CONTRACTOR from defects discovered in the work.

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Clarence, NY 14031
(716) 759-7821
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APPENDIX F

LIMITATIONS

LIMITATIONS

1. This report is based on the data that was obtained from the subsurface explorations and on the design of the proposed interior mezzanine and exterior canopy as submitted to the geotechnical engineer. A geotechnical engineer, who is experienced in foundation construction and earthwork, should be engaged to review the final design and specifications in order to determine whether any change in concept may have any effect on the validity of the conclusions presented herein, and whether these conclusions have, in fact, been implemented in the design and specifications.

2. The subsurface conditions, including thickness, between the exploration locations are approximate and simplified representations of the strata and transitions. There is the possibility that variations in soil and rock conditions and boundaries will be encountered during construction. In order to permit correlation between the exploratory soil data and the actual soil conditions encountered during construction and so as to assess conformance with the plans and specifications as originally contemplated, it is recommended that a geotechnical engineer, who is experienced in foundation construction and earthwork monitoring, should be retained to perform continuous construction review during the site preparation and foundation construction operations.

3. The subsurface exploration logs and subsurface conditions may aid in estimating material quality and quantities, such as topsoil/organic matter, fills, natural soils, and rock, but are not to be relied upon as the exclusive means for bid preparation purposes. It is the responsibility of the contractor to perform any additional site examinations and explorations and to prepare an accurate bid.

4. Disclaimers:

   a. In the event that any changes in the nature, design or location of the structure are planned, the conclusions that are contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing.

   b. The geotechnical engineering report has been prepared for this project by Barron & Associates, P.C. This report is for assistance in design only and is not a sufficient basis on which to prepare an accurate bid.

   c. This report has been prepared for the exclusive use of Dr. Todd Shatkin (Shatkin School of Dentistry), and their designated design representatives, for specific application to the construction of an interior mezzanine and exterior drop off canopy at 2525 Kensington Avenue, in the Town of Amherst, New York and in accordance with generally accepted geotechnical engineering practice. No other warranty, expressed or implied, is made.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

SRF ASSOCIATES
Transportation Planning / Engineering / Design

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

(585) 272-4660
www.srfa.net

Mr. Daniel J. Ulatowski, AICP
Principal Planner/ZEO
Town of Amherst Planning Department
5583 Main Street
Williamsville, New York 14221

February 22, 2022

RE: Proposed Shatkin School of Dentistry, Town of Amherst, NY
Shared Parking Demand Assessment Letter

Dear Mr. Ulatowski:

This technical letter provides a Shared Parking Demand Assessment related to the proposed project located at 2525 Kensington Avenue in the Town of Amherst, NY in connection with a request for the approval of an Alternate Parking Study per Section 7-1-7A of the Zoning Code.

When evaluating the parking supply needs for the proposed project, our firm projected the parking demand considering shared parking (mixed-use) principles using nationally accepted methodology developed, in part, by the Urban Land Institute (ULI), Institute of Transportation Engineers (ITE), International Council of Shopping Centers (ICSC), and National Parking Association (NPA). Specifically, the assessment includes an estimation of future parking demands for the proposed project using national standards for similar developments, as documented by the ITE Parking Generation Manual (5th Edition).

This evaluation then provides a comparison to Town requirements, as set forth within Section 7-1-6A of the Town of Amherst's Zoning Code.

All supporting materials are included as an attachment to this letter.

PROJECT DESCRIPTION

Currently, the ±29,350 square foot (SF) building is owned and occupied by Phillips Brothers Supply, a business that has been in operation for over 30 years. Under the proposed development Phillips Brothers Supply will have ±5,736 SF of retail space and ±12,019 SF of warehouse space.

Shatkin Dental Health is developing the remaining ±12,253 SF which includes a ±4,400 SF of a new mezzanine that will be constructed within part of the existing warehouse space for a total of ±16,653 SF. The Shatkin Dental Health space will be used for a new dental (±7,853 SF) school associated with Daemen College and an out-patient rehab center also associated with Daemen College (±4,000 SF).

The project will provide 75 surface parking spaces.

Relative to the proposed uses, the following information was obtained from the applicant:

Daemen College Dental School (8-hour day)
Employees: 8 general staff and 10 teaching staff.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

Students: 40 students for 8 hours each day. Each student will have four patients total throughout the day. (Many students will be bussed from the main campus.)

Daemen College IMIT (9-hour day)
Staff: 12 general staff, 12 students.
Visitors: Six patients per hour plus allow for an accompanying family member with each patient.

PARKING REQUIREMENTS IN THE TOWN OF AMHERST ZONING CODE

Section 7-1-6A of the Zoning Code sets forth the off-street parking requirements for different categories of land uses. Strict application of the parking requirements per Section 7-1-6A of the Zoning Code is depicted in **Table 1**.

TABLE 1: TOWN CODE PARKING REQUIREMENTS

USE TYPE	REQUIRED PARKING RATIO	SIZE	TOTAL REQUIRED PARKING SPACES
Retail Sales, >2,000 SF and <25,000 SF	5.5 per 1,000 SF of net floor area	±4,302 SF	24
Warehouse	1 per 1,000 SF of gross floor area	±12,019 SF	12
Medical Office	1 per 150 SF of net floor area	±8,889 SF	60
Total Parking Spaces Required			**96**

Notes:
1. Net Floor Area = For a multistory, multiple tenant building — 75 percent of gross floor area.

Strict application of the off-street parking standards in the Zoning Code results in a parking requirement of 96 spaces, as depicted in **Table 1**. The total number of parking spaces to be provided is 75 spaces. Thus, there is a deficit of 21 parking spaces per strict application of Section 7-1-6A of the Zoning Code.

SHARED PARKING PRINCIPLES

Shared parking studies are conducted to establish the total number of spaces necessary by mixed-use developments to effectively serve expected parking demands. The shared parking concept builds upon the premise that land uses in a mixed-use development often do not share the same peak demand period, so spaces can be shared between the different land uses during different peak periods. Each land use typically has a peak demand period where it would occupy the maximum number of spaces that the use requires and an off-peak period where a lesser percentage of the maximum spaces would be occupied; be it by time of day, day of week, or even month of the year. This allows for the project to provide fewer spaces than would be required if the land uses on a project site were to be treated separately with individual parking demands. The concept of shared parking is well recognized within the real estate and regulatory community and is proven to work.

SHARED PARKING METHODOLOGY

To estimate the number of parking spaces required for the proposed project, this assessment used ULI and ITE methodology for shared parking. This methodology is utilized by transportation engineers and planners when evaluating the parking demand for a mixed-use project. The ULI Shared Parking 3rd Edition includes state-of-the-art practice methodologies for determining parking demand in these types of projects. Accompanying the publication is an interactive Shared Parking Calculation Model (Model) that is used to estimate the shared parking demand. However, given that the Model does not

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

have a warehouse land use, parking accumulation percentages for each land use were obtained from the ITE Parking Generation Manual.

The peak hour demand is projected to occur at 10:00 AM on a typical weekday. The projected peak hour demand for the mixed-use project (i.e., the busiest hour of the busiest weekday) is ±77 spaces. Parking demand accumulations are presented in **Table 2**.

TABLE 2: SHARED PARKING DEMAND PROJECTIONS

LAND USE	SIZE	PARKING DEMAND	
		UNADJUSTED DEMAND	**SHARED DEMAND**
Warehouse (ITE LUC 150)	±12,019 SF	5	**4**
Hardware Supplies (ITE LUC 862)	±5,736 SF	19	**19**
Medical Office (ITE LUC 720)	±15,995 SF	54	**54**
Total Parking Spaces		78	**77**
Shared Parking Reduction		**1.28%**	

Note:
1. ITE LUC = ITE Land Use Code

When considering the site's 75 total parking spaces, there is a projected deficit of two parking spaces. However, it should be noted that the parking demands of the proposed land use may vary given that students may campus busing instead of private vehicles.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

CONCLUSIONS AND RECOMMENDATIONS

This detailed analysis assessed the projected shared parking demands associated with the proposed mixed-use project. The following summarizes the findings of this assessment:

1. The proposed project consists of retail hardware supply, warehouse, and medical office space.

2. The proposed project will provide 75 total parking spaces.

3. Strict application of the unshared off-street parking standards in the Zoning Code results in a parking requirement of 96 spaces.

4. The peak hour demand is projected to occur at 10:00 AM on a typical weekday. The projected peak hour demand for the mixed-use project (i.e., the busiest hour of the busiest weekday) is ±77 spaces.

5. When considering the site's 75 total parking spaces, there is a projected deficit of two parking spaces. However, it should be noted that the parking demands of the proposed land use may vary given that students may campus busing instead of private vehicles.

6. Transportation Demand Management (TDM) strategies may be considered to reduce the parking demands during the peak period. They include, but are not limited to:

    a. Carpooling
    b. Off-site parking agreements
    c. Promoting non-motorized travel (e.g., install bike racks, NFTA transit)

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
SRF Associates, D.P.C.

David Kruse, AICP, PTP
Senior Transportation Planner

Attachments

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

ATTACHMENT

February 22, 2022

Letter to
Mr. Daniel J. Ulatowski, AICP
Town of Amherst

Proposed Shatkin School of Dentistry
2525 Kensington Avenue

Shared Parking Demand Assessment

Town of Amherst
Erie County, New York

SRF ASSOCIATES

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

UNSHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	12	5	3%	8%	27%	57%	79%	83%	87%	91%	91%	97%	100%	91%	74%	47%	26%	20%	17%	1%	1%	1%
Hardware Store	862	5.763	19	0%	0%	9%	55%	73%	100%	64%	95%	68%	91%	50%	45%	36%	5%	0%	0%	0%	0%	0%	0%
Medical Office	720	11.853	54	0%	0%	12%	43%	88%	99%	100%	83%	74%	94%	93%	86%	54%	0%	0%	0%	0%	0%	0%	0%
			78																				

SHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	12	5	0	0	1	3	4	4	4	4	4	5	5	4	4	2	1	1	1	0	0	0
Hardware Store	862	5.763	19	0	0	2	10	14	19	12	18	13	17	9	8	7	1	0	0	0	0	0	0
Medical Office	720	11.853	54	0	0	7	23	48	54	54	45	40	51	51	47	29	0	0	0	0	0	0	0
Total Shared Demand			**78**	**0**	**0**	**10**	**36**	**65**	**77**	**71**	**67**	**57**	**73**	**65**	**60**	**40**	**3**	**1**	**1**	**1**	**0**	**0**	**0**

ITE PARKING RATES

Warehouse 0.39 spaces per 1,000 SF
Hardware Store 3.25 spaces per 1,000 SF
Medical Office 4.59 spaces per 1,000 SF

Note: Results may be affected by small rounding errors.

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

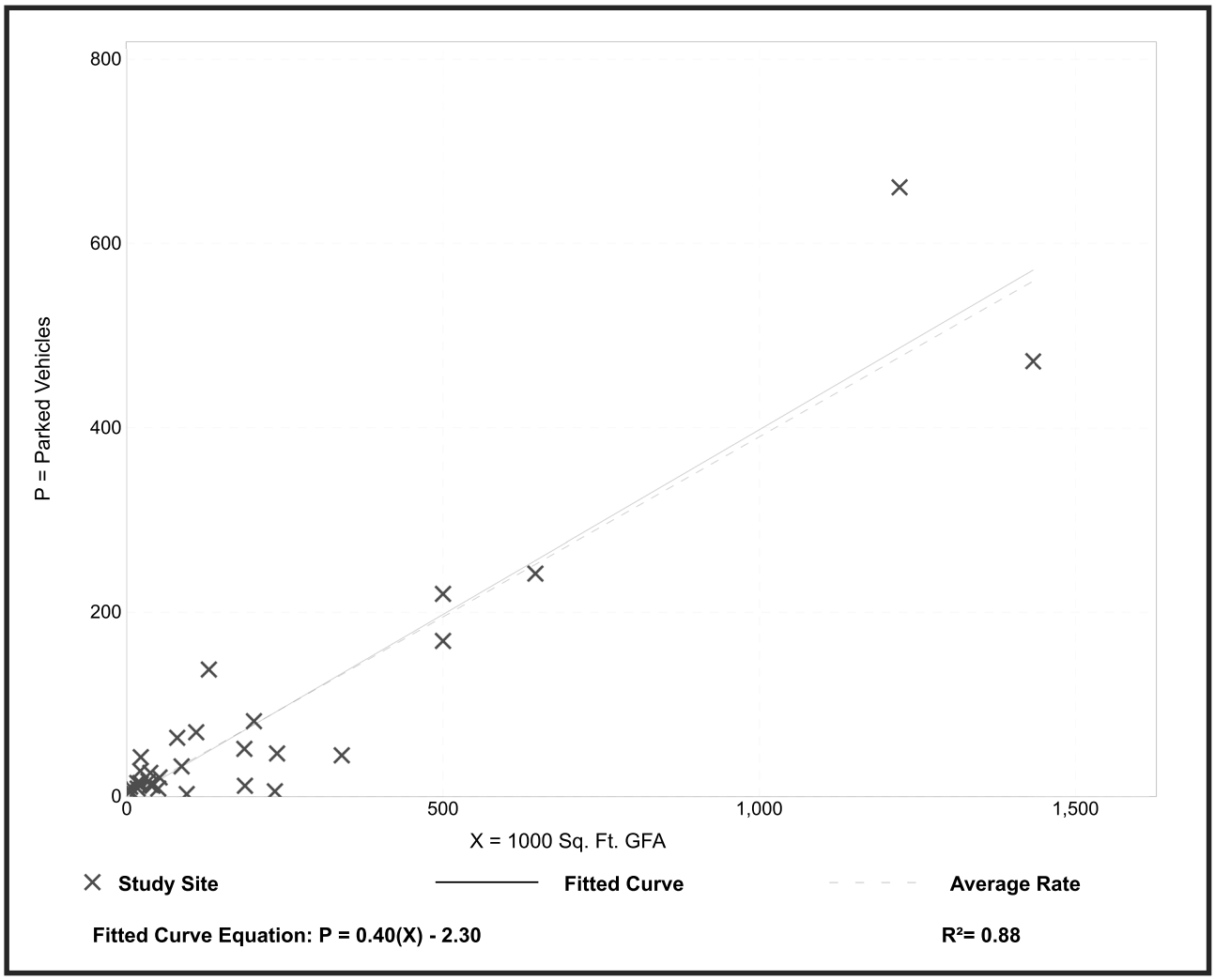
Warehousing
(150)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **11:00 a.m. - 4:00 p.m.**
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 212

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.39	0.03 - 1.96	0.34 / 1.11	0.31 - 0.47	0.22 (56%)

Data Plot and Equation



Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

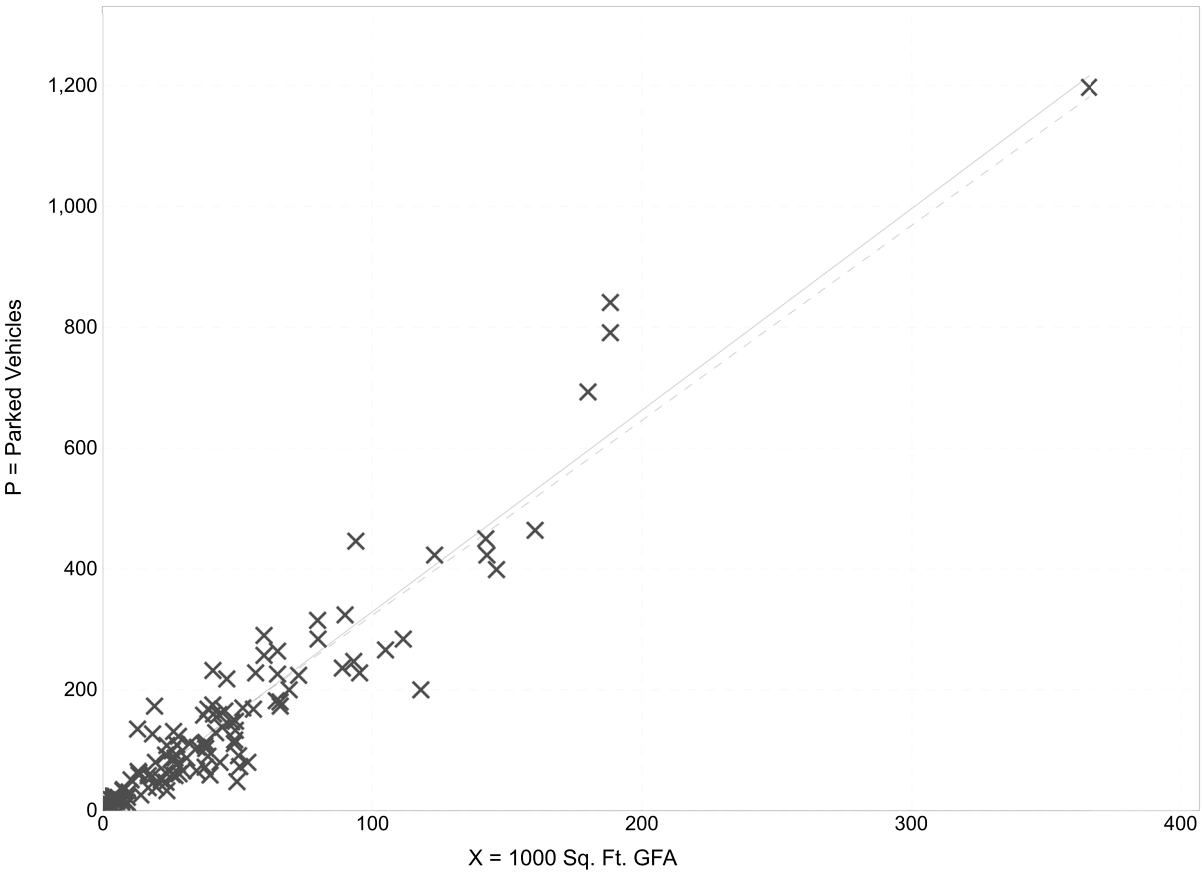
Medical-Dental Office Building
(720)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **9:00 a.m. - 4:00 p.m.**
Number of Studies: 117
Avg. 1000 Sq. Ft. GFA: 46

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
3.23	0.96 - 10.27	2.73 / 4.59	3.04 - 3.42	1.05 (33%)

Data Plot and Equation



Fitted Curve Equation: P = 3.34(X) - 5.21 **R^2= 0.91**

Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)

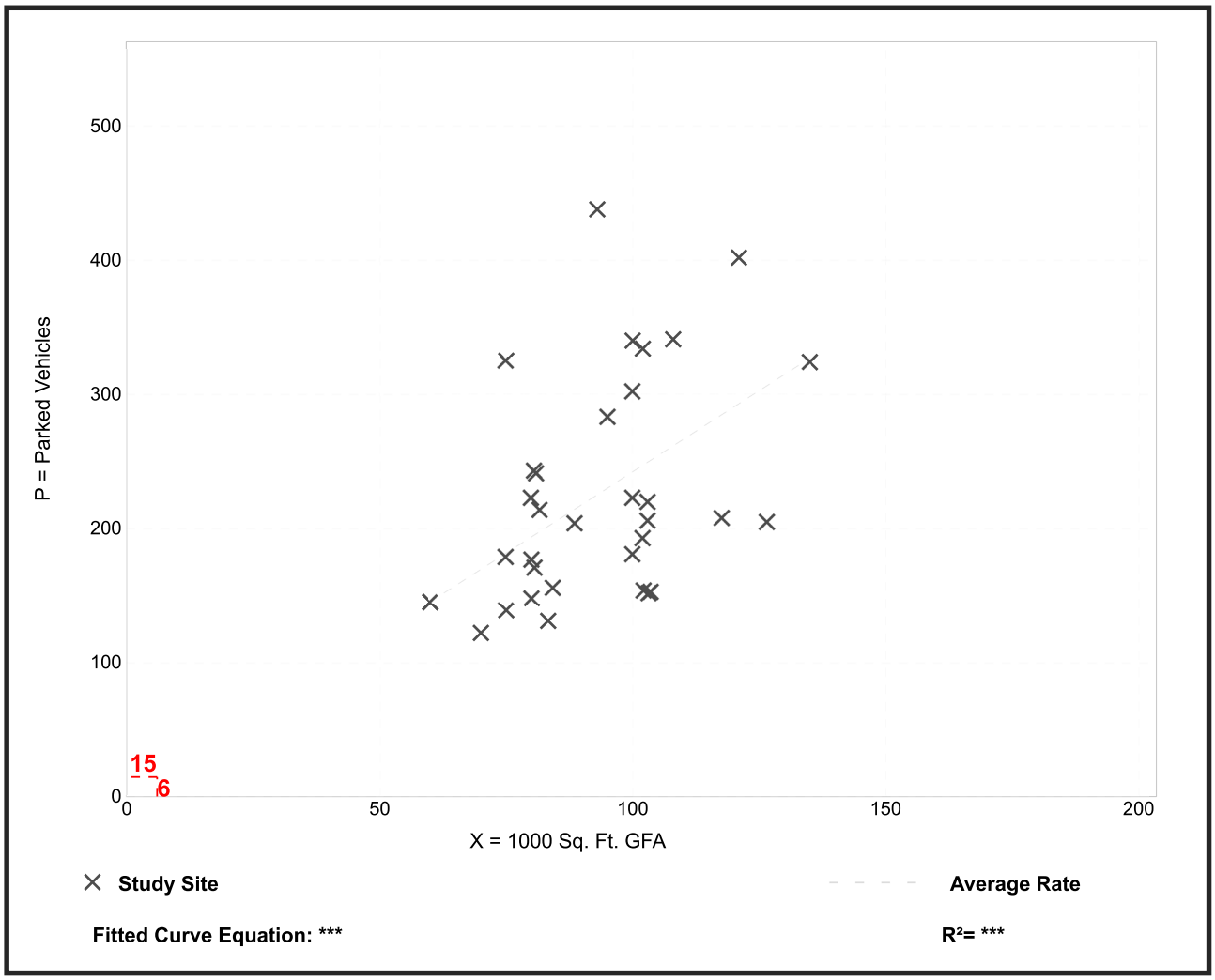
Home Improvement Superstore
(862)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Friday**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **10:00 a.m. - 4:00 p.m.; 8:00 - 9:00 p.m.**
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 93

Peak Period Parking Demand per 1000 Sq. Ft. GFA

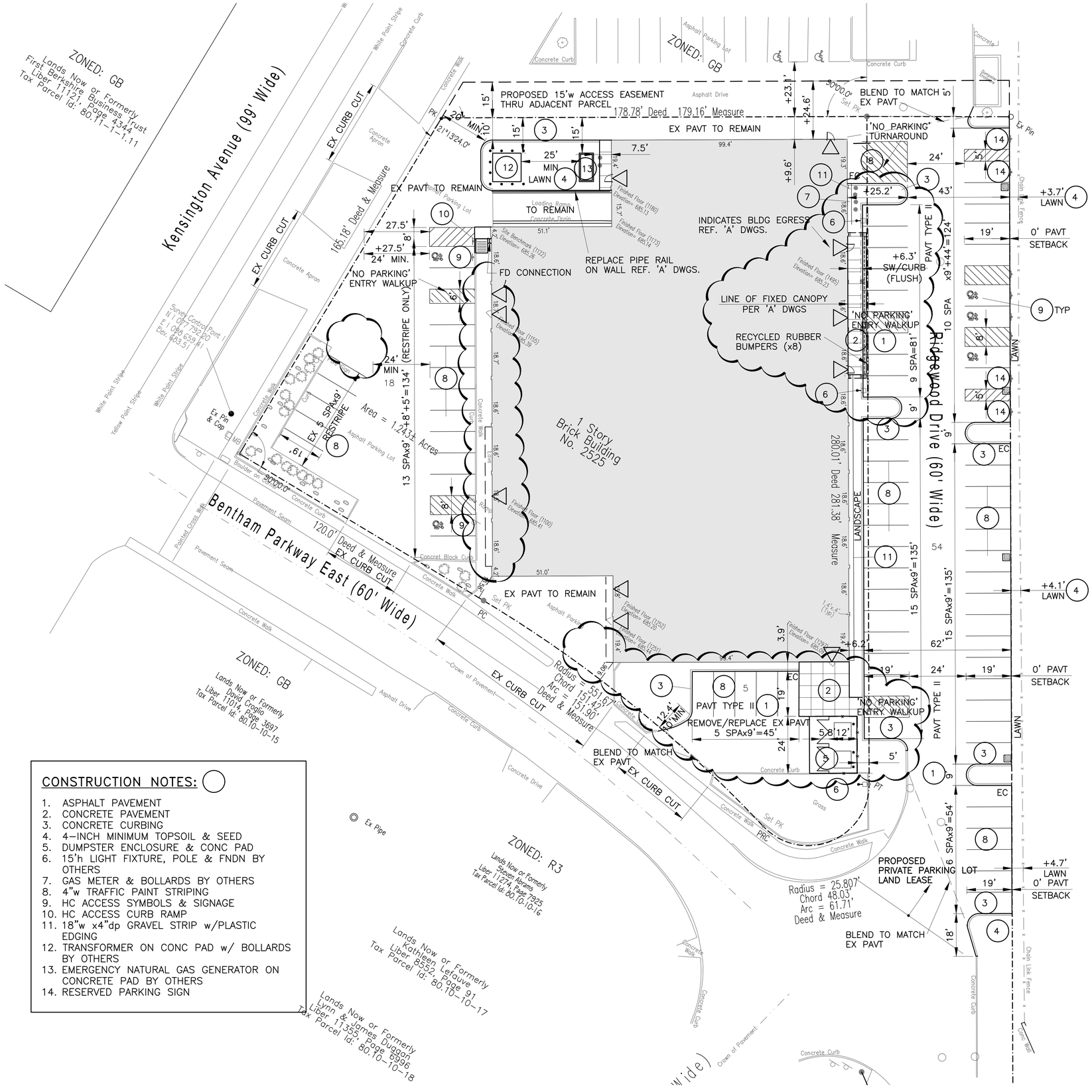
Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.42	1.47 - 4.71	1.87 / 3.25	2.15 - 2.69	0.79 (33%)

Data Plot and Equation



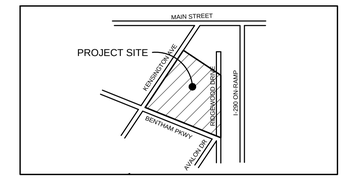
Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 application 051922 (25490 : Sp-2022-02)



CONSTRUCTION NOTES:

1. ASPHALT PAVEMENT
2. CONCRETE PAVEMENT
3. CONCRETE CURBING
4. 4–INCH MINIMUM TOPSOIL & SEED
5. DUMPSTER ENCLOSURE & CONC PAD
6. 15'h LIGHT FIXTURE, POLE & FNDN BY OTHERS
7. GAS METER & BOLLARDS BY OTHERS
8. 4"w TRAFFIC PAINT STRIPING
9. HC ACCESS SYMBOLS & SIGNAGE
10. HC ACCESS CURB RAMP
11. 18"w x4"dp GRAVEL STRIP w/PLASTIC EDGING
12. TRANSFORMER ON CONC PAD w/ BOLLARDS BY OTHERS
13. EMERGENCY NATURAL GAS GENERATOR ON CONCRETE PAD BY OTHERS
14. RESERVED PARKING SIGN



SITE LOCATION MAP

SITE LAYOUT PLAN

1" = 20'

N

SITE DATA

CURRENT ZONING: GB

PARCEL AREA: +1.24 ACRES (AC)

TOTAL AREA OF DISTURBANCE (INCL R.O.W.): 22,000SF~0.51AC

NEW PARKING LOT LICENSED AREA: 19636SF ~0.45 AC

INTERIOR GREENSPACE: 984SF (5.5% OF NEW PARKING LOT)

ANTICIPATED AVERAGE DAILY SEWER LOADING: 1120 GPD
OFFICES/DAY SCHOOL: (30 EMPLx15 GPD)+(52 STUDENTSx10 GPD = 450+520 =970 GPD
RETAIL/WAREHOUSE PER EMPLOYEE: (10 EMPLx15 GPD)= 150 GPD

PARKING DATA

SPACES REQUIRED BY NET SF, 2–STY (MEZZ), MULT–TENANT (75% OF GROSS SF), GENERAL OFFICE, RETAIL/WAREHOUSE USES:

GENERAL OFFICE: 15995NSF (INCLUDES MEZZ) x1/200NSF=80;
RETAIL AT >2000SF<25000SF: 5763NSFx 5.5/1000NSF=32;
WAREHOUSE: 12019NSFx 1= 12

TOTAL CAR–PARKS REQUIRED = 80+32+12=124
ACCESSIBLE SPA REQUIRED = CAR–PARKS/25=124/25=5

SPACES PROVIDED: 77
REGULAR: 68
ACCESSIBLE: 5; RESERVED STALLS: 4

DEFICIENT 47 CAR–PARKS, REFER TO ALTERNATE PARKING PLAN UNDER SEPARATE COVER

NOTES:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING IS FOR INFORMATION ONLY. REFER TO SURVEY(S) PROVIDED BY NIAGARA BOUNDARY & MAPPING JOB No 11187–21, DATED 6/2021.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES, AND UTILITY CONNECTIONS.
3. SITE LIGHTING, POWER AND GAS LINES ARE SHOWN FOR INFORMATION ONLY, AND ARE NOT DESIGNED BY TREDO ENGINEERS.
4. A KNOX BOX KEY HOLDER SHALL BE LOCATED AT THE BUILDING MAIN ENTRANCE.
5. THE BUILDING SHALL CONTAIN A SPRINKLER FIRE–PROTECTION SYSTEM.

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716.876.7147

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SHATKIN SCHOOL OF DENTISTRY AT DAEMEN COLLEGE / INSTITUTE FOR MOBILITY AND TECHNOLOGY

2525 KENSINGTON AVENUE, AMHERST NY

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REVISIONS	
1: REVISED	3/28/22
2: REVISED	4/19/22

DRAWN BY	CHECKED BY
avm	AVM

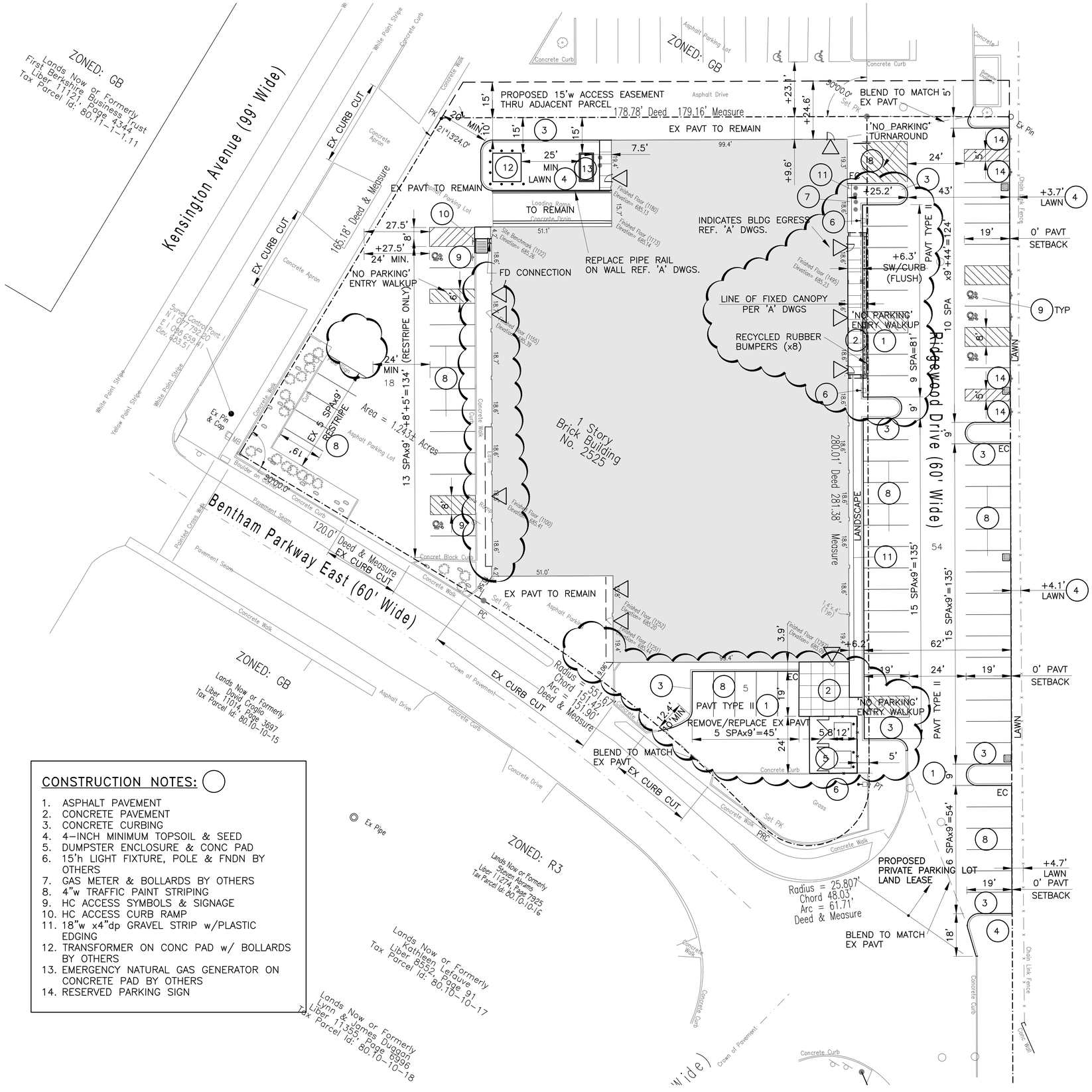
SCALE: AS NOTED

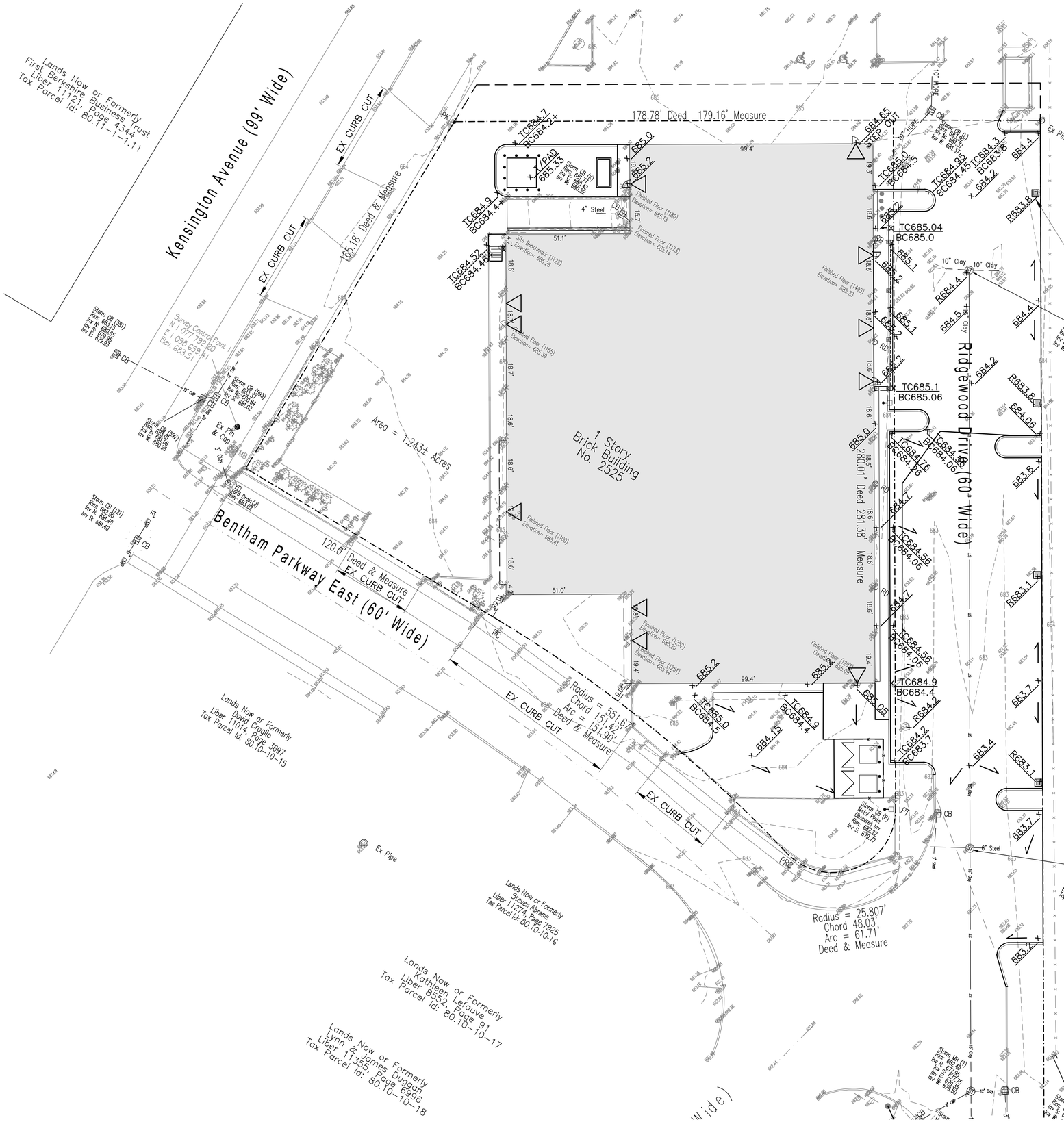
DATE: Feb 22, 2022

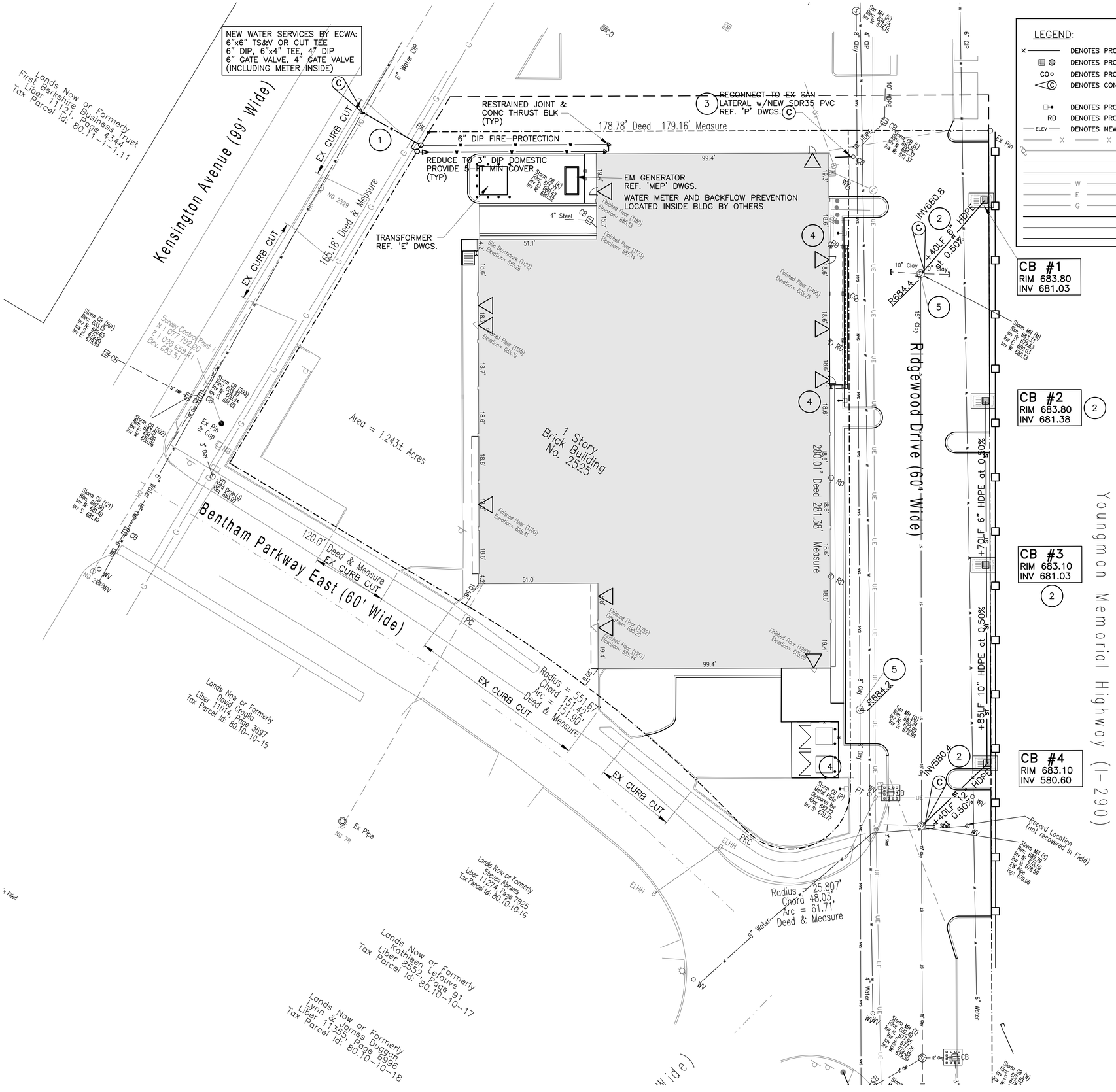
SITE LAYOUT PLAN

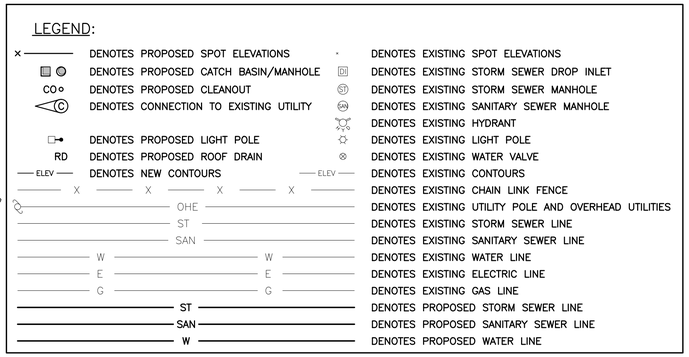
SP101

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)


ZONED: GB
Lands Now or Formerly
First Berkshire Business Trust
Liber 11121, Page 4344
Tax Parcel Id: 80.11-1-1.11
Kensington Avenue (99' Wide)
EX CURB CUT
EX CURB CUT
165.18' Deed & Measure
White Point Stripe
Concrete Curb
Concrete Apron
Concrete Walk
Asphalt Parking Lot
PROPOSED 15'w ACCESS EASEMENT THRU ADJACENT PARCEL
178.78' Deed 179.16' Measure
EX PAVT TO REMAIN
BLEND TO MATCH EX PAVT
'NO PARKING' TURNAROUND
25' MIN LAWN
7.5'
99.4'
Loading Ramp TO REMAIN
Concrete Drain
51.1'
27.5'
+27.5'
24' MIN.
'NO PARKING' ENTRY WALKUP
FD CONNECTION
REPLACE PIPE RAIL ON WALL REF. 'A' DWGS.
INDICATES BLDG EGRESS REF. 'A' DWGS.
LINE OF FIXED CANOPY PER 'A' DWGS
RECYCLED RUBBER BUMPERS (x8)
24' MIN
(RESTRIPE ONLY)
134'
13 SPAx9' RESTRIPE
Area = 1.24± Acres
Survey Control Point #1
N 1,077,792.60
E 1,063,539.41
Elev. 685.51'
Ex Pin & Cap
MB
Boulder on Property Line
Bentham Parkway East (60' Wide)
Pavement Seam
Painted Cross Walk
120.0' Deed & Measure
EX CURB CUT
Concrete Block Curb
Set PK
PC
Crown of Pavement
Asphalt Drive
Concrete Drive
1 Story Brick Building No. 2525
Asphalt Drive
Concrete Curb
Ramp
Concrete Pavers
Finished Floor (1190) Elevation= 685.13
Finished Floor (1173) Elevation= 685.14
Finished Floor (1155) Elevation= 685.9
Finished Floor (1100) Elevation= 685.7
Finished Floor (1252) Elevation= 685.05
Finished Floor (1251) Elevation= 685.2
Finished Floor (1293) Elevation= 685.2
Finished Floor (1485) Elevation= 685.2
Site Benchmark (1122) Elevation= 685.76
Ex Pipe
Ex Pt
Set PK
PRC
Grass
Concrete Walk
Concrete Curb
Concrete Curb Ramp
Concrete Pavers
Concrete Apron
Concrete Walk
Curb
Line
Ramp
Concrete Block Curb
Asphalt Parking Lot
Asphalt Drive
Concrete Drive
Crown of Pavement
Concrete Curb
Concrete Walk
Concrete Curb
Concrete Curb
Concrete Curb


Kensington Avenue (99' Wide)
Bentham Parkway East (60' Wide)
Ridgewood Drive (60' Wide)
Young man Memorial Highway (I-290)
Lands Now or Formerly First Berkshire Business Trust Liber 11121, Page 4344 Tax Parcel Id: 80.11-1-1.11
Lands Now or Formerly David Croglio Liber 11014, Page 3697 Tax Parcel Id: 80.10-10-15
Lands Now or Formerly Steven Abrams Liber 11274, Page 7925 Tax Parcel Id: 80.10-10-16
Lands Now or Formerly Kathleen Lefouve Liber 8552, Page 91 Tax Parcel Id: 80.10-10-17
Lands Now or Formerly Lynn & James Duggan Liber 11355, Page 6996 Tax Parcel Id: 80.10-10-18
178.78' Deed 179.16' Measure
165.18' Deed & Measure
120.0' Deed & Measure
280.01' Deed 281.38' Measure
99.4'
51.1'
51.0'
EX CURB CUT
1 Story Brick Building No. 2525
Area = 1.243± Acres
Survey Control Point N 1 077792.60 E 1 098 539.41 Elev. 683.51
Radius = 551.67' Chord = 151.43' Arc = 151.90' Deed & Measure
Radius = 25.807' Chord 48.03' Arc = 61.71' Deed & Measure
CB #1 RIM 683.80 INV 681.03
CB #2 RIM 683.80 INV 681.38
CB #3 RIM 683.10 INV 681.03
CB #4 RIM 683.10 INV 580.60
Finished Floor (1190) Elevation= 685.13
Finished Floor (1173) Elevation= 685.14
Site Benchmark (1122) Elevation= 685.76
Finished Floor (1156) Elevation= 685.59
Finished Floor (1100) Elevation= 685.47
Finished Floor (1293) Elevation= 685.20
Finished Floor (1251) Elevation= 684.44
Finished Floor (1248) Elevation= 685.23
Finished Floor (1202) Elevation= 685.05
Storm CB (591) Rim= 683.65 Inv N: 680.65 Inv E: 678.55
Storm CB (592) Rim= 683.67 Inv N: 680.67 Inv E: 678.57
Storm CB (593) Rim= 683.54 Inv N: 680.54 Inv E: 680.02
Storm CB (121) Rim= 682.80 Inv N: 681.40
Storm MH (W) Rim= 682.59 Inv N: 678.59 Inv E: 678.52 Inv: 680.03 Inv: 680.13
Storm MH (S) Rim= 682.59 Inv N: 678.59 Inv E: 678.52 Inv: 678.06
Storm CB (W) Rim= 683.42 Inv S: 679.77
Storm MH (S) Rim= 683.42 Inv N: 679.77 Inv E: 679.70 Inv S: 679.59
Storm CB (W) Rim= 683.42 Inv S: 679.77
Ex Pin
Ex Pipe
Ex Pin & Cap
Ex Pin & J Cap
Ex Gas Valve
Ex Gas Meter
Ex Drain MH
Ex Drain CB
Ex Sign
Ex Light Pole
Ex Utility Pole
Ex Water Valve
Ex Hydrant
Ex Fence
Ex Tree
Ex Bollard
Ex Guide Rail
Ex Curb Inlet
Ex Sewer MH
Ex Sewer CB
Ex Sewer Cleanout
Ex Water Line
Ex Gas Line
Ex Electric Line
Ex Overhead Utility
Ex Contour
Ex Spot Elevation
Proposed Spot Elevation
Proposed Contour
Proposed Catch Basin
Proposed Cleanout
Proposed Light Pole
Proposed Roof Drain
Proposed Water Line
Proposed Storm Sewer
Proposed Sanitary Sewer
Proposed Gas Line
Proposed Electric Line
Proposed Overhead Utility
Proposed Fence
Proposed Tree
Proposed Bollard
Proposed Guide Rail
Proposed Curb Inlet
Proposed Sewer MH
Proposed Sewer CB
Proposed Cleanout
Proposed Water Line





SITE UTILITIES & EROSION CONTROL PLAN

1" = 20'

CONSTRUCTION NOTES:

1. NEW WATER SERVICE TO BLDG WATER ROOM –RPZ & METERING INSIDE FACILITY REF. 'P' & 'FP' DWGS
2. NEW STORM RECEIVER & HDPE PIPING –CORE–DRILL & GROUT NEW PIPING TO EXISTING MANHOLE (VERIFY CONDITIONS & NOTIFY ENGINEER OF CONFLICTS PRIOR TO PREPARING SHOP DRAWINGS AND ORDERING MATERIAL)
3. REPLACE WASTEWATER LATERAL CONN IN SAME LOCATION AS EXISTING (FIELD VERIFY) –REF. 'P' DWGS FOR NEW SAN PIPING & CONNECTION TO EXISTING.
4. SITE LIGHTING –REF. 'E' DWGS FOR POLE, FNDN, FIXTURE, CIRCUITING & CONDUIT
5. RAISE MH FRAME & COVER w/CONC RINGS TO ELEVATION SHOWN

SILT FENCE OR 12"DIA COMPOST FILTER SOCK

STONE & BLOCK DROP INLET PROTECTION STRUCTURE

EXCAVATED DROP INLET PROTECTION

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REVISIONS
1: REISSUED 3/28/22
2: REVISED 4/19/22

DRAWN BY avm
CHECKED BY AVM

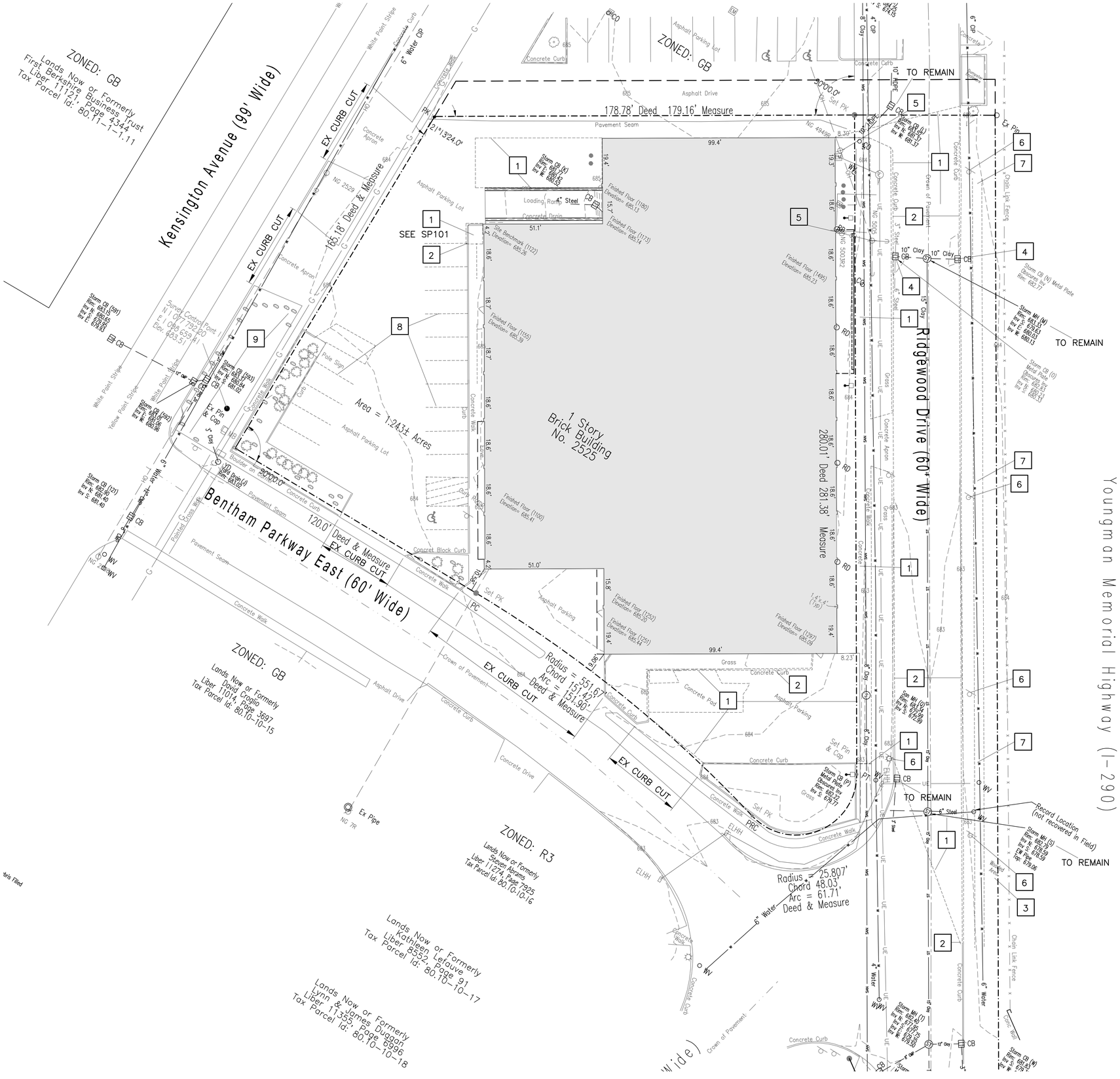
SCALE AS NOTED

DATE Feb 22, 2022

SITE UTILITIES & EROSION CONTROL PLAN

SP103

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)



SITE DEMOLITION PLAN

1" = 20'

N

SITE DEMOLITION NOTES:

1. SAWCUT & REMOVE EXISTING ASPHALT/ CONC PAVT AND SUBBASE STONE EXCEPT WHERE NEW PAVT OVER TO BE INSTALLED, SUBBASE TO BE PROOFROLLED & REUSED
2. SAWCUT & REMOVE CONCRETE CURBING
3. REMOVE TREES & BRUSH TO FENCELINE
4. DRAIN BODY TO BE REMOVED, PLUG EX PIPE END w/CONC
5. UTILITY POLE & OHE POWER TO BE REMOVED –COORD. w/SUPPLIER & 'E' DWGS.
6. SIGN OR LIGHT POLE & FNDN TO BE REMOVED
7. REMOVE REMAINS OF CONC SIDEWALK
8. REMOVE PAINT STRIPING THIS ROW BY INSTALLING SEALER OVER ROUGHENED EX ASPHALT
9. REMOVE ALL BOULDER STONES FROM RIGHT–OF–WAY

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REVISIONS	
1: REVISED	3/28/22
2: REVISED	4/19/22

DRAWN BY	CHECKED BY
avm	AVM

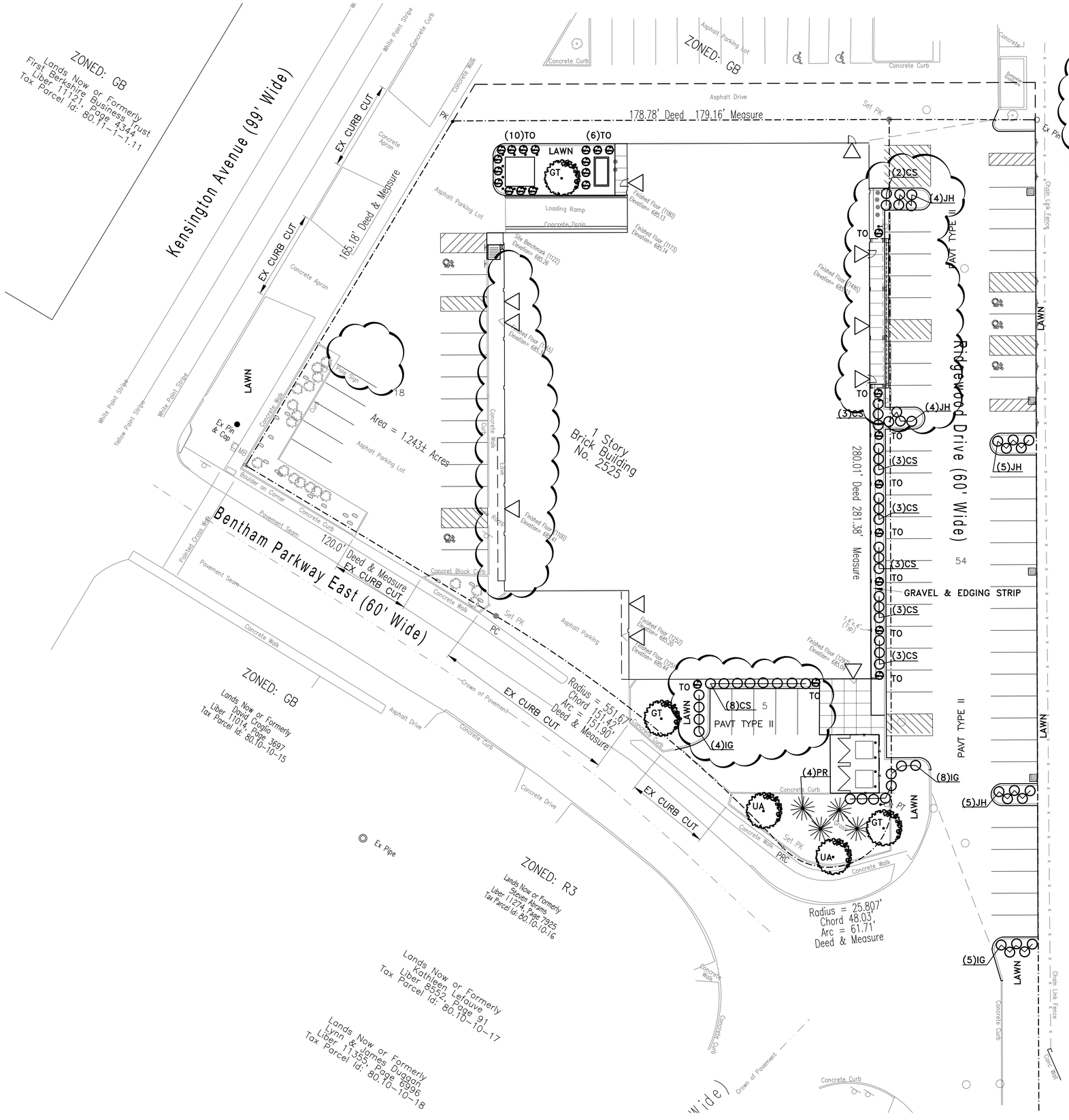
SCALE: AS NOTED

DATE: Feb 22, 2022

EXISTING CONDITIONS & SITE DEMOLITION PLAN

SP104

SP-2022-02 drawings 051922 (25490 : Sp-2022-02)
Attachment: SP-2022-02 (25490 : Sp-2022-02)



PLANTING SCHEDULE

MARK	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHRUBS/GRASSES					
TO	26	THUJA OCCIDENTALIS	EMERALD ARBORVITE	4'h MIN.	B&B
CS	24	CORNUS STOLONIFERA	ARCTIC FIRE DOGWOOD	24"h	CONT.
JH	18	JUNIPERUS HORIZONTALIS	BAR HARBOR JUNIPER	24"sp	CONT.
IG	17	ILEX GLABRA COMPACTA	SHAMROCK INKBERRY	24"h 5'OC	B&B
TREES					
GT	2	GLEDITSIA TRIACANTHOS INERMIS SUNBURST	SUNBURST LOCUST	2 1/2" CAL	B&B
UA	2	ULMUS AMERICANA 'PRINCETON'	AMERICAN ELM	2–1/2"CAL	B&B
PR	4	PINUS RESINOSA	RED PINE	6'h MIN.	

LANDSCAPE PLAN

1" = 20'

N

NOTES:

1. CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING TREES AND PLANTINGS INDICATED TO REMAIN FROM ALL TYPES OF ROOT, TRUNK AND LIMB DAMAGE DURING DEMOLITION AND CONSTRUCTION.
2. EXISTING PLANTED AREAS SHALL REMAIN UNLESS OTHERWISE NOTED.
3. ALL DISTURBED AREAS SHALL RECEIVE 4" MIN. TOPSOIL AND GRASS SEED UNLESS OTHERWISE NOTED.
4. TREE AND SHRUB BEDS SHALL BE COVERED WITH 3" OF HARDWOOD MULCH. ALL ROOTS AND STONES OVER 1 1/2" SHALL BE REMOVED PRIOR TO SEEDING/ PLANTING.
5. ALL STREET AND ISLAND TREES SHALL HAVE FIRST BRANCHING at 6–FOOT MIN.
6. IF A CONFLICT EXISTS BETWEEN THE PLAN AND PLANTING SCHEDULE, THE PLAN SHALL GOVERN.
7. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES & UTILITY CONNECTIONS
8. REFER TO GRADING AND UTILITY PLAN(S) FOR ADDITIONAL INFORMATION NOT SHOWN HEREIN.

LEGEND:

INDICATES NEW TREE PLANTING PER SCHEDULE

INDICATES NEW SHRUB PLANTING PER SCHEDULE

EXISTING TREE/SHRUB TO REMAIN & BE PROTECTED THRU–OUT CONSTRUCTION

EXISTING TREE/SHRUB TO BE REMOVED

LAWN SEED SCHEDULE

Mixtures		Rate per Acre (lbs)	Rate per 1,000 sq. ft. (lbs)
A.	Birdsfoot trefoil or ladino clover	8	0.20
	Tall fescue or mooth bromegrass	20	0.45
	Redtop	2	0.05
		30	0.70
OR			
B.	Kentucky bluegrass	25	0.60
	Creeping red fescue	20	0.50
	Perennial ryegrass	10	0.20
		55	1.30

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REVISIONS	
1: REVISED	3/28/22
2: REVISED	4/19/22

DRAWN BY	CHECKED BY
avm	AVM

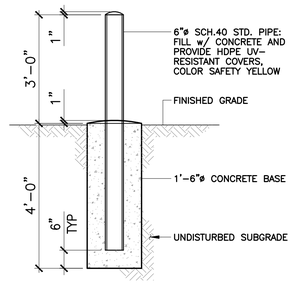
SCALE: AS NOTED

DATE: Feb 22, 2022

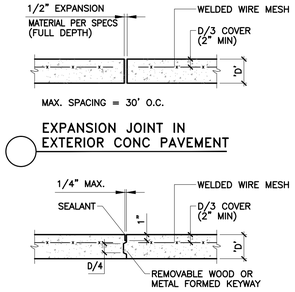
LANDSCAPE PLAN

L101

SP-2022-02 drawings 051922 (2549) : Sp-2022-02)
Attachment: SP-2022-02 (2549 : Sp-2022-02)



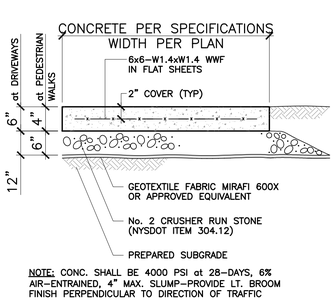
STEEL PIPE BOLLARD



EXPANSION JOINT IN EXTERIOR CONC PAVEMENT

CONSTRUCTION JOINT IN EXTERIOR CONC PAVEMENT

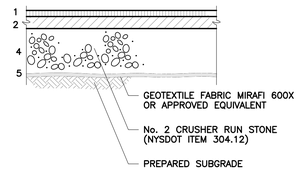
CONTROL JOINT IN EXTERIOR CONC PAVEMENT



NOTE: CONC. SHALL BE 4000 PSI at 28-DAYS, 6% AIR-ENTRAINED, 4" MAX. SLUMP-PROVIDE LT. BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAFFIC

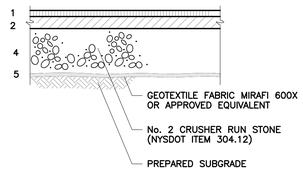
TYPICAL CONCRETE SIDEWALK

ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	3"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	18"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



TYPICAL TYPE II BITUMINOUS PAVEMENT SECTION DRIVEWAYS

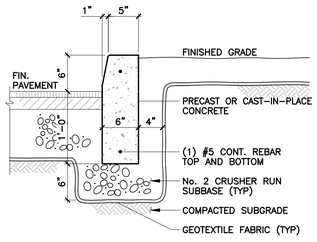
ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	2"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	12"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



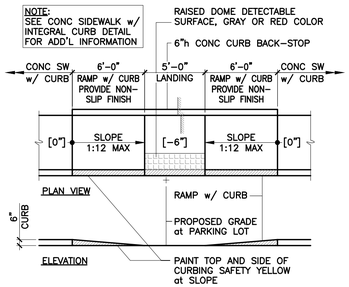
TYPICAL TYPE I BITUMINOUS PAVEMENT SECTION PARKING STALLS

GENERAL SITE NOTES

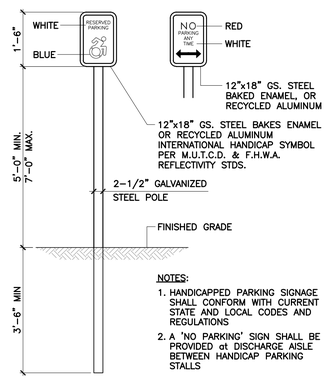
1. ALL WATERLINE, SANITARY SEWER AND OTHER WORK WITHIN THE R.O.W. SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE TOWN OF AMHERST, THE ERIE COUNTY WATER AUTHORITY AND NYSDOT SPECIFICATIONS.
2. INSTALL ALL MATERIALS TO THE MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF THE TRADE INVOLVED.
3. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER APPROVAL AND SHALL BE EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
4. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
5. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER OF ANY DISCREPANCIES IN CONDITIONS SHOWN ON THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
6. CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
7. CONTRACTOR SHALL KEEP THE JOB SITE FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF THE OWNER.
8. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK DOES NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
9. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NECESSARY TO PERFORM THE WORK.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CONTROL OF EROSION FROM THE SITE. SEE PROJECT EROSION CONTROL PLAN AND SWPPP MANUAL.
11. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS, FEATURES AND UTILITY CONNECTIONS.
12. ALL UTILITY TRENCHES UNDER PAVEMENT, CURBS, SIDEWALKS, AND DRIVEWAYS SHALL BE FULLY BACKFILLED WITH No 2 CRUSHER RUN STONE AND PROPERLY COMPACTED TO AVOID SETTLEMENT.
13. CONTRACTOR SHALL REPLACE IN KIND ANY EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CURBS, ROAD PAVEMENTS, SIDEWALKS, AND EXISTING UTILITIES.



TYPICAL CONCRETE CURB

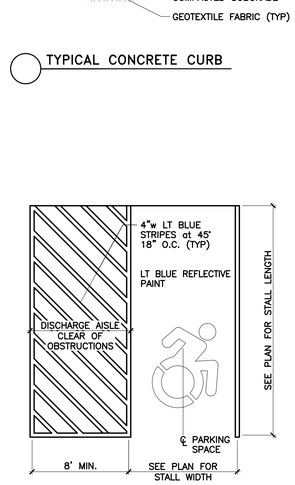


HANDICAP ACCESS RAMP

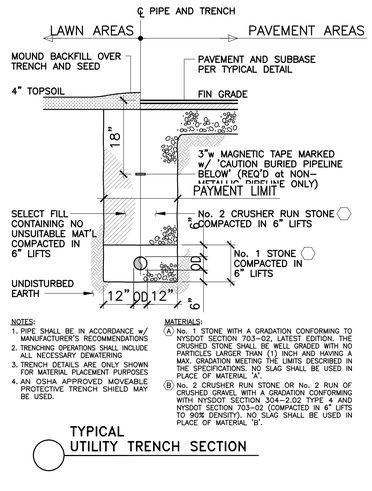


NOTES:
1. HANDICAPPED PARKING SIGNAGE SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS
2. A 'NO PARKING' SIGN SHALL BE PROVIDED at DISCHARGE AISLE BETWEEN HANDICAP PARKING STALLS

HANDICAPPED PARKING SIGNAGE
LOCATED IN LAWN AREAS



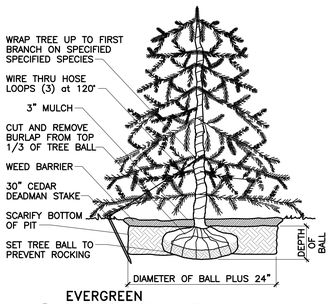
HANDICAP SYMBOL DETAIL



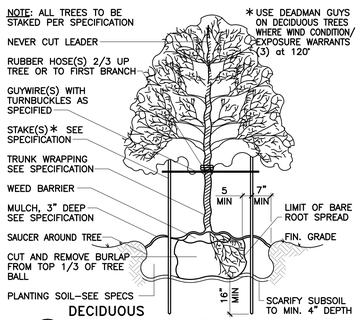
NOTES:
1. PIPE SHALL BE IN ACCORDANCE w/ MANUFACTURER'S RECOMMENDATIONS
2. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.
3. TRENCH DETAILS ARE ONLY SHOWN FOR MATERIAL PLACEMENT PURPOSES
4. AN OSHA APPROVED MOVEABLE PROTECTIVE TRENCH SHIELD MAY BE USED.

MATERIALS:
(A) No. 1 STONE WITH A GRADATION CONFORMING TO NYSDOT SECTION 703-02, LATEST EDITION. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN (1) INCH AND HAVING A MAX. GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'A'.
(B) No. 2 CRUSHER RUN STONE OR No. 2 RUN OF CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02 (COMPACTED IN 6" LIFTS TO 95% DENSITY). NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'B'.

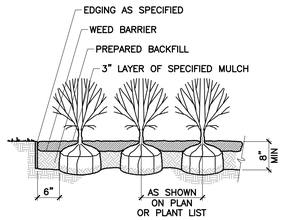
TYPICAL UTILITY TRENCH SECTION



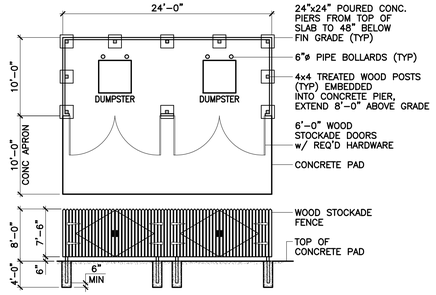
EVERGREEN TREE PLANTING DETAIL



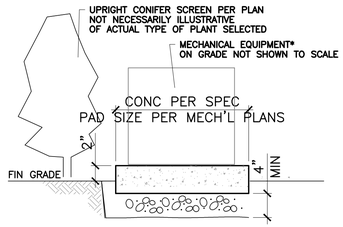
DECIDUOUS TREE PLANTING DETAIL



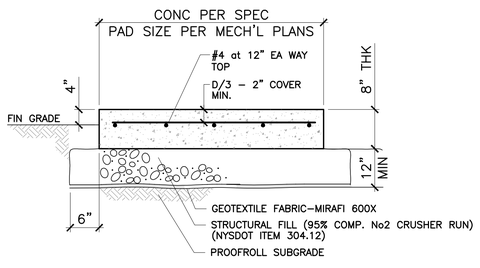
SHRUB PLANTING DETAIL



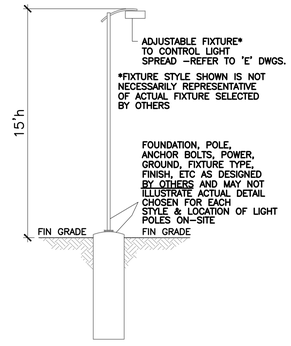
DUMPSTER ENCLOSURE WITH CONCRETE PAD



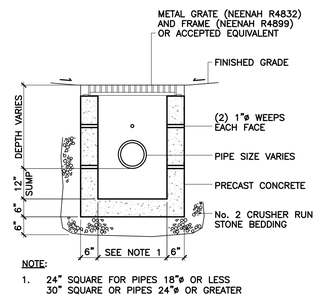
MECHANICAL EQUIP. SCREEN



GENERATOR PAD SECTION



LIGHT POLE HEIGHT DETAIL



NOTE:
1. 24" SQUARE FOR PIPES 18"ø OR LESS
30" SQUARE OR PIPES 24"ø OR GREATER

TYPICAL CATCH BASIN

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STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

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REVISIONS
1: REISSUED 3/28/22

DRAWN BY avm | CHECKED BY AVM

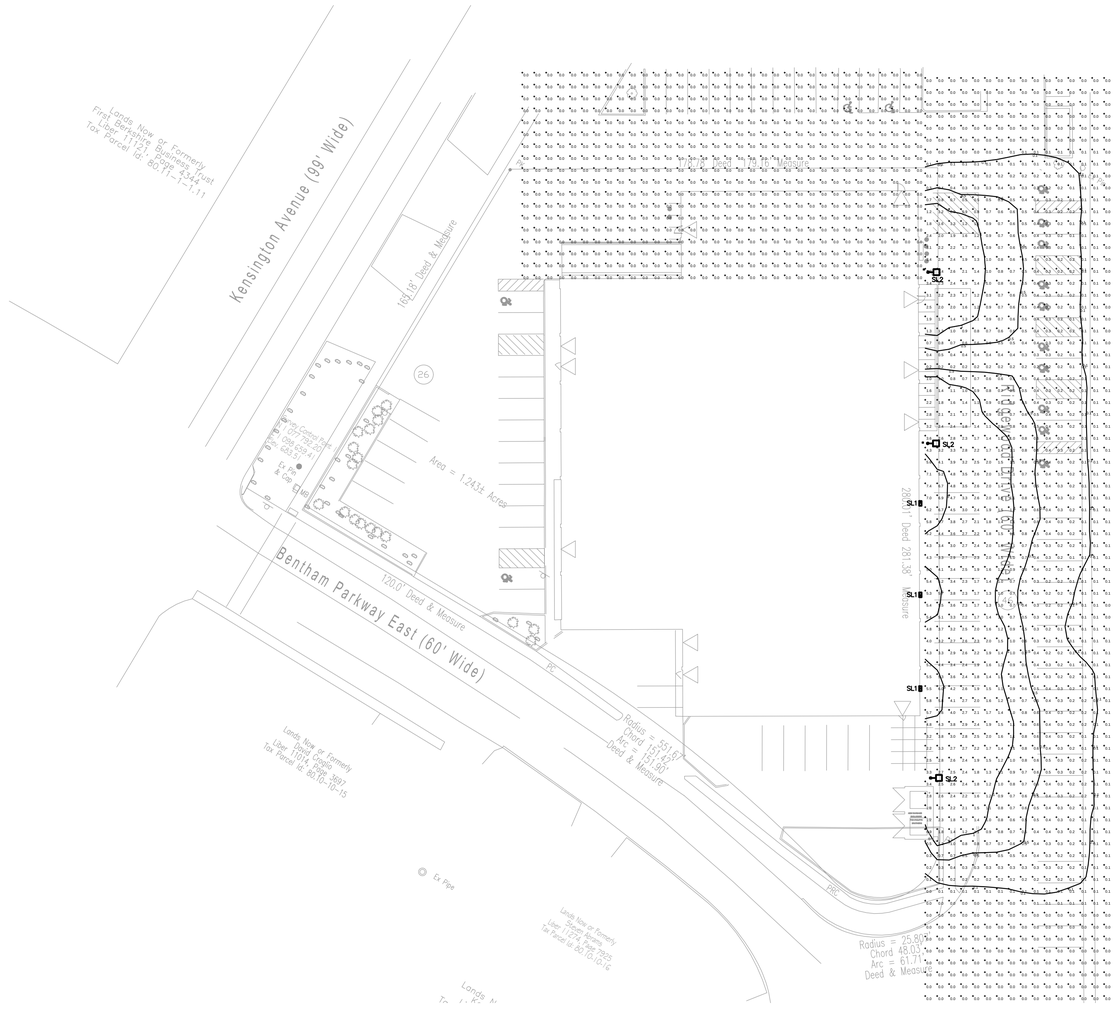
SCALE AS NOTED

DATE Feb 22, 2022

SITE DETAILS

SP201

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)



1 EL-100 ELECTRICAL SITE LIGHTING PLAN
SCALE: 1" = 20'-0"

LIGHT FIXTURE SCHEDULE						
TYPE	DESCRIPTION	MOUNTING	LENS/DIFFUSER	VOLTAGE/ BALLAST	LAMPS/LUMEN PACKAGE	MANUFACTURER & CATALOG NO.
SL1	WALL MOUNTED LED SITE LUMINAIRE	WALL MOUNTED 10'-0" A.F.G.	LED OPTICS, TYPE 4 FORWARD THROW	UNV 120-277V	44W, 6019 LUMENS, 4000°K LED SYSTEM	MCGRAW EDISON 'GALLEON LED' #GLEON-SA1B-740-U-T4FT
SL2	POLE MOUNTED LED SITE LUMINAIRE	POLE MOUNTED 15'-0" A.F.G.	LED OPTICS, TYPE 4 FORWARD THROW	UNV 120-277V	44W, 6019 LUMENS, 4000°K LED SYSTEM	MCGRAW EDISON 'GALLEON LED' #GLEON-SA1B-740-U-T4FT

1.e

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS:
Tredo Engineers
755 Seneca Street Suite 202, Buffalo, NY 14210
Tel 716 . 876 . 7147
Buffalo Engineering
4245 Union Road, Buffalo, NY 14225
Tel 716 . 633 . 5300



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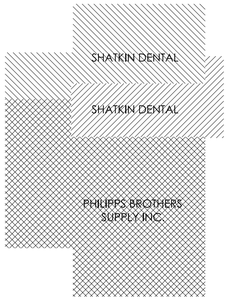
REVISIONS

DRAWN BY: DTB
CHECKED BY:
SCALE: AS NOTED
DATE: 03/24/22

ELECTRICAL SITE LIGHTING PLAN

EL-100

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)
Packet Pg. 228



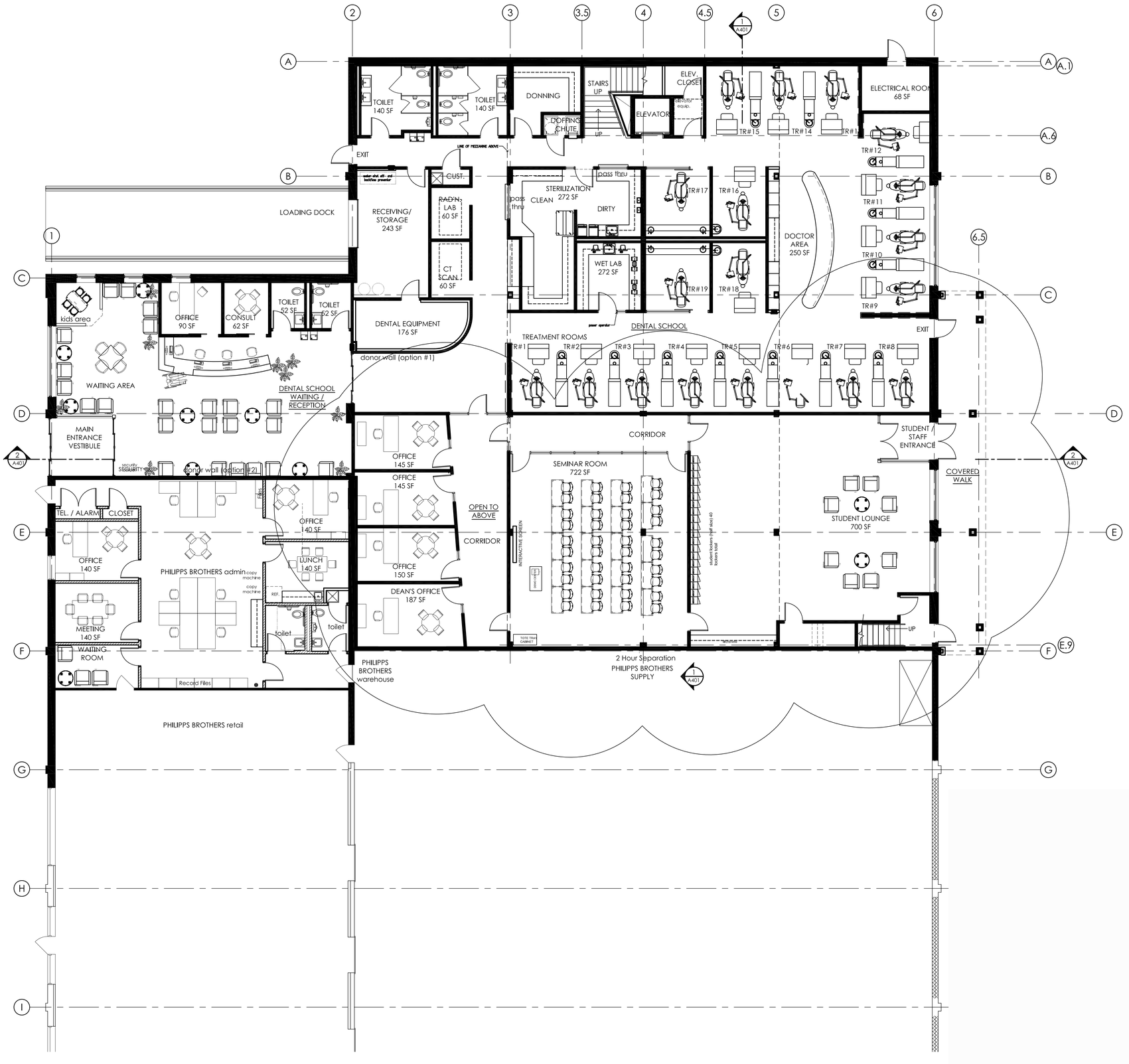
KEY PLAN
SCALE NTS

SHATKIN DENTAL
16,253 SF
W/ 2ND FL

PHILIPPS ADMIN
1,907 SF

PHILIPPS BROTHERS RETAIL
3,748 SF

PHILIPPS BROTHERS WAREHOUSE
11,621 SF



GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"

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425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
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CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716 . 876 . 7147

PETRILLI ENGINEERING PC
STRUCTURAL ENGINEERS
716 . 854 . 3508

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Attachment: SP-2022-02 drawings 051922 (2549 : Sp-2022-02)

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REVISIONS
SITE PLAN APPLICATION

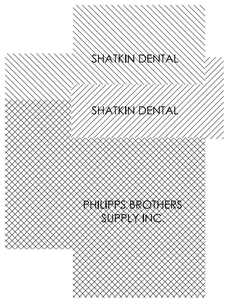
DRAWN BY JRM
CHECKED BY

SCALE
AS NOTED

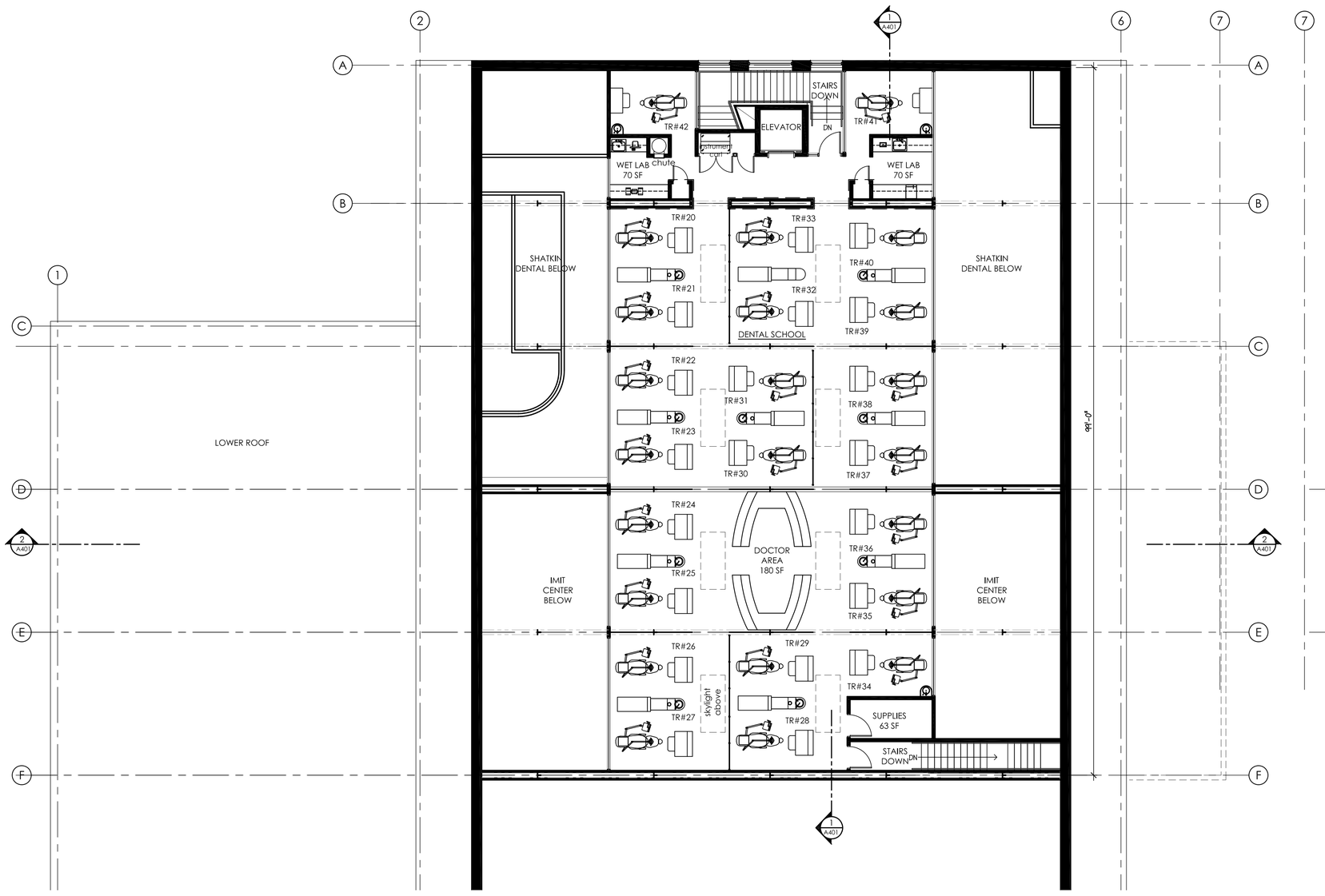
DATE
April 25 2022

GROUND FLOOR PLAN

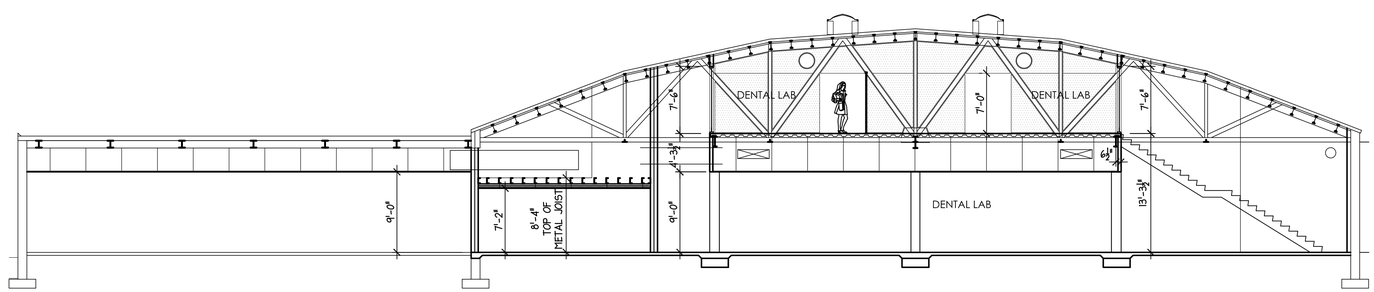
A101



KEY PLAN 1
SCALE NTS



UPPER FLOOR PLAN 1
SCALE 1/8" = 1'-0"



TYPICAL CROSS SECTION 2
SCALE 1/8" = 1'-0"

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425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716 . 876 . 7147

PETRILLI ENGINEERING PC
STRUCTURAL ENGINEERS
716 . 854 . 3508

BUFFALO ENGINEERING, PC
MEP AND CIVIL ENGINEERS
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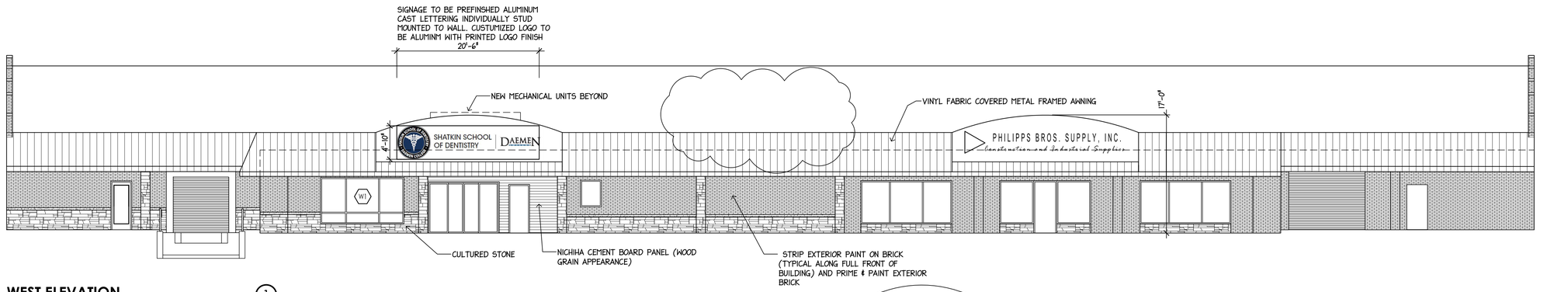
SCALE
AS NOTED

DATE
April 25 2022

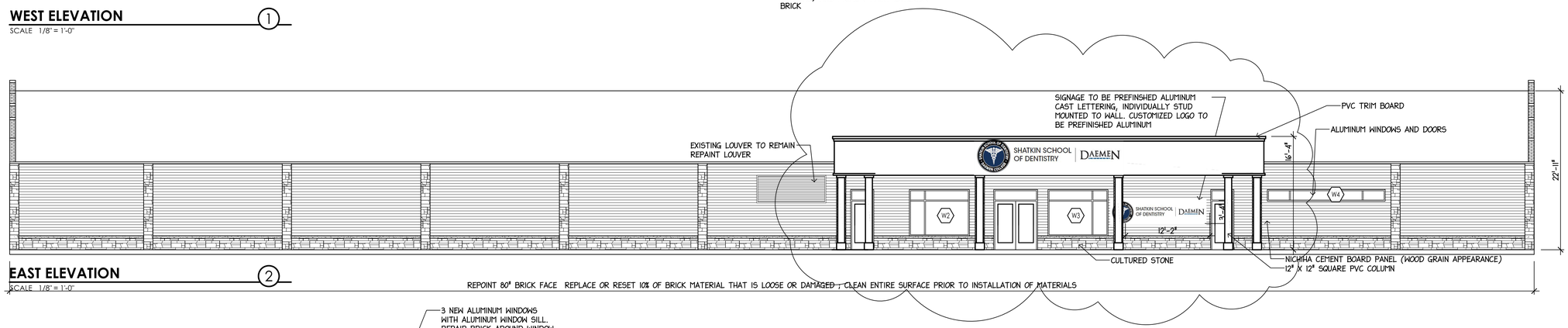
SECOND FLOOR PLAN

A102



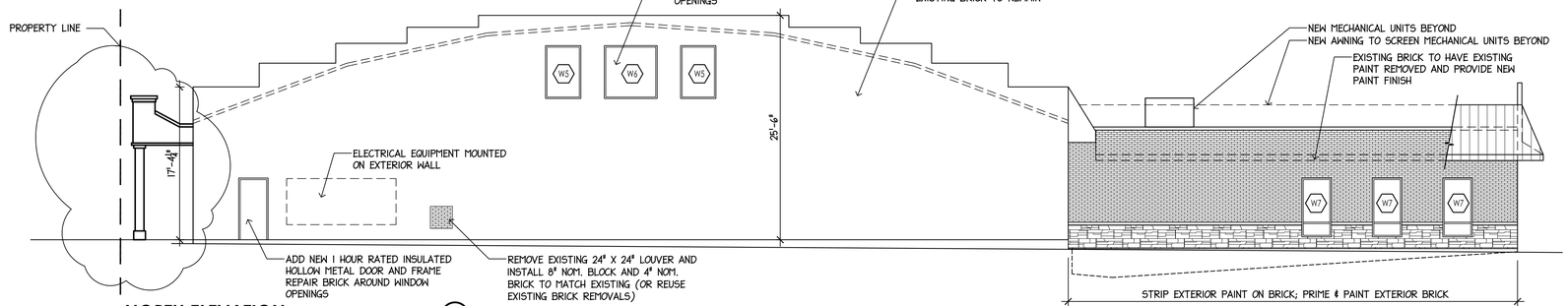
WEST ELEVATION 1

SCALE 1/8" = 1'-0"



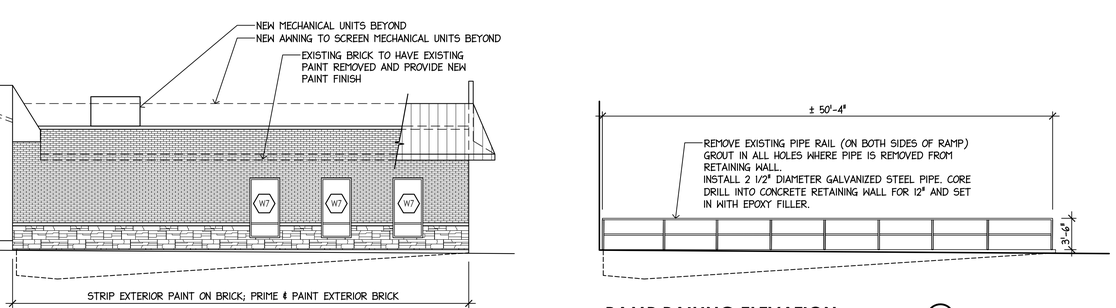
EAST ELEVATION 2

SCALE 1/8" = 1'-0"



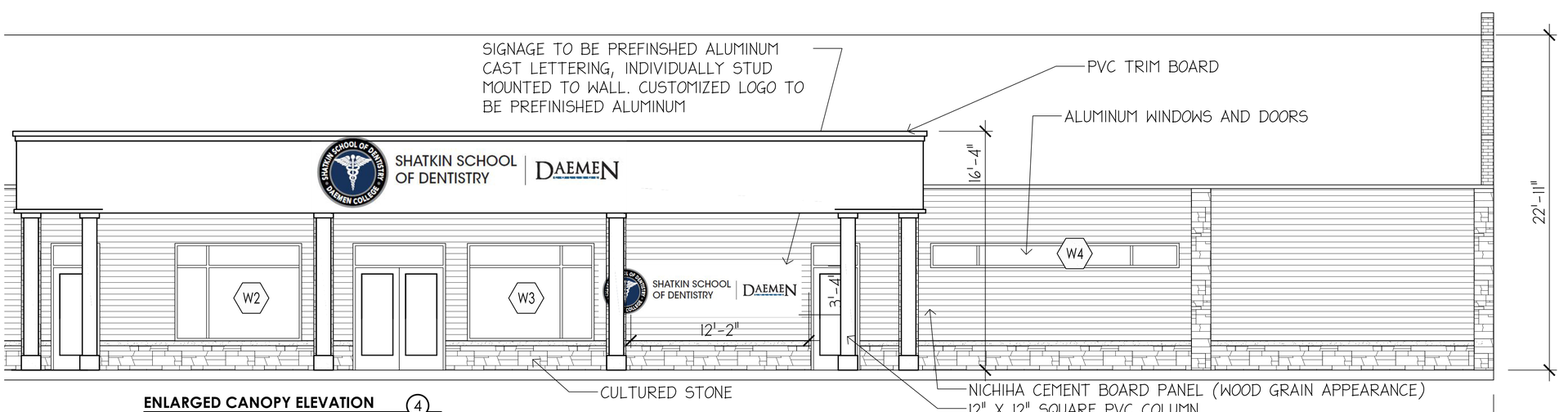
NORTH ELEVATION 3

SCALE 1/8" = 1'-0"



RAMP RAILING ELEVATION 5

SCALE 1/8" = 1'-0"



ENLARGED CANOPY ELEVATION 4

SCALE 1/8" = 1'-0"

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CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
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REVISIONS
SITE PLAN APPLICATION

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CHECKED BY
SCALE AS NOTED
DATE April 25 2022

EXTERIOR ELEVATIONS

A300

KOHLER

Model: 200REOZJF

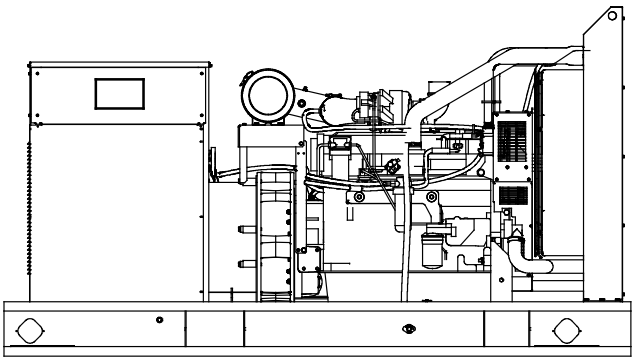
208- 600 V **Diesel**

ISO 9001 KOHLER NATIONALLY REGISTERED

Tier 3 EPA-Certified for Stationary Emergency Applications

Ratings Range

		60 Hz
Standby:	**kW**	168- 200
	kVA	195- 250
Prime:	**kW**	158- 180
	kVA	175- 225



Generator Set Ratings

Alternator	Voltage	Ph	Hz	130°C Rise Standby Rating kW/kVA	130°C Rise Standby Rating Amps	105°C Rise Prime Rating kW/kVA	105°C Rise Prime Rating Amps
4S13X	120/208	3	60	184/230	638	173/216	600
	127/220	3	60	194/243	636	180/225	590
	120/240	3	60	184/230	553	173/216	520
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	168/210	319	158/198	300
	277/480	3	60	200/250	301	180/225	271
4UA9	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217
4UA13	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	120/240	1	60	195/195	813	175/175	729
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
  - The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
    (4S13X alternator)
  - The unique Fast-Response® II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
    (4UA9 and 4UA13 alternators)
  - The brushless, rotating-field alternator has broadrange reconnectability.
- Other features:
  - Kohler designed controllers for one-source system integration and remote communication. See Controllers on page 3.
  - The low coolant level shutdown prevents overheating (standard on radiator models only).
  - Integral vibration isolation eliminates the need for under-unit vibration spring isolators.
- Multiple circuit breaker configurations.
- Mount up to three circuit breakers to allow circuit protection of selected priority loads.

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. *Standby Ratings:* The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. *Prime Power Ratings:* At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet
Leads: quantity, type	
4SX, 4UA	12, Reconnectable
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

Specifications		Alternator
Peak motor starting kVA:		(35% dip for voltages below)
480 V	4S13X (12 lead)	570
480 V	4UA9 (12 lead)	700
480 V	4UA13 (12 lead)	960

Application Data

Engine

Engine Specifications	
Manufacturer	John Deere
Engine model	6068HFG85A
Engine type	4-Cycle, Turbocharged, Charge Air-Cooled
Cylinder arrangement	6 Inline
Displacement, L (cu. in.)	6.8 (415)
Bore and stroke, mm (in.)	106 x 127 (4.19 x 5.00)
Compression ratio	17.0:1
Piston speed, m/min. (ft./min.)	457 (1500)
Main bearings: quantity, type	7, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	235 (315)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Valve material:	
Intake	Chromium-Silicon Steel
Exhaust	Stainless Steel
Governor: type, make/model	JDEC Electronic L14 Denso HP3
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m^3/min. (cfm)	42.8 (1510)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	527 (980)
Maximum allowable back pressure, kPa (in. Hg)	Min. 4 (1.2) Max. 10 (3.0)
Exhaust outlet size at engine hookup, mm (in.)	98 (3.86)

Engine Electrical

Engine Electrical System	
Battery charging alternator:	24 Volt
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	45
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each	Two, 925
Battery voltage (DC)	12

Fuel

Fuel System	
Fuel supply line, min. ID, mm (in.)	11.0 (0.44)
Fuel return line, min. ID, mm (in.)	6.0 (0.25)
Max. lift, fuel pump: type, m (ft.)	Mechanical, 1.8 (6.0)
Max. fuel flow, Lph (gph)	92.7 (24.5)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel prime pump	Manual
Fuel filter	
Primary	30 Microns
Secondary	2 Microns @ 98% Efficiency
Water Separator	Yes
Recommended fuel	#2 Diesel

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.) §	32.5 (34.4)
Oil pan capacity with filter, L (qt.) §	33.4 (35.3)
Oil filter: quantity, type §	1, Cartridge
Oil cooler	Water-Cooled

§ Kohler recommends the use of Kohler Genuine oil and filters.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Application Data

Cooling

Radiator System	
Ambient temperature, °C (°F) *	50 (122)
Engine jacket water capacity, L (gal.)	11.3 (3.0)
Radiator system capacity, including engine, L (gal.)	27.6 (7.3)
Engine jacket water flow, Lpm (gpm)	230.9 (61)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	94.2 (5360)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	56.1 (3190)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	787 (31)
Fan, kWm (HP)	8.6 (11.5)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H_2O)	0.125 (0.5)

* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

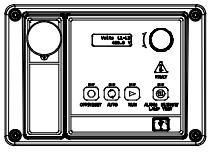
Operation Requirements

Air Requirements	
Radiator-cooled cooling air, m^3/min. (scfm)‡	368.1 (13000)
Combustion air, m^3/min. (cfm)	17.6 (620)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	46.9 (2670)
Alternator, kW (Btu/min.)	18.5 (1050)

‡ Air density = 1.20 kg/m^3 (0.075 lbm/ft^3)

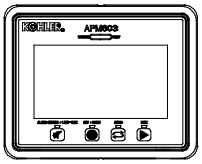
Fuel Consumption		
Diesel, Lph (gph) at % load	**Standby Rating**	
100%	58.0	(15.3)
75%	43.3	(11.4)
50%	31.4	(8.3)
25%	19.7	(5.2)
Diesel, Lph (gph) at % load	**Prime Rating**	
100%	50.1	(13.2)
75%	36.1	(9.5)
50%	25.7	(6.8)
25%	16.6	(4.4)

Controllers



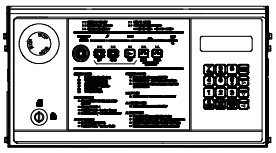
APM402 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-161 for additional controller features and accessories.



APM603 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- 7-inch graphic display with touch screen and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other APM603 controllers only
- Generator management to turn paralleled generators off and on as required by load demand
- Load management to connect and disconnect loads as required
- Controller supports Modbus® RTU, Modbus® TCP, SNMP and BACnet®
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- UL-listed overcurrent protective device
- NFPA 110 Level 1 capability

Refer to G6-162 for additional controller features and accessories.



Decision-Maker® 6000 Paralleling Controller
Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other Decision-Maker® 6000 controllers only
- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-107 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.

BACnet® is a registered trademark of ASHRAE.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

KOHLER

KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KOHLERPower.com

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Customer Connection (standard with Decision-Maker® 6000 controller only)
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Circuit Breakers

Type

- ❑ Magnetic Trip
- ❑ Thermal Magnetic Trip
- ❑ Electronic Trip (LI)
- ❑ Electronic Trip with Short Time (LSI)
- ❑ Electronic Trip with Ground Fault (LSIG)

Rating

- ❑ 80%
- ❑ 100%

Operation

- ❑ Manual
- ❑ Electrically Operated (for paralleling)

Circuit Breaker Mounting

- ❑ Generator Mounted
- ❑ Remote Mounted
- ❑ Bus Bar (for remote mounted breakers)

Enclosures for Remote Mounted Circuit Breakers

- ❑ NEMA 1
- ❑ NEMA 3R

Approvals and Listings

- ❑ California OSHPD Pre- Approval
- ❑ CSA Certified
- ❑ IBC Seismic Certification
- ❑ UL 2200 Listing
- ❑ Hurricane Rated Enclosure

Enclosed Unit

- ❑ Sound Enclosure (with enclosed critical silencer)
- ❑ Weather Enclosure (with enclosed critical silencer)

Open Unit

- ❑ Exhaust Silencer, Critical (kit: PA-354809)
- ❑ Flexible Exhaust Connector, Stainless Steel

Fuel System

- ❑ Flexible Fuel Lines
- ❑ Fuel Pressure Gauge
- ❑ Subbase Fuel Tanks

Controller

- ❑ Common Failure Relay (Decision-Maker® 6000 and APM603 controllers only)
- ❑ Decision-Maker® Paralleling System (DPS) (Decision-Maker® 6000 controller only)
- ❑ Dry Contact (isolated alarm) (Decision-Maker® 6000 controller only)
- ❑ Two Input/Five Output Module (APM402 controller only)
- ❑ Four Input/Fifteen Output Module (APM603 controller only)
- ❑ Lockable Emergency Stop Switch
- ❑ Remote Emergency Stop Switch
- ❑ Remote Serial Annunciator Panel
- ❑ Run Relay (standard with APM603, optional with others)
- ❑ Manual Key Switch (APM603 controller only)
- ❑ Manual Speed Adjust (APM402 controller only)

Cooling System

- ❑ Block Heater, 1800 W, 90- 120 V, 1 Ph
- ❑ Block Heater, 2000 W, 190- 240 V, 1 Ph Required for ambient temperature below 0°C (32°F)
- ❑ Radiator Duct Flange

Electrical System

- ❑ Generator Heater
- ❑ Battery
- ❑ Battery Charger, Equalize/Float Type
- ❑ Battery Heater

Miscellaneous

- ❑ Air Cleaner, Heavy Duty
- ❑ Air Cleaner Restriction Indicator
- ❑ Certified Test Report
- ❑ Crankcase Emissions Canister
- ❑ Engine Fluids Added
- ❑ Rated Power Factor Testing
- ❑ Rodent Guards

Literature

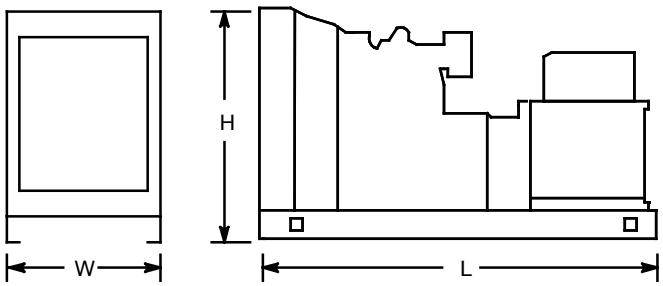
- ❑ General Maintenance
- ❑ NFPA 110
- ❑ Overhaul
- ❑ Production

Warranty

- ❑ 2-Year Basic Limited Warranty
- ❑ 5-Year Basic Limited Warranty
- ❑ 5-Year Comprehensive Limited Warranty

Dimensions and Weights

Overall Size, L x W x H, mm (in.):	3000 x 1300 x 1672 (118.1 x 51.2 x 65.8)
Weight (radiator model), wet, kg (lb.):	1923 (4240)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

DISTRIBUTED BY:

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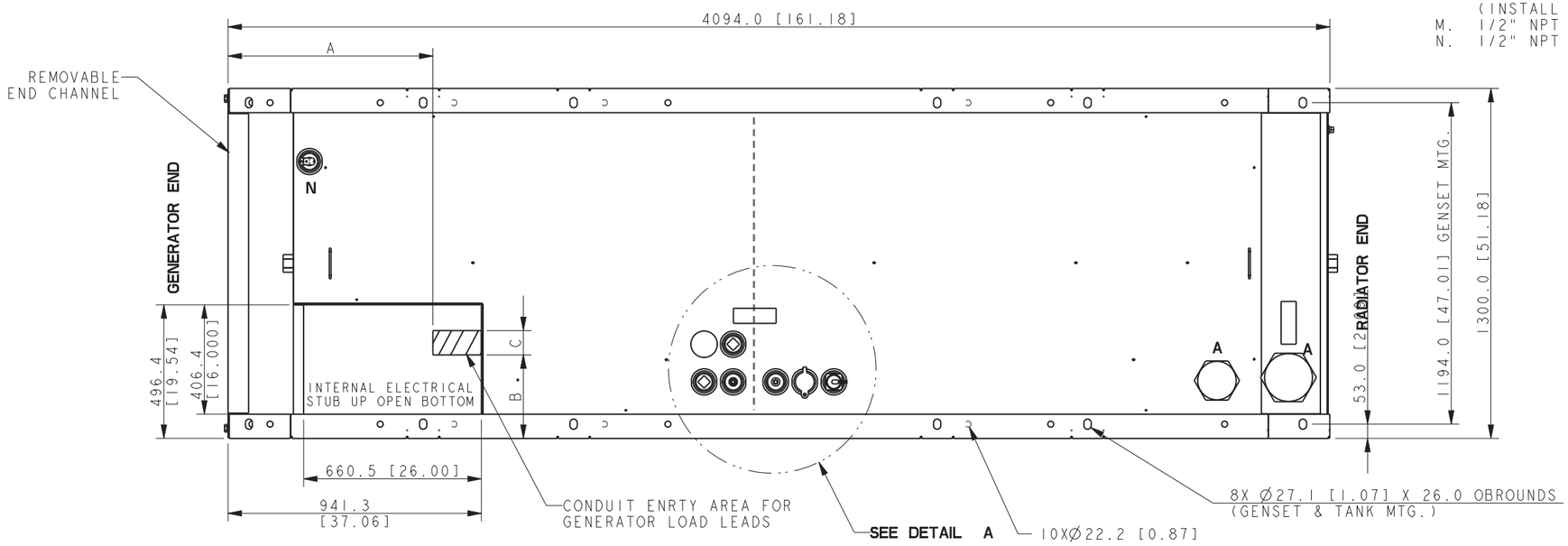
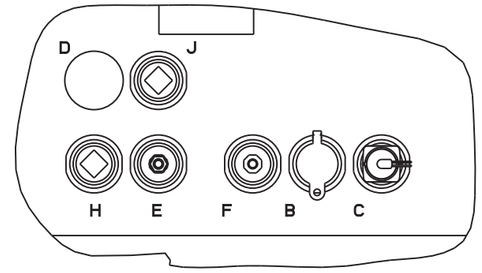
Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	1514	400	933	2057	482.6	19.0	4.0	2.0
180/200kW	2871	758	1327	2926	889.0	35.0	5.0	2.0

TANK FITTINGS:

A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 2" NPT FUEL FILL FITTING WITH LOCKABLE CAP
C. 2" NPT FUEL LEVEL GAUGE FITTING
D. 2" NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE)
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE)
H. 2" NPT FOR LOW LEVEL SWITCH (SET AT 50% FULL, SILICONE PACKED)
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY (INSTALL STEEL 2" NPT PIPE PLUG)
M. 1/2" NPT BASIN DRAIN (INSTALL STEEL 1/2" NPT PIPE PLUG)
N. 1/2" NPT FOR FUEL IN BASIN SWITCH (INSTALL STEEL 1/2" NPT PIPE PLUG)





DETAIL A
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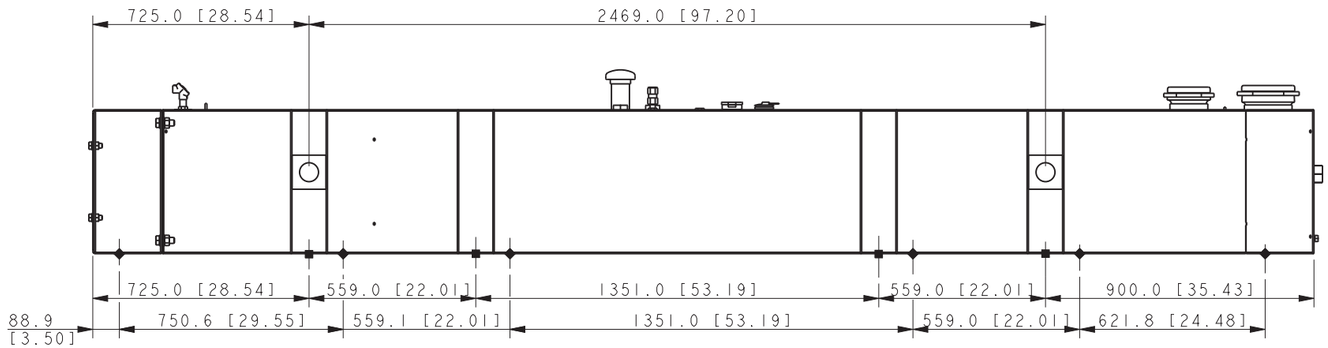

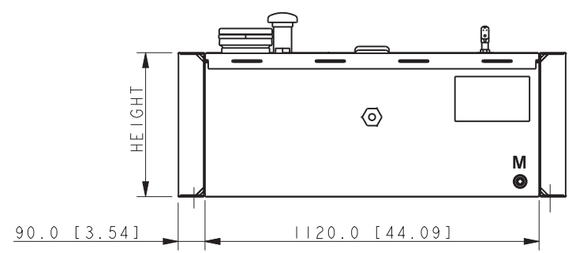

■ 8XØ25.4 [1.0] STANDARD MOUNTING

◆ 12XØ22.2 [0.88] IBC/WINDLOAD MOUNTING

GENSET	A	B	C
180KW	761 [30.0]	310 [12.2]	90 [3.5]
200KW	561 [22.1]	303 [11.9]	100 [3.9]

STANDARD TANK

180 MODEL 60HZ 4S15, 4S12X & 4S13X
200 MODEL 4UA9, 4UA13 & 4S13X
RECONNECTABLE
IMPROVED MOTOR STARTING (IMS) &
600V ALTERNATOR
JOHN DEERE 6068HF485, TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
F	08-11-14	(A-4) STANDARD TANK NOTE ADDED & SEE SHEET 2 [CT89102]	PAS
G	2-28-17	(A-8, A-7) 761 WAS 571, 303 WAS 195, (8-D, C-7) DELETE 50.0 UPDATE CONDUIT AREA, SEE SHEET 2, [CT170607]	RMJ
H	2-19-18	SEE SHEET 3 [CT184671]	PAS
J	2-26-19	(A-5) IBC/WINDLOAD MOUNTING WAS IBC MOUNTING; SEE SHEET 2 & 3 [CT193852]	TKK
K	7-2-19	SEE SHEET 2 [CT196925]	JB2

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS	DATE
DRAWN PKD	1-20-10
CHECKED AJD	1-20-10
APPROVED AJD	1-20-10

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TITLE
DIMENSION PRINT

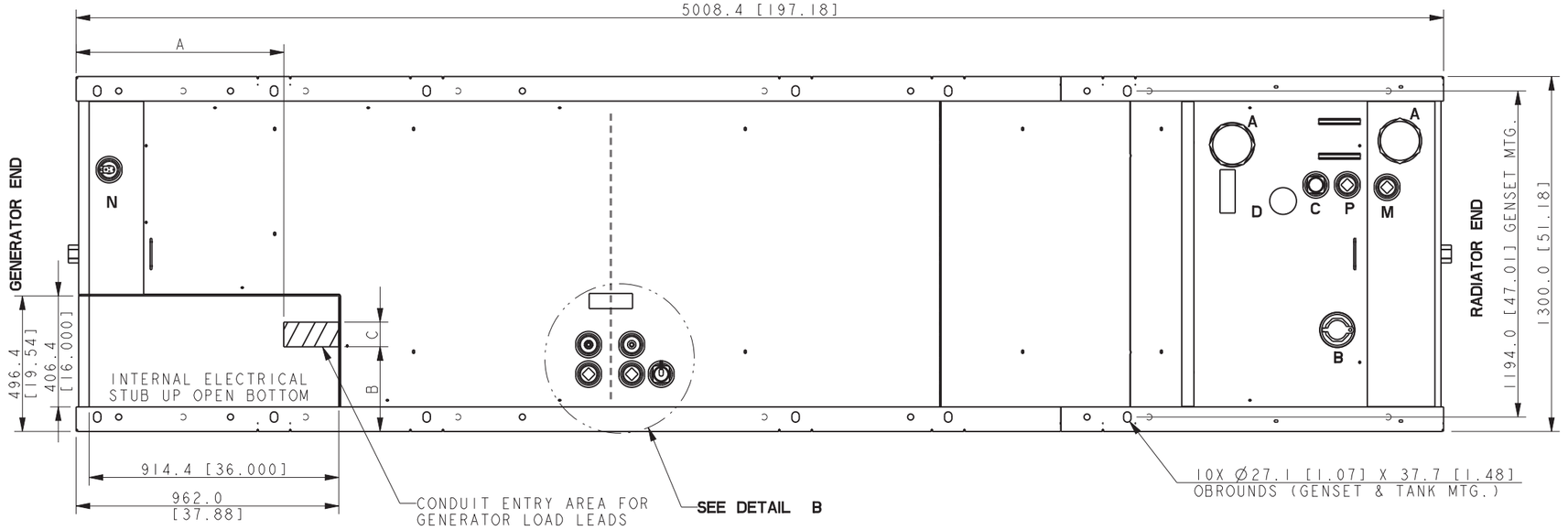
SCALE 0.10 | CAD NO. | SHEET 1 of 3
DWG NO. ADV-

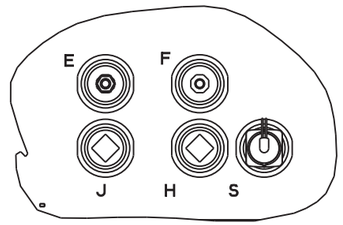
Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	1576	416	1234	2721	457.2	18.0	5.0	2.0
180/200kW	2896	765	1560	3440	762.0	30.0	5.0	2.0

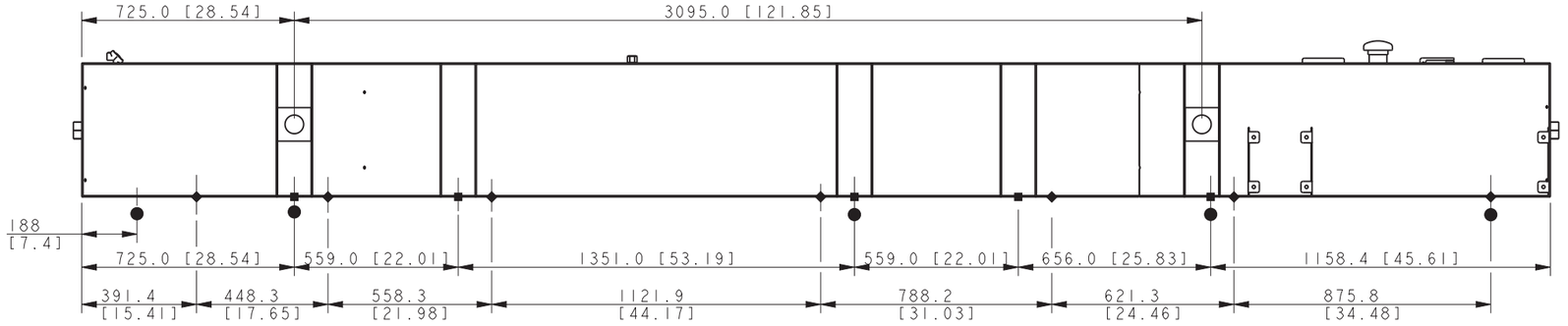
TANK FITTINGS:

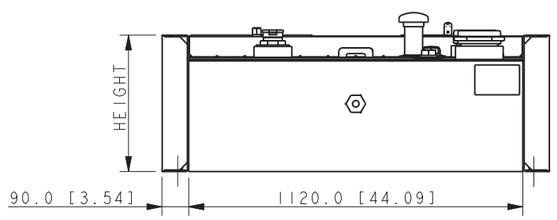
A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 4" NPT FUEL FILL FITTING WITH LOCKABLE CAP AND RISER. PLUG & SHIP WITH TANK IN BOX ATTACHED TO TANK
C. 2" NPT FUEL LEVEL GAUGE FITTING
D. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER.
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE)
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE)
H. 2" NPT FOR LOW LEVEL SWITCH (SET AT 50% FULL, SILICONE PACKED)
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY (INSTALL 2" NPT PIPE PLUG)
M. 2" NPT BASIN DRAIN (PLUGGED
N. 2" NPT FOR FUEL IN BASIN SWITCH
P. 2" NPT ADDITIONAL FITTING FOR OTPIONAL ACCESORY (INSTALL 2" NPT PIPE PLUG)
S. 2" NPT FUEL LEVEL GAUGE FITTING WITH SENDER





DETAIL B
SCALE 0.20





■ 10XØ25.4 [1.0] STANDARD MOUNTING
◆ 14XØ22.2 [0.88] IBC/WINDLOAD MOUNTING
● 10XØ25.4 [1.0] BOTTOM BEAM MOUNTING

GENSET	A	B	C
180KW	761 [30.0]	310 [12.2]	90 [3.5]
200KW	561 [22.1]	303 [11.9]	100 [3.9]

STATE TANK
180 MODEL 60HZ 4S15, 4S12X & 4S13X
200 MODEL 4UA9, 4UA13 & 4S13X
RECONNECTABLE
IMPROVED MOTOR STARTING (IMS) &
600V ALTERNATOR
JOHN DEERE 6068HF485, TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
G	2-28-17	(A-8, A-7) 761 WAS 571, 303 WAS 195,	
		(8-D, C-7) DELETE 50.0 UPDATE CONDUIT AREA,	
		SEE SHEET 1, [CT170607]	RMJ
H	2-19-18	SEE SHEET 3 [CT184671]	PAS
J	2-26-19	(A-5,6) IBC/WINDLOAD MOUNTING WAS IBC	
		MOUNTING; SEE SHEET 1 & 3 [CT193852]	TKK
K	7-2-19	(D-6)5.0 WAS 4.0, (B-4) CORRECTED ACCURACY	
		TO GENSET / TANK MOUNTING [CT196925]	JB2

UNLESS OTHERWISE SPECIFIED: - 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30' — SURFACE FINISH MAX. — THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	PKD	1-20-10
CHECKED	AJD	1-20-10
APPROVED	AJD	1-20-10

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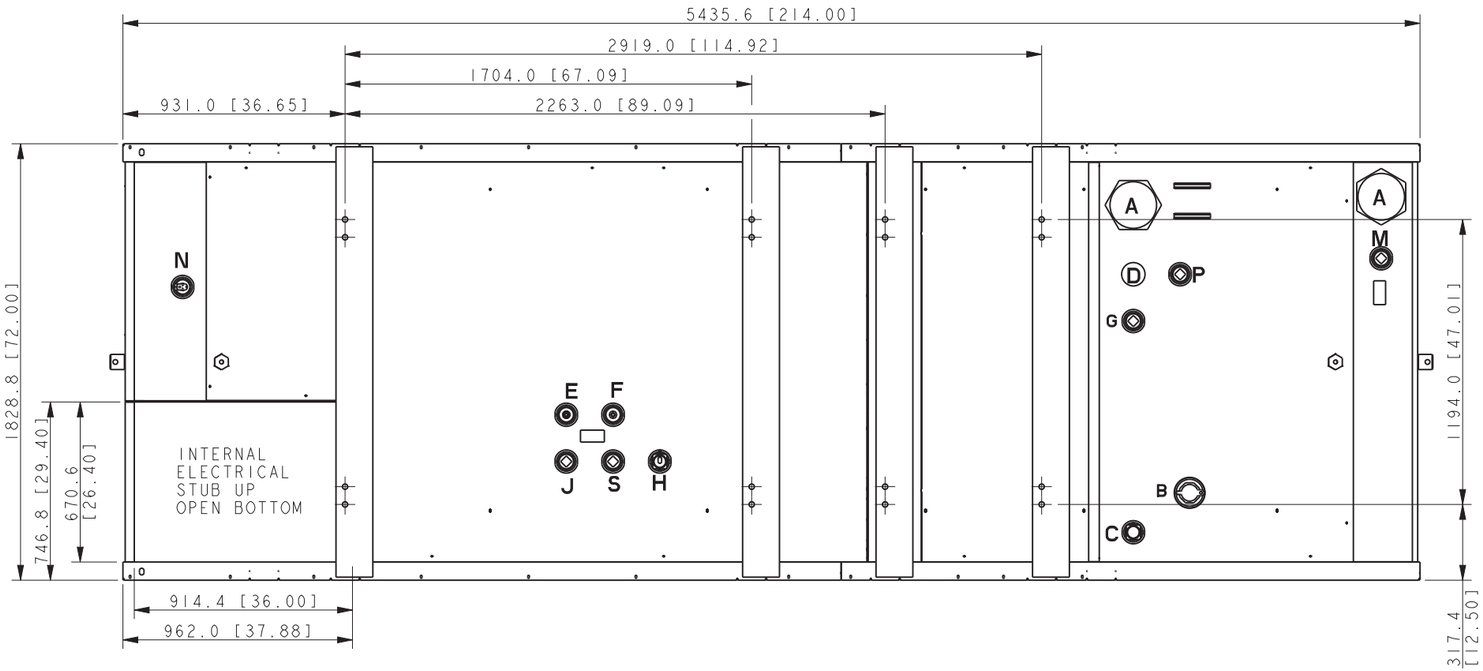
SCALE 0.10 | CAD NO. | SHEET 2 of 3
DWG NO. **ADV-**

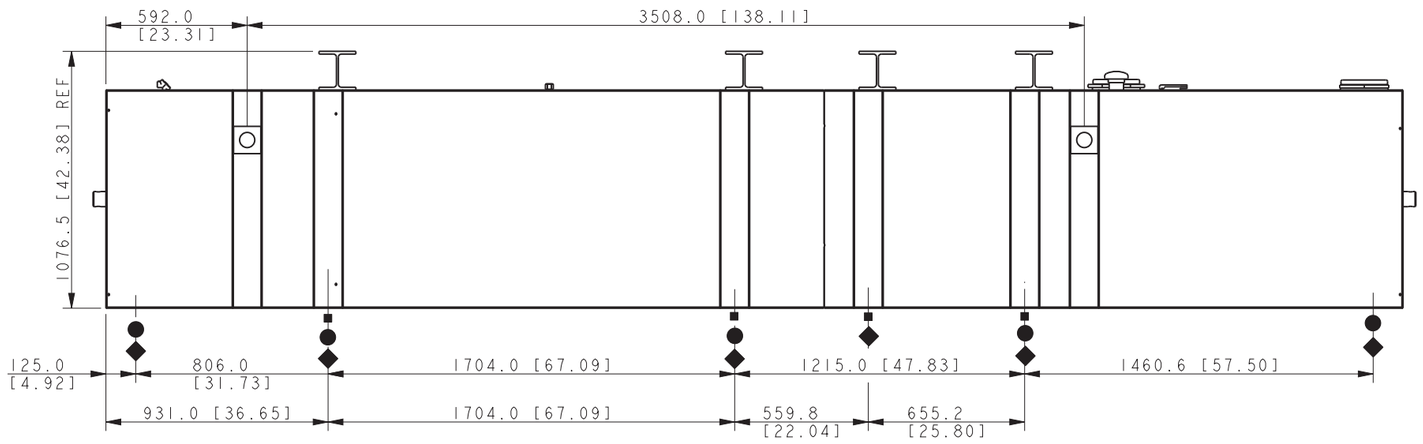
Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

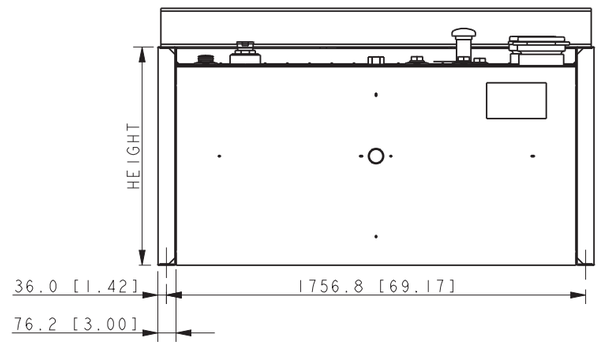
MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	5742	1517	1727	3809	914.4	36.0	6.0	2.0

TANK FITTINGS:

A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 4" NPT FUEL FILL FITTING WITH LOCKABLE CAP AND RISER.
C. 2" NPT FUEL LEVEL GAUGE FITING WITH DIRECT READING MECHANICAL GAUGE.
D. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER.
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE).
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE).
G. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).
H. 2" NPT FOR FUEL LEVEL SENDING UNIT.
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).
M. 2" NPT BASIN DRAIN (INSTALL STEEL 2" NPT PIPE PLUG).
N. 2" NPT FOR FUEL IN BASIN SWITCH.
P. 2" NPT ADDITIONAL FITTING FOR OTPIONAL ACCESORY (INSTALL STEEL 2" NPT PIPE PLUG).
S. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).







NOTE:
FOR FURTHER TANK DETAIL SEE INDIVIDUAL DRAWINGS

■ 8X Ø25.40 [1.0] STANDARD MOUNTING
● 10X Ø25.40 [1.0] BOTTOM BEAM MOUNTING
◆ 12X Ø25.40 [1.0] WINDLOAD MOUNTING

96 HOUR STATE TANK

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
H	2-19-18	SHEET 3 ADDED [CTI84671]	PAS
J	2-26-19	(A-4,5) 12X Ø25.40 [1.0] WINDLOAD MOUNTING	
		NOTE ADDED; SEE SHEET 1 & 2 [CTI93852]	TKK
K	7-2-19	SEE SHEET 2 [CTI96925]	JB2

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	PAS	2-19-18
CHECKED	JB2	2-19-18
APPROVED	KJB	2-19-18

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DIMENSION PRINT

SCALE 0.08 | CAD NO. | SHEET 3 of 3
DWG NO. ADV-

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Product Features

LumenSafe Technology

Light ARchitect™

Product Certifications

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

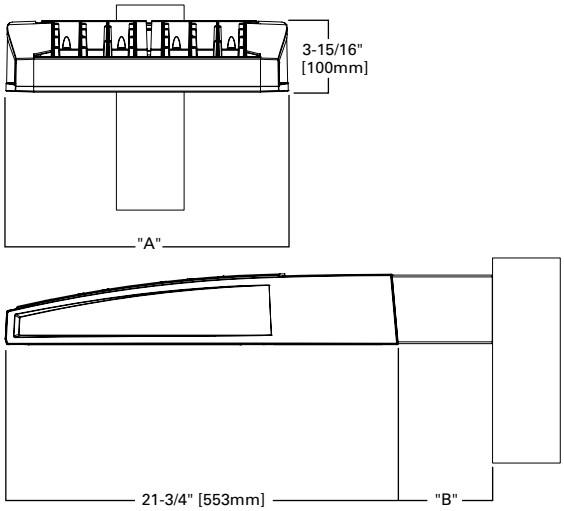
Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt
- Options to meet Buy American and other domestic preference requirements

Connected Systems

- WaveLinx
- Enlighted

Dimensional Details



Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length [1]	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Ordering Information

SAMPLE NUMBER: **GLEON-SA4C-740-U-T4FT-GM**

Product Family [1, 2]	Light Engine		Color Temperature	Voltage	Distribution	Mounting	Finish
	Configuration	Drive Current					
GLEON=Galleon **BAA-GLEON**=Galleon, Buy American Act Compliant [35] **TAA-GLEON**=Galleon, Trade Agreements Act Compliant [35]	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares **SA5**=5 Squares [4] **SA6**=6 Squares **SA7**=7 Squares [5] **SA8**=8 Squares [5] **SA9**=9 Squares [6] **SA0**=10 Squares [6]	**A**=600mA **B**=800mA **C**=1000mA **D**=1200mA [16]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [14, 16]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [7, 8] **9**=347V [7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [9] **MA**=Mast Arm Adapter [10] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [11] **QML**=Quick Mount Arm (Standard Length, Large) [37] **QMEA**=Quick Mount Arm (Extended Length) [12]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **RALXX**=Custom Color

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)[35]
DIM=External 0-10V Dimming Leads [19, 20] **F**=Single Fuse (120, 277 or 347V Specify Voltage) **FF**=Double Fuse (208, 240 or 480V Specify Voltage) **20K**=Series 20kV UL 1449 Surge Protective Device **2L**=Two Circuits [17, 18] **HA**=50°C High Ambient **HSS**=Installed House Side Shield [28] **GRSBK**=Glare Reducing Shield, Black [23] **GRSWH**=Glare Reducing Shield, White [23] **LCF**=Light Square Trim Painted to Match Housing [27] **MT**=Installed Mesh Top **TH**=Tool-less Door Hardware **CC**=Coastal Construction finish [3] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **CE**=CE Marking [29] **AHD145**=After Hours Dim, 5 Hours [22] **AHD245**=After Hours Dim, 6 Hours [22] **AHD255**=After Hours Dim, 7 Hours [22] **AHD355**=After Hours Dim, 8 Hours [22] **DALI**=DALI Drivers	**BPC**=Button Type Photocontrol **PR**=NEMA 3-PIN Photocontrol Receptacle **PR7**=NEMA 7-PIN Photocontrol Receptacle [21] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8' - 20' Mounting [34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21' - 40' Mounting [34] **MS-L20**=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [24] **MS-L40W**=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [24] **MS/X-L20**=Bi-Level Motion Sensor, 9' - 20' Mounting Height [24, 25] **MS/X-L40W**=Bi-Level Motion Sensor, 21' - 40' Mounting Height [24, 25] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [24] **MS/DIM-L40W**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [24] **ZW**=WaveLinx Module and 4-PIN Receptacle **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle **SWPD4XX**=WaveLinx Sensor Only, 7'-15' [13, 32, 33] **SWPD5XX**=WaveLinx Sensor Only, 15'-40' [13, 32, 33] **WOBXX**=WaveLinx Sensor with Bluetooth, 7'-15' [13, 32] **WOFXX**=WaveLinx Sensor with Bluetooth, 15'-40' [13, 32] **LWR-LW**=Enlighted Sensor, 8'–16' Mounting Height [26] **LWR-LN**=Enlighted Sensor, 16'–40' Mounting Height [26] **DIM10-MS/DIM-L08**=Synapse Occupancy Sensor (<8' Mounting) [19] **DIM10-MS/DIM-L20**=Synapse Occupancy Sensor (9'-20' Mounting) [19] **DIM10-MS/DIM-L40**=Synapse Occupancy Sensor (21'-40' Mounting) [19]	**OA/RA1016**=NEMA Photocontrol Multi-Tap - 105-285V **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1014**=120V Photocontrol **MA1252**=10kV Surge Module Replacement **MA1036-XX**=Single Tenon Adapter for 2-3/8" O.D. Tenon **MA1037-XX**=2@180° Tenon Adapter for 2-3/8" O.D. Tenon **MA1197-XX**=3@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1188-XX**=4@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1189-XX**=2@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1190-XX**=3@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1191-XX**=2@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1038-XX**=Single Tenon Adapter for 3-1/2" O.D. Tenon **MA1039-XX**=2@180° Tenon Adapter for 3-1/2" O.D. Tenon **MA1192-XX**=3@120° Tenon Adapter for 3-1/2" O.D. Tenon **MA1193-XX**=4@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1194-XX**=2@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1195-XX**=3@90° Tenon Adapter for 3-1/2" O.D. Tenon **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [24] **GLEON-MT1**=Field Installed Mesh Top for 1-4 Light Squares **GLEON-MT2**=Field Installed Mesh Top for 5-6 Light Squares **GLEON-MT3**=Field Installed Mesh Top for 7-8 Light Squares **GLEON-MT4**=Field Installed Mesh Top for 9-10 Light Squares **GLEON-QM**=Quick Mount Arm Kit [11] **GLEON-QMEA**=Quick Mount Extended Arm Kit [12] **LS/HSS**=Field Installed House Side Shield [28, 30] **LS/GRSBK**=Glare Reducing Shield, Black [23, 30] **LS/GRSWH**=Glare Reducing Shield, White [23, 30] **LS/PFS**=Perimeter Shield, Black [15] **WOLC-7P-10A**=WaveLinx Outdoor Control Module [19, 31] **SWPD4-XX**=Wavelinx Wireless Sensor, 7'–15' Mounting Height [13, 19, 32, 33] **SWPD5-XX**=Wavelinx Wireless Sensor, 15'–40' Mounting Height [13, 19, 32, 33]

NOTES:

1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Not available with TH option.
4. Not compatible with MS/4-LXX or MS/1-LXX sensors.
5. Not compatible with extended quick mount arm (QMEA).
6. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
7. Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
8. 480V must utilize Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems.)
9. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
10. Factory installed.
11. Maximum 8 light squares.
12. Maximum 6 light squares.
13. Requires ZW or ZD receptacle.
14. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
15. Set of 4 pcs. One set required per Light Square.
16. Not available with HA option.
17. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in SA2 through SA4 requires a larger housing, normally used for SA5 or SA6. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
18. Not available with Enlighted wireless sensors.
19. Cannot be used with other control options.
20. Low voltage control lead brought out 18" outside fixture.
21. Not available if any "MS" sensor is selected. Motion sensor has an integral photocell.
22. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
23. Not for use with T4FT, T4W or SL4 optics. See IES files for details.
24. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
25. Replace X with number of Light Squares operating in low output mode.
26. Enlighted wireless sensors are factory installed only requiring network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities.
27. Not available with house side shield (HSS).
28. Not for use with 5NQ, 5MQ, 5WQ or RW optics. A black trim plate is used when HSS is selected.
29. CE is not available with the LWR, MS, MS/X, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
30. One required for each Light Square.
31. Requires PR7.
32. Replace XX with sensor color (WH, BZ or BK.)
33. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
34. Smart device with mobile application required to change system defaults. See controls section for details.
35. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
36. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
37. Available for 7-10 squares.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

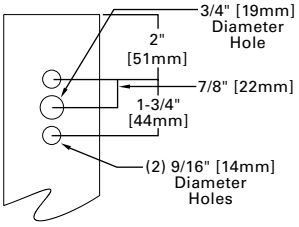
Product Family	Camera Type	Data Backhaul	
L=LumenSafe Technology LumenSafe Technology	**D**=Standard Dome Camera **H**=Hi-Res Dome Camera **Z**=Remote PTZ Camera	**C**=Cellular, No SIM **A**=Cellular, AT&T **V**=Cellular, Verizon **S**=Cellular, Sprint	**R**=Cellular, Rogers **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

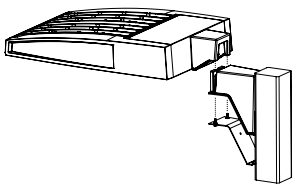
Mounting Details

Standard Arm (Drilling Pattern)

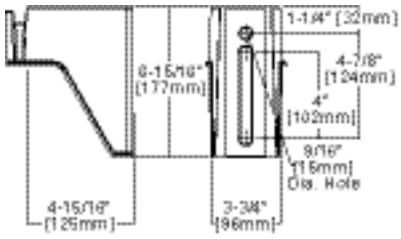
TYPE "N"



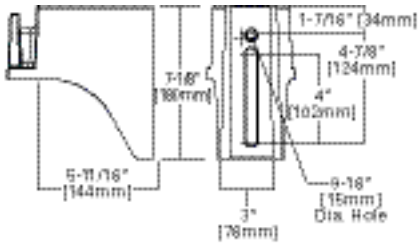
Quick Mount Arm (Includes fixture adapter)



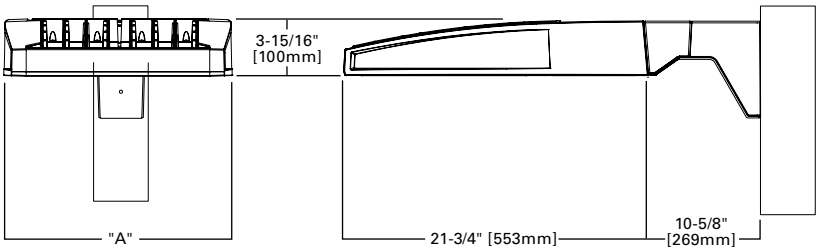
QM and QMEA Pole Mount



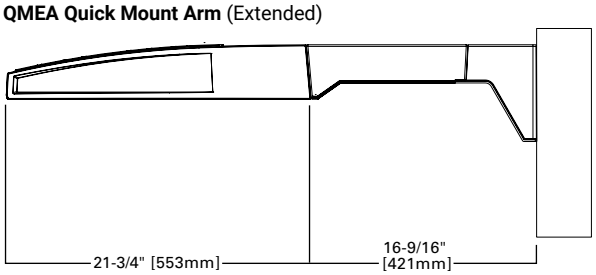
QML Pole Mount



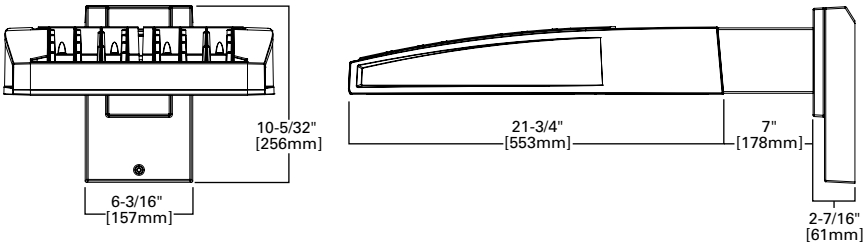
QM Quick Mount Arm (Standard)



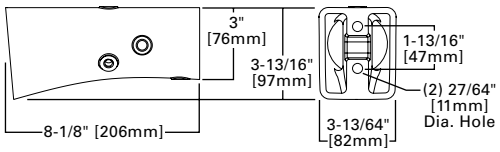
QMEA Quick Mount Arm (Extended)



Standard Wall Mount

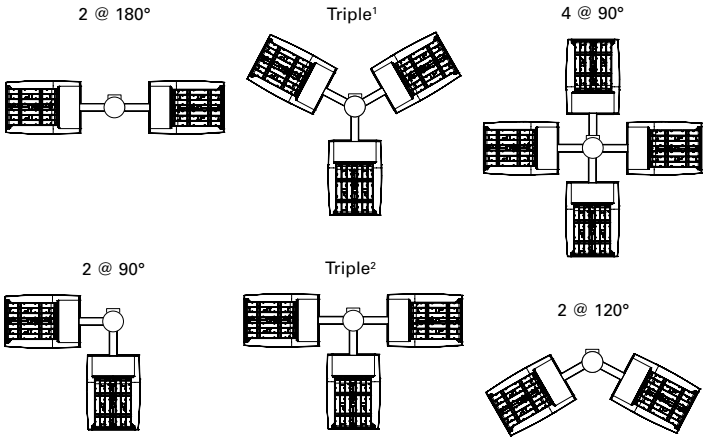


Mast Arm Mount



Arm Mounting Requirements

Number of Light Squares	Standard Arm @ 90° Apart	Standard Arm @ 120° Apart	Quick Mount Arm @ 90° Apart	Quick Mount Arm @ 120° Apart
1	Standard	Standard	QM Extended	Quick Mount
2	Standard	Standard	QM Extended	Quick Mount
3	Standard	Standard	QM Extended	Quick Mount
4	Standard	Standard	QM Extended	Quick Mount
5	Extended	Standard	QM Extended	Quick Mount
6	Extended	Standard	QM Extended	Quick Mount
7	Extended	Extended	--	Quick Mount
8	Extended	Extended	--	Quick Mount
9	Extended	Extended	--	--
10	Extended	Extended	--	--



NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2** Round poles are 3 @ 90°. **3** Shown with 4 square configurations.

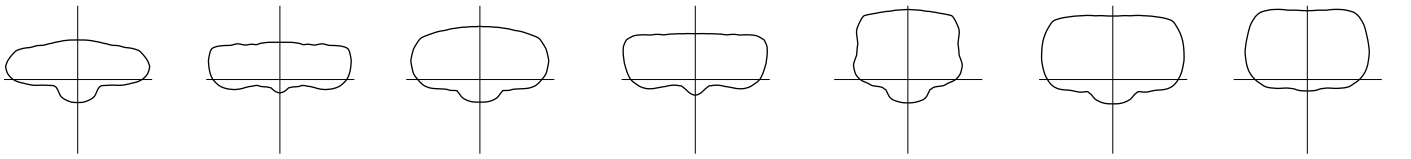
Fixture Weights and EPAs

Number of Light Squares	Weight with Standard and Extended Arm (lbs.)	EPA with Standard and Extended Arm (Sq. Ft.)	Weight with QM Arm (lbs.)	EPA with QM Arm (Sq. Ft.)	Weight with QML (lbs.)	EPA with QML (Sq. Ft.)	Weight with QMEA (lbs.)	EPA with QMEA (Sq. Ft.)
1-4	33	0.96	35	1.11	--	--	38	1.11
5-6	44	1.00	46	1.11	--	--	49	1.11
7-8	54	1.07	56	1.11	58	1.11	--	--
9-10	63	1.12	--	--	67	1.11	--	--

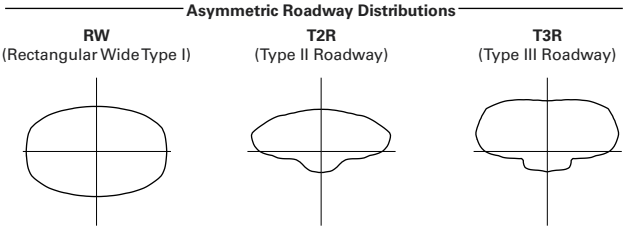
Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Optical Distributions

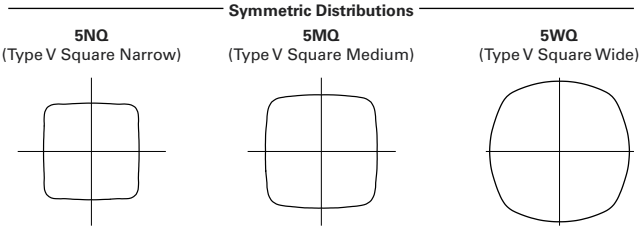
Asymmetric Area Distributions



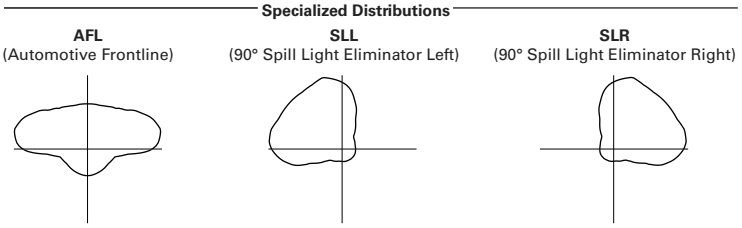
Asymmetric Roadway Distributions



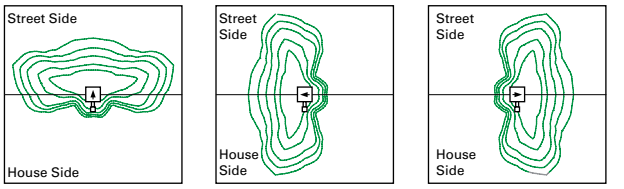
Symmetric Distributions



Specialized Distributions



Rotated Optics



Product Specifications

Construction

- Extruded aluminum driver enclosure
- Heavy-wall, die-cast aluminum end caps
- Die-cast aluminum heat sinks
- Patent pending interlocking housing and heat sink

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 16 optical distributions
- 3 shielding options including HSS, GRS and PFS
- IDA Certified (3000K CCT and warmer only)

Electrical

- LED drivers are mounted to removable tray assembly for ease of maintenance
- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting

- Standard extruded arm includes internal bolt guides and round pole adapter
- Extended arms (EA and QMEA) may be required in 90° or 120° pole mount configurations, see arm mounting requirements table
- Mast arm (MA) factory installed
- Wall mount (WM) option available
- Quick mount arm (QM and QMEA) includes pole adapter and factory installed fixture mount for fast installation to square or round poles

Finish

- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty

- Five year warranty

Energy and Performance Data

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

* Supported by IES TM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

View GLEON IES files

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (1.2A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		67	129	191	258	320	382	448	511	575	640
Input Current @ 120V (A)		0.58	1.16	1.78	2.31	2.94	3.56	4.09	4.71	5.34	5.87
Input Current @ 208V (A)		0.33	0.63	0.93	1.27	1.57	1.87	2.22	2.52	2.8	3.14
Input Current @ 240V (A)		0.29	0.55	0.80	1.10	1.35	1.61	1.93	2.18	2.41	2.71
Input Current @ 277V (A)		0.25	0.48	0.70	0.96	1.18	1.39	1.69	1.90	2.09	2.36
Input Current @ 347V (A)		0.20	0.39	0.57	0.78	0.96	1.15	1.36	1.54	1.72	1.92
Input Current @ 480V (A)		0.15	0.30	0.43	0.60	0.73	0.85	1.03	1.16	1.28	1.45
Optics											
T2	4000K Lumens	7,972	15,580	23,245	30,714	38,056	45,541	53,857	61,024	68,072	75,366
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	122	119	119	119	120	119	118	118
T2R	4000K Lumens	8,462	16,539	24,680	32,609	40,401	48,348	57,176	64,783	72,266	80,010
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	129	126	126	127	128	127	126	125
T3	4000K Lumens	8,125	15,879	23,693	31,307	38,787	46,417	54,893	62,197	69,381	76,818
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	122	123	122	121	120
T3R	4000K Lumens	8,306	16,232	24,220	32,001	39,651	47,447	56,114	63,580	70,924	78,523
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
T4FT	4000K Lumens	8,173	15,970	23,831	31,488	39,014	46,686	55,212	62,558	69,783	77,261
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	122	124	125	122	122	122	123	122	121	121
T4W	4000K Lumens	8,067	15,764	23,522	31,080	38,510	46,082	54,499	61,751	68,881	76,263
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	120	122	123	120	120	121	122	121	120	119
SL2	4000K Lumens	7,958	15,552	23,206	30,662	37,989	45,462	53,763	60,920	67,952	75,235
	BUG Rating	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	121	119	119	119	120	119	118	118
SL3	4000K Lumens	8,124	15,877	23,690	31,302	38,784	46,410	54,885	62,189	69,372	76,805
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	121	123	122	121	120
SL4	4000K Lumens	7,719	15,085	22,510	29,741	36,850	44,097	52,148	59,089	65,913	72,977
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	115	117	118	115	115	115	116	116	115	114
5NQ	4000K Lumens	8,380	16,375	24,436	32,287	40,003	47,870	56,610	64,144	71,552	79,221
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	125	127	128	125	125	125	126	126	124	124
5MQ	4000K Lumens	8,534	16,676	24,885	32,881	40,739	48,752	57,653	65,326	72,868	80,679
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	127	129	130	127	127	128	129	128	127	126
5WQ	4000K Lumens	8,556	16,723	24,951	32,968	40,847	48,881	57,808	65,499	73,063	80,894
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	128	130	131	128	128	128	129	128	127	126
SLL/ SLR	4000K Lumens	7,140	13,951	20,817	27,506	34,081	40,783	48,231	54,649	60,959	67,492
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	107	108	109	107	107	107	108	107	106	105
RW	4000K Lumens	8,304	16,228	24,215	31,994	39,641	47,437	56,100	63,566	70,907	78,504
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
AFL	4000K Lumens	8,335	16,287	24,302	32,110	39,784	47,610	56,303	63,796	71,163	78,790
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	125	126	125	124	123

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (1A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		59	113	166	225	279	333	391	445	501	558
Input Current @ 120V (A)		0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.60	5.07
Input Current @ 208V (A)		0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75
Input Current @ 240V (A)		0.26	0.48	0.71	0.96	1.19	0.41	1.67	1.89	2.12	2.39
Input Current @ 277V (A)		0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09
Input Current @ 347V (A)		0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68
Input Current @ 480V (A)		0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28
Optics											
T2	4000K Lumens	7,267	14,201	21,190	28,000	34,692	41,515	49,096	55,627	62,053	68,703
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	126	128	124	124	125	126	125	124	123
T2R	4000K Lumens	7,715	15,077	22,497	29,725	36,829	44,073	52,122	59,056	65,876	72,937
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	131	133	136	132	132	132	133	133	131	131
T3	4000K Lumens	7,408	14,475	21,598	28,539	35,358	42,313	50,039	56,698	63,246	70,024
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
T3R	4000K Lumens	7,571	14,798	22,078	29,172	36,145	43,253	51,153	57,959	64,653	71,581
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
T4FT	4000K Lumens	7,451	14,559	21,725	28,703	35,564	42,558	50,330	57,027	63,613	70,430
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	129	131	128	127	128	129	128	127	126
T4W	4000K Lumens	7,354	14,371	21,442	28,333	35,105	42,007	49,681	56,291	62,792	69,521
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	125	127	129	126	126	126	127	126	125	125
SL2	4000K Lumens	7,254	14,178	21,155	27,951	34,631	41,443	49,011	55,533	61,944	68,584
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	125	127	124	124	124	125	125	124	123
SL3	4000K Lumens	7,406	14,474	21,596	28,534	35,355	42,307	50,033	56,690	63,237	70,014
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
SL4	4000K Lumens	7,037	13,751	20,519	27,112	33,592	40,198	47,538	53,864	60,087	66,524
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	119	122	124	120	120	121	122	121	120	119
5NQ	4000K Lumens	7,640	14,928	22,275	29,431	36,465	43,637	51,606	58,472	65,226	72,218
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	129	132	134	131	131	131	132	131	130	129
5MQ	4000K Lumens	7,779	15,203	22,684	29,973	37,137	44,441	52,555	59,549	66,427	73,545
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	133	133	133	134	134	133	132
5WQ	4000K Lumens	7,800	15,243	22,744	30,052	37,236	44,560	52,697	59,708	66,603	73,742
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	134	133	134	135	134	133	132
SLL/ SLR	4000K Lumens	6,510	12,719	18,977	25,075	31,067	37,176	43,967	49,817	55,569	61,525
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	110	113	114	111	111	112	112	112	111	110
RW	4000K Lumens	7,570	14,793	22,073	29,165	36,137	43,243	51,140	57,945	64,637	71,564
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
AFL	4000K Lumens	7,598	14,847	22,154	29,272	36,267	43,400	51,326	58,156	64,872	71,824
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	129	131	133	130	130	130	131	131	129	129

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (800mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		44	85	124	171	210	249	295	334	374	419
Input Current @ 120V (A)		0.39	0.77	1.13	1.54	1.90	2.26	2.67	3.03	3.39	3.80
Input Current @ 208V (A)		0.22	0.44	0.62	0.88	1.06	1.24	1.50	1.68	1.87	2.12
Input Current @ 240V (A)		0.19	0.38	0.54	0.76	0.92	1.08	1.30	1.46	1.62	1.84
Input Current @ 277V (A)		0.17	0.36	0.47	0.72	0.83	0.95	1.19	1.31	1.42	1.67
Input Current @ 347V (A)		0.15	0.24	0.38	0.49	0.63	0.77	0.87	1.01	1.15	1.52
Input Current @ 480V (A)		0.11	0.18	0.29	0.37	0.48	0.59	0.66	0.77	0.88	0.96
Optics											
T2	4000K Lumens	5,871	11,474	17,121	22,622	28,029	33,542	39,667	44,944	50,134	55,508
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	135	134	135	134	132
T2R	4000K Lumens	6,233	12,181	18,176	24,016	29,756	35,608	42,111	47,714	53,224	58,929
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5
	Lumens per Watt	142	143	147	140	142	143	143	143	142	141
T3	4000K Lumens	5,986	11,695	17,450	23,057	28,568	34,186	40,430	45,809	51,099	56,576
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
T3R	4000K Lumens	6,117	11,955	17,838	23,569	29,203	34,946	41,328	46,827	52,235	57,832
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
T4FT	4000K Lumens	6,019	11,763	17,551	23,190	28,734	34,384	40,663	46,074	51,396	56,904
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	137	138	142	136	137	138	138	138	137	136
T4W	4000K Lumens	5,942	11,610	17,324	22,891	28,363	33,940	40,138	45,480	50,732	56,169
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	135	137	140	134	135	136	136	136	136	134
SL2	4000K Lumens	5,862	11,454	17,091	22,583	27,980	33,484	39,598	44,867	50,048	55,411
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	134	134	134	134	132
SL3	4000K Lumens	5,985	11,694	17,447	23,053	28,565	34,182	40,424	45,804	51,092	56,568
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
SL4	4000K Lumens	5,685	11,111	16,577	21,905	27,140	32,478	38,409	43,520	48,546	53,748
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	129	131	134	128	129	130	130	130	130	128
5NQ	4000K Lumens	6,172	12,061	17,997	23,778	29,462	35,256	41,694	47,242	52,699	58,347
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	140	142	145	139	140	142	141	141	141	139
5MQ	4000K Lumens	6,285	12,283	18,328	24,217	30,004	35,907	42,462	48,112	53,669	59,421
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	144	144	144	144	142
5WQ	4000K Lumens	6,303	12,317	18,377	24,281	30,085	36,001	42,575	48,241	53,812	59,579
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	145	144	144	144	142
SLL/ SLR	4000K Lumens	5,260	10,276	15,332	20,259	25,101	30,037	35,522	40,249	44,898	49,708
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	120	121	124	118	120	121	120	121	120	119
RW	4000K Lumens	6,116	11,952	17,834	23,563	29,196	34,938	41,317	46,817	52,224	57,819
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
AFL	4000K Lumens	6,139	11,996	17,899	23,650	29,302	35,064	41,468	46,987	52,412	58,030
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4
	Lumens per Watt	140	141	144	138	140	141	141	141	140	138

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (600mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		34	66	96	129	162	193	226	257	290	323
Input Current @ 120V (A)		0.30	0.58	0.86	1.16	1.44	1.73	2.03	2.33	2.59	2.89
Input Current @ 208V (A)		0.17	0.34	0.49	0.65	0.84	0.99	1.14	1.30	1.48	1.63
Input Current @ 240V (A)		0.15	0.30	0.43	0.56	0.74	0.87	1.00	1.13	1.30	1.43
Input Current @ 277V (A)		0.14	0.28	0.41	0.52	0.69	0.81	0.93	1.04	1.22	1.33
Input Current @ 347V (A)		0.11	0.19	0.30	0.39	0.49	0.60	0.69	0.77	0.90	0.99
Input Current @ 480V (A)		0.08	0.15	0.24	0.30	0.38	0.48	0.53	0.59	0.71	0.77
Optics											
T2	4000K Lumens	4,787	9,357	13,961	18,448	22,856	27,353	32,347	36,651	40,884	45,265
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	141	142	145	143	141	142	143	143	141	140
T2R	4000K Lumens	5,083	9,934	14,822	19,585	24,266	29,038	34,341	38,911	43,404	48,055
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	150	151	154	152	150	150	152	151	150	149
T3	4000K Lumens	4,880	9,537	14,231	18,803	23,296	27,878	32,970	37,358	41,671	46,137
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	148	146	144	144	146	145	144	143
T3R	4000K Lumens	4,988	9,749	14,547	19,220	23,814	28,497	33,703	38,188	42,598	47,162
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	147	148	152	149	147	148	149	149	147	146
T4FT	4000K Lumens	4,909	9,591	14,312	18,911	23,432	28,040	33,161	37,574	41,913	46,404
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	149	147	145	145	147	146	145	144
T4W	4000K Lumens	4,845	9,468	14,128	18,668	23,130	27,678	32,732	37,088	41,371	45,805
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	143	143	147	145	143	143	145	144	143	142
SL2	4000K Lumens	4,779	9,341	13,937	18,416	22,818	27,305	32,292	36,589	40,813	45,188
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	141	142	145	143	141	141	143	142	141	140
SL3	4000K Lumens	4,879	9,536	14,229	18,800	23,294	27,874	32,965	37,351	41,666	46,130
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	144	144	148	146	144	144	146	145	144	143
SL4	4000K Lumens	4,637	9,059	13,519	17,863	22,132	26,486	31,322	35,490	39,589	43,831
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	136	137	141	138	137	137	139	138	137	136
5NQ	4000K Lumens	5,033	9,835	14,676	19,392	24,026	28,751	34,002	38,526	42,975	47,581
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	148	149	153	150	148	149	150	150	148	147
5MQ	4000K Lumens	5,126	10,015	14,946	19,747	24,468	29,281	34,628	39,236	43,766	48,457
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	151	152	156	153	151	152	153	153	151	150
5WQ	4000K Lumens	5,139	10,043	14,985	19,801	24,533	29,359	34,721	39,339	43,883	48,586
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	151	152	156	153	151	152	154	153	151	150
SLL/ SLR	4000K Lumens	4,289	8,380	12,502	16,520	20,469	24,494	28,967	32,823	36,613	40,537
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	126	127	130	128	126	127	128	128	126	126
RW	4000K Lumens	4,987	9,746	14,543	19,215	23,808	28,491	33,695	38,178	42,587	47,151
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	147	148	151	149	147	148	149	149	147	146
AFL	4000K Lumens	5,007	9,782	14,597	19,285	23,896	28,594	33,817	38,317	42,742	47,322
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	Lumens per Watt	147	148	152	149	148	148	150	149	147	147

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

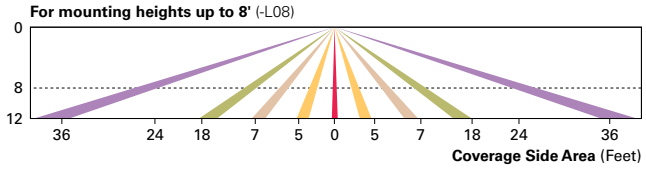
Control Options

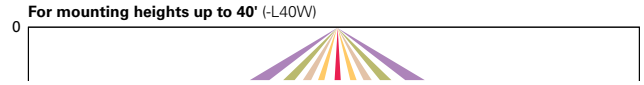
0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

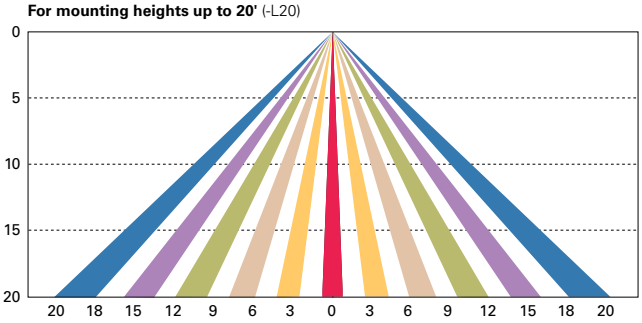
Photocontrol (BPC, PR and PR7)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

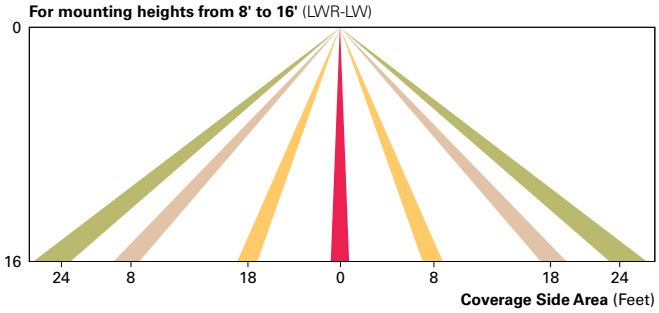
Dimming Occupancy Sensor (SPB, MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

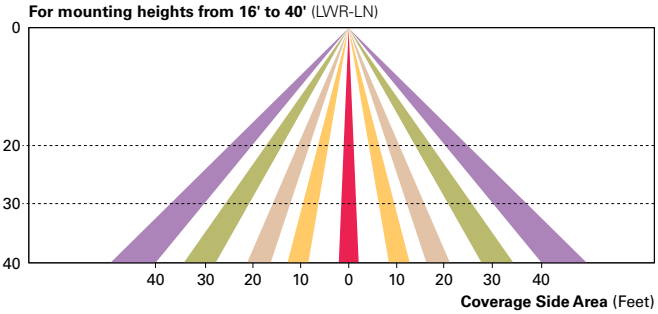






Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.





WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)
The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

LumenSafe Integrated Network Security Camera (LD)
Cooper Lighting Solutions brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows security integrators to design the optimal solution for active surveillance. As the ideal solution to meet the needs for active surveillance, the LumenSafe integrated network camera is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. This IP camera is optimally designed for deployment in the video management system or security software platform of choice.

Synapse (DIM10)
SimplySNAP integrated wireless controls system by Synapse. Includes factory installed DIM10 Synapse control module and MS/DC motion sensor; requires additional Synapse system components for operation. Contact Synapse at www.synapsewireless.com for product support, warranty and terms and conditions.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

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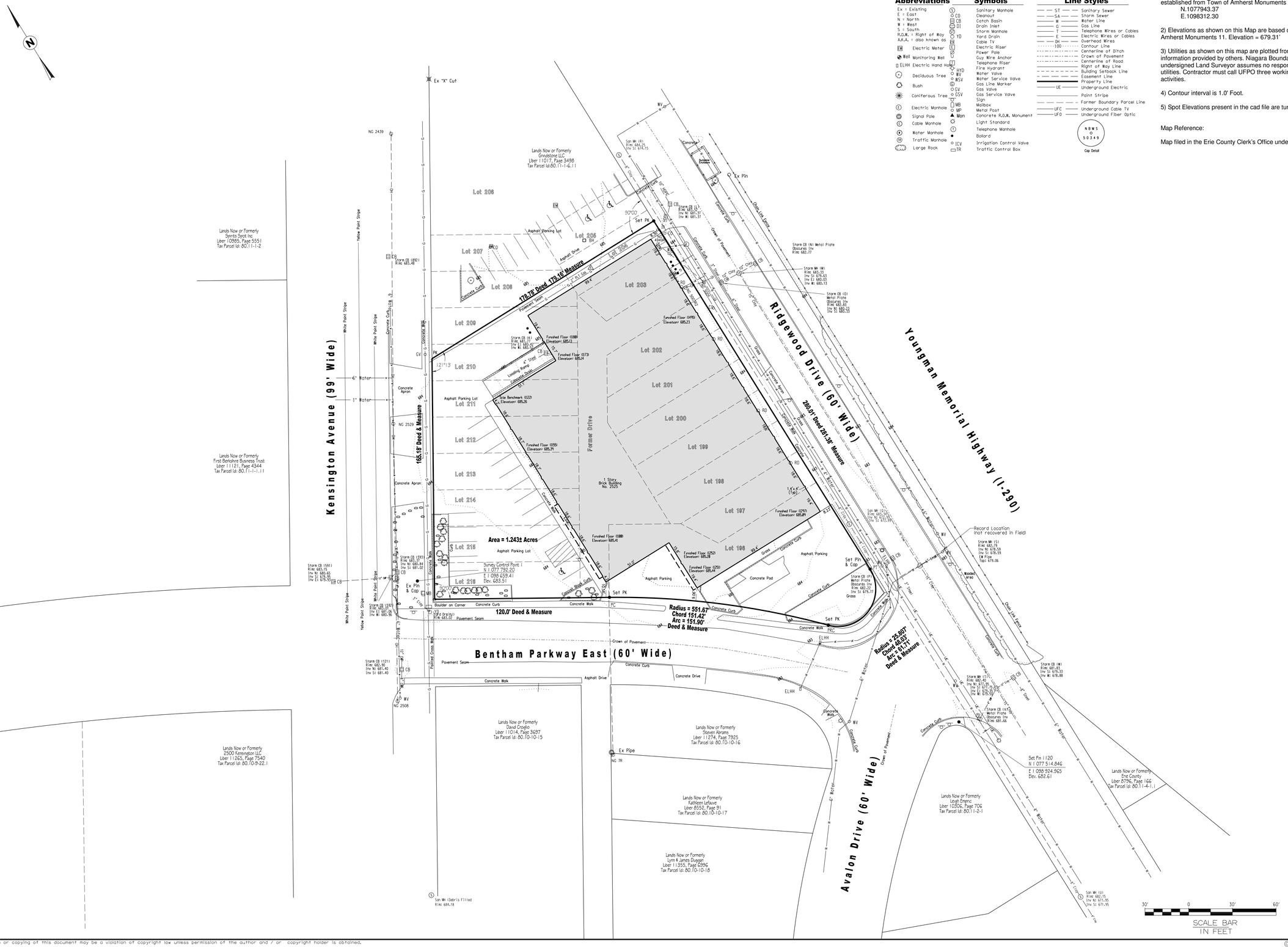
Specifications and dimensions
subject to change without notice.



Attachment: SP-2022-02 drawings 051922 (25499 : Sp-2022-02)
Packet Pg. 248



Legend

Abbreviations

Ex = Existing
E = East
N = North
W = West
S = South
R.O.W. = Right of Way
A.K.A. = also known as
EM Electric Meter
MW Monitoring Well
ELHH Electric Hand Hole
Deciduous Tree
Bush
Coniferous Tree
Electric Manhole
Signal Pole
Cable Manhole
Water Manhole
Traffic Manhole
Large Rock

Symbols

Sanitary Manhole
CO Cleanout
CB Catch Basin
DI Drain Inlet
SD Storm Manhole
YD Yard Drain
TV Cable TV
ER Electric Riser
PP Power Pole
GA Guy Wire Anchor
TR Telephone Riser
HYD Fire Hydrant
WV Water Valve
WSV Water Service Valve
GM Gas Line Marker
GV Gas Valve
GSV Gas Service Valve
Sign
MB Mailbox
MP Metal Post
Mon Concrete R.O.W. Monument
Light Standard
TH Telephone Manhole
Bollard
ICV Irrigation Control Valve
TR Traffic Control Box

Line Styles

ST Sanitary Sewer
SA Storm Sewer
W Water Line
G Gas Line
T Telephone Wires or Cables
E Electric Wires or Cables
OH Overhead Wires
100 Contour Line
Centerline of Ditch
Crown of Pavement
Centerline of Road
Right of Way Line
Building Setback Line
Easement Line
Property Line
UE Underground Electric
Point Stripe
Former Boundary Parcel Line
UFC Underground Cable TV
UFO Underground Fiber Optic

NBMS #50349
Cap Detail

Notes:

1) North as Shown on this Map is True North at 78°35' Meridian of West Longitude, as based on the New York State Plane Coordinate System NAD 83/92 HARN, West Zone 3103, as established from Town of Amherst Monuments 11.
N.1077943.37
E.1098312.30

2) Elevations as shown on this Map are based on NAVD 88, as established from Town of Amherst Monuments 11. Elevation = 679.31'

3) Utilities as shown on this map are plotted from field locations of visble structures and information provided by others. Niagara Boundary & Mapping Services, along with the undersigned Land Surveyor assumes no responsibility as to the accuracy of underground utilities. Contractor must call UFPO three working days prior to any excavation construction activities.

4) Contour interval is 1.0' Foot.

5) Spot Elevations present in the cad file are turned off for clarity.

Map Reference:

Map filed in the Erie County Clerk's Office under Cover 1374

Niagara Boundary
And Mapping Services
PO Box 1120
Lewiston, NY 14092
(716) 297-9584
E-Mail:
lee@niagaraboundary.com

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Map
Showing Boundary & Topographic Survey
of
Property Owned
by

Philipps Bros Realty Company LLC

Deed Reference: Liber 11117, Page 3180
Tax ID: 80.11-1-8.2

LOT	SECTION	TOWNSHIP	RANGE
28		12	7

Town	Amherst
COUNTY	Erie
STATE	New York
DATE	June 11, 2021
SCALE	1" = 20'
JOB NO.	11187-21
RESURVEYED	
⚠	Show Field Marked Gas Line 10-1-21

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USE OF THIS SURVEY IN CONJUCTION WITH AN AFFIDAVIT OF NO CHANGE IS FORBIDDEN

30' 0 30' 60'
SCALE BAR
IN FEET

Kenneth L. Slaugenhoupt Lic. No. 50349

FILE: Z:\Projects\Nbsvr01\IZ\WARCHIVE_PROJECTS\BNBMS 11100-11199\11187 2525 Kensington Ave\11187 September 2021.dgn

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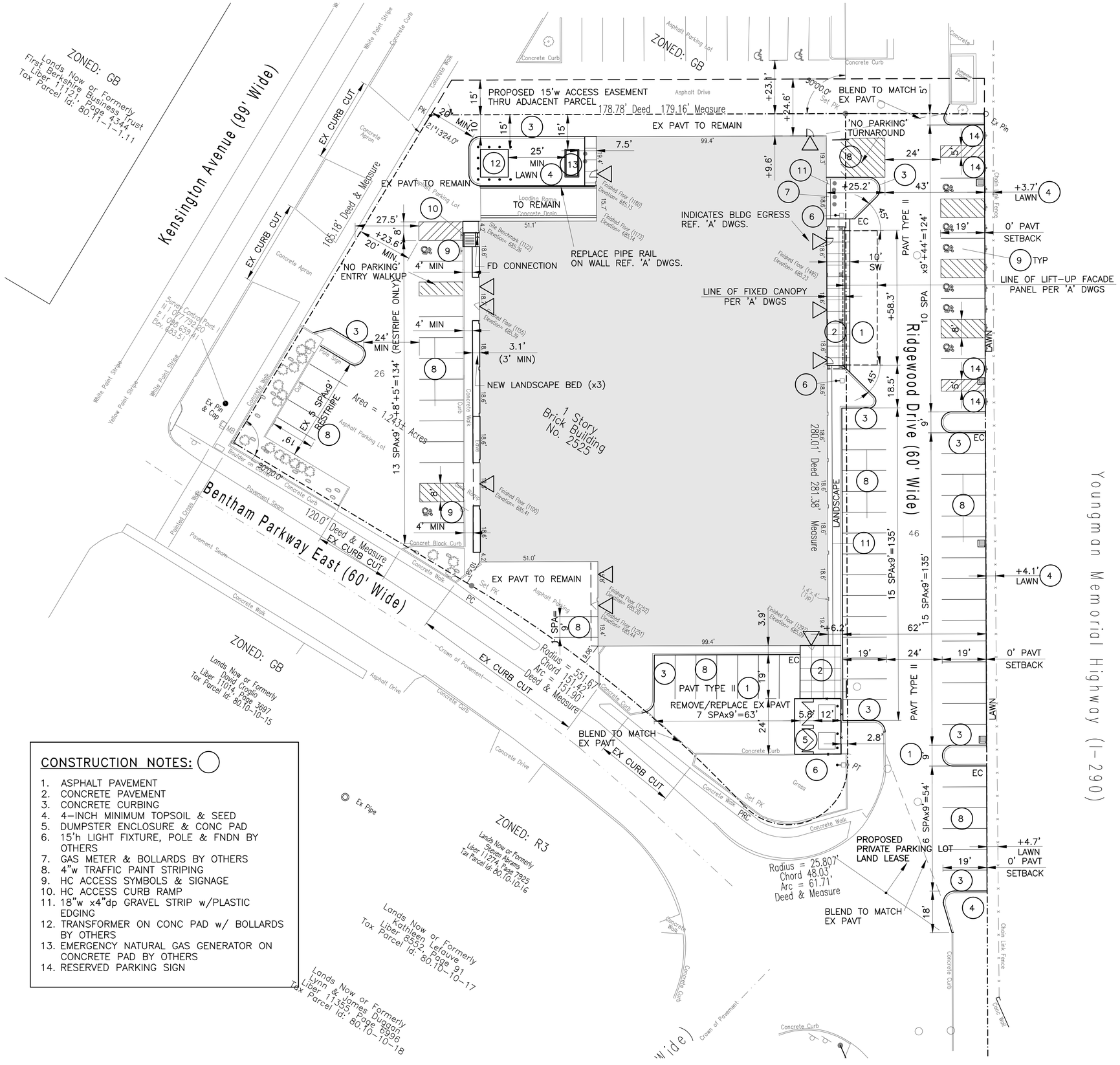
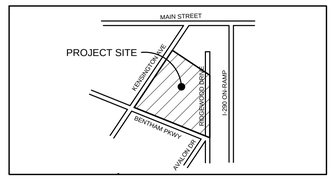
Attachment: SP-2022-02 drawings 051922 (2549 : Sp-2022-02)



CONSTRUCTION NOTES:

1. ASPHALT PAVEMENT
2. CONCRETE PAVEMENT
3. CONCRETE CURBING
4. 4-INCH MINIMUM TOPSOIL & SEED
5. DUMPSTER ENCLOSURE & CONC PAD
6. 15'h LIGHT FIXTURE, POLE & FNDN BY OTHERS
7. GAS METER & BOLLARDS BY OTHERS
8. 4"w TRAFFIC PAINT STRIPING
9. HC ACCESS SYMBOLS & SIGNAGE
10. HC ACCESS CURB RAMP
11. 18"w x4"dp GRAVEL STRIP w/PLASTIC EDGING
12. TRANSFORMER ON CONC PAD w/ BOLLARDS BY OTHERS
13. EMERGENCY NATURAL GAS GENERATOR ON CONCRETE PAD BY OTHERS
14. RESERVED PARKING SIGN



SITE LOCATION MAP

SITE LAYOUT PLAN

1" = 20'

N

SITE DATA

CURRENT ZONING: GB

PARCEL AREA: +1.24 ACRES (AC)

TOTAL AREA OF DISTURBANCE (INCL R.O.W.): 22,000SF~0.51AC

NEW PARKING LOT LICENSED AREA: 19636SF ~0.45 AC

INTERIOR GREENSPACE: 984SF (5.5% OF NEW PARKING LOT)

ANTICIPATED AVERAGE DAILY SEWER LOADING: 1120 GPD
OFFICES/DAY SCHOOL: (30 EMPLx15 GPD)+(52 STUDENTSx10 GPD = 450+520 =970 GPD
RETAIL/WAREHOUSE PER EMPLOYEE: (10 EMPLx15 GPD)= 150 GPD

PARKING DATA

SPACES REQUIRED BY NET SF, 2-STY (MEZZ), MULT-TENANT (75% OF GROSS SF), GENERAL OFFICE, RETAIL/WAREHOUSE USES:

GENERAL OFFICE: 15995NSF (INCLUDES MEZZ) x1/200NSF=80;
RETAIL AT >2000SF<25000SF: 5763NSFx 5.5/1000NSF=32;
WAREHOUSE: 12019NSFx 1= 12

TOTAL CAR-PARKS REQUIRED = 80+32+12=124
ACCESSIBLE SPA REQUIRED = CAR-PARKS/25=124/25=5

SPACES PROVIDED: 72
REGULAR: 60
ACCESSIBLE: 8; RESERVED STALLS: 4

DEFICIENT 53 CAR-PARKS, ALTERNATE PARKING PLAN REQUIRED

NOTES:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING IS FOR INFORMATION ONLY. REFER TO SURVEY(S) PROVIDED BY NIAGARA BOUNDARY & MAPPING JOB No 11187-21, DATED 6/2021.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES, AND UTILITY CONNECTIONS.
3. SITE LIGHTING, POWER AND GAS LINES ARE SHOWN FOR INFORMATION ONLY, AND ARE NOT DESIGNED BY TREDO ENGINEERS.
4. A KNOX BOX KEY HOLDER SHALL BE LOCATED AT THE BUILDING MAIN ENTRANCE.
5. THE BUILDING SHALL CONTAIN A SPRINKLER FIRE-PROTECTION SYSTEM.

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
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716.876.7147

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REVISIONS
1: REVISED 3/28/22

DRAWN BY avm
CHECKED BY AVM

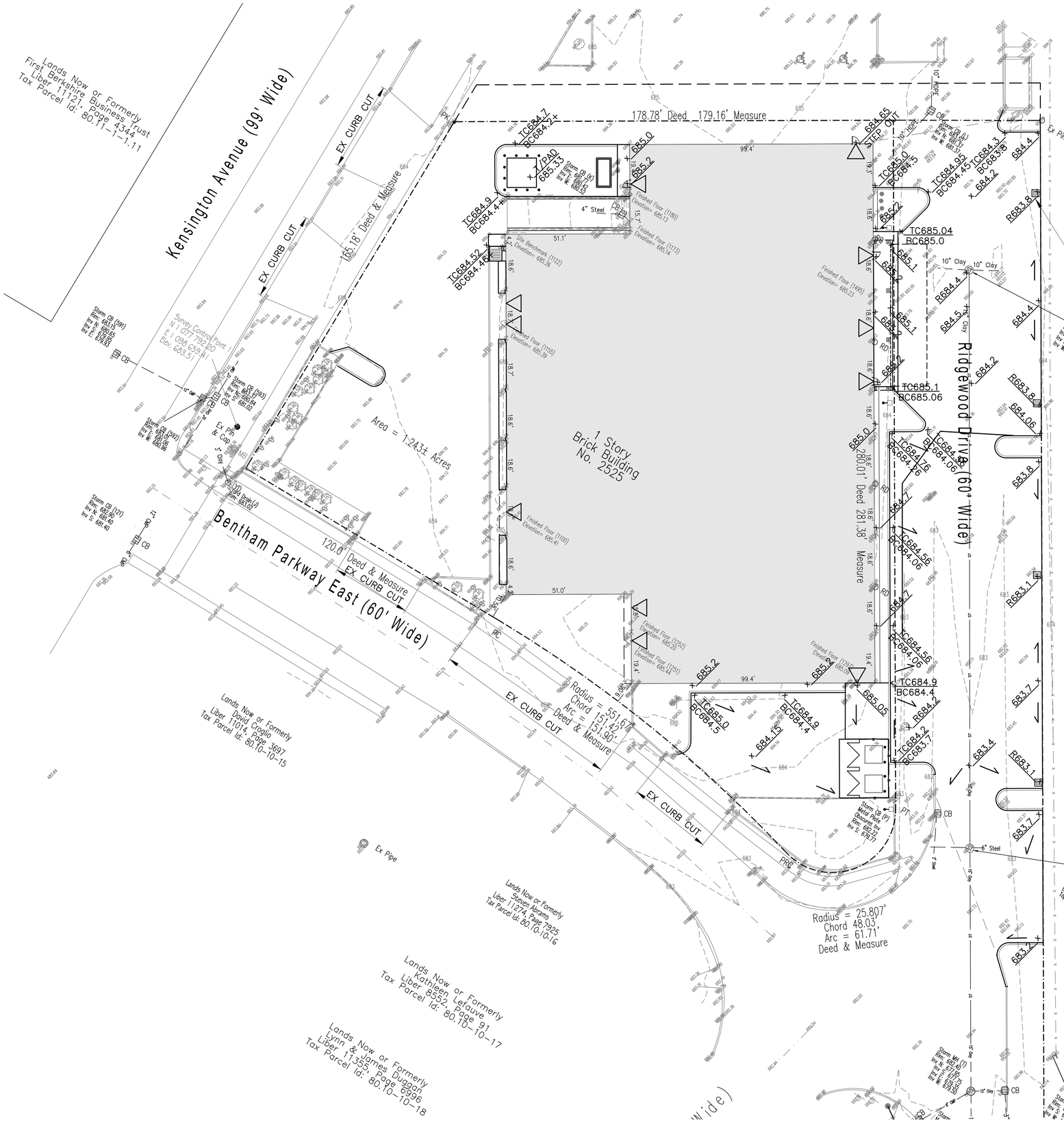
SCALE AS NOTED

DATE Feb 22, 2022

SITE LAYOUT PLAN

SP101

Attachment: SP-2022-02 drawings 051922 (2549 : Sp-2022-02)



SITE GRADING PLAN

1" = 20'

N

LEGEND:

×	DENOTES PROPOSED SPOT ELEVATIONS	·	DENOTES EXISTING SPOT ELEVATIONS
■ ●	DENOTES PROPOSED CATCH BASIN/MANHOLE	D	DENOTES EXISTING STORM SEWER DROP INLET
CO	DENOTES PROPOSED CLEANOUT	ST	DENOTES EXISTING STORM SEWER MANHOLE
C	DENOTES CONNECTION TO EXISTING UTILITY	SA	DENOTES EXISTING SANITARY SEWER MANHOLE
			DENOTES EXISTING HYDRANT
	DENOTES PROPOSED LIGHT POLE		DENOTES EXISTING LIGHT POLE
RD	DENOTES PROPOSED ROOF DRAIN		DENOTES EXISTING WATER VALVE
ELEV	DENOTES NEW CONTOURS	ELEV	DENOTES EXISTING CONTOURS
X X X X		X X X X	DENOTES EXISTING CHAIN LINK FENCE
OHE		OHE	DENOTES EXISTING UTILITY POLE AND OVERHEAD UTILITIES
ST		ST	DENOTES EXISTING STORM SEWER LINE
SAN		SAN	DENOTES EXISTING SANITARY SEWER LINE
W		W	DENOTES EXISTING WATER LINE
E		E	DENOTES EXISTING ELECTRIC LINE
G		G	DENOTES EXISTING GAS LINE
ST			DENOTES PROPOSED STORM SEWER LINE
SAN			DENOTES PROPOSED SANITARY SEWER LINE
W			DENOTES PROPOSED WATER LINE

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
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2525 KENSINGTON AVENUE, AMHERST NY

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STATE OF NEW YORK
MATTHEW JOHN PETRILLI
102395
LICENSED PROFESSIONAL ENGINEER

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REVISIONS
1: REISSUED 3/28/22

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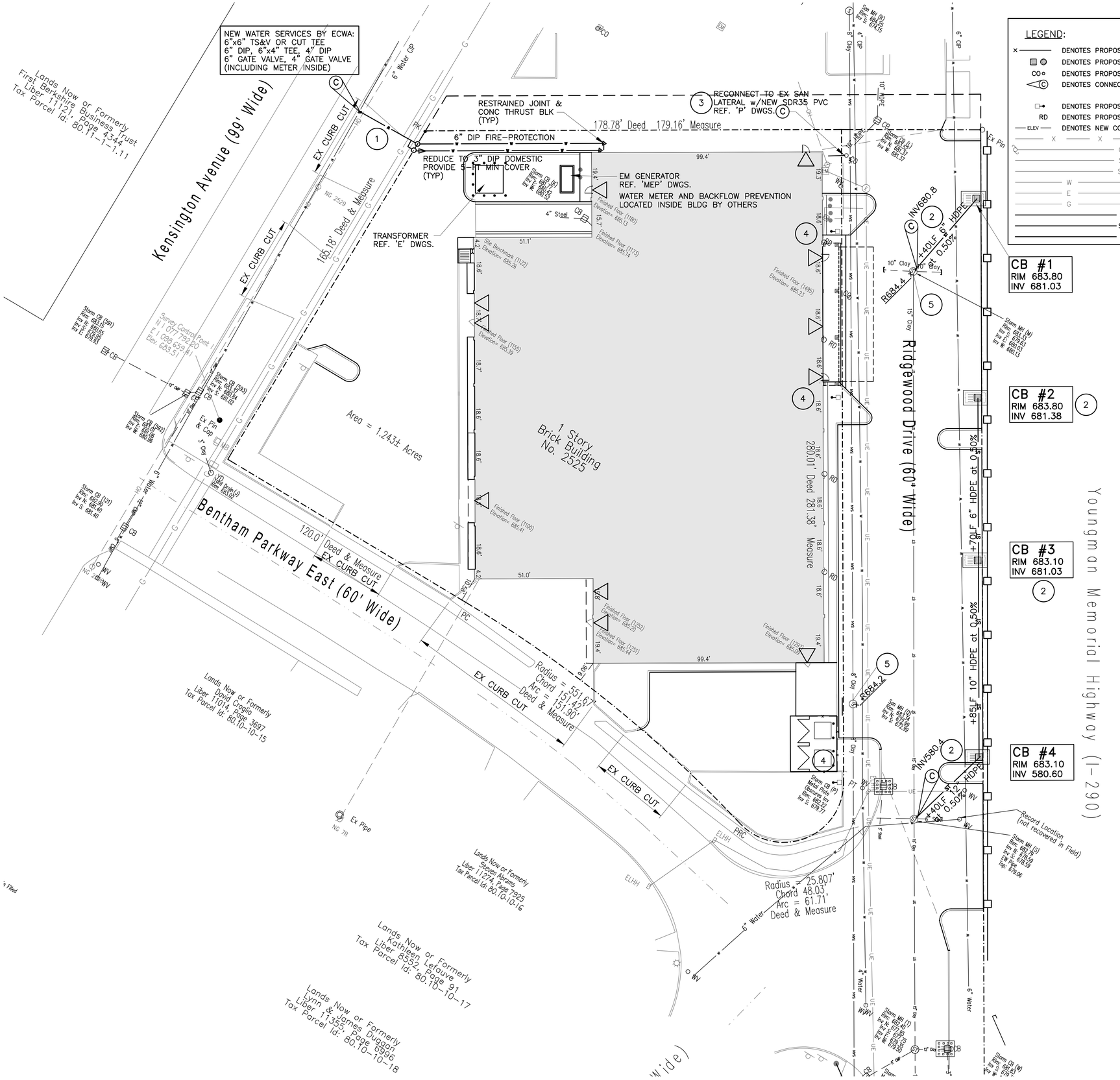
SCALE
AS NOTED

DATE
Feb 22, 2022

SITE GRADING PLAN

SP102

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)



LEGEND:

×	DENOTES PROPOSED SPOT ELEVATIONS	·	DENOTES EXISTING SPOT ELEVATIONS
▣ ◉	DENOTES PROPOSED CATCH BASIN/MANHOLE	(D)	DENOTES EXISTING STORM SEWER DROP INLET
CO	DENOTES PROPOSED CLEANOUT	(ST)	DENOTES EXISTING STORM SEWER MANHOLE
◁(C)	DENOTES CONNECTION TO EXISTING UTILITY	(SA)	DENOTES EXISTING SANITARY SEWER MANHOLE
			DENOTES EXISTING HYDRANT
	DENOTES PROPOSED LIGHT POLE		DENOTES EXISTING LIGHT POLE
RD	DENOTES PROPOSED ROOF DRAIN	⊗	DENOTES EXISTING WATER VALVE
ELEV	DENOTES NEW CONTOURS	ELEV	DENOTES EXISTING CONTOURS
		X X X X	DENOTES EXISTING CHAIN LINK FENCE
		OHE	DENOTES EXISTING UTILITY POLE AND OVERHEAD UTILITIES
		ST	DENOTES EXISTING STORM SEWER LINE
		SAN	DENOTES EXISTING SANITARY SEWER LINE
		W W	DENOTES EXISTING WATER LINE
		E E	DENOTES EXISTING ELECTRIC LINE
		G G	DENOTES EXISTING GAS LINE
	ST		DENOTES PROPOSED STORM SEWER LINE
	SAN		DENOTES PROPOSED SANITARY SEWER LINE
	W		DENOTES PROPOSED WATER LINE

SITE UTILITIES & EROSION CONTROL PLAN

1" = 20'

N

CONSTRUCTION NOTES:

1. NEW WATER SERVICE TO BLDG WATER ROOM –RPZ & METERING INSIDE FACILITY REF. 'P' & 'FP' DWGS
2. NEW STORM RECEIVER & HDPE PIPING –CORE–DRILL & GROUT NEW PIPING TO EXISTING MANHOLE (VERIFY CONDITIONS & NOTIFY ENGINEER OF CONFLICTS PRIOR TO PREPARING SHOP DRAWINGS AND ORDERING MATERIAL)
3. REPLACE WASTEWATER LATERAL CONN IN SAME LOCATION AS EXISTING (FIELD VERIFY) –REF. 'P' DWGS FOR NEW SAN PIPING & CONNECTION TO EXISTING.
4. SITE LIGHTING –REF. 'E' DWGS FOR POLE, FNDN, FIXTURE, CIRCUITING & CONDUIT
5. RAISE MH FRAME & COVER w/CONC RINGS TO ELEVATION SHOWN

SILT FENCE OR 12"DIA COMPOST FILTER SOCK

STONE & BLOCK DROP INLET PROTECTION STRUCTURE

EXCAVATED DROP INLET PROTECTION

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2525 KENSINGTON AVENUE, AMHERST NY

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STATE OF NEW YORK
MATTHEW JOHN RO
LICENSED PROFESSIONAL ENGINEER
092365

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1: REISSUED	3/28/22

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avm	AVM

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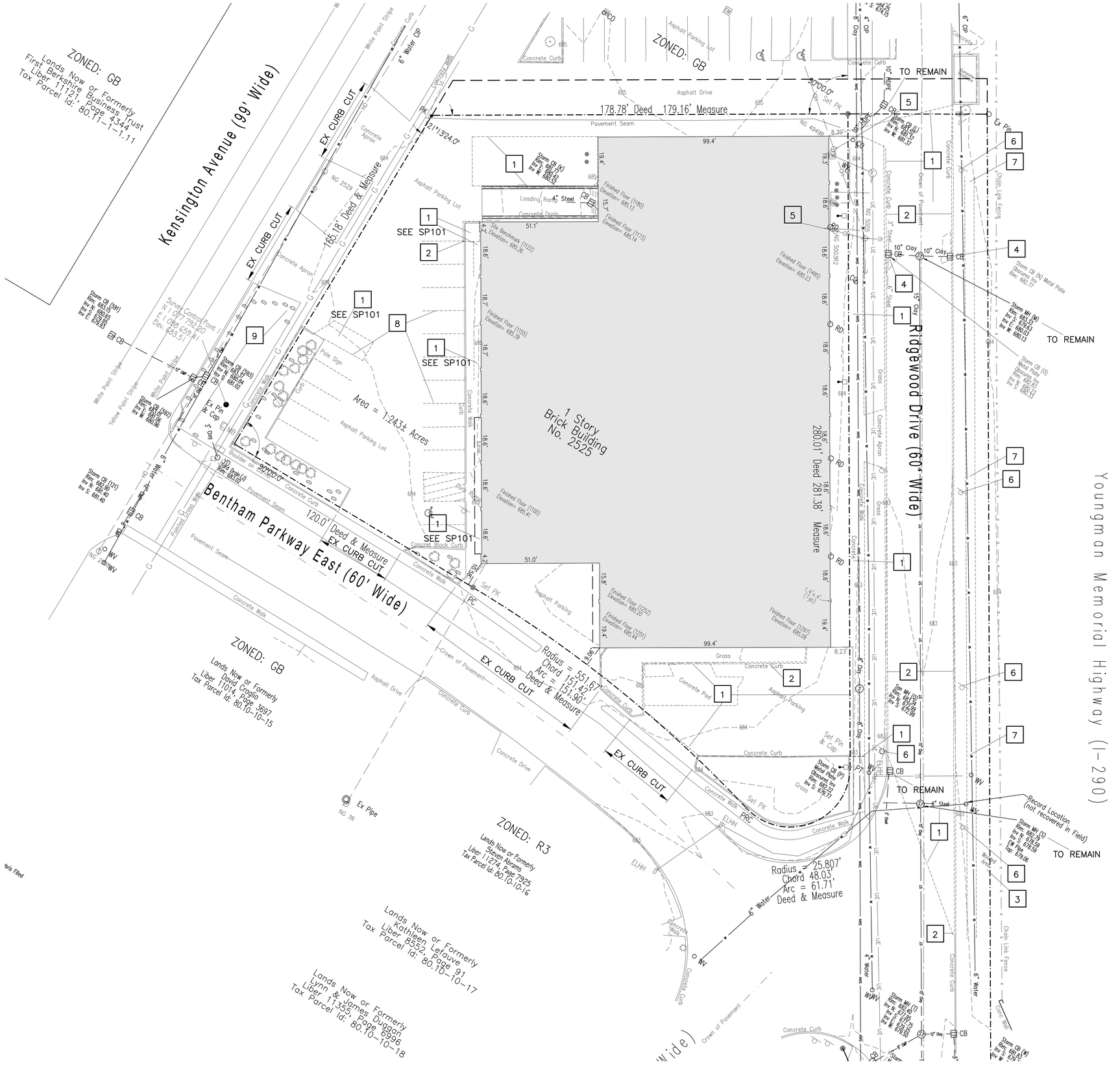
SITE UTILITIES & EROSION CONTROL PLAN

SP103

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)



SITE DEMOLITION PLAN

1" = 20'

N

SITE DEMOLITION NOTES:

1. SAWCUT & REMOVE EXISTING ASPHALT/ CONC PAVT AND SUBBASE STONE EXCEPT WHERE NEW PAVT OVER TO BE INSTALLED, SUBBASE TO BE PROOFROLLED & REUSED
2. SAWCUT & REMOVE CONCRETE CURBING
3. REMOVE TREES & BRUSH TO FENCELINE
4. DRAIN BODY TO BE REMOVED, PLUG EX PIPE END w/CONC
5. UTILITY POLE & OHE POWER TO BE REMOVED –COORD. w/SUPPLIER & 'E' DWGS.
6. SIGN OR LIGHT POLE & FNDN TO BE REMOVED
7. REMOVE REMAINS OF CONC SIDEWALK
8. REMOVE PAINT STRIPING THIS ROW BY INSTALLING SEALER OVER ROUGHENED EX ASPHALT\
9. REMOVE ALL BOULDER STONES FROM RIGHT–OF–WAY

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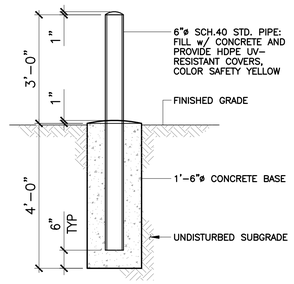
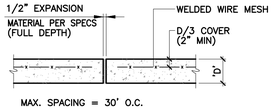
EXISTING CONDITIONS & SITE DEMOLITION PLAN

SP104

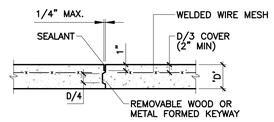
Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)



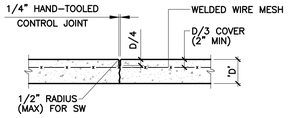
STEEL PIPE BOLLARD



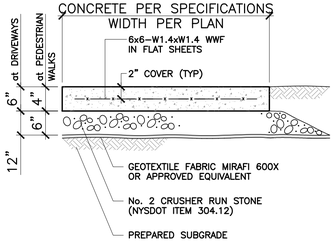
EXPANSION JOINT IN EXTERIOR CONC PAVEMENT



CONSTRUCTION JOINT IN EXTERIOR CONC PAVEMENT



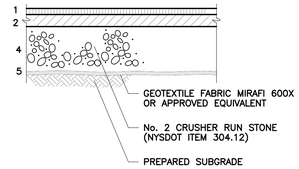
CONTROL JOINT IN EXTERIOR CONC PAVEMENT



NOTE: CONC. SHALL BE 4000 PSI at 28-DAYS, 6% AIR-ENTRAINED, 4" MAX. SLUMP-PROVIDE LT. BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAFFIC

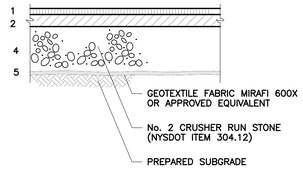
TYPICAL CONCRETE SIDEWALK

ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	3"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	18"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



TYPICAL TYPE II BITUMINOUS PAVEMENT SECTION DRIVEWAYS

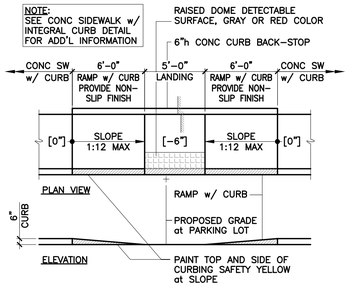
ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	2"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	12"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



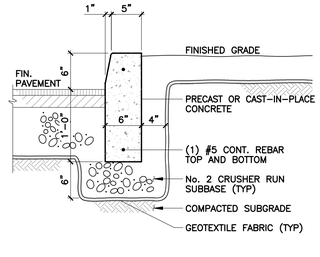
TYPICAL TYPE I BITUMINOUS PAVEMENT SECTION PARKING STALLS

GENERAL SITE NOTES

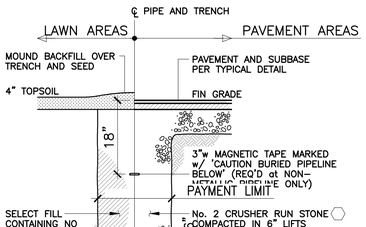
1. ALL WATERLINE, SANITARY SEWER AND OTHER WORK WITHIN THE R.O.W. SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE TOWN OF AMHERST, THE ERIE COUNTY WATER AUTHORITY AND NYSDOT SPECIFICATIONS.
2. INSTALL ALL MATERIALS TO THE MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF THE TRADE INVOLVED.
3. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER APPROVAL AND SHALL BE EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
4. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
5. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER OF ANY DISCREPANCIES IN CONDITIONS SHOWN ON THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
6. CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
7. CONTRACTOR SHALL KEEP THE JOB SITE FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF THE OWNER.
8. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK DOES NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
9. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NECESSARY TO PERFORM THE WORK.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CONTROL OF EROSION FROM THE SITE. SEE PROJECT EROSION CONTROL PLAN AND SWPPP MANUAL.
11. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS, FEATURES AND UTILITY CONNECTIONS.
12. ALL UTILITY TRENCHES UNDER PAVEMENT, CURBS, SIDEWALKS, AND DRIVEWAYS SHALL BE FULLY BACKFILLED WITH No 2 CRUSHER RUN STONE AND PROPERLY COMPACTED TO AVOID SETTLEMENT.
13. CONTRACTOR SHALL REPLACE IN KIND ANY EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CURBS, ROAD PAVEMENTS, SIDEWALKS, AND EXISTING UTILITIES.



HANDICAP ACCESS RAMP



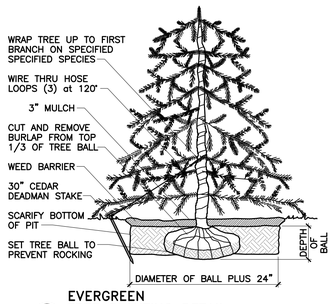
TYPICAL CONCRETE CURB



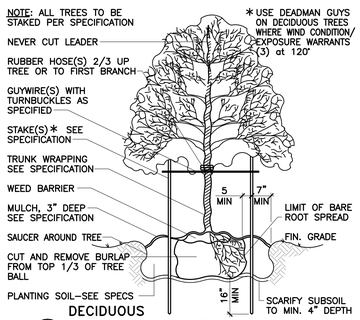
NOTES:
1. PIPE SHALL BE IN ACCORDANCE w/ MANUFACTURER'S RECOMMENDATIONS
2. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.
3. TRENCH DETAILS ARE ONLY SHOWN FOR MATERIAL PLACEMENT PURPOSES
4. AN OSHA APPROVED MOVEABLE PROTECTIVE TRENCH SHIELD MAY BE USED.

MATERIALS:
(A) No. 1 STONE WITH A GRADATION CONFORMING TO NYSDOT SECTION 703-02, LATEST EDITION. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN (1) INCH AND HAVING A MAX. GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'A'.
(B) No. 2 CRUSHER RUN STONE OR No. 2 RUN OF CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02 (COMPACTED IN 6" LIFTS TO 95% DENSITY). NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'B'.

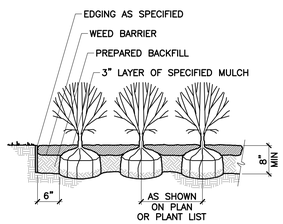
TYPICAL UTILITY TRENCH SECTION



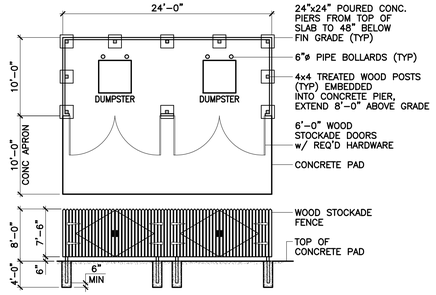
EVERGREEN TREE PLANTING DETAIL



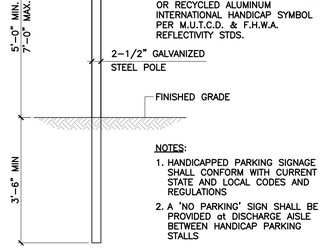
DECIDUOUS TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

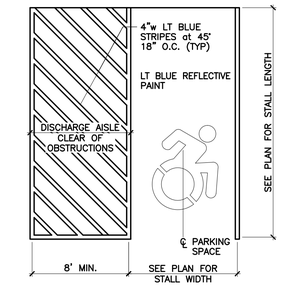


DUMPSTER ENCLOSURE WITH CONCRETE PAD

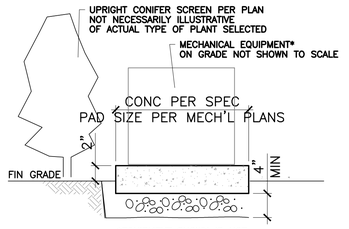


NOTES:
1. HANDICAPPED PARKING SIGNAGE SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS
2. A 'NO PARKING' SIGN SHALL BE PROVIDED at DISCHARGE AISLE BETWEEN HANDICAP PARKING STALLS

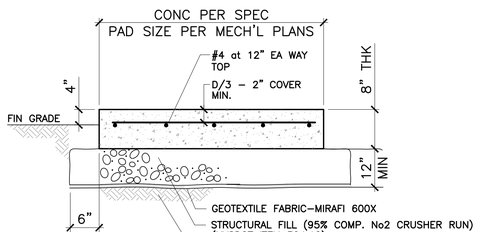
HANDICAPPED PARKING SIGNAGE LOCATED IN LAWN AREAS



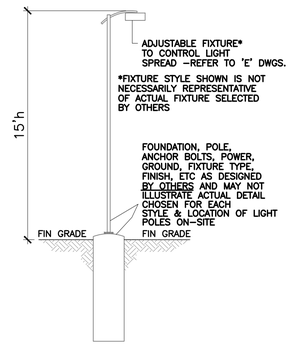
HANDICAP SYMBOL DETAIL



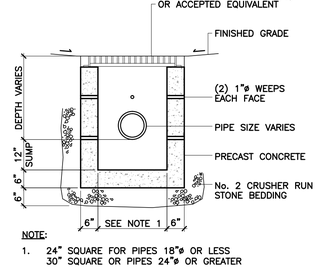
MECHANICAL EQUIP. SCREEN



GENERATOR PAD SECTION



LIGHT POLE HEIGHT DETAIL



NOTE:
1. 24" SQUARE FOR PIPES 18"ø OR LESS
30" SQUARE OR PIPES 24"ø OR GREATER

TYPICAL CATCH BASIN

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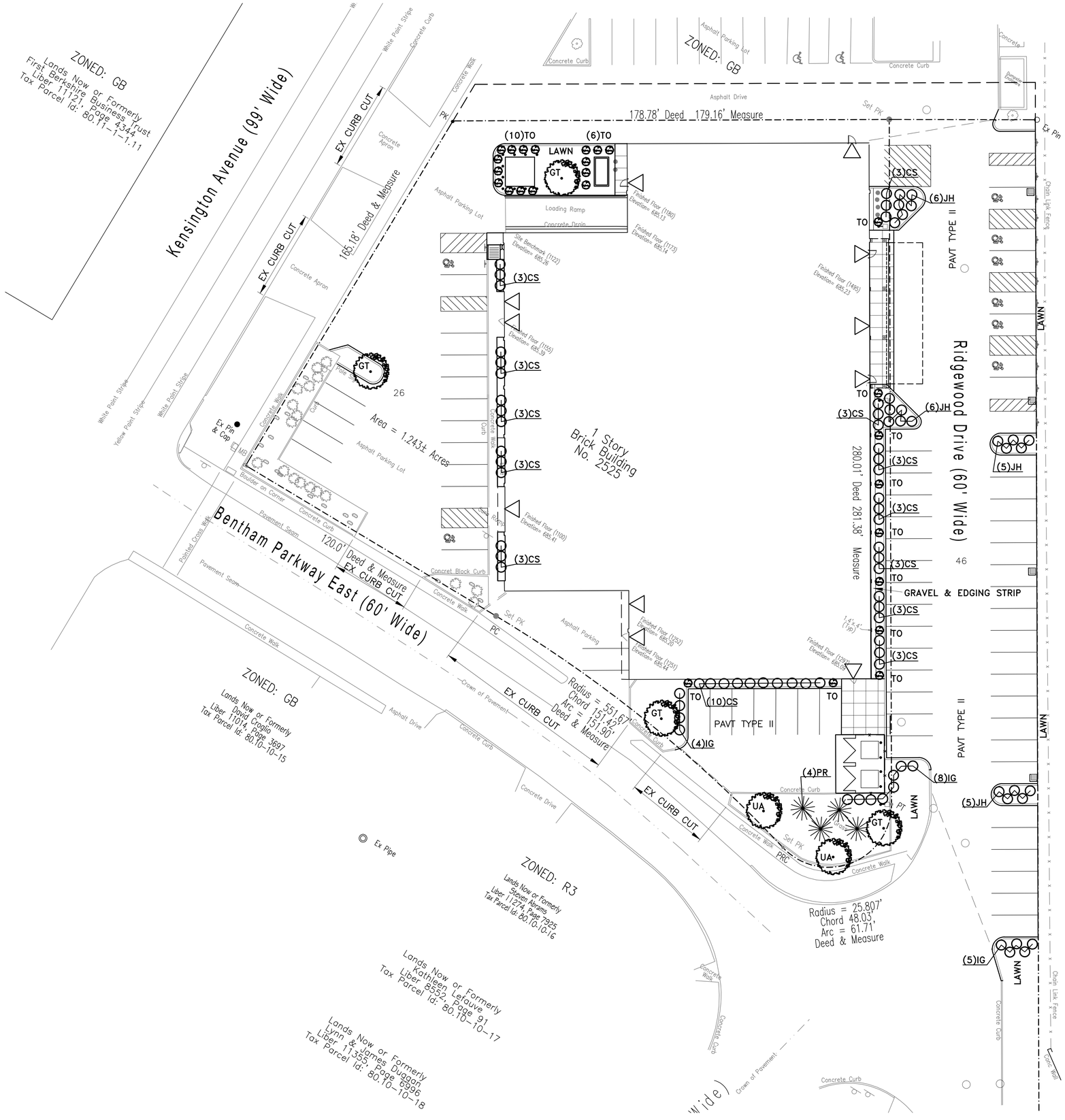
SITE DETAILS

SP201



PLANTING SCHEDULE

MARK	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHRUBS/GRASSES					
TO	26	THUJA OCCIDENTALIS	EMERALD ARBORVITE	4'h MIN.	B&B
CS	46	CORNUS STOLONIFERA	ARCTIC FIRE DOGWOOD	24"h	CONT.
JH	22	JUNIPERUS HORIZONTALIS	BAR HARBOR JUNIPER	24"sp	CONT.
IG	17	ILEX GLABRA COMPACTA	SHAMROCK INKBERRY	24"h 5'OC	B&B
TREES					
GT	3	GLEDITSIA TRIACANTHOS INERMIS SUNBURST	SUNBURST LOCUST	2 1/2" CAL	B&B
UA	2	ULMUS AMERICANA 'PRINCETON'	AMERICAN ELM	2–1/2"CAL	B&B
PR	4	PINUS RESINOSA	RED PINE	6'h MIN.	

LANDSCAPE PLAN

1" = 20'

N

NOTES:

1. CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING TREES AND PLANTINGS INDICATED TO REMAIN FROM ALL TYPES OF ROOT, TRUNK AND LIMB DAMAGE DURING DEMOLITION AND CONSTRUCTION.
2. EXISTING PLANTED AREAS SHALL REMAIN UNLESS OTHERWISE NOTED.
3. ALL DISTURBED AREAS SHALL RECEIVE 4" MIN. TOPSOIL AND GRASS SEED UNLESS OTHERWISE NOTED.
4. TREE AND SHRUB BEDS SHALL BE COVERED WITH 3" OF HARDWOOD MULCH. ALL ROOTS AND STONES OVER 1 1/2" SHALL BE REMOVED PRIOR TO SEEDING/ PLANTING.
5. ALL STREET AND ISLAND TREES SHALL HAVE FIRST BRANCHING at 6–FOOT MIN.
6. IF A CONFLICT EXISTS BETWEEN THE PLAN AND PLANTING SCHEDULE, THE PLAN SHALL GOVERN.
7. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES & UTILITY CONNECTIONS
8. REFER TO GRADING AND UTILITY PLAN(S) FOR ADDITIONAL INFORMATION NOT SHOWN HEREIN.

LEGEND:

INDICATES NEW TREE PLANTING PER SCHEDULE

INDICATES NEW SHRUB PLANTING PER SCHEDULE

EXISTING TREE/SHRUB TO REMAIN & BE PROTECTED THRU–OUT CONSTRUCTION

EXISTING TREE/SHRUB TO BE REMOVED

LAWN SEED SCHEDULE

Mixtures		Rate per Acre (lbs)	Rate per 1,000 sq. ft. (lbs)
A.	Birdsfoot trefoil or ladino clover	8	0.20
	Tall fescue or mooth bromegrass	20	0.45
	Redtop	2	0.05
		30	0.70
OR			
B.	Kentucky bluegrass	25	0.60
	Creeping red fescue	20	0.50
	Perennial ryegrass	10	0.20
		55	1.30

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716.876.7147

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STRUCTURAL ENGINEERS
716.854.3508

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REVISIONS
1: REVISED 3/28/22

DRAWN BY avm | CHECKED BY AVM

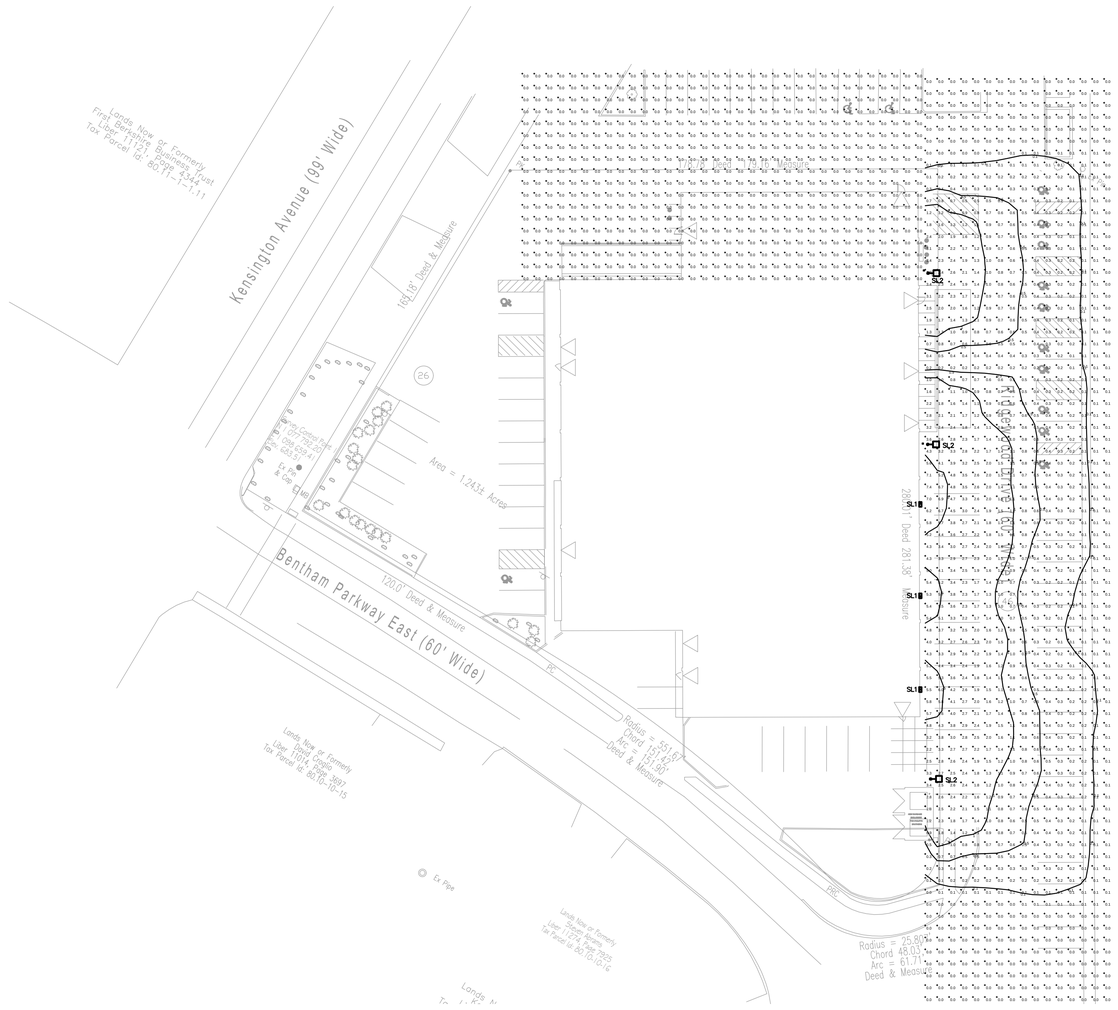
SCALE AS NOTED

DATE Feb 22, 2022

LANDSCAPE PLAN

L101

SP-2022-02 drawings 051922 (25490 : Sp-2022-02)
Attachment: SP-2022-02 (25490 : Sp-2022-02)



1 EL-100 ELECTRICAL SITE LIGHTING PLAN
SCALE: 1" = 20'-0"

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LENS/DIFFUSER	VOLTAGE/ BALLAST	LAMPS/LUMEN PACKAGE	MANUFACTURER & CATALOG NO.
SL1	WALL MOUNTED LED SITE LUMINAIRE	WALL MOUNTED 10'-0" A.F.G.	LED OPTICS, TYPE 4 FORWARD THROW	UNV 120-277V	44W, 6019 LUMENS, 4000°K LED SYSTEM	MCGRAW EDISON 'GALLEON LED' #GLEON-SA1B-740-U-T4FT
SL2	POLE MOUNTED LED SITE LUMINAIRE	POLE MOUNTED 15'-0" A.F.G.	LED OPTICS, TYPE 4 FORWARD THROW	UNV 120-277V	44W, 6019 LUMENS, 4000°K LED SYSTEM	MCGRAW EDISON 'GALLEON LED' #GLEON-SA1B-740-U-T4FT

1.e

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425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS:
Tredo Engineers
755 Seneca Street Suite 202, Buffalo, NY 14210
Tel 716 . 876 . 7147
Buffalo Engineering
4245 Union Road, Buffalo, NY 14225
Tel 716 . 633 . 5300

STATE OF NEW YORK
WALID S. DAHAM
LICENSED PROFESSIONAL ENGINEER
No. 65332

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REVISIONS

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CHECKED BY

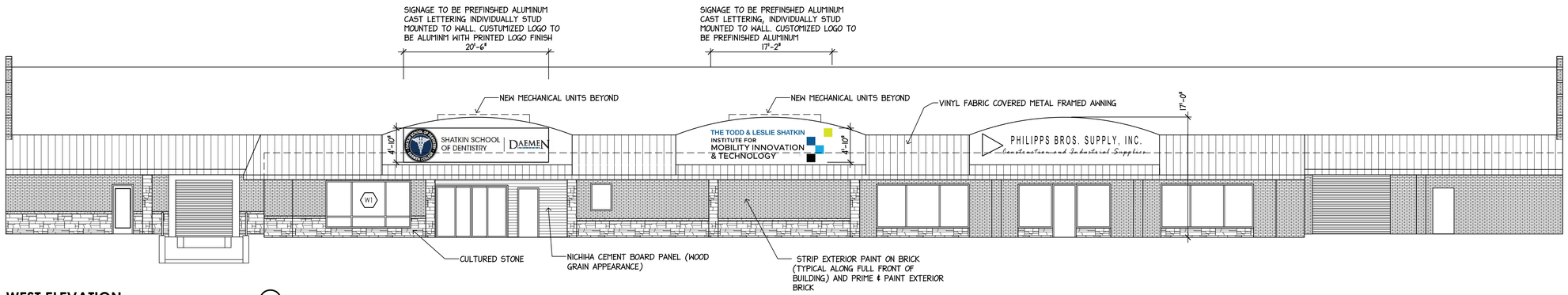
SCALE AS NOTED

DATE 03/24/22

ELECTRICAL SITE LIGHTING PLAN

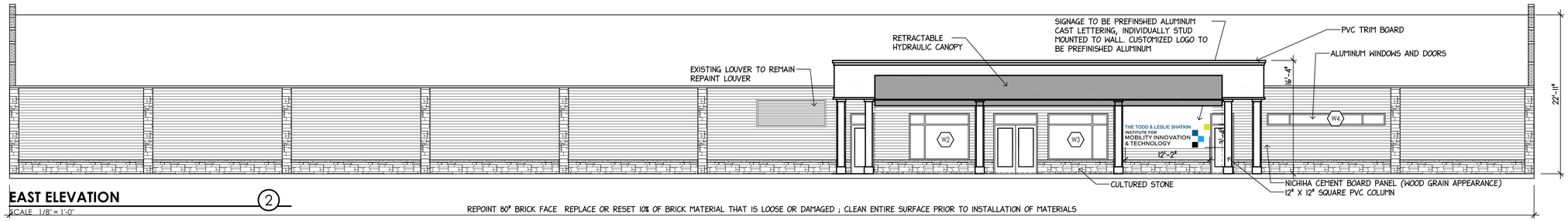
EL-100

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)



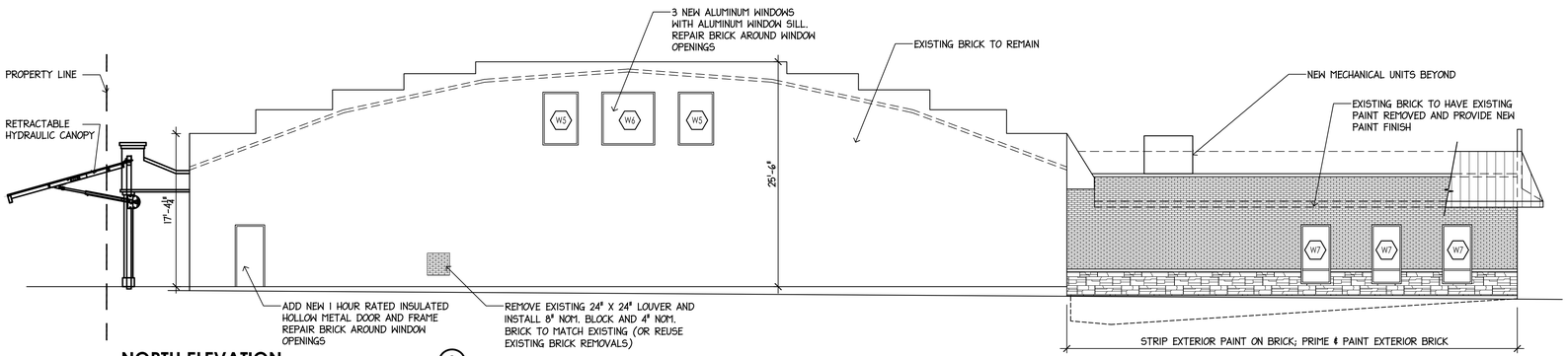
WEST ELEVATION ①

SCALE 1/8" = 1'-0"



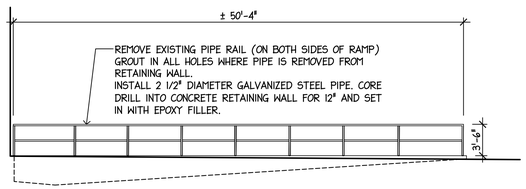
EAST ELEVATION ②

SCALE 1/8" = 1'-0"



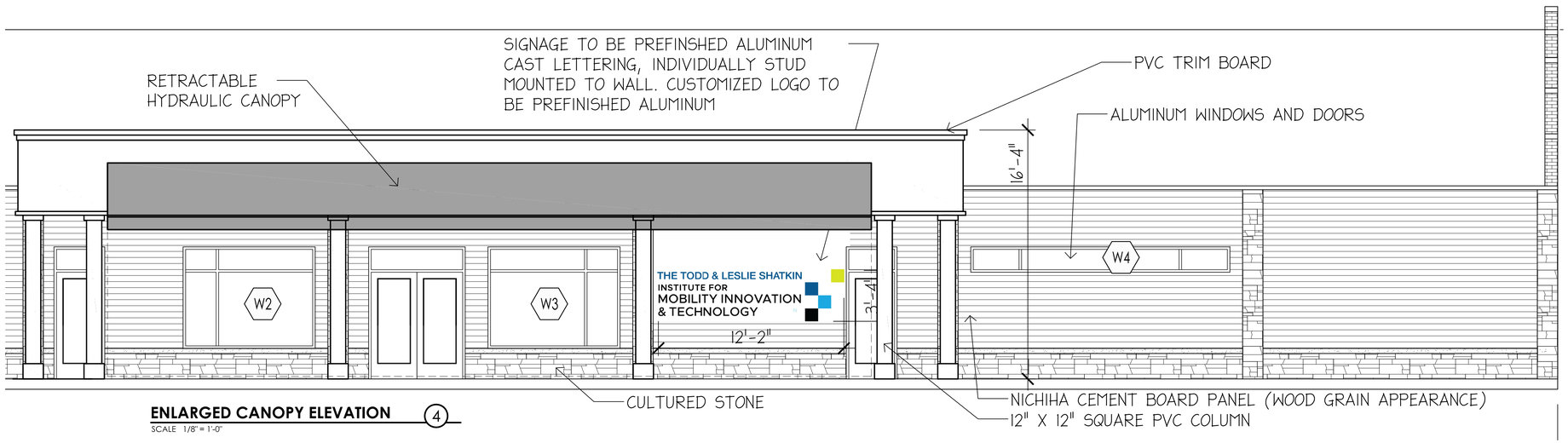
NORTH ELEVATION ③

SCALE 1/8" = 1'-0"



RAMP RAILING ELEVATION ⑤

SCALE 1/8" = 1'-0"



ENLARGED CANOPY ELEVATION ④

SCALE 1/8" = 1'-0"

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425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716 . 876 . 7147

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STRUCTURAL ENGINEERS
716 . 854 . 3506

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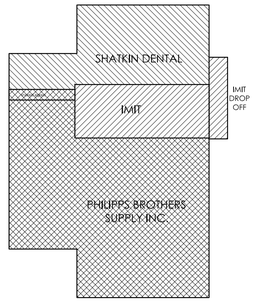
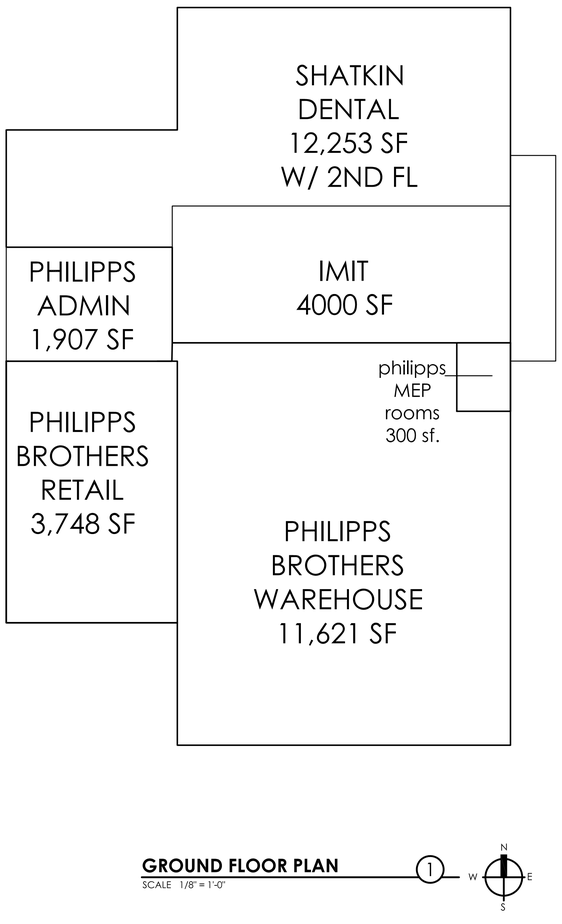
DATE
March 29 2022

EXTERIOR ELEVATIONS

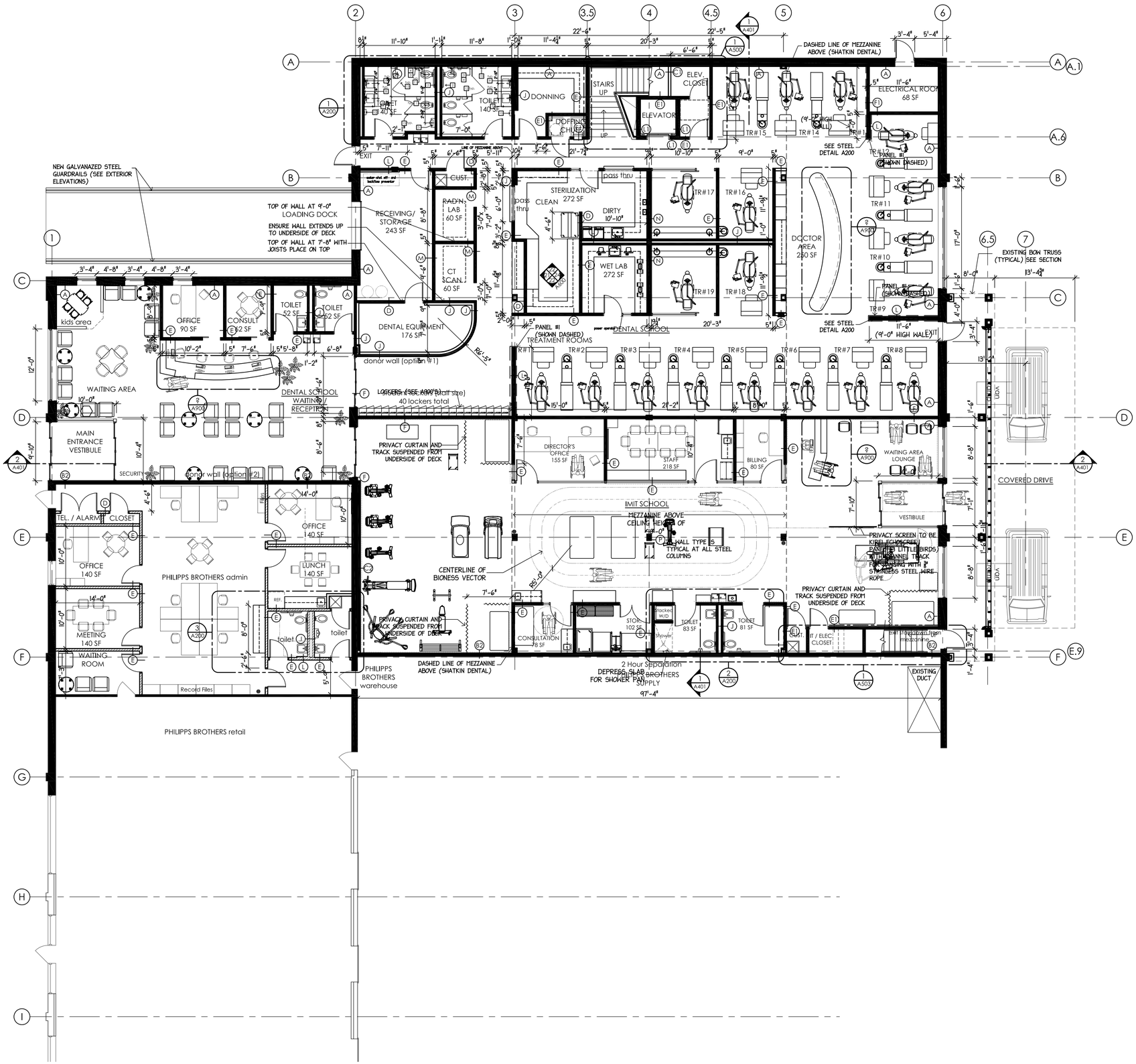
A300



KEY PLAN
SCALE NTS



GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"



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425 FRANKLIN STREET
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TREDO ENGINEERS
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716 . 876 . 7147

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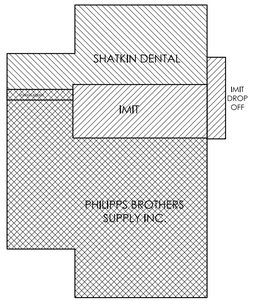
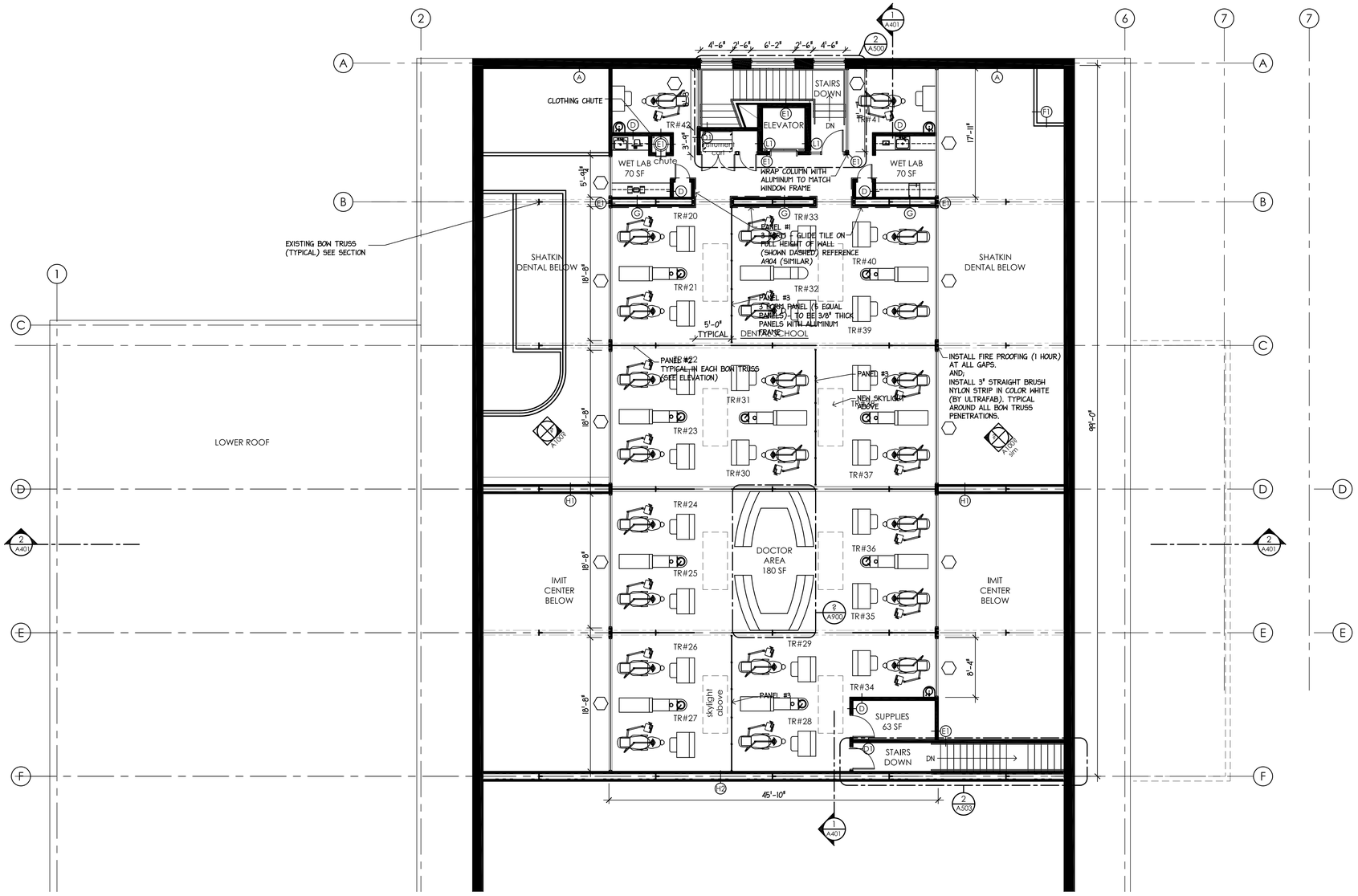
DATE March 29 2022

GROUND FLOOR PLAN

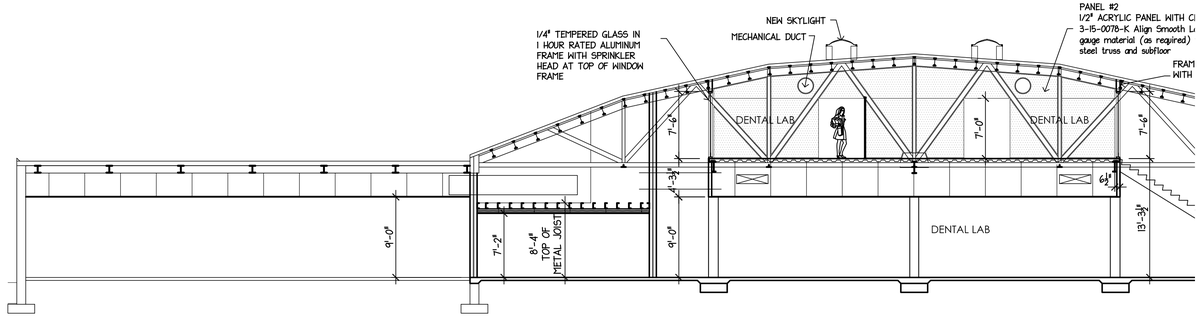
A101



KEY PLAN 1
SCALE NTS



UPPER FLOOR PLAN 1
SCALE 1/8" = 1'-0"



TYPICAL CROSS SECTION 2
SCALE 1/8" = 1'-0"

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425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
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drawings 051922 (25490 : Sp-2022-02)

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

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DATE
March 29 2022

SECOND FLOOR PLAN

A102

KOHLER®

Model: 200REOZJF

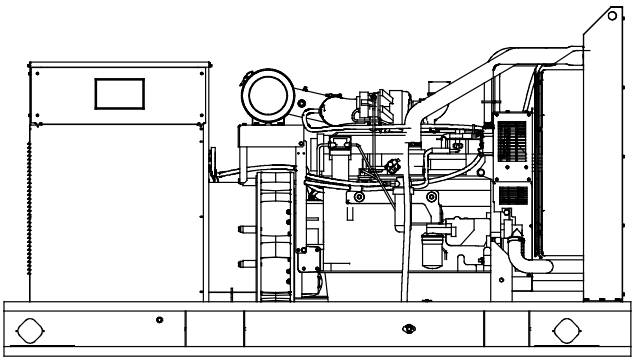
208- 600 V **Diesel**

ISO 9001 KOHLER® NATIONALLY REGISTERED

Tier 3 EPA-Certified for Stationary Emergency Applications

Ratings Range

		60 Hz
Standby:	**kW**	168- 200
	kVA	195- 250
Prime:	**kW**	158- 180
	kVA	175- 225



Generator Set Ratings

Alternator	Voltage	Ph	Hz	130°C Rise Standby Rating kW/kVA	130°C Rise Standby Rating Amps	105°C Rise Prime Rating kW/kVA	105°C Rise Prime Rating Amps
4S13X	120/208	3	60	184/230	638	173/216	600
	127/220	3	60	194/243	636	180/225	590
	120/240	3	60	184/230	553	173/216	520
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	168/210	319	158/198	300
	277/480	3	60	200/250	301	180/225	271
4UA9	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217
4UA13	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	120/240	1	60	195/195	813	175/175	729
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
  - The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
    (4S13X alternator)
  - The unique Fast-Response® II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
    (4UA9 and 4UA13 alternators)
  - The brushless, rotating-field alternator has broadrange reconnectability.
- Other features:
  - Kohler designed controllers for one-source system integration and remote communication. See Controllers on page 3.
  - The low coolant level shutdown prevents overheating (standard on radiator models only).
  - Integral vibration isolation eliminates the need for under-unit vibration spring isolators.
- Multiple circuit breaker configurations.
- Mount up to three circuit breakers to allow circuit protection of selected priority loads.

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. *Standby Ratings:* The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. *Prime Power Ratings:* At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet
Leads: quantity, type	
4SX, 4UA	12, Reconnectable
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

Specifications		Alternator
Peak motor starting kVA:		(35% dip for voltages below)
480 V	4S13X (12 lead)	570
480 V	4UA9 (12 lead)	700
480 V	4UA13 (12 lead)	960

Application Data

Engine

Engine Specifications	
Manufacturer	John Deere
Engine model	6068HFG85A
Engine type	4-Cycle, Turbocharged, Charge Air-Cooled
Cylinder arrangement	6 Inline
Displacement, L (cu. in.)	6.8 (415)
Bore and stroke, mm (in.)	106 x 127 (4.19 x 5.00)
Compression ratio	17.0:1
Piston speed, m/min. (ft./min.)	457 (1500)
Main bearings: quantity, type	7, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	235 (315)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Valve material:	
Intake	Chromium-Silicon Steel
Exhaust	Stainless Steel
Governor: type, make/model	JDEC Electronic L14 Denso HP3
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m^3/min. (cfm)	42.8 (1510)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	527 (980)
Maximum allowable back pressure, kPa (in. Hg)	Min. 4 (1.2) Max. 10 (3.0)
Exhaust outlet size at engine hookup, mm (in.)	98 (3.86)

Engine Electrical

Engine Electrical System	
Battery charging alternator:	24 Volt
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	45
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each	Two, 925
Battery voltage (DC)	12

Fuel

Fuel System	
Fuel supply line, min. ID, mm (in.)	11.0 (0.44)
Fuel return line, min. ID, mm (in.)	6.0 (0.25)
Max. lift, fuel pump: type, m (ft.)	Mechanical, 1.8 (6.0)
Max. fuel flow, Lph (gph)	92.7 (24.5)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel prime pump	Manual
Fuel filter	
Primary	30 Microns
Secondary	2 Microns @ 98% Efficiency
Water Separator	Yes
Recommended fuel	#2 Diesel

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.) §	32.5 (34.4)
Oil pan capacity with filter, L (qt.) §	33.4 (35.3)
Oil filter: quantity, type §	1, Cartridge
Oil cooler	Water-Cooled

§ Kohler recommends the use of Kohler Genuine oil and filters.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Application Data

Cooling

Radiator System	
Ambient temperature, °C (°F) *	50 (122)
Engine jacket water capacity, L (gal.)	11.3 (3.0)
Radiator system capacity, including engine, L (gal.)	27.6 (7.3)
Engine jacket water flow, Lpm (gpm)	230.9 (61)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	94.2 (5360)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	56.1 (3190)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	787 (31)
Fan, kWm (HP)	8.6 (11.5)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H_2O)	0.125 (0.5)

* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

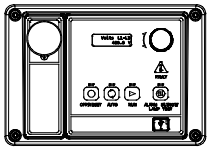
Operation Requirements

Air Requirements	
Radiator-cooled cooling air, m^3/min. (scfm)‡	368.1 (13000)
Combustion air, m^3/min. (cfm)	17.6 (620)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	46.9 (2670)
Alternator, kW (Btu/min.)	18.5 (1050)

‡ Air density = 1.20 kg/m^3 (0.075 lbm/ft^3)

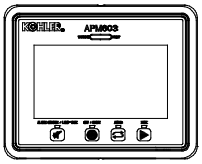
Fuel Consumption		
Diesel, Lph (gph) at % load	**Standby Rating**	
100%	58.0	(15.3)
75%	43.3	(11.4)
50%	31.4	(8.3)
25%	19.7	(5.2)
Diesel, Lph (gph) at % load	**Prime Rating**	
100%	50.1	(13.2)
75%	36.1	(9.5)
50%	25.7	(6.8)
25%	16.6	(4.4)

Controllers



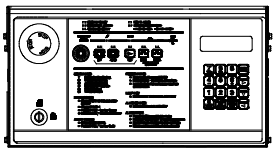
APM402 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-161 for additional controller features and accessories.



APM603 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- 7-inch graphic display with touch screen and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other APM603 controllers only
- Generator management to turn paralleled generators off and on as required by load demand
- Load management to connect and disconnect loads as required
- Controller supports Modbus® RTU, Modbus® TCP, SNMP and BACnet®
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- UL-listed overcurrent protective device
- NFPA 110 Level 1 capability

Refer to G6-162 for additional controller features and accessories.



Decision-Maker® 6000 Paralleling Controller
Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other Decision-Maker® 6000 controllers only
- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-107 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.

BACnet® is a registered trademark of ASHRAE.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KOHLERPower.com

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Customer Connection
  (standard with Decision-Maker® 6000 controller only)
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Circuit Breakers

Type

- ❑ Magnetic Trip
- ❑ Thermal Magnetic Trip
- ❑ Electronic Trip (LI)
- ❑ Electronic Trip with Short Time (LSI)
- ❑ Electronic Trip with Ground Fault (LSIG)

Rating

- ❑ 80%
- ❑ 100%

Operation

- ❑ Manual
- ❑ Electrically Operated (for paralleling)

Circuit Breaker Mounting

- ❑ Generator Mounted
- ❑ Remote Mounted
- ❑ Bus Bar (for remote mounted breakers)

Enclosures for Remote Mounted Circuit Breakers

- ❑ NEMA 1
- ❑ NEMA 3R

Approvals and Listings

- ❑ California OSHPD Pre- Approval
- ❑ CSA Certified
- ❑ IBC Seismic Certification
- ❑ UL 2200 Listing
- ❑ Hurricane Rated Enclosure

Enclosed Unit

- ❑ Sound Enclosure (with enclosed critical silencer)
- ❑ Weather Enclosure (with enclosed critical silencer)

Open Unit

- ❑ Exhaust Silencer, Critical (kit: PA-354809)
- ❑ Flexible Exhaust Connector, Stainless Steel

Fuel System

- ❑ Flexible Fuel Lines
- ❑ Fuel Pressure Gauge
- ❑ Subbase Fuel Tanks

Controller

- ❑ Common Failure Relay
  (Decision-Maker® 6000 and APM603 controllers only)
- ❑ Decision-Maker® Paralleling System (DPS)
  (Decision-Maker® 6000 controller only)
- ❑ Dry Contact (isolated alarm)
  (Decision-Maker® 6000 controller only)
- ❑ Two Input/Five Output Module (APM402 controller only)
- ❑ Four Input/Fifteen Output Module (APM603 controller only)
- ❑ Lockable Emergency Stop Switch
- ❑ Remote Emergency Stop Switch
- ❑ Remote Serial Annunciator Panel
- ❑ Run Relay (standard with APM603, optional with others)
- ❑ Manual Key Switch (APM603 controller only)
- ❑ Manual Speed Adjust (APM402 controller only)

Cooling System

- ❑ Block Heater, 1800 W, 90- 120 V, 1 Ph
- ❑ Block Heater, 2000 W, 190- 240 V, 1 Ph
  Required for ambient temperature below 0°C (32°F)
- ❑ Radiator Duct Flange

Electrical System

- ❑ Generator Heater
- ❑ Battery
- ❑ Battery Charger, Equalize/Float Type
- ❑ Battery Heater

Miscellaneous

- ❑ Air Cleaner, Heavy Duty
- ❑ Air Cleaner Restriction Indicator
- ❑ Certified Test Report
- ❑ Crankcase Emissions Canister
- ❑ Engine Fluids Added
- ❑ Rated Power Factor Testing
- ❑ Rodent Guards

Literature

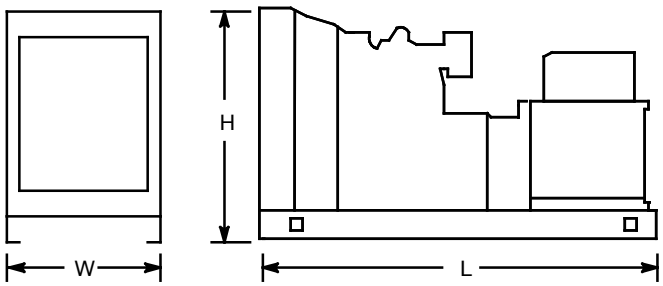
- ❑ General Maintenance
- ❑ NFPA 110
- ❑ Overhaul
- ❑ Production

Warranty

- ❑ 2-Year Basic Limited Warranty
- ❑ 5-Year Basic Limited Warranty
- ❑ 5-Year Comprehensive Limited Warranty

Dimensions and Weights

Overall Size, L x W x H, mm (in.):	3000 x 1300 x 1672 (118.1 x 51.2 x 65.8)
Weight (radiator model), wet, kg (lb.):	1923 (4240)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

DISTRIBUTED BY:

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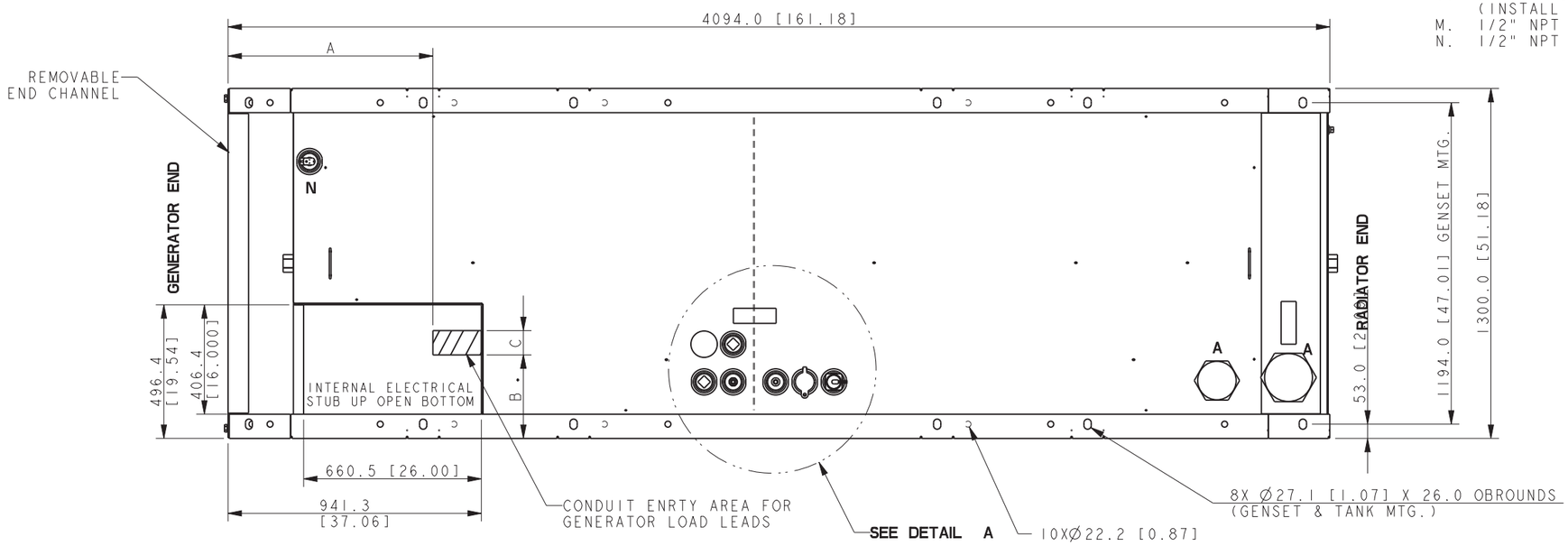
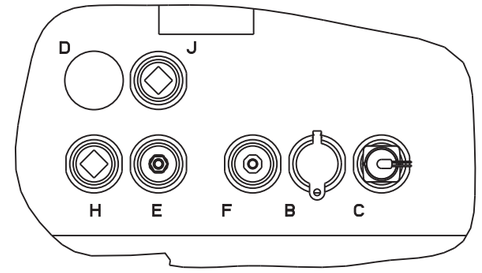
Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	1514	400	933	2057	482.6	19.0	4.0	2.0
180/200kW	2871	758	1327	2926	889.0	35.0	5.0	2.0

TANK FITTINGS:

A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 2" NPT FUEL FILL FITTING WITH LOCKABLE CAP
C. 2" NPT FUEL LEVEL GAUGE FITTING
D. 2" NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE)
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE)
H. 2" NPT FOR LOW LEVEL SWITCH (SET AT 50% FULL, SILICONE PACKED)
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY (INSTALL STEEL 2" NPT PIPE PLUG)
M. 1/2" NPT BASIN DRAIN (INSTALL STEEL 1/2" NPT PIPE PLUG)
N. 1/2" NPT FOR FUEL IN BASIN SWITCH (INSTALL STEEL 1/2" NPT PIPE PLUG)





DETAIL A
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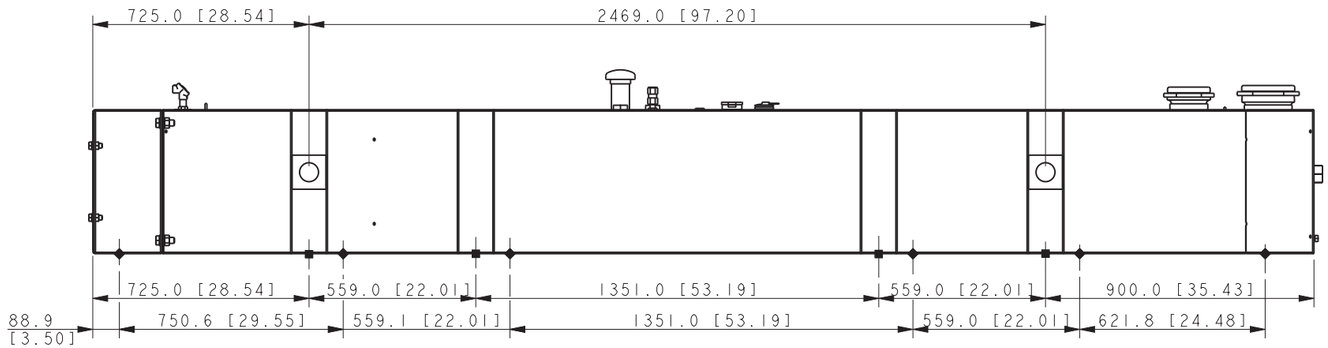

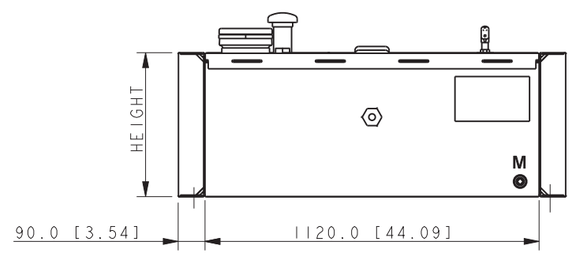

■ 8XØ25.4 [1.0] STANDARD MOUNTING

◆ 12XØ22.2 [0.88] IBC/WINDLOAD MOUNTING

GENSET	A	B	C
180KW	761 [30.0]	310 [12.2]	90 [3.5]
200KW	561 [22.1]	303 [11.9]	100 [3.9]

STANDARD TANK

180 MODEL 60HZ 4S15, 4S12X & 4S13X
200 MODEL 4UA9, 4UA13 & 4S13X
RECONNECTABLE
IMPROVED MOTOR STARTING (IMS) &
600V ALTERNATOR
JOHN DEERE 6068HF485, TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
F	08-11-14	(A-4) STANDARD TANK NOTE ADDED & SEE SHEET 2 [CT89102]	PAS
G	2-28-17	(A-8, A-7) 761 WAS 571, 303 WAS 195, (8-D, C-7) DELETE 50.0 UPDATE CONDUIT AREA, SEE SHEET 2, [CT170607]	RMJ
H	2-19-18	SEE SHEET 3 [CT184671]	PAS
J	2-26-19	(A-5) IBC/WINDLOAD MOUNTING WAS IBC MOUNTING; SEE SHEET 2 & 3 [CT193852]	TKK
K	7-2-19	SEE SHEET 2 [CT196925]	JB2

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS	DATE
DRAWN PKD	1-20-10
CHECKED AJD	1-20-10
APPROVED AJD	1-20-10

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POWER SYSTEMS, KOHLER, WI 53044 U.S.A.
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TITLE
DIMENSION PRINT

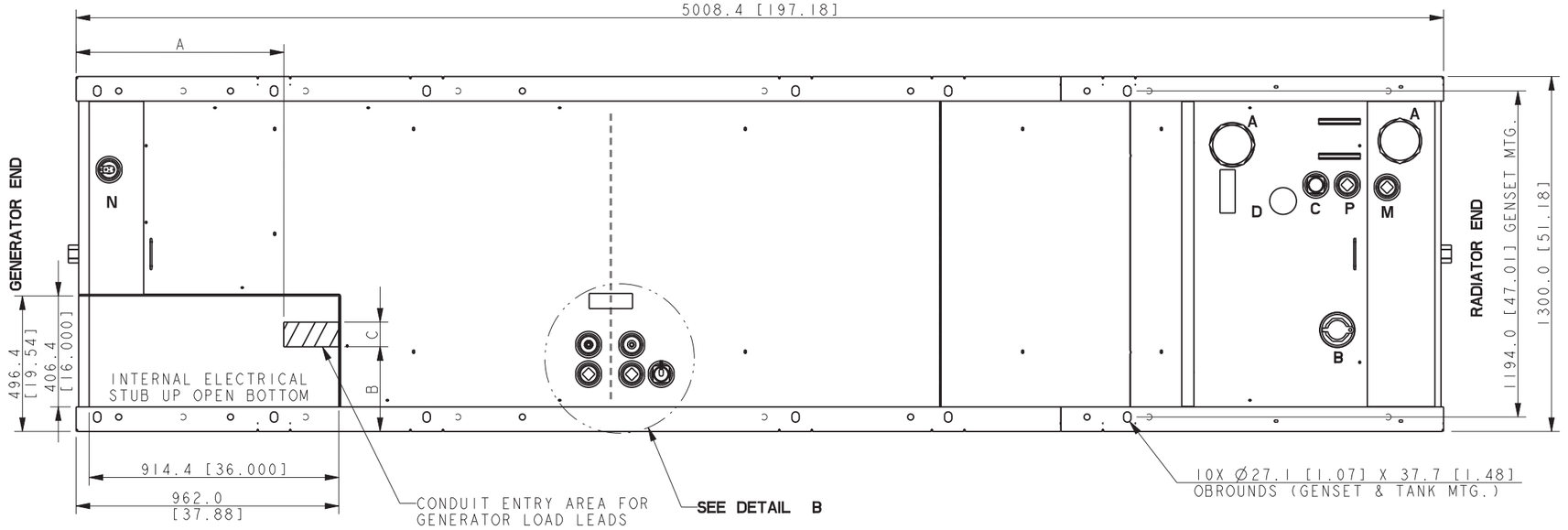
SCALE 0.10 | CAD NO. | SHEET 1 of 3
DWG NO. ADV-

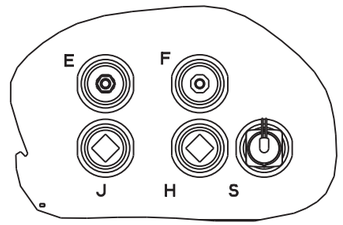
Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	1576	416	1234	2721	457.2	18.0	5.0	2.0
180/200kW	2896	765	1560	3440	762.0	30.0	5.0	2.0

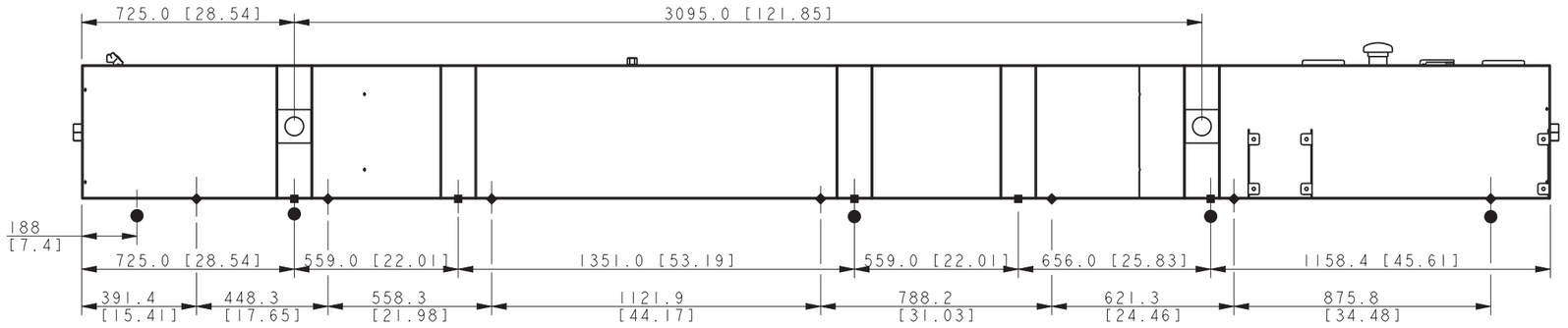
TANK FITTINGS:

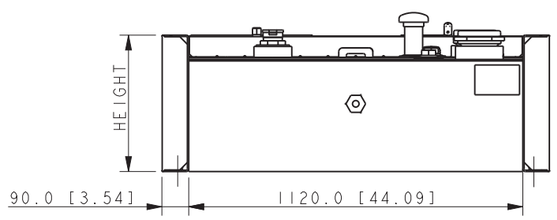
A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 4" NPT FUEL FILL FITTING WITH LOCKABLE CAP AND RISER. PLUG & SHIP WITH TANK IN BOX ATTACHED TO TANK
C. 2" NPT FUEL LEVEL GAUGE FITTING
D. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER.
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE)
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE)
H. 2" NPT FOR LOW LEVEL SWITCH (SET AT 50% FULL, SILICONE PACKED)
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY (INSTALL 2" NPT PIPE PLUG)
M. 2" NPT BASIN DRAIN (PLUGGED
N. 2" NPT FOR FUEL IN BASIN SWITCH
P. 2" NPT ADDITIONAL FITTING FOR OTPIONAL ACCESORY (INSTALL 2" NPT PIPE PLUG)
S. 2" NPT FUEL LEVEL GAUGE FITTING WITH SENDER





DETAIL B
SCALE 0.20





■ 10XØ25.4 [1.0] STANDARD MOUNTING
◆ 14XØ22.2 [0.88] IBC/WINDLOAD MOUNTING
● 10XØ25.4 [1.0] BOTTOM BEAM MOUNTING

GENSET	A	B	C
180KW	761 [30.0]	310 [12.2]	90 [3.5]
200KW	561 [22.1]	303 [11.9]	100 [3.9]

STATE TANK
180 MODEL 60HZ 4S15, 4S12X & 4S13X
200 MODEL 4UA9, 4UA13 & 4S13X
RECONNECTABLE
IMPROVED MOTOR STARTING (IMS) &
600V ALTERNATOR
JOHN DEERE 6068HF485, TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
G	2-28-17	(A-8, A-7) 761 WAS 571, 303 WAS 195,	
		(8-D, C-7) DELETE 50.0 UPDATE CONDUIT AREA,	
		SEE SHEET 1, [CT170607]	RMJ
H	2-19-18	SEE SHEET 3 [CT184671]	PAS
J	2-26-19	(A-5,6) IBC/WINDLOAD MOUNTING WAS IBC	
		MOUNTING; SEE SHEET 1 & 3 [CT193852]	TKK
K	7-2-19	(D-6)5.0 WAS 4.0, (B-4) CORRECTED ACCURACY	
		TO GENSET / TANK MOUNTING [CT196925]	JB2

UNLESS OTHERWISE SPECIFIED: - 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30' — SURFACE FINISH MAX. — THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	PKD	1-20-10
CHECKED	AJD	1-20-10
APPROVED	AJD	1-20-10

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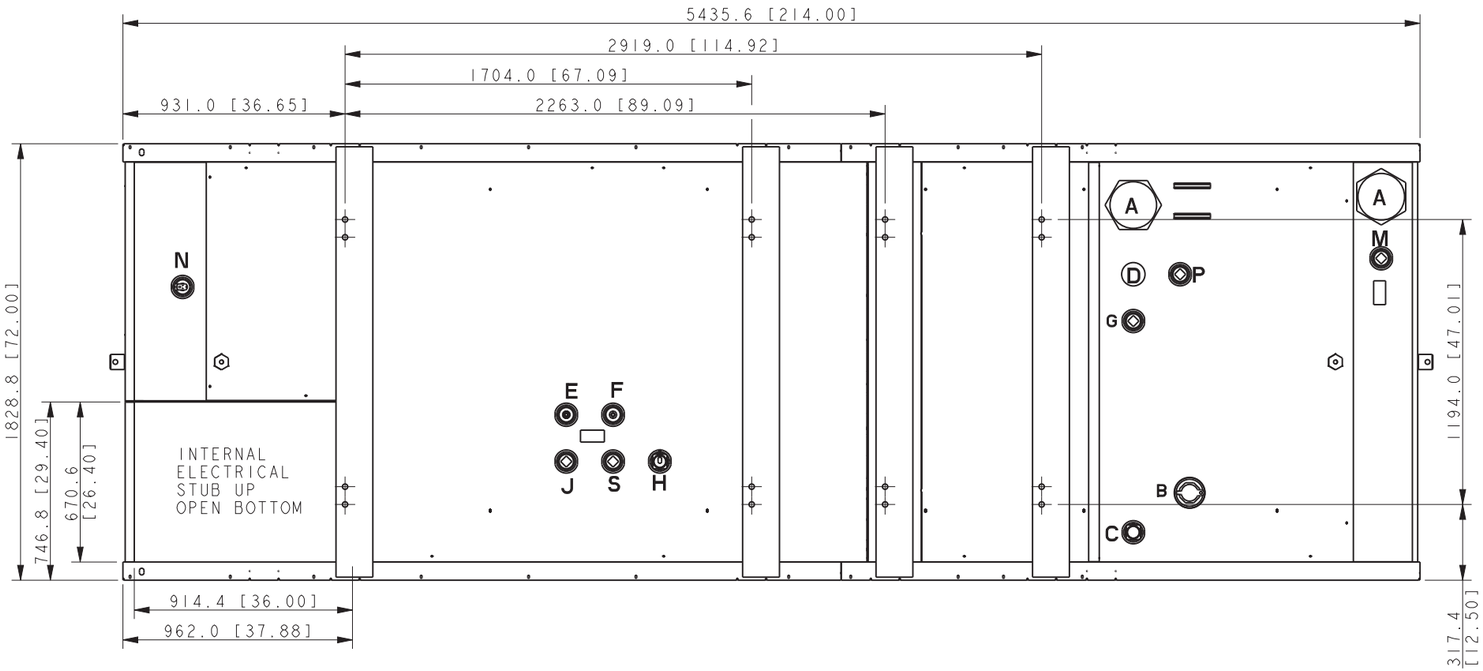
SCALE 0.10 | CAD NO. | SHEET 2 of 3
DWG NO. ADV-

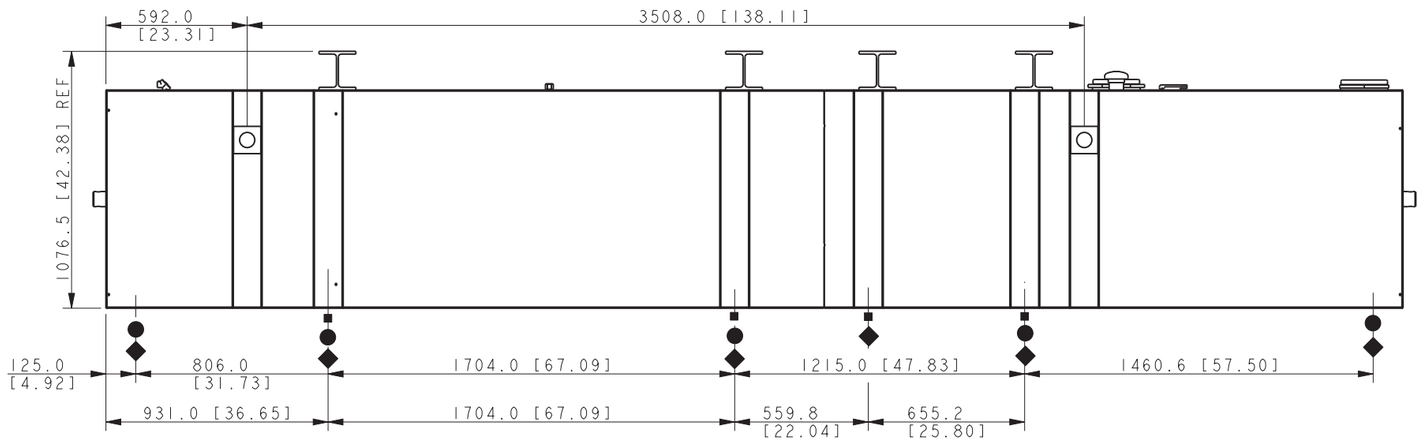
Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

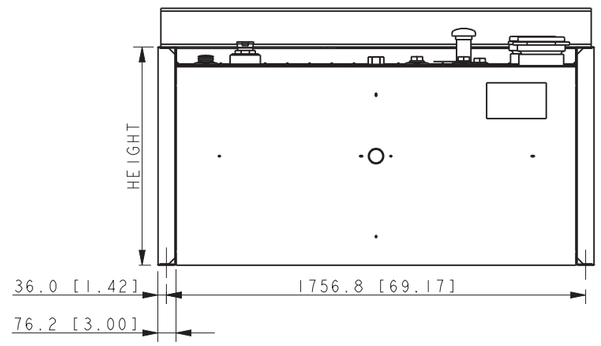
MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	5742	1517	1727	3809	914.4	36.0	6.0	2.0

TANK FITTINGS:

A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 4" NPT FUEL FILL FITTING WITH LOCKABLE CAP AND RISER.
C. 2" NPT FUEL LEVEL GAUGE FITING WITH DIRECT READING MECHANICAL GAUGE.
D. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER.
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE).
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE).
G. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).
H. 2" NPT FOR FUEL LEVEL SENDING UNIT.
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).
M. 2" NPT BASIN DRAIN (INSTALL STEEL 2" NPT PIPE PLUG).
N. 2" NPT FOR FUEL IN BASIN SWITCH.
P. 2" NPT ADDITIONAL FITTING FOR OTPIONAL ACCESORY (INSTALL STEEL 2" NPT PIPE PLUG).
S. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).







NOTE:
FOR FURTHER TANK DETAIL SEE INDIVIDUAL DRAWINGS

■ 8X Ø25.40 [1.0] STANDARD MOUNTING
● 10X Ø25.40 [1.0] BOTTOM BEAM MOUNTING
◆ 12X Ø25.40 [1.0] WINDLOAD MOUNTING

96 HOUR STATE TANK

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
H	2-19-18	SHEET 3 ADDED [CTI84671]	PAS
J	2-26-19	(A-4,5) 12X Ø25.40 [1.0] WINDLOAD MOUNTING	
		NOTE ADDED; SEE SHEET 1 & 2 [CTI93852]	TKK
K	7-2-19	SEE SHEET 2 [CTI96925]	JB2

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	PAS	2-19-18
CHECKED	JB2	2-19-18
APPROVED	KJB	2-19-18

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POWER SYSTEMS, KOHLER, WI 53044 U.S.A.
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TITLE
DIMENSION PRINT

SCALE 0.08 | CAD NO. | SHEET 3 of 3
DWG NO. ADV-

1.e

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Product Features

LumenSafe Technology

Light ARchitect™

Product Certifications

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

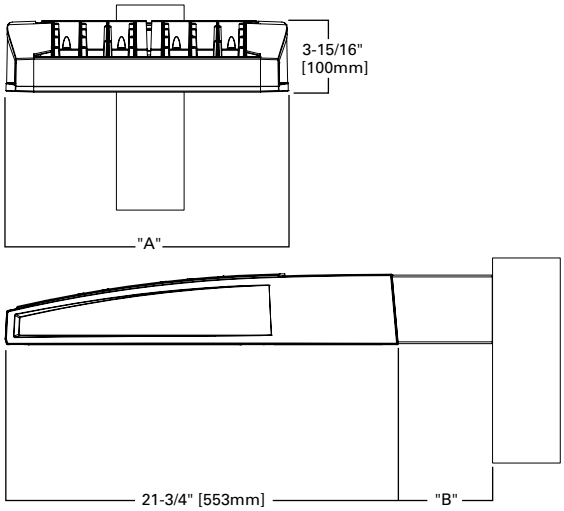
Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt
- Options to meet Buy American and other domestic preference requirements

Connected Systems

- WaveLinx
- Enlighted

Dimensional Details



NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length [1]	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Ordering Information

SAMPLE NUMBER: **GLEON-SA4C-740-U-T4FT-GM**

Product Family [1, 2]	Light Engine		Color Temperature	Voltage	Distribution	Mounting	Finish
	Configuration	Drive Current					
GLEON=Galleon **BAA-GLEON**=Galleon, Buy American Act Compliant [35] **TAA-GLEON**=Galleon, Trade Agreements Act Compliant [35]	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares **SA5**=5 Squares [4] **SA6**=6 Squares **SA7**=7 Squares [5] **SA8**=8 Squares [5] **SA9**=9 Squares [6] **SA0**=10 Squares [6]	**A**=600mA **B**=800mA **C**=1000mA **D**=1200mA [16]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [14, 16]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [7, 8] **9**=347V [7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [9] **MA**=Mast Arm Adapter [10] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [11] **QML**=Quick Mount Arm (Standard Length, Large) [37] **QMEA**=Quick Mount Arm (Extended Length) [12]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **RALXX**=Custom Color

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)[35]
DIM=External 0-10V Dimming Leads [19, 20] **F**=Single Fuse (120, 277 or 347V Specify Voltage) **FF**=Double Fuse (208, 240 or 480V Specify Voltage) **20K**=Series 20kV UL 1449 Surge Protective Device **2L**=Two Circuits [17, 18] **HA**=50°C High Ambient **HSS**=Installed House Side Shield [28] **GRSBK**=Glare Reducing Shield, Black [23] **GRSWH**=Glare Reducing Shield, White [23] **LCF**=Light Square Trim Painted to Match Housing [27] **MT**=Installed Mesh Top **TH**=Tool-less Door Hardware **CC**=Coastal Construction finish [3] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **CE**=CE Marking [29] **AHD145**=After Hours Dim, 5 Hours [22] **AHD245**=After Hours Dim, 6 Hours [22] **AHD255**=After Hours Dim, 7 Hours [22] **AHD355**=After Hours Dim, 8 Hours [22] **DALI**=DALI Drivers	**BPC**=Button Type Photocontrol **PR**=NEMA 3-PIN Photocontrol Receptacle **PR7**=NEMA 7-PIN Photocontrol Receptacle [21] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8′ - 20′ Mounting [34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21′ - 40′ Mounting [34] **MS-L20**=Motion Sensor for ON/OFF Operation, 9′ - 20′ Mounting Height [24] **MS-L40W**=Motion Sensor for ON/OFF Operation, 21′ - 40′ Mounting Height [24] **MS/X-L20**=Bi-Level Motion Sensor, 9′ - 20′ Mounting Height [24, 25] **MS/X-L40W**=Bi-Level Motion Sensor, 21′ - 40′ Mounting Height [24, 25] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9′ - 20′ Mounting Height [24] **MS/DIM-L40W**=Motion Sensor for Dimming Operation, 21′ - 40′ Mounting Height [24] **ZW**=WaveLinx Module and 4-PIN Receptacle **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle **SWPD4XX**=WaveLinx Sensor Only, 7′-15′ [13, 32, 33] **SWPD5XX**=WaveLinx Sensor Only, 15′-40′ [13, 32, 33] **WOBXX**=WaveLinx Sensor with Bluetooth, 7′-15′ [13, 32] **WOFXX**=WaveLinx Sensor with Bluetooth, 15′-40′ [13, 32] **LWR-LW**=Enlighted Sensor, 8′–16′ Mounting Height [26] **LWR-LN**=Enlighted Sensor, 16′–40′ Mounting Height [26] **DIM10-MS/DIM-L08**=Synapse Occupancy Sensor (<8′ Mounting) [19] **DIM10-MS/DIM-L20**=Synapse Occupancy Sensor (9′-20′ Mounting) [19] **DIM10-MS/DIM-L40**=Synapse Occupancy Sensor (21′-40′ Mounting) [19]	**OA/RA1016**=NEMA Photocontrol Multi-Tap - 105-285V **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1014**=120V Photocontrol **MA1252**=10kV Surge Module Replacement **MA1036-XX**=Single Tenon Adapter for 2-3/8" O.D. Tenon **MA1037-XX**=2@180° Tenon Adapter for 2-3/8" O.D. Tenon **MA1197-XX**=3@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1188-XX**=4@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1189-XX**=2@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1190-XX**=3@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1191-XX**=2@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1038-XX**=Single Tenon Adapter for 3-1/2" O.D. Tenon **MA1039-XX**=2@180° Tenon Adapter for 3-1/2" O.D. Tenon **MA1192-XX**=3@120° Tenon Adapter for 3-1/2" O.D. Tenon **MA1193-XX**=4@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1194-XX**=2@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1195-XX**=3@90° Tenon Adapter for 3-1/2" O.D. Tenon **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [24] **GLEON-MT1**=Field Installed Mesh Top for 1-4 Light Squares **GLEON-MT2**=Field Installed Mesh Top for 5-6 Light Squares **GLEON-MT3**=Field Installed Mesh Top for 7-8 Light Squares **GLEON-MT4**=Field Installed Mesh Top for 9-10 Light Squares **GLEON-QM**=Quick Mount Arm Kit [11] **GLEON-QMEA**=Quick Mount Extended Arm Kit [12] **LS/HSS**=Field Installed House Side Shield [28, 30] **LS/GRSBK**=Glare Reducing Shield, Black [23, 30] **LS/GRSWH**=Glare Reducing Shield, White [23, 30] **LS/PFS**=Perimeter Shield, Black [15] **WOLC-7P-10A**=WaveLinx Outdoor Control Module [19, 31] **SWPD4-XX**=Wavelinx Wireless Sensor, 7′–15′ Mounting Height [13, 19, 32, 33] **SWPD5-XX**=Wavelinx Wireless Sensor, 15′–40′ Mounting Height [13, 19, 32, 33]

NOTES:

1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Not available with TH option.
4. Not compatible with MS/4-LXX or MS/1-LXX sensors.
5. Not compatible with extended quick mount arm (QMEA).
6. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
7. Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
8. 480V must utilize Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems.)
9. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
10. Factory installed.
11. Maximum 8 light squares.
12. Maximum 6 light squares.
13. Requires ZW or ZD receptacle.
14. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
15. Set of 4 pcs. One set required per Light Square.
16. Not available with HA option.
17. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in SA2 through SA4 requires a larger housing, normally used for SA5 or SA6. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
18. Not available with Enlighted wireless sensors.
19. Cannot be used with other control options.
20. Low voltage control lead brought out 18" outside fixture.
21. Not available if any "MS" sensor is selected. Motion sensor has an integral photocell.
22. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
23. Not for use with T4FT, T4W or SL4 optics. See IES files for details.
24. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
25. Replace X with number of Light Squares operating in low output mode.
26. Enlighted wireless sensors are factory installed only requiring network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities.
27. Not available with house side shield (HSS).
28. Not for use with 5NQ, 5MQ, 5WQ or RW optics. A black trim plate is used when HSS is selected.
29. CE is not available with the LWR, MS, MS/X, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
30. One required for each Light Square.
31. Requires PR7.
32. Replace XX with sensor color (WH, BZ or BK.)
33. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
34. Smart device with mobile application required to change system defaults. See controls section for details.
35. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
36. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
37. Available for 7-10 squares.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

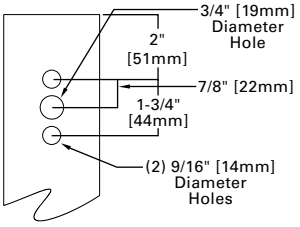
Product Family	Camera Type	Data Backhaul	
L=LumenSafe Technology	**D**=Standard Dome Camera **H**=Hi-Res Dome Camera **Z**=Remote PTZ Camera	**C**=Cellular, No SIM **A**=Cellular, AT&T **V**=Cellular, Verizon **S**=Cellular, Sprint	**R**=Cellular, Rogers **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

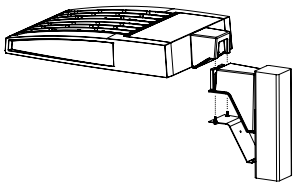
Mounting Details

Standard Arm (Drilling Pattern)

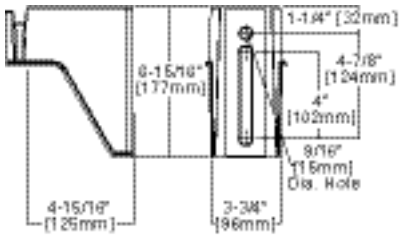
TYPE "N"



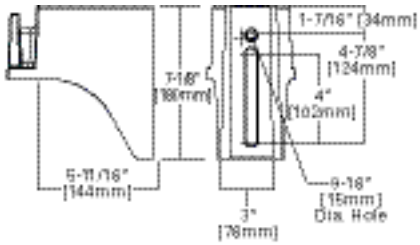
Quick Mount Arm (Includes fixture adapter)



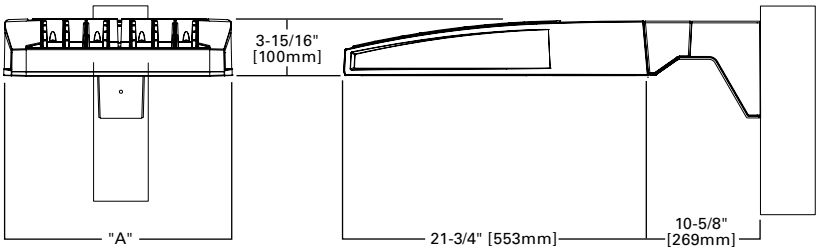
QM and QMEA Pole Mount



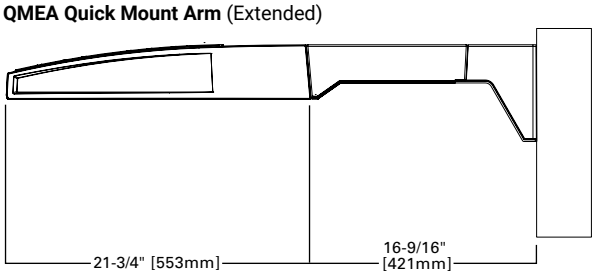
QML Pole Mount



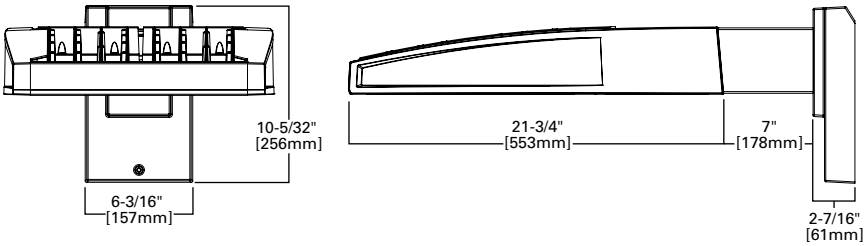
QM Quick Mount Arm (Standard)



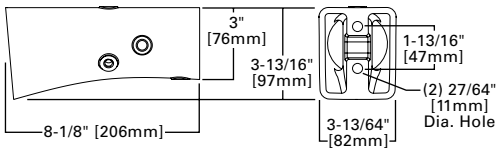
QMEA Quick Mount Arm (Extended)



Standard Wall Mount

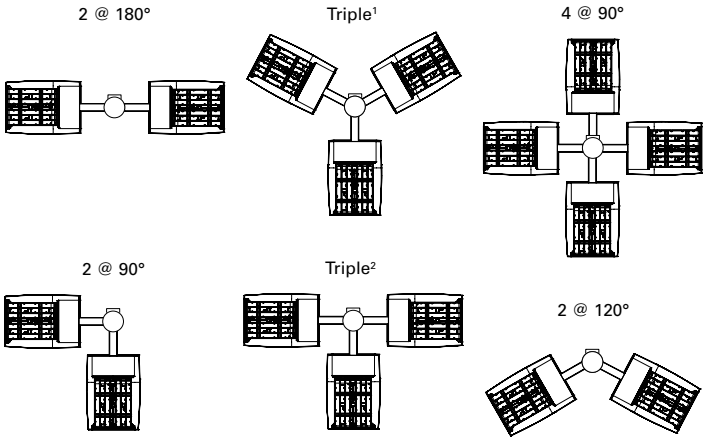


Mast Arm Mount



Arm Mounting Requirements

Number of Light Squares	Standard Arm @ 90° Apart	Standard Arm @ 120° Apart	Quick Mount Arm @ 90° Apart	Quick Mount Arm @ 120° Apart
1	Standard	Standard	QM Extended	Quick Mount
2	Standard	Standard	QM Extended	Quick Mount
3	Standard	Standard	QM Extended	Quick Mount
4	Standard	Standard	QM Extended	Quick Mount
5	Extended	Standard	QM Extended	Quick Mount
6	Extended	Standard	QM Extended	Quick Mount
7	Extended	Extended	--	Quick Mount
8	Extended	Extended	--	Quick Mount
9	Extended	Extended	--	--
10	Extended	Extended	--	--



NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2** Round poles are 3 @ 90°. **3** Shown with 4 square configurations.

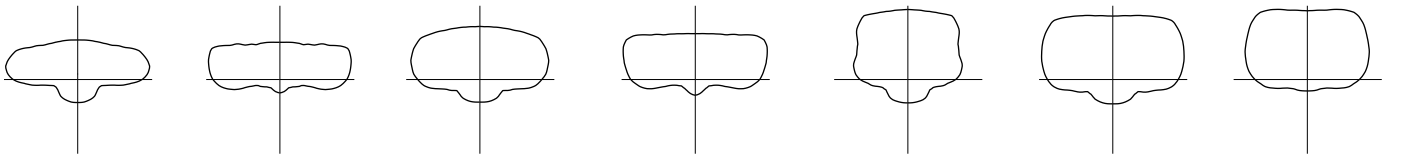
Fixture Weights and EPAs

Number of Light Squares	Weight with Standard and Extended Arm (lbs.)	EPA with Standard and Extended Arm (Sq. Ft.)	Weight with QM Arm (lbs.)	EPA with QM Arm (Sq. Ft.)	Weight with QML (lbs.)	EPA with QML (Sq. Ft.)	Weight with QMEA (lbs.)	EPA with QMEA (Sq. Ft.)
1-4	33	0.96	35	1.11	--	--	38	1.11
5-6	44	1.00	46	1.11	--	--	49	1.11
7-8	54	1.07	56	1.11	58	1.11	--	--
9-10	63	1.12	--	--	67	1.11	--	--

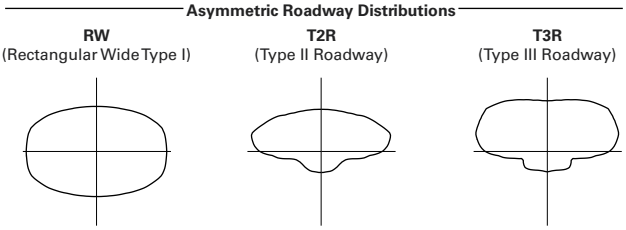
Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Optical Distributions

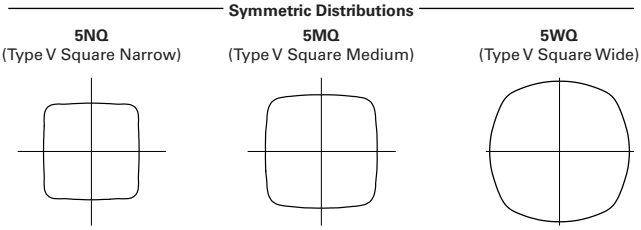
Asymmetric Area Distributions



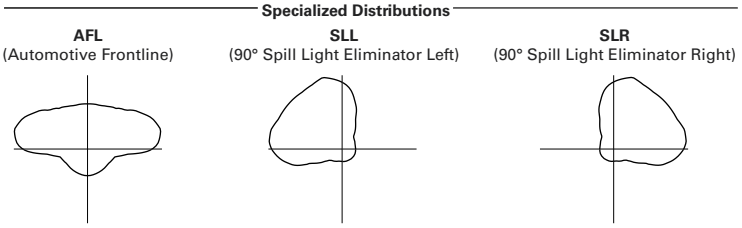
Asymmetric Roadway Distributions



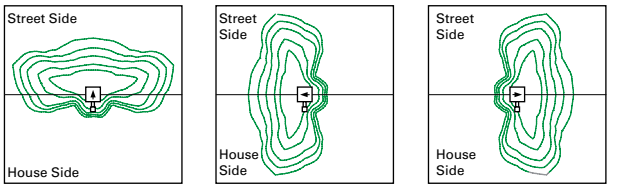
Symmetric Distributions



Specialized Distributions



Rotated Optics



Product Specifications

Construction

- Extruded aluminum driver enclosure
- Heavy-wall, die-cast aluminum end caps
- Die-cast aluminum heat sinks
- Patent pending interlocking housing and heat sink

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 16 optical distributions
- 3 shielding options including HSS, GRS and PFS
- IDA Certified (3000K CCT and warmer only)

Electrical

- LED drivers are mounted to removable tray assembly for ease of maintenance
- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting

- Standard extruded arm includes internal bolt guides and round pole adapter
- Extended arms (EA and QMEA) may be required in 90° or 120° pole mount configurations, see arm mounting requirements table
- Mast arm (MA) factory installed
- Wall mount (WM) option available
- Quick mount arm (QM and QMEA) includes pole adapter and factory installed fixture mount for fast installation to square or round poles

Finish

- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty

- Five year warranty

Energy and Performance Data

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

* Supported by IES TM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

View GLEON IES files

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (1.2A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		67	129	191	258	320	382	448	511	575	640
Input Current @ 120V (A)		0.58	1.16	1.78	2.31	2.94	3.56	4.09	4.71	5.34	5.87
Input Current @ 208V (A)		0.33	0.63	0.93	1.27	1.57	1.87	2.22	2.52	2.8	3.14
Input Current @ 240V (A)		0.29	0.55	0.80	1.10	1.35	1.61	1.93	2.18	2.41	2.71
Input Current @ 277V (A)		0.25	0.48	0.70	0.96	1.18	1.39	1.69	1.90	2.09	2.36
Input Current @ 347V (A)		0.20	0.39	0.57	0.78	0.96	1.15	1.36	1.54	1.72	1.92
Input Current @ 480V (A)		0.15	0.30	0.43	0.60	0.73	0.85	1.03	1.16	1.28	1.45
Optics											
T2	4000K Lumens	7,972	15,580	23,245	30,714	38,056	45,541	53,857	61,024	68,072	75,366
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	122	119	119	119	120	119	118	118
T2R	4000K Lumens	8,462	16,539	24,680	32,609	40,401	48,348	57,176	64,783	72,266	80,010
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	129	126	126	127	128	127	126	125
T3	4000K Lumens	8,125	15,879	23,693	31,307	38,787	46,417	54,893	62,197	69,381	76,818
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	122	123	122	121	120
T3R	4000K Lumens	8,306	16,232	24,220	32,001	39,651	47,447	56,114	63,580	70,924	78,523
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
T4FT	4000K Lumens	8,173	15,970	23,831	31,488	39,014	46,686	55,212	62,558	69,783	77,261
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	122	124	125	122	122	122	123	122	121	121
T4W	4000K Lumens	8,067	15,764	23,522	31,080	38,510	46,082	54,499	61,751	68,881	76,263
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	120	122	123	120	120	121	122	121	120	119
SL2	4000K Lumens	7,958	15,552	23,206	30,662	37,989	45,462	53,763	60,920	67,952	75,235
	BUG Rating	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	121	119	119	119	120	119	118	118
SL3	4000K Lumens	8,124	15,877	23,690	31,302	38,784	46,410	54,885	62,189	69,372	76,805
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	121	123	122	121	120
SL4	4000K Lumens	7,719	15,085	22,510	29,741	36,850	44,097	52,148	59,089	65,913	72,977
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	115	117	118	115	115	115	116	116	115	114
5NQ	4000K Lumens	8,380	16,375	24,436	32,287	40,003	47,870	56,610	64,144	71,552	79,221
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	125	127	128	125	125	125	126	126	124	124
5MQ	4000K Lumens	8,534	16,676	24,885	32,881	40,739	48,752	57,653	65,326	72,868	80,679
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	127	129	130	127	127	128	129	128	127	126
5WQ	4000K Lumens	8,556	16,723	24,951	32,968	40,847	48,881	57,808	65,499	73,063	80,894
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	128	130	131	128	128	128	129	128	127	126
SLL/ SLR	4000K Lumens	7,140	13,951	20,817	27,506	34,081	40,783	48,231	54,649	60,959	67,492
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	107	108	109	107	107	107	108	107	106	105
RW	4000K Lumens	8,304	16,228	24,215	31,994	39,641	47,437	56,100	63,566	70,907	78,504
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
AFL	4000K Lumens	8,335	16,287	24,302	32,110	39,784	47,610	56,303	63,796	71,163	78,790
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	125	126	125	124	123

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (1A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		59	113	166	225	279	333	391	445	501	558
Input Current @ 120V (A)		0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.60	5.07
Input Current @ 208V (A)		0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75
Input Current @ 240V (A)		0.26	0.48	0.71	0.96	1.19	0.41	1.67	1.89	2.12	2.39
Input Current @ 277V (A)		0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09
Input Current @ 347V (A)		0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68
Input Current @ 480V (A)		0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28
Optics											
T2	4000K Lumens	7,267	14,201	21,190	28,000	34,692	41,515	49,096	55,627	62,053	68,703
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	126	128	124	124	125	126	125	124	123
T2R	4000K Lumens	7,715	15,077	22,497	29,725	36,829	44,073	52,122	59,056	65,876	72,937
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	131	133	136	132	132	132	133	133	131	131
T3	4000K Lumens	7,408	14,475	21,598	28,539	35,358	42,313	50,039	56,698	63,246	70,024
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
T3R	4000K Lumens	7,571	14,798	22,078	29,172	36,145	43,253	51,153	57,959	64,653	71,581
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
T4FT	4000K Lumens	7,451	14,559	21,725	28,703	35,564	42,558	50,330	57,027	63,613	70,430
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	129	131	128	127	128	129	128	127	126
T4W	4000K Lumens	7,354	14,371	21,442	28,333	35,105	42,007	49,681	56,291	62,792	69,521
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	125	127	129	126	126	126	127	126	125	125
SL2	4000K Lumens	7,254	14,178	21,155	27,951	34,631	41,443	49,011	55,533	61,944	68,584
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	125	127	124	124	124	125	125	124	123
SL3	4000K Lumens	7,406	14,474	21,596	28,534	35,355	42,307	50,033	56,690	63,237	70,014
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
SL4	4000K Lumens	7,037	13,751	20,519	27,112	33,592	40,198	47,538	53,864	60,087	66,524
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	119	122	124	120	120	121	122	121	120	119
5NQ	4000K Lumens	7,640	14,928	22,275	29,431	36,465	43,637	51,606	58,472	65,226	72,218
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	129	132	134	131	131	131	132	131	130	129
5MQ	4000K Lumens	7,779	15,203	22,684	29,973	37,137	44,441	52,555	59,549	66,427	73,545
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	133	133	133	134	134	133	132
5WQ	4000K Lumens	7,800	15,243	22,744	30,052	37,236	44,560	52,697	59,708	66,603	73,742
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	134	133	134	135	134	133	132
SLL/ SLR	4000K Lumens	6,510	12,719	18,977	25,075	31,067	37,176	43,967	49,817	55,569	61,525
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	110	113	114	111	111	112	112	112	111	110
RW	4000K Lumens	7,570	14,793	22,073	29,165	36,137	43,243	51,140	57,945	64,637	71,564
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
AFL	4000K Lumens	7,598	14,847	22,154	29,272	36,267	43,400	51,326	58,156	64,872	71,824
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	129	131	133	130	130	130	131	131	129	129

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (800mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		44	85	124	171	210	249	295	334	374	419
Input Current @ 120V (A)		0.39	0.77	1.13	1.54	1.90	2.26	2.67	3.03	3.39	3.80
Input Current @ 208V (A)		0.22	0.44	0.62	0.88	1.06	1.24	1.50	1.68	1.87	2.12
Input Current @ 240V (A)		0.19	0.38	0.54	0.76	0.92	1.08	1.30	1.46	1.62	1.84
Input Current @ 277V (A)		0.17	0.36	0.47	0.72	0.83	0.95	1.19	1.31	1.42	1.67
Input Current @ 347V (A)		0.15	0.24	0.38	0.49	0.63	0.77	0.87	1.01	1.15	1.52
Input Current @ 480V (A)		0.11	0.18	0.29	0.37	0.48	0.59	0.66	0.77	0.88	0.96
Optics											
T2	4000K Lumens	5,871	11,474	17,121	22,622	28,029	33,542	39,667	44,944	50,134	55,508
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	135	134	135	134	132
T2R	4000K Lumens	6,233	12,181	18,176	24,016	29,756	35,608	42,111	47,714	53,224	58,929
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5
	Lumens per Watt	142	143	147	140	142	143	143	143	142	141
T3	4000K Lumens	5,986	11,695	17,450	23,057	28,568	34,186	40,430	45,809	51,099	56,576
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
T3R	4000K Lumens	6,117	11,955	17,838	23,569	29,203	34,946	41,328	46,827	52,235	57,832
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
T4FT	4000K Lumens	6,019	11,763	17,551	23,190	28,734	34,384	40,663	46,074	51,396	56,904
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	137	138	142	136	137	138	138	138	137	136
T4W	4000K Lumens	5,942	11,610	17,324	22,891	28,363	33,940	40,138	45,480	50,732	56,169
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	135	137	140	134	135	136	136	136	136	134
SL2	4000K Lumens	5,862	11,454	17,091	22,583	27,980	33,484	39,598	44,867	50,048	55,411
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	134	134	134	134	132
SL3	4000K Lumens	5,985	11,694	17,447	23,053	28,565	34,182	40,424	45,804	51,092	56,568
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
SL4	4000K Lumens	5,685	11,111	16,577	21,905	27,140	32,478	38,409	43,520	48,546	53,748
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	129	131	134	128	129	130	130	130	130	128
5NQ	4000K Lumens	6,172	12,061	17,997	23,778	29,462	35,256	41,694	47,242	52,699	58,347
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	140	142	145	139	140	142	141	141	141	139
5MQ	4000K Lumens	6,285	12,283	18,328	24,217	30,004	35,907	42,462	48,112	53,669	59,421
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	144	144	144	144	142
5WQ	4000K Lumens	6,303	12,317	18,377	24,281	30,085	36,001	42,575	48,241	53,812	59,579
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	145	144	144	144	142
SLL/ SLR	4000K Lumens	5,260	10,276	15,332	20,259	25,101	30,037	35,522	40,249	44,898	49,708
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	120	121	124	118	120	121	120	121	120	119
RW	4000K Lumens	6,116	11,952	17,834	23,563	29,196	34,938	41,317	46,817	52,224	57,819
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
AFL	4000K Lumens	6,139	11,996	17,899	23,650	29,302	35,064	41,468	46,987	52,412	58,030
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4
	Lumens per Watt	140	141	144	138	140	141	141	141	140	138

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (600mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		34	66	96	129	162	193	226	257	290	323
Input Current @ 120V (A)		0.30	0.58	0.86	1.16	1.44	1.73	2.03	2.33	2.59	2.89
Input Current @ 208V (A)		0.17	0.34	0.49	0.65	0.84	0.99	1.14	1.30	1.48	1.63
Input Current @ 240V (A)		0.15	0.30	0.43	0.56	0.74	0.87	1.00	1.13	1.30	1.43
Input Current @ 277V (A)		0.14	0.28	0.41	0.52	0.69	0.81	0.93	1.04	1.22	1.33
Input Current @ 347V (A)		0.11	0.19	0.30	0.39	0.49	0.60	0.69	0.77	0.90	0.99
Input Current @ 480V (A)		0.08	0.15	0.24	0.30	0.38	0.48	0.53	0.59	0.71	0.77
Optics											
T2	4000K Lumens	4,787	9,357	13,961	18,448	22,856	27,353	32,347	36,651	40,884	45,265
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	141	142	145	143	141	142	143	143	141	140
T2R	4000K Lumens	5,083	9,934	14,822	19,585	24,266	29,038	34,341	38,911	43,404	48,055
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	150	151	154	152	150	150	152	151	150	149
T3	4000K Lumens	4,880	9,537	14,231	18,803	23,296	27,878	32,970	37,358	41,671	46,137
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	148	146	144	144	146	145	144	143
T3R	4000K Lumens	4,988	9,749	14,547	19,220	23,814	28,497	33,703	38,188	42,598	47,162
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	147	148	152	149	147	148	149	149	147	146
T4FT	4000K Lumens	4,909	9,591	14,312	18,911	23,432	28,040	33,161	37,574	41,913	46,404
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	149	147	145	145	147	146	145	144
T4W	4000K Lumens	4,845	9,468	14,128	18,668	23,130	27,678	32,732	37,088	41,371	45,805
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	143	143	147	145	143	143	145	144	143	142
SL2	4000K Lumens	4,779	9,341	13,937	18,416	22,818	27,305	32,292	36,589	40,813	45,188
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	141	142	145	143	141	141	143	142	141	140
SL3	4000K Lumens	4,879	9,536	14,229	18,800	23,294	27,874	32,965	37,351	41,666	46,130
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	144	144	148	146	144	144	146	145	144	143
SL4	4000K Lumens	4,637	9,059	13,519	17,863	22,132	26,486	31,322	35,490	39,589	43,831
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	136	137	141	138	137	137	139	138	137	136
5NQ	4000K Lumens	5,033	9,835	14,676	19,392	24,026	28,751	34,002	38,526	42,975	47,581
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	148	149	153	150	148	149	150	150	148	147
5MQ	4000K Lumens	5,126	10,015	14,946	19,747	24,468	29,281	34,628	39,236	43,766	48,457
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	151	152	156	153	151	152	153	153	151	150
5WQ	4000K Lumens	5,139	10,043	14,985	19,801	24,533	29,359	34,721	39,339	43,883	48,586
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	151	152	156	153	151	152	154	153	151	150
SLL/ SLR	4000K Lumens	4,289	8,380	12,502	16,520	20,469	24,494	28,967	32,823	36,613	40,537
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	126	127	130	128	126	127	128	128	126	126
RW	4000K Lumens	4,987	9,746	14,543	19,215	23,808	28,491	33,695	38,178	42,587	47,151
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	147	148	151	149	147	148	149	149	147	146
AFL	4000K Lumens	5,007	9,782	14,597	19,285	23,896	28,594	33,817	38,317	42,742	47,322
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	Lumens per Watt	147	148	152	149	148	148	150	149	147	147

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

Control Options

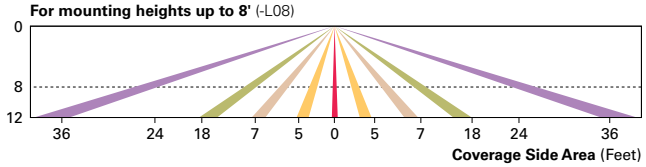
0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR and PR7)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

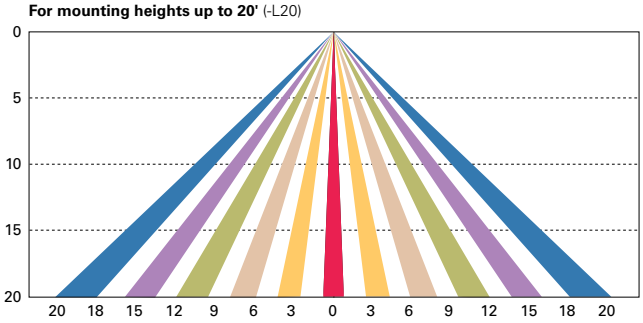
For mounting heights up to 8' (-L08)



For mounting heights up to 40' (-L40W)

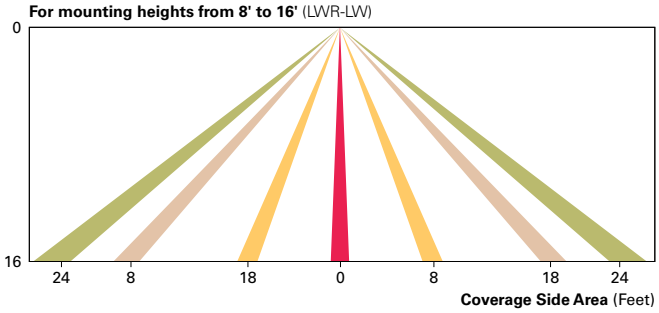


For mounting heights up to 20' (-L20)

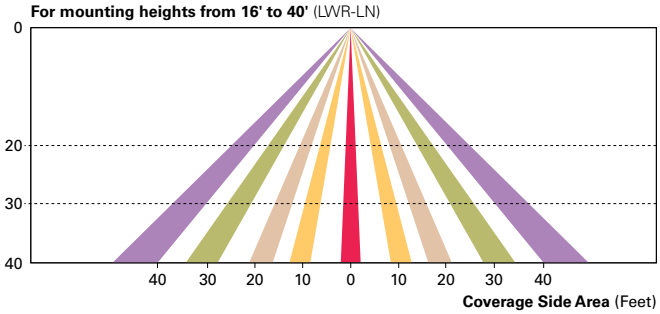


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)
The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

LumenSafe Integrated Network Security Camera (LD)
Cooper Lighting Solutions brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows security integrators to design the optimal solution for active surveillance. As the ideal solution to meet the needs for active surveillance, the LumenSafe integrated network camera is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. This IP camera is optimally designed for deployment in the video management system or security software platform of choice.

Synapse (DIM10)
SimplySNAP integrated wireless controls system by Synapse. Includes factory installed DIM10 Synapse control module and MS/DC motion sensor; requires additional Synapse system components for operation. Contact Synapse at www.synapsewireless.com for product support, warranty and terms and conditions.

Attachment: SP-2022-02 drawings 051922 (25490 : Sp-2022-02)

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Specifications and dimensions
subject to change without notice.

Legend

Abbreviations

Ex = Existing
E = East
N = North
W = West
S = South
R.O.W. = Right of Way
A.K.A. = also known as
EM Electric Meter
Well Monitoring Well
ELHH Electric Hand Hole
Deciduous Tree
Bush
Coniferous Tree
Electric Manhole
Signal Pole
Cable Manhole
Water Manhole
Traffic Manhole
Large Rock

Symbols

Sanitary Manhole
CO Cleanout
CB Catch Basin
DI Drain Inlet
SM Storm Manhole
YD Yard Drain
CA Cable TV
ER Electric Riser
PP Power Pole
GA Guy Wire Anchor
TR Telephone Riser
FH Fire Hydrant
WV Water Valve
WSV Water Service Valve
GM Gas Line Marker
GV Gas Valve
GSV Gas Service Valve
Sign
MB Mailbox
MP Metal Post
Mon Concrete R.O.W. Monument
LS Light Standard
TM Telephone Manhole
Bollard
ICV Irrigation Control Valve
TR Traffic Control Box

Line Styles

ST Sanitary Sewer
SA Storm Sewer
W Water Line
G Gas Line
T Telephone Wires or Cables
E Electric Wires or Cables
OH Overhead Wires
100 Contour Line
Centerline of Ditch
Crown of Pavement
Centerline of Road
Right of Way Line
Building Setback Line
Easement Line
Property Line
UE Underground Electric
Point Stripe
Former Boundary Parcel Line
UFC Underground Cable TV
UFO Underground Fiber Optic

NBMS 50349
Cap Detail

Notes:

1) North as Shown on this Map is True North at 78°35' Meridian of West Longitude, as based on the New York State Plane Coordinate System NAD 83/92 HARN, West Zone 3103, as established from Town of Amherst Monuments 11.
N.1077943.37
E.1098312.30

2) Elevations as shown on this Map are based on NAVD 88, as established from Town of Amherst Monuments 11. Elevation = 679.31'

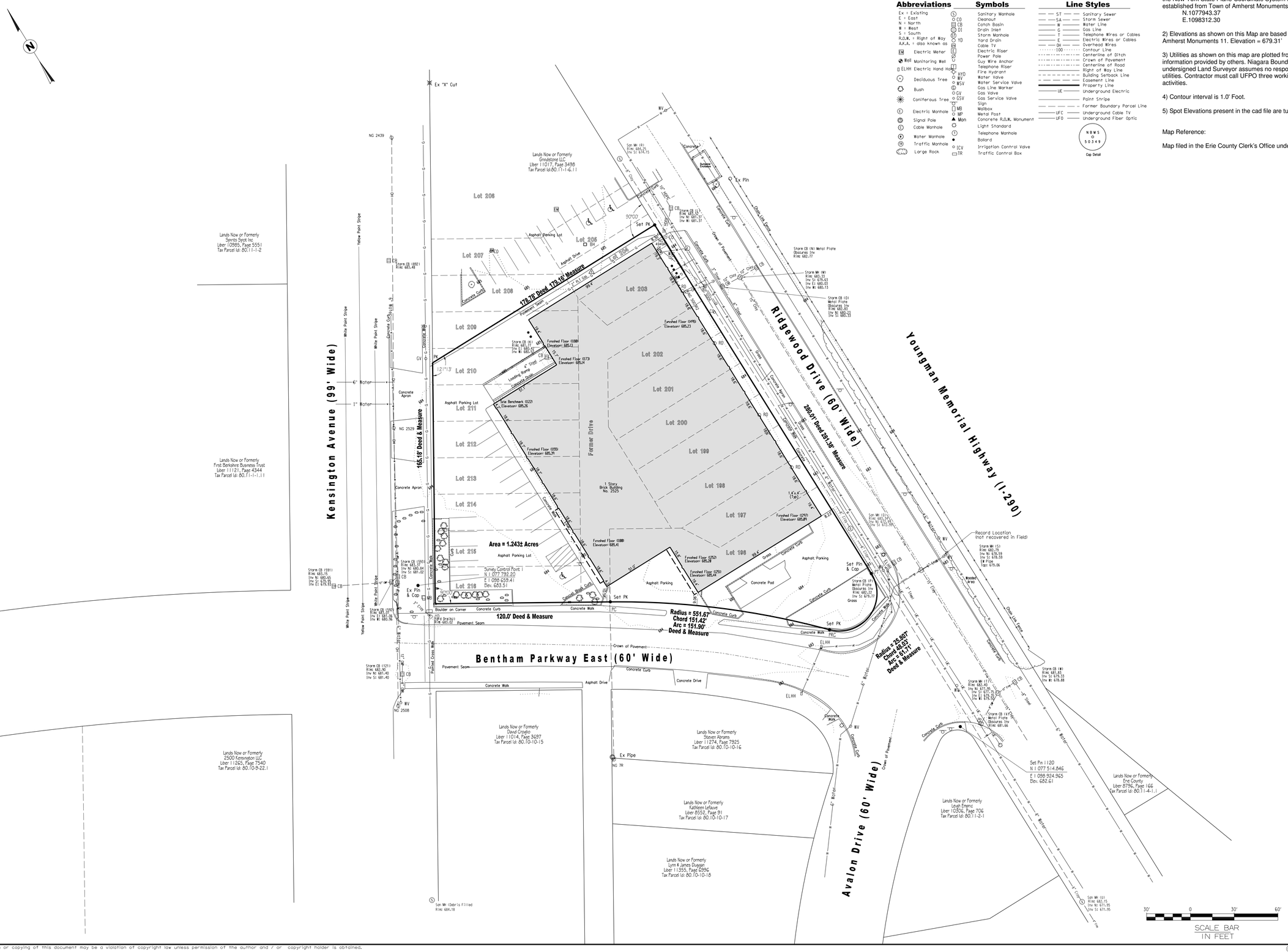
3) Utilities as shown on this map are plotted from field locations of visble structures and information provided by others. Niagara Boundary & Mapping Services, along with the undersigned Land Surveyor assumes no responsibility as to the accuracy of underground utilities. Contractor must call UFPO three working days prior to any excavation construction activities.

4) Contour interval is 1.0' Foot.

5) Spot Elevations present in the cad file are turned off for clarity.

Map Reference:

Map filed in the Erie County Clerk's Office under Cover 1374



Niagara Boundary
And Mapping Services
PO Box 1120
Lewiston, NY 14092
(716) 297-9584
E-Mail:
lee@niagaraboundary.com

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE AND IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED BY AN EXAMINATION OF SUCH.

Map Showing Boundary & Topographic Survey of Property Owned by

Philipps Bros Realty Company LLC

Deed Reference: Liber 11117, Page 3180
Tax ID: 80.11-1-8.2

LOT	SECTION	TOWNSHIP	RANGE
28		12	7

Town	Amherst
COUNTY	Erie
STATE	New York
DATE	June 11, 2021
SCALE	1" = 20'
JOB NO.	11187-21
RESURVEYED	
⚠	Show Field Marked Gas Line 10-1-21

"ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."

THIS SURVEY WAS PREPARED FOR THE PARTIES AND PURPOSE INDICATED HEREON. ANY EXTENSION OF THE USE BEYOND THE PARTIES OR PURPOSE INDICATED IS EXPRESSLY FORBIDDEN WITHOUT WRITTEN RELEASE OR PERMISSION OF THE UNDERSIGNED.

USE OF THIS SURVEY IN CONJUCTION WITH AN AFFIDAVIT OF NO CHANGE IS FORBIDDEN

Kenneth L. Slaugenhoupt Lic. No. 50349

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FILE: Z:\Projects\Nbsvr01\IZ\WARCHIVE_PROJECTS\BNBMS 11100-11199\11187 2525 Kensington Ave\11187 September 2021.dgn

Attachment: SP-2022-02 drawings 051922 (2549 : Sp-2022-02)

DRAFT
(05/19/2022)

SEQR
Negative Declaration

NOTICE OF DETERMINATION OF NON-SIGNIFICANCE

Lead Agency: Town of Amherst Planning Board

Project: SP-2022-02

Address: 5583 Main Street
Williamsville, NY 14221
(716) 631-7051

Date:

This notice is issued pursuant to Part 617 and Local Law #3-82, as amended, of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law.

The Lead Agency has determined that the proposed action described below will not have a significant adverse effect on the environment.

Title of Action: Site Plan Review – SP-2022-02

SEQR Status: Unlisted

Description of Action: Proposed conversion of a portion of the existing 29,350 s.f. Philips Bros. retail/warehouse building for the Shatkin School of Dentistry at Daemen University (16,253 s.f..). Project includes an approximately 4,000 s.f. second floor addition, as well as redevelopment of Ridgewood Drive for private parking under a license agreement with the Town. Work will include the site improvements not specifically stated above, including, stormwater, utilities, grading, lighting, paving, and landscaping.

Location: 2525 Kensington Avenue, Amherst, Erie County

Petitioner: Philipps Brothers Supply Inc.

Attachment: SP-2022-02_draft neg dec_051922 (25490 : Sp-2022-02)

Reasons Supporting This Determination

Based on information submitted by the applicant including a Full Environmental Assessment Form (EAF) - Part I, (as amended) and a complete site plan application, a preliminary staff analysis was undertaken. Compared to the criteria listed in Section 617.7, all indications are that this action will not have a significant impact on the environment, as follows:

1. The project is not expected to cause a substantial adverse change in existing air quality, ground or surface water quality or quantity, or noise levels; a substantial increase in solid waste production; or a substantial increase in the potential for erosion, flooding, leaching or drainage problems. The Engineering Department on April 6, 2022 & April 28, 2022 reviewed the: Grading, Drainage and Utility Plans submitted on March 30, 2022 & April 25, 2022; Engineer's Report submitted on February 22, 2022; Erosion Control Plan submitted on March 30, 2022 and Geotechnical Report prepared by Barron & Associates, P.C. submitted on February 22, 2022.

2. The project will not result in the removal or destruction of large quantities of vegetation or fauna; or in significant adverse impacts to fish or wildlife species, habitats or other natural resources. The Planning Department reviewed a Landscape Plan submitted on March 30, 2022 & April 25, 2022 and determined that it meets or exceeds Zoning Ordinance requirements for greenspace. The Landscape Plan has or will have met all Zoning Ordinance and Town requirements for landscaping.

3. The project is not expected to create any material conflict with the Town Comprehensive Plan. The Building Department in their review of March 22, 2022 and the Planning Department in their review of April 1, 2022 has reviewed the application documents, along with the Geotechnical Report submitted on February 22, 2022 and determined in their review of March 22, 2022 that the subject project has or will have met all International Building Code - 2018 and Zoning Ordinance regulations.

4. The project is within an area identified by the State as having potential archaeological or historical significance. However, the site has been previously disturbed, therefore, the project will not impair the character or quality of important historical resources.

5. The project will not impair the character or quality of important aesthetic resources or of existing community or neighborhood character. The project is located in the General Business (GB) zoning district; neighboring uses are commercial, office and residential and zoned for commercial and residential use; therefore, the project is consistent with surrounding land use.

6. The proposed subject development will include a second floor addition for the continuation of the retail/warehouse use and dental school which will not cause a major change in the use of either the quantity or type of energy.

Attachment: SP-2022-02_draft neg dec_051922 (25490 : Sp-2022-02)

7. The project will not create any hazard to human health. The Fire Chief's Association on March 16, 2022 & May 3, 2022 has reviewed the project and has no objection to the approval of the site plan, as all requirements of this agency has or will have been met.

8. The project will not cause a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses as the approximate 4,400 s.f. (15%) increase in floor area will be consistent with the scale of surrounding land uses.

9. The proposed dental school may increase the number of people using the site over its previous level of use, this increase is not anticipated to result in a significant impact.

10. Review by the Town Traffic/Safety Board dated April 6, 2022 indicate/indicates that significant negative traffic impacts are not expected to result from the proposed project. The Erie County Division of Highways is requesting that the applicant prepare a signal warrant analysis to determine if a traffic signal may be necessary at Bentham Parkway East.

11. A coordinated review of the project has been undertaken by Town Departments including, in addition to those mentioned above, Highway on April 7, 2022 & May 4, 2022, Assessor on March 23, 2022, Plumbing Division on March 9, 2022, and Right-of-Way Agent on March 31, 2022. These reviews did not identify any potential significant adverse environmental issues and indicated that the proposal will not have a significant damaging impact on the environment.

12. Issues not specifically mentioned above and/or those not specifically reviewed were not raised by Town departments, outside agencies or the public and are not determined to cause significant negative environmental impacts.

Planning Board Approval
Moved by: ; Seconded by: Ayes; Noes Absent

_____ _____
signature & title of preparer Date

_____ _____
Robert J. Gilmour, Planning Board Chair Date

Attachment: SP-2022-02_draft neg dec_051922 (25490 : Sp-2022-02)

GP/bf
X:\Current_Planning\Files\Site Plans\2022\SP-2022-02_(2525_Kensington_Ave)_2022\SP-2022-02_draft neg dec_051922.doc
cc: Commissioner of Building
Town Engineer
Fire Chiefs'
Highway
Traffic/Safety
ECDEP
NYSDEC (type 1's)
NYSDOT (if on state hwy.)
Joseph Molek, Stieglitz Snyder, 425 Franklin St., Buffalo, NY 14202
Philipps Bros. Supply Inc., 2525 Kensington Ave., Amherst, NY 14226
Andrew V. Marino, Tredo Engineers, 755 Seneca Street, Ste. 202, Buffalo, NY 14210

Attachment: SP-2022-02_draft neg dec_051922 (25490 : Sp-2022-02)

DRAFT (5/19/22)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-02

PETITIONER

Philipps Bros. Supply Inc.
2525 Kensington Avenue
Amherst, NY 14226

PROPERTY LOCATION

2525 Kensington Avenue

WHEREAS, the Town of Amherst Planning Board on Thursday, May 19, 2022 held a public hearing on a Site Plan for a building addition and parking expansion (Philipps Bros./Shatkin School of Dentistry, and

WHEREAS, the Planning Board reviewed the plans and specifications for the proposed project, and

WHEREAS, the Site Plan was referred to the Town's various review agencies, and

WHEREAS, in accordance with Section 8-7-9 of the Zoning Ordinance, the Planning Board finds that:

A. The proposed site plan is consistent with the development plan if one is required.

B. The proposed site plan is consistent with the purpose and specific requirements of the Zoning Ordinance and generally consistent with the policies of the Comprehensive Plan.

C. Adequate services and utilities will be available prior to occupancy.

D. The site plan is consistent with all other applicable laws.

E. Pursuant to Local Law #3-82, as amended, the Planning Board has determined that the requirements of SEQR are complete and that the subject proposal is not expected to have a significant adverse effect on the environment.

F. Review by the US Army Corps of Engineers under Section 404 of the Clean Water Act may be waived because the parcel is developed.

NOW THEREFORE BE IT RESOLVED that in accordance with 6 NYCRR, Part 617 and Local Law #3-82, as amended, the Planning Board has issued a Negative Declaration attached hereto, and

BE IT FURTHER RESOLOVED that the Planning Board, in accordance with Part II, Chapter 83, Part IX, Section 1-2 of Town Law waives sidewalks required along Ridgewood Drive until required at some future time by the Town Board, and

Attachment: SP-2022-02_draft resolution_051922 (25490 : Sp-2022-02)

DRAFT (5/19/22)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-02

PETITIONER	PROPERTY LOCATION
Philipps Bros. Supply Inc.	2525 Kensington Avenue

BE IT FURTHER RESOLVED that the Planning Board, in accordance with Section 8-7 of the Zoning Ordinance approves said Site Plan subject to the following conditions:

1. That the comments of the Zoning Enforcement Officer (ZEO) in the letter dated April 1, 2022 be addressed to the ZEO's satisfaction.

2. The requirements of §203-4-4-2 B of the Town Code are met for the proposed canopy or otherwise varied by the Town Zoning Board of Appeals as permitted by §203-9-3-2 of Town Code a minimum of 8.23 feet.

3. That the comments of the Planning Department in their letter dated April 1, 2022 be addressed to the Department's satisfaction.

4. That the comments of the Fire Chiefs' Association in their letter dated May 3, 2022 be addressed to their satisfaction.

5. That the comments of the Traffic Safety Board in their letter of May 5, 2022 be addressed to their satisfaction.

6. That a License Agreement/Land Lease regarding the use and improvement of Ridgewood Drive for private parking be approved by the Town Attorney and Highway superintendent.

7. That the consideration of signs is specifically excluded from this approval as they require a separate review and approval by the Town.

8. That all dumpsters/trash containers and all mechanical equipment, utility structures, multiple meter boards, generators, and similar appurtenances, including those which are mounted on any part of a primary structure shall be appropriately screened with a fence, wall, and/or landscaping. Provide gate on dumpster enclosure that shall be closed whenever dumpster is not being serviced, enclosure shall be high enough to screen the dumpster(s) within.

9. That as-built record drawings, including location of utilities, be provided to the Engineering Department prior to issuance of a Certificate of Occupancy by the Building Department.

Attachment: SP-2022-02_draft resolution_051922 (25490 : Sp-2022-02)

DRAFT (5/19/22)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-02

PETITIONER	PROPERTY LOCATION
Philipps Bros. Supply Inc.	2525 Kensington Avenue

The foregoing resolution was adopted by the Town of Amherst Planning Board, _____; moved by - _____; seconded by - _____; ayes _, noes _; absent - ____.

_____ _____
Robert J. Gilmour, Chair Date

SM/GP/bf
X:\Current_Planning\Files\Site Plans\2022\SP-2022-02_(2525_Kensington_Ave)_2022\SP-2022-02_draft resolution_051922.doc
cc: Commissioner of Building
Town Engineer
Fire Chiefs
Traffic/Safety
Highway Superintendent
ECDEP
NYSDOT
NYSDEC
Joseph Molek, Stieglitz Snyder, 425 Franklin St., Buffalo, NY 14202
Philipps Bros. Supply Inc., 2525 Kensington Ave., Amherst, NY 14226
Andrew V. Marino, Tredo Engineers, 755 Seneca Street, Ste. 202, Buffalo, NY 14210

Approved Plan: _____
Received: _____

Attachment: SP-2022-02_draft resolution_051922 (25490 : Sp-2022-02)

Amherst

Town of Amherst Planning Department *Erie County, New York*

Brian J. Kulpa
Supervisor
Daniel C. Howard, AICP
Planning Director
Daniel J. Ulatowski, AICP
Assistant Planning Director

May 26, 2022

Philipps Bros. Supply Inc.
2525 Kensington Ave.
Amherst, NY 14226

SUBJECT: MAJOR SITE PLAN REVIEW, **SP-2022-02**; PROPOSED PHILIPPS BROS./SHATKIN SCHOOL OF DENTISTRY AND PARKING EXPANSION; PROPERTY LOCATED AT **2525 KENSINGTON AVENUE**.

Dear Sir/Madam:

At its meeting of May 19, 2022 the Planning Board voted to **adjourn** the subject site plan at your request until additional materials addressing parking, signal warrant analysis and receipt of revised plans.

This request will be placed on the next available Planning Board agenda once these materials are received by this Department.

Please submit revised plans or required materials at your convenience so they may be reviewed prior to being placed on a Planning Board agenda.

Should you have any questions regarding the Planning Board's decision, please do not hesitate to call us.

Very truly yours,

Daniel C. Howard, AICP
Planning Director

DH/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-02_(2525_Kensington_Ave)_2022\SP-2022-02_Adjournment Letter_051922.doc
cc: Joseph Molek, Stieglitz Snyder, 425 Franklin St., Buffalo, NY 14202
Andrew V. Marino, Tredo Engineers, 755 Seneca Street, Ste. 202, Buffalo, NY 14210

Attachment: SP-2022-02_adjourned_051922 (25490 : Sp-2022-02)

TOWN OF AMHERST

APPLICATION & REVIEW PROCEDURE

MAJOR SITE PLAN

MATERIALS MUST BE PROVIDED IN AN ELECTRONIC FORMAT THAT CONTAINS PDF FILES OF THE APPLICATION, EAF, SITE PLAN DRAWING SET SURVEY, LANDSCAPE PLAN, PRELIMINARY BUILDING FLOO PLANS / ELEVATIONS & ANY OTHER SUPPORTING INFORMATION. THIS MUST BE SUBMITTED WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE TRANSMITTED WITHOUT THIS ELECTRONIC INFORMATION.

THIS ALSO APPLIES TO REVISED MATERIALS THAT AR SUBMITTED.

This application package includes the following:

- Application Procedures
- Application Form & Checklist
- Stormwater Pollution Prevention Plan Checklist
- Appendix A Town of Amherst EAF Addendum
- Appendix B Criteria for Required 8½" x 11" Sketches
- Appendix C Erie Sewer District No. 5 – Commercial / Industrial New & Existing Buildings Requirements

- IMPORTANT-

1. A pre-submittal consultation with Planning Department staff is *strongly recommended* prior to submitting an application. The pre-submittal meeting gives the applicant an opportunity to discuss with staff such items as:
   - classifying the action as a major site plan, minor site plan, or minor site plan adjustment;
   - determining what specific information will be required to be submitted with the application;
   - identifying and discussing issues that must be addressed as part of the SEQR review;
   - identifying any potential variances required to implement the project as proposed.

   An appointment is required for all meetings with Planning Department staff.

2. This site plan petition is subject to the requirements of 6 NYCRR Part 617, State Environmental Quality Review Act (SEQR), and Chapter 104 of the Town of Amherst Code, as amended. The Planning Board cannot make a SEQR determination unless a complete Environmental Assessment Form (EAF), including Town of Amherst EAF Addendum, and any required supplementary information such as traffic impact studies, archaeological reports, wetland delineations or geotechnical reports, are submitted. SEQR issues may be discussed with Planning Department staff at a recommended pre-submittal meeting. Unlisted Actions require a Short EAF; Type I Actions require a Full EAF. The following is a link to the NYSDEC website and fillable forms with instructions*:*
   http://www.dec.ny.gov/permits/6191.html.

3. **Review by the Town Design Advisory Board (DAB) is required for Major Site Plans located in the following Mixed-Use zoning districts:**

   Traditional Infill 2.5 (TI-2.5)
   Traditional Infill 4 (TI-4)
   Shallow Corridor 3 (SC-3)
   Deep Corridor 3 (DC-3)
   Deep Corridor 5 (DC-5)
   Center 2.5 (CTR-2.5)
   Center 5 (CTR-5)
   Center 8 (CTR-8)

   The application for DAB review is required to be filed in conjunction with the major site plan application.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

4. The application shall be executed or consented to in writing by the owner of the property.

5. **Any variances from the Zoning Board of Appeals, or any decision from the Town Board (e.g. removal of deed restrictions) must be obtained prior to action by the Planning Board on a Site Plan application.**

6. Submittal of an application grants permission to Town staff and Planning Board members to access the parcel(s) under consideration.

7. All site plan drawings must be prepared by a Registered Architect, Professional Engineer, Landscape Architect, or Land Surveyor (as applicable) licensed to practice in New York State.

8. If you wish to include a Coordinated Sign Plan application with the site plan petition, a separate application must be completed. Contact the Planning Department for a copy of a Coordinated Sign Plan application package.

9. All drawings should be no larger than 24 in. x 36 in. If site characteristics warrant larger plan sheets, they may be accepted subject to Planning Department concurrence. All drawings must also reserve a 4 in. x 6 in. area in the lower right hand corner for official Town use.

APPLICATION PROCEDURES

1. Applicant secures application package from the Planning Department, 5583 Main Street, Williamsville, NY 14221. (716) 631-7051. Forms are also available online at: www.amherst.ny.us, (keyword: Planning).

2. Applicant prepares information as required on the Site Plan Submittal Checklist, attached. NOTE: Some proposals may not require all items on the checklist; please verify with the Planning Department.

3. Applicant schedules an appointment with the Planning Department to review the following:
   - a complete set of site plan drawings, preliminary building elevations and floor plans (no larger than 24" x 36" in size)
   - Environmental Assessment Form (EAF) & Town EAF Addendum
   - any supporting reports and materials
   - verification from the Town Assessor that the address in the application is correct

4. Applicant schedules an application submittal appointment with the Planning Department. NO SITE PLAN WILL BE ACCEPTED FOR REVIEW WITHOUT A PRE-SET SUBMITTAL APPOINTMENT.

5. At the submittal appointment, applicant provides fourteen (14) complete and collated sets of drawings and application information to the Planning Department **(materials will not be accepted unless folded into 9" x 12" in size),** including**:**
   - application form
   - Environmental Assessment Form (EAF)
   - supporting reports / materials
   - complete set of site plan drawings, preliminary building elevations and floor plans (**at least one (1) set of drawings must bear a raised or wet seal and signature of the design professional** who prepared the plans; the remaining copies may be submitted with a facsimile of the seal and signature)
   - digital files of all materials in pdf format
   - an 8½" x 11" reduction of the sketch plan or plat drawing (see Appendix B)

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

6. After approval for filing by the Planning Department, applicant submits all necessary fees to the Town Clerk. **(See Schedule of Fees on first page of application and make checks payable to: Town of Amherst.)**

7. The applicant returns a copy of the filing receipt to the Planning Department.

8. The Planning Department transmits remaining thirteen (13) copies of the application and supporting materials to:
   - Assessor
   - Commissioner of Building
   - Town Engineer
   - Superintendent of Highways
   - Traffic/Safety Board
   - Fire Chiefs' Association
   - Plumbing Division
   - Right-of-Way Agent
   - Police Department (if applicable)
   - Zoning Enforcement Officer
   - Other Town and outside agencies, as applicable

9. Within 30 days of its receipt of the complete application for Site Plan approval, each agency completes its review and notifies the Planning Department in writing of its comments or recommendations as required by Ordinance.

10. The applicant may be required to submit revised plans, reports, or materials to address review agency comments. The procedures for submittal of revised plans are as follows:

    - A cover letter addressing all comments received to date is required.
    - "Highlight" the area of change on the drawings and provide a notation describing the change.
    - Revised plans/materials are required. Planning staff should be contacted to determine the number of sets needed.
    - All revised plans and materials must also be provided in an electronic format that contains pdf files of the revised information.

11. The Planning Board reviews the EAF to determine whether a Draft Environmental Impact Statement (DEIS) is required. The petitioner will be advised in the event that a DEIS is required and afforded the opportunity to prepare it. If the petitioner declines, the Planning Board will prepare the DEIS at the petitioner's expense. The public hearing will be held on the DEIS concurrently with the Planning Board hearing on the application.

12. Planning Board Meeting Procedures:

    The applicant or representative presents the project at the public hearing before the Planning Board and is available to answer any questions. The Planning Board may take any of the following actions:

    - Adjourn the hearing to a future Planning Board meeting (hearing remains open).
    - Close the hearing and table action on the site plan to a future Planning Board meeting. (The Planning Board may remove the item from the agenda until such time as all required information is provided.)
    - Close the hearing and make a decision on the site plan.

    All determinations on matters before the Planning Board are made after all public hearings on that meeting's agenda are completed.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

13. A copy of the Planning Board's determination will be provided to the applicant, his / her representative, the Building Commissioner and the Town Clerk approximately 1 week following the Planning Board meeting at which it was heard.

14. If the Planning Board approves a Site Plan with conditions, the Planning Department will work with the applicant to ensure that all conditions of the approval are satisfactorily addressed. When all conditions are satisfied, the applicant submits **seven (7) final copies** of the complete set of all site plan drawings, folded into 9" x 12". For site plans in the Mixed-Use zoning districts, building elevations will also be required.

    All 7 sets must have original wet seals and include the required 4 in. x 6 in area in the lower right hand corner for official Town use. These drawings will be stamped and signed "Approved" by the Planning Director and transmitted to Town Departments for their files and use.

15. A building permit will not be issued by the Building Department until the stamped and signed Site Plan is issued by the Planning Director.

NOTE: Please check with the Planning Department to determine the deadline date for filing applications. Due to the public hearing notice requirements and department reviews, no site plan application will be placed on the Planning Board agenda after the deadline for filing has closed. Scheduling may be delayed if an application is incomplete.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Major Site Plan Review

For Official Use

File #: _____ **Acreage** _____ **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Received by Planning Department _____ RECEIVED BY DATE

Fee Paid to Town Clerk _____ RECEIVED BY DATE

Site Plan Review		**Fill In Applicable Fees**
1 acre or less	$1,250.00	_____
Each additional acre or fraction thereof	$ 650.00/acre	_____
Amendments to Site Plans	$1,200.00	_____
Request for Relief of / Change to Conditions of Site Plan Approval	$1,200.00	_____
Request for Extension of Site Plan Approval	$ 450.00	_____
Stormwater Pollution Prevention Plan		
1 - 4.99 Acres	$ 500.00	_____
5 - 10 Acres	$ 750.00	_____
>10 Acres	$1,000.00	_____
Affidavit Fee for Public Hearing	$ 15.00	_____
	TOTAL FEE:	**$**_____

To Be Completed By Applicant

Petitioner:

Name: Philipps Bros Supply Inc.

Address: 2525 Kensington Ave

Amherst (city) NY (state) 14226 (zip code)

Phone: 716-839-4800 Fax: 716-839-4051

E Mail: pphilipps@philippsbros.com

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

MAJOR SITE PLAN APPLICATION (con't) ***Page 2***

Representative (Architect, Engineer, Landscape Architect, Surveyor, or Attorney)**:**

Name: Joseph Molek

Address: 425 Franklin Street

Buffalo (city) NY (state) 14202 (zip code)

Phone: 716 - 222-3752 Fax: _____

E Mail: jmolek@stieglitzsnyder.com

Project Location (must be verified by Town Assessor's Office)**:**

Address: 2525 KENSINGTON AVE

SBL No(s): *Deed Reference: Liber 11117, Page 3180*
Tax ID: 80.11-1-6.2

Project Name: SHATKIN SCHOOL OF DENTISTRY AT DAEMEN COLLEGE / IMIT

Project Description:

MULTI-TENANT BUILD-OUT AND PARKING LOT EXPANSION ONTO RIDGEWOOD DRIVE

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

If this petition is an amendment to a previously approved site plan, please describe the proposed changes (include type and size of existing structures and number of existing parking spaces):

	existing	proposed	total
Gross Floor Area (non-residential):	29,350	4,400	33,750
Gross Floor Area Residential:			
Number of Residential Units:			
Number of Parking Spaces:	26	46	72

Acreage of Parcel: 1.24 AC

(list each parcel separately)

Frontage on Public Roads: 165.18'+333.61'+280.01'=778.8'

(list each road separately)

Existing Zoning District(s) GB - GENERAL BUSINESS

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Site Plan Submittal Requirements and Checklist

The following checklist outlines the information required by the Planning Department to accept a Site Plan application for review. ***It is strongly recommended that you make an appointment with Planning Staff to determine which items apply to your application***.

Item No.	Item	Submitted	Official use
I Basic Drawing Information			
1.0	**Drawing size not to exceed 24" x 36"**		
2.0	**Title of Drawing**		
3.0	**Name and address of Applicant**		
4.0	**Name of person preparing drawing**		
5.0	**Wet seal/raised seal and signature of NYS licensed architect, engineer, landscape architect, or surveyor (as applicable)**		
6.0	**Project address**		
7.0	**Zoning of subject property and adjacent parcels**		
8.0	**North point, scale, date, and revision date(s)**		
9.0	**4" x 6" reserved area in lower right hand corner for official Town use**		
II Structures, Paved Areas, & Open Space			
1.0	**Existing and Proposed Streets**		
1.1	Names of all existing and proposed streets		
1.2	Width and radii of proposed curb-cuts		
1.3	Existing curb-cuts on adjacent and opposite properties		
1.4	Show ROW width, pavement dimensions, lane widths, pavement markings, and proposed signage on proposed streets		
1.5	Show proposed ROW consistent with planned NYSDOT, Erie County, or Town road projects (if applicable)		
1.6	Show location of proposed cross access to adjacent parcels along with a draft easement		
1.7	Designation of Fire Lanes (if applicable)		
1.8	Fire apparatus access roads		
1.9	Label any proposed roads as public or private		
1.10	Location and dimensions of sidewalks		
1.11	Typical cross sections and profiles of proposed streets, pedestrian walkways, and bikeways		
2.0	**Proposed Structures**		
2.1	Location and complete dimensions of proposed structures		
2.2	Setback dimensions of structure(s) to all property lines		
2.3	Proposed use of structures		
2.4	Gross square feet area of each structure		
2.5	Location of all building entrances		
2.6	Indicate type of roof construction/materials		
2.7	Location, height, and design detail of existing and proposed fences and walls		
2.8	Location of light standards and building mounted lights		
2.9	Location of dumpster and detail of dumpster enclosure with gate		
2.10	Layout and dimensions of the lot(s) proposed for development		

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.	Item	Submitted	Official use
II Structures, Paved Areas, & Open Space (cont'd)			
3.0	**Floor Plans with individual rooms and spaces labeled** (fully dimensioned)		
4.0	**Building elevations with height dimensions from finished grade to the highest point of the roof and to midpoint of gable or hip of a pitched roof.** (fully dimensioned)		
4.1	Show screening of mechanical equipment		
5.0	**Parking/Loading/Stacking Areas**		
5.1	Location and complete dimensions of all paved areas		
5.2	Setback dimensions of all paved areas to property lines		
5.3	Dimension of typical parking space and drive aisles		
5.4	Location and layout of handicapped parking spaces & access aisles		
5.5	Detail of vertical signage for handicapped parking and access aisles		
5.6	Indicate minimum parking requirement & number of spaces provided		
5.7	Proposed signage for directing and guiding traffic		
5.8	Curb cut permits from NYS, Erie County, or Town (if applicable)		
5.9	Pedestrian connections (from proposed structures to public sidewalk network)		
6.0	**Location and proposed development of all open spaces, including parks, playgrounds, and open reservations**		
III Utilities and Drainage			
1.0	**Engineers Report** (bound separately from the Stormwater Pollution Prevention Plan [SWPPP])		
1.1	Stamped/sealed and signed by NYS licensed architect or professional engineer		
1.2	Proposed water service sizing, RPZ pressure and fire safety flow and pressure calculations		
1.3	Proposed sanitary sewer facility load calculations (avg. & peak flows) including calculation of the peaking factor		
1.4	Proposed storm drainage facility calculations (see information included with this application)		
2.0	**Grading Plan**		
2.1	Existing and proposed grades indicated (proposed grades may not exceed 1 on 3)		
3.0	**Water Service**		
3.1	Location, size and material of existing and proposed facilities		
3.2	Location of existing and proposed fire hydrant location(s)		
3.3	Indicate use of sprinklers, location of Fire Department connection, and proposed fire protection systems		
3.4	Existing and proposed meter/RPZ size and location		
3.5	Applicable construction details		
4.0	**Sanitary Sewers**		
4.1	Locations, sizes, slopes, inverts, and materials of all existing and proposed facilities		

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official use
III Utilities and Drainage (cont'd)			
4.2	Applicable construction details		
4.3	Proposed water/oil/grease interceptor sizing calculations by a professional engineer (if applicable)		
5.0	**Storm Drainage**		
5.1	Locations, sizes, slopes, inverts, and materials of existing and proposed storm drainage facilities		
5.2	Connection of roof drains to proposed drainage system		
5.3	Applicable Town Standard construction details		
5.4	Existing and proposed swales and ditches		
5.5	Detention area cross-section and high-level elevations		
5.6	County and State approval for tie-in to existing sewers		
6.0	**Stormwater Pollution Prevention Plan (SWPPP) as applicable** (bound separately from the Engineer's Report) **See attached checklist.**		
7.0	**Natural Gas Service**		
8.0	**Location of transformers, generators and other mechanical equipment; include detail drawings (if applicable)**		
9.0	**Downstream Sanitary Capacity Analysis (DSCA) Report** (must be submitted if proposed average flows are greater than 2,500 gallons per day)		
9.1	The DSCA Report must include a detailed downstream sewer capacity analysis and the calculations of and commitment to (via Developer commitment letter) the required financial contribution to the Town's I/I mitigation fund based on peak flow conditions. The contribution must be based on $250 per gallon per minute of mitigated flow		
IV Lighting Plan			
1.0	**Photometric plan showing light spread in foot candles at property lines**		
1.1	Detail of all light standards, including dimension of height from finished grade		
1.2	Detail of all exterior lighting fixtures		
V Landscape Plan			
1.0	**Wet/raised seal and signature of a licensed Landscape Architect**		
2.0	**Provide a calculation of the total Parking area and a calculation of interior parking area in square feet and as a percentage**		
3.0	**Indicate location, size, number and type of proposed landscape materials**		
4.0	**Indicate location, type and size of <u>all</u> existing trees 4" caliper or larger and indicate which will be removed or retained**		
VI Other Required Information/General Requirements			
1.0	**Complete boundary survey that includes all existing structures, acreage, legal description with reference to a property line, street, or other known feature, and easements plotted to scale by a NYS licensed land surveyor**		

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official Use
VI Other Required Information/General Requirements (cont'd)			
1.1	Copies of all easements, reciprocal access agreement or similar leag documents		
2.0	**Topographic Survey with a 30 ft. buffer outside all property lines by a NYS licensed land surveyor**		
3.0	**Draft of any deed restrictions, covenants, provisions for home associations and common ownership, and reciprocal easement agreements (as applicable).**		
4.0	**For assessment purposes, state intent to apply for condominium status (if applicable).**		
5.0	**Completed and signed Environmental Assessment Form**		
5.1	Soil boring report and geotechnical report prepared by a qualified Professional Engineer (if applicable)		
5.2	Traffic Impact Study (if applicable)		
5.3	Archaeological survey (if applicable		
5.4	Wetland Delineation report (if applicable)		
6.0	**Show existing zoning(s) of both the subject property and adjacent parcels on the Site Plan and the Landscape Plan**		
7.0	**Location of NYSDEC wetlands (including buffer area) and/or federal wetlands; indicate jurisdictional status**		
8.0	**Location of Floodway and floodplain** (if applicable)		
9.0	**Documentation pertaining to any conditions of zonings, including copies of required deed restrictions; indicate date of rezoning and the parcel address under which it was rezoned (if applicable)**		
10.0	**Documentation related to any required variances granted by the ZBA**		
11.0	**For residential site plans, provide a statement from the appropriate school district that adequate school sites and facilities are available.**		
12.0	**8 1/2" X 11" reduction of primary site plan drawing (see appendix "B" of application package for specifications)**		
13.0	**A CD containing a PDF of all site plan drawings (Must also be provided with revised drawings)**		
VII Additional Required Information for Projects in the Mixed Use Districts			
1.0	**Design Advisory Board Application**		
1.1	Required for Major Site Plan		
1.2	Required at the Planning Directors Discretion for Minor Site Plans		
2.0	**Block & Street Network Plan**		
2.1	Designation of Core, Local & Alley streets		
2.2	Dimensions of Blocks		
3.0	**Block Usage Plan (as applicable)**		
3.1	Designation of site usage for each block including open space areas		
4.0	**Phasing Plan**		

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

For official use only:

_____
Approved/Date

X:\Current_Planning\Application Forms 2013 Working Doc\Major Site Plan\Site Plan Submittal Requirements and Checklist (3).doc

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Urban Soil	severe	severe	severe	severe	severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   ____ Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes X No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes X No
   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes X No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   No

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes X No
   Describe

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project Reference traffic study
   Source:

8. Will blasting occur during construction? □ Yes X No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? X Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    _1120_____ average flow _4400_____ peak flow.
    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes X No

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
Shatkin School of Dentistry / Philipps Bros Supply

Project Location (describe, and attach a location map):
2525 Kensington Ave at Bentham Pkwy and Ridgewood Drive

Brief Description of Proposed Action:
Shatkin School of Dentistry at Daemen College & Institute for Mobility and Technology on 1.2 acre existing developed parcel -plus- redevelopment of Ridgewood Drive into a new private paved surface parking lot.

Name of Applicant or Sponsor:	Telephone: 716-839-4800
Pat Philipps	E-Mail: pphilipps@philippsbros.com

Address:
2525 Kensington Avenue

City/PO:	State:	Zip Code:
Amherst	NY	14226

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Amherst Site Plan, building permit	☐	☑

3. a. Total acreage of the site of the proposed action? 1.24 acres
   b. Total acreage to be physically disturbed? 0.50 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.24 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

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	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☐	☑
b. Consistent with the adopted comprehensive plan?	☐	☐	☑

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES
If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES
If the proposed action will exceed requirements, describe design features and technologies:		
REFER TO ARCHITECTURAL SET	☐	☑
10. Will the proposed action connect to an existing public/private water supply?	NO	YES
If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities?	NO	YES
If No, describe method for providing wastewater treatment: _____	☐	☑
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe: EXISTING PUBLIC DRAINAGE IN RIDGEWOOD DRIVE		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: joseph molek Date: March 28 2022

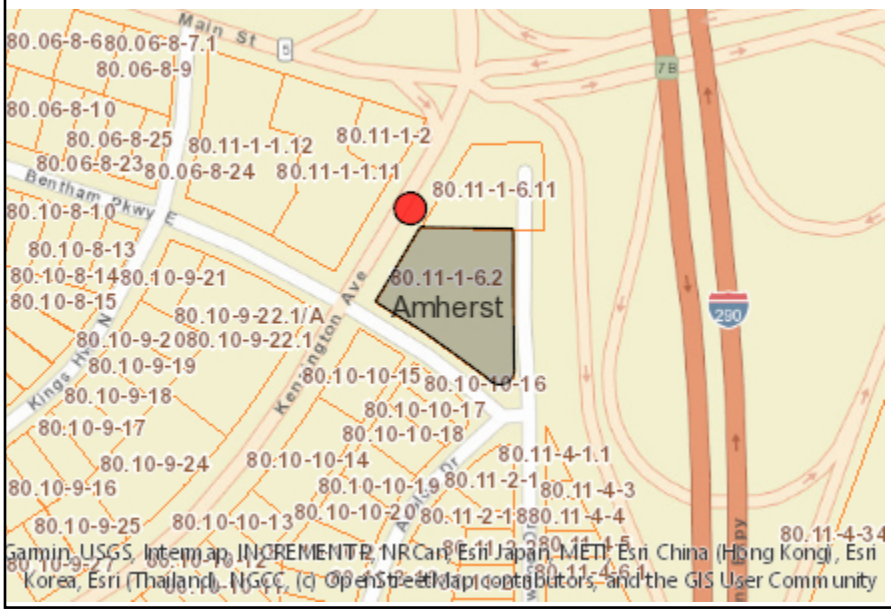
Signature: _____ Title: Architect

PRINT FORM

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

EAF Mapper Summary Report

Monday, February 14, 2022 1:50 P.M.



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

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SRF ASSOCIATES
Transportation Planning / Engineering / Design

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

(585) 272-4660
www.srfa.net

Ms. Gina Wilkolaski
Traffic Safety Engineer
Erie County | Highways (DPW)
95 Franklin Street
Buffalo, New York 14202

July 27, 2022

RE: Proposed Shatkin School of Dentistry, Town of Amherst, NY
Signal Warrant Analysis Letter

Dear Ms. Wilkolaski:

This study performed a traffic signal warrant analysis at the Kensington Avenue/Bentham Parkway intersection. Turning movement counts were performed by SRF Associates at the study intersection on Tuesday, June 2, 2022, from 7:00 AM to 7:00 PM.

The need for a traffic signal is determined by comprehensive investigation of existing traffic conditions and physical characteristics at the location. The Standard Specifications Update for the adoption of the National MUTCD (FHWA) and the New York State Supplement were reviewed to investigate the need for a traffic control signal at this location. There are nine (9) warrants, and they are as follows:

Warrant 1	Eight-Hour Vehicular Volume
Warrant 2	Four-Hour Vehicular Volume
Warrant 3	Peak Hour Vehicular Volume
Warrant 4	Pedestrian Volume
Warrant 5	School Crossing
Warrant 6	Coordinated Signal System
Warrant 7	Crash Experience
Warrant 8	Roadway Network
Warrant 9	Intersection Near a Grade Crossing

All supporting materials are included in the Attachments. Prior to applying warrants, the MUTCD suggests consideration of the effects of right-turn volumes on the minor street approach, and a reduction taken in the number of right turning vehicles, where appropriate. A certain number of right-turn vehicles will execute a right-turn on the red (RTOR) indication without actuating a traffic signal (if one were in place). Generally, up to 25% of right-turn vehicles may be assumed to execute at RTOR maneuver and should, therefore, be subtracted for the purposes of the warrant analysis. However, for purposes of this analysis, no adjustments were made to remain conservative. The posted speed limit on Kensington Avenue is 35 MPH, thus 100% thresholds in Table 4C-1, Figure 4C-1, and Figure 4C-3 are used as a basis for analysis.

1. Warrant 1 is subdivided into Condition A and Condition B. The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. These conditions are satisfied when, for each of any eight hours of an average day, anticipated volumes on the artery and side road are more than the minimum values presented in Tables 4C-1 in the MUTCD. **Based upon these calculations, Conditions A and B are not satisfied.**

2. Warrant 2, the Four-Hour Vehicular Volume signal warrant conditions, are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. This warrant stipulates that for any four hours of a day, minimum threshold volumes are met on the artery and side road. **This warrant is partially satisfied for two of the four hours.**

3. Warrant 3 is intended for application where minor street traffic suffers undue delay in entering or crossing the major street for one hour of the day. It stipulates that the warrant shall be applied in unusual cases (high-occupancy vehicle facilities – i.e., shopping centers, office parks) where a large number of vehicles discharge over a short period of time. **This warrant is not satisfied.**

4. Warrant 4 is met when pedestrians experience excessive delay in crossing the major street because the traffic volumes are so heavy. The intersection currently has low pedestrian activity. **This warrant is not satisfied.**

5. Warrant 5 is met when a sufficient number of gaps in traffic do not exist for certain size and frequency of school children to cross the major roadway. **This warrant is not satisfied.**

6. Warrant 6 is met when a traffic signal is needed to maintain progressive movement and vehicle platooning in a coordinated signal system. **This warrant is not satisfied.**

7. Warrant 7 is intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal. The need for a traffic control signal shall be considered if *all* of the following criteria are met:

    a. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce crash frequency. **Condition A is not satisfied.**

    b. Five (5) or more reported crashes, of types susceptible to correction by a traffic signal, to have occurred within a 12-month period, each crash involving a personal injury or property damage. Five (5) crashes were documented in the crash analysis over a 12-month period. One crash was animal-related, and one was a medical condition. The three remaining crashes were right angle (2) in the eastbound and westbound directions. These drivers failed to yield the right of way. The last crash was a northbound rear end incident in which the driver of the trailing vehicle was following too closely. **Condition B is not satisfied.**

    Given that both Conditions A and B are not satisfied, this warrant is not satisfied.

8. Warrant 8 is met when a traffic signal might encourage concentration and organization of traffic flow on a roadway network. This warrant primarily focuses on two major intersecting roadways, which is not the case at the study intersection. **This warrant is not satisfied.**

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9. Warrant 9 is applicable when an intersection is located near an at-grade rail crossing. **This warrant is not satisfied.**

TABLE 1: TRAFFIC SIGNAL WARRANT SUMMARY

WARRANT	SATISFACTION OF WARRANTS
1A – Eight-Hour Condition A	NOT SATISFIED
1B – Eight-Hour Condition B	NOT SATISFIED
2 – Four-Hour	NOT SATISFIED
3 – Peak-Hour	NOT SATISFIED
4 – Pedestrian Volume	NOT SATISFIED
5 – School Crossing	NOT SATISFIED
6 – Coordinated Signal System	NOT SATISFIED
7 – Crash Experience	NOT SATISFIED
8 – Roadway Network	NOT SATISFIED
9 – Intersection Near a Grade Crossing	NOT SATISFIED

Table 1 summarizes the signal warrants at the study intersection under full build conditions and the results of the investigation. The results show that a three-color traffic signal is not warranted.

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
SRF Associates, D.P.C.

David Kruse, AICP, PTP
Senior Transportation Planner

Attachments

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

ATTACHMENT

July 27, 2022

Letter to
Ms. Gina Wilkolaski
Erie County Department of Public Works

Proposed Shatkin School of Dentistry
Kensington Road/Bentham Parkway

Signal Warrant Analysis

Town of Amherst
Erie County, New York

SRF ASSOCIATES

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Traffic Signal Warrant Analysis

Kensington Avenue at Bentham Parkway - Existing Conditions

Town of Amherst, NY | Erie County

Hour			Existing Fluctuation in Artery Volumes				2022 Existing Artery Volume on Kensington Avenue		Warrant 1 - Condition A	Warrant 1 - Condition B	Warrant 2 4 hour
			per 2022 SRF count on Kensington	per 2022 SRF count on Kensington	per 2022 SRF count on Kensington	Hourly Fluctuation		per 2022 SRF count on Bentham	(100%)	(100%)	(100%)
			NB	SB	Two-Way	Two-Way	**Total**	WB	600/150	900/75	80 vph
7:00 AM	to	8:00 AM	429	295	724	8.39%	**724**	66	N	N	N
8:00 AM	to	9:00 AM	430	282	712	8.26%	**712**	50	N	N	N
9:00 AM	to	10:00 AM	345	260	605	7.01%	**605**	42	N	N	N
10:00 AM	to	11:00 AM	273	268	541	6.27%	**541**	47	N	N	N
11:00 AM	to	12:00 PM	281	240	521	6.04%	**521**	41	N	N	N
12:00 PM	to	1:00 PM	293	330	623	7.22%	**623**	44	N	N	N
1:00 PM	to	2:00 PM	348	318	666	7.72%	**666**	47	N	N	N
2:00 PM	to	3:00 PM	322	395	717	8.31%	**717**	37	N	N	N
3:00 PM	to	4:00 PM	404	547	951	11.03%	**951**	47	N	N	N
4:00 PM	to	5:00 PM	606	438	1044	12.10%	**1044**	48	N	N	N
5:00 PM	to	6:00 PM	446	440	886	10.27%	**886**	52	N	N	N
6:00 PM	to	7:00 PM	284	351	635	7.36%	**635**	41	N	N	N
					8,625				0	0	0

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

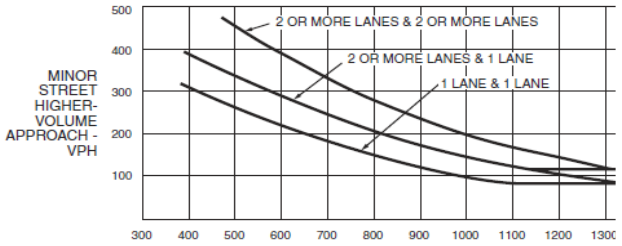
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

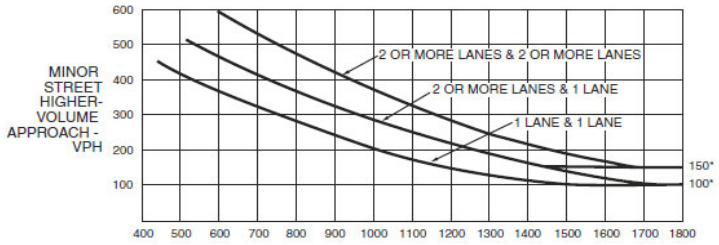
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Traffic Signal Warrant Analysis

Kensington Avenue at Bentham Parkway - Full Build Conditions

Town of Amherst, NY | Erie County

Hour			Existing Fluctuation in Artery Volumes				2022 Existing Artery Volume on Kensington Avenue	Exiting Hourly Fluctuation of ITE LUC 720 - Dental Office Building	Total Hourly Volumes Exiting Bentham Parkway under Full Build Conditions	Warrant 1 - Condition A (100%)	Warrant 1 - Condition B (100%)	Warrant 2 - 4 hour (100%)	Warrant Peak ho (100%
			per 2022 SRF count on Kensington	per 2022 SRF count on Kensington	per 2022 SRF count on Kensington	Hourly Fluctuation							
			NB	SB	Two-Way	Two-Way	Total	Total		600/150	900/75	80 vph	100 vp
7:00 AM	to	8:00 AM	429	295	724	8.39%	739	1.20%	9	N	N	N	N
8:00 AM	to	9:00 AM	430	282	712	8.26%	726	5.70%	44	N	N	N	N
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10:00 AM	to	11:00 AM	273	268	541	6.27%	552	10.00%	77	N	N	N	N
11:00 AM	to	12:00 PM	281	240	521	6.04%	531	10.60%	82	N	N	Y	N
12:00 PM	to	1:00 PM	293	330	623	7.22%	636	8.70%	67	N	N	N	N
1:00 PM	to	2:00 PM	348	318	666	7.72%	679	7.40%	57	N	N	N	N
2:00 PM	to	3:00 PM	322	395	717	8.31%	731	9.20%	71	N	N	N	N
3:00 PM	to	4:00 PM	404	547	951	11.03%	970	9.90%	77	N	Y	N	N
4:00 PM	to	5:00 PM	606	438	1044	12.10%	1065	10.60%	82	N	Y	Y	N
5:00 PM	to	6:00 PM	446	440	886	10.27%	904	8.80%	68	N	N	N	N
6:00 PM	to	7:00 PM	284	351	635	7.36%	648	3.30%	26	N	N	N	N
					8,625		8,798	1.10	774	0	2	2	0

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
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2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
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1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
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Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume

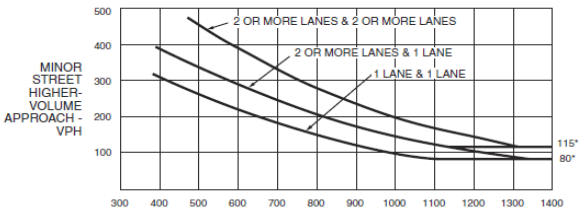

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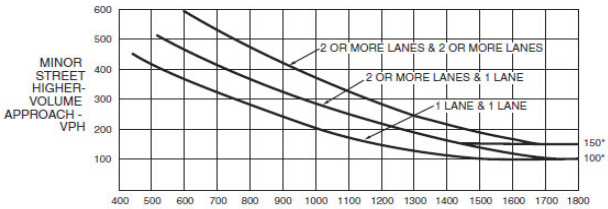
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

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Page of Pages

Local Codes
RJAM17BMT815
20-016023

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (7/01)

DMV COPY

DOT Case: 38373554

1.i

Accident Date Month Day Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
03 / 17 / 2020	Tue	12:17	2	2	0		☐	☐ Yes ☒ No

☐ VEHICLE 1 ☒ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

[redacted]

	Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code
Vehicle 1	CMJ5699	GA	NISS 2018	DELV	989
Vehicle 2	JPF7857	NY	HYUN 2018	4DSD	100

Ticket/Arrest Number(s): Vehicle 1: AM17BMT8G1; Vehicle 2:

Violation Section(s): Vehicle 1: 1142A; Vehicle 2:

VEHICLE 1

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact		1	2
Box 2 - Most Damage		2	2
Enter up to three more Damage Codes	3	4	5
	1	3	14

Vehicle Towed: By UNITED AUTO To UNITED AUTO

VEHICLE 2

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

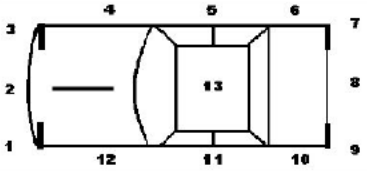
Box 1 - Point of Impact		1	2
Box 2 - Most Damage	10	10	
Enter up to three more Damage Codes	3	4	5
	11 9	2	

Vehicle Towed: By UNITED AUTO To UNITED AUTO

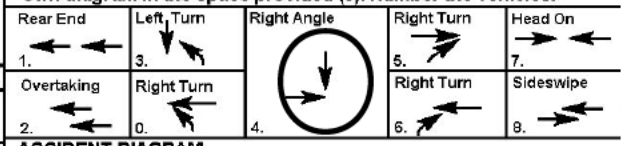
VEHICLE DAMAGE CODING:

1 - 13. SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Check the diagram below that describes the accident or draw your own diagram in the space provided (9). Number the vehicles.



ACCIDENT DIAGRAM

4 Right Angle

9.

Cost of repairs to any one vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☒ Yes ☐ No

Reference Marker	Coordinates *(if available)*
	Latitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ERIE ☐ City ☐ Village ☒ Town of AMHERST, TOWN OF

Road on which accident occurred 2500 KENSINGTON AVE (Route Number or Street Name)

at 1) intersecting street BENTHAM PKWY (Route Number or Street Name)

or 2) ____ Feet ____ Miles ☐N ☐E ☐S ☐W of ____ (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's Notes

See Notes attachment page.

8 9 10 11 12 13 14 15 16 17 BY TO 18 Names of all involved Date of Death

ALL INVOLVED

[redacted]

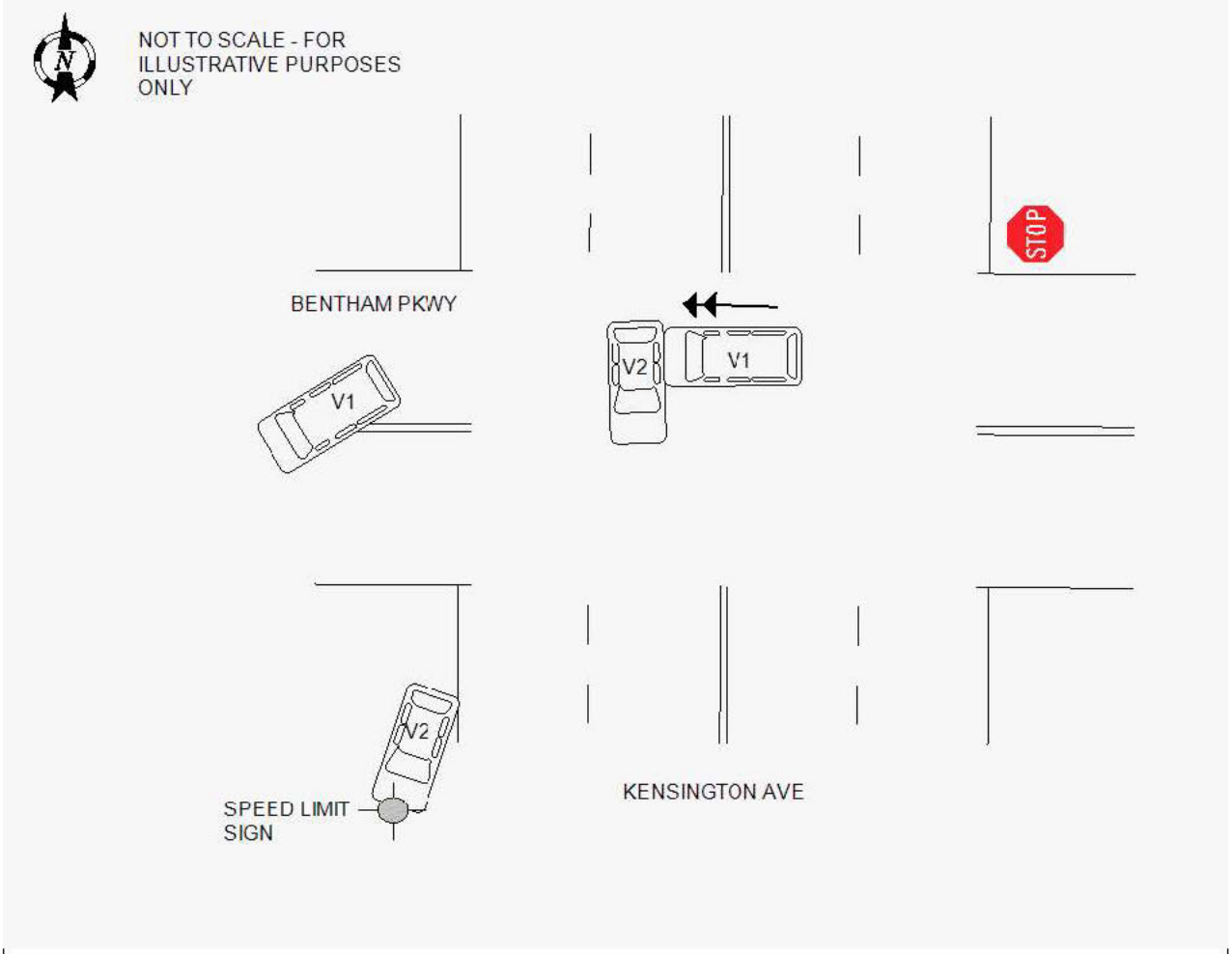
F														
G														

Officer's Rank, Name and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/ Sector	Reviewing Officer	Date/Time Reviewed
SR INV S LARWOOD Steven M. Larwood	0089	01451		AIU	LARWOOD, S	03 / 17 / 2020

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Local Code: RJAM17BMT815 Accident Date: 03 / 17 / 2020 DOT Case: 38373554

Accident Type: 4



Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Case Number: 38373554

Officer's Notes

VEHICLE 2 WAS SOUTHBOUND ON KENSINGTON AVE WITH NO TRAFFIC CONTROL DEVICES AND THE RIGHT OF WAY. VEHICLE 1, A DELIVERY TRUCK WAS WESTBOUND ATTEMPTING TO CROSSOVER KENSINGTON AVE FROM A STOP SIGN. DRIVER 1 FAILED TO YIELD THE RIGHT OF WAY FROM THE STOP SIGN AND STRUCK VEHICLE 2 CAUSING IT TO GO OFF ROAD AND STRIKE A REGULATORY SIGN ON THE WEST SIDE OF THE ROADWAY. BO VEHICLES WERE TOWED FOR DAMAGE SUSTAINED IN THE COLLISION. DRIVER 1 COMPLAINED OF A LEG INJURY BUT REFUSED TRANSPORT FOI FURTHER EVALUATION. DRIVER 2 DID NOT CLAIM INJURY AT THE SCENE. PASSENGER IN VEHICLE 2 COMPLAINED OF A HAND INJURY BUT REFU TRANSPORT FOR FURTHER EVALUATION. DRIVER 1 WAS ISSUED A SUMMONS FOR VTL VIOLATION 1142A, FAILURE TO YIELD THE RIGHT OF WA FROM A STOP SIGN. VEHICLE 1 HAD OUT OF STATE PLATES AND PRODUCED AN INSURANCE CARD FOR: NATIONAL CONTINENTAL INSURANCE COMPANY (CODE 10243) AND POLICY # 5154404. ADDITIONAL INFORMATION THAT THE VEHICLE OWNER IS A SUBSIDIARY OF ALL POINTS TRUCK AND THE FLEET MANAGER [redacted] ADDITIONAL POLICY # FOR SAME INSURANCE COMPANY IS TAD000072. - WITI [redacted]

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Page of Pages

Local Codes
RJAM99CGJ4DD
20-060755

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (7/01)

DMV COPY

DOT Case: 38620302

1.i

Accident Date Month Day Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
11 / 04 / 2020	Wed	00:52	1	0	0		☐	☐ Yes ☒ No

VEHICLE 1 ☐ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

[redacted]

Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code
HUZ4031	NY	VOLK 2019	4DSD	328

Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code

Ticket/Arrest Number(s)

Violation Section(s)

Ticket/Arrest Number(s)

Violation Section(s)

VEHICLE 1

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact		1	2
Box 2 - Most Damage		1	1
Enter up to three more Damage Codes	3	4	5
	1	12	2

Vehicle Towed: By UNITED To UNITED

VEHICLE 2

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

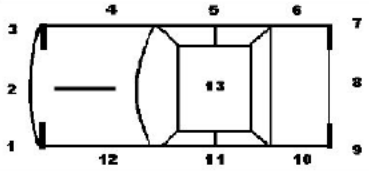
Box 1 - Point of Impact		1	2
Box 2 - Most Damage			
Enter up to three more Damage Codes	3	4	5

Vehicle Towed: By To

VEHICLE DAMAGE CODING:

1 - 13. SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Check the diagram below that describes the accident or draw your own diagram in the space provided (9). Number the vehicles.

Rear End 1.	Left Turn 3.	Right Angle 4.	Right Turn 5.	Head On 7.
Overtaking 2.	Right Turn 0.		Right Turn 6.	Sideswipe 8.

ACCIDENT DIAGRAM

9 Accident Diagram - See Attached.

9.

Cost of repairs to any one vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☒ Yes ☐ No

Reference Marker	Coordinates *(if available)*
	Latitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ERIE ☐ City ☐ Village ☒ Town of AMHERST, TOWN OF

Road on which accident occurred 2572 KENSINGTON AVE (Route Number or Street Name)

at 1) intersecting street (Route Number or Street Name)

or 2) 500 Feet Miles ☐ N ☐ E ☒ S ☐ W of 2573 kensington avenue (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's Notes

V1 was traveling Northbound on Kensington Avenue when the driver of V1 stated a deer abruptly ran in front of the vehicle. V1 did strike the deer however, the deer did run off. The driver of V1 was the sole occupant of the vehicle and stated he was uninjured and did not need medical attention. The vehicle was towed by United. Property damage only; minor damage.

ALL INVOLVED

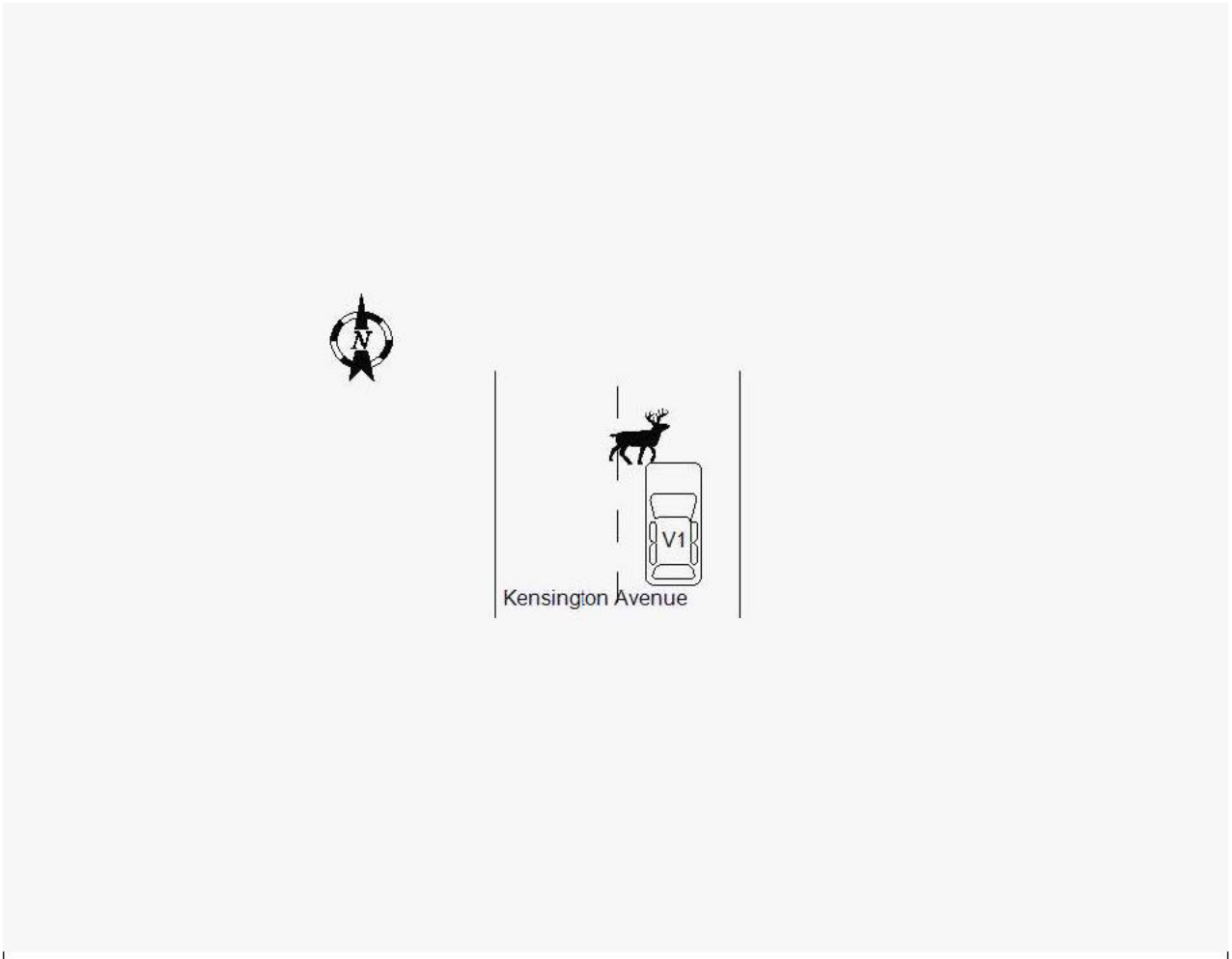
	8	9	10	11	12	13	14	15	16	17	BY	TO	18	Names of all involved	Date of Death
	[redacted]														
F															
G															

Officer's Rank, Name and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/ Sector	Reviewing Officer	Date/Time Reviewed
PATROL B CATIPOVIC	0050	01451	3	PTRL	CATIPOVIC, B	11 / 05 / 2020

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Local Code: RJAM99CGJ4DD Accident Date: 11 / 04 / 2020 DOT Case: 38620302

Accident Type: 9



Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Page of Pages

Local Codes: RJAM16CHK0WW / 20-062684

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (7/01)

DMV COPY

DOT Case: 38638388

1.i

Accident Date (Month Day Year)	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene / Accident Reconstructed	Left Scene	Police Photos
11 / 13 / 2020	Fri	16:21	1	2	0	☐ / ☐	☐	☐ Yes ☒ No

☐ VEHICLE 1 ☐ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

[redacted]

Ticket/Arrest Number(s)	Violation Section(s)

Ticket/Arrest Number(s)	Violation Section(s)

VEHICLE 1

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact		1	2
Box 2 - Most Damage		2	2
Enter up to three more Damage Codes	3	4	5
	2		

Vehicle Towed: By UNITED To UNITED

VEHICLE 2

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

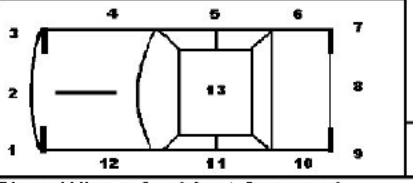
Box 1 - Point of Impact		1	2
Box 2 - Most Damage			
Enter up to three more Damage Codes	3	4	5

Vehicle Towed: By To

VEHICLE DAMAGE CODING:

1 - 13. SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Check the diagram below that describes the accident or draw your own diagram in the space provided (9). Number the vehicles.

Rear End 1.	Left Turn 3.	Right Angle	Right Turn 5.	Head On 7.
Overtaking 2.	Right Turn 0.	4.	Right Turn 6.	Sideswipe 8.

ACCIDENT DIAGRAM

9 Accident Diagram - See Attached.

9.

Cost of repairs to any one vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☒ Yes ☐ No

Reference Marker	Coordinates *(if available)*
	Latitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ERIE ☐ City ☐ Village ☒ Town of AMHERST, TOWN OF

Road on which accident occurred 2525 KENSINGTON HWY (Route Number or Street Name)

at 1) intersecting street _____ (Route Number or Street Name)

or 2) 50 Feet ____ Miles ☐N ☐E ☒S ☐W of BENTHAM DR (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's Notes

VEHICLE #1 WAS NORTHBOUND ON KENSINGTON HWY APPROACHING MAIN ST. THE DRIVER OF VEHICLE #1 HAD A MEDICAL EPISODE AND WENT OFF THE ROAD, CRASHING INTO A TELEPHONE POLE AND A FIRE HYDRANT. MINOR INJURIES TO BOTH OCCUPANTS. [redacted]

ALL INVOLVED

[redacted]

F																	
G																	

Officer's Rank, Name and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/ Sector	Reviewing Officer	Date/Time Reviewed
PATROL B KERN	0077	01451		AIU	KERN, B	11 / 17 / 2020

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Local Code: RJAM16CHK0WW Accident Date: 11 / 13 / 2020 DOT Case: 38638388

Accident Type: 9



Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Page of Pages

Local Codes
RJAM04BKKF0S
20-011354

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (7/01)

DMV COPY

DOT Case: 38345725

1.i

Accident Date Month Day Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
02 / 25 / 2020	Tue	07:40	2	0	0		☐	☐ Yes ☒ No

☐ VEHICLE 1 ☒ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

[redacted]

	Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code
Vehicle 1	HAT8630	NY	CHEV 2019	SUBN	743
Vehicle 2	CGV5106	NY	DODG 2010	SUBN	743

Ticket/Arrest Number(s): Vehicle 1: AM04BKKFB0; Vehicle 2:

Violation Section(s): Vehicle 1: 1129A; Vehicle 2:

VEHICLE 1

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact		1	2
Box 2 - Most Damage		2	2
Enter up to three more Damage Codes	3	4	5
	1	3	

Vehicle Towed: By / To

VEHICLE 2

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

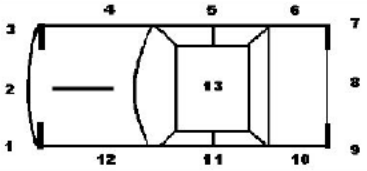
Box 1 - Point of Impact		1	2
Box 2 - Most Damage	8	8	
Enter up to three more Damage Codes	3	4	5
	9 7		

Vehicle Towed: By / To

VEHICLE DAMAGE CODING:

1 - 13. SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Check the diagram below that describes the accident or draw your own diagram in the space provided (9). Number the vehicles.

Rear End 1.	Left Turn 3.	Right Angle 4.	Right Turn 5.	Head On 7.
Overtaking 2.	Right Turn 0.		Right Turn 6.	Sideswipe 8.

ACCIDENT DIAGRAM

1 Rear End

9.

Cost of repairs to any one vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☐ Yes ☒ No

Reference Marker	Coordinates *(if available)*
	Latitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ERIE ☐ City ☐ Village ☒ Town of AMHERST, TOWN OF

Road on which accident occurred 2525 KENSINGTON AVE (Route Number or Street Name)

at 1) intersecting street BENTHAM E. (Route Number or Street Name)

or 2) ____ Feet ____ Miles ☐N ☐E ☐S ☐W of ____ (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's Notes

Vehicle #1 was traveling N/B on Kensington Ave. Vehicle #2 was slowing to stop N/B on Kensington Ave. Vehicle #1 failed to maintain a safe stopping distance ahead and collided with the rear of vehicle #2.

ALL INVOLVED

	8	9	10	11	12	13	14	15	16	17	BY	TO	18	Names of all involved	Date of Death
F	[redacted]														
G															

Officer's Rank, Name and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/ Sector	Reviewing Officer	Date/Time Reviewed
PATROLMAN W R CLOEN	0117	01451	3	1	CLOEN, W	02 / 25 / 2020

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

MV-104 (5/11) PAGE 1 of 2

FOLD → ← HERE

Use only for accidents that happen in New York State

New York State Department of Motor Vehicles

REPORT OF MOTOR VEHICLE ACCIDENT

www.dmv.ny.gov

BEFORE COMPLETING THIS FORM, READ THE INSTRUCTIONS IN SECTION A ON PAGE 2

DO NOT FORGET ACCIDENT DATE

Page 1 of 1 ☐ *RUSH* - DRIVER OF VEHICLE 1 - LICENSE SUSPENDED FOR FAILURE TO REPORT

Accident Date Month	Day	Year	Day of Week	Time	Number of Vehicles	Number Injured	Number Killed	Did police investigate accident at scene?	If "Yes", Name of Police Agency or Precinct & Accident Number
03	17	2020	TUESDAY	12:17 ☐ AM ☑ PM	2	2	0	☑ Yes ☐ No	Amherst Town PD RJAM17BMT815

DRIVER OF VEHICLE 1 ☑ VEHICLE 2 ☐ PEDESTRIAN ☐ BICYCLIST ☐ OTHER PEDESTRIAN

1 DRIVER [redacted]

2 REGISTRANT [redacted]

Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code	Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code
JPF7857	NY	2018 Hyund	4DSD	100	CMJ5699	GA	2018 NISS	DELV	989

3 VEHICLE DAMAGE

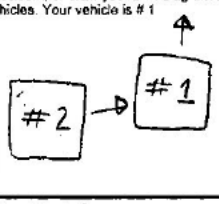
Estimated Cost of Property Damage - Vehicle 1: ☐ $1,001-$1,500 ☐ $1,501-$2,500 ☐ Over $2,500

Estimated Cost of Property Damage - Vehicle 2: ☐ $1,001-$1,500 ☐ $1,501-$2,500 ☐ Over $2,500

Describe damage to vehicle 1

Driver & Rear Left Passenger door impacted. All airbags deployed as well as interior damage along left side

ACCIDENT DIAGRAM: Circle one of the 9 diagrams (numbered 0-8) if it describes the accident, or draw your own diagram below in space #9. Number the vehicles. Your vehicle is # 1



Left Turn 0. | Rear End 1. | Sideswipe (same direction) 2. | Left Turn 3. | Right Angle 4. | Right Turn 5. | Right Turn 6. | Head On 7. | Sideswipe (opposite direction) 8.

Describe damage to vehicle 2

Front fender dented. Driver airbags deployed

4 ACCIDENT LOCATION

Place Where Accident Occurred in New York State

County ERIE ☐ City ☐ Village ☑ Town of AMHERST Permanent Landmark

Road on which accident occurred Kensington Ave (Route Number or Street Name)

at ☑ 1) intersecting street Bentham Pkwy E (Route Number or Street Name)

or 2) ____ Feet ____ Miles ☐N ☐S ☐E ☐W of ____ (Milepost, Nearest intersecting Route Number or Street Name)

How did the accident happen?

I was driving down Kensington Ave as I approached the intersection of Bentham Pkwy E the other vehicle failed to stop at the stop sign and proceeded to cross and directly hit my vehicle(T-BONE).

5 ALL INVOLVED

Names of All Persons Involved	8. Which Veh Occupied	9. Position in/on Vehicle	10. Safety Equip Used	12. Age	13. Sex	16. Injury A	B	C	Describe Injuries	If Deceased, Enter Date of Death
[redacted]										

6 INSURANCE

Identify Damaged Property Other Than Vehicle(s)

VIN KMHD84LF6JU447116

Name of Insurance Company That Issued Policy For Vehicle 1 Geico

Policy Number [redacted]

Name and Address Policy Holder [redacted]

Policy Period From 02/08/2020 To 08/08/2020

If Vehicle was Operated Under ICC, USDOT or NYSDOT, give No. of Permit Holder

If Self-Insured, give Certificate No. and State

Date 03/20/2020 Print Name of Driver (or Representative) of Vehicle 1 [redacted]

★ A representative may sign for the driver if the driver is unable to sign because of injury or death. If you are signing as the driver's representative, check the box that describes why the driver cannot sign. ☐ Injury ☐ Death

An accident report is not considered complete and filed unless it is signed, and if not signed may result in the suspension of your driver's license.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

TRI-STATE TRAFFIC DATA

Amherst, NY

Tuesday, June 2, 2022
Location: 42.957869, -78.768943

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022
Page No: 1

Turning Movement Data

Start Time	Kensington Ave Southbound						Bentham Pkwy E Westbound				Kensington Ave Northbound						Bentham Pkwy E Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	1	63	3	0	0	67	7	1	0	8	2	93	2	0	0	97	1	0	1	0	0	2	174
7:15 AM	1	54	5	0	0	60	15	0	0	15	1	87	1	0	0	89	2	0	5	0	0	7	171
7:30 AM	3	66	2	1	0	72	22	1	0	23	2	112	0	0	0	114	3	0	9	0	2	12	221
7:45 AM	7	85	4	0	0	96	17	2	1	20	1	125	3	0	0	129	11	1	17	0	0	29	274
Hourly Total	12	268	14	1	0	295	61	4	1	66	6	417	6	0	0	429	17	1	32	0	2	50	840
8:00 AM	5	71	6	0	0	82	9	0	1	10	3	106	2	0	0	111	3	1	4	0	0	8	211
8:15 AM	2	63	7	0	0	72	7	1	2	10	3	101	1	0	1	105	4	0	3	0	1	7	194
8:30 AM	3	61	4	0	0	68	13	1	1	15	2	110	0	0	0	112	3	1	6	0	0	10	205
8:45 AM	5	51	4	0	0	60	14	0	1	15	3	99	0	0	0	102	0	1	3	0	1	4	181
Hourly Total	15	246	21	0	0	282	43	2	5	50	11	416	3	0	1	430	10	3	16	0	2	29	791
9:00 AM	1	69	3	0	0	73	5	1	1	7	0	80	1	0	0	81	0	0	4	0	0	4	165
9:15 AM	5	40	4	0	0	49	7	0	1	8	2	64	2	0	0	68	2	0	3	0	0	5	130
9:30 AM	3	50	6	1	0	60	13	1	4	18	0	95	1	0	1	96	2	0	4	0	0	6	180
9:45 AM	9	67	2	0	0	78	6	0	3	9	2	98	0	0	0	100	1	1	3	0	1	5	192
Hourly Total	18	226	15	1	0	260	31	2	9	42	4	337	4	0	1	345	5	1	14	0	1	20	667
10:00 AM	3	43	7	0	0	53	13	0	3	16	2	64	0	0	1	66	2	0	1	0	0	3	138
10:15 AM	5	56	7	0	0	68	4	0	0	4	3	56	1	0	1	60	2	0	3	0	0	5	137
10:30 AM	4	58	4	0	0	66	11	2	2	15	1	64	1	0	0	66	0	1	4	0	2	5	152
10:45 AM	4	66	11	0	0	81	11	0	1	12	0	81	0	0	1	81	0	0	3	0	0	3	177
Hourly Total	16	223	29	0	0	268	39	2	6	47	6	265	2	0	3	273	4	1	11	0	2	16	604
11:00 AM	6	57	5	0	1	68	7	0	1	8	3	58	1	0	0	62	1	0	3	0	2	4	142
11:15 AM	1	49	11	0	0	61	7	0	0	7	1	74	0	0	0	75	2	1	4	0	0	7	150
11:30 AM	2	50	6	0	0	58	11	0	1	12	3	90	0	0	0	93	0	1	3	0	0	4	167
11:45 AM	2	46	5	0	0	53	11	1	2	14	2	49	0	0	0	51	0	0	6	0	0	6	124
Hourly Total	11	202	27	0	1	240	36	1	4	41	9	271	1	0	0	281	3	2	16	0	2	21	583
12:00 PM	1	70	6	0	0	77	2	1	1	4	0	70	0	0	0	70	1	2	2	0	0	5	156
12:15 PM	0	70	7	0	0	77	12	0	3	15	1	68	0	0	0	69	0	0	4	0	1	4	165
12:30 PM	11	71	11	0	0	93	9	2	1	12	1	79	0	0	0	80	1	0	6	0	0	7	192
12:45 PM	6	67	10	0	0	83	11	1	1	13	1	72	1	0	0	74	2	0	1	0	0	3	173
Hourly Total	18	278	34	0	0	330	34	4	6	44	3	289	1	0	0	293	4	2	13	0	1	19	686
1:00 PM	5	64	7	0	0	76	8	1	3	12	1	75	1	0	0	77	3	0	2	0	0	5	170
1:15 PM	7	69	9	0	1	85	9	0	0	9	2	86	0	0	1	88	4	2	7	0	1	13	195
1:30 PM	1	73	5	0	0	79	13	0	2	15	2	92	1	0	1	95	1	0	0	0	2	1	190
1:45 PM	5	64	9	0	0	78	9	1	1	11	3	81	4	0	0	88	3	1	1	0	0	5	182
Hourly Total	18	270	30	0	1	318	39	2	6	47	8	334	6	0	2	348	11	3	10	0	3	24	737
2:00 PM	2	84	9	0	0	95	7	0	2	9	0	87	2	0	0	89	6	3	6	0	0	15	208
2:15 PM	7	82	8	1	0	98	8	1	1	10	1	67	4	0	0	72	2	0	9	0	3	11	191
2:30 PM	6	80	14	0	0	100	7	0	2	9	3	71	3	0	0	77	2	0	5	0	0	7	193
2:45 PM	3	92	7	0	0	102	6	1	2	9	2	80	2	0	2	84	3	0	4	0	2	7	202
Hourly Total	18	338	38	1	0	395	28	2	7	37	6	305	11	0	2	322	13	3	24	0	5	40	794
3:00 PM	4	103	12	0	0	119	7	2	4	13	0	71	1	0	0	72	1	2	4	0	0	7	211
3:15 PM	3	127	12	0	0	142	12	0	0	12	1	94	2	0	1	97	2	1	4	0	1	7	258
3:30 PM	2	126	20	0	1	148	10	0	4	14	1	100	3	0	1	104	3	0	4	0	0	7	273
3:45 PM	6	119	12	1	0	138	8	0	0	8	2	128	1	0	0	131	6	2	2	0	3	10	287
Hourly Total	15	475	56	1	1	547	37	2	8	47	4	393	7	0	2	404	12	5	14	0	4	31	1029
4:00 PM	2	89	10	0	0	101	10	0	1	11	1	140	3	0	0	144	1	2	3	0	0	6	262
4:15 PM	1	92	14	0	0	107	7	1	1	9	0	144	1	0	1	145	1	0	4	0	1	5	266
4:30 PM	1	103	9	0	0	113	13	0	2	15	3	171	0	0	0	174	1	1	6	0	1	8	310
4:45 PM	6	100	11	0	0	117	12	1	0	13	2	140	1	0	0	143	3	0	5	0	2	8	281
Hourly Total	10	384	44	0	0	438	42	2	4	48	6	595	5	0	1	606	6	3	18	0	4	27	1119
5:00 PM	3	99	14	0	1	116	12	0	2	14	1	153	0	0	0	154	6	0	6	0	2	12	296
5:15 PM	1	123	9	0	0	133	8	1	2	11	1	104	2	0	0	107	2	1	5	0	1	8	259
5:30 PM	1	94	7	1	0	103	13	0	1	14	1	98	2	0	0	101	0	2	2	0	0	4	222
5:45 PM	3	73	12	0	0	88	9	2	2	13	2	79	3	0	0	84	0	2	3	0	0	5	190
Hourly Total	8	389	42	1	1	440	42	3	7	52	5	434	7	0	0	446	8	5	16	0	3	29	967
6:00 PM	3	77	13	0	0	93	8	0	0	8	1	84	0	0	0	85	0	1	3	0	0	4	190
6:15 PM	3	80	7	0	0	90	16	0	2	18	0	69	0	0	2	69	1	0	4	0	0	5	182
6:30 PM	0	76	2	0	1	78	8	0	0	8	3	63	2	0	0	68	0	0	5	0	0	5	159
6:45 PM	4	75	11	0	0	90	6	0	1	7	0	61	1	0	0	62	3	0	2	0	0	5	164
Hourly Total	10	308	33	0	1	351	38	0	3	41	4	277	3	0	2	284	4	1	14	0	0	19	695

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Grand Total	169	3607	383	5	5	4164	470	26	66	562	72	4333	56	0	14	4461	97	30	198	0	29	325	9512
Approach %	4.1	86.6	9.2	0.1	-	-	83.6	4.6	11.7	-	1.6	97.1	1.3	0.0	-	-	29.8	9.2	60.9	0.0	-	-	-
Total %	1.8	37.9	4.0	0.1	-	43.8	4.9	0.3	0.7	5.9	0.8	45.6	0.6	0.0	-	46.9	1.0	0.3	2.1	0.0	-	3.4	-
Motorcycles	0	6	0	0	-	6	1	0	0	1	0	8	0	0	-	8	0	0	0	0	-	0	15
% Motorcycles	0.0	0.2	0.0	0.0	-	0.1	0.2	0.0	0.0	0.2	0.0	0.2	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.2
Cars & Light Goods	167	3543	374	5	-	4089	455	22	58	535	64	4249	55	0	-	4368	89	27	189	0	-	305	9297
% Cars & Light Goods	98.8	98.2	97.7	100.0	-	98.2	96.8	84.6	87.9	95.2	88.9	98.1	98.2	-	-	97.9	91.8	90.0	95.5	-	-	93.8	97.7
Other Vehicles	2	58	9	0	-	69	14	4	8	26	8	76	1	0	-	85	8	3	9	0	-	20	200
% Other Vehicles	1.2	1.6	2.3	0.0	-	1.7	3.0	15.4	12.1	4.6	11.1	1.8	1.8	-	-	1.9	8.2	10.0	4.5	-	-	6.2	2.1
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	20.0	-	-	-	-	-	-	-	-	-	28.6	-	-	-	-	-	6.9	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	27	-	-
% Pedestrians	-	-	-	-	80.0	-	-	-	-	-	-	-	-	-	71.4	-	-	-	-	-	93.1	-	-

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

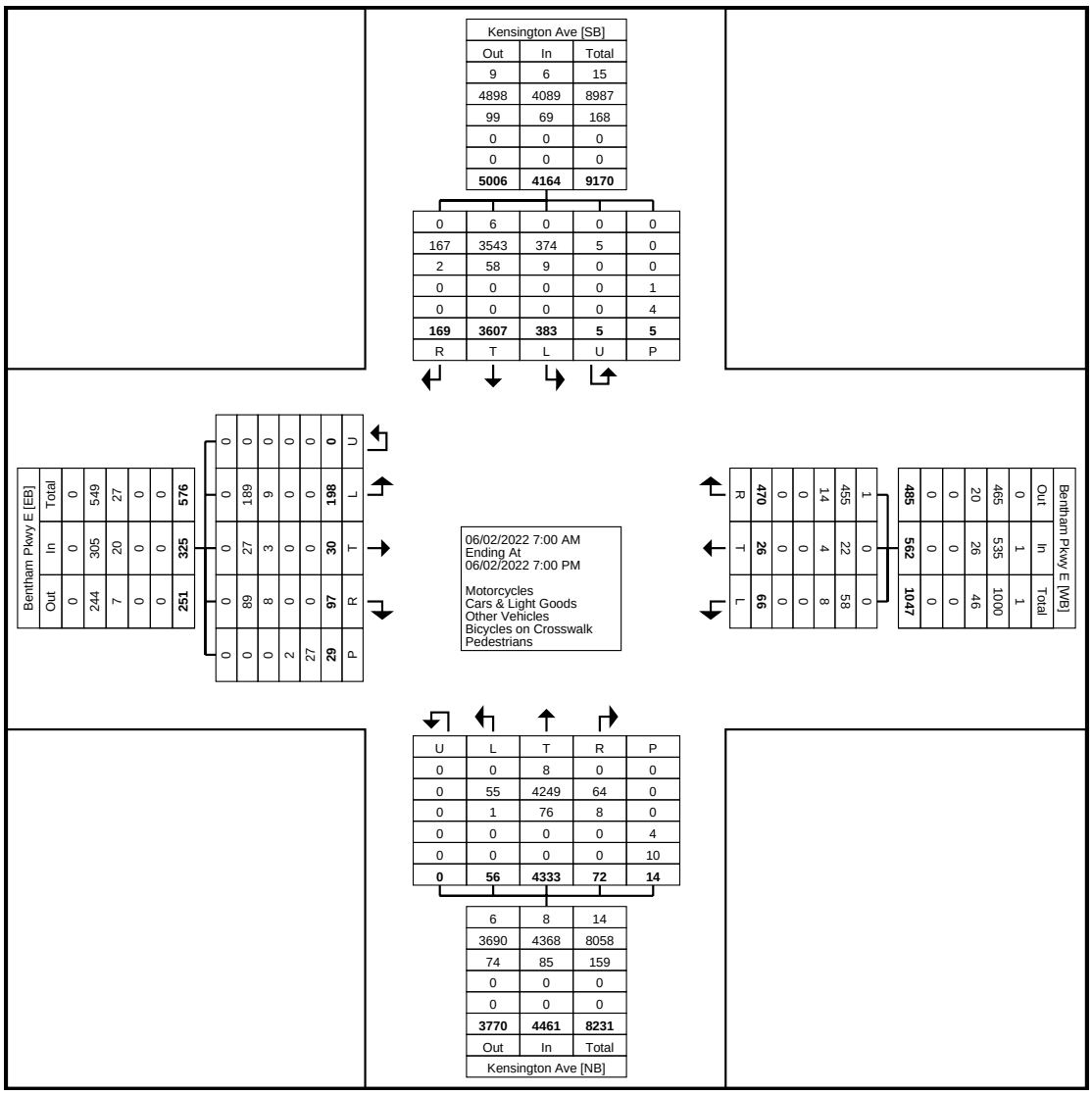
Amherst, NY

Tuesday, June 2, 2022
Location: 42.957869, -78.768943

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022
Page No: 3



Turning Movement Data Plot

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Amherst, NY

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Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Kensington Ave Southbound						Bentham Pkwy E Westbound				Kensington Ave Northbound						Bentham Pkwy E Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:30 AM	3	66	2	1	0	72	22	1	0	23	2	112	0	0	0	114	3	0	9	0	2	12	221
7:45 AM	7	85	4	0	0	96	17	2	1	20	1	125	3	0	0	129	11	1	17	0	0	29	274
8:00 AM	5	71	6	0	0	82	9	0	1	10	3	106	2	0	0	111	3	1	4	0	0	8	211
8:15 AM	2	63	7	0	0	72	7	1	2	10	3	101	1	0	1	105	4	0	3	0	1	7	194
Total	17	285	19	1	0	322	55	4	4	63	9	444	6	0	1	459	21	2	33	0	3	56	900
Approach %	5.3	88.5	5.9	0.3	-	-	87.3	6.3	6.3	-	2.0	96.7	1.3	0.0	-	-	37.5	3.6	58.9	0.0	-	-	-
Total %	1.9	31.7	2.1	0.1	-	35.8	6.1	0.4	0.4	7.0	1.0	49.3	0.7	0.0	-	51.0	2.3	0.2	3.7	0.0	-	6.2	-
PHF	0.607	0.838	0.679	0.250	-	0.839	0.625	0.500	0.500	0.685	0.750	0.888	0.500	0.000	-	0.890	0.477	0.500	0.485	0.000	-	0.483	0.821
Motorcycles	0	1	0	0	-	1	1	0	0	1	0	1	0	0	-	1	0	0	0	0	-	0	3
% Motorcycles	0.0	0.4	0.0	0.0	-	0.3	1.8	0.0	0.0	1.6	0.0	0.2	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.3
Cars & Light Goods	17	274	19	1	-	311	54	2	4	60	6	432	6	0	-	444	21	2	33	0	-	56	871
% Cars & Light Goods	100.0	96.1	100.0	100.0	-	96.6	98.2	50.0	100.0	95.2	66.7	97.3	100.0	-	-	96.7	100.0	100.0	100.0	-	-	100.0	96.8
Other Vehicles	0	10	0	0	-	10	0	2	0	2	3	11	0	0	-	14	0	0	0	0	-	0	26
% Other Vehicles	0.0	3.5	0.0	0.0	-	3.1	0.0	50.0	0.0	3.2	33.3	2.5	0.0	-	-	3.1	0.0	0.0	0.0	-	-	0.0	2.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Amherst, NY

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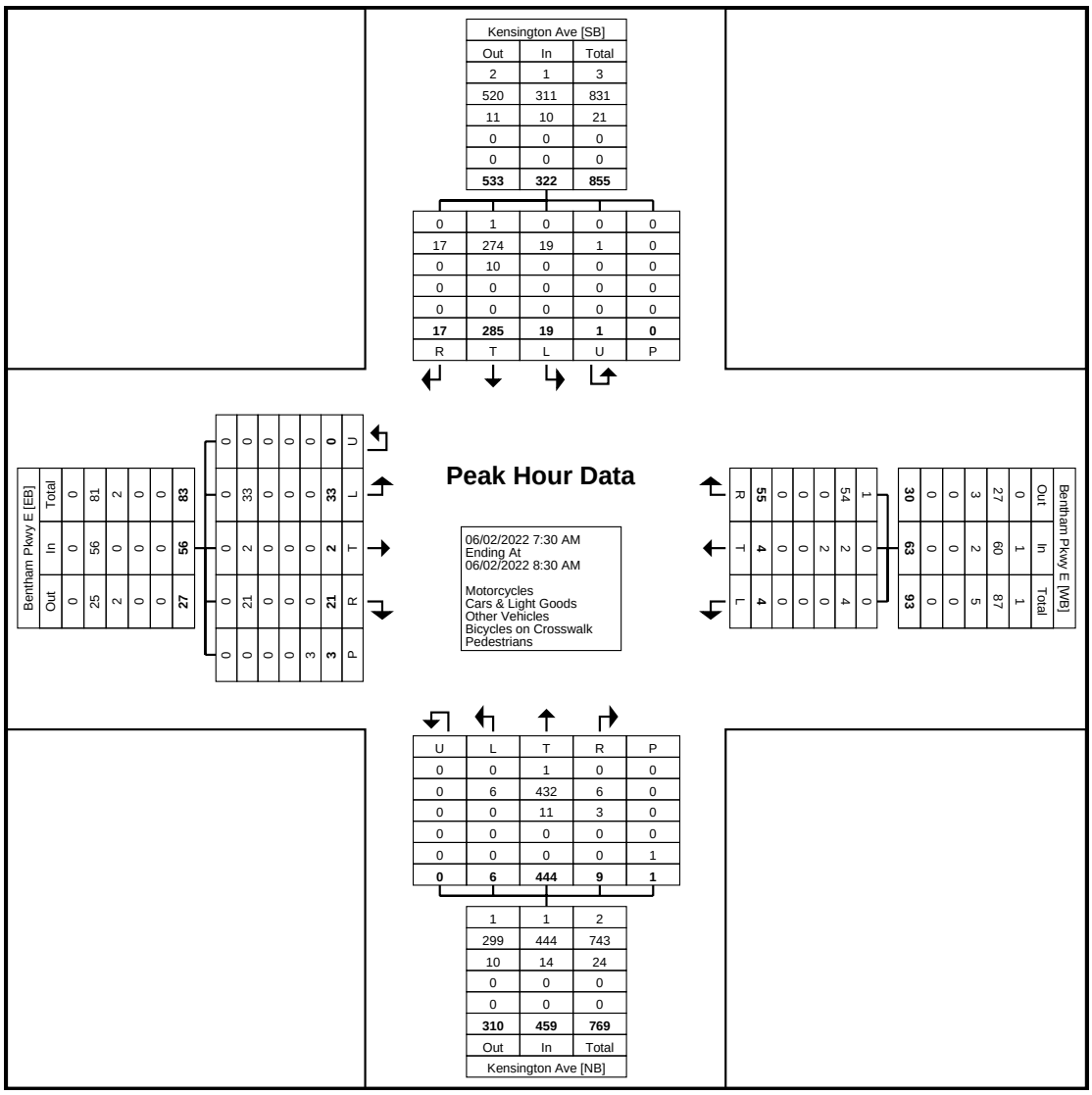
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022



Turning Movement Peak Hour Data Plot (7:30 AM)

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610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Kensington Ave Southbound						Bentham Pkwy E Westbound				Kensington Ave Northbound						Bentham Pkwy E Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:15 PM	1	92	14	0	0	107	7	1	1	9	0	144	1	0	1	145	1	0	4	0	1	5	266
4:30 PM	1	103	9	0	0	113	13	0	2	15	3	171	0	0	0	174	1	1	6	0	1	8	310
4:45 PM	6	100	11	0	0	117	12	1	0	13	2	140	1	0	0	143	3	0	5	0	2	8	281
5:00 PM	3	99	14	0	1	116	12	0	2	14	1	153	0	0	0	154	6	0	6	0	2	12	296
Total	11	394	48	0	1	453	44	2	5	51	6	608	2	0	1	616	11	1	21	0	6	33	1153
Approach %	2.4	87.0	10.6	0.0	-	-	86.3	3.9	9.8	-	1.0	98.7	0.3	0.0	-	-	33.3	3.0	63.6	0.0	-	-	-
Total %	1.0	34.2	4.2	0.0	-	39.3	3.8	0.2	0.4	4.4	0.5	52.7	0.2	0.0	-	53.4	1.0	0.1	1.8	0.0	-	2.9	-
PHF	0.458	0.956	0.857	0.000	-	0.968	0.846	0.500	0.625	0.850	0.500	0.889	0.500	0.000	-	0.885	0.458	0.250	0.875	0.000	-	0.688	0.930
Motorcycles	0	1	0	0	-	1	0	0	0	0	0	2	0	0	-	2	0	0	0	0	-	0	3
% Motorcycles	0.0	0.3	0.0	-	-	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.3
Cars & Light Goods	11	388	47	0	-	446	42	2	5	49	6	604	2	0	-	612	10	1	21	0	-	32	1139
% Cars & Light Goods	100.0	98.5	97.9	-	-	98.5	95.5	100.0	100.0	96.1	100.0	99.3	100.0	-	-	99.4	90.9	100.0	100.0	-	-	97.0	98.8
Other Vehicles	0	5	1	0	-	6	2	0	0	2	0	2	0	0	-	2	1	0	0	0	-	1	11
% Other Vehicles	0.0	1.3	2.1	-	-	1.3	4.5	0.0	0.0	3.9	0.0	0.3	0.0	-	-	0.3	9.1	0.0	0.0	-	-	3.0	1.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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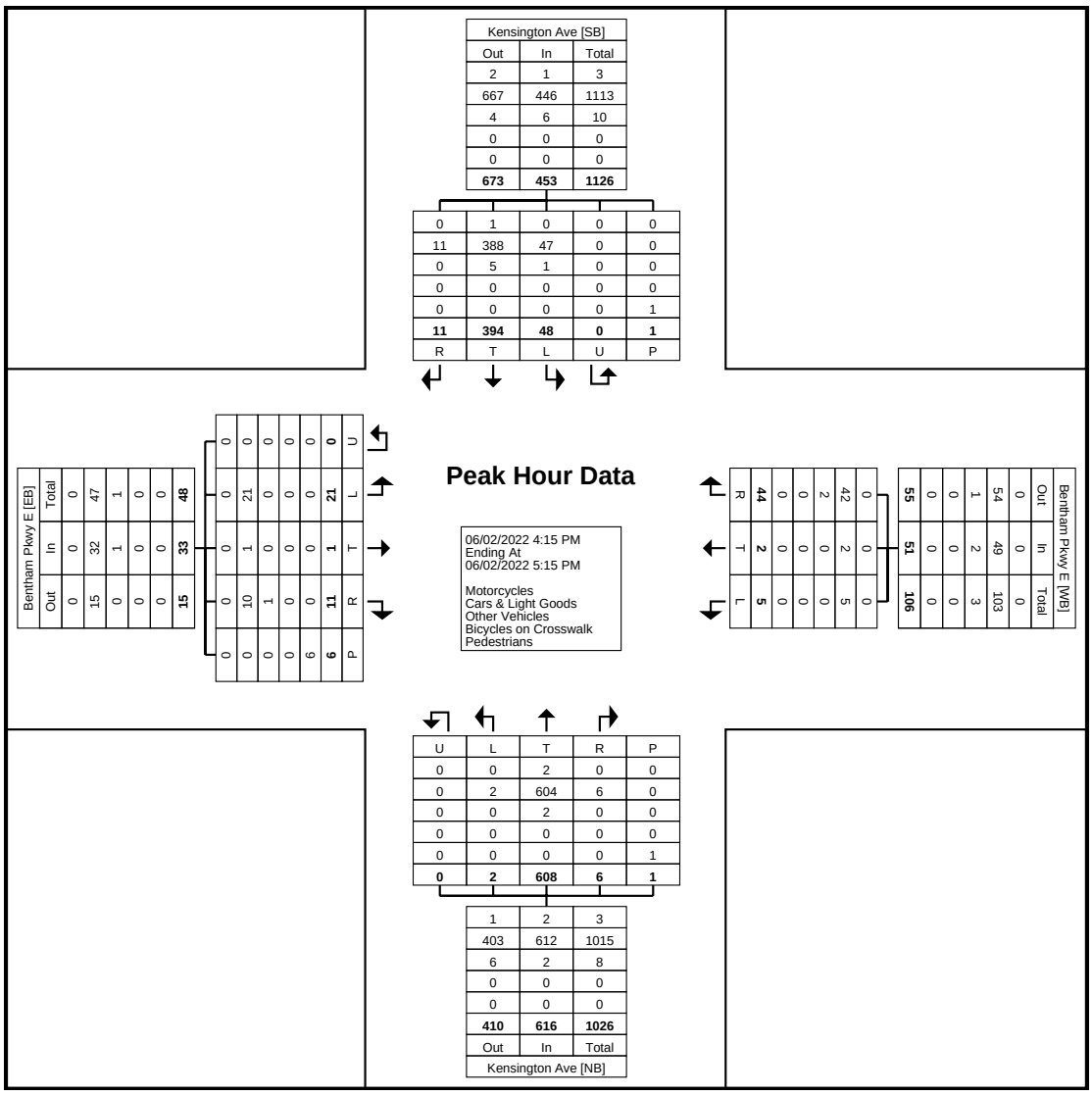

Turning Movement Peak Hour Data Plot (4:15 PM)

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

PASSERO ASSOCIATES
engineering architecture

September 12, 2022

Mr. Daniel J. Ulatowski, AICP
Principal Planner/ZEO
Town of Amherst Planning Department
5583 Main Street
Williamsville, New York 14221

RE: Proposed Shatkin School of Dentistry, Town of Amherst, NY
Shared Parking Demand Assessment Letter

Dear Mr. Ulatowski:

This technical letter provides a Shared Parking Demand Assessment related to the proposed project located at 2525 Kensington Avenue in the Town of Amherst, NY in connection with a request for the approval of an Alternate Parking Study per Section 7-1-7A of the Zoning Code.

When evaluating the parking supply needs for the proposed project, our firm projected the parking demand considering shared parking (mixed-use) principles using nationally accepted methodology developed, in part, by the Urban Land Institute (ULI), Institute of Transportation Engineers (ITE), International Council of Shopping Centers (ICSC), and National Parking Association (NPA). Specifically, the assessment includes an estimation of future parking demands for the proposed project using national standards for similar developments, as documented by the ITE Parking Generation Manual (5th Edition).

This evaluation then provides a comparison to Town requirements, as set forth within Section 7-1-6A of the Town of Amherst's Zoning Code.

All supporting materials are included as an attachment to this letter.

PROJECT DESCRIPTION

Currently, the ±29,350 square foot (SF) building is owned and occupied by Phillips Brothers Supply, a business that has been in operation for over 30 years. Under the proposed development Phillips Brothers Supply will have ±5,662 SF of retail space and ±11,928 SF of warehouse space.

Shatkin Dental Health is developing ±16,160 SF of space which includes a ±4,400 SF of a new mezzanine that will be constructed within part of the existing warehouse space. The Shatkin Dental Health space will be used for a new dental school associated with Daemen College.

The project will provide 79 surface parking spaces and 10 bicycle parking spaces.

Relative to the proposed uses, the following information was obtained from the applicant:

Daemen College Dental School (8-hour day)
Employees: 8 general staff and 10 teaching staff.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Students: 40-45 students for 8 hours each day. Students are classified by year (e.g., year one, year two, year three). Year one consists of approximately 20-25 students; year two consists of approximately 20-25 students; and year three consists of approximately 20 students. Year one students will not use the proposed facility. Year two and three students will use the site. Based upon information provided by the applicant and Daemen University, all students traveling to the site will use a shuttle service.

According to the applicant, at most there will be 21 patients at one time and 21 patients will occur four times during day.

PARKING REQUIREMENTS IN THE TOWN OF AMHERST ZONING CODE

Section 7-1-6A of the Zoning Code sets forth the off-street parking requirements for different categories of land uses. Strict application of the parking requirements per Section 7-1-6A of the Zoning Code is depicted in **Table 1**.

TABLE 1: TOWN CODE PARKING REQUIREMENTS

USE TYPE	REQUIRED PARKING RATIO	SIZE	TOTAL REQUIRED PARKING SPACES
Retail Sales, >2,000 SF and <25,000 SF	5.5 per 1,000 SF of net floor area	±4,247 SF	24
Warehouse	1 per 1,000 SF of gross floor area	±11,928 SF	12
Medical Office	1 per 150 SF of net floor area	±12,120 SF	81
Total Parking Spaces Required			**117**

Note:
1. Net Floor Area = For a multistory, multiple tenant building — 75 percent of gross floor area.

Strict application of the off-street parking standards in the Zoning Code results in a parking requirement of 117 spaces, as depicted in **Table 1**. The total number of parking spaces to be provided is 79 spaces. Thus, there is a deficit of 38 parking spaces per strict application of Section 7-1-6A of the Zoning Code.

SHARED PARKING PRINCIPLES

Shared parking studies are conducted to establish the total number of spaces necessary by mixed-use developments to effectively serve expected parking demands. The shared parking concept builds upon the premise that land uses in a mixed-use development often do not share the same peak demand period, so spaces can be shared between the different land uses during different peak periods. Each land use typically has a peak demand period where it would occupy the maximum number of spaces that the use requires and an off-peak period where a lesser percentage of the maximum spaces would be occupied; be it by time of day, day of week, or even month of the year. This allows for the project to provide fewer spaces than would be required if the land uses on a project site were to be treated separately with individual parking demands. The concept of shared parking is well recognized within the real estate and regulatory community and is proven to work.

SHARED PARKING METHODOLOGY

To estimate the number of parking spaces required for the proposed project, this assessment used ULI and ITE methodology for shared parking. This methodology is utilized by transportation engineers and planners when evaluating the parking demand for a mixed-use project. The ULI Shared Parking 3rd Edition includes state-of-the-art practice methodologies for determining parking demand in these types of projects. Accompanying the publication is an interactive Shared Parking Calculation Model

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

(Model) that is used to estimate the shared parking demand. However, given that the Model does not have a warehouse land use, parking accumulation percentages for each land use were obtained from the ITE Parking Generation Manual.

Based upon the information provided by the applicant, there will be a maximum of 18 dental school staff utilizing on-site parking. The students will be shuttled to the site. Additionally, up to 21 patients may be on-site at any one time (up to four times a day). Therefore, based upon all site uses, a conservative 62 spaces may be expected to be required to meet the demands generated by the proposed dental school.

The peak hour demand is projected to occur at 10:00 AM on a typical weekday. The projected peak hour demand for the project (i.e., the busiest hour of the busiest weekday) is ±61 spaces. Parking demand accumulations are presented in **Table 2**.

TABLE 2: SHARED PARKING DEMAND PROJECTIONS

LAND USE	SIZE	PARKING DEMAND	
		UNADJUSTED DEMAND	**SHARED DEMAND**
Warehouse (ITE LUC 150)	±11,928 SF	5	**4**
Hardware Supplies (ITE LUC 862)	±5,662 SF	18	**18**
Proposed Dental School	43 employees	39	**39**
Total Parking Demand		62	**61**
Shared Parking Reduction		**1.61%**	

Notes:
1. ITE LUC = ITE Land Use Code
2. 43 employees for the dental school considers the 18 full time staff. The remaining parking demands are generated by 21 patients.

A separate analysis of parking demand projections was calculated using ITE data (Land Use Code 720) for the proposed dental school. **Table 3** depicts the shared demand projections using the results from **Table 2** and the ITE projections.

TABLE 3: PARKING DEMAND COMPARISON

LAND USE	SIZE	SHARED PARKING DEMAND	
		TABLE 2 ANALYSIS	ITE ANALYSIS
Warehouse (ITE LUC 150)	±11,928 SF	4	4
Hardware Supplies (ITE LUC 862)	±5,662 SF	18	18
Proposed Dental School (ITE LUC 720)	±16,160 SF	39	52
Total Parking Demand		**62**	**74**

When considering the site's 79 total parking spaces, there is sufficient space to accommodate the projected demands when considering rates developed using projected site visitors and employees (shown in **Table 2**), as well as the ITE parking rates (shown in **Table 3**).

It is important to note that the Applicant has worked with Daemen University to provide shuttle services for all students working on-site. This is a change from the May 2022 letter whereby a portion of

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

students would be shuttled to the site. These efforts allow for the projected parking demands to be entirely accommodated on-site without creating a potentially adverse impact on the surrounding neighborhood.

CONCLUSIONS

This detailed analysis assessed the projected shared parking demands associated with the proposed mixed-use project. The following summarizes the findings of this assessment:

1. The proposed project consists of retail hardware supply, warehouse, and medical-dental office space.

2. The project will provide 79 surface parking spaces and 10 bicycle parking spaces.

3. Strict application of the unshared off-street parking standards in the Zoning Code results in a parking requirement of 117 spaces.

4. The peak hour demand is projected to occur at 10:00 AM on a typical weekday. The projected peak hour demand for the mixed-use project (i.e., the busiest hour of the busiest weekday) is ±61 spaces.

5. A separate analysis of parking demand projections was calculated using ITE data (Land Use Code 720) for the proposed dental school. The total parking demand using ITE data is 74 spaces.

6. When considering the site's 79 total parking spaces, there is sufficient space to accommodate the projected demands when considering rates developed using projected site visitors and employees (shown in **Table 2**), as well as the ITE parking rates (shown in **Table 3**).

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
SRF Associates, D.P.C.

David Kruse, AICP, PTP
Senior Transportation Planner

Attachments

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

ATTACHMENT

September 12, 2022

Letter to
Mr. Daniel J. Ulatowski, AICP
Town of Amherst

Proposed Shatkin School of Dentistry
2525 Kensington Avenue

Shared Parking Demand Assessment

Town of Amherst
Erie County, New York

242 West Main Street, Suite 100
Rochester, NY 14614

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

UNSHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	11.928	5	3%	8%	27%	57%	79%	83%	87%	91%	91%	97%	100%	91%	74%	47%	26%	20%	17%	1%	1%	1%
Hardware Store	862	5.662	18	0%	0%	9%	55%	73%	100%	64%	95%	68%	91%	50%	45%	36%	5%	0%	0%	0%	0%	0%	0%
Medical Office	Local	43	39	0%	0%	12%	43%	88%	99%	100%	83%	74%	94%	93%	86%	54%	0%	0%	0%	0%	0%	0%	0%
			62																				

SHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	11.928	5	0	0	1	3	4	4	4	4	4	5	5	4	4	2	1	1	1	0	0	0
Hardware Store	862	5.662	18	0	0	2	10	13	18	12	18	13	17	9	8	7	1	0	0	0	0	0	0
Medical Office	Local	43	39	0	0	5	17	34	39	39	32	29	37	36	34	21	0	0	0	0	0	0	0
Total Shared Demand			**62**	**0**	**0**	**8**	**30**	**51**	**61**	**55**	**54**	**46**	**58**	**50**	**46**	**31**	**3**	**1**	**1**	**1**	**0**	**0**	**0**

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UNSHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	11.928	5	3%	8%	27%	57%	79%	83%	87%	91%	91%	97%	100%	91%	74%	47%	26%	20%	17%	1%	1%	1%
Hardware Store	862	5.662	18	0%	0%	9%	55%	73%	100%	64%	95%	68%	91%	50%	45%	36%	5%	0%	0%	0%	0%	0%	0%
Medical Office	720	16.16	52	0%	0%	12%	43%	88%	99%	100%	83%	74%	94%	93%	86%	54%	0%	0%	0%	0%	0%	0%	0%
			75																				

SHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	11.928	5	0	0	1	3	4	4	4	4	4	5	5	4	4	2	1	1	1	0	0	0
Hardware Store	862	5.662	18	0	0	2	10	13	18	12	18	13	17	9	8	7	1	0	0	0	0	0	0
Medical Office	720	16.16	52	0	0	6	22	46	52	52	43	39	49	48	45	28	0	0	0	0	0	0	0
Total Shared Demand			**75**	**0**	**0**	**9**	**35**	**63**	**74**	**68**	**65**	**55**	**70**	**62**	**57**	**38**	**3**	**1**	**1**	**1**	**0**	**0**	**0**

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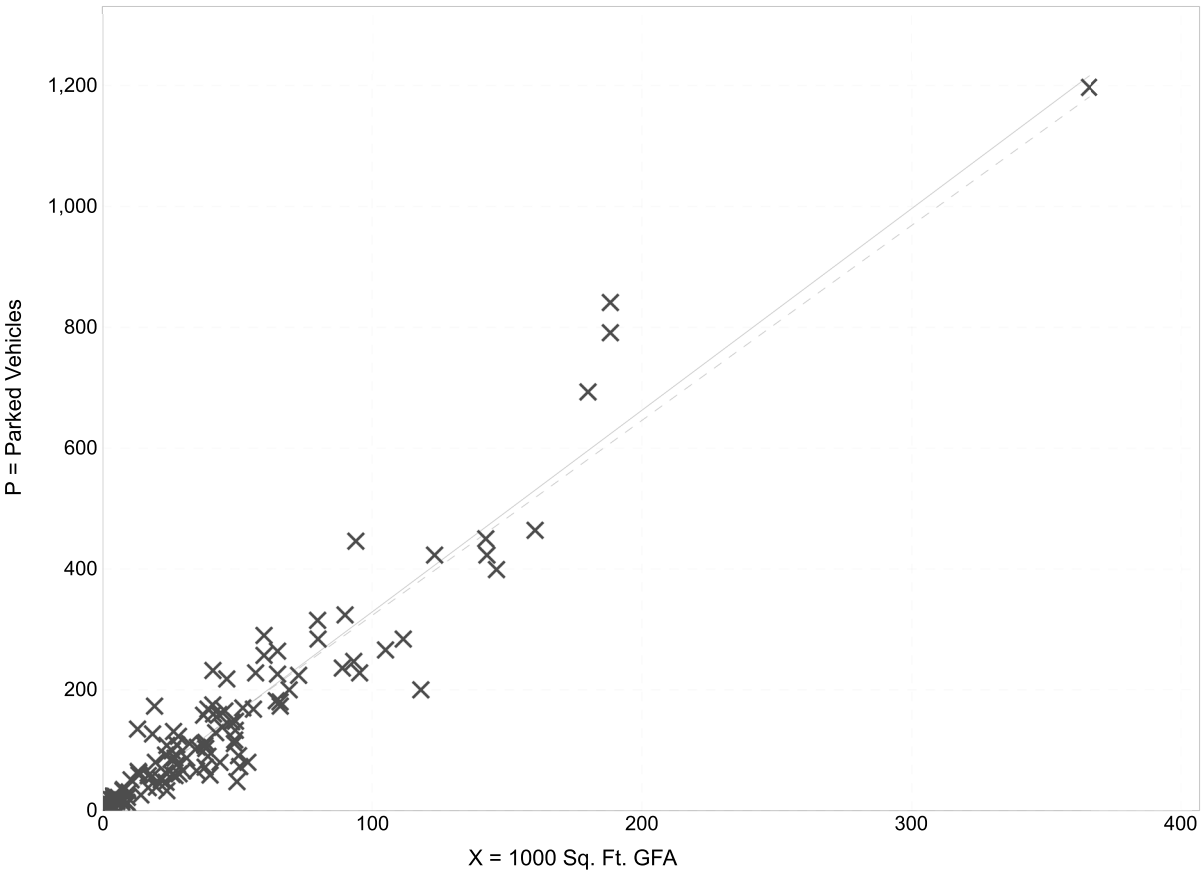
Medical-Dental Office Building
(720)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **9:00 a.m. - 4:00 p.m.**
Number of Studies: 117
Avg. 1000 Sq. Ft. GFA: 46

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
3.23	0.96 - 10.27	2.73 / 4.59	3.04 - 3.42	1.05 (33%)

Data Plot and Equation



Fitted Curve Equation: P = 3.34(X) - 5.21 **R^2= 0.91**

Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

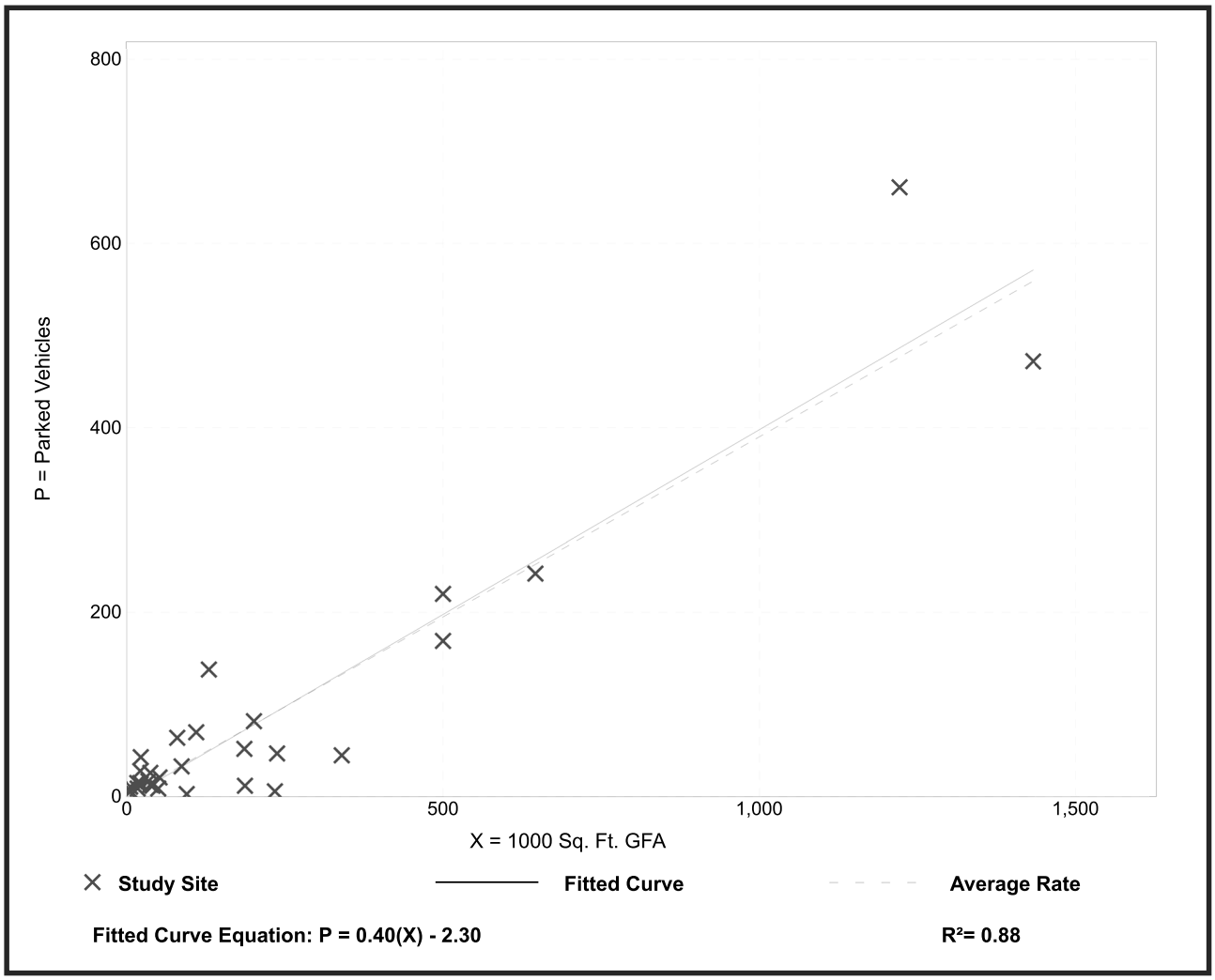
Warehousing
(150)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **11:00 a.m. - 4:00 p.m.**
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 212

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.39	0.03 - 1.96	0.34 / 1.11	0.31 - 0.47	0.22 (56%)

Data Plot and Equation



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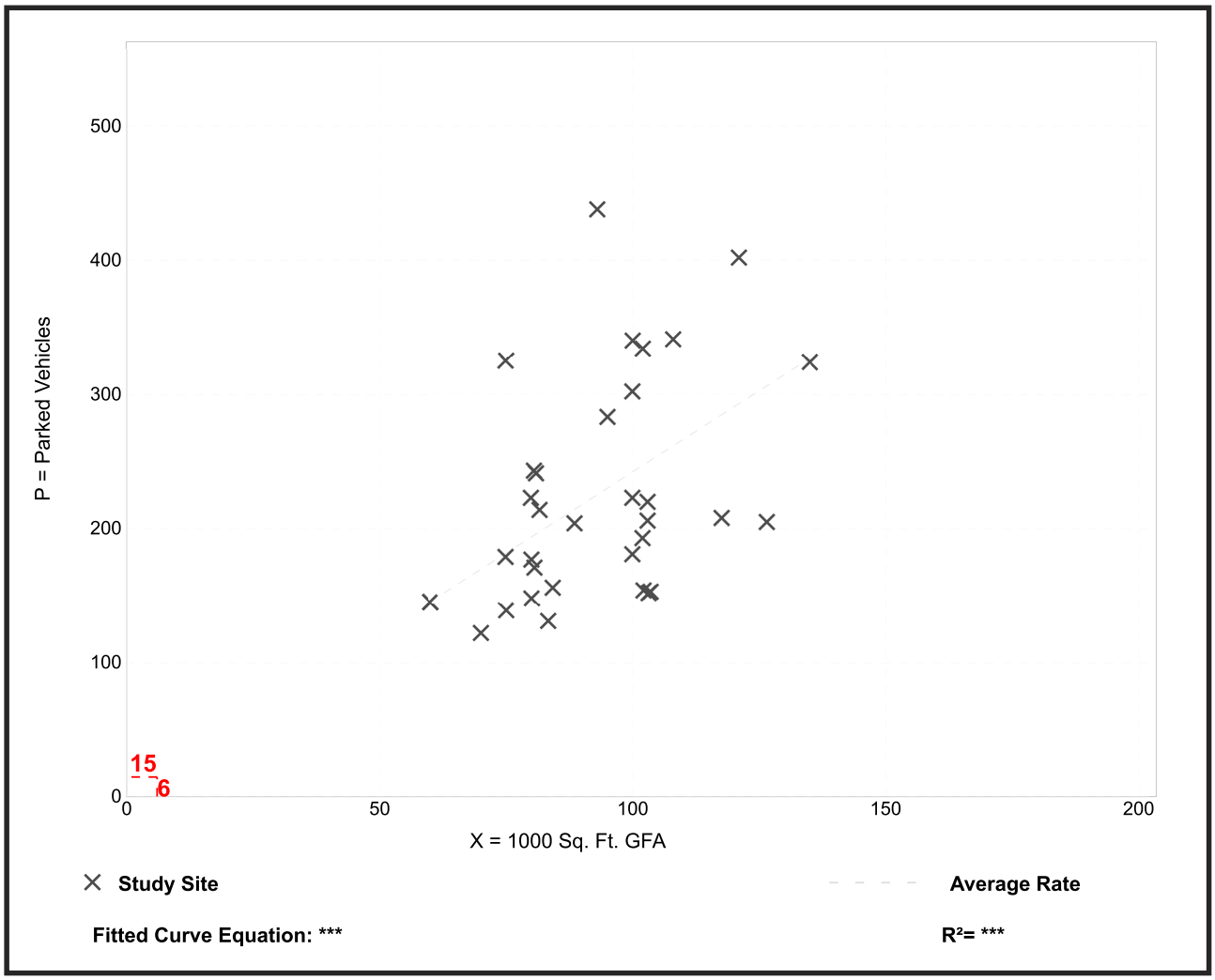
Home Improvement Superstore
(862)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Friday**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **10:00 a.m. - 4:00 p.m.; 8:00 - 9:00 p.m.**
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 93

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.42	1.47 - 4.71	1.87 / 3.25	2.15 - 2.69	0.79 (33%)

Data Plot and Equation



Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Engineer's Report

for

SHATKIN SCHOOL OF DENTISTRY/IMIT
2525 KENSINGTON AVE
TOWN OF AMHERST, NY

February 22, 2022

Prepared By:

tredo
ENGINEERS

CIVIL | STRUCTURAL | ENGINEERING

755 Seneca Street, Suite 202
Buffalo, New York 14210
716.876.7147 ph



Seal

For:

Stieglitz Snyder Architecture
Buffalo, NY

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

tredo
ENGINEERS

I. SUMMARY

This project includes a mixed-use redevelopment and internal expansion in an existing 1-story retail/warehouse facility to include a dental school on a 1.2± acre parcel located at Kensington Avenue, Bentham Pkwy. and Ridgewood Drive in the Town of Amherst, New York. The GB-zoned site is located adjacent to the north terminal end of Ridgewood Drive, to which the applicant is requesting abandonment, and proposed replacement with a paved parking lot in a land-lease. The subject parcel is currently fully developed with replacement utility services planned for the uprated occupancy.

Sanitary wastewater is currently conveyed by 4-inch gravity piping from the building to an 8-inch public sewer found in Ridgewood Drive. New interior plumbing and partial replacement of the existing 4inch PVC lateral is planned.

New water service for domestic and fire-protection use of the multi-tenant build-out shall replace the existing tap and connect to the 6-inch main found in Kensington Ave. A new 6-inch tap with 4-inch DIP tee reducing to 3-inch and running to the water meter room and 6-inch DIP fire protection runs together in the same trench. The Erie County Water Authority (ECWA) regulates the water main. Metering and backflow prevention for the private services are contained within the facility mechanical room with application made by others.

Currently, storm water runoff generated by the site flows overland towards and into the existing surrounding roadway drainage systems. Replacement receivers are proposed for redevelopment of Ridgewood Drive from a roadway to a perpendicular car-park. New storm piping shall connect to existing manholes. One manhole rim is proposed to be raised-up to new grade of the proposed parking lot.

This development will not result in an increase in impervious surfaces on this site and does not involve soil disturbance greater than one (1) acre, thus stormwater detention is not provided. The site is not located within a 100-year floodplain. The site is currently fully developed and does not contain wetland.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

755 Seneca Street, Suite 202
Buffalo, New York 14210
716.876.7147 ph

www.tredoengineers.com

II. SANITARY SEWER SERVICE

The existing public 8-inch gravity sanitary sewer located on the west side of Ridgewood Drive will provide a sanitary sewer connection point. All public utilities within Ridgewood Drive shall remain operational and accessible for maintenance during and after reconstruction. One public sewer manhole rim is proposed to be raised-up to new grade of the proposed parking lot.

A replacement for the private 4-inch PVC (SDR35) sewer lateral will be installed to the proposed building sanitary sewer entry point at the north wall of the building from the existing tap per the building plumbing plans. The proposed facilities will generate a calculated 1120 gal/day (gpd) average of residential wastewater load* as per the following:

Day School: (30 empl x 15 gpd)+(52 students x 10 gpd) ~ 970
Existing retail/warehouse: (10 empl x 15 gpd) ~ 150

*Reference “NYS Design Standards for Intermediate Sized Treatment Works, March 2014”

III. WATER SERVICE

A new 6-inch water line for domestic and fire-protection will be connected to the existing 6-inch public main located on the east side (near side) of Kensington Ave. The following data pertains to the public watermain and private demands:

- Subsurface investigations indicates a somewhat shallow, till overburden on weathered shale bedrock. The presence of bedrock measurement approx. 7-ft below grade is indicated.
- The static pressure of the existing 6-inch public main is reported by ECWA as __ psi, and a residual (open hydrant) reading of __ psi. (Note that a recent pressure test is not available and a new test cannot be made at this time and until spring thaw)
- New domestic demand is limited to the proposed uses as a day school and retail/warehouse facility. New fire-protection demand design shall be by the building fire-protection engineer which may include a booster pump as required.

Erie County Water Authority (ECWA) governs the proposed tap and backflow prevention. ECWA provides the tapping sleeve and valve and the 4-inch gate valve and 6-inch gate valve installed at the property line. Metering and backflow prevention is contained within the facility. Meter set is also provided by ECWA. A Backflow Prevention Application shall be provided under separate cover on behalf of the water customer.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

IV. STORMWATER MANAGEMENT

I. Existing (Pre-Development) Conditions

The subject parcel is currently built-out with building and pavements. No on-site stormwater receivers were found. Ridgewood Drive contains curb inlets and storm piping conveyances owned and maintained by the Town of Amherst.

II. Proposed (Post-Development) Conditions

The proposed development includes the construction of a new canopy entry structure and associated paved parking in a land-lease agreement to use Ridgewood Drive as a car-park. Storm water receivers are replaced, existing piping abandoned, with new piping connections made to existing manholes. Storm pipe sizing for conveyance of the 10-year storm event is included in Appendix A for new drainage in Ridgewood Drive.

V. PERMITS

The proposed construction of the building addition, abandonment of public rights-of-way, new parking areas and drainage must receive approval from the Town of Amherst. An application for backflow prevention for private service must be made to the Erie County Water Authority (ECWA).

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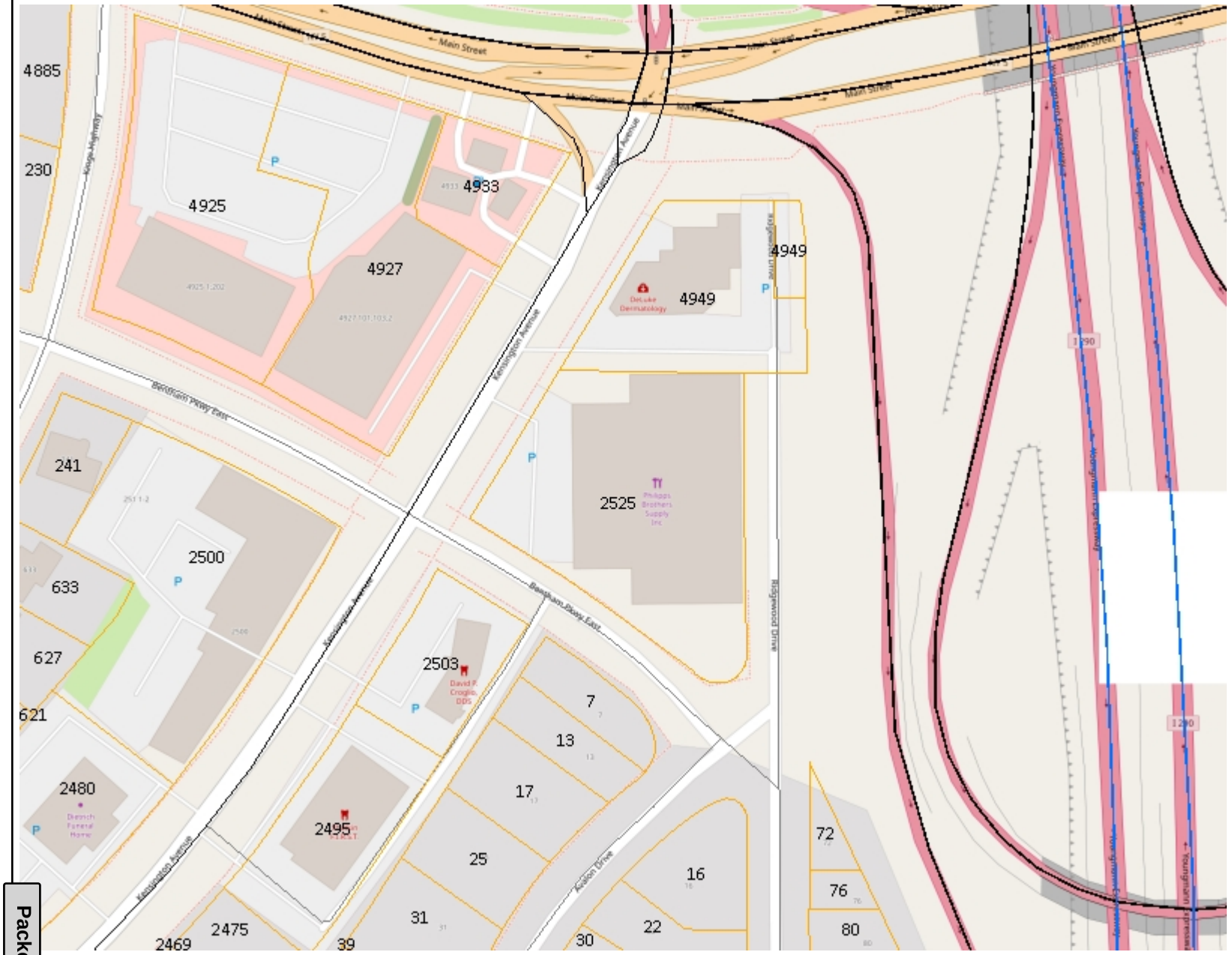
APPENDIX A

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Erie County On-Line Mapping Application





Legend

- Parcels
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road

0.04 0.1 Miles

VGS_1984_Web_Mercator_Auxiliary_Sphere

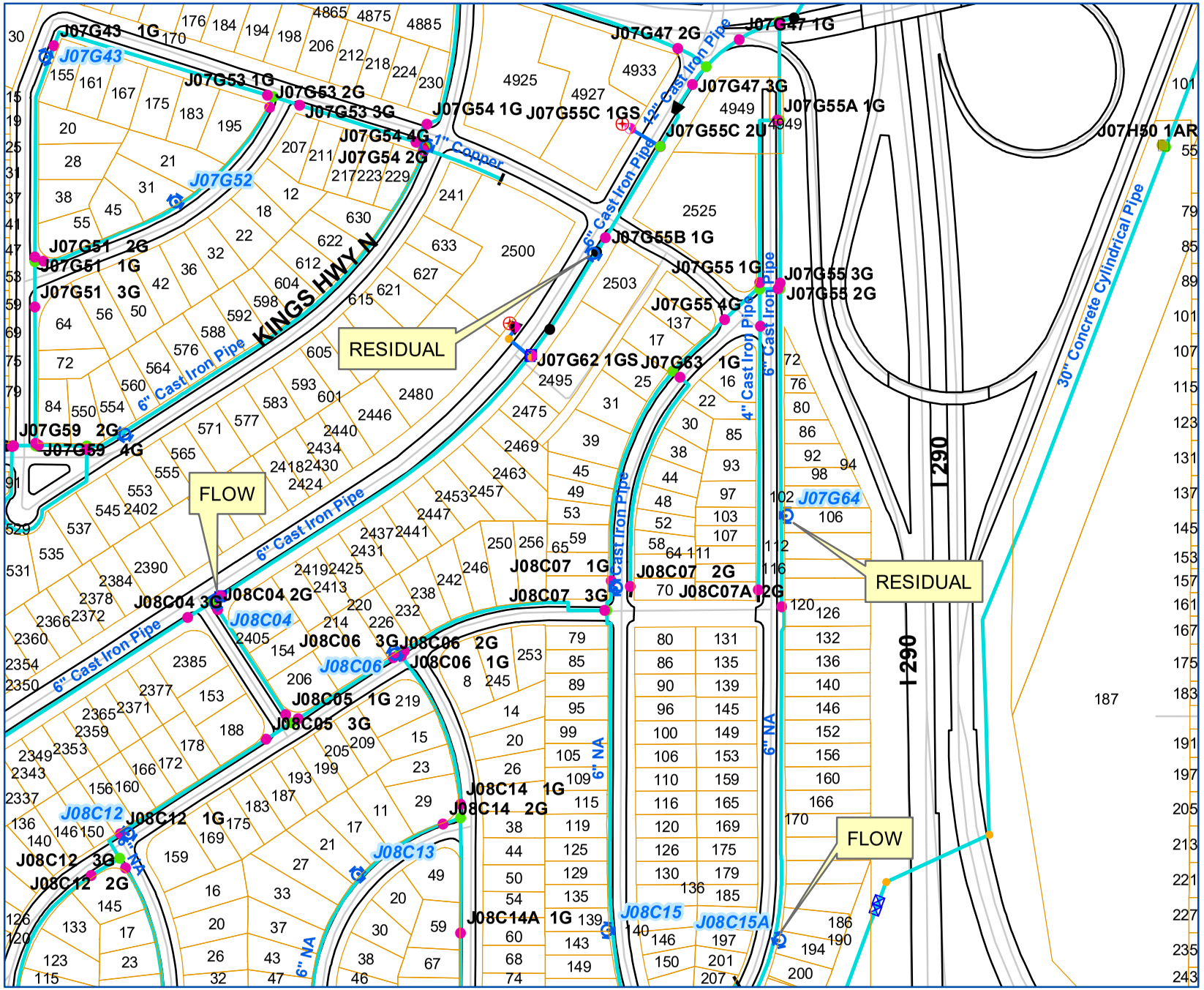
HIS MAP IS NOT TO BE USED FOR NAVIGATION

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

1: 2,257

2525 KENSINGTON



STORM SEWER COMPUTATIONS (10 yr)

	RUNOFF AND FLOW																
	SEWER LOCATION			TRIBUTARY AREA (acres)		RUNOFF COEFFICIANT C									TIME OF CONC. T_c (min)	INTENSITY I (in/hr)	FLOW Q (cfs)
	area	from	to	A	SUM A	c	cA	SUM cA	LENGTH	SLOPE	PREV. Tc	T. of conc. c	RUNOFF Tc				
43.49																	
7.75																	
0.78	1	CB-1	ex mh1	0.10	0.10	0.90	0.09	0.09	70.00	1.50		0.90	2.63	2.63	10.00	4.6	0.43
	2	CB-2	CB-3	0.10	0.10	0.90	0.09	0.09	70.00	1.50		0.90	2.63	2.63	10.00	4.6	0.41
	3	CB-3	CB-4	0.32	0.41	0.90	0.28	0.37	70.00	1.50	10.57	0.90	2.63	10.57	10.57	4.5	1.67
	4	CB-4	ex mh2	0.13	0.54	1.90	0.24	0.61	70.00	1.50	10.83	1.90	10.52	10.83	10.83	4.5	2.72
					0.51												

	DESIGN								
	MANNING n	SLOPE S (%)	DIAMETER D (in)	CAPACITY Q (cfs)	CAPACITY VELOCITY V (ft/sec)	% capacity	peak factor	FLOW VELOCITY V (ft/sec)	LENGTH L (ft)
1	0.012	0.50	6	0.43	2.19	0.99	1.16	2.55	40
2	0.012	0.50	6	0.43	2.19	0.94	1.15	2.52	70
3	0.012	0.50	10	1.68	3.09	0.99	1.16	3.58	85
4	0.012	0.50	12	2.74	3.48	0.99	1.16	4.04	40

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

APPENDIX B

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

APPENDIX C

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

October 18, 2021 Job No: 21-599

Shatkin School of Dentistry
2500 Kensington Avenue
Amherst, New York 14226

ATTN: Dr. Todd Shatkin, DDS

RE: Geotechnical Engineering Report
Proposed Mezzanine & Canopy at
Shatkin School of Dentistry
2525 Kensington Avenue
Town of Amherst, Erie Co., New York 14226

Dr. Shatkin:

This report presents the findings of the subsurface investigation program and geotechnical engineering recommendations for the above referenced project. The geographic orientation of the project site is illustrated on the U.S. Geologic Survey (USGS) site location map in Figure No. 1. The project site is illustrated in Figure No. 2, entitled "Test Boring and Concrete Core Location Plan", which includes: the approximate location of one exterior test boring and two interior concrete floor slab cores that were drilled by Buffalo Drilling Company, Inc. (BDC); relative ground surface elevations; and additional site details.

EXPLORATION METHODS

Sampling Method: A truck-mounted CME 55 rotary drill rig was used to drill one boring to shallow auger refusal by using 4-1/4 inch inside diameter (ID), continuous flight hollow stem augers. Samples were recovered by driving a standard split-spoon sampler (2-foot long by 1-3/8 inch inside diameter) 24 inches with a 140-pound hammer falling 30 inches per blow per the American Society of Testing and Materials (ASTM) Standard D1586. The number of blows from six to 18 inches of penetration is defined as the Standard Penetration Test (SPT) N-value. Auger refusal, which may infer the top of bedrock, was encountered approximately seven feet below ground surface. Inside the existing structure, an electric core machine with six-inch ID, diamond impregnated bit was used to core through the concrete floor slab to gain access to subsurface soils at two locations, C-1 and C-2. Subsurface samples were retrieved via hand sampler beneath concrete floor slab.

Bedrock was confirmed by coring boring B-1 to a depth of approximately five feet below auger refusal. Bedrock coring efforts were done with an Nx-sized (2-1/8-inch I.D.) core barrel and impregnated diamond bit in accordance with ASTM Method D2113.

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Any encountered groundwater conditions are documented in the field on the driller's logs for each test boring. If indicators of groundwater are observed on the sampling equipment, the depth to groundwater is also checked and measured through the hollow stem augers at the completion of the sampling efforts.

Classification: The retrieved soil samples were initially logged in the field by the driller, and a portion of each sample was placed and sealed in a glass jar. The boring logs, which are included in Appendix A, were based upon the field logs and a second visual classification of recovered samples in the laboratory by a geologist. Classification/identification of samples, as noted on the boring logs, is based on the Unified Soil Classification System (USCS) in ASTM D2487/D2488. Refer to Appendix B entitled, "Geotechnical Reference Standards", for an explanation of the terminology that is used for soil and rock descriptions.

Each rock core was examined on a run-by-run basis to determine the percentage of core recovery and Rock Quality Designation (RQD). Core recovery percentage is the ratio of the sample length recovered divided by the length of the core run times 100 percent. RQD is defined as the total length of all pieces of core that are greater than four inches divided by the length of the core run times 100 percent. Core recovery and RQD percentages are noted on the boring logs.

Each core sample of the existing concrete floor slab was observed, measured, and photographed for review. Details can be found on the test boring/core logs C-1 and C-2 in Appendix A and the photographs are available in Appendix C, entitled "Floor Slab Core Photographs".

SITE AND SUBSURFACE CONDITIONS

General: The proposed site for development is the existing Phipps Brothers Supply, Inc. building addressed as 2525 Kensington Avenue, in the Town of Amherst, Erie County, New York. The project will include the construction of an interior mezzanine and an exterior canopy over the drop off area along the east side of the building. The site topography is generally flat across test boring locations.

Subsurface Soil Conditions: In general, subsurface conditions, underlying the exterior asphalt pavement or interior concrete floor slab, consist of one to two feet of granular fill material atop naturally deposited cohesive/fine-grained glacial till that extends to auger refusal.

Beneath the asphalt at B-1, granular fill material was encountered and extends two feet below ground surface. This fill consists of fine to coarse-grained sand to gravel sized crushed limestone and is believed to be the aggregate base course for the asphalt pavement. Relative density of the granular fill is medium dense with moisture contents of retrieved samples noted to be in a moist state. Beneath interior concrete floor slab at boring/cores C-1 and C-2, the granular fill is a loose to medium dense silty sand with trace quantities of gravel. This fill is described as a spent foundry sand typical of the metal casting industry which has a historic common reuse in this region as concrete slab/rigid pavement base layers.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Beneath the fills, a naturally deposited cohesive/fine-grained glacial till exists and extends to auger refusal at B-1 and the remain depths advanced at C-1 and C-2. The till generally consists of slightly to moderately plastic, silt and clay with lesser amounts of sub-rounded fine-sized to coarse-sized sand and gravel. The consistency of this soil is primarily stiff to hard with moisture contents of retrieved samples noted to be moist. Spoon refusal conditions are also noted in the lower depths of the unit closer to soil bedrock interface. The proposed footing bearing grades for the proposed structures are assumed to be within this soil.

Bedrock: Auger refusal, which is generally inferred to be the top of the apparent bedrock surface, was encountered at B-1 approximately seven feet below ground surface. Confirmatory rock coring was advanced five feet beneath the refusal condition and bedrock samples collected. The bedrock type is the Onondaga Limestone, which is described as hard, slightly weathered, medium dark gray, thinly bedded, porous and calcareous limestone. Percent recovery is lightly more than 50 percent with rock quality designations (RQD) noted as 30 percent. These RQD values suggest that the rock is poor quality.

Groundwater: Groundwater was not encountered during subsurface exploration efforts. Note that the groundwater readings were taken at the completion of drilling efforts and, therefore, an adequate amount of time for the groundwater level to recharge to static conditions was probably not allowed. Fluctuations in the groundwater level may occur due to other factors than those present during field operations.

EARTHQUAKE/SEISMIC CONSIDERATIONS

Site Class Definition: For the given site conditions, the most applicable site definition is Site Class C, in accordance with Section 1613.2.2 of Building Code of New York State © 2020 and listed in Table 20.3-1 of Chapter 20 of American Society of Civil Engineers (ASCE) Standard 7-16.

Liquefaction Potential: For the Site Class C, the design spectral response acceleration parameters S_{DS}, at 0.2 seconds, and S_{D1}, at one second, are 0.146g and 0.045g (g = 32.2 feet/sec^2), respectively, for this part of Erie County, New York (see Appendix D). These values have a two percent probability of being exceeded in 50 years. Based upon the above conditions and an approximate magnitude 6.0 earthquake on the Richter Scale, the potential for liquefaction or settlement of Site Class C soil is considered extremely low.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS

General: This section will present and discuss recommendations on foundation design and construction and placement of controlled fills, and subgrade and base layer requirements for concrete floor slabs.

As shown in Figure No. 2, a mezzanine will be constructed inside the northern warehouse portion of the existing building. Additionally, a canopy will be constructed to cover the drop off area at the rear of the structure. The existing ground surface is generally flat across the development area and final exterior grades are assumed to closely match the existing at relative elevation 100.00 ± feet. The maximum design exterior and interior column loads are not expected to exceed 100 kips. The maximum live floor load is taken as 100 pounds per square foot (psf).

Site Preparation and Earthwork: General site preparation will include the demolition and complete removal of any encountered foundations and floor slabs, and removing all unsuitable surficial material (i.e., asphalt pavement, concrete, brick, expansive slag, organic or topsoil layer, and construction and demolition-like fill) to a depth where firm, granular or cohesive fills or naturally occurring soils are encountered. It is recommended, particularly in the location of the proposed structure, that any slag and/or cinder/ash containing material, if encountered, should be tested to determine the expansion and corrosion characteristics (where applicable for direct or potential contact with foundation elements and buried utilities) of these materials prior to their use on-site. Any rubble-like and brick fill, boulders, or wood fill in particular, if encountered, will require undercutting. Building pad and paved areas are to be proof rolled with a fully loaded ten-wheel dump truck. All encountered soft and disturbed zones should be undercut and stabilized with granular fill that is placed in compacted lifts prior to placement of additional fill materials above. Refer to Appendix E entitled "General Earthwork Specification" for definition of the fill types and gradations, recommended minimum compaction requirements for various site developments, and placement and compaction methods. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components that are included in the select granular fill category as are as follows: Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred; or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size).

It is unknown if any former residential/commercial structures existed at the project site for the proposed renovations and if any former footings and foundation walls may be buried at the proposed site. Septic tank and system locations and the abandonment conditions or practices are normally unknown. If encountered during site development, it is recommended that any tanks and systems should be properly removed/treated/remediated relative to the proposed development and under the applicable local and state regulations. The remaining cavities, from the aforementioned items, should be backfilled with select/approved granular fill that is placed in thin lifts and compacted to the minimum recommendation, as presented in this report, for the proposed development at that cavity location.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Shallow Foundation: The recommended foundation type is shallow footings. Individual interior and exterior spread column footings would bear at an elevation of 42-inches or lower below final grade, at relative elevation 96.50 ± feet or lower. A 42-inches minimum footing depth (as required by local or New York State code) is needed to provide adequate protection from frost for exterior footings.

The exterior and interior footings are recommended to bear at the same relative elevation on stable, naturally deposited, stiff (Nvalues > 10 blows) cohesive/fine-grained glacial till or on thin layers of thoroughly compacted (minimum of 95 percent of the maximum dry density by ASTM D 1557) select/approved granular fill that is placed on approved subgrade. If needed, a geotextile strength and filter fabric (such as, Mirafi 600X) may be used to line the excavation bottom for the purpose of stabilizing the excavation and placement of the select/approved granular fill. Alternatively, in heated buildings the interior footings are recommended to bear two and one-half feet or lower below finish floor at relative elevation 97.50 ± feet and on the same soil/fill conditions as the exterior footings.

Undercut areas beneath proposed foundations must extend laterally beyond each vertically projected edge of the foundation by a minimum distance equal to one-half the total depth of the undercut or equating to a slope of two vertical to one horizontal from the bottom foundation corner. The undercuts and placement of compacted select/approved granular fill are required to ensure a suitable and more uniform bearing media for the footings, and to prevent unacceptable differential settlements.

Column footings should have a minimum three-foot width. Based on the above described conditions, the recommended maximum net allowable foundation bearing pressure is 2,500 pounds per square foot (psf) of bearing area. All footings for the proposed building are recommended to be designed near the same contact pressure. The recommended maximum net allowable foundation bearing pressure is based on generally accepted design methods for cohesive/fine-grained soil conditions. Based on the provisions of the above recommendations and estimated design requirements and utilization of proper construction procedures and experienced field supervision and testing personnel, total and differential settlements are estimated to be less than one inch and 3/4's inch, respectively. Refer to Appendix D for additional foundation design and construction details.

Additional Foundation Considerations: In addition to the above, the following recommendations will provide additional assurances with regard to proper foundation construction.

a) All fill placed beneath, adjacent, or above foundations must comply with the "General Earthwork Specification", included as Appendix E.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

b) Backfill of foundations with approved select granular fill must be completed prior to placement of substantial superstructure loads, except for basement walls or substructure areas that may additionally require superstructure loads and possibly internal bracing.

c) The upper silty materials may rut and “pump” if exposed to excessive surface water and repeated construction traffic. Proper site management and fill placement operations are needed to minimize costly undercuts and subgrade repairs prior to placement of concrete slabs and asphalt pavement. It is noted that construction during wet/rainy and/or Fall and Spring conditions may require added precautions and possibly a thicker base layer to maintain a stable subgrade condition.

d) Step footings, if utilized, should have a rise to run ratio of 1:2, with a two-foot maximum rise and a four-foot minimum run between steps or as recommended by the design structural engineer.

e) The recommended at rest (rigid wall), active, and passive static earth pressure coefficients for unsaturated, select granular sandy gravel fill against an earth retaining structure/wall are 0.76, 0.24, and 2.8 (with an ultimate value of 4.2), respectively. The respective equivalent static lateral fluid pressures are recommended to be 90, 30 and 330 (with an ultimate value of 500) pounds per square foot (psf) per foot depth which are based upon a moist, compacted unit backfill weight of 120 pounds per cubic foot (pcf). The at rest value would account for the average expected compaction induced stresses and/or the potential influences of hydrostatic pressure. The static lateral fluid pressures can be directly proportioned for other unit weights.

Stabilization of Excavations: The trench/excavation sidewall stability concerns can be addressed with the Occupational Safety and Health Act (OSHA) requirements as set forth in Subpart P of 29 CFR Part 1926, Sections 1926.650 to 1926.652. In lieu of a properly designed shoring system, side slopes of the trench excavation should be one on one (vertical to horizontal distance) or flatter in cohesive soils or one on one and one-half or flatter in the granular materials, as required by OSHA.

Water must not be allowed to accumulate or pond on exposed foundation bearing grades. Surface water and groundwater from within the excavation must be either pumped, diverted or channelized by gravity flow to effectuate the construction of the proposed foundation. Pockets of localized perched groundwater may seasonally be expected to be encountered at footing and/or footing undercut bearing grades. At these locations, dewatering with surface sumps may be required to maintain stable side slopes and excavation bottom.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Concrete Interior Floor Slab(s)/Pad: A geotextile fabric (such as, Mirafi 600X or equal) that separates the subgrade and the approved/select granular base layer is recommended for sensitive cohesive/fine-grained/silty subgrade soil/fills. This approach will stabilize and provide a workable building pad condition with minimal required repairs. The approved subgrades will most likely consist of stiff or better/thoroughly compacted (i.e., minimum 92 percent of the maximum dry density by ASTM D 1557) cohesive silt and clay, and/or a thoroughly compacted imported select/approved granular fill.

Above the approved subgrades, a minimum eight-inch thick for lightly loaded areas and minimum 12-inch thick for heavily loaded areas select granular fill (i.e., number two crusher run stone or equal) layer is recommended as the base course for concrete floor slabs. The NYSDOT specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum). This select granular base layer would be compacted to a minimum 95 percent of the maximum dry density by ASTM D 1557. The floor slabs in any lightly loaded areas are recommended to have a minimum four-inch thickness, while heavily loaded areas are recommended to have a minimum six-inch thickness or as determined by the design structural engineer. The floor slab reinforcement should be provided through placement of wire mesh or plastic fibers and is also as determined by the design structural engineer.

At the discretion of the design architect, a vapor barrier may be considered for use in the proposed structure. The use of a thin gravel cushion, as a capillary break, or a thin sand cushion over a vapor barrier that is placed beneath the concrete slab(s) are at the discretion of the design architect/engineer or as required by local code. Gradations of gravels that are satisfactory capillary breaks include 1 ¼-inch or ¾-inch crushed stone or aggregate per the ASTM D2321 Types IA, IB and II with less than 5 % fines. A number two crusher run stone may also be applicable, but the gradation and material property specifications must qualify.

At the assumed final site grade and based upon the thickness and character of the underlying natural soils, the subgrade modulus is recommended not to exceed 150 pounds per cubic inch (pci). A Poisson Ratio of 0.4 is recommended for design purposes. Isolation of the floor slabs from the footings-piers-columns and walls do appear to be warranted. Based upon the subgrade modulus and slab mechanical properties and thickness, the design structural engineer may accordingly adjust the granular aggregate base thickness.

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Exterior Concrete Slabs-On-Grade/Pad/Parking and Roadway Facilities: The characteristics of the cohesive natural glacial till, and the known frost penetration in Western New York require that specific attention is provided to the design and construction of paved roadway and parking areas. For new pavement sections, isolated pockets of surficial silty/cohesive/fine-grained soil/fill may be encountered and may be too soft and wet in the proposed parking and roadway areas. These types of soil/fill may be adequately conditioned (i.e., dried and blended) and compacted (i.e., minimum 90 percent compaction) to support necessary construction equipment and normal pavement section. Otherwise, the removal/undercutting of the silty/cohesive/fine-grained soil/fill to a firm, approved subgrade and subsequent placement and compaction of select or approved granular fill will be required in order to accommodate the recommended pavement sections.

For new pavement sections, it is recommended that the subgrade surface is adequately graded and/or underdrains are installed to prevent water accumulation. Above the approved subgrade surface (i.e., minimum 90 percent compaction), a minimum eight-inch thick select granular layer is recommended as the base course for lightly traveled roadway and parking areas (standard duty section). A geotextile filter and strength fabric (such as, Mirafi 600X or equal) on silty/cohesive/fine-grained soil subgrades and minimum 12-inch thick base course are recommended for all truck routes and heavily traveled roadways (heavy duty section). If “pumping” of the silty/cohesive/fine-grained soil subgrade occurs or is difficult to stabilize during construction, an increase in the base thickness to that of the heavy-duty section and/or a geotextile filter and strength fabric is recommended to be placed on the prepared and approved subgrade for the standard duty section. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size). The granular aggregate base layer is recommended to be compacted to at least 95 percent of maximum dry density by ASTM D1557.

The thickness of top and binder course layers should be determined in accordance with AASHTO methods. In summary, the minimum recommended asphalt thicknesses for the heavy-duty section and standard duty section are three and one-half inches and three inches, respectively. The top and binder course layers are recommended to be designed and constructed in accordance with New York State Department of Transportation Standard Specification.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

Limitations, Field Inspections and Monitoring: This report is based on the preliminary information that is provided by project representatives and the subsurface conditions that were encountered at the test boring locations. Due to the nature of the investigation method, test pit excavation will provide a greater level of delineation of the subsurface soil/fill/rock conditions than can be defined by the test boring data alone. As detailed in Appendix F "Limitations", modification regarding proposed building/structure locations and other site developments can result in changes to provided recommendations. It is recommended that the geotechnical engineer be provided the opportunity to generally review the final detailed design and contract specifications. Required earthwork and foundation construction should be done under the supervision of experienced construction personnel and in a manner consistent with proven methods. All site work should be carefully monitored and tested by experienced geotechnical personnel to assure compliance with earthwork and foundation construction specifications.

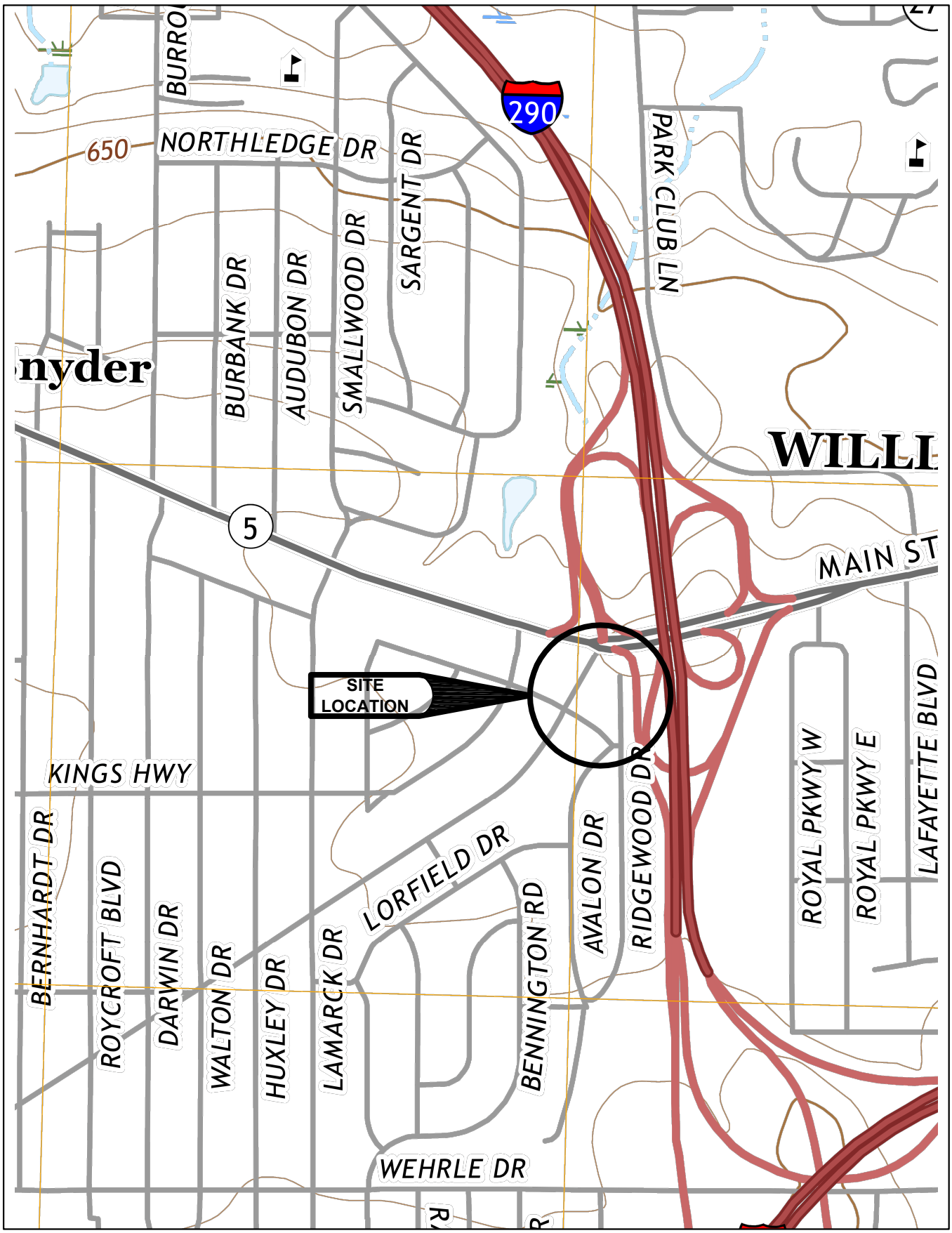
Thank you for the opportunity to assist on this project. If questions should arise, please call the undersigned at your earliest convenience.

Very truly yours,
BARRON & ASSOCIATES, INC.
and
BUFFALO DRILLING COMPANY, INC.

Andrew J. Camping, PG
Senior Geologist

James S. Barron, PE
President/Geotechnical Engineer

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)



BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

CLIENT: MR. TODD SHATKIN, D.D.S.
2500 KENSINGTON AVENUE
AMHERST, NEW YORK 14226

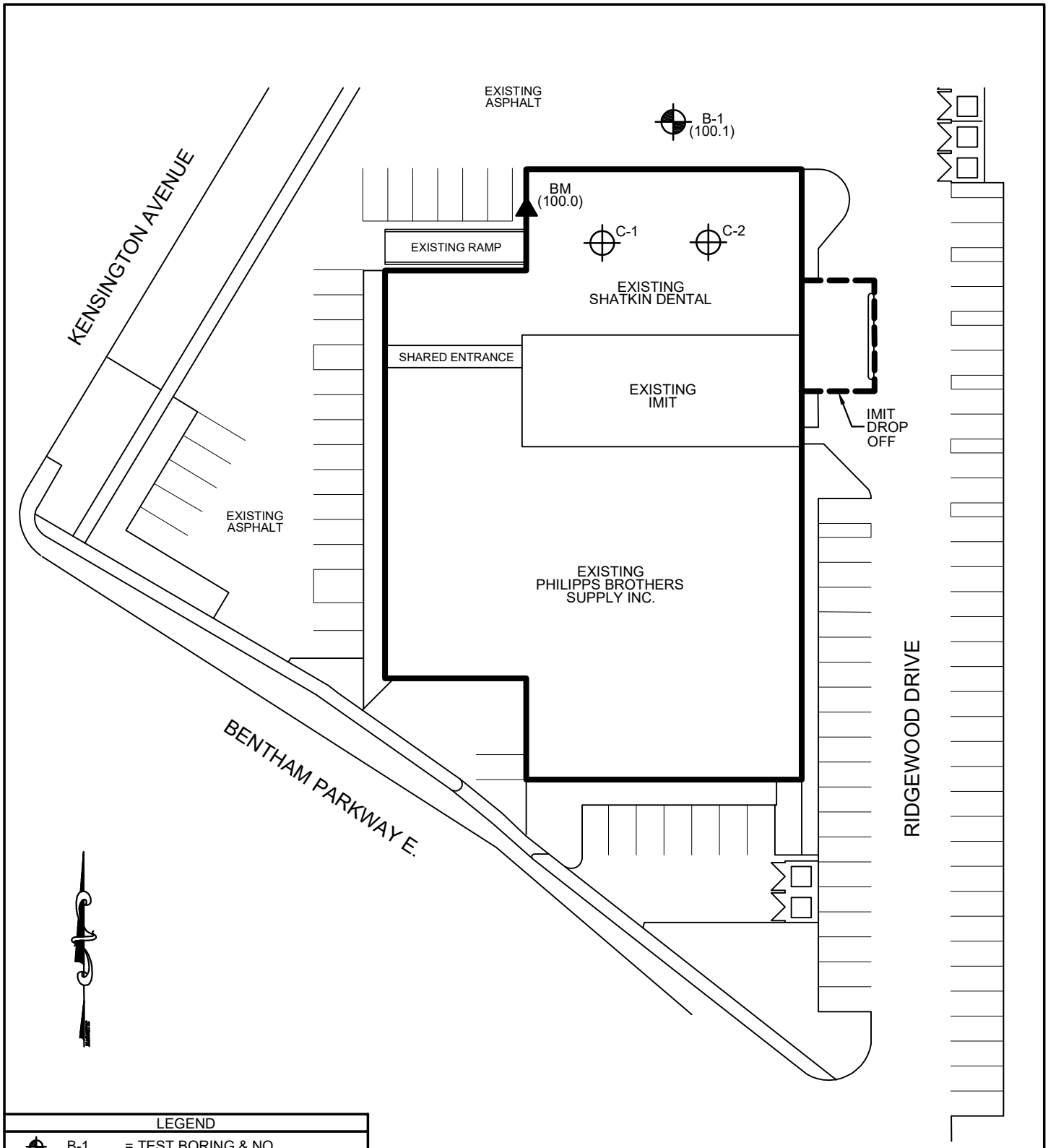
PROJECT: PROPOSED MEZZANINE AT
SHATKIN SCHOOL OF DENTISTRY
2525 KENSINGTON AVENUE
TOWN OF AMHERST,ERIE CO., NEW YORK 14226

NEW YORK STATE
SITE LOCATION

USGS SITE LOCATION PLAN
BUFFALO NE
2019

JOB NO.: 21-599 | SCALE: N.T.S.
DATE: 8/10/2021 | FIGURE NO. 1

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)



LEGEND

⊕	B-1	= TEST BORING & NO.
⊕	C-2	= CONCRETE CORE & NO.
	(100.1)	= RELATIVE GROUND SURFACE ELEVATION (FT.)
▲	BM	= BENCH MARK (FINISH FLOOR OF EXISTING BUILDING)

NOTES:

1. BORING, CONCRETE CORES, BUILDINGS, SITE FEATURES, PROPERTY LINE LOCATIONS, & SCALE OF DRAWING ARE APPROXIMATE.
2. BASE MAP REFERENCE PROVIDED BY STIEGLITZ SNYDER ARCHITECTURE, TITLED "SITE PLAN - SHATKIN SCHOOL OF DENTISTRY DAMEN COLLEGE - INSTITUTE FOR MOBILITY AND TECHNOLOGY", DATED 6/1/2021.

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

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2500 KENSINGTON AVENUE
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TEST BORING AND CONCRETE CORE LOCATION PLAN

0 25 50 100

JOB NO.: 21-599	SCALE: 1" = 50' ±
DATE: 8/10/2021	FIGURE NO. 2

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street
Clarence, NY 14031
(716) 759-7821
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APPENDIX A

TEST BORING AND CORE LOGS

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

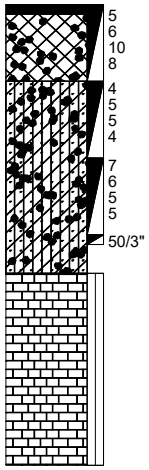
TEST BORING LOG

1.i

JOB No.: 21-599 **BORING No.:** B-1

PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

DRILLER:	D. Rimbeck	**TYPE OF DRILL RIG:**	CME 55 (Truck)
SAMPLING METHODS:	ASTM D1586 & D2113	**SIZE AND TYPE OF BIT:**	4 1/4" H.S.A. & Nx Core
DATE STARTED:	8/13/21	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	8/13/21	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0					
		S-1 : 0.0'- 2.0'	16	30	Asphalt (3"+/-) Gray, m. dense f/c sand to gravel-sized Crushed Limestone, moist (GV Fill)
		S-2 : 2.0'- 4.0'	10	50	Brown, stiff CLAY, and SILT, little f/c Sand, tr. Gravel, sl. to mod. plast wet (CL-Till)
95 — 5		S-3 : 4.0'- 6.0'	11	0	Same as S-2 (No Recovery)
		S-4 : 6.0'- 6.3'	50+	0	...grade: hard (No Recovery)
90 — 10		C-1 : 7.0'- 12.0'	-	53 (30)	ONONDAGA LIMESTONE: med. dark gray, finely crystalline, thin bedded, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE) # pieces > 1": 8 # pieces > 4": 4 longest piece: 5" *(Vertical fracture observed in lower half of retrieved core sample.)*
85 — 15					Depth to Bottom of Hole: 12.0 feet
80 — 20					
75 — 25					
70 — 30					
65 — 35					

Logged by: B. Smith

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

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BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

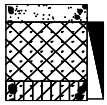
TEST BORING LOG

1.i

JOB No.: 21-599 **BORING No.:** C-1

PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

DRILLER:	D. Rimbeck	**TYPE OF DRILL RIG:**	Hand Sampler
SAMPLING METHODS:	ASTM D420	**SIZE AND TYPE OF BIT:**	2" I.D. Split Spoon
DATE STARTED:	8/13/21	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	8/13/21	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0					Concrete Floor Slab (5.5")
		S-1 : 0.5'- 2.5'	-	70	Dk. gray, f. Sand, little to tr. Silt, tr. Gravel, moist (SM-Fill) *(Appears to be foundry sand.)*
					Brown, stiff CLAY and SILT, little f/c Sand, tr. Gravel, sl. to mod. plasti moist (CL-Till)
					Depth to Bottom of Hole: 2.5 feet
95 — 5					
90 — 10					
85 — 15					
80 — 20					
75 — 25					
70 — 30					
65 — 35					

1. Concrete floor slab approximately 5.5" thick with welded wire mesh 1.75 inches from bottom.
2. Manually advanced split spoon sampler into ground to retrieve samples after coring.

Logged by: B. Smith

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

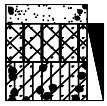
TEST BORING LOG

1.i

JOB No.: 21-599 **BORING No.:** C-2

PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry
2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226

DRILLER:	D. Rimbeck	**TYPE OF DRILL RIG:**	Hand Sampler
SAMPLING METHODS:	ASTM D420	**SIZE AND TYPE OF BIT:**	2" I.D. Split Spoon
DATE STARTED:	8/13/21	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	8/13/21	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0					Concrete Floor Slab (6")
		S-1 : 0.5'- 2.5'	-	65	Dk. gray, loose, f. Sand, little to tr. Silt, tr. Gravel, moist (SM-Fill) *(Appears to be foundry sand.)*
					Brown, stiff CLAY and SILT, little f/c Sand, tr. Gravel, mod. to sl. plasti moist (CL-Till)
					Depth to Bottom of Hole: 2.5 feet
95 — 5					
90 — 10					
85 — 15					
80 — 20					
75 — 25					
70 — 30					
65 — 35					

1. Concrete floor slab approximately 6" thick with welded wire mesh 0.5 inches from bottom.
2. Welded wire mesh is not fulling integrated within floor slab at this location.
3. Manually advanced split spoon sampler into ground to retrieve samples after coring.

Logged by: B. Smith

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street
Clarence, NY 14031
(716) 759-7821
www.barronandassociatespc.com

APPENDIX B

GEOTECHNICAL REFERENCE STANDARDS

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

Column Header Descriptions

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

JOB No.: BORING No.:

PROJECT:

EXAMPLE

DRILLER:
SAMPLING METHODS:
DATE STARTED:
DATE COMPLETED:

TYPE OF DRILL RIG:
SIZE AND TYPE OF BIT:
SURFACE ELEVATION (ft.):
GROUNDWATER DEPTH (ft.):
(measured at completion unless indicated below)

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0	1 1 1 2 / 6 8 11 14	S-1 : 0.0'- 2.0'	2	50	Dk. brown, soft, CLAY, some Silt, little f. Sand, tr. Gravel, tr. Roots, tr. Organic matter, mod. plastic, wet (CL)
		S-2 : 2.0'- 4.0'	19	50	Brown, m. dense f. SAND, some Silt, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM)

Elevation/Depth: The depth column provides the vertical scale of the boring log in feet below ground surface.

Sample No. : Range: Disturbed samples are identified with “S” preceding the sample number. Undisturbed (Shelby-tube) samples are identified with “U” preceding the sample number. Rock core samples identified with “C” preceding the core run. The range of elevation/depth where the sample was taken is identified in one-tenth foot increments.

N-value: The Standard Penetration Test N-value, as specified by ASTM D1586, is defined as the number of blows required by a 140-pound hammer falling 30 inches, each blow, to drive a 2-in outside diameter split-spoon sampler 12 inches.

% REC (RQD): “Percent Recovery” is the length of samples recovered divided by the total length sampled. The result is numerically expressed as a percent. The Rock Quality Designation (RQD) is the total length of places >4 inches divided by the total length of core run.

Soil and Rock Description / Remarks: This column denotes the exact depth of recovery and general documentation of drilling efforts. Description and classification are based on visual inspection of samples and boring operations. The stratum lines shown on the boring logs are based upon interpretation and may not represent precise subsurface conditions. Water-level readings have been made in the drill holes at time under conditions stated on the boring logs. Fluctuations in the water level may occur due to other factors than those present the time measurement was taken. See attached sheet.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

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Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

Soil and Rock Description / Remarks: Terminology Used for Soil Description

Density Description of Granular Soil

Number of Blows per ft., N	*Relative Density*
0 - 4	Very Loose
4 - 10	Loose
10 - 30	Medium
30 - 50	Dense
Over 50	Very Dense

Abbreviations Used in Soil Sample Classification

f - fine	v - very
m - medium	gr - gray
c - coarse	bn - brown
f/m - fine to medium	yel - yellow
f/c - fine to coarse	sl - slight
tr - trace	dk - dark

Consistency Description of Cohesive Soil

Number of Blows per ft., N	*Consistency*
Below 2	Very Soft
2 - 4	Soft
4 - 8	Medium
8 - 15	Stiff
15 - 30	Very Stiff
Over 30	Hard

Bedding

Parting	Less than 0.02 ft.
Band	0.02 - 0.2 ft.
Thin bed	0.2 - 0.5 ft.
Medium bed	0.5 - 1.0 ft.
Thick bed	1.0 - 2.0 ft.
Massive	Over 2.0 ft.

Grain Size

	Passing / Retained on
Boulder	LARGE / 12-in sieve
Cobble	12-in / 3-in sieve
Gravel	3-in sieve / No. 4 sieve
	No. 4 sieve / No. 10 sieve
Sand	No. 10 sieve / No. 40 sieve
	No. 40 sieve / No. 200 sieve
Silt	No. 200 sieve / 0.005 mm sieve
Clay	Smaller than 0.005 mm

Hardness

Very Soft or Plastic	Can be indented with thumb
Soft	Can be scratched with fingernail
Moderately Hard	Can be scratched with knife
Hard	Difficulty to scratch with knife
Very hard	Cannot be scratched with knife

Percentage Terminology Used in Soil Classification

Trace	0 - 10 %	Some	20 - 35 %
Little	10 - 20 %	And	35 - 50 %

Moisture

Dry	Absence of moisture, dusty, dry to the touch.
Moisture	Small quantity of moisture. Soil usually above groundwater level.
Wet	Moisture noticeable to the touch. Soil may be below groundwater level.
Saturated	Visible free water, usually soil is below groundwater level.

Plasticity

Non-plastic	An 1/8-in thread cannot be rolled at any water content.
Slight plasticity	Thread can be barley rolled.
Moderate plasticity	Thread is easy to roll and little time is required to reach the plastic limit (PL).
Plasticity	Considerable time is required to reach PL. Thread can be re-rolled several times after reaching the PL.

Crystallinity or Texture

Dense	Crystals are to small they cannot be distinguished with the naked eye.
Very Fine Crystalline	Crystals barely discernable with the naked eye.
Crystalline	Crystals are medium size, up to 1/8-in diameter.
Very Coarsely Crystalline	Crystals larger than 1/8-in diameter.

Voids

Porous	Smaller than pinhead. Their presence is indicated by the degree of absorbency.
Pitted	Pinhead size to 1/4 in. If thin walls separate the individuals pits, the core may be described as honeycomb.
Vug	1/4 inch to the diameter of the core. The upper limit will vary with core size.
Cavity	Larger than the diameter of the core.

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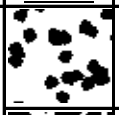
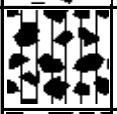
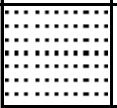
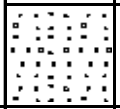
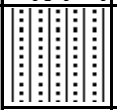
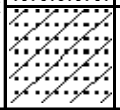
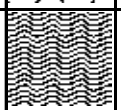
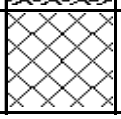
Soil Classification Chart: Unified Soil Classification System (USCS)

Major Divisions			Pattern	USCS ID	Typical Descriptions
Coarse-Grained Soils: More than 50% of material larger than No. 200 sieve	**Gravels**: More than 50% of coarse fraction larger than No. 4 sieve	Clean Gravels (little or no fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with appreciable amounts of fines		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-silt mixtures
	Sands: Less than 50% of coarse fraction larger than No. 4 sieve	Clean sands (little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sands, little or no fines
		Sand with appreciable amount of fines		SM	Silty sands, silt-sand mixtures
				SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils: Less than 50% of material larger than No. 200 sieve	**Silts and Clays, Low plasticity**: Liquid Limit < 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravely clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays, High plasticity: Liquid Limit > 50%			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils				Pt	Peat, humus, swamp soils with organic contents
Miscellaneous Fill				FILL	Miscellaneous fill may belong in any division but is identified as FILL

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APPENDIX C

FLOOR SLAB CORE PHOTOGRAPHS

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-1; Top View



Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-1; Side View



Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-2; Top View



Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)



21-599 Floor Slab Core, C-2; Side View

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

21-599 Floor Slab Core, C-2; Bottom View



Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

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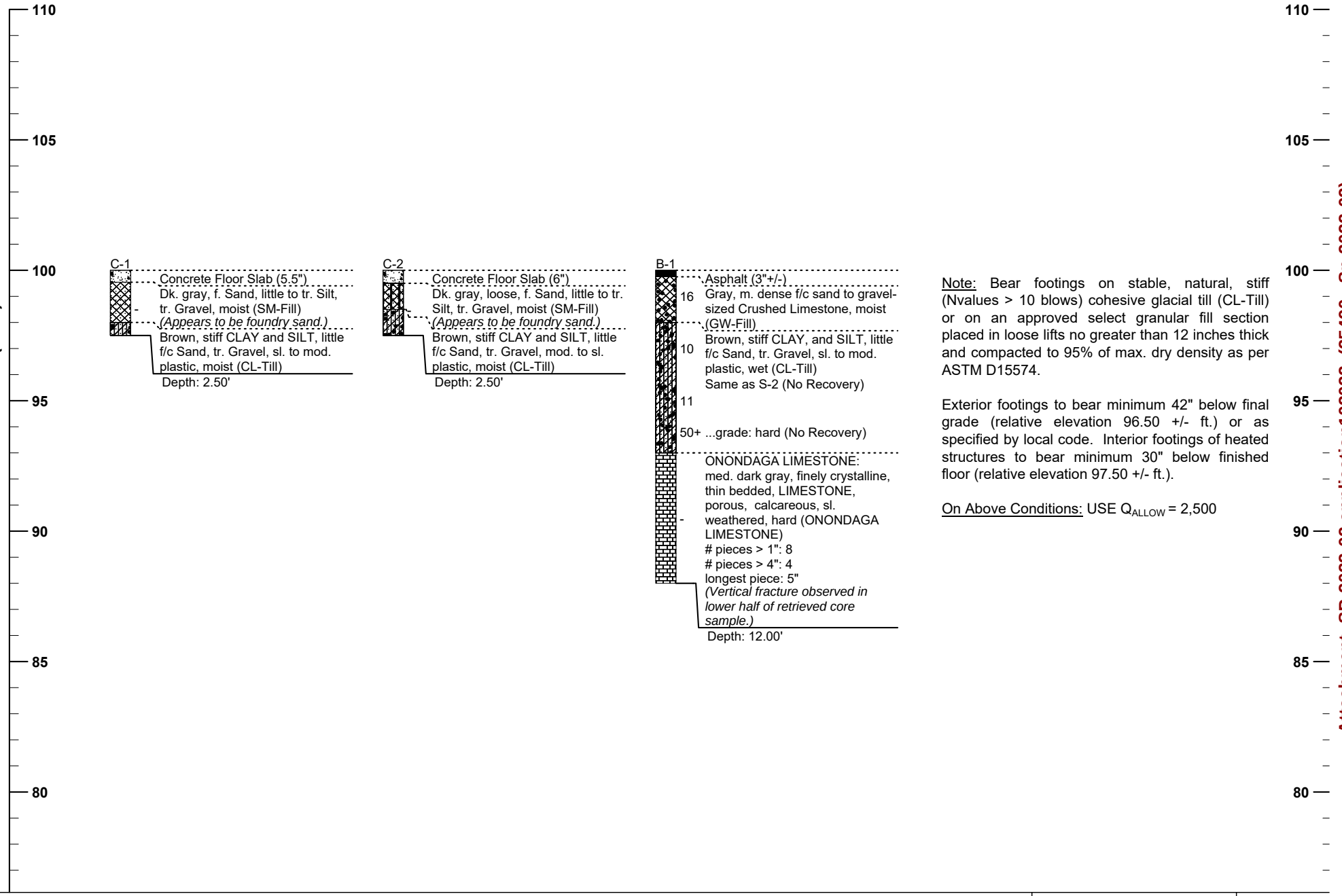
APPENDIX D

ENGINEERING COMPUTATIONS AND SCHEMATICS

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

"PROFILE OF BORINGS"



Note: Bear footings on stable, natural, stiff (Nvalues > 10 blows) cohesive glacial till (CL-Till) or on an approved select granular fill section placed in loose lifts no greater than 12 inches thick and compacted to 95% of max. dry density as per ASTM D15574.

Exterior footings to bear minimum 42" below final grade (relative elevation 96.50 +/- ft.) or as specified by local code. Interior footings of heated structures to bear minimum 30" below finished floor (relative elevation 97.50 +/- ft.).

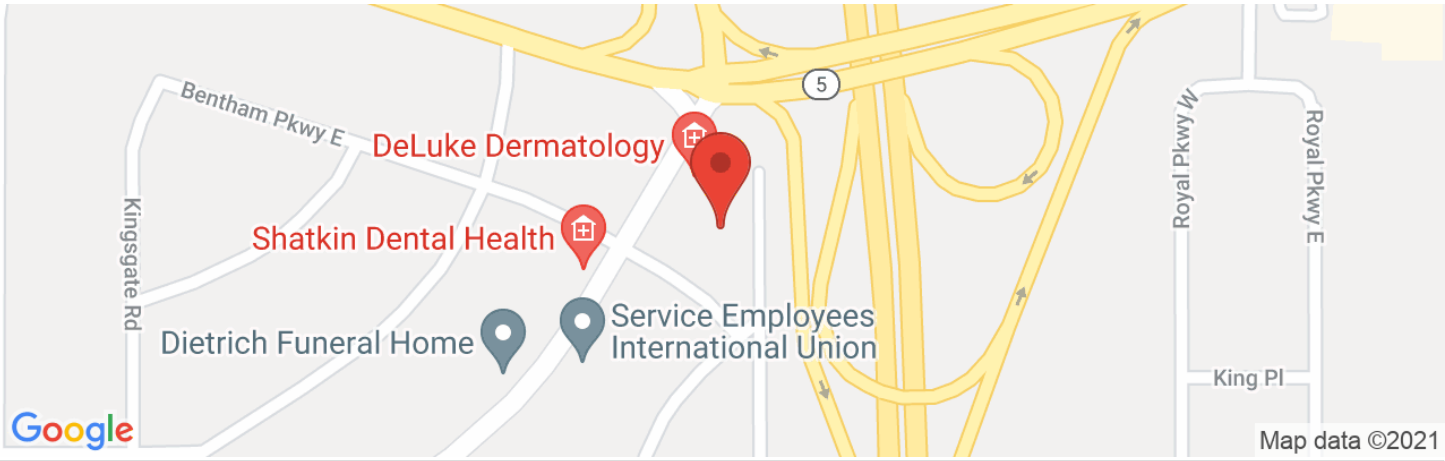
On Above Conditions: USE Q_{ALLOW} = 2,500

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C. & BUFFALO DRILLING COMPANY, INC. 10440 MAIN STREET, CLARENCE, NEW YORK 14031	PLOTTED: 10/14/2021 BY: A. Camping	JOB NO.: 21-599
PROJECT: Proposed Mezzanine and Drop-Off Canopy at Shatkin School of Dentistry 2525 Kensington Avenue, Town of Amherst, Erie Co., New York 14226	PAGE NO.: 1 of 3	FIGURE NO.:

Mezzanine and Canopy, 2525 Kensington Ave., Amherst, NY 14226

Latitude, Longitude: 42.9580, -78.7680



Date	10/14/2021, 3:49:34 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	C - Very Dense Soil and Soft Rock

Type	Value	Description
S_S	0.169	MCE_R ground motion. (for 0.2 second period)
S_1	0.045	MCE_R ground motion. (for 1.0s period)
S_{MS}	0.22	Site-modified spectral acceleration value
S_{M1}	0.068	Site-modified spectral acceleration value
S_{DS}	0.146	Numeric seismic design value at 0.2 second SA
S_{D1}	0.045	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	A	Seismic design category
F_a	1.3	Site amplification factor at 0.2 second
F_v	1.5	Site amplification factor at 1.0 second
PGA	0.094	MCE_G peak ground acceleration
F_{PGA}	1.3	Site amplification factor at PGA
PGA_M	0.123	Site modified peak ground acceleration
T_L	6	Long-period transition period in seconds
SsRT	0.169	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.176	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.045	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.048	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.958	Mapped value of the risk coefficient at short periods

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

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B&A JOB NO.: 21-599

DATE: 10/14/21

LATERAL EARTH PRESSURE ON GENERIC BLOCK FOUNDATIONS FOR SIGNS, FREE-STANDING RETAINING WALLS, OR BELOW GRADE/BASEMENT/TANK/POOL RETAINING WALLS (Less Than 20 Feet High)

a) Porous filter media, in contact with the basement/below grade foundation wall or retaining walls, protects and is in contact with a minimum 4 inch diameter perforated drainage pipes at the footing/base of the foundation/structural wall (exterior backfill side and interior basement side) and/or weep pipes through the wall, as needed and as applicable.

b) Where recommended, a geotextile filter fabric will protect the gravel filter media from the earth backfill. Overlap unsewn seams as per the manufacturer's recommendations.

c) Waterproof earth side of wall, as is customarily provided in practice.

d) Drainage pipes are connected to an appropriately designed collector pipe, conveyance, and/or sump pump system as is applicable for the intended purpose of the wall and as customarily provided/installed in practice.

e) For potential groundwater table conditions above the top of the basement slab-on-grade condition, install continuous waterstops (with no joints in stop) at wall and floor construction joints, as is customarily provided in practice. Interior intermediate drainage pipes beneath the slab, that are spaced on-center and in both directions, do appear to be needed.

f) Assume a uniformly graded, clean coarse sand or sandy gravel backfills:

* equivalent N-value in a dense state: $(N_1)_{60}$ = 40 blows/foot
* friction angle: ϕ' = 38 degrees {Teng, pg. 12}
* average in-place densities: moist - γ_m = 120 pcf
  saturated - γ_{sat} = 132 pcf submerged - $\gamma' = (\gamma_{sat} - \gamma_w)$ = 70 pcf

g) Assume at base of wall/footing, coefficient of friction against sliding (f_s) at base of wall (Refer to Teng, pg. 320-1):

f_s = tan (0.58 x ϕ') = 0.40 (AREA silty soil to silty coarse-grained soil)

h) Use equivalent fluid pressure design approach {Hough, pg. 249 and NAVFAC pg. 7-10-9}:

* at rest pressure coefficient - K_0 = 1 - sin (ϕ') = 0.38
* effective lateral pressure of soil - γ'_l = K_o x γ' = 26.6 pcf
* hydrostatic pressure - γ_w = 62.4 pcf
* equivalent fluid pressure with water level - at the top of the grade at the wall γ_{eo} = $\gamma'_l + \gamma_w$ = 89 pcf (say 90 pcf)
* equivalent fluid pressure with compaction induced lateral stress increase (W&F, pg 409) γ_{eo} = 2 x K_o x γ_m = 91 pcf (say 90 pcf)
* active pressure case - K_a = [1 - sin (ϕ')] / [1 + sin (ϕ')] = 0.24
  γ_{ea} = K_a x γ_m = 29 pcf (say 30 pcf)
* passive pressure case - K_p = [1 + sin (ϕ')] / [1 - sin (ϕ')] = 4.2
  γ_{ep} = K_p x γ_m = 504 pcf (say 330 pcf with a F.S. = 1.5)

			Thoroughly Compacted ⇒⇒ Uniformly Graded & Clean Coarse Sand or Sandy Gravel Fill	Non-Plastic Silty Sand or Sandy Silt Fill	
USE:	Earth Pressure Coefficient	Static Active =	0.24	0.33	
		Static At-Rest =	0.76	1.00	
		Static Passive =	2.80	2.00	(with F.S. = 1.5)
		Static Passive =	4.20	3.00	(with F.S. = 1.0)
USE:	Equivalent Fluid Pressure	Static Active =	30 pcf		
		Static At-Rest =	90 pcf (for rigid walls)		
		Static Passive =	330 pcf (with F.S. = 1.5)	[500 pcf with (with F.S. = 1.0)]	

[For earthquakes, structural engineer may elect to use the above Static Passive case instead of the below Earthquake Lateral Load for Non-Yielding Wall movement into the soil backfill.]

USE: Simplified Model for Earthquake Lateral Load/Ft. Wall Length @ 0.6 H_{bw} above base. Loads for Non-Yielding Wall. H_{bw} = Earth Height Behind Wall (feet)

Reduce load by 33% for Yielding Wall (active case) = (6.8 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.25 g)
(γ_m = 120 pcf for S_{ds} value. Add to Static At Rest/ Active Pressure/Load for unsaturated backfill case) = (13.5 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.50 g)
= (17.5 psf / foot) x H_{bw}^2 (NEern NYS, $S_{ds} \leq 0.65$ g)

[Above for Site Class C to E soils. Interpolate for other S_{ds} values.
Use 1.75 x values for walls on Class B/A rock or on rigid foundation base. (FEMA NEHRP Guidelines)]

Saturated/Liquified Soil During Earthquake = 132 pcf
(Equivalent Fluid Pressure. Add to inertial hydrodynamic pressure, not presented here.)

{For looser/denser backfills, adjust above pressures by the ratio = new density / 120 pcf or / 132 pcf (for saturated case)}

USE:	Coefficient of Friction Against Sliding (f_s)	= 0.45	(on compacted NYSDOT Item #304.12 or #304.14 gravels)
	(use lowest f_s with no underlying weaker layers)	= 0.35	(on compacted granular soil & non-plastic silt)
		= 0.20	(slab-on-grade on polyethylene on granular fill)
	[with a F.S. = 1.0]	= 0.60/0.50	(on clean, rough, & sound bedrock/smooth bedrock)
	Min. Factor of Safety Against Sliding	= 1.5	*[Rev.9-30-09]*

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

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APPENDIX E

GENERAL EARTHWORK SPECIFICATION

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

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GENERAL EARTHWORK SPECIFICATIONS

1. GENERAL

1.1. SITE AND SUBSURFACE CONDITIONS

1.1.1. Overview

This specification is included as a courtesy to the clients of *Barron & Associates, PC* and addresses earthwork site preparation. Additions and modifications are necessary to create a job-specific specification. This specification may serve as a basis for the development for a technical specification under Division 31 (Earthwork) and Division 32 (Exterior Improvements).

1.1.2. Site Conditions

The site-specific conditions are described under separate cover or may be available from the OWNER.

1.1.3. Subsurface Conditions

The site-specific subsurface conditions are described under separate cover or may be available from the OWNER.

1.2. REFERENCES

1.2.1. American Standard for Testing and Measurement (ASTM)

- ASTM C136 Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
- ASTM D6938 Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
- ASTM D7928 Standard Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis
- ASTM D1140 Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing
- ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3))
- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)

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- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D1883 Standard Test Method for California Bearing Ratio (CBR) of Laboratory-Compacted Soils

1.2.2. Other

- 2018 International Building Code (IBC)
- 2020 Building Code of New York State
- 2020 Residential Code of New York State
- 2021 MasterSpec

1.3. DEFINITIONS

1.3.1. Unacceptable Material

Soil material containing debris, wood, scrap material, vegetation, refuse, soft unsound particles, and other organic, frozen, deleterious, or objectionable materials. Contaminated soils shall be properly documented and removed or remediated on site. If necessary, remediation procedure will be defined by the OWNER.

1.3.2. Unsuitable Material

Brown, organic topsoil and underlying soft pockets of organic silt or wet, reworked silty clay.

1.3.3. Ordinary Fill

Friable soil containing no stone greater than two-thirds loose lift thickness and no unacceptable or unsuitable materials. In general, existing random fill is expected to be acceptable for reuse as ordinary fill given proper sorting, blending, drying, and controlled placement methods.

1.3.4. Granular Fill

Ordinary fill meeting the designation of ASTM D2487 classification of GW with a maximum of 10 percent by weight passing ASTM D1140, No. 200 sieve.

1.3.5. Select Granular Fill

Clean, uncoated soil which contains no unacceptable materials and conforms to the gradation requirements defined in Table A: Select Granular Fill.

Table A: Select Granular Fill

Sieve Size	Percent Finer by Weight
⅔ of the loose lift thickness	100
No. 10	30 - 95
No. 40	10 - 70
No. 200	0 - 15

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1.3.6. Sand and Gravel

Clean, hard, durable, uncoated particle of sand and gravel, free from lumps of clay, containing no unacceptable matter, and conforming to gradation requirements of Table B: Sand and Gravel.

Table B: Sand and Gravel	
Sieve Size	Percent Finer by Weight
*	100
No. 4	50 - 85
No. 10	
No. 40	10 - 35
No. 100	
No. 200	0 - 8

* Job-Specific. To be determined by the ENGINEER

1.3.7. Crushed Stone

Clean, durable, sharp-angled fragments of rock or crushed gravel stone of uniform quality, containing no unacceptable matter, free from coatings, and conforming to gradation requirements of Table C: Crushed Stone.

Table C: Crushed Stone		
Sieve Size	Percent Finer by Weight	
	¾-inch Stone	1 ¼-inch Stone
1 ½-inch		100
1 ¼-inch		85 - 100
1-inch	100	
¾-inch	90 - 100	10 - 40
⅝-inch		
½-inch	10 - 50	0 - 8
⅜-inch	0 - 20	
No. 4	0 - 5	

1.3.8. Flowable Fill

Also known as Controlled Low Strength Material – Controlled Density Fill (CLSM-CDF), this material is available under a variety of producer names (e.g., K-Krete©, M-Crete, Flash Fill©, Flowable Mortar, Unshrinkable Fill, etc.). This non-settling backfill mixture is most commonly used for its flowable characteristics, its support strength under traffic loads, and its removability at a later date. The material may be produced on-site or off-site. In either case, the producer

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

of such materials and the product must meet certain certification criteria. Such information is beyond the scope of this specification and will be considered on a site-specific basis.

Flowable fill may be acceptable for use as a backfill for utility trenches of other low-lying areas which require a compacted granular fill. Its use and warranty of performance is left to the CONTRACTOR in such applications.

The use of flowable fill under load-bearing structural components in place of properly placed and compacted granular fill is NOT common and is questionable. The localized use of such material may have profound effects on the performance of a foundation system. Site-specific conditions and the extent of anticipated use of flowable fill must be examined by geotechnical engineer. Cost of such consultation shall be borne by the CONTRACTOR unless specifically directed by the OWNER to seek such consultation. Without such consultation, warranty of performance for such use is left to the CONTRACTOR.

1.4. SUBMITTALS

The following submittals shall be provided in accordance with approved submittals procedures.

(1) Fill Source: Provide name and source locations of fill material.

(2) Field Test Reports: Field tests will be performed by OWNER's Representative as needed. CONTRACTOR may be required to perform such tests on proposed off-site fill materials.

(a) Fill material grain size analyses per ASTM C136, D7928, D1140, D2487

(b) Moisture/Density test results per ASTM D2216

(c) Liquid limit, plastic limit, and plasticity index per ASTM D4318

(d) Compaction/Density test results per ASTM D6938 and D1557

(3) Sample: Geotextile fabric

2. PRODUCTS

Geotextile Fabric: Mirafi 600X or equal. (Also referred to as synthetic fabric).

3. EXECUTION

3.1. PROTECTION

3.1.1. General

Manner of excavation shall minimize disturbance of underlying natural ground. If deemed necessary by the Engineer, alter construction procedures to reduce subgrade disturbance.

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Excavate areas which have been excessively disturbed to firm ground and backfill with properly compacted granular fill.

3.1.2. Roads and Walks

Keep roads and walks free of dirt and debris at all times.

3.1.3. Trees, Shrubs, and Existing Facilities

Protect from any damage all vegetation and facilities identified to remain.

3.1.4. Utility Lines

Locate all utilities within the area of disturbance prior to the start of work. Show locations on initial plans. Protect utility lines from damage. Notify the ENGINEER immediately of damage to or an encounter with an unknown utility. Damage to utility lines are to be repaired by the CONTRACTOR at no additional cost. The CONTRACTOR shall have underground utility owners stake out utility locations prior to the start of clearing and excavation operations.

3.2. VERIFICATION OF CONDITIONS / PROOF-ROLLING

Prior to placement of the initial layer of fill over the natural ground, proof-roll the exposed natural ground above the groundwater table elevation by making two passes with a fully-loaded ten-wheel truck. Excavate unstable areas detected by this process and replace with compacted granular fill.

3.3. PREPARATION

3.3.1. Surface Preparation

Within the site limits indicated on the drawings, excavate all unsuitable material to firm natural ground in the manner specified herein. Follow a construction procedure which permits visual identification of firm natural ground. In the even that groundwater is encountered, the ENGINEER may require that the size of the open excavation be limited to that which can be handled by open pumping to allow visual inspection of the excavation bottom and the performance of backfill operations to be conducted in a dry state.

Excavation of unsuitable material shall be limited to the greater of the following:

- A distance of 5 feet beyond building lines or
- The area defined by a one-horizontal to one-vertical line sloping down from the outside bottom edge of exterior footings to firm natural ground.

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3.4. PLACEMENT AND COMPACTION

3.4.1. General

Place fill in accordance with Table D: Compaction Alternatives. These alternatives are provided as minimum compaction standards only and in no way relieve the CONTRACTOR of his obligation to achieve any specified degree of compaction by whatever means may be necessary.

Grade to provide positive drainage and a smooth surface which will readily shed water. To the extent practicable, compact each layer to the specified density on the same day placed. Place fill in horizontal layers. Where horizontal layers meet a natural slope, key layer into slope by cutting a bench.

Fill that is too wet for proper compaction: Disc, harrow, or otherwise dry to proper moisture content for compaction to the required density.

Fill that is too dry for proper compaction: Uniformly apply water over the surface of the loose layer in sufficient quantity to allow compaction to the required density.

Table D: Compaction Alternatives

Compaction Method	Maximum Stone Size	Maximum Loose Lift Thickness (inches)		Maximum Number of Passes	
		Below Structure and Pavements	Less-Critical Areas	Below Structure and Pavements	Less-Critical Areas
Hand operated vibratory plate of light roller in confined areas.	3	4	4	4	4
Hand operated vibratory drum rollers weighing at least 1,000 pounds in confined areas.	4	6	8	4	4
Loaded 10-wheel truck or D-8 crawler.	6	10	12	4	2
Light vibratory drum roller; Min. weight at drum 8,000lbs; Min. dynamic force 10,000lbs.	8	12	12	6	2
Minimum vibratory drum; Min. weight at drum 10,000lbs; Min. dynamic force 20,000lbs.	8	18	18	6	4

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

3.4.2. Dewatering

Provide adequate pumping and drainage facilities to keep excavated areas sufficiently dry of groundwater and surface run-off. Dewatering shall avoid adversely affection construction procedures or causing excessive disturbance of underlying natural ground. Drain all pumped water in such a manner as to avoid damage to adjacent property.

If requested by the ENGINEER, place a 6-inch to 12-inch layer of sand and gravel or crushed stone over the natural underlying soil to stabilize area which have been disturbed due to groundwater seepage pressures and to expedite dewatering operations. Particular attention shall be given areas under proposed foundations.

3.5. FIELD QUALITY CONTROL

3.5.1. Compaction Requirements

Allow the ENGINEER sufficient time to make necessary observations and tests. Base the degree of compaction on maximum dry density as determined by ASTM D1557. The minimum degree of compaction for placed fill shall be as indicated in Table E: Compaction Requirements.

Table E: Compaction Requirements

Area	Minimum Degree of Compaction (%)
Below foundation.	95
Pavement and building subbase and base courses.	95
Below building slab base course and above bottom of foundation.	92
Below pavement subbase and base courses.	90
Trench backfill outside of building.	90
Trench backfill inside of building.	Refer to one of the above- listed categories
Ordinary fill within 5 feet of grade.	90
Vegetated areas below 5 feet of grade.	85

3.5.2. Testing

Site work should be monitored and tested by geotechnical ENGINEER or his representative and in accordance with requirements of the design team to assure compliance with earthwork and foundation construction specifications.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

The owner will retain a geotechnical ENGINEER or his representative to perform on-site observations and testing during this phase of construction operations. The geotechnical ENGINEER or his representative will:

- Observe excavation and dewatering of building and controlled fill areas;
- Observe backfill and compaction within building and controlled fill areas;
- Laboratory test and analyze fill material; and
- Observe construction – and performing water content, gradation, and compaction tests.

On a timely basis, the CONTRACTOR will receive copies of test results submitted to the OWNER. In addition, during construction the geotechnical ENGINEER will advise the OWNER and CONTRACTOR in writing of conditions which fail to conform to the Contract Documents. The CONTRACTOR shall take immediate action to remedy indicated deficiencies.

The geotechnical ENGINEER or his representative will not supervise or direct the actual work of the CONTRACTOR or employees and representatives of the CONTRACTOR. The presence of, observations by, and testing performed by the geotechnical ENGINEER or his representatives shall not excuse the CONTRACTOR from defects discovered in the work.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street
Clarence, NY 14031
(716) 759-7821
www.barronandassociatespc.com

APPENDIX F

LIMITATIONS

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)

LIMITATIONS

1. This report is based on the data that was obtained from the subsurface explorations and on the design of the proposed interior mezzanine and exterior canopy as submitted to the geotechnical engineer. A geotechnical engineer, who is experienced in foundation construction and earthwork, should be engaged to review the final design and specifications in order to determine whether any change in concept may have any effect on the validity of the conclusions presented herein, and whether these conclusions have, in fact, been implemented in the design and specifications.

2. The subsurface conditions, including thickness, between the exploration locations are approximate and simplified representations of the strata and transitions. There is the possibility that variations in soil and rock conditions and boundaries will be encountered during construction. In order to permit correlation between the exploratory soil data and the actual soil conditions encountered during construction and so as to assess conformance with the plans and specifications as originally contemplated, it is recommended that a geotechnical engineer, who is experienced in foundation construction and earthwork monitoring, should be retained to perform continuous construction review during the site preparation and foundation construction operations.

3. The subsurface exploration logs and subsurface conditions may aid in estimating material quality and quantities, such as topsoil/organic matter, fills, natural soils, and rock, but are not to be relied upon as the exclusive means for bid preparation purposes. It is the responsibility of the contractor to perform any additional site examinations and explorations and to prepare an accurate bid.

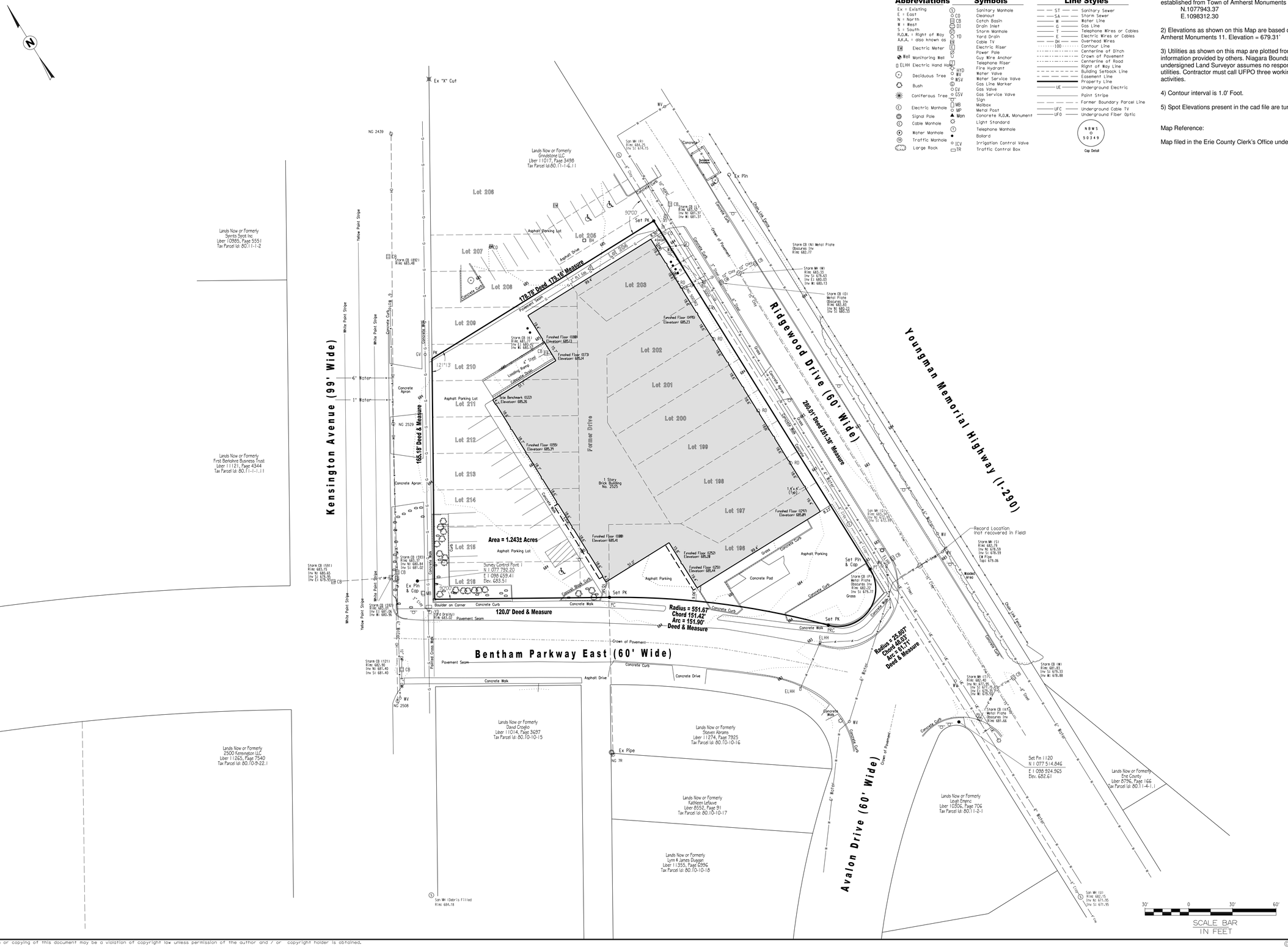
4. Disclaimers:

   a. In the event that any changes in the nature, design or location of the structure are planned, the conclusions that are contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing.

   b. The geotechnical engineering report has been prepared for this project by Barron & Associates, P.C. This report is for assistance in design only and is not a sufficient basis on which to prepare an accurate bid.

   c. This report has been prepared for the exclusive use of Dr. Todd Shatkin (Shatkin School of Dentistry), and their designated design representatives, for specific application to the construction of an interior mezzanine and exterior drop off canopy at 2525 Kensington Avenue, in the Town of Amherst, New York and in accordance with generally accepted geotechnical engineering practice. No other warranty, expressed or implied, is made.

Attachment: SP-2022-02 application102022 (25490 : Sp-2022-02)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NG 2439
Lands Now or Formerly
Grindstone LLC
Liber 11017, Page 3498
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Lands Now or Formerly
Sparda Spot Inc
Liber 12085, Page 5551
Tax Parcel Id: 80.11-1-2
Lands Now or Formerly
First Berkshire Business Trust
Liber 11121, Page 4344
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Steven Abrams
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Kathleen Lefauve
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Lynn A James Duggan
Liber 11355, Page 6986
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Legit Empire
Liber 10806, Page 706
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Lands Now or Formerly
Erie County
Liber 8796, Page 166
Tax Parcel Id: 80.11-4-1.1
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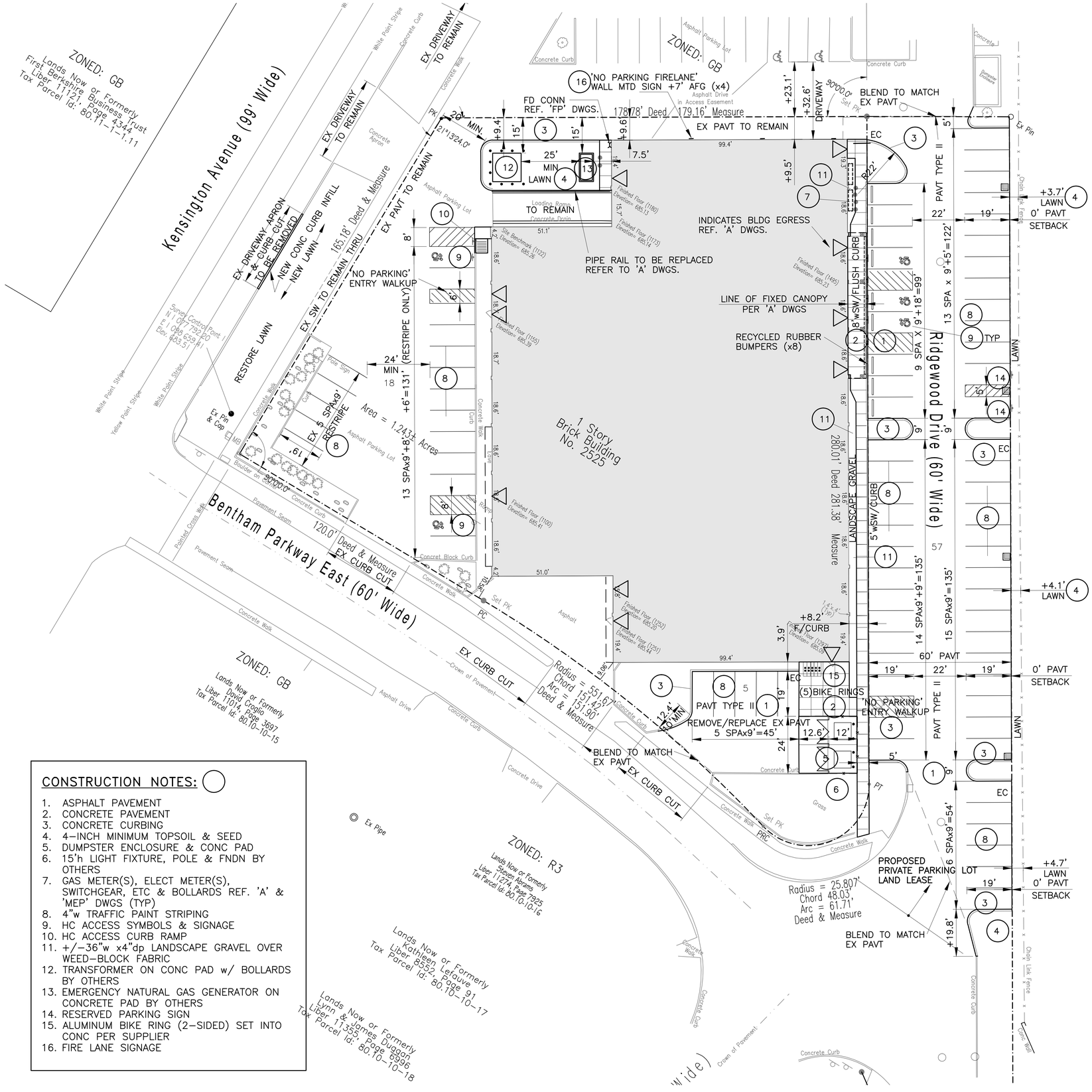
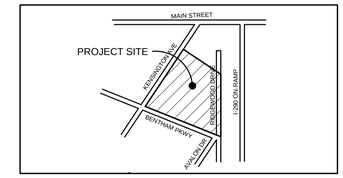
Bentham Parkway East (60' Wide)
Ridgewood Drive (60' Wide)
Youngman Memorial Highway (I-290)
Avalon Drive (60' Wide)
Former Drive
Lot 206
Lot 207
Lot 208
Lot 209
Lot 210
Lot 211
Lot 212
Lot 213
Lot 214
Lot 215
Lot 216
Lot 203
Lot 202
Lot 201
Lot 200
Lot 199
Lot 198
Lot 197
Lot 196
Area = 1.243± Acres
Survey Control Point 1
N 1 077 792.20
E 1 096 659.81
Elev. 683.51
Set PK
Set Pk & Cap
Ex Pin & Cap
Ex Pin
Set Pin 1120
N 1 077 514.846
E 1 096 924.965
Elev. 682.61
Record Location
(not recovered in Field)
178.78' Deed, 179.16' Measure
165.19' Deed & Measure
280.01' Deed, 281.39' Measure
120.0' Deed & Measure
Radius = 551.67'
Chord 151.42'
Arc = 151.90'
Deed & Measure
Radius = 25.807'
Chord = 48.06'
Arc = 61.71'
Deed & Measure
Asphalt Parking Lot
Asphalt Drive
Concrete Walk
Concrete Curb
Concrete Pad
Concrete Apron
Concrete Ramp
Concrete Steps
Concrete Drive
Asphalt Parking
Pavement Seam
Crown of Pavement
Gravel Shoulder
Grass
Landscaping
Wooded Area
Loading Ramp
Concrete Block Curb
Boulder on Corner
Yellow Post
Yellow Point Stripe
White Point Stripe
Double Cross Walk
Storm CB (892) Rim: 683.48
Storm CB (891) Rim: 683.75 Inv N: 680.65 Inv E: 679.75 Inv W: 679.55
Storm CB (893) Rim: 683.37 Inv E: 681.08 Inv W: 680.98
Storm CB (894) Rim: 683.64 Inv S: 681.32 CB
Storm CB (121) Rim: 682.90 Inv N: 681.40 Inv S: 681.40
Storm CB (1) Rim: 683.17 Inv N: 680.67 Inv E: 680.57 Inv W: 680.57
Storm CB (2) Rim: 683.17 Inv N: 680.67 Inv E: 680.57 Inv W: 680.57
Storm CB (3) Rim: 683.17 Inv N: 680.67 Inv E: 680.57 Inv W: 680.57
Storm CB (4) Rim: 684.25 Inv S: 674.75
Storm CB (5) Rim: 683.17 Inv N: 680.67 Inv E: 680.57 Inv W: 680.57
Storm CB (6) Rim: 683.17 Inv N: 680.67 Inv E: 680.57 Inv W: 680.57
Storm CB (7) Rim: 683.17 Inv N: 680.67 Inv E: 680.57 Inv W: 680.57
Storm CB



CONSTRUCTION NOTES:

1. ASPHALT PAVEMENT
2. CONCRETE PAVEMENT
3. CONCRETE CURBING
4. 4–INCH MINIMUM TOPSOIL & SEED
5. DUMPSTER ENCLOSURE & CONC PAD
6. 15'h LIGHT FIXTURE, POLE & FNDN BY OTHERS
7. GAS METER(S), ELECT METER(S), SWITCHGEAR, ETC & BOLLARDS REF. 'A' & 'MEP' DWGS (TYP)
8. 4"w TRAFFIC PAINT STRIPING
9. HC ACCESS SYMBOLS & SIGNAGE
10. HC ACCESS CURB RAMP
11. +/–36"w x4"dp LANDSCAPE GRAVEL OVER WEED–BLOCK FABRIC
12. TRANSFORMER ON CONC PAD w/ BOLLARDS BY OTHERS
13. EMERGENCY NATURAL GAS GENERATOR ON CONCRETE PAD BY OTHERS
14. RESERVED PARKING SIGN
15. ALUMINUM BIKE RING (2–SIDED) SET INTO CONC PER SUPPLIER
16. FIRE LANE SIGNAGE



SITE LOCATION MAP

SITE LAYOUT PLAN

1" = 20'

N

SITE DATA

CURRENT ZONING: GB

PARCEL AREA: +1.24 ACRES (AC)

TOTAL AREA OF DISTURBANCE (INCL R.O.W.): 22,000SF~0.51AC

NEW PARKING LOT LICENSED AREA: 19636SF ~0.45 AC

INTERIOR GREENSPACE: 984SF (5.5% OF NEW PARKING LOT)

ANTICIPATED AVERAGE DAILY SEWER LOADING: 1120 GPD
OFFICES/DAY SCHOOL: (30 EMPLx15 GPD)+(52 STUDENTSx10 GPD = 450+520 =970 GPD
RETAIL/WAREHOUSE PER EMPLOYEE: (10 EMPLx15 GPD)= 150 GPD

PARKING DATA

SPACES REQUIRED BY NET SF, 2–STY (MEZZ), MULT–TENANT (75% OF GROSS SF), GENERAL OFFICE, RETAIL/WAREHOUSE USES:

GENERAL OFFICE: 15995NSF (INCLUDES MEZZ) x1/200NSF=80;
RETAIL AT >2000SF<25000SF: 5763NSFx 5.5/1000NSF=32;
WAREHOUSE: 12019NSFx 1= 12

TOTAL CAR–PARKS REQUIRED = 80+32+12=124
ACCESSIBLE SPA REQUIRED = CAR–PARKS/25=124/25=5

SPACES PROVIDED: 80
REGULAR: 75
ACCESSIBLE: 5

REFER TO ALTERNATE PARKING PLAN PROVIDED UNDER SEPARATE COVER

NOTES:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING IS FOR INFORMATION ONLY. REFER TO SURVEY(S) PROVIDED BY NIAGARA BOUNDARY & MAPPING JOB No 11187–21, DATED 6/2021.
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3. SITE LIGHTING, POWER AND GAS LINES ARE SHOWN FOR INFORMATION ONLY, AND ARE NOT DESIGNED BY TREDO ENGINEERS.
4. A KNOX BOX KEY HOLDER SHALL BE LOCATED AT THE BUILDING MAIN ENTRANCE.
5. THE BUILDING SHALL CONTAIN A SPRINKLER FIRE–PROTECTION SYSTEM.

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
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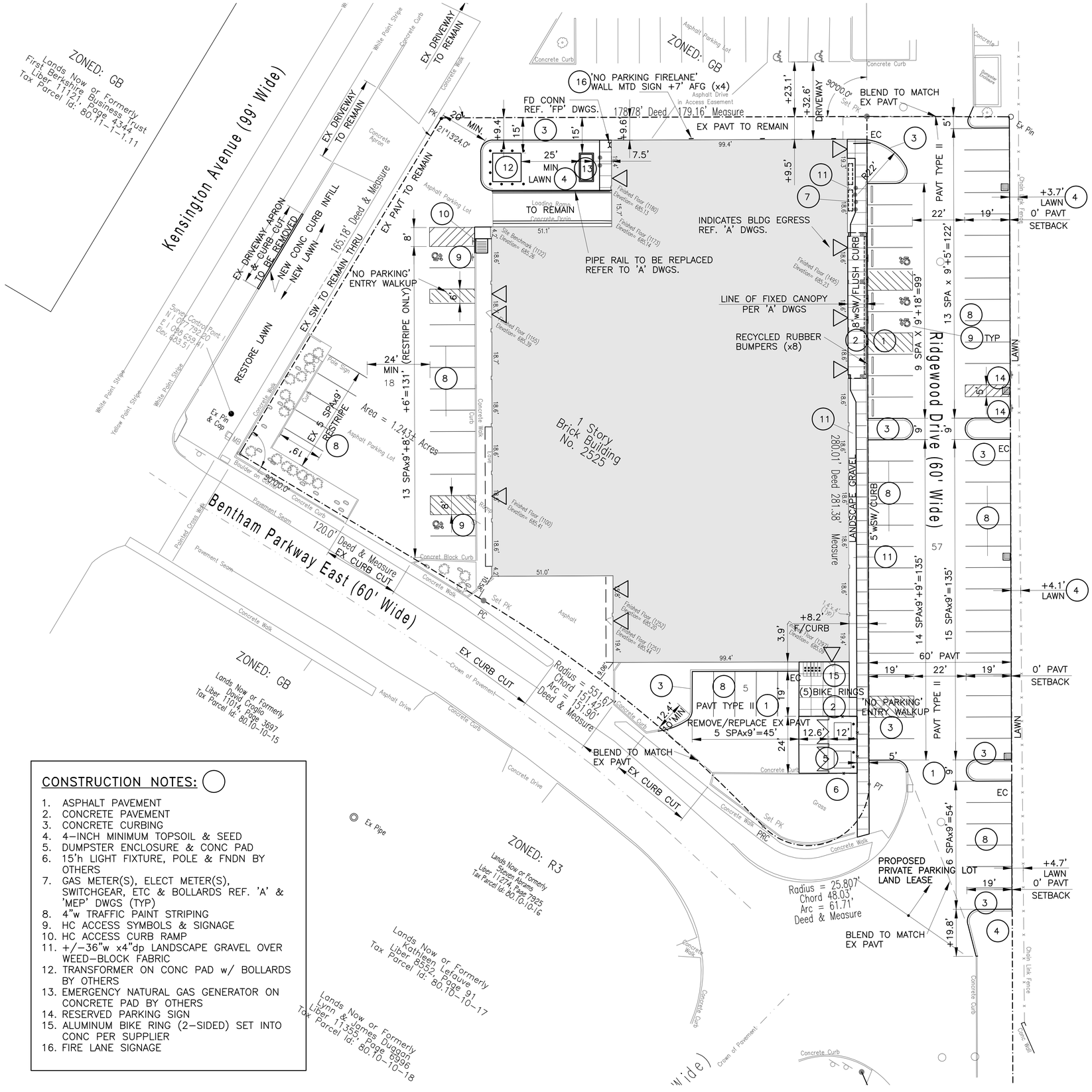
2: REVISED	4/19/22
3: REVISED	9/19/22
DRAWN BY	CHECKED BY
avm	AVM
SCALE	AS NOTED
DATE	Feb 22, 2022

SITE LAYOUT PLAN

SP101

Attachment: SP-2022-02 drawings 102022 (2549 : Sp-2022-02)



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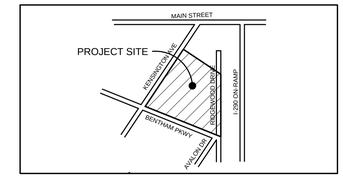

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STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

STATE OF NEW YORK
MATTHEW JOHN KELLY
082985
LICENSED PROFESSIONAL ENGINEER

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SITE LAYOUT PLAN

SP101

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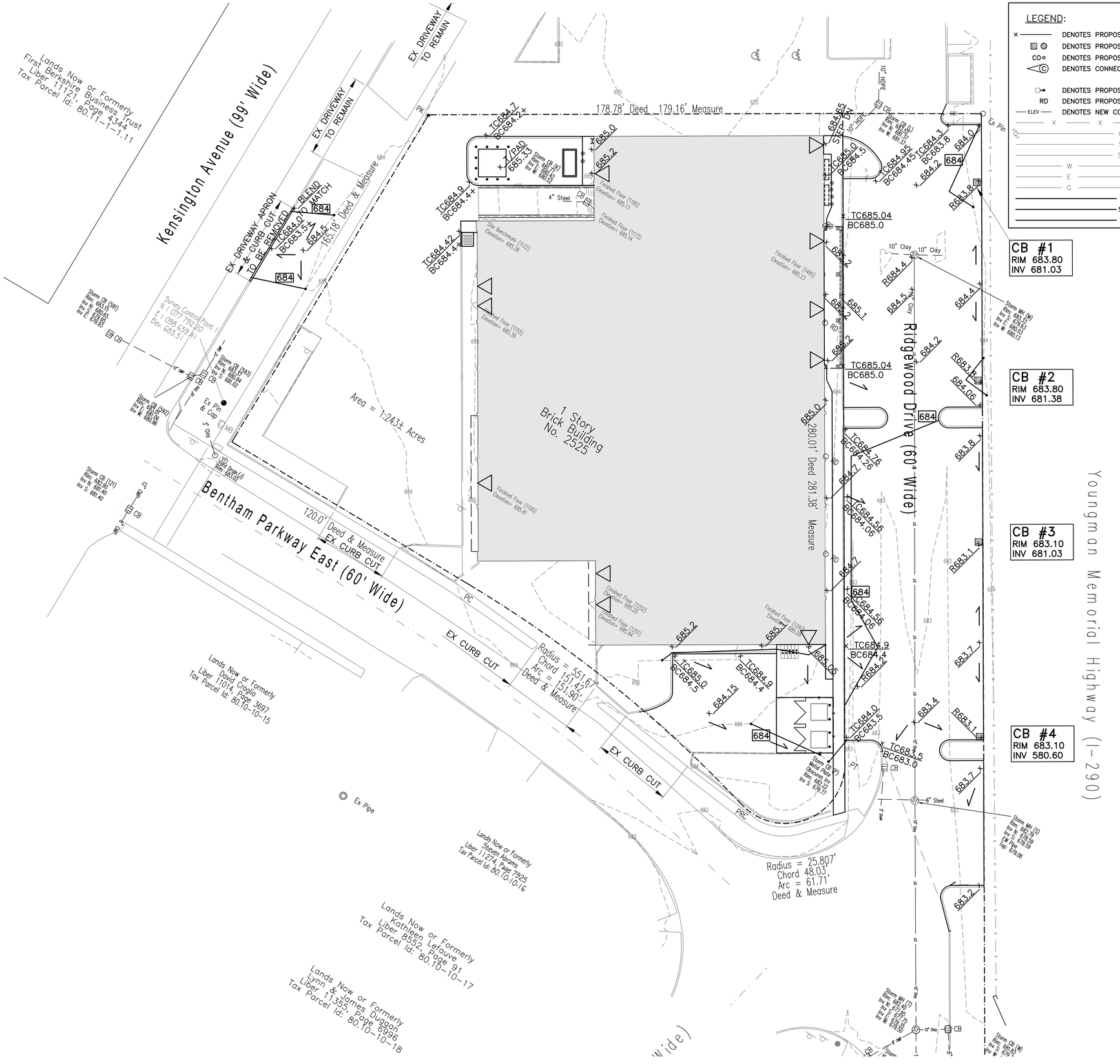

LEGEND:

×	DENOTES PROPOSED SPOT ELEVATIONS	·	DENOTES EXISTING SPOT ELEVATIONS
■ ●	DENOTES PROPOSED CATCH BASIN/MANHOLE	D	DENOTES EXISTING STORM SEWER DROP INLET
CO	DENOTES PROPOSED CLEANOUT	ST	DENOTES EXISTING STORM SEWER MANHOLE
C	DENOTES CONNECTION TO EXISTING UTILITY	SAN	DENOTES EXISTING SANITARY SEWER MANHOLE
			DENOTES EXISTING HYDRANT
	DENOTES PROPOSED LIGHT POLE		DENOTES EXISTING LIGHT POLE
RD	DENOTES PROPOSED ROOF DRAIN	⊗	DENOTES EXISTING WATER VALVE
ELEV	DENOTES NEW CONTOURS	ELEV	DENOTES EXISTING CONTOURS
		X X X X	DENOTES EXISTING CHAIN LINK FENCE
		OHE	DENOTES EXISTING UTILITY POLE AND OVERHEAD UTILITIES
		ST	DENOTES EXISTING STORM SEWER LINE
		SAN	DENOTES EXISTING SANITARY SEWER LINE
		W W	DENOTES EXISTING WATER LINE
		E E	DENOTES EXISTING ELECTRIC LINE
		G G	DENOTES EXISTING GAS LINE
	ST		DENOTES PROPOSED STORM SEWER LINE
	SAN		DENOTES PROPOSED SANITARY SEWER LINE
	W		DENOTES PROPOSED WATER LINE

SITE GRADING PLAN

1" = 20'

N

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STATE OF NEW YORK · MATTHEW JOHN PETRO · 092365 · LICENSED PROFESSIONAL ENGINEER

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DRAWN BY	CHECKED BY
avm	AVM

SCALE: AS NOTED

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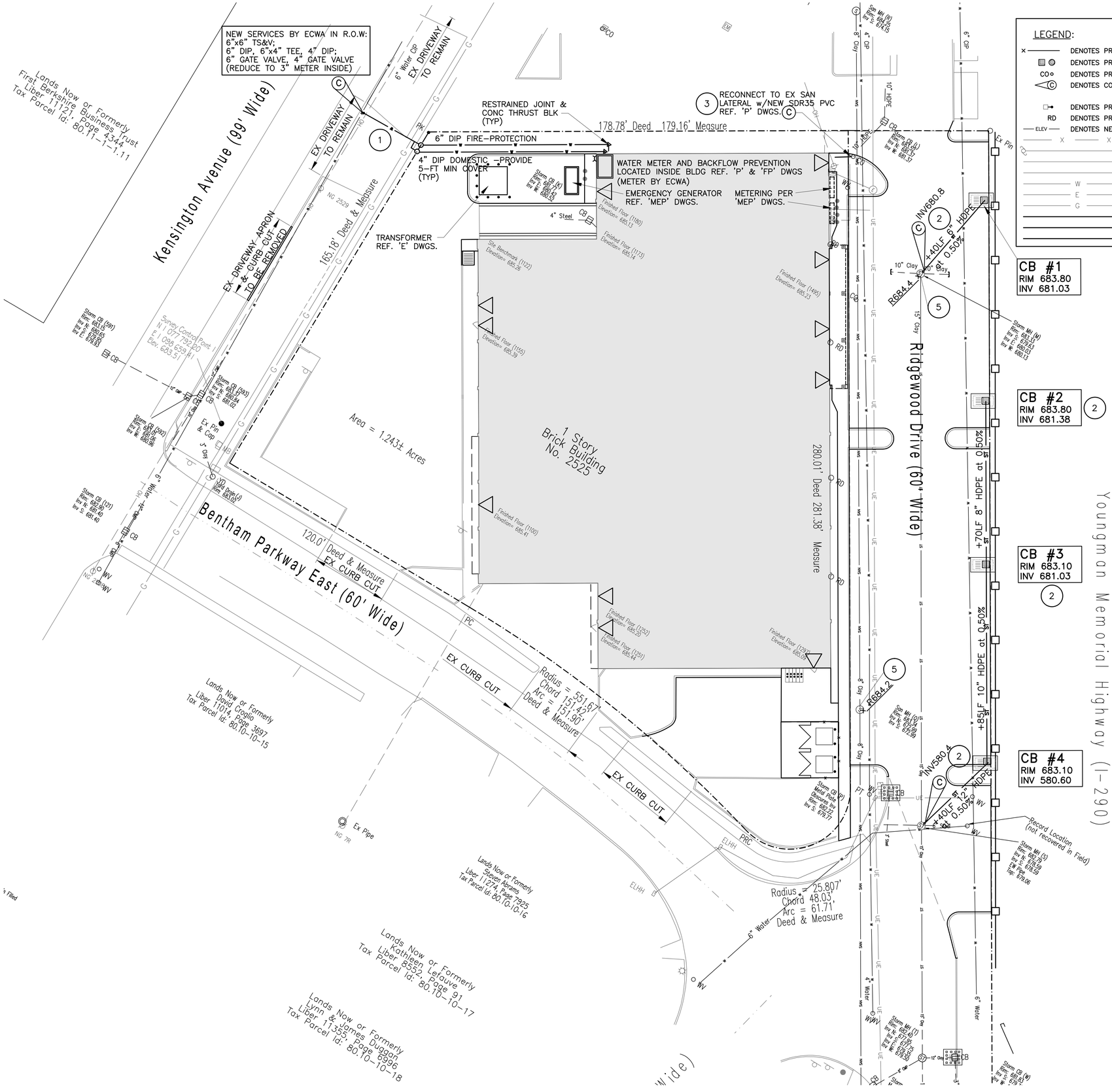
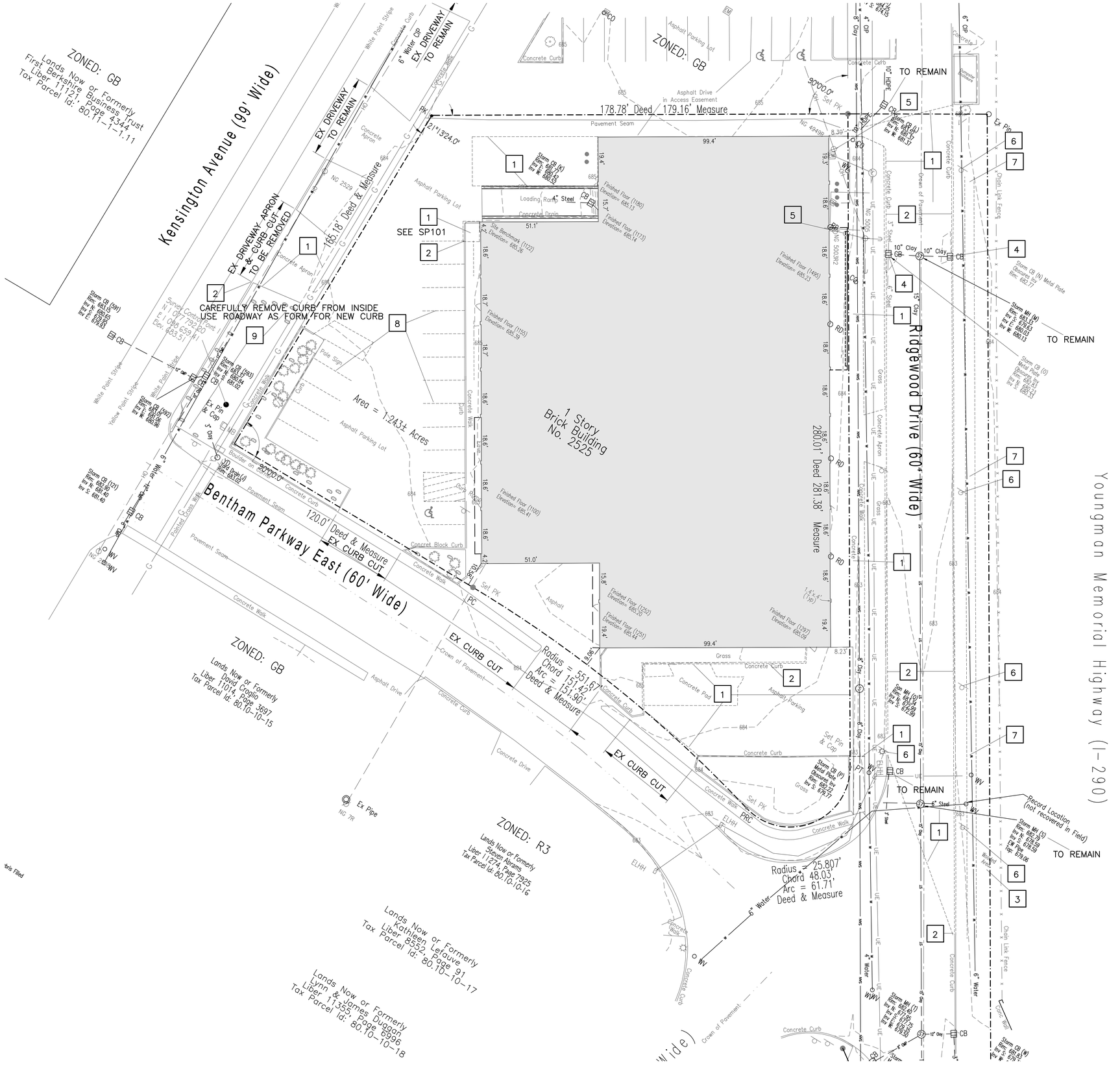
SITE GRADING PLAN

SP102

Attachment: SP-2022-02 drawings 102022 (2549 : Sp-2022-02)


NEW SERVICES BY ECWA IN R.O.W:
6"x6" TS&V;
6" DIP, 6"x4" TEE, 4" DIP;
6" GATE VALVE, 4" GATE VALVE
(REDUCE TO 3" METER INSIDE)
Lands Now or Formerly
First Berkshire Business Trust
Liber 11121, page 4344
Tax Parcel Id: 80.11-1-1.11
Kensington Avenue (99' Wide)
EX DRIVEWAY TO REMAIN
EX DRIVEWAY APRON & CURB CUT TO BE REMOVED
6" Water Clip
RESTRAINED JOINT & CONC THRUST BLK (TYP)
178.78' Deed 179.16' Measure
6" DIP FIRE-PROTECTION
4" DIP DOMESTIC -PROVIDE 5-FT MIN COVER (TYP)
WATER METER AND BACKFLOW PREVENTION LOCATED INSIDE BLDG REF. 'P' & 'FP' DWGS (METER BY ECWA)
EMERGENCY GENERATOR REF. 'MEP' DWGS.
METERING PER 'MEP' DWGS.
TRANSFORMER REF. 'E' DWGS.
RECONNECT TO EX SAN LATERAL w/NEW SDR35 PVC REF. 'P' DWGS.
165.18' Deed & Measure
Survey Control Point
N 1077792.20
E 1098539.41
Elev. 683.51
1 Story Brick Building No. 2525
Area = 1.243± Acres
280.01' Deed 281.36' Measure
Bentham Parkway East (60' Wide)
120.0' Deed & Measure
EX CURB CUT
Ridgewood Drive (60' Wide)
Young Memorial Highway (I-290)
Radius = 551.67'
Chord 151.42'
Arc = 151.90'
Deed & Measure
Radius = 25.807'
Chord 48.03'
Arc = 61.71'
Deed & Measure
Lands Now or Formerly
David Coglio
Liber 11014, Page 3697
Tax Parcel Id: 80.10-10-15
Lands Now or Formerly
Steven Abrams
Liber 11274, Page 7925
Tax Parcel Id: 80.10-10-16
Lands Now or Formerly
Kathleen Lefauve
Liber 8552, Page 91
Tax Parcel Id: 80.10-10-17
Lands Now or Formerly
Lynn & James Duggan
Liber 11355, Page 6996
Tax Parcel Id: 80.10-10-18
Ex Pipe
Ex Pin & Cap
Finished Floor (1190) Elevation= 685.13
Finished Floor (1173) Elevation= 685.14
Finished Floor (1156) Elevation= 685.19
Finished Floor (1100) Elevation= 685.41
Finished Floor (1252) Elevation= 685.20
Finished Floor (1251) Elevation= 685.44
Finished Floor (1295) Elevation= 685.23
Site Benchmark (1122) Elevation= 685.76
CB #1 RIM 683.80 INV 681.03
CB #2 RIM 683.80 INV 681.38
CB #3 RIM 683.10 INV 681.03
CB #4 RIM 683.10 INV 580.60
INV680.8
+40LF 6" HDPE at 0.50%
R684.4
+70LF 8" HDPE at 0.50%
+85LF 10" HDPE at 0.50%
INV580.4
+40LF 12" HDPE at 0.50%
R684.2
Record Location (not recovered in Field)
Storm CB (591) Inv N: 683.15 Inv E: 678.65 Inv S: 678.55
Storm CB (592) Inv N: 683.05 Inv E: 678.65 Inv S: 678.55
Storm CB (593) Inv N: 683.04 Inv E: 678.54 Inv S: 681.02
Storm CB (121) Inv N: 682.40 Inv S: 681.40
Storm MH (9) Inv N: 684.15 Inv S: 679.15
Storm CB (4) Inv N: 683.52 Inv S: 680.52
Storm CB (5) Inv N: 683.54 Inv S: 681.37
Storm MH (4) Inv N: 683.15 Inv E: 678.53 Inv S: 681.03 Inv W: 680.13
Storm MH (5) Inv N: 682.39 Inv E: 678.59 Inv S: 679.09 Inv W: 679.19
Storm MH (6) Inv N: 682.40 Inv E: 678.59 Inv S: 679.09 Inv W: 679.19
Storm CB (7) Inv N: 682.40 Inv E: 678.59 Inv S: 679.09 Inv W: 679.19
Storm MH (8) Inv N: 682.40 Inv E: 678.59 Inv S: 679.09 Inv W: 679.19
Storm CB (8) Inv N: 682.40 Inv E: 678.59 Inv S: 679.09 Inv W: 679.19
Storm CB (9) Inv N: 682.40 Inv E: 678.59 Inv S: 679.09 Inv W: 679.19
Storm CB (10) Inv N: 682.40 Inv E: 678.59 Inv S: 679.09 Inv W: 679.19
Storm CB



SITE DEMOLITION PLAN

1" = 20'

N

SITE DEMOLITION NOTES:

1. SAWCUT & REMOVE EXISTING ASPHALT/ CONC PAVT AND SUBBASE STONE EXCEPT WHERE NEW PAVT OVER TO BE INSTALLED, SUBBASE TO BE PROOFROLLED & REUSED
2. SAWCUT & REMOVE CONCRETE CURBING
3. REMOVE TREES & BRUSH TO FENCELINE
4. DRAIN BODY TO BE REMOVED, PLUG EX PIPE END w/CONC
5. UTILITY POLE & OHE POWER TO BE REMOVED –COORD. w/SUPPLIER & 'E' DWGS.
6. SIGN OR LIGHT POLE & FNDN TO BE REMOVED
7. REMOVE REMAINS OF CONC SIDEWALK
8. REMOVE/REPLACE PAINT STRIPING THIS AREA BY INSTALLING SEALER OVER (ROUGHENED) EX ASPHALT
9. REMOVE ALL BOULDER STONES FROM RIGHT–OF–WAY

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
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REVISIONS	
1: REVISED	3/28/22
2: REVISED	4/19/22
3: REVISED	9/19/22

DRAWN BY	CHECKED BY
avm	AVM

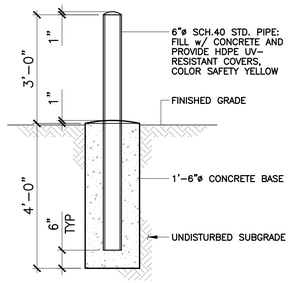
SCALE: AS NOTED

DATE: Feb 22, 2022

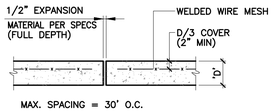
EXISTING CONDITIONS & SITE DEMOLITION PLAN

SP104

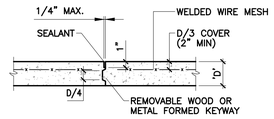
SP-2022-02 drawings 102022 (25490 : Sp-2022-02)
Attachment: SP-2022-02 (25490 : Sp-2022-02)



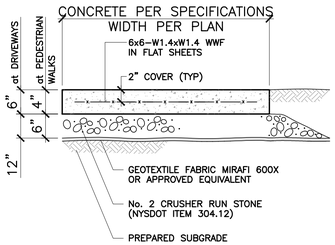
7 STEEL PIPE BOLLARD



4 EXPANSION JOINT IN EXTERIOR CONC PAVEMENT



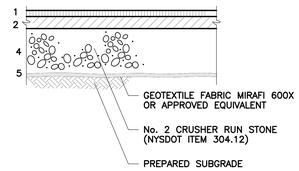
5 CONSTRUCTION JOINT IN EXTERIOR CONC PAVEMENT



NOTE: CONC. SHALL BE 4000 PSI at 28-DAYS, 6% AIR-ENTRAINED, 4" MAX. SLUMP-PROVIDE LT. BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAFFIC

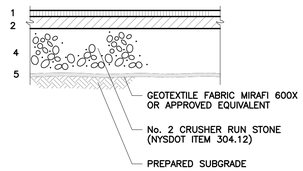
3 TYPICAL CONCRETE SIDEWALK

ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	3"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	18"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



2 TYPICAL TYPE II BITUMINOUS PAVEMENT SECTION DRIVEWAYS

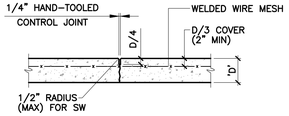
ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	2"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	12"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



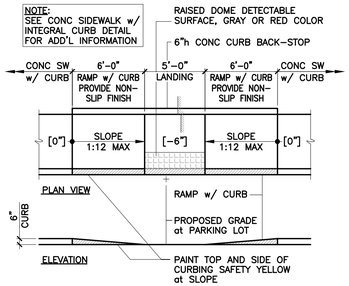
1 TYPICAL TYPE I BITUMINOUS PAVEMENT SECTION PARKING STALLS

GENERAL SITE NOTES

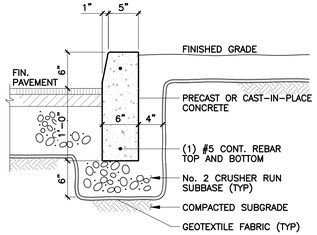
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE TOWN OF AMHERST, THE ERIE COUNTY WATER AUTHORITY, ERIE COUNTY DPW, AND NYSDOT SPECIFICATIONS.
2. INSTALL ALL MATERIALS TO THE MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF THE TRADE INVOLVED.
3. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER APPROVAL AND SHALL BE EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
4. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
5. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER OF ANY DISCREPANCIES IN CONDITIONS SHOWN ON THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
6. CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
7. CONTRACTOR SHALL KEEP THE JOB SITE FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF THE OWNER.
8. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK DOES NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
9. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NECESSARY TO PERFORM THE WORK INCLUDING BUT NOT LIMITED TO ERIE COUNTY HIGHWAY WORK PERMIT.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CONTROL OF EROSION FROM THE SITE. SEE PROJECT EROSION CONTROL PLAN AND SWPPP MANUAL.
11. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS, FEATURES AND UTILITY CONNECTIONS.
12. ALL UTILITY TRENCHES UNDER PAVEMENT, CURBS, SIDEWALKS, AND DRIVEWAYS SHALL BE FULLY BACKFILLED WITH No 2 CRUSHER RUN STONE AND PROPERLY COMPACTED TO AVOID SETTLEMENT.
13. CONTRACTOR SHALL REPLACE IN KIND ANY EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CURBS, ROAD PAVEMENTS, SIDEWALKS, AND EXISTING UTILITIES.



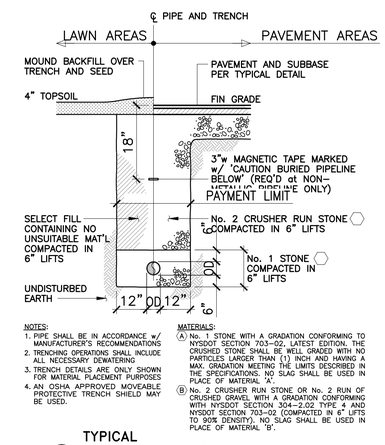
6 CONTROL JOINT IN EXTERIOR CONC PAVEMENT



10 HANDICAP ACCESS RAMP



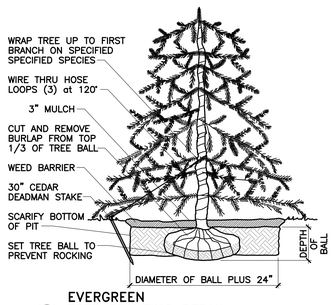
9 TYPICAL CONCRETE CURB



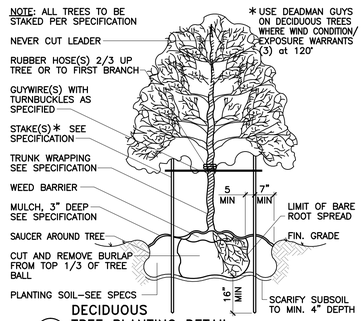
NOTES:
1. PIPE SHALL BE IN ACCORDANCE w/ MANUFACTURER'S RECOMMENDATIONS
2. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING
3. TRENCH DETAILS ARE ONLY SHOWN FOR MATERIAL PLACEMENT PURPOSES
4. AN OSHA APPROVED MOVEABLE PROTECTIVE TRENCH SHIELD MAY BE USED.

MATERIALS:
(A) No. 1 STONE WITH A GRADATION CONFORMING TO NYSDOT SECTION 703-02, LATEST EDITION. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN (1) INCH AND HAVING A MAX. GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'A'.
(B) No. 2 CRUSHER RUN STONE OR No. 2 RUN OF CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02 (COMPACTED IN 6" LIFTS TO 95% DENSITY). NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'B'.

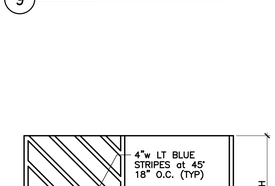
8 TYPICAL UTILITY TRENCH SECTION



12 EVERGREEN TREE PLANTING DETAIL



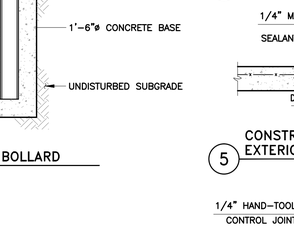
11 DECIDUOUS TREE PLANTING DETAIL



NOTES:
1. HANDICAPPED PARKING SIGNAGE SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS
2. A 'NO PARKING' SIGN SHALL BE PROVIDED at DISCHARGE AISLE BETWEEN HANDICAP PARKING STALLS

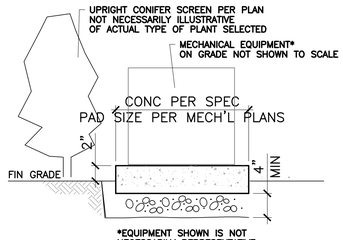
14 HANDICAPPED PARKING SIGNAGE LOCATED IN PAVEMENT

13 HANDICAP SYMBOL DETAIL

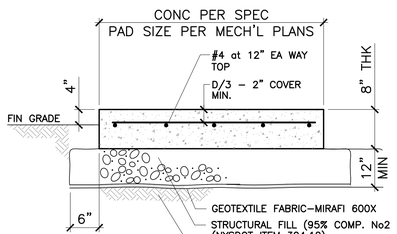


16 SHRUB PLANTING DETAIL

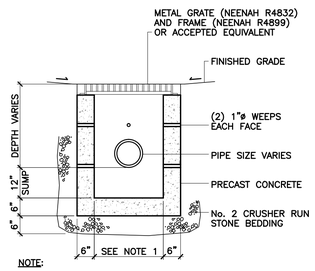
15 DUMPSTER ENCLOSURE WITH CONCRETE PAD



19 MECHANICAL EQUIP. SCREEN



18 GENERATOR PAD SECTION



NOTE:
1. 24" SQUARE FOR PIPES 18"ø OR LESS
30" SQUARE OR PIPES 24"ø OR GREATER

17 TYPICAL CATCH BASIN

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425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
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www.stieglitzsnyder.com

CONSULTANTS

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STATE OF NEW YORK · MATTHEW JOHN TU · 082365 · LICENSED PROFESSIONAL ENGINEER

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REVISIONS	
1: REISSUED	3/28/22
2: REISSUED	9/19/22

DRAWN BY	CHECKED BY
avm	AVM

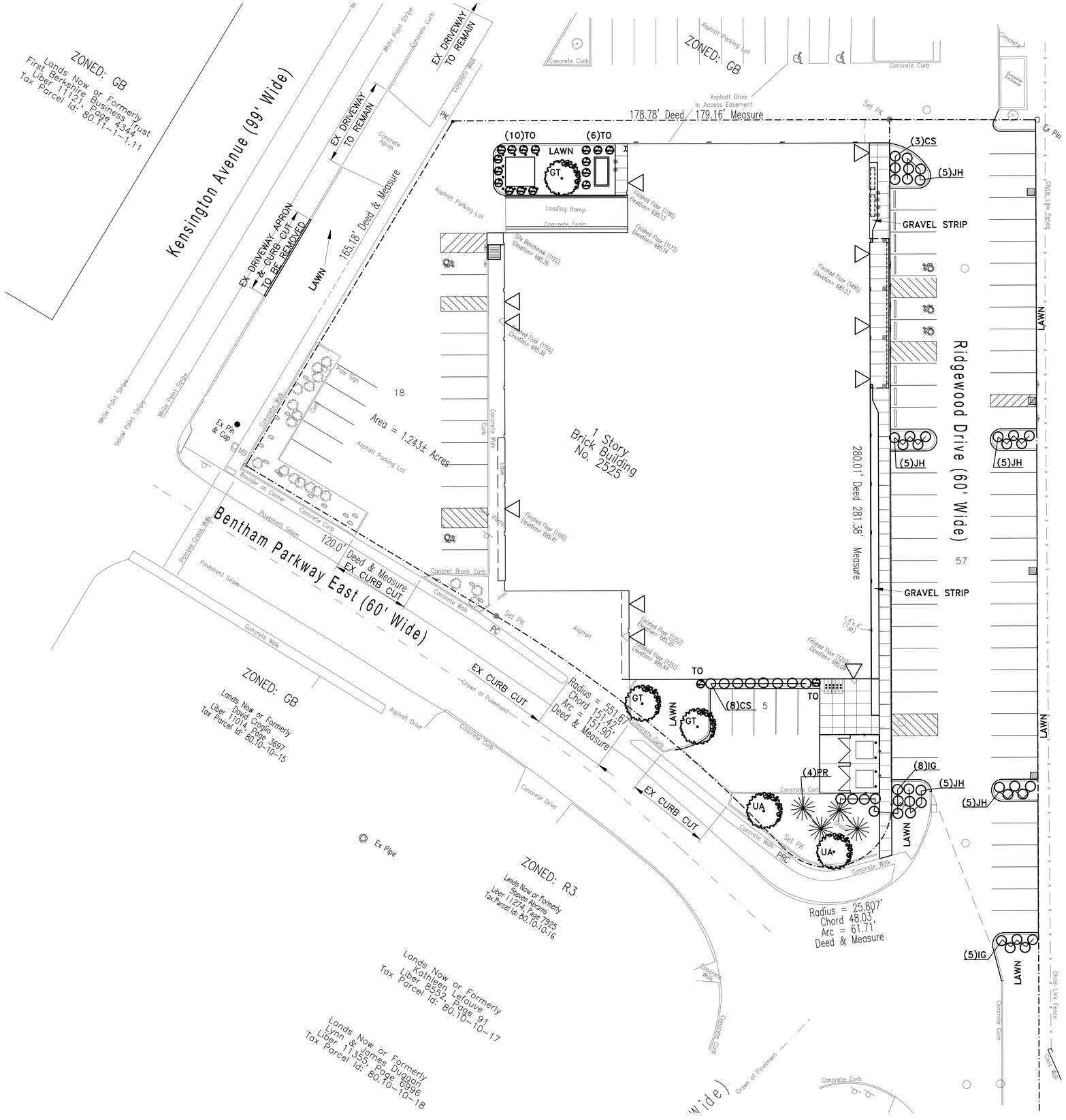
SCALE: AS NOTED

DATE: Feb 22, 2022

SITE DETAILS

SP201

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)



PLANTING SCHEDULE

MARK	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHRUBS/GRASSES					
TO	18	THUJA OCCIDENTALIS	EMERALD ARBORVITE	4'h MIN.	B&B
CS	11	CORNUS STOLONIFERA	ARCTIC FIRE DOGWOOD	24"h	CONT.
JH	25	JUNIPERUS HORIZONTALIS	BAR HARBOR JUNIPER	24"sp	CONT.
IG	15	ILEX GLABRA COMPACTA	SHAMROCK INKBERRY	24"h 5'OC	B&B
TREES					
GT	3	GLEDITSIA TRIACANTHOS INERMIS SUNBURST	SUNBURST LOCUST	2 1/2" CAL	B&B
UA	2	ULMUS AMERICANA 'PRINCETON'	AMERICAN ELM	2–1/2"CAL	B&B
PR	4	PINUS RESINOSA	RED PINE	6'h MIN.	

LANDSCAPE PLAN

1" = 20'

N

NOTES:

1. CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING TREES AND PLANTINGS INDICATED TO REMAIN FROM ALL TYPES OF ROOT, TRUNK AND LIMB DAMAGE DURING DEMOLITION AND CONSTRUCTION.
2. EXISTING PLANTED AREAS SHALL REMAIN UNLESS OTHERWISE NOTED.
3. ALL DISTURBED AREAS SHALL RECEIVE 4" MIN. TOPSOIL AND GRASS SEED UNLESS OTHERWISE NOTED.
4. TREE AND SHRUB BEDS SHALL BE COVERED WITH 3" OF HARDWOOD MULCH. ALL ROOTS AND STONES OVER 1 1/2" SHALL BE REMOVED PRIOR TO SEEDING/ PLANTING.
5. ALL STREET AND ISLAND TREES SHALL HAVE FIRST BRANCHING at 6–FOOT MIN.
6. IF A CONFLICT EXISTS BETWEEN THE PLAN AND PLANTING SCHEDULE, THE PLAN SHALL GOVERN.
7. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES & UTILITY CONNECTIONS
8. REFER TO GRADING AND UTILITY PLAN(S) FOR ADDITIONAL INFORMATION NOT SHOWN HEREIN.

LEGEND:

INDICATES NEW TREE PLANTING PER SCHEDULE

INDICATES NEW SHRUB PLANTING PER SCHEDULE

EXISTING TREE/SHRUB TO REMAIN & BE PROTECTED THRU–OUT CONSTRUCTION

EXISTING TREE/SHRUB TO BE REMOVED

LAWN SEED SCHEDULE

Mixtures		Rate per Acre (lbs)	Rate per 1,000 sq. ft. (lbs)
A.	Birdsfoot trefoil or ladino clover	8	0.20
	Tall fescue or mooth bromegrass	20	0.45
	Redtop	2	0.05
		30	0.70
OR			
B.	Kentucky bluegrass	25	0.60
	Creeping red fescue	20	0.50
	Perennial ryegrass	10	0.20
		55	1.30

Youngman Memorial Highway (I–290)

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REVISIONS
1: REVISED 3/28/22
2: REVISED 4/19/22
3: REVISED 9/19/22

DRAWN BY avm
CHECKED BY AVM

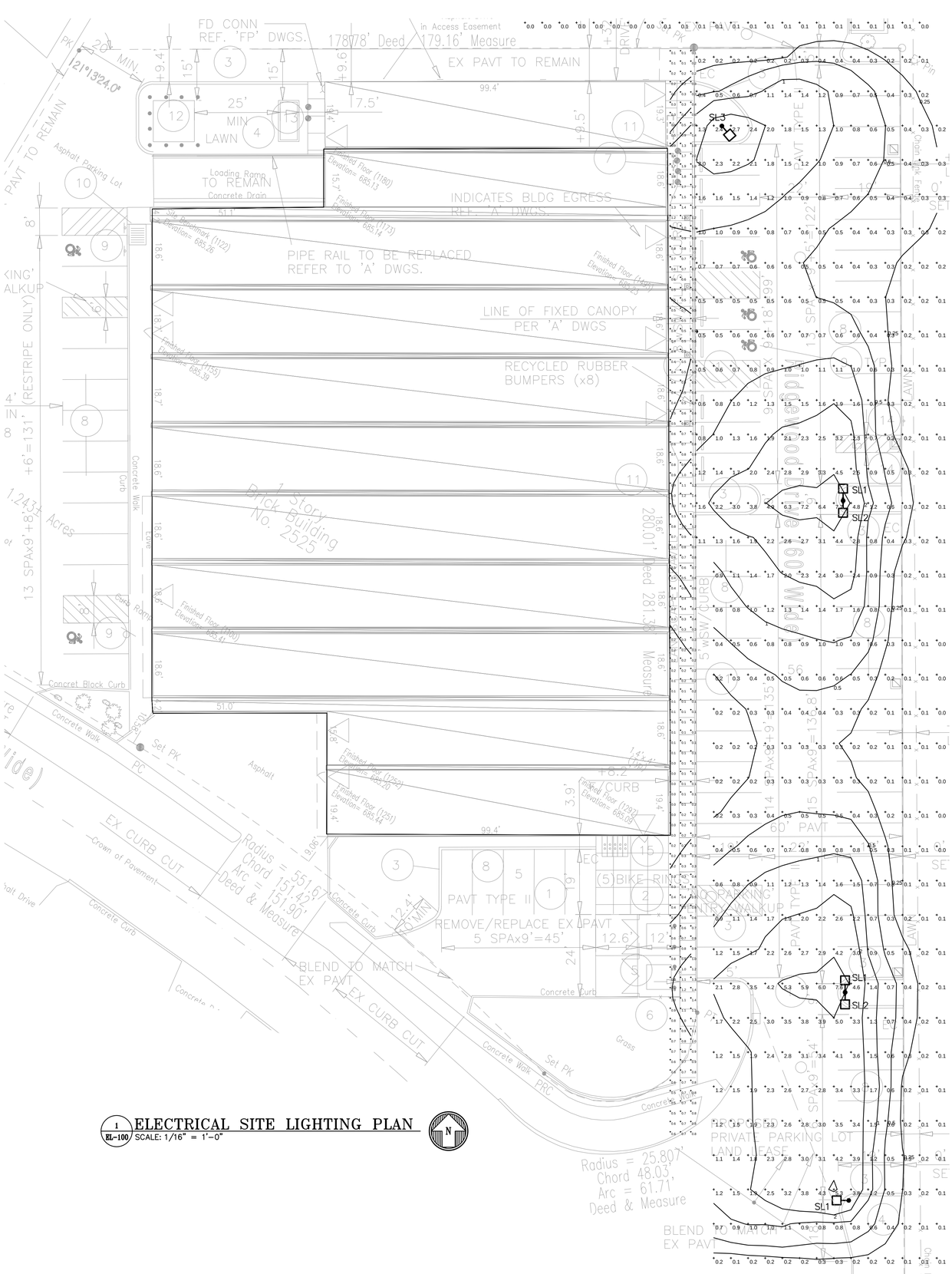
SCALE AS NOTED

DATE Feb 22, 2022

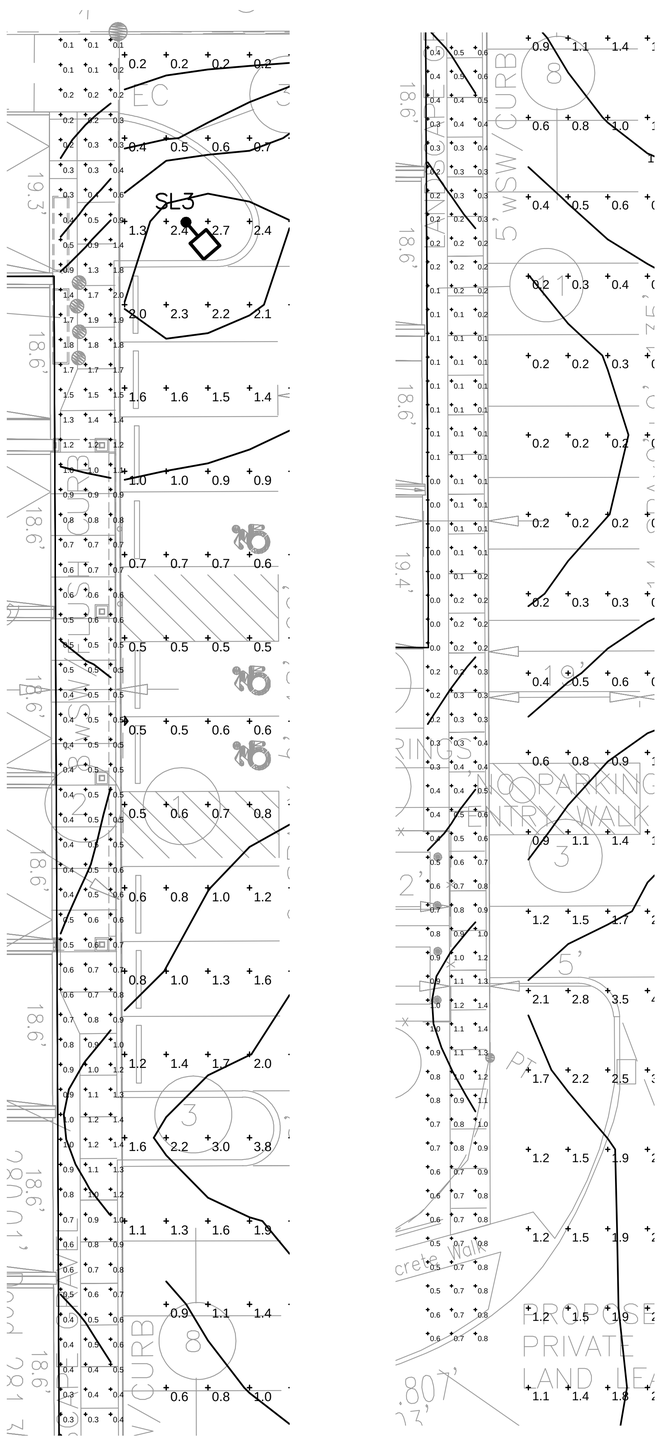
LANDSCAPE PLAN

L101

SP-2022-02 drawings 102022 (25490 : Sp-2022-02)
Attachment: SP-2022-02 (25490 : Sp-2022-02)



1 EL-100 ELECTRICAL SITE LIGHTING PLAN
SCALE: 1/16" = 1'-0"



ENLARGED PLANS OF WALKWAY

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LENS/DIFFUSER	VOLTAGE/ BALLAST	LAMPS/LUMEN PACKAGE	MANUFACTURER & CATALOG NO.
SL1	POLE MOUNTED LED SITE LUMINAIRE	POLE MOUNTED 20'-0" A.F.G.	LED OPTICS, 90° SPILL-LIGHT ELIMINATOR LEFT	UNV 120-277V	59W, 6510 LUMENS, 4000°K LED SYSTEM	MCGRAW EDISON 'GALLEON LED' #GLEON-SA1C-740-U-SLL
SL2	POLE MOUNTED LED SITE LUMINAIRE	POLE MOUNTED 20'-0" A.F.G.	LED OPTICS, 90° SPILL-LIGHT ELIMINATOR RIGHT	UNV 120-277V	59W, 6510 LUMENS, 4000°K LED SYSTEM	MCGRAW EDISON 'GALLEON LED' #GLEON-SA1C-740-U-SLR
SL3	POLE MOUNTED LED SITE LUMINAIRE	POLE MOUNTED 20'-0" A.F.G.	LED OPTICS, TYPE IV WITH SPILL CONTROL	UNV 120-277V	59W, 7037 LUMENS, 4000°K LED SYSTEM	MCGRAW EDISON 'GALLEON LED' #GLEON-SA1C-740-U-SL4

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS:
Tredo Engineers
755 Seneca Street Suite 202, Buffalo, NY 14210
Tel 716 . 876 . 7147
Buffalo Engineering
4245 Union Road, Buffalo, NY 14225
Tel 716 . 633 . 5300

STATE OF NEW YORK
DANIEL T. BAKER
065339
LICENSED PROFESSIONAL ENGINEER

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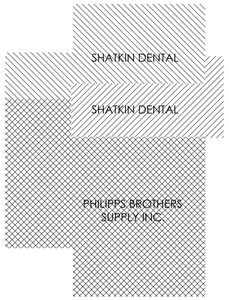
DATE 09/22/22

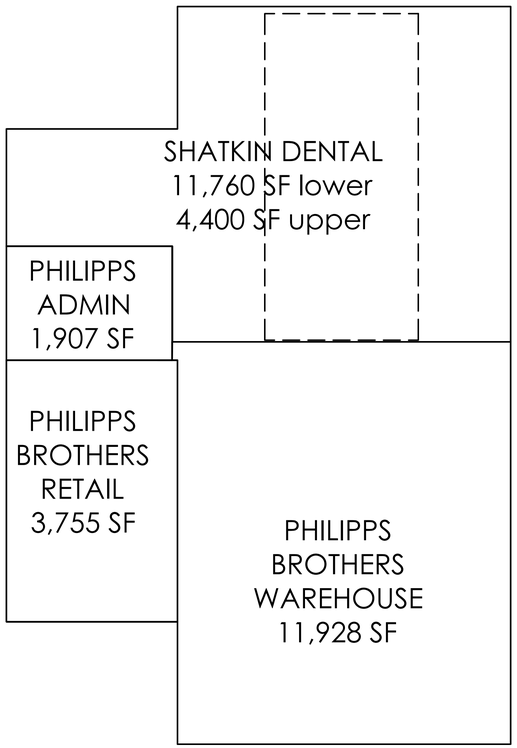
ELECTRICAL SITE LIGHTING PLAN

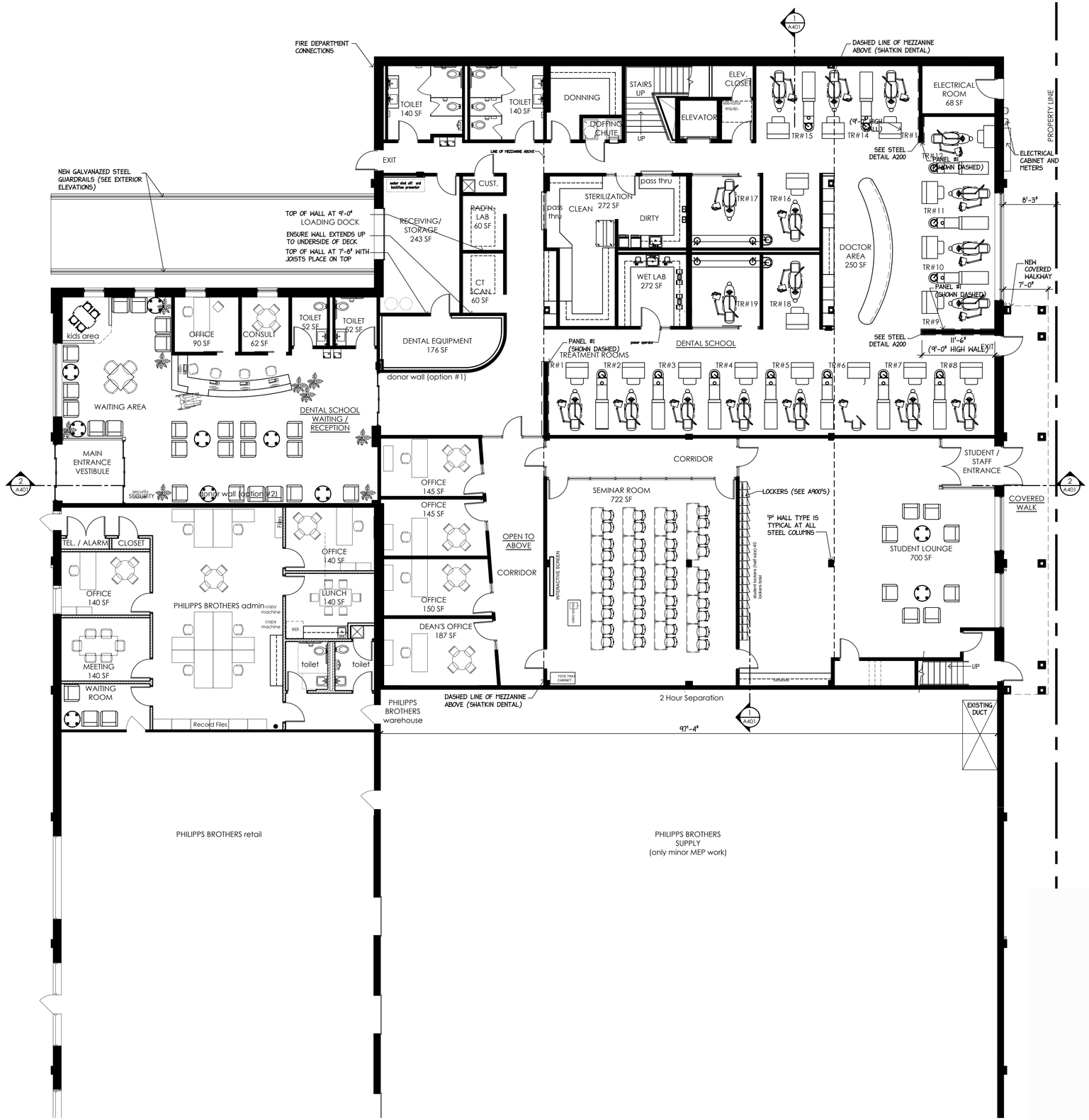
EL-100

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)



KEY PLAN
SCALE NTS





GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"

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425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716 . 876 . 7147

PETRILLI ENGINEERING PC
STRUCTURAL ENGINEERS
716 . 854 . 3508

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716 . 633 . 5300

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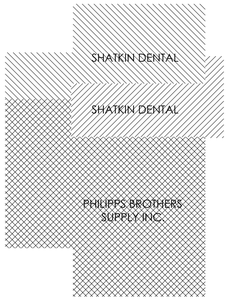
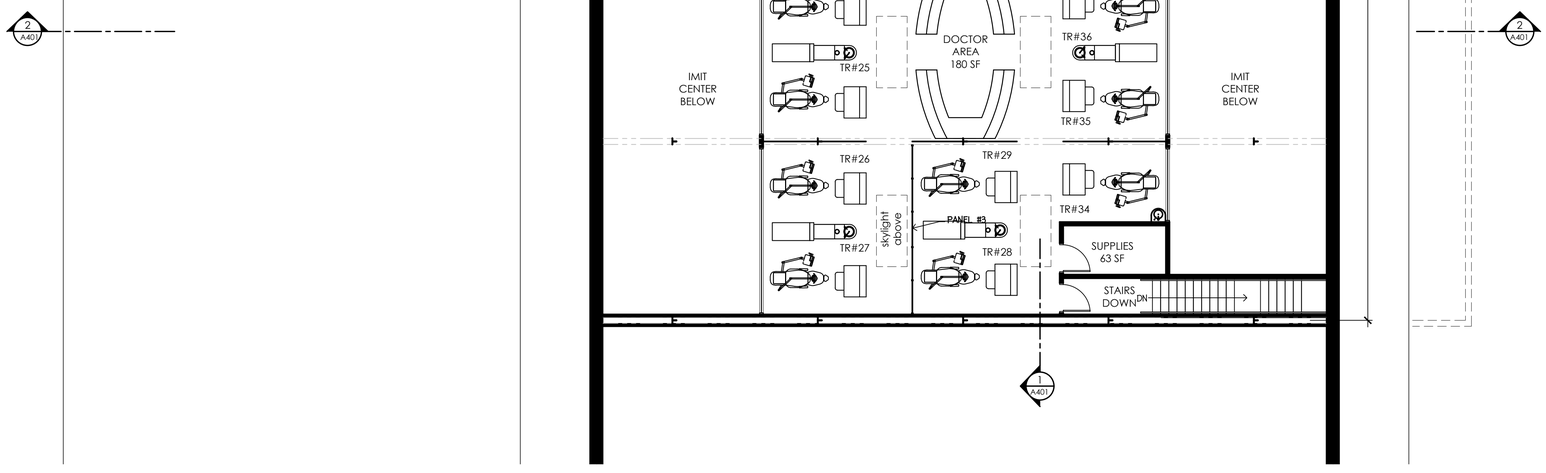
GROUND FLOOR PLAN

A101



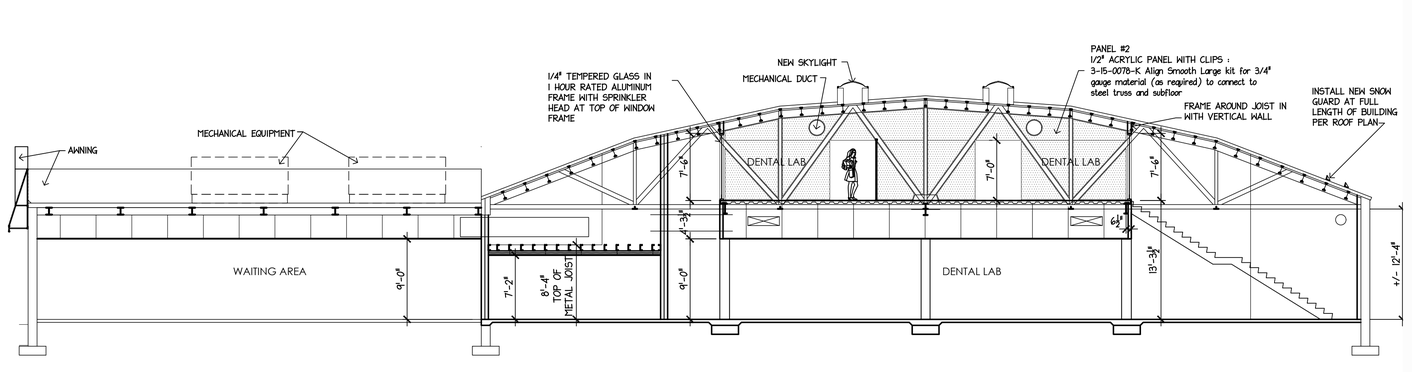
KEY PLAN
SCALE NTS





UPPER FLOOR PLAN
SCALE 1/8" = 1'-0"





TYPICAL CROSS SECTION
SCALE 1/8" = 1'-0"



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425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716 . 876 . 7147

PETRILLI ENGINEERING PC
STRUCTURAL ENGINEERS
716 . 854 . 3508

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716 . 633 . 5300

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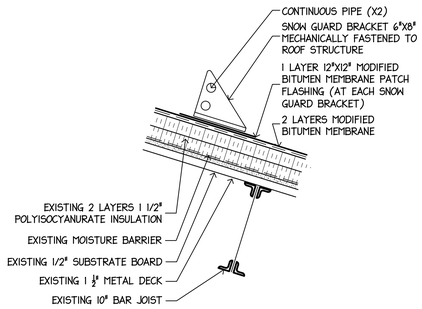
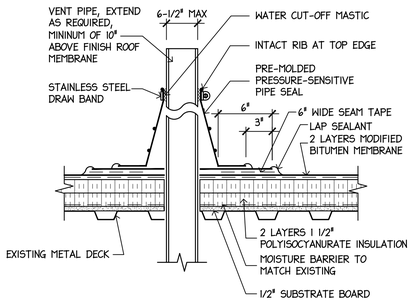
SECOND FLOOR PLAN

A102



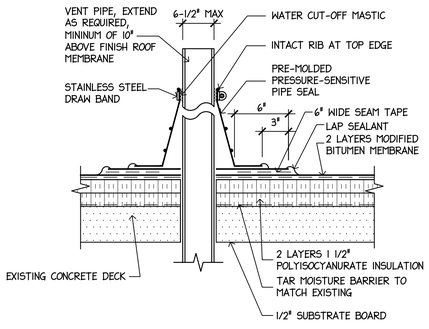
SNOW GUARD DETAIL AT METAL DECK 1

SCALE 1 1/2" = 1'-0"



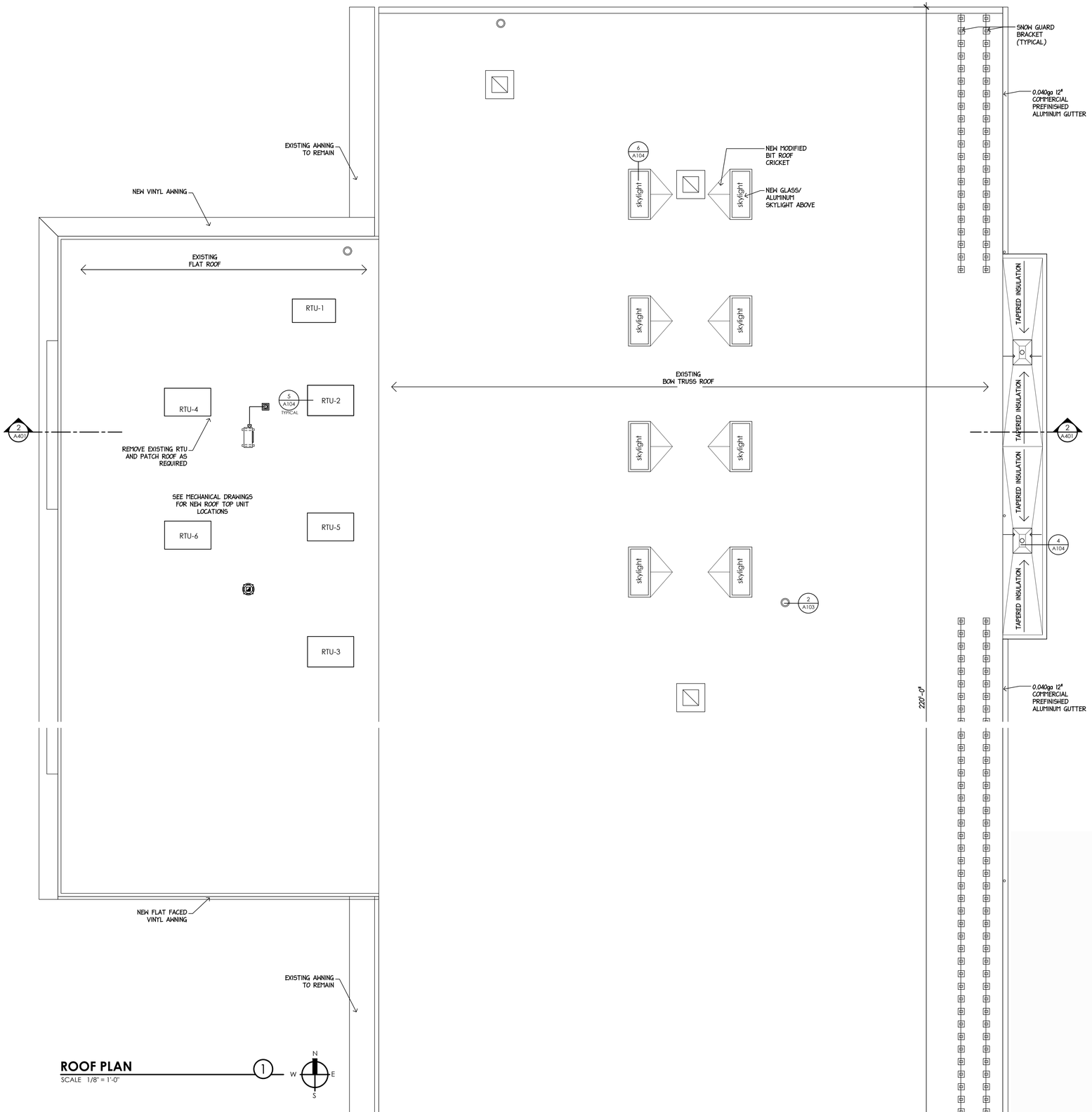
VENT STACK DETAIL AT METAL DECK 2

SCALE 1 1/2" = 1'-0"



VENT STACK DETAIL AT CONCRETE DECK 3

SCALE 1 1/2" = 1'-0"



ROOF PLAN 1

SCALE 1/8" = 1'-0"

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425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716 . 876 . 7147

PETRILLI ENGINEERING PC
STRUCTURAL ENGINEERS
716 . 854 . 3508

BUFFALO ENGINEERING, PC
MEP AND CIVIL ENGINEERS
716 . 633 . 5300

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Attachment: SP-2022-02 drawings 102022 (2549 : Sp-2022-02)

REGISTERED ARCHITECT PHILIP SORAY SNYDER 021273 STATE OF NEW YORK

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SEPT 12 2022

ROOF PLAN

A103



WEST ELEVATION

STIEGLITZ SNYDER ARCHITECTURE

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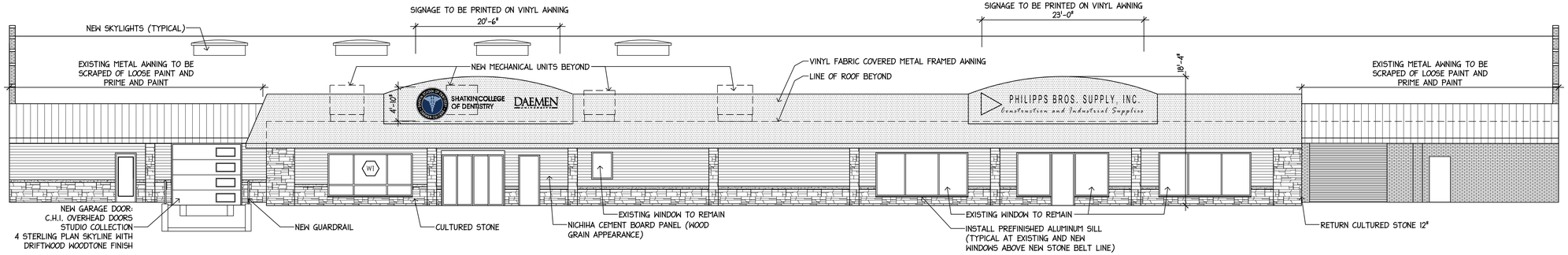
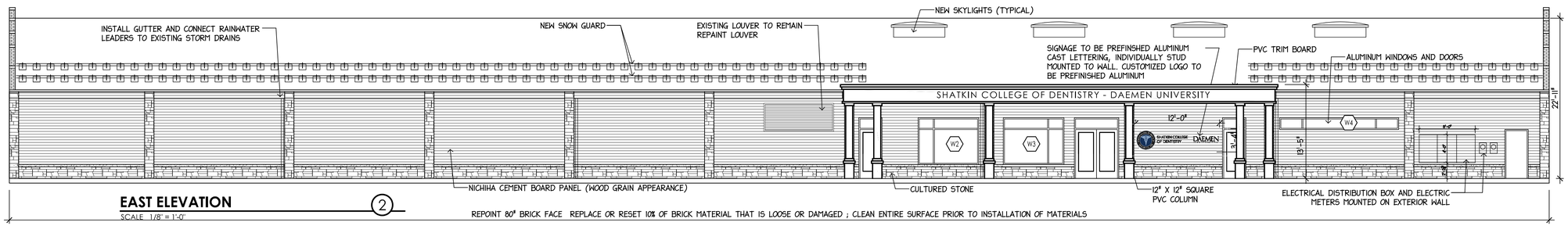
Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)



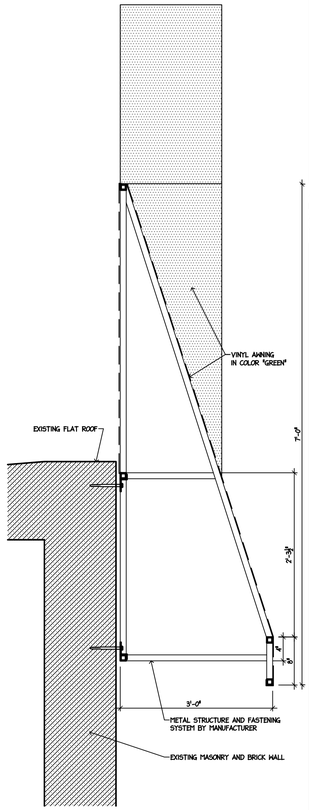
WEST ELEVATION ①

SCALE 1/8" = 1'-0"



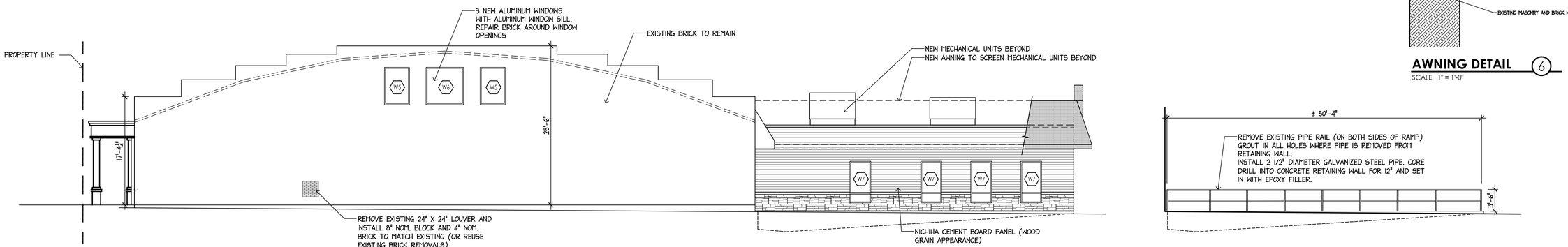
EAST ELEVATION ②

SCALE 1/8" = 1'-0"



AWNING DETAIL ⑥

SCALE 1" = 1'-0"

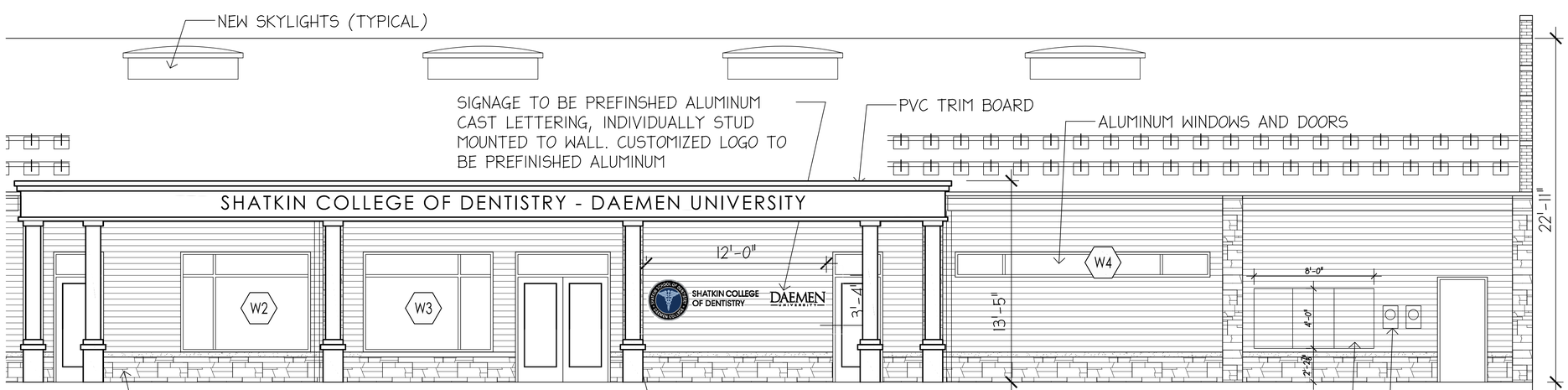


NORTH ELEVATION ③

SCALE 1/8" = 1'-0"

RAMP RAILING ELEVATION ⑤

SCALE 1/8" = 1'-0"



ENLARGED CANOPY ELEVATION ④

SCALE 1/8" = 1'-0"

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716 . 876 . 7147

PETRILLI ENGINEERING PC
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716 . 854 . 3508

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SITE PLAN APPLICATION

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EXTERIOR ELEVATIONS

A300



EAST ELEVATION

STIEGLITZ SNYDER ARCHITECTURE

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SHATKIN COLLEGE OF DENTISTRY

DAEMEN UNIVERSITY

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EAST ELEVATION - EXISTING

STIEGLITZ SNYDER ARCHITECTURE

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DAEMEN UNIVERSITY

Attachment: SP-2022-02 drawings 102022 (2549 : Sp-2022-02)

KOHLER®

Model: 200REOZJF

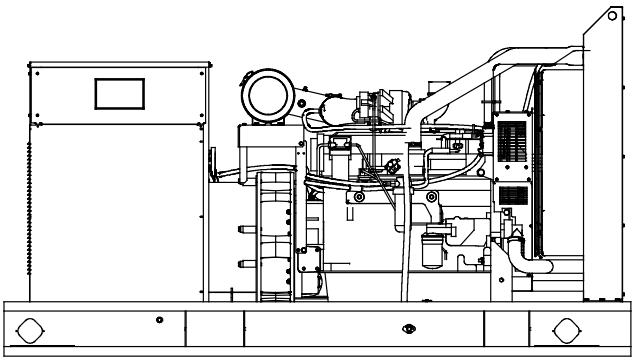
208- 600 V **Diesel**

ISO 9001 KOHLER® NATIONALLY REGISTERED

Tier 3 EPA-Certified for Stationary Emergency Applications

Ratings Range

		60 Hz
Standby:	**kW**	168- 200
	kVA	195- 250
Prime:	**kW**	158- 180
	kVA	175- 225



Generator Set Ratings

Alternator	Voltage	Ph	Hz	130°C Rise Standby Rating kW/kVA	130°C Rise Standby Rating Amps	105°C Rise Prime Rating kW/kVA	105°C Rise Prime Rating Amps
4S13X	120/208	3	60	184/230	638	173/216	600
	127/220	3	60	194/243	636	180/225	590
	120/240	3	60	184/230	553	173/216	520
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	168/210	319	158/198	300
	277/480	3	60	200/250	301	180/225	271
4UA9	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217
4UA13	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	120/240	1	60	195/195	813	175/175	729
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
  - The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
    (4S13X alternator)
  - The unique Fast-Response® II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
    (4UA9 and 4UA13 alternators)
  - The brushless, rotating-field alternator has broadrange reconnectability.
- Other features:
  - Kohler designed controllers for one-source system integration and remote communication. See Controllers on page 3.
  - The low coolant level shutdown prevents overheating (standard on radiator models only).
  - Integral vibration isolation eliminates the need for under-unit vibration spring isolators.
- Multiple circuit breaker configurations.
- Mount up to three circuit breakers to allow circuit protection of selected priority loads.

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. *Standby Ratings:* The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. *Prime Power Ratings:* At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet
Leads: quantity, type	
4SX, 4UA	12, Reconnectable
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

Specifications		Alternator
Peak motor starting kVA:		(35% dip for voltages below)
480 V	4S13X (12 lead)	570
480 V	4UA9 (12 lead)	700
480 V	4UA13 (12 lead)	960

Application Data

Engine

Engine Specifications	
Manufacturer	John Deere
Engine model	6068HFG85A
Engine type	4-Cycle, Turbocharged, Charge Air-Cooled
Cylinder arrangement	6 Inline
Displacement, L (cu. in.)	6.8 (415)
Bore and stroke, mm (in.)	106 x 127 (4.19 x 5.00)
Compression ratio	17.0:1
Piston speed, m/min. (ft./min.)	457 (1500)
Main bearings: quantity, type	7, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	235 (315)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Valve material:	
Intake	Chromium-Silicon Steel
Exhaust	Stainless Steel
Governor: type, make/model	JDEC Electronic L14 Denso HP3
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m^3/min. (cfm)	42.8 (1510)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	527 (980)
Maximum allowable back pressure, kPa (in. Hg)	Min. 4 (1.2) Max. 10 (3.0)
Exhaust outlet size at engine hookup, mm (in.)	98 (3.86)

Engine Electrical

Engine Electrical System	
Battery charging alternator:	24 Volt
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	45
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each	Two, 925
Battery voltage (DC)	12

Fuel

Fuel System	
Fuel supply line, min. ID, mm (in.)	11.0 (0.44)
Fuel return line, min. ID, mm (in.)	6.0 (0.25)
Max. lift, fuel pump: type, m (ft.)	Mechanical, 1.8 (6.0)
Max. fuel flow, Lph (gph)	92.7 (24.5)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel prime pump	Manual
Fuel filter	
Primary	30 Microns
Secondary	2 Microns @ 98% Efficiency
Water Separator	Yes
Recommended fuel	#2 Diesel

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.) §	32.5 (34.4)
Oil pan capacity with filter, L (qt.) §	33.4 (35.3)
Oil filter: quantity, type §	1, Cartridge
Oil cooler	Water-Cooled

§ Kohler recommends the use of Kohler Genuine oil and filters.

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

Application Data

Cooling

Radiator System	
Ambient temperature, °C (°F) *	50 (122)
Engine jacket water capacity, L (gal.)	11.3 (3.0)
Radiator system capacity, including engine, L (gal.)	27.6 (7.3)
Engine jacket water flow, Lpm (gpm)	230.9 (61)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	94.2 (5360)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	56.1 (3190)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	787 (31)
Fan, kWm (HP)	8.6 (11.5)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H_2O)	0.125 (0.5)

* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

Operation Requirements

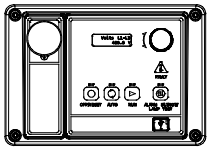
Air Requirements	
Radiator-cooled cooling air, m^3/min. (scfm)‡	368.1 (13000)
Combustion air, m^3/min. (cfm)	17.6 (620)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	46.9 (2670)
Alternator, kW (Btu/min.)	18.5 (1050)

‡ Air density = 1.20 kg/m^3 (0.075 lbm/ft^3)

Fuel Consumption

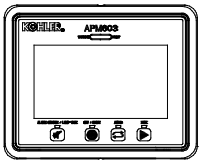
Diesel, Lph (gph) at % load	Standby Rating	
100%	58.0	(15.3)
75%	43.3	(11.4)
50%	31.4	(8.3)
25%	19.7	(5.2)
Diesel, Lph (gph) at % load	**Prime Rating**	
100%	50.1	(13.2)
75%	36.1	(9.5)
50%	25.7	(6.8)
25%	16.6	(4.4)

Controllers



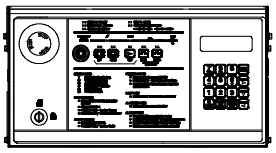
APM402 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-161 for additional controller features and accessories.



APM603 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- 7-inch graphic display with touch screen and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other APM603 controllers only
- Generator management to turn paralleled generators off and on as required by load demand
- Load management to connect and disconnect loads as required
- Controller supports Modbus® RTU, Modbus® TCP, SNMP and BACnet®
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- UL-listed overcurrent protective device
- NFPA 110 Level 1 capability

Refer to G6-162 for additional controller features and accessories.



Decision-Maker® 6000 Paralleling Controller
Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other Decision-Maker® 6000 controllers only
- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-107 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.

BACnet® is a registered trademark of ASHRAE.

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KOHLERPower.com

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Customer Connection (standard with Decision-Maker® 6000 controller only)
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Circuit Breakers

Type

- ❑ Magnetic Trip
- ❑ Thermal Magnetic Trip
- ❑ Electronic Trip (LI)
- ❑ Electronic Trip with Short Time (LSI)
- ❑ Electronic Trip with Ground Fault (LSIG)

Rating

- ❑ 80%
- ❑ 100%

Operation

- ❑ Manual
- ❑ Electrically Operated (for paralleling)

Circuit Breaker Mounting

- ❑ Generator Mounted
- ❑ Remote Mounted
- ❑ Bus Bar (for remote mounted breakers)

Enclosures for Remote Mounted Circuit Breakers

- ❑ NEMA 1
- ❑ NEMA 3R

Approvals and Listings

- ❑ California OSHPD Pre- Approval
- ❑ CSA Certified
- ❑ IBC Seismic Certification
- ❑ UL 2200 Listing
- ❑ Hurricane Rated Enclosure

Enclosed Unit

- ❑ Sound Enclosure (with enclosed critical silencer)
- ❑ Weather Enclosure (with enclosed critical silencer)

Open Unit

- ❑ Exhaust Silencer, Critical (kit: PA-354809)
- ❑ Flexible Exhaust Connector, Stainless Steel

Fuel System

- ❑ Flexible Fuel Lines
- ❑ Fuel Pressure Gauge
- ❑ Subbase Fuel Tanks

Controller

- ❑ Common Failure Relay (Decision-Maker® 6000 and APM603 controllers only)
- ❑ Decision-Maker® Paralleling System (DPS) (Decision-Maker® 6000 controller only)
- ❑ Dry Contact (isolated alarm) (Decision-Maker® 6000 controller only)
- ❑ Two Input/Five Output Module (APM402 controller only)
- ❑ Four Input/Fifteen Output Module (APM603 controller only)
- ❑ Lockable Emergency Stop Switch
- ❑ Remote Emergency Stop Switch
- ❑ Remote Serial Annunciator Panel
- ❑ Run Relay (standard with APM603, optional with others)
- ❑ Manual Key Switch (APM603 controller only)
- ❑ Manual Speed Adjust (APM402 controller only)

Cooling System

- ❑ Block Heater, 1800 W, 90- 120 V, 1 Ph
- ❑ Block Heater, 2000 W, 190- 240 V, 1 Ph Required for ambient temperature below 0°C (32°F)
- ❑ Radiator Duct Flange

Electrical System

- ❑ Generator Heater
- ❑ Battery
- ❑ Battery Charger, Equalize/Float Type
- ❑ Battery Heater

Miscellaneous

- ❑ Air Cleaner, Heavy Duty
- ❑ Air Cleaner Restriction Indicator
- ❑ Certified Test Report
- ❑ Crankcase Emissions Canister
- ❑ Engine Fluids Added
- ❑ Rated Power Factor Testing
- ❑ Rodent Guards

Literature

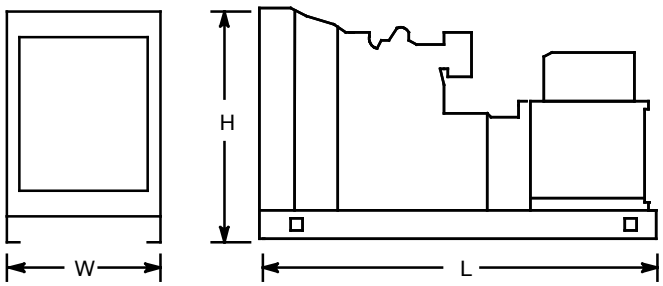
- ❑ General Maintenance
- ❑ NFPA 110
- ❑ Overhaul
- ❑ Production

Warranty

- ❑ 2-Year Basic Limited Warranty
- ❑ 5-Year Basic Limited Warranty
- ❑ 5-Year Comprehensive Limited Warranty

Dimensions and Weights

Overall Size, L x W x H, mm (in.):	3000 x 1300 x 1672 (118.1 x 51.2 x 65.8)
Weight (radiator model), wet, kg (lb.):	1923 (4240)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

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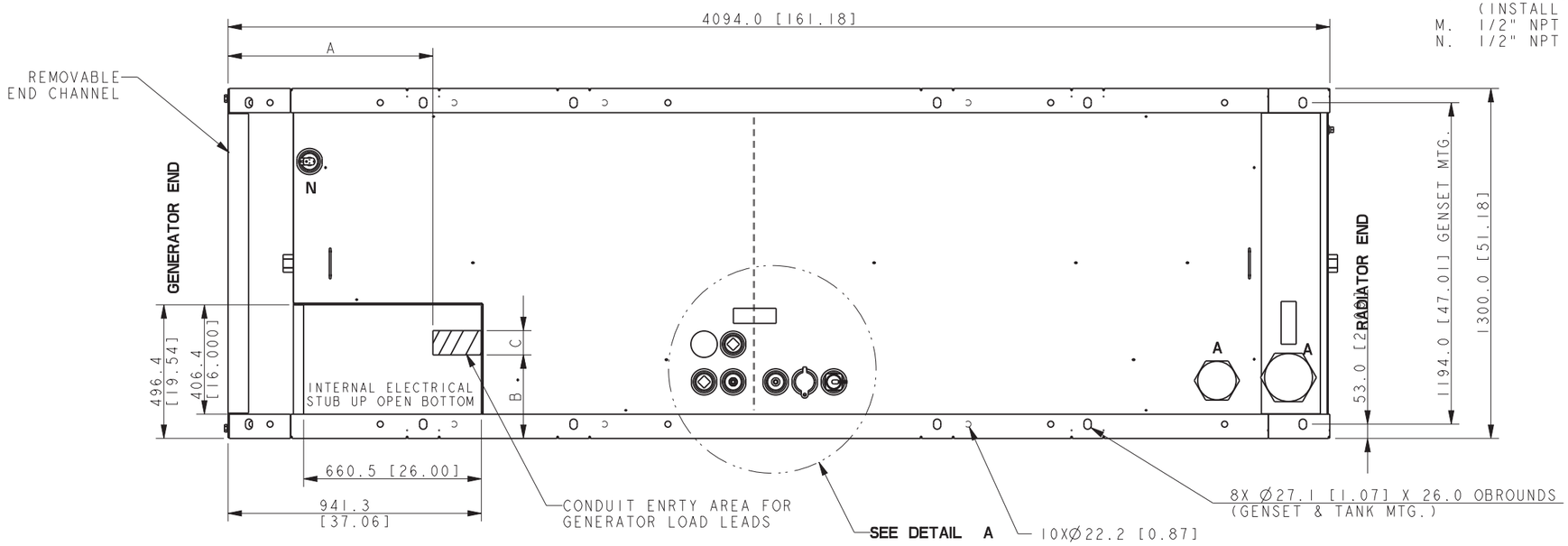
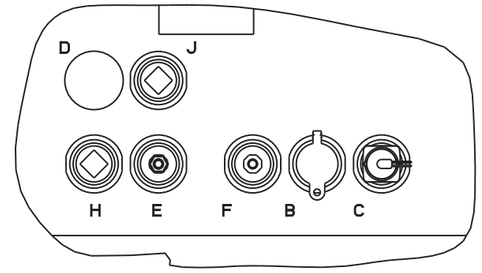
Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	1514	400	933	2057	482.6	19.0	4.0	2.0
180/200kW	2871	758	1327	2926	889.0	35.0	5.0	2.0

TANK FITTINGS:

A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 2" NPT FUEL FILL FITTING WITH LOCKABLE CAP
C. 2" NPT FUEL LEVEL GAUGE FITTING
D. 2" NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE)
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE)
H. 2" NPT FOR LOW LEVEL SWITCH (SET AT 50% FULL, SILICONE PACKED)
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY (INSTALL STEEL 2" NPT PIPE PLUG)
M. 1/2" NPT BASIN DRAIN (INSTALL STEEL 1/2" NPT PIPE PLUG)
N. 1/2" NPT FOR FUEL IN BASIN SWITCH (INSTALL STEEL 1/2" NPT PIPE PLUG)





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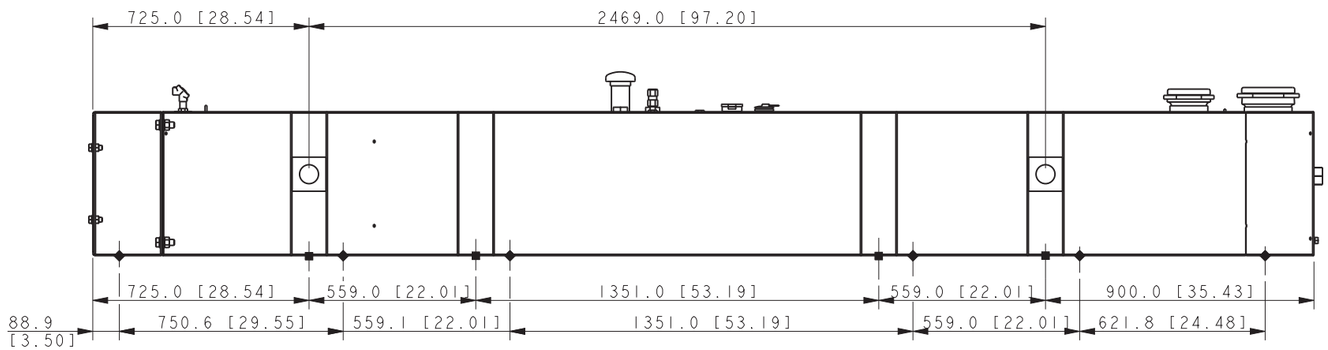

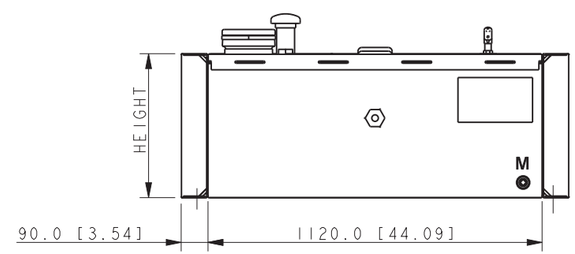

■ 8XØ25.4 [1.0] STANDARD MOUNTING

◆ 12XØ22.2 [0.88] IBC/WINDLOAD MOUNTING

GENSET	A	B	C
180KW	761 [30.0]	310 [12.2]	90 [3.5]
200KW	561 [22.1]	303 [11.9]	100 [3.9]

STANDARD TANK

180 MODEL 60HZ 4S15, 4S12X & 4S13X
200 MODEL 4UA9, 4UA13 & 4S13X
RECONNECTABLE
IMPROVED MOTOR STARTING (IMS) &
600V ALTERNATOR
JOHN DEERE 6068HF485, TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
F	08-11-14	(A-4) STANDARD TANK NOTE ADDED & SEE SHEET 2 [CT89102]	PAS
G	2-28-17	(A-8, A-7) 761 WAS 571, 303 WAS 195, (8-D, C-7) DELETE 50.0 UPDATE CONDUIT AREA, SEE SHEET 2, [CT170607]	RMJ
H	2-19-18	SEE SHEET 3 [CT184671]	PAS
J	2-26-19	(A-5) IBC/WINDLOAD MOUNTING WAS IBC MOUNTING; SEE SHEET 2 & 3 [CT193852]	TKK
K	7-2-19	SEE SHEET 2 [CT196925]	JB2

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS	DATE
DRAWN PKD	1-20-10
CHECKED AJD	1-20-10
APPROVED AJD	1-20-10

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POWER SYSTEMS, KOHLER, WI 53044 U.S.A.
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TITLE
DIMENSION PRINT

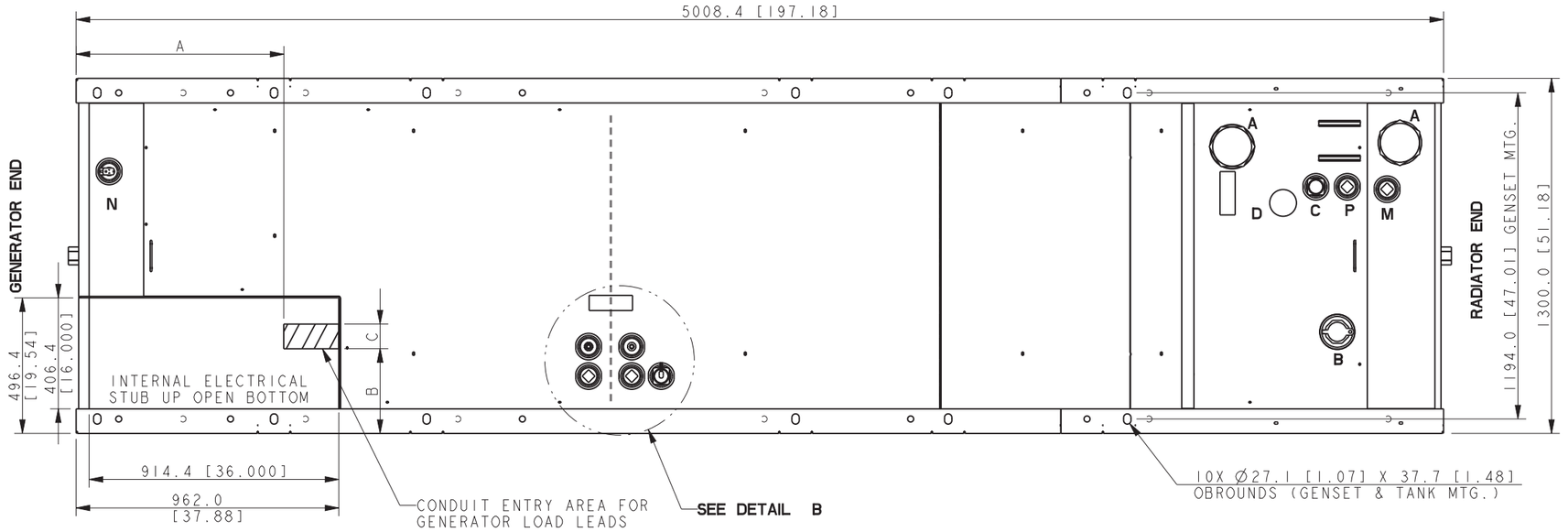
SCALE 0.10 | CAD NO. | SHEET 1 of 3
DWG NO. ADV-

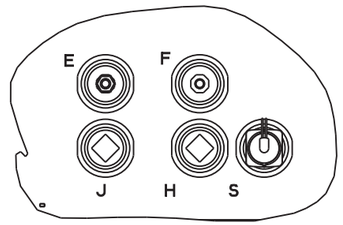
Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	1576	416	1234	2721	457.2	18.0	5.0	2.0
180/200kW	2896	765	1560	3440	762.0	30.0	5.0	2.0

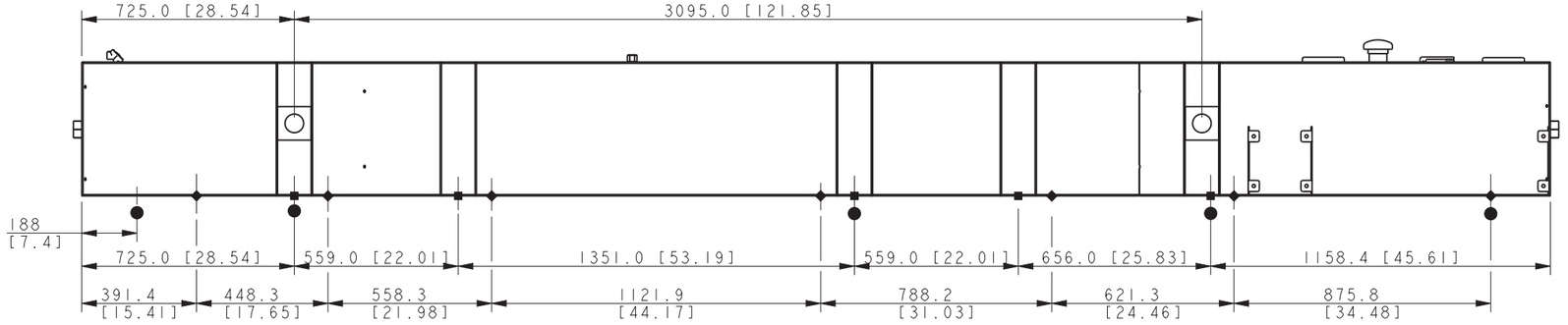
TANK FITTINGS:

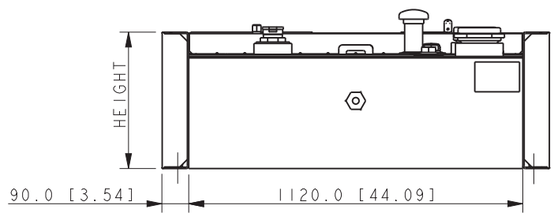
A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 4" NPT FUEL FILL FITTING WITH LOCKABLE CAP AND RISER. PLUG & SHIP WITH TANK IN BOX ATTACHED TO TANK
C. 2" NPT FUEL LEVEL GAUGE FITTING
D. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER.
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE)
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE)
H. 2" NPT FOR LOW LEVEL SWITCH (SET AT 50% FULL, SILICONE PACKED)
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY (INSTALL 2" NPT PIPE PLUG)
M. 2" NPT BASIN DRAIN (PLUGGED
N. 2" NPT FOR FUEL IN BASIN SWITCH
P. 2" NPT ADDITIONAL FITTING FOR OTPIONAL ACCESORY (INSTALL 2" NPT PIPE PLUG)
S. 2" NPT FUEL LEVEL GAUGE FITTING WITH SENDER





DETAIL B
SCALE 0.20





■ 10XØ25.4 [1.0] STANDARD MOUNTING
◆ 14XØ22.2 [0.88] IBC/WINDLOAD MOUNTING
● 10XØ25.4 [1.0] BOTTOM BEAM MOUNTING

GENSET	A	B	C
180KW	761 [30.0]	310 [12.2]	90 [3.5]
200KW	561 [22.1]	303 [11.9]	100 [3.9]

STATE TANK
180 MODEL 60HZ 4S15, 4S12X & 4S13X
200 MODEL 4UA9, 4UA13 & 4S13X
RECONNECTABLE
IMPROVED MOTOR STARTING (IMS) &
600V ALTERNATOR
JOHN DEERE 6068HF485, TIER III

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
G	2-28-17	(A-8, A-7) 761 WAS 571, 303 WAS 195,	
		(8-D, C-7) DELETE 50.0 UPDATE CONDUIT AREA,	
		SEE SHEET 1, [CT170607]	RMJ
H	2-19-18	SEE SHEET 3 [CT184671]	PAS
J	2-26-19	(A-5,6) IBC/WINDLOAD MOUNTING WAS IBC	
		MOUNTING; SEE SHEET 1 & 3 [CT193852]	TKK
K	7-2-19	(D-6)5.0 WAS 4.0, (B-4) CORRECTED ACCURACY	
		TO GENSET / TANK MOUNTING [CT196925]	JB2

UNLESS OTHERWISE SPECIFIED: - 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30' — SURFACE FINISH MAX. — THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	PKD	1-20-10
CHECKED	AJD	1-20-10
APPROVED	AJD	1-20-10

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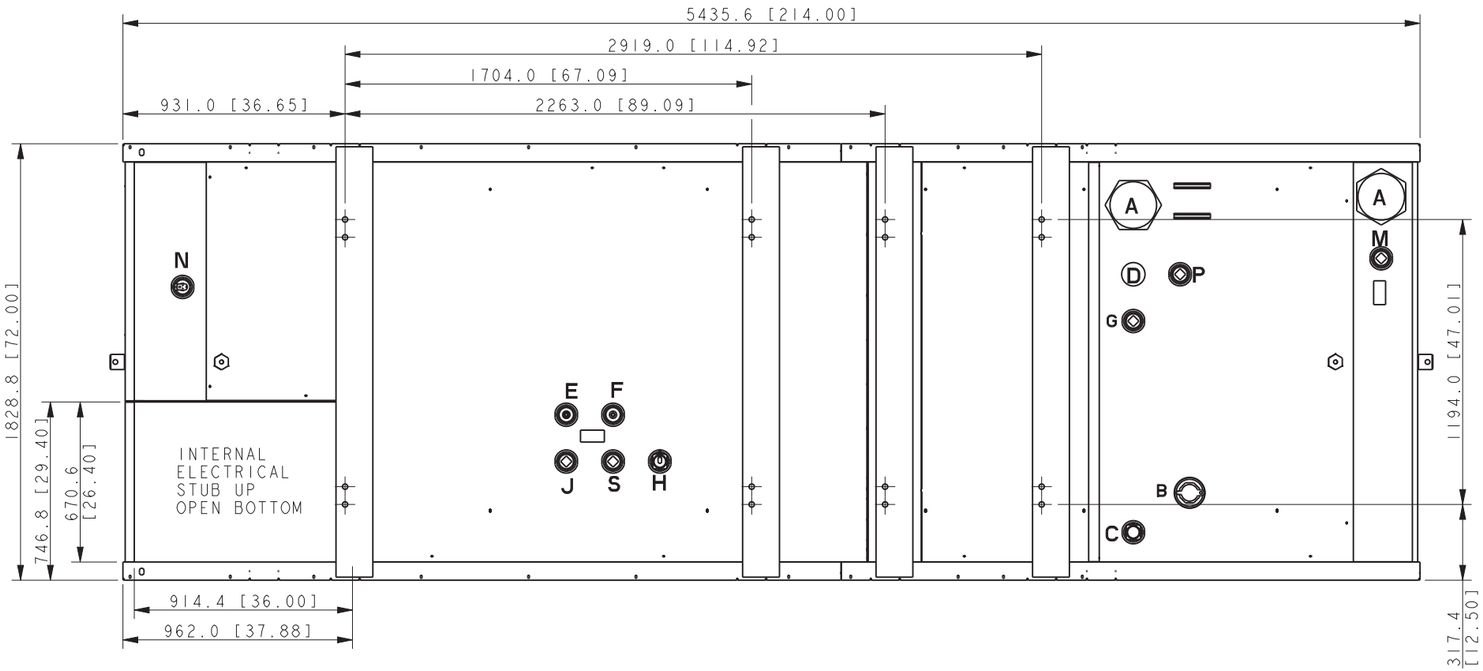
SCALE 0.10 | CAD NO. | SHEET 2 of 3
DWG NO. **ADV-**

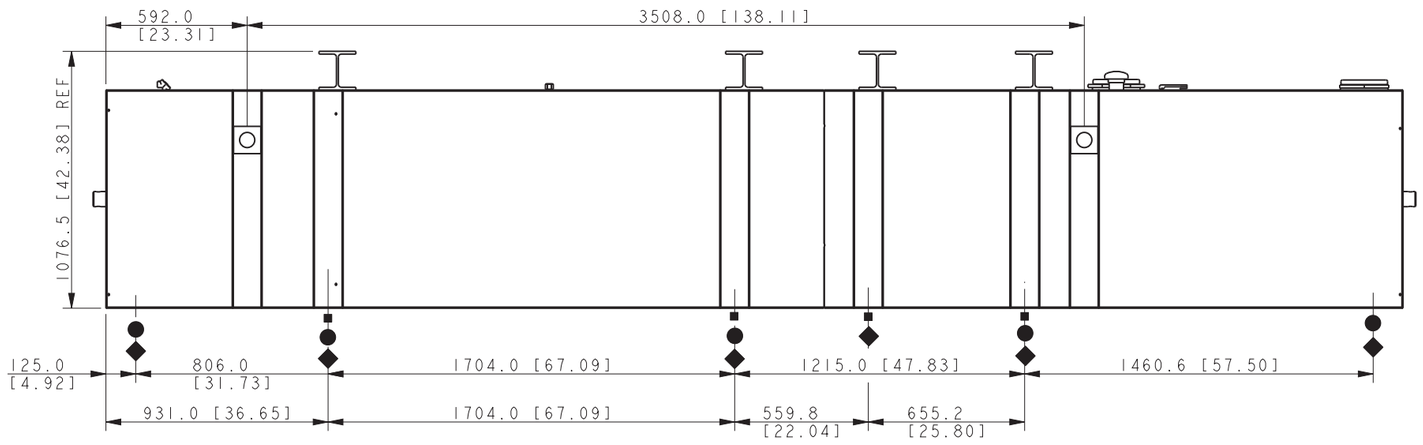
Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

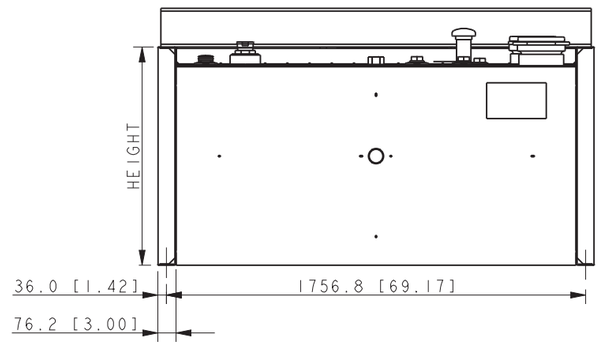
MODEL	CAPACITY		WEIGHT		HEIGHT		E-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
180/200kW	5742	1517	1727	3809	914.4	36.0	6.0	2.0

TANK FITTINGS:

A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAPS
B. 4" NPT FUEL FILL FITTING WITH LOCKABLE CAP AND RISER.
C. 2" NPT FUEL LEVEL GAUGE FITING WITH DIRECT READING MECHANICAL GAUGE.
D. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER.
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE).
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE).
G. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).
H. 2" NPT FOR FUEL LEVEL SENDING UNIT.
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).
M. 2" NPT BASIN DRAIN (INSTALL STEEL 2" NPT PIPE PLUG).
N. 2" NPT FOR FUEL IN BASIN SWITCH.
P. 2" NPT ADDITIONAL FITTING FOR OTPIONAL ACCESORY (INSTALL STEEL 2" NPT PIPE PLUG).
S. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY. (INSTALL STEEL 2" NPT PIPE PLUG).







NOTE:
FOR FURTHER TANK DETAIL SEE INDIVIDUAL DRAWINGS

■ 8X Ø25.40 [1.0] STANDARD MOUNTING
● 10X Ø25.40 [1.0] BOTTOM BEAM MOUNTING
◆ 12X Ø25.40 [1.0] WINDLOAD MOUNTING

96 HOUR STATE TANK

REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
H	2-19-18	SHEET 3 ADDED [CTI84671]	PAS
J	2-26-19	(A-4,5) 12X Ø25.40 [1.0] WINDLOAD MOUNTING	
		NOTE ADDED; SEE SHEET 1 & 2 [CTI93852]	TKK
K	7-2-19	SEE SHEET 2 [CTI96925]	JB2

UNLESS OTHERWISE SPECIFIED -
1) DIMENSIONS ARE IN MILLIMETERS
2) TOLERANCES ARE:
X.XX ± 0.25
X.X ± 1.0
X ± 1.5
ANGLES ± 0° 30'
SURFACE FINISH MAX.
THIRD ANGLE PROJECTION

APPROVALS		DATE
DRAWN	PAS	2-19-18
CHECKED	JB2	2-19-18
APPROVED	KJB	2-19-18

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TITLE
DIMENSION PRINT

SCALE 0.08 | CAD NO. | SHEET 3 of 3
DWG NO. ADV-

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

Project		Catalog #		Type	
Prepared by		Notes		Date	



McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Product Features

LumenSafe Technology

Light ARchitect™

Product Certifications

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

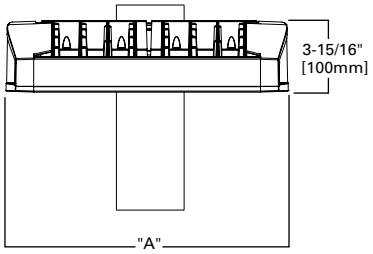
Quick Facts

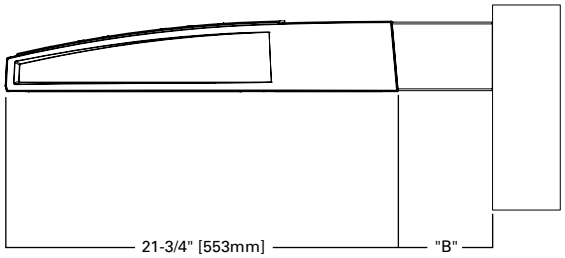
- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt
- Options to meet Buy American and other domestic preference requirements

Connected Systems

- WaveLinx
- Enlighted

Dimensional Details





Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length [1]	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

Ordering Information

SAMPLE NUMBER: **GLEON-SA4C-740-U-T4FT-GM**

Product Family [1, 2]	Light Engine		Color Temperature	Voltage	Distribution	Mounting	Finish
	Configuration	Drive Current					
GLEON=Galleon **BAA-GLEON**=Galleon, Buy American Act Compliant [35] **TAA-GLEON**=Galleon, Trade Agreements Act Compliant [35]	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares **SA5**=5 Squares [4] **SA6**=6 Squares **SA7**=7 Squares [5] **SA8**=8 Squares [5] **SA9**=9 Squares [6] **SA0**=10 Squares [6]	**A**=600mA **B**=800mA **C**=1000mA **D**=1200mA [16]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [14, 16]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [7, 8] **9**=347V [7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [9] **MA**=Mast Arm Adapter [10] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [11] **QML**=Quick Mount Arm (Standard Length, Large) [37] **QMEA**=Quick Mount Arm (Extended Length) [12]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **RALXX**=Custom Color

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)[35]
DIM=External 0-10V Dimming Leads [19, 20] **F**=Single Fuse (120, 277 or 347V Specify Voltage) **FF**=Double Fuse (208, 240 or 480V Specify Voltage) **20K**=Series 20kV UL 1449 Surge Protective Device **2L**=Two Circuits [17, 18] **HA**=50°C High Ambient **HSS**=Installed House Side Shield [28] **GRSBK**=Glare Reducing Shield, Black [23] **GRSWH**=Glare Reducing Shield, White [23] **LCF**=Light Square Trim Painted to Match Housing [27] **MT**=Installed Mesh Top **TH**=Tool-less Door Hardware **CC**=Coastal Construction finish [3] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **CE**=CE Marking [29] **AHD145**=After Hours Dim, 5 Hours [22] **AHD245**=After Hours Dim, 6 Hours [22] **AHD255**=After Hours Dim, 7 Hours [22] **AHD355**=After Hours Dim, 8 Hours [22] **DALI**=DALI Drivers	**BPC**=Button Type Photocontrol **PR**=NEMA 3-PIN Photocontrol Receptacle **PR7**=NEMA 7-PIN Photocontrol Receptacle [21] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8′ - 20′ Mounting [34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21′ - 40′ Mounting [34] **MS-L20**=Motion Sensor for ON/OFF Operation, 9′ - 20′ Mounting Height [24] **MS-L40W**=Motion Sensor for ON/OFF Operation, 21′ - 40′ Mounting Height [24] **MS/X-L20**=Bi-Level Motion Sensor, 9′ - 20′ Mounting Height [24, 25] **MS/X-L40W**=Bi-Level Motion Sensor, 21′ - 40′ Mounting Height [24, 25] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9′ - 20′ Mounting Height [24] **MS/DIM-L40W**=Motion Sensor for Dimming Operation, 21′ - 40′ Mounting Height [24] **ZW**=WaveLinx Module and 4-PIN Receptacle **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle **SWPD4XX**=WaveLinx Sensor Only, 7′-15′ [13, 32, 33] **SWPD5XX**=WaveLinx Sensor Only, 15′-40′ [13, 32, 33] **WOBXX**=WaveLinx Sensor with Bluetooth, 7′-15′ [13, 32] **WOFXX**=WaveLinx Sensor with Bluetooth, 15′-40′ [13, 32] **LWR-LW**=Enlighted Sensor, 8′–16′ Mounting Height [26] **LWR-LN**=Enlighted Sensor, 16′–40′ Mounting Height [26] **DIM10-MS/DIM-L08**=Synapse Occupancy Sensor (<8′ Mounting) [19] **DIM10-MS/DIM-L20**=Synapse Occupancy Sensor (9′-20′ Mounting) [19] **DIM10-MS/DIM-L40**=Synapse Occupancy Sensor (21′-40′ Mounting) [19]	**OA/RA1016**=NEMA Photocontrol Multi-Tap - 105-285V **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1014**=120V Photocontrol **MA1252**=10kV Surge Module Replacement **MA1036-XX**=Single Tenon Adapter for 2-3/8" O.D. Tenon **MA1037-XX**=2@180° Tenon Adapter for 2-3/8" O.D. Tenon **MA1197-XX**=3@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1188-XX**=4@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1189-XX**=2@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1190-XX**=3@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1191-XX**=2@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1038-XX**=Single Tenon Adapter for 3-1/2" O.D. Tenon **MA1039-XX**=2@180° Tenon Adapter for 3-1/2" O.D. Tenon **MA1192-XX**=3@120° Tenon Adapter for 3-1/2" O.D. Tenon **MA1193-XX**=4@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1194-XX**=2@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1195-XX**=3@90° Tenon Adapter for 3-1/2" O.D. Tenon **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [24] **GLEON-MT1**=Field Installed Mesh Top for 1-4 Light Squares **GLEON-MT2**=Field Installed Mesh Top for 5-6 Light Squares **GLEON-MT3**=Field Installed Mesh Top for 7-8 Light Squares **GLEON-MT4**=Field Installed Mesh Top for 9-10 Light Squares **GLEON-QM**=Quick Mount Arm Kit [11] **GLEON-QMEA**=Quick Mount Extended Arm Kit [12] **LS/HSS**=Field Installed House Side Shield [28, 30] **LS/GRSBK**=Glare Reducing Shield, Black [23, 30] **LS/GRSWH**=Glare Reducing Shield, White [23, 30] **LS/PFS**=Perimeter Shield, Black [15] **WOLC-7P-10A**=WaveLinx Outdoor Control Module [19, 31] **SWPD4-XX**=Wavelinx Wireless Sensor, 7′–15′ Mounting Height [13, 19, 32, 33] **SWPD5-XX**=Wavelinx Wireless Sensor, 15′–40′ Mounting Height [13, 19, 32, 33]

NOTES:

1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Not available with TH option.
4. Not compatible with MS/4-LXX or MS/1-LXX sensors.
5. Not compatible with extended quick mount arm (QMEA).
6. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
7. Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
8. 480V must utilize Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems.)
9. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
10. Factory installed.
11. Maximum 8 light squares.
12. Maximum 6 light squares.
13. Requires ZW or ZD receptacle.
14. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
15. Set of 4 pcs. One set required per Light Square.
16. Not available with HA option.
17. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in SA2 through SA4 requires a larger housing, normally used for SA5 or SA6. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
18. Not available with Enlighted wireless sensors.
19. Cannot be used with other control options.
20. Low voltage control lead brought out 18" outside fixture.
21. Not available if any "MS" sensor is selected. Motion sensor has an integral photocell.
22. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
23. Not for use with T4FT, T4W or SL4 optics. See IES files for details.
24. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
25. Replace X with number of Light Squares operating in low output mode.
26. Enlighted wireless sensors are factory installed only requiring network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities.
27. Not available with house side shield (HSS).
28. Not for use with 5NQ, 5MQ, 5WQ or RW optics. A black trim plate is used when HSS is selected.
29. CE is not available with the LWR, MS, MS/X, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
30. One required for each Light Square.
31. Requires PR7.
32. Replace XX with sensor color (WH, BZ or BK.)
33. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
34. Smart device with mobile application required to change system defaults. See controls section for details.
35. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
36. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
37. Available for 7-10 squares.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

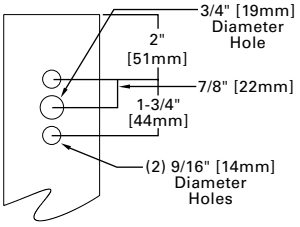
Product Family	Camera Type	Data Backhaul	
L=LumenSafe Technology	**D**=Standard Dome Camera **H**=Hi-Res Dome Camera **Z**=Remote PTZ Camera	**C**=Cellular, No SIM **A**=Cellular, AT&T **V**=Cellular, Verizon **S**=Cellular, Sprint	**R**=Cellular, Rogers **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

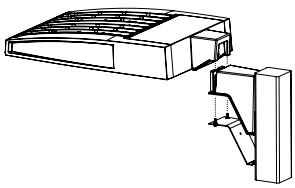
Mounting Details

Standard Arm (Drilling Pattern)

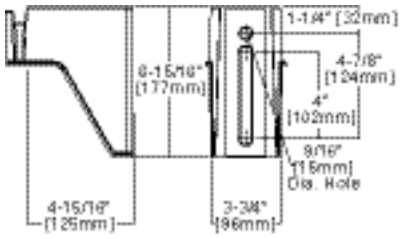
TYPE "N"



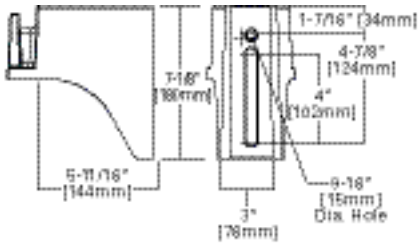
Quick Mount Arm (Includes fixture adapter)



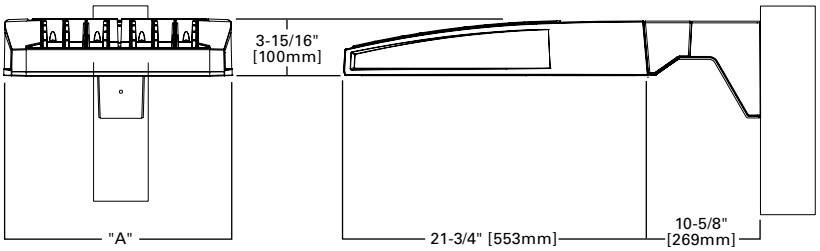
QM and QMEA Pole Mount



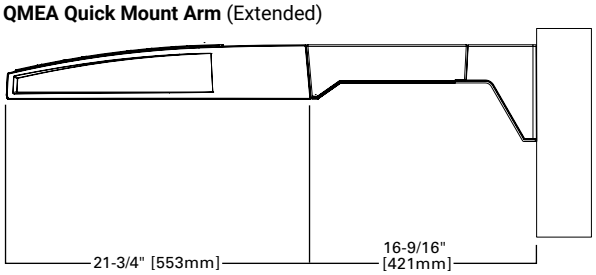
QML Pole Mount



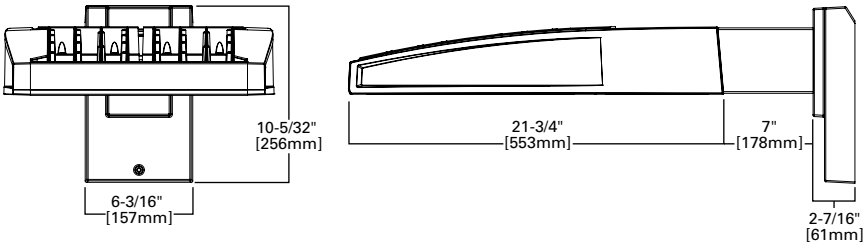
QM Quick Mount Arm (Standard)



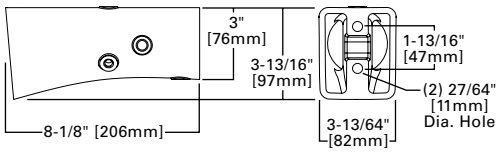
QMEA Quick Mount Arm (Extended)



Standard Wall Mount

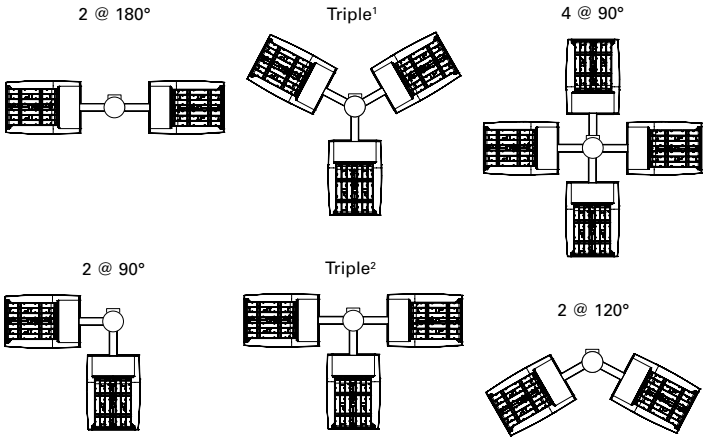


Mast Arm Mount



Arm Mounting Requirements

Number of Light Squares	Standard Arm @ 90° Apart	Standard Arm @ 120° Apart	Quick Mount Arm @ 90° Apart	Quick Mount Arm @ 120° Apart
1	Standard	Standard	QM Extended	Quick Mount
2	Standard	Standard	QM Extended	Quick Mount
3	Standard	Standard	QM Extended	Quick Mount
4	Standard	Standard	QM Extended	Quick Mount
5	Extended	Standard	QM Extended	Quick Mount
6	Extended	Standard	QM Extended	Quick Mount
7	Extended	Extended	--	Quick Mount
8	Extended	Extended	--	Quick Mount
9	Extended	Extended	--	--
10	Extended	Extended	--	--



NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2** Round poles are 3 @ 90°. **3** Shown with 4 square configurations.

Fixture Weights and EPAs

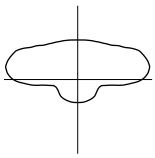
Number of Light Squares	Weight with Standard and Extended Arm (lbs.)	EPA with Standard and Extended Arm (Sq. Ft.)	Weight with QM Arm (lbs.)	EPA with QM Arm (Sq. Ft.)	Weight with QML (lbs.)	EPA with QML (Sq. Ft.)	Weight with QMEA (lbs.)	EPA with QMEA (Sq. Ft.)
1-4	33	0.96	35	1.11	--	--	38	1.11
5-6	44	1.00	46	1.11	--	--	49	1.11
7-8	54	1.07	56	1.11	58	1.11	--	--
9-10	63	1.12	--	--	67	1.11	--	--

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

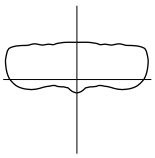
Optical Distributions

Asymmetric Area Distributions

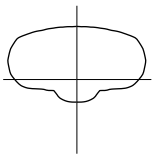
T2 (Type II)



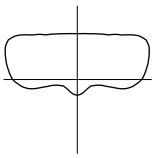
SL2 (Type II with Spill Control)



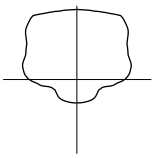
T3 (Type III)



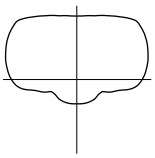
SL3 (Type III with Spill Control)



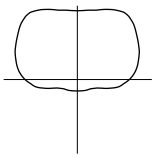
T4FT (Type IV Forward Throw)



T4W (Type IV Wide)

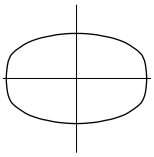


SL4 (Type IV with Spill Control)

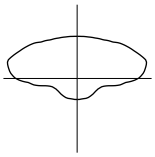


Asymmetric Roadway Distributions

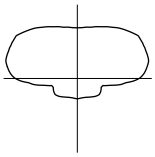
RW (Rectangular Wide Type I)



T2R (Type II Roadway)

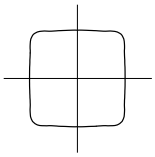


T3R (Type III Roadway)

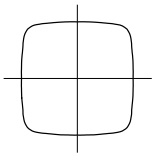


Symmetric Distributions

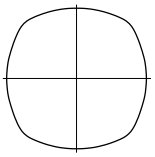
5NQ (Type V Square Narrow)



5MQ (Type V Square Medium)

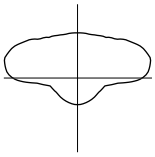


5WQ (Type V Square Wide)

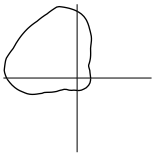


Specialized Distributions

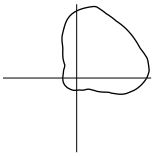
AFL (Automotive Frontline)



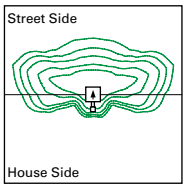
SLL (90° Spill Light Eliminator Left)



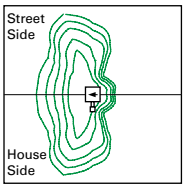
SLR (90° Spill Light Eliminator Right)



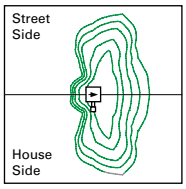
Rotated Optics



Standard



Optics Rotated Left @ 90° [L90]



Optics Rotated Right @ 90° [R90]

Product Specifications

Construction

- Extruded aluminum driver enclosure
- Heavy-wall, die-cast aluminum end caps
- Die-cast aluminum heat sinks
- Patent pending interlocking housing and heat sink

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 16 optical distributions
- 3 shielding options including HSS, GRS and PFS
- IDA Certified (3000K CCT and warmer only)

Electrical

- LED drivers are mounted to removable tray assembly for ease of maintenance
- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting

- Standard extruded arm includes internal bolt guides and round pole adapter
- Extended arms (EA and QMEA) may be required in 90° or 120° pole mount configurations, see arm mounting requirements table
- Mast arm (MA) factory installed
- Wall mount (WM) option available
- Quick mount arm (QM and QMEA) includes pole adapter and factory installed fixture mount for fast installation to square or round poles

Finish

- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty

- Five year warranty

Energy and Performance Data

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

* Supported by IES TM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

View GLEON IES files

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (1.2A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		67	129	191	258	320	382	448	511	575	640
Input Current @ 120V (A)		0.58	1.16	1.78	2.31	2.94	3.56	4.09	4.71	5.34	5.87
Input Current @ 208V (A)		0.33	0.63	0.93	1.27	1.57	1.87	2.22	2.52	2.8	3.14
Input Current @ 240V (A)		0.29	0.55	0.80	1.10	1.35	1.61	1.93	2.18	2.41	2.71
Input Current @ 277V (A)		0.25	0.48	0.70	0.96	1.18	1.39	1.69	1.90	2.09	2.36
Input Current @ 347V (A)		0.20	0.39	0.57	0.78	0.96	1.15	1.36	1.54	1.72	1.92
Input Current @ 480V (A)		0.15	0.30	0.43	0.60	0.73	0.85	1.03	1.16	1.28	1.45
Optics											
T2	4000K Lumens	7,972	15,580	23,245	30,714	38,056	45,541	53,857	61,024	68,072	75,366
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	122	119	119	119	120	119	118	118
T2R	4000K Lumens	8,462	16,539	24,680	32,609	40,401	48,348	57,176	64,783	72,266	80,010
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	129	126	126	127	128	127	126	125
T3	4000K Lumens	8,125	15,879	23,693	31,307	38,787	46,417	54,893	62,197	69,381	76,818
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	122	123	122	121	120
T3R	4000K Lumens	8,306	16,232	24,220	32,001	39,651	47,447	56,114	63,580	70,924	78,523
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
T4FT	4000K Lumens	8,173	15,970	23,831	31,488	39,014	46,686	55,212	62,558	69,783	77,261
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	122	124	125	122	122	122	123	122	121	121
T4W	4000K Lumens	8,067	15,764	23,522	31,080	38,510	46,082	54,499	61,751	68,881	76,263
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	120	122	123	120	120	121	122	121	120	119
SL2	4000K Lumens	7,958	15,552	23,206	30,662	37,989	45,462	53,763	60,920	67,952	75,235
	BUG Rating	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	121	119	119	119	120	119	118	118
SL3	4000K Lumens	8,124	15,877	23,690	31,302	38,784	46,410	54,885	62,189	69,372	76,805
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	121	123	122	121	120
SL4	4000K Lumens	7,719	15,085	22,510	29,741	36,850	44,097	52,148	59,089	65,913	72,977
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	115	117	118	115	115	115	116	116	115	114
5NQ	4000K Lumens	8,380	16,375	24,436	32,287	40,003	47,870	56,610	64,144	71,552	79,221
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	125	127	128	125	125	125	126	126	124	124
5MQ	4000K Lumens	8,534	16,676	24,885	32,881	40,739	48,752	57,653	65,326	72,868	80,679
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	127	129	130	127	127	128	129	128	127	126
5WQ	4000K Lumens	8,556	16,723	24,951	32,968	40,847	48,881	57,808	65,499	73,063	80,894
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	128	130	131	128	128	128	129	128	127	126
SLL/ SLR	4000K Lumens	7,140	13,951	20,817	27,506	34,081	40,783	48,231	54,649	60,959	67,492
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	107	108	109	107	107	107	108	107	106	105
RW	4000K Lumens	8,304	16,228	24,215	31,994	39,641	47,437	56,100	63,566	70,907	78,504
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
AFL	4000K Lumens	8,335	16,287	24,302	32,110	39,784	47,610	56,303	63,796	71,163	78,790
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	125	126	125	124	123

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (1A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		59	113	166	225	279	333	391	445	501	558
Input Current @ 120V (A)		0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.60	5.07
Input Current @ 208V (A)		0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75
Input Current @ 240V (A)		0.26	0.48	0.71	0.96	1.19	0.41	1.67	1.89	2.12	2.39
Input Current @ 277V (A)		0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09
Input Current @ 347V (A)		0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68
Input Current @ 480V (A)		0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28
Optics											
T2	4000K Lumens	7,267	14,201	21,190	28,000	34,692	41,515	49,096	55,627	62,053	68,703
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	126	128	124	124	125	126	125	124	123
T2R	4000K Lumens	7,715	15,077	22,497	29,725	36,829	44,073	52,122	59,056	65,876	72,937
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	131	133	136	132	132	132	133	133	131	131
T3	4000K Lumens	7,408	14,475	21,598	28,539	35,358	42,313	50,039	56,698	63,246	70,024
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
T3R	4000K Lumens	7,571	14,798	22,078	29,172	36,145	43,253	51,153	57,959	64,653	71,581
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
T4FT	4000K Lumens	7,451	14,559	21,725	28,703	35,564	42,558	50,330	57,027	63,613	70,430
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	129	131	128	127	128	129	128	127	126
T4W	4000K Lumens	7,354	14,371	21,442	28,333	35,105	42,007	49,681	56,291	62,792	69,521
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	125	127	129	126	126	126	127	126	125	125
SL2	4000K Lumens	7,254	14,178	21,155	27,951	34,631	41,443	49,011	55,533	61,944	68,584
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	125	127	124	124	124	125	125	124	123
SL3	4000K Lumens	7,406	14,474	21,596	28,534	35,355	42,307	50,033	56,690	63,237	70,014
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
SL4	4000K Lumens	7,037	13,751	20,519	27,112	33,592	40,198	47,538	53,864	60,087	66,524
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	119	122	124	120	120	121	122	121	120	119
5NQ	4000K Lumens	7,640	14,928	22,275	29,431	36,465	43,637	51,606	58,472	65,226	72,218
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	129	132	134	131	131	131	132	131	130	129
5MQ	4000K Lumens	7,779	15,203	22,684	29,973	37,137	44,441	52,555	59,549	66,427	73,545
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	133	133	133	134	134	133	132
5WQ	4000K Lumens	7,800	15,243	22,744	30,052	37,236	44,560	52,697	59,708	66,603	73,742
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	134	133	134	135	134	133	132
SLL/ SLR	4000K Lumens	6,510	12,719	18,977	25,075	31,067	37,176	43,967	49,817	55,569	61,525
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	110	113	114	111	111	112	112	112	111	110
RW	4000K Lumens	7,570	14,793	22,073	29,165	36,137	43,243	51,140	57,945	64,637	71,564
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
AFL	4000K Lumens	7,598	14,847	22,154	29,272	36,267	43,400	51,326	58,156	64,872	71,824
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	129	131	133	130	130	130	131	131	129	129

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (800mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		44	85	124	171	210	249	295	334	374	419
Input Current @ 120V (A)		0.39	0.77	1.13	1.54	1.90	2.26	2.67	3.03	3.39	3.80
Input Current @ 208V (A)		0.22	0.44	0.62	0.88	1.06	1.24	1.50	1.68	1.87	2.12
Input Current @ 240V (A)		0.19	0.38	0.54	0.76	0.92	1.08	1.30	1.46	1.62	1.84
Input Current @ 277V (A)		0.17	0.36	0.47	0.72	0.83	0.95	1.19	1.31	1.42	1.67
Input Current @ 347V (A)		0.15	0.24	0.38	0.49	0.63	0.77	0.87	1.01	1.15	1.52
Input Current @ 480V (A)		0.11	0.18	0.29	0.37	0.48	0.59	0.66	0.77	0.88	0.96
Optics											
T2	4000K Lumens	5,871	11,474	17,121	22,622	28,029	33,542	39,667	44,944	50,134	55,508
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	135	134	135	134	132
T2R	4000K Lumens	6,233	12,181	18,176	24,016	29,756	35,608	42,111	47,714	53,224	58,929
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5
	Lumens per Watt	142	143	147	140	142	143	143	143	142	141
T3	4000K Lumens	5,986	11,695	17,450	23,057	28,568	34,186	40,430	45,809	51,099	56,576
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
T3R	4000K Lumens	6,117	11,955	17,838	23,569	29,203	34,946	41,328	46,827	52,235	57,832
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
T4FT	4000K Lumens	6,019	11,763	17,551	23,190	28,734	34,384	40,663	46,074	51,396	56,904
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	137	138	142	136	137	138	138	138	137	136
T4W	4000K Lumens	5,942	11,610	17,324	22,891	28,363	33,940	40,138	45,480	50,732	56,169
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	135	137	140	134	135	136	136	136	136	134
SL2	4000K Lumens	5,862	11,454	17,091	22,583	27,980	33,484	39,598	44,867	50,048	55,411
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	134	134	134	134	132
SL3	4000K Lumens	5,985	11,694	17,447	23,053	28,565	34,182	40,424	45,804	51,092	56,568
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
SL4	4000K Lumens	5,685	11,111	16,577	21,905	27,140	32,478	38,409	43,520	48,546	53,748
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	129	131	134	128	129	130	130	130	130	128
5NQ	4000K Lumens	6,172	12,061	17,997	23,778	29,462	35,256	41,694	47,242	52,699	58,347
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	140	142	145	139	140	142	141	141	141	139
5MQ	4000K Lumens	6,285	12,283	18,328	24,217	30,004	35,907	42,462	48,112	53,669	59,421
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	144	144	144	144	142
5WQ	4000K Lumens	6,303	12,317	18,377	24,281	30,085	36,001	42,575	48,241	53,812	59,579
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	145	144	144	144	142
SLL/ SLR	4000K Lumens	5,260	10,276	15,332	20,259	25,101	30,037	35,522	40,249	44,898	49,708
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	120	121	124	118	120	121	120	121	120	119
RW	4000K Lumens	6,116	11,952	17,834	23,563	29,196	34,938	41,317	46,817	52,224	57,819
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
AFL	4000K Lumens	6,139	11,996	17,899	23,650	29,302	35,064	41,468	46,987	52,412	58,030
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4
	Lumens per Watt	140	141	144	138	140	141	141	141	140	138

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

McGraw-Edison GLEON Galleon

Nominal Power Lumens (600mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		34	66	96	129	162	193	226	257	290	323
Input Current @ 120V (A)		0.30	0.58	0.86	1.16	1.44	1.73	2.03	2.33	2.59	2.89
Input Current @ 208V (A)		0.17	0.34	0.49	0.65	0.84	0.99	1.14	1.30	1.48	1.63
Input Current @ 240V (A)		0.15	0.30	0.43	0.56	0.74	0.87	1.00	1.13	1.30	1.43
Input Current @ 277V (A)		0.14	0.28	0.41	0.52	0.69	0.81	0.93	1.04	1.22	1.33
Input Current @ 347V (A)		0.11	0.19	0.30	0.39	0.49	0.60	0.69	0.77	0.90	0.99
Input Current @ 480V (A)		0.08	0.15	0.24	0.30	0.38	0.48	0.53	0.59	0.71	0.77
Optics											
T2	4000K Lumens	4,787	9,357	13,961	18,448	22,856	27,353	32,347	36,651	40,884	45,265
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	141	142	145	143	141	142	143	143	141	140
T2R	4000K Lumens	5,083	9,934	14,822	19,585	24,266	29,038	34,341	38,911	43,404	48,055
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	150	151	154	152	150	150	152	151	150	149
T3	4000K Lumens	4,880	9,537	14,231	18,803	23,296	27,878	32,970	37,358	41,671	46,137
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	148	146	144	144	146	145	144	143
T3R	4000K Lumens	4,988	9,749	14,547	19,220	23,814	28,497	33,703	38,188	42,598	47,162
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	147	148	152	149	147	148	149	149	147	146
T4FT	4000K Lumens	4,909	9,591	14,312	18,911	23,432	28,040	33,161	37,574	41,913	46,404
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	149	147	145	145	147	146	145	144
T4W	4000K Lumens	4,845	9,468	14,128	18,668	23,130	27,678	32,732	37,088	41,371	45,805
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	143	143	147	145	143	143	145	144	143	142
SL2	4000K Lumens	4,779	9,341	13,937	18,416	22,818	27,305	32,292	36,589	40,813	45,188
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	141	142	145	143	141	141	143	142	141	140
SL3	4000K Lumens	4,879	9,536	14,229	18,800	23,294	27,874	32,965	37,351	41,666	46,130
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	144	144	148	146	144	144	146	145	144	143
SL4	4000K Lumens	4,637	9,059	13,519	17,863	22,132	26,486	31,322	35,490	39,589	43,831
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	136	137	141	138	137	137	139	138	137	136
5NQ	4000K Lumens	5,033	9,835	14,676	19,392	24,026	28,751	34,002	38,526	42,975	47,581
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	148	149	153	150	148	149	150	150	148	147
5MQ	4000K Lumens	5,126	10,015	14,946	19,747	24,468	29,281	34,628	39,236	43,766	48,457
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	151	152	156	153	151	152	153	153	151	150
5WQ	4000K Lumens	5,139	10,043	14,985	19,801	24,533	29,359	34,721	39,339	43,883	48,586
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	151	152	156	153	151	152	154	153	151	150
SLL/ SLR	4000K Lumens	4,289	8,380	12,502	16,520	20,469	24,494	28,967	32,823	36,613	40,537
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	126	127	130	128	126	127	128	128	126	126
RW	4000K Lumens	4,987	9,746	14,543	19,215	23,808	28,491	33,695	38,178	42,587	47,151
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	147	148	151	149	147	148	149	149	147	146
AFL	4000K Lumens	5,007	9,782	14,597	19,285	23,896	28,594	33,817	38,317	42,742	47,322
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	Lumens per Watt	147	148	152	149	148	148	150	149	147	147

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

Control Options

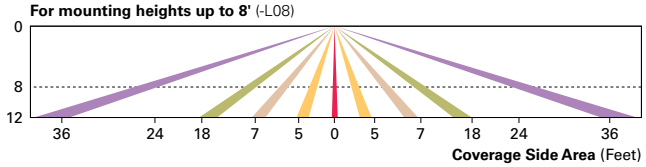
0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR and PR7)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

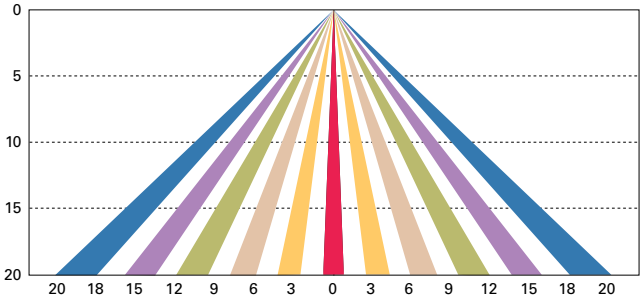
For mounting heights up to 8' (-L08)



For mounting heights up to 40' (-L40W)

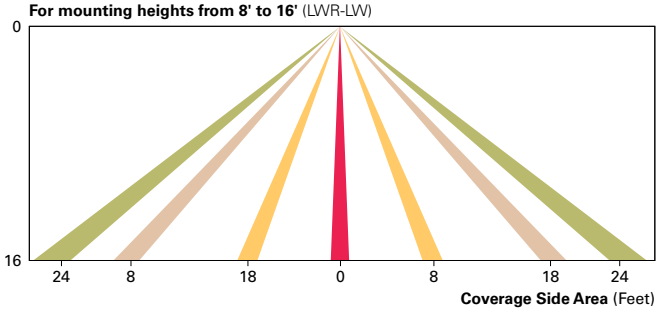


For mounting heights up to 20' (-L20)

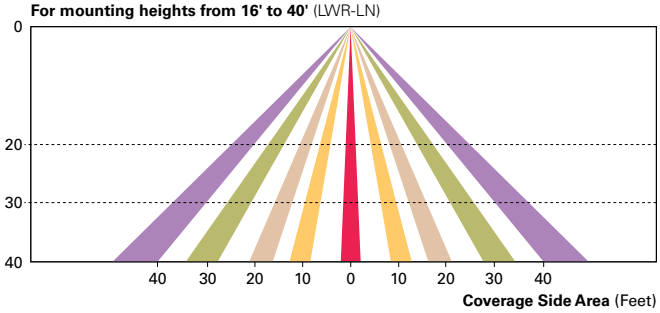


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)
The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

LumenSafe Integrated Network Security Camera (LD)
Cooper Lighting Solutions brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows security integrators to design the optimal solution for active surveillance. As the ideal solution to meet the needs for active surveillance, the LumenSafe integrated network camera is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. This IP camera is optimally designed for deployment in the video management system or security software platform of choice.

Synapse (DIM10)
SimplySNAP integrated wireless controls system by Synapse. Includes factory installed DIM10 Synapse control module and MS/DC motion sensor; requires additional Synapse system components for operation. Contact Synapse at www.synapsewireless.com for product support, warranty and terms and conditions.

Attachment: SP-2022-02 drawings 102022 (25490 : Sp-2022-02)

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Specifications and dimensions
subject to change without notice.

DRAFT

(10/20/2022)

SEQR
Negative Declaration

NOTICE OF DETERMINATION OF NON-SIGNIFICANCE

Lead Agency: Town of Amherst
Planning Board

Project: SP-2022-02

Address: 5583 Main Street
Williamsville, NY 14221
(716) 631-7051

Date:

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law, and to Chapter 104 of the Town Code, as amended.

The Lead Agency has determined that the proposed action described below will not have a significant adverse effect on the environment.

Title of Action: Site Plan Review

SEQR Status: Unlisted

Description of Action: Proposed conversion of a portion of the existing 29,350 s.f. Philips Bros. retail/warehouse building for the Shatkin School of Dentistry (16,253 s.f..). Project includes an approximately 4,000 s.f. second floor **build-out** ~~addition~~, as well as redevelopment of Ridgewood Drive for private parking under a license agreement with the Town. Work will include the site improvements not specifically stated above, including, stormwater, utilities, grading, lighting, paving, and landscaping.

Location: 2525 Kensington Avenue, Amherst, Erie County

Petitioner: Philipps Brothers Supply Inc.

Attachment: SP-2022-02_draft neg dec_102022 (25490 : Sp-2022-02)

Reasons Supporting This Determination

Based on information submitted by the applicant including a Full Environmental Assessment Form (EAF) - Part 1, (as amended), **EAF Part 2** and a complete site plan application, a preliminary staff analysis was undertaken. Compared to the criteria listed in Section 617.7, all indications are that this action will not have a significant impact on the environment, as follows:

1. The project is not expected to cause a substantial adverse change in existing air quality, ground or surface water quality or quantity, or noise levels; a substantial increase in solid waste production; or a substantial increase in the potential for erosion, flooding, leaching or drainage problems. The Engineering Department on **September 26, 2022** reviewed the: Grading, Drainage and Utility Plans submitted on **September 23, 2022**; Engineer's Report submitted on February 22, 2022; Erosion Control Plan submitted on March 30, 2022 and Geotechnical Report prepared by Barron & Associates, P.C. submitted on February 22, 2022.

2. The project will not result in the removal or destruction of large quantities of vegetation or fauna; or in significant adverse impacts to fish or wildlife species, habitats or other natural resources. The Planning Department reviewed a Landscape Plan submitted on **September 23, 2022** and determined that it meets or exceeds Zoning Ordinance requirements for greenspace. The Landscape Plan has met all Zoning Ordinance and Town requirements for landscaping.

3. The project is not expected to create any material conflict with the Town Comprehensive Plan. The Building Department in their review of March 22, 2022 and the Planning Department in their review of **September 29, 2022** has reviewed the application documents, along with the Geotechnical Report submitted on February 22, 2022 and determined in their review of March 22, 2022 that the subject project has or will have met all International Building Code - 2018 and Zoning Ordinance regulations.

4. The project is within an area identified by the State as having potential archaeological or historical significance. However, the site has been previously disturbed, therefore, the project will not impair the character or quality of important historical resources.

5. The project will not impair the character or quality of important aesthetic resources or of existing community or neighborhood character. The project is located in the General Business (GB) zoning district; neighboring uses are commercial, office and residential and zoned for commercial and residential use; therefore, the project is consistent with surrounding land use.

6. The proposed subject development will include a **build-out of the** second floor for the continuation of the retail/warehouse use and dental school which will not cause a major change in the use of either the quantity or type of energy.

7. The project will not create any hazard to human health. The Fire Chief's Association on **September 27, 2022** has reviewed the project and has no objection to the approval of the site plan, as all requirements of this agency has or will have been met.

Attachment: SP-2022-02_draft neg dec_102022 (25490 : Sp-2022-02)

8. The project will not cause a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses as the approximate 4,400 s.f. (15%) increase in floor area will be consistent with the scale of surrounding land uses.

9. The proposed dental school may increase the number of people using the site over its previous level of use, this increase is not anticipated to result in a significant impact.

10. **A Signal Warrant Analysis dated July 27, 2022 concludes that a three-color signal is not warranted. Reviews by the Erie County Division of Highways dated September 27, 2022 and** the Town Traffic/Safety Board dated **October 3, 2022** indicate that there are no further traffic concerns. ~~The Erie County Division of Highways is requesting that the applicant prepare a signal warrant analysis to determine if a traffic signal may be necessary at Bentham Parkway East~~.

11. A coordinated review of the project has been undertaken by Town Departments including, in addition to those mentioned above, Highway on May 4, 2022, Assessor on March 23, 2022, Plumbing Division on March 9, 2022, and Right-of-Way Agent on May 10, 2022. These reviews did not identify any potential significant adverse environmental issues and indicated that the proposal will not have a significant damaging impact on the environment.

12. Issues not specifically mentioned above and/or those not specifically reviewed were not raised by Town departments, outside agencies or the public and are not determined to cause significant negative environmental impacts.

Planning Board Approval
Moved by: ; Seconded by: Ayes; Noes Absent

_____ _____
signature & title of preparer Date

_____ _____
Robert J. Gilmour, Planning Board Chair Date

GP/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-02_(2525_Kensington_Ave)_2022\SP-2022-02_draft neg dec_102022.doc
cc: Commissioner of Building
Town Engineer
Fire Chiefs'
Highway
Traffic/Safety
ECDEP
NYSDOT
ECDPW
Joseph Molek, Stieglitz Snyder, 425 Franklin St., Buffalo, NY 14202
Philipps Bros. Supply Inc., 2525 Kensington Ave., Amherst, NY 14226
Andrew V. Marino, Tredo Engineers, 755 Seneca Street, Ste. 202, Buffalo, NY 14210

Attachment: SP-2022-02_draft neg dec_102022 (25490 : Sp-2022-02)

DRAFT (10/20/22)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-02

PETITIONER

Philipps Bros. Supply Inc.
2525 Kensington Avenue
Amherst, NY 14226

PROPERTY LOCATION

2525 Kensington Avenue

WHEREAS, the Town of Amherst Planning Board on Thursday, May 19, 2022 and October 20, 2022 held public hearings on a Site Plan for a building addition and parking expansion (Philipps Bros./Shatkin School of Dentistry, and

WHEREAS, the Planning Board reviewed the plans and specifications for the proposed project, and

WHEREAS, the Site Plan was referred to the Town's various review agencies, and

WHEREAS, in accordance with Section 8-7-9 of the Zoning Ordinance, the Planning Board finds that:

A. The proposed site plan is consistent with the development plan if one is required.

B. The proposed site plan is consistent with the purpose and specific requirements of the Zoning Ordinance and generally consistent with the policies of the Comprehensive Plan.

C. Adequate services and utilities will be available prior to occupancy.

D. The site plan is consistent with all other applicable laws.

E. Pursuant to Local Law #3-82, as amended, the Planning Board has determined that the requirements of SEQR are complete and that the subject proposal is not expected to have a significant adverse effect on the environment.

F. Review by the US Army Corps of Engineers under Section 404 of the Clean Water Act may be waived because the parcel is developed.

NOW THEREFORE BE IT RESOLVED that in accordance with 6 NYCRR, Part 617 and Local Law #3-82, as amended, the Planning Board has issued a Negative Declaration attached hereto, and

BE IT FURTHER RESOLVED that the Planning Board, in accordance with Section 8-7 of the Zoning Ordinance approves said Site Plan subject to the following conditions:

1. The requirements of §203-4-4-2 B of the Town Code are met for the proposed canopy location along the east property line or otherwise varied by the Town Zoning Board of Appeals as permitted by §203-8-13 of Town Code.

Attachment: SP-2022-02_draft resolution_102022 (25490 : Sp-2022-02)

DRAFT (10/20/22)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-02

PETITIONER	PROPERTY LOCATION
Philipps Bros. Supply Inc.	2525 Kensington Avenue

2. The requirements of §203-7-2 A (2) of the Town Code are met for the proposed foundation landscaping along the east side of the building or otherwise varied by the Town Zoning Board of Appeals as permitted by §203-8-13 of Town Code.

3. An updated parking analysis shall be performed and submitted within one year of occupancy to confirm adequacy of provided parking.

4. An analysis of pedestrian movements between the subject property and other facilities operated by the applicants shall be conducted within one year of occupancy to confirm if improvements are necessary to ensure safe pedestrian accommodations.

5. That the comments of the Planning Department in their letter dated September 29, 2022 be addressed to the Department's satisfaction.

6. That a License Agreement/Land Lease regarding the use and improvement of Ridgewood Drive for private parking be approved by the Town Attorney and Highway Superintendent and copies provided to the Planning Department prior to issuance of final approved site plans by the Planning Department.

7. That the consideration of signs is specifically excluded from this approval as they require a separate review and approval by the Town.

8. That all dumpsters/trash containers and all mechanical equipment, utility structures, multiple meter boards, generators, and similar appurtenances, including those which are mounted on any part of a primary structure shall be appropriately screened with a fence, wall, and/or landscaping. Provide gate on dumpster enclosure that shall be closed whenever dumpster is not being serviced, enclosure shall be high enough to screen the dumpster(s) within.

9. That as-built record drawings, including location of utilities, be provided to the Engineering Department prior to issuance of a Certificate of Occupancy by the Building Department.

The foregoing resolution was adopted by the Town of Amherst Planning Board, _____; moved by - _____; seconded by - _____; ayes _, noes _; absent - ____.

_____ _____
Robert J. Gilmour, Chair Date

Attachment: SP-2022-02_draft resolution_102022 (25490 : Sp-2022-02)

DRAFT (10/20/22)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-02

PETITIONER	PROPERTY LOCATION
Philipps Bros. Supply Inc.	2525 Kensington Avenue

GP/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-02_(2525_Kensington_Ave)_2022\SP-2022-02_draft resolution_102022.doc

cc: Commissioner of Building
Town Engineer
Fire Chiefs
Traffic/Safety
Highway Superintendent
ECDEP
NYSDOT
NYSDEC
Joseph Molek, Stieglitz Snyder, 425 Franklin St., Buffalo, NY 14202
Philipps Bros. Supply Inc., 2525 Kensington Ave., Amherst, NY 14226
Andrew V. Marino, Tredo Engineers, 755 Seneca Street, Ste. 202, Buffalo, NY 14210

Approved Plan: _____
Received: _____

Attachment: SP-2022-02_draft resolution_102022 (25490 : Sp-2022-02)

Amherst

Town of Amherst Planning Department *Erie County, New York*

Brian J. Kulpa
Supervisor
Daniel C. Howard, AICP
Planning Director
Daniel J. Ulatowski, AICP
Assistant Planning Director

October 27, 2022

Philipps Bros. Supply Inc.
2525 Kensington Ave.
Amherst, NY 14226

SUBJECT: MAJOR SITE PLAN REVIEW, **SP-2022-02**; PROPOSED PHILIPPS BROS./SHATKIN SCHOOL OF DENTISTRY AND PARKING EXPANSION; PROPERTY LOCATED AT **2525 KENSINGTON AVENUE**.

Dear Sir/Madam:

At its meeting of October 20, 2022 the Planning Board voted to adjourn the subject site plan until the Town Board makes a decision on a license agreement for use of the Town right-of-way (Ridgewood Drive) for the developments and public parking.

This request will be placed on the next available Planning Board agenda once a determination is received by this Department.

Should you have any questions regarding the Planning Board's decision, please do not hesitate to call us.

Very truly yours,

for Daniel C. Howard, AICP
Planning Director

DH/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-02_(2525_Kensington_Ave)_2022\SP-2022-02_Adjournment Letter_102022.doc
cc: Joseph Molek, Stieglitz Snyder, 425 Franklin St., Buffalo, NY 14202
Andrew V. Marino, Tredo Engineers, 755 Seneca Street, Ste. 202, Buffalo, NY 14210

Attachment: SP-2022-02 adjourn letter 102022 (25490 : Sp-2022-02)

Revised 1/23/2023
by J.Molek

TOWN OF AMHERST

APPLICATION & REVIEW PROCEDURE

MAJOR SITE PLAN

MATERIALS MUST BE PROVIDED IN AN ELECTRONIC FORMAT THAT CONTAINS PDF FILES OF THE APPLICATION, EAF, SITE PLAN DRAWING SET SURVEY, LANDSCAPE PLAN, PRELIMINARY BUILDING FLOO PLANS / ELEVATIONS & ANY OTHER SUPPORTING INFORMATION. THIS MUST BE SUBMITTED WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE TRANSMITTED WITHOUT THIS ELECTRONIC INFORMATION.

THIS ALSO APPLIES TO REVISED MATERIALS THAT AR SUBMITTED.

This application package includes the following:

- Application Procedures
- Application Form & Checklist
- Stormwater Pollution Prevention Plan Checklist
- Appendix A Town of Amherst EAF Addendum
- Appendix B Criteria for Required 8½" x 11" Sketches
- Appendix C Erie Sewer District No. 5 – Commercial / Industrial New & Existing Buildings Requirements

- IMPORTANT-

1. A pre-submittal consultation with Planning Department staff is *strongly recommended* prior to submitting an application. The pre-submittal meeting gives the applicant an opportunity to discuss with staff such items as:
   - classifying the action as a major site plan, minor site plan, or minor site plan adjustment;
   - determining what specific information will be required to be submitted with the application;
   - identifying and discussing issues that must be addressed as part of the SEQR review;
   - identifying any potential variances required to implement the project as proposed.

   An appointment is required for all meetings with Planning Department staff.

2. This site plan petition is subject to the requirements of 6 NYCRR Part 617, State Environmental Quality Review Act (SEQR), and Chapter 104 of the Town of Amherst Code, as amended. The Planning Board cannot make a SEQR determination unless a complete Environmental Assessment Form (EAF), including Town of Amherst EAF Addendum, and any required supplementary information such as traffic impact studies, archaeological reports, wetland delineations or geotechnical reports, are submitted. SEQR issues may be discussed with Planning Department staff at a recommended pre-submittal meeting. Unlisted Actions require a Short EAF; Type I Actions require a Full EAF. The following is a link to the NYSDEC website and fillable forms with instructions*:*
   http://www.dec.ny.gov/permits/6191.html.

3. **Review by the Town Design Advisory Board (DAB) is required for Major Site Plans located in the following Mixed-Use zoning districts:**

   Traditional Infill 2.5 (TI-2.5)
   Traditional Infill 4 (TI-4)
   Shallow Corridor 3 (SC-3)
   Deep Corridor 3 (DC-3)
   Deep Corridor 5 (DC-5)
   Center 2.5 (CTR-2.5)
   Center 5 (CTR-5)
   Center 8 (CTR-8)

   The application for DAB review is required to be filed in conjunction with the major site plan application.

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

4. The application shall be executed or consented to in writing by the owner of the property.

5. **Any variances from the Zoning Board of Appeals, or any decision from the Town Board (e.g. removal of deed restrictions) must be obtained prior to action by the Planning Board on a Site Plan application.**

6. Submittal of an application grants permission to Town staff and Planning Board members to access the parcel(s) under consideration.

7. All site plan drawings must be prepared by a Registered Architect, Professional Engineer, Landscape Architect, or Land Surveyor (as applicable) licensed to practice in New York State.

8. If you wish to include a Coordinated Sign Plan application with the site plan petition, a separate application must be completed. Contact the Planning Department for a copy of a Coordinated Sign Plan application package.

9. All drawings should be no larger than 24 in. x 36 in. If site characteristics warrant larger plan sheets, they may be accepted subject to Planning Department concurrence. All drawings must also reserve a 4 in. x 6 in. area in the lower right hand corner for official Town use.

APPLICATION PROCEDURES

1. Applicant secures application package from the Planning Department, 5583 Main Street, Williamsville, NY 14221. (716) 631-7051. Forms are also available online at: www.amherst.ny.us, (keyword: Planning).

2. Applicant prepares information as required on the Site Plan Submittal Checklist, attached. NOTE: Some proposals may not require all items on the checklist; please verify with the Planning Department.

3. Applicant schedules an appointment with the Planning Department to review the following:
   - a complete set of site plan drawings, preliminary building elevations and floor plans (no larger than 24" x 36" in size)
   - Environmental Assessment Form (EAF) & Town EAF Addendum
   - any supporting reports and materials
   - verification from the Town Assessor that the address in the application is correct

4. Applicant schedules an application submittal appointment with the Planning Department. NO SITE PLAN WILL BE ACCEPTED FOR REVIEW WITHOUT A PRE-SET SUBMITTAL APPOINTMENT.

5. At the submittal appointment, applicant provides fourteen (14) complete and collated sets of drawings and application information to the Planning Department **(materials will not be accepted unless folded into 9" x 12" in size),** including**:**
   - application form
   - Environmental Assessment Form (EAF)
   - supporting reports / materials
   - complete set of site plan drawings, preliminary building elevations and floor plans (**at least one (1) set of drawings must bear a raised or wet seal and signature of the design professional** who prepared the plans; the remaining copies may be submitted with a facsimile of the seal and signature)
   - digital files of all materials in pdf format
   - an 8½" x 11" reduction of the sketch plan or plat drawing (see Appendix B)

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

6. After approval for filing by the Planning Department, applicant submits all necessary fees to the Town Clerk. **(See Schedule of Fees on first page of application and make checks payable to: Town of Amherst.)**

7. The applicant returns a copy of the filing receipt to the Planning Department.

8. The Planning Department transmits remaining thirteen (13) copies of the application and supporting materials to:
   - Assessor
   - Commissioner of Building
   - Town Engineer
   - Superintendent of Highways
   - Traffic/Safety Board
   - Fire Chiefs' Association
   - Plumbing Division
   - Right-of-Way Agent
   - Police Department (if applicable)
   - Zoning Enforcement Officer
   - Other Town and outside agencies, as applicable

9. Within 30 days of its receipt of the complete application for Site Plan approval, each agency completes its review and notifies the Planning Department in writing of its comments or recommendations as required by Ordinance.

10. The applicant may be required to submit revised plans, reports, or materials to address review agency comments. The procedures for submittal of revised plans are as follows:

    - A cover letter addressing all comments received to date is required.
    - "Highlight" the area of change on the drawings and provide a notation describing the change.
    - Revised plans/materials are required. Planning staff should be contacted to determine the number of sets needed.
    - All revised plans and materials must also be provided in an electronic format that contains pdf files of the revised information.

11. The Planning Board reviews the EAF to determine whether a Draft Environmental Impact Statement (DEIS) is required. The petitioner will be advised in the event that a DEIS is required and afforded the opportunity to prepare it. If the petitioner declines, the Planning Board will prepare the DEIS at the petitioner's expense. The public hearing will be held on the DEIS concurrently with the Planning Board hearing on the application.

12. Planning Board Meeting Procedures:

    The applicant or representative presents the project at the public hearing before the Planning Board and is available to answer any questions. The Planning Board may take any of the following actions:

    - Adjourn the hearing to a future Planning Board meeting (hearing remains open).
    - Close the hearing and table action on the site plan to a future Planning Board meeting. (The Planning Board may remove the item from the agenda until such time as all required information is provided.)
    - Close the hearing and make a decision on the site plan.

    All determinations on matters before the Planning Board are made after all public hearings on that meeting's agenda are completed.

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

13. A copy of the Planning Board's determination will be provided to the applicant, his / her representative, the Building Commissioner and the Town Clerk approximately 1 week following the Planning Board meeting at which it was heard.

14. If the Planning Board approves a Site Plan with conditions, the Planning Department will work with the applicant to ensure that all conditions of the approval are satisfactorily addressed. When all conditions are satisfied, the applicant submits **seven (7) final copies** of the complete set of all site plan drawings, folded into 9" x 12". For site plans in the Mixed-Use zoning districts, building elevations will also be required.

    All 7 sets must have original wet seals and include the required 4 in. x 6 in area in the lower right hand corner for official Town use. These drawings will be stamped and signed "Approved" by the Planning Director and transmitted to Town Departments for their files and use.

15. A building permit will not be issued by the Building Department until the stamped and signed Site Plan is issued by the Planning Director.

NOTE: Please check with the Planning Department to determine the deadline date for filing applications. Due to the public hearing notice requirements and department reviews, no site plan application will be placed on the Planning Board agenda after the deadline for filing has closed. Scheduling may be delayed if an application is incomplete.

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Major Site Plan Review

For Official Use

File #: _____ **Acreage** _____ **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Received by Planning Department _____ RECEIVED BY DATE

Fee Paid to Town Clerk _____ RECEIVED BY DATE

Site Plan Review		**Fill In Applicable Fees**
1 acre or less	$1,250.00	_____
Each additional acre or fraction thereof	$ 650.00/acre	_____
Amendments to Site Plans	$1,200.00	_____
Request for Relief of / Change to Conditions of Site Plan Approval	$1,200.00	_____
Request for Extension of Site Plan Approval	$ 450.00	_____
Stormwater Pollution Prevention Plan		
1 - 4.99 Acres	$ 500.00	_____
5 - 10 Acres	$ 750.00	_____
>10 Acres	$1,000.00	_____
Affidavit Fee for Public Hearing	$ 15.00	_____
	TOTAL FEE:	**$**_____

To Be Completed By Applicant

Petitioner:

Name: Philipps Bros Supply Inc.

Address: 2525 Kensington Ave

_____

Amherst (city) NY (state) 14226 (zip code)

Phone: 716-839-4800_____ Fax: 716-839-4051_____

E Mail: pphilipps@philippsbros.com

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

MAJOR SITE PLAN APPLICATION (con't) ***Page 2***

Representative (Architect, Engineer, Landscape Architect, Surveyor, or Attorney)**:**

Name: Joseph Molek

Address: 425 Franklin Street

Buffalo NY 14202
city state zip code

Phone: 716 - 222-3752 Fax: _____

E Mail: jmolek@stieglitzsnyder.com

Project Location (must be verified by Town Assessor's Office)**:**

Address: 2525 KENSINGTON AVE

SBL No(s): *Deed Reference: Liber 11117, Page 3180*
Tax ID: 80.11-1-6.2

Project Name: SHATKIN SCHOOL OF DENTISTRY

Project Description:

MULTI-TENANT BUILD-OUT AND PARKING LOT EXPANSION ONTO RIDGEWOOD DRIVE

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

MAJOR SITE PLAN APPLICATION (con't) ***Page 3***

If this petition is an amendment to a previously approved site plan, please describe the proposed changes (include type and size of existing structures and number of existing parking spaces):

	existing	proposed	total
Gross Floor Area (non-residential):	29,350	4,400	33,750
Gross Floor Area Residential:			
Number of Residential Units:			
Number of Parking Spaces:	26	56	82

Acreage of Parcel: 1.24 AC

(list each parcel separately)

Frontage on Public Roads: 165.18'+333.61'+280.01'=778.8'

(list each road separately)

Existing Zoning District(s) GB - GENERAL BUSINESS

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Site Plan Submittal Requirements and Checklist

The following checklist outlines the information required by the Planning Department to accept a Site Plan application for review. ***It is strongly recommended that you make an appointment with Planning Staff to determine which items apply to your application***.

Item No.	Item	Submitted	Official use
I Basic Drawing Information			
1.0	**Drawing size not to exceed 24" x 36"**		
2.0	**Title of Drawing**		
3.0	**Name and address of Applicant**		
4.0	**Name of person preparing drawing**		
5.0	**Wet seal/raised seal and signature of NYS licensed architect, engineer, landscape architect, or surveyor (as applicable)**		
6.0	**Project address**		
7.0	**Zoning of subject property and adjacent parcels**		
8.0	**North point, scale, date, and revision date(s)**		
9.0	**4" x 6" reserved area in lower right hand corner for official Town use**		
II Structures, Paved Areas, & Open Space			
1.0	**Existing and Proposed Streets**		
1.1	Names of all existing and proposed streets		
1.2	Width and radii of proposed curb-cuts		
1.3	Existing curb-cuts on adjacent and opposite properties		
1.4	Show ROW width, pavement dimensions, lane widths, pavement markings, and proposed signage on proposed streets		
1.5	Show proposed ROW consistent with planned NYSDOT, Erie County, or Town road projects (if applicable)		
1.6	Show location of proposed cross access to adjacent parcels along with a draft easement		
1.7	Designation of Fire Lanes (if applicable)		
1.8	Fire apparatus access roads		
1.9	Label any proposed roads as public or private		
1.10	Location and dimensions of sidewalks		
1.11	Typical cross sections and profiles of proposed streets, pedestrian walkways, and bikeways		
2.0	**Proposed Structures**		
2.1	Location and complete dimensions of proposed structures		
2.2	Setback dimensions of structure(s) to all property lines		
2.3	Proposed use of structures		
2.4	Gross square feet area of each structure		
2.5	Location of all building entrances		
2.6	Indicate type of roof construction/materials		
2.7	Location, height, and design detail of existing and proposed fences and walls		
2.8	Location of light standards and building mounted lights		
2.9	Location of dumpster and detail of dumpster enclosure with gate		
2.10	Layout and dimensions of the lot(s) proposed for development		

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.	Item	Submitted	Official use
II Structures, Paved Areas, & Open Space (cont'd)			
3.0	**Floor Plans with individual rooms and spaces labeled** (fully dimensioned)		
4.0	**Building elevations with height dimensions from finished grade to the highest point of the roof and to midpoint of gable or hip of a pitched roof.** (fully dimensioned)		
4.1	Show screening of mechanical equipment		
5.0	**Parking/Loading/Stacking Areas**		
5.1	Location and complete dimensions of all paved areas		
5.2	Setback dimensions of all paved areas to property lines		
5.3	Dimension of typical parking space and drive aisles		
5.4	Location and layout of handicapped parking spaces & access aisles		
5.5	Detail of vertical signage for handicapped parking and access aisles		
5.6	Indicate minimum parking requirement & number of spaces provided		
5.7	Proposed signage for directing and guiding traffic		
5.8	Curb cut permits from NYS, Erie County, or Town (if applicable)		
5.9	Pedestrian connections (from proposed structures to public sidewalk network)		
6.0	**Location and proposed development of all open spaces, including parks, playgrounds, and open reservations**		
III Utilities and Drainage			
1.0	**Engineers Report** (bound separately from the Stormwater Pollution Prevention Plan [SWPPP])		
1.1	Stamped/sealed and signed by NYS licensed architect or professional engineer		
1.2	Proposed water service sizing, RPZ pressure and fire safety flow and pressure calculations		
1.3	Proposed sanitary sewer facility load calculations (avg. & peak flows) including calculation of the peaking factor		
1.4	Proposed storm drainage facility calculations (see information included with this application)		
2.0	**Grading Plan**		
2.1	Existing and proposed grades indicated (proposed grades may not exceed 1 on 3)		
3.0	**Water Service**		
3.1	Location, size and material of existing and proposed facilities		
3.2	Location of existing and proposed fire hydrant location(s)		
3.3	Indicate use of sprinklers, location of Fire Department connection, and proposed fire protection systems		
3.4	Existing and proposed meter/RPZ size and location		
3.5	Applicable construction details		
4.0	**Sanitary Sewers**		
4.1	Locations, sizes, slopes, inverts, and materials of all existing and proposed facilities		

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official use
III Utilities and Drainage (cont'd)			
4.2	Applicable construction details		
4.3	Proposed water/oil/grease interceptor sizing calculations by a professional engineer (if applicable)		
5.0	**Storm Drainage**		
5.1	Locations, sizes, slopes, inverts, and materials of existing and proposed storm drainage facilities		
5.2	Connection of roof drains to proposed drainage system		
5.3	Applicable Town Standard construction details		
5.4	Existing and proposed swales and ditches		
5.5	Detention area cross-section and high-level elevations		
5.6	County and State approval for tie-in to existing sewers		
6.0	**Stormwater Pollution Prevention Plan (SWPPP) as applicable** (bound separately from the Engineer's Report) **See attached checklist.**		
7.0	**Natural Gas Service**		
8.0	**Location of transformers, generators and other mechanical equipment; include detail drawings (if applicable)**		
9.0	**Downstream Sanitary Capacity Analysis (DSCA) Report** (must be submitted if proposed average flows are greater than 2,500 gallons per day)		
9.1	The DSCA Report must include a detailed downstream sewer capacity analysis and the calculations of and commitment to (via Developer commitment letter) the required financial contribution to the Town's I/I mitigation fund based on peak flow conditions. The contribution must be based on $250 per gallon per minute of mitigated flow		
IV Lighting Plan			
1.0	**Photometric plan showing light spread in foot candles at property lines**		
1.1	Detail of all light standards, including dimension of height from finished grade		
1.2	Detail of all exterior lighting fixtures		
V Landscape Plan			
1.0	**Wet/raised seal and signature of a licensed Landscape Architect**		
2.0	**Provide a calculation of the total Parking area and a calculation of interior parking area in square feet and as a percentage**		
3.0	**Indicate location, size, number and type of proposed landscape materials**		
4.0	**Indicate location, type and size of <u>all</u> existing trees 4" caliper or larger and indicate which will be removed or retained**		
VI Other Required Information/General Requirements			
1.0	**Complete boundary survey that includes all existing structures, acreage, legal description with reference to a property line, street, or other known feature, and easements plotted to scale by a NYS licensed land surveyor**		

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official Use
VI Other Required Information/General Requirements (cont'd)			
1.1	Copies of all easements, reciprocal access agreement or similar leag documents		
2.0	**Topographic Survey with a 30 ft. buffer outside all property lines by a NYS licensed land surveyor**		
3.0	**Draft of any deed restrictions, covenants, provisions for home associations and common ownership, and reciprocal easement agreements (as applicable).**		
4.0	**For assessment purposes, state intent to apply for condominium status (if applicable).**		
5.0	**Completed and signed Environmental Assessment Form**		
5.1	Soil boring report and geotechnical report prepared by a qualified Professional Engineer (if applicable)		
5.2	Traffic Impact Study (if applicable)		
5.3	Archaeological survey (if applicable		
5.4	Wetland Delineation report (if applicable)		
6.0	**Show existing zoning(s) of both the subject property and adjacent parcels on the Site Plan and the Landscape Plan**		
7.0	**Location of NYSDEC wetlands (including buffer area) and/or federal wetlands; indicate jurisdictional status**		
8.0	**Location of Floodway and floodplain** (if applicable)		
9.0	**Documentation pertaining to any conditions of zonings, including copies of required deed restrictions; indicate date of rezoning and the parcel address under which it was rezoned (if applicable)**		
10.0	**Documentation related to any required variances granted by the ZBA**		
11.0	**For residential site plans, provide a statement from the appropriate school district that adequate school sites and facilities are available.**		
12.0	**8 1/2" X 11" reduction of primary site plan drawing (see appendix "B" of application package for specifications)**		
13.0	**A CD containing a PDF of all site plan drawings (Must also be provided with revised drawings)**		
VII Additional Required Information for Projects in the Mixed Use Districts			
1.0	**Design Advisory Board Application**		
1.1	Required for Major Site Plan		
1.2	Required at the Planning Directors Discretion for Minor Site Plans		
2.0	**Block & Street Network Plan**		
2.1	Designation of Core, Local & Alley streets		
2.2	Dimensions of Blocks		
3.0	**Block Usage Plan (as applicable)**		
3.1	Designation of site usage for each block including open space areas		
4.0	**Phasing Plan**		

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

For official use only:

_____
Approved/Date

X:\Current_Planning\Application Forms 2013 Working Doc\Major Site Plan\Site Plan Submittal Requirements and Checklist (3).doc

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Urban Soil	severe	severe	severe	severe	severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   ____ Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes X No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes X No
   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes X No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   No

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes X No
   Describe

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project Reference traffic study
   Source:

8. Will blasting occur during construction? □ Yes X No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? X Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    _1120_____ average flow _4400_____ peak flow.
    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes X No

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

January 30 2023

5583 Main Street Williamsville NY 14221
Town of Amherst Planning Department

STIEGLITZ SNYDER ARCHITECTURE
A LaBella Company

RE: 2525 Kensington Avenue

Dear Mr. Scott Marshall / Mr. Gary Palumbo,

We are submitting to the Planning Department our revised documents, our application and supporting documents related to 2525 Kensington Avenue based on comments made by the Town of Amherst individual departments from September to December 2023.

All documents submitted herein contain responses to each item in question along with related changes to drawings and forms based on the comments. Which include all new Civil drawings with appropriate revisions related to Town comments, updated shared parking study, letter from Daemen university substantiating the shuttling of students, and the revised photometrics plan including lighting cut sheets.

Also, included are revised application major and revised SEAF with changes only related to removal of IMIT Facility on the documents. The IMIT facility will no longer be part of this project herein.

Please review accompanying documents for overall compliance and variances that will be required for this application.

If you would like to discuss this application further, please don't hesitate to contact me at 716-222-3040 or via e-mail at jmolek@labellapc.com.

Sincerely,

STIEGLITZ SNYDER ARCHITECTURE a Labella Company.

Joseph Molek, RA

Project Architect

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

January 23, 2023

5583 Main Street Williamsville NY 14221
Town of Amherst Planning Department

STIEGLITZ SNYDER ARCHITECTURE

RE: 2525 Kensington Avenue – Philipps Bros. Supply / The Shatkin School of Dentistry and Parking expansion.

Dear Mr. Gary Palumbo,

We are submitting to the Planning Department our response to Major Site Plan review comments submitted by the following Departments:

Zoning Enforcement Officer Review Comments from December 2, 2022

Item #1

- *Landscaping requirement of 203-7-2 A (2) are not met along rear of building between building and proposed sidewalk. Replace gravel with foundation plantings.*

Gravel landscaping has been replaced with foundation plantings. See accompanying drawings SP101 and L101.

Item #2

- *Off Street Parking proposed for the dental /medical offices does not meet Section 7-1-6A of Chapter 203 of the Town Code. The ZEO received a revised parking analysis dated September 12,2022. Considering the revised shared paring demand assessment, the revised analysis has been accepted pursuant to Section 7-1-5 of the zoning ordinance with the following conditions:*

  A. *A minimum of 79 parking spaces shall be provided for the project, which includes those that are being provided within the Ridgewood Drive R.O.W.*

     See accompanying site drawings and Shared Parking Demand Assessment prepared by SRF Associates / Passero Associates January 25, 2023 for revised total of 83 parking spaces. Additional parking spaces are accounted for due to the elimination of parking islands along Ridgewood Drive which where shown on previous submissions.

  B. *A written commitment is provided from Daemen University to the Town, Assuring that all students will be shuttled to the site from the main campus to reduce parking demand.*

     See accompanying Letter from Daemen University / Dr. Greg Nayor dated January 18, 2023.

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

C. *A re-analysis of parking be performed by the consultant within a year of occupancy to confirm adequacy of parking.*

Passero Associates will follow up with analysis of parking adequacy.

D. *Any Changes to the approved site plan which may affect future parking demands will require a new alternative parking analysis.*

Re-analysis of parking will occur if any changes to the busing of students or on site parking demands change.

Planning Department Staff Review Comments from December 2, 2022

Item #1

– *For the Planning Board's site plan review, the photometric plan (sheet EL-100) should only indicate and evaluate building-mounting lighting and not the proposed parking lot lighting. Lighting within the Ridgewood Drive right -of -way is under the jurisdiction of the Town Highway Superintendent and excluded from this site plan review. Please submit a photometric revised plan at full size, not 8 ½ x 11".*

See accompanying revised drawing EL-100 for lighting the sidewalk on the east side of building of 2525 Kensington Avenue.

Item #2

– *A local law will be required to remove the existing parking restriction currently in place on Ridgewood Drive. (it is understood that this is in process).*

Condition of approval by Town Board and legal department in process.

Item #3

- *The proposed license agreement for the use of and maintenance of the Ridgewood Drive right-of-way must be approved and filed with the Erie County Clerk's Office prior to issuance of final site plan approval. It is understood that a draft agreement has been submitted and reviewed by the Town Attorney, Action by the Town Board is required.*

Condition of approval by Town Board and legal department in process.

Item #4

- *As a continuous 5-foot sidewalk is shown on the revised site plan, the sidewalk waiver previously requested will no longer be considered.]*

A 5 foot sidewalk has been provided along the east side of 2525 Kensington and no waiver from the owner is necessary.

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Item #5

- *The specification sheets for the emergency generator and tank for a diesel fuel system, but the site plan calls for a natural gas fired generator. Please confirm the fuel to be used for the emergency generator. A fuel tank may change the overall height and locational criteria and may affect the minimum required screening.*

Generator and Tank are to be Diesel as per previously submitted cut sheets. See accompanying revised drawings SP101 of removal of annotation related to gas generator.

Item #6

- *The proposed island for emergency generator and transformer should be reduced in length by 4 feet to maintain a minimum of 24 foot drive isle on site per 203-7-1-9 A.2 of Town Code.*

See accompanying revised civil drawings for 24 foot wide clear drive lane.

Item #7

- *Sheet SP-104 indicates that existing brush and trees will be removed "to the fence line" on the east side of Ridgewood drive. Please note: the fence line is beyond the property line and site plan approval by Town does not include review or authorization of off-site work in the New York State Right-of-Way.*

Annotation has been revised for brush and tree removal to occur only within town right of way. See drawing SP104 note 3.

END OF COMMENTS

Sincerely,

STIEGLITZ SNYDER ARCHITECTURE



Joseph Molek, RA

Project Architect

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Short Environmental Assessment Form
Part 1 - Project Information

Revised
1/23/2023
by J.Molek.

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
Shatkin School of Dentistry / Philipps Bros Supply

Project Location (describe, and attach a location map):
2525 Kensington Ave at Bentham Pkwy and Ridgewood Drive

Brief Description of Proposed Action:
Shatkin College of Dentistry at Daemen University on 1.2 acre existing developed parcel -plus- redevelopment of Ridgewood Drive into a new private paved surface parking lot.

Name of Applicant or Sponsor:	Telephone: 716-839-4800
Pat Philipps	E-Mail: pphilipps@philippsbros.com

Address:
2525 Kensington Avenue

City/PO:	State:	Zip Code:
Amherst	NY	14226

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Amherst Site Plan, building permit	☐	☑

3. a. Total acreage of the site of the proposed action? 1.24 acres
   b. Total acreage to be physically disturbed? 0.50 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.24 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

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	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☐	☑
b. Consistent with the adopted comprehensive plan?	☐	☐	☑

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES
If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES
If the proposed action will exceed requirements, describe design features and technologies:		
REFER TO ARCHITECTURAL SET	☐	☑
10. Will the proposed action connect to an existing public/private water supply?	NO	YES
If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities?	NO	YES
If No, describe method for providing wastewater treatment: _____	☐	☑
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES
	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe: EXISTING PUBLIC DRAINAGE IN RIDGEWOOD DRIVE		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Joseph Molek Date: January 30, 2023

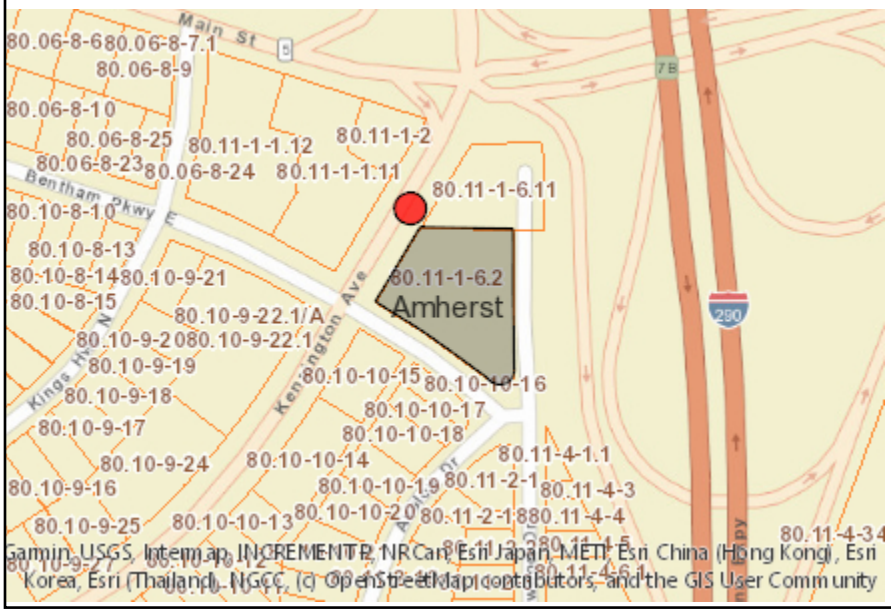
Signature: _____ Title: Architect

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

PRINT FORM

EAF Mapper Summary Report

Monday, February 14, 2022 1:50 P.M.



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

PASSERO ASSOCIATES
engineering architecture

January 25, 2023

Mr. Daniel J. Ulatowski, AICP
Principal Planner/ZEO
Town of Amherst Planning Department
5583 Main Street
Williamsville, New York 14221

RE: Proposed Shatkin School of Dentistry, Town of Amherst, NY
Shared Parking Demand Assessment Letter

Dear Mr. Ulatowski:

This technical letter provides a Shared Parking Demand Assessment related to the proposed project located at 2525 Kensington Avenue in the Town of Amherst, NY in connection with a request for the approval of an Alternate Parking Study per Section 7-1-7A of the Zoning Code.

When evaluating the parking supply needs for the proposed project, our firm projected the parking demand considering shared parking (mixed-use) principles using nationally accepted methodology developed, in part, by the Urban Land Institute (ULI), Institute of Transportation Engineers (ITE), International Council of Shopping Centers (ICSC), and National Parking Association (NPA). Specifically, the assessment includes an estimation of future parking demands for the proposed project using national standards for similar developments, as documented by the ITE Parking Generation Manual (5th Edition).

This evaluation then provides a comparison to Town requirements, as set forth within Section 7-1-6A of the Town of Amherst's Zoning Code.

All supporting materials are included as an attachment to this letter.

PROJECT DESCRIPTION

Currently, the ±29,350 square foot (SF) building is owned and occupied by Phillips Brothers Supply, a business that has been in operation for over 30 years. Under the proposed development Phillips Brothers Supply will have ±5,662 SF of retail space and ±11,928 SF of warehouse space.

Shatkin Dental Health is developing ±16,160 SF of space which includes a ±4,400 SF of a new mezzanine that will be constructed within part of the existing warehouse space. The Shatkin Dental Health space will be used for a new dental school associated with Daemen College.

The project will provide 83 surface parking spaces and 10 bicycle parking spaces.

Relative to the proposed uses, the following information was obtained from the applicant:

Daemen College Dental School (8-hour day)
Employees: 8 general staff and 10 teaching staff.

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Students: 40-45 students for 8 hours each day. Students are classified by year (e.g., year one, year two, year three). Year one consists of approximately 20-25 students; year two consists of approximately 20-25 students; and year three consists of approximately 20 students. Year one students will not use the proposed facility. Year two and three students will use the site. Based upon information provided by the applicant and Daemen University, all students traveling to the site will use a shuttle service.

According to the applicant, at most there will be 21 patients at one time and 21 patients will occur four times during day.

PARKING REQUIREMENTS IN THE TOWN OF AMHERST ZONING CODE

Section 7-1-6A of the Zoning Code sets forth the off-street parking requirements for different categories of land uses. Strict application of the parking requirements per Section 7-1-6A of the Zoning Code is depicted in **Table 1**.

TABLE 1: TOWN CODE PARKING REQUIREMENTS

USE TYPE	REQUIRED PARKING RATIO	SIZE	TOTAL REQUIRED PARKING SPACES
Retail Sales, >2,000 SF and <25,000 SF	5.5 per 1,000 SF of net floor area	±4,247 SF	24
Warehouse	1 per 1,000 SF of gross floor area	±11,928 SF	12
Medical Office	1 per 150 SF of net floor area	±12,120 SF	81
Total Parking Spaces Required			**117**

Note:
1. Net Floor Area = For a multistory, multiple tenant building — 75 percent of gross floor area.

Strict application of the off-street parking standards in the Zoning Code results in a parking requirement of 117 spaces, as depicted in **Table 1**. The total number of parking spaces to be provided is 83 spaces. Thus, there is a deficit of 34 parking spaces per strict application of Section 7-1-6A of the Zoning Code.

SHARED PARKING PRINCIPLES

Shared parking studies are conducted to establish the total number of spaces necessary by mixed-use developments to effectively serve expected parking demands. The shared parking concept builds upon the premise that land uses in a mixed-use development often do not share the same peak demand period, so spaces can be shared between the different land uses during different peak periods. Each land use typically has a peak demand period where it would occupy the maximum number of spaces that the use requires and an off-peak period where a lesser percentage of the maximum spaces would be occupied; be it by time of day, day of week, or even month of the year. This allows for the project to provide fewer spaces than would be required if the land uses on a project site were to be treated separately with individual parking demands. The concept of shared parking is well recognized within the real estate and regulatory community and is proven to work.

SHARED PARKING METHODOLOGY

To estimate the number of parking spaces required for the proposed project, this assessment used ULI and ITE methodology for shared parking. This methodology is utilized by transportation engineers and planners when evaluating the parking demand for a mixed-use project. The ULI Shared Parking 3rd Edition includes state-of-the-art practice methodologies for determining parking demand in these types of projects. Accompanying the publication is an interactive Shared Parking Calculation Model

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(Model) that is used to estimate the shared parking demand. However, given that the Model does not have a warehouse land use, parking accumulation percentages for each land use were obtained from the ITE Parking Generation Manual.

Based upon the information provided by the applicant, there will be a maximum of 18 dental school staff utilizing on-site parking. The students will be shuttled to the site. Additionally, up to 21 patients may be on-site at any one time (up to four times a day). Therefore, based upon all site uses, a conservative 62 spaces may be expected to be required to meet the demands generated by the proposed dental school.

The peak hour demand is projected to occur at 10:00 AM on a typical weekday. The projected peak hour demand for the project (i.e., the busiest hour of the busiest weekday) is ±61 spaces. Parking demand accumulations are presented in **Table 2**.

TABLE 2: SHARED PARKING DEMAND PROJECTIONS

LAND USE	SIZE	PARKING DEMAND	
		UNADJUSTED DEMAND	**SHARED DEMAND**
Warehouse (ITE LUC 150)	±11,928 SF	5	**4**
Hardware Supplies (ITE LUC 862)	±5,662 SF	18	**18**
Proposed Dental School	43 employees	39	**39**
Total Parking Demand		62	**61**
Shared Parking Reduction		**1.61%**	

Notes:
1. ITE LUC = ITE Land Use Code
2. 43 employees for the dental school considers the 18 full time staff. The remaining parking demands are generated by 21 patients.

A separate analysis of parking demand projections was calculated using ITE data (Land Use Code 720) for the proposed dental school. **Table 3** depicts the shared demand projections using the results from **Table 2** and the ITE projections.

TABLE 3: PARKING DEMAND COMPARISON

LAND USE	SIZE	SHARED PARKING DEMAND	
		TABLE 2 ANALYSIS	ITE ANALYSIS
Warehouse (ITE LUC 150)	±11,928 SF	4	4
Hardware Supplies (ITE LUC 862)	±5,662 SF	18	18
Proposed Dental School (ITE LUC 720)	±16,160 SF	39	52
Total Parking Demand		**62**	**74**

When considering the site's 83 total parking spaces, there is sufficient space to accommodate the projected demands when considering rates developed using projected site visitors and employees (shown in **Table 2**), as well as the ITE parking rates (shown in **Table 3**).

It is important to note that the Applicant has worked with Daemen University to provide shuttle services for all students working on-site. This is a change from the May 2022 letter whereby a portion of

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

students would be shuttled to the site. These efforts allow for the projected parking demands to be entirely accommodated on-site without creating a potentially adverse impact on the surrounding neighborhood.

CONCLUSIONS

This detailed analysis assessed the projected shared parking demands associated with the proposed mixed-use project. The following summarizes the findings of this assessment:

1. The proposed project consists of retail hardware supply, warehouse, and medical-dental office space.

2. The project will provide 83 surface parking spaces and 10 bicycle parking spaces.

3. Strict application of the unshared off-street parking standards in the Zoning Code results in a parking requirement of 117 spaces.

4. The peak hour demand is projected to occur at 10:00 AM on a typical weekday. The projected peak hour demand for the mixed-use project (i.e., the busiest hour of the busiest weekday) is ±61 spaces.

5. A separate analysis of parking demand projections was calculated using ITE data (Land Use Code 720) for the proposed dental school. The total parking demand using ITE data is 74 spaces.

6. When considering the site's 83 total parking spaces, there is sufficient space to accommodate the projected demands when considering rates developed using projected site visitors and employees (shown in **Table 2**), as well as the ITE parking rates (shown in **Table 3**).

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,

David Kruse, AICP, PTP
Senior Transportation Planner

Attachments

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

ATTACHMENT

January 25, 2023

Letter to
Mr. Daniel J. Ulatowski, AICP
Town of Amherst

Proposed Shatkin School of Dentistry
2525 Kensington Avenue

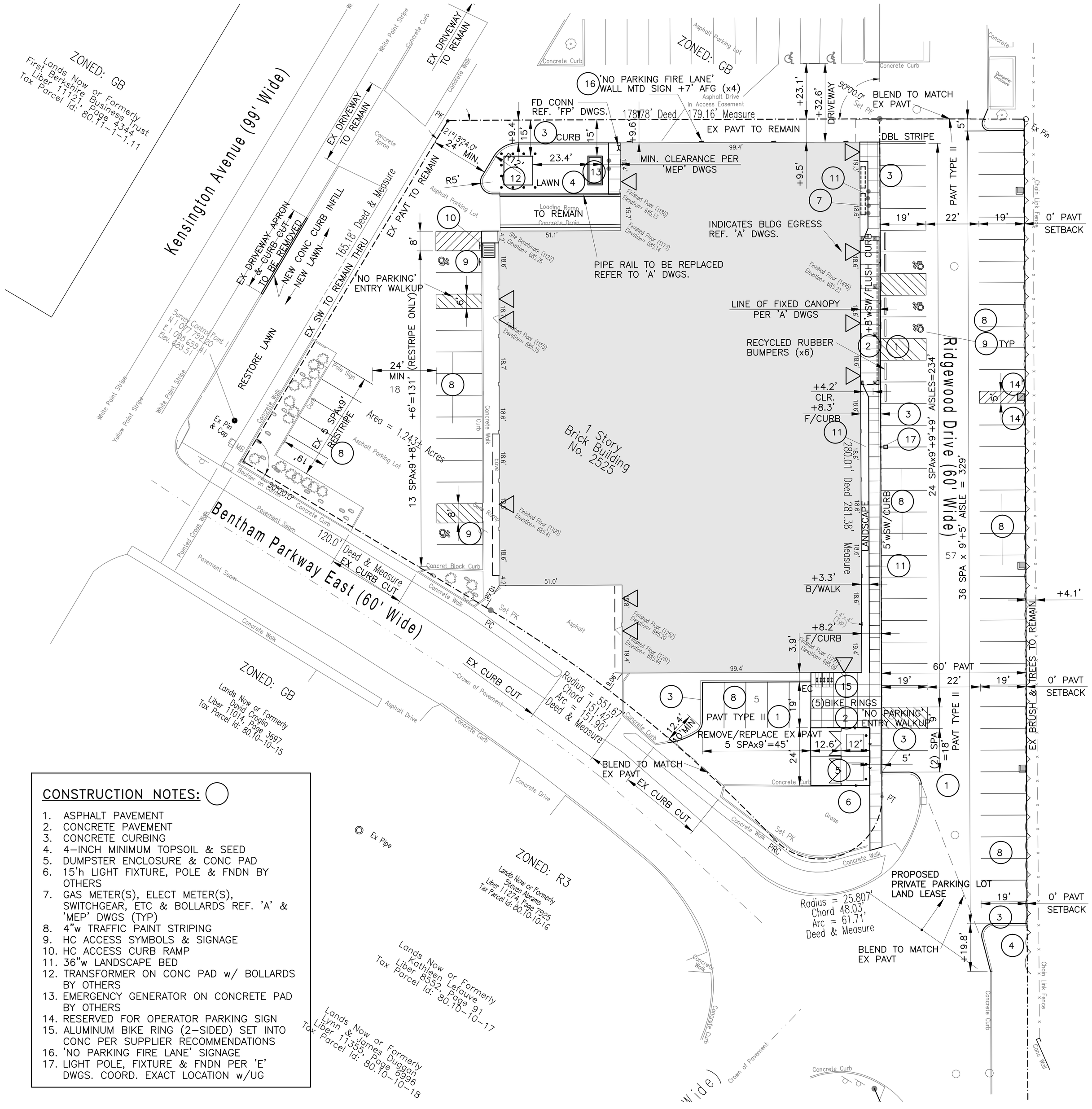
Shared Parking Demand Assessment

Town of Amherst
Erie County, New York

242 West Main Street, Suite 100 | Rochester, NY 14614
T 585.325.1000 | www.passero.com

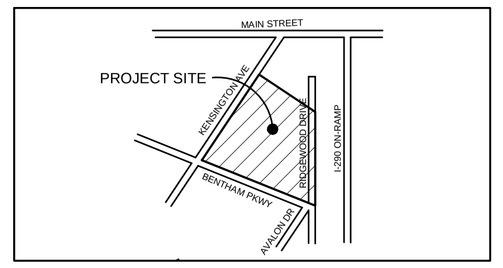
Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Attachment: SP-2022-02 application 042023 (2540 : SP-2022-02)



CONSTRUCTION NOTES:

1. ASPHALT PAVEMENT
2. CONCRETE PAVEMENT
3. CONCRETE CURBING
4. 4–INCH MINIMUM TOPSOIL & SEED
5. DUMPSTER ENCLOSURE & CONC PAD
6. 15'h LIGHT FIXTURE, POLE & FNDN BY OTHERS
7. GAS METER(S), ELECT METER(S), SWITCHGEAR, ETC & BOLLARDS REF. 'A' & 'MEP' DWGS (TYP)
8. 4"w TRAFFIC PAINT STRIPING
9. HC ACCESS SYMBOLS & SIGNAGE
10. HC ACCESS CURB RAMP
11. 36"w LANDSCAPE BED
12. TRANSFORMER ON CONC PAD w/ BOLLARDS BY OTHERS
13. EMERGENCY GENERATOR ON CONCRETE PAD BY OTHERS
14. RESERVED FOR OPERATOR PARKING SIGN
15. ALUMINUM BIKE RING (2–SIDED) SET INTO CONC PER SUPPLIER RECOMMENDATIONS
16. 'NO PARKING FIRE LANE' SIGNAGE
17. LIGHT POLE, FIXTURE & FNDN PER 'E' DWGS. COORD. EXACT LOCATION w/UG



SITE LOCATION MAP

SITE LAYOUT PLAN

1" = 20'

N

SITE DATA

CURRENT ZONING: GB

PARCEL AREA: +1.24 ACRES (AC)

TOTAL AREA OF DISTURBANCE (INCL R.O.W.): 22,000SF~0.51AC

NEW PARKING LOT LICENSED AREA: 19636SF ~0.45 AC

INTERIOR GREENSPACE: 984SF (5.5% OF NEW PARKING LOT)

ANTICIPATED AVERAGE DAILY SEWER LOADING: 1120 GPD
OFFICES/DAY SCHOOL: (30 EMPLx15 GPD)+(52 STUDENTSx10 GPD = 450+520 =970 GPD
RETAIL/WAREHOUSE PER EMPLOYEE: (10 EMPLx15 GPD)= 150 GPD

PARKING DATA

SPACES REQUIRED BY NET SF, 2–STY (MEZZ), MULT–TENANT (75% OF GROSS SF), GENERAL OFFICE, RETAIL/WAREHOUSE USES:

GENERAL OFFICE: 15995NSF (INCLUDES MEZZ) x1/200NSF=80;
RETAIL AT >2000SF<25000SF: 5763NSFx 5.5/1000NSF=32;
WAREHOUSE: 12019NSFx 1= 12

TOTAL CAR–PARKS REQUIRED = 80+32+12=124
ACCESSIBLE SPA REQUIRED = CAR–PARKS/25=124/25=5

SPACES PROVIDED OFF–SITE: 60
SPACES PROVIDED ON–SITE: 23
TOTAL SPACES: 83
REGULAR: 78
ACCESSIBLE: 5

REFER TO ALTERNATE PARKING PLAN PROVIDED UNDER SEPARATE COVER

NOTES:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING IS FOR INFORMATION ONLY. REFER TO SURVEY(S) PROVIDED BY NIAGARA BOUNDARY & MAPPING JOB No 11187–21, DATED 6/2021.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES, AND UTILITY CONNECTIONS.
3. SITE LIGHTING, POWER AND GAS LINES ARE SHOWN FOR INFORMATION ONLY, AND ARE NOT DESIGNED BY TREDO ENGINEERS.
4. A KNOX BOX KEY HOLDER SHALL BE LOCATED AT THE BUILDING MAIN ENTRANCE.
5. THE BUILDING SHALL CONTAIN A SPRINKLER FIRE–PROTECTION SYSTEM.

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716.876.7147

PETRILLI ENGINEERING PC
STRUCTURAL ENGINEERS
716.854.3508

BUFFALO ENGINEERING, PC
MEP AND CIVIL ENGINEERS
716.633.5300

SHATKIN SCHOOL OF DENTISTRY AT DAEMEN COLLEGE / INSTITUTE FOR MOBILITY AND TECHNOLOGY

2525 KENSINGTON AVENUE, AMHERST NY

STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

STATE OF NEW YORK · MATTHEW JOHN LO · 102765 · LICENSED PROFESSIONAL ENGINEER

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REVISIONS	
2: REVISED	4/19/22
3: REVISED	9/19/22
4: REVISED	1/23/23

DRAWN BY	CHECKED BY
avm	AVM

SCALE: AS NOTED

DATE: Feb 22, 2022

SITE LAYOUT PLAN

SP101

UNSHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	11.928	5	3%	8%	27%	57%	79%	83%	87%	91%	91%	97%	100%	91%	74%	47%	26%	20%	17%	1%	1%	1%
Hardware Store	862	5.662	18	0%	0%	9%	55%	73%	100%	64%	95%	68%	91%	50%	45%	36%	5%	0%	0%	0%	0%	0%	0%
Medical Office	Local	43	39	0%	0%	12%	43%	88%	99%	100%	83%	74%	94%	93%	86%	54%	0%	0%	0%	0%	0%	0%	0%
			62																				

SHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	11.928	5	0	0	1	3	4	4	4	4	4	5	5	4	4	2	1	1	1	0	0	0
Hardware Store	862	5.662	18	0	0	2	10	13	18	12	18	13	17	9	8	7	1	0	0	0	0	0	0
Medical Office	Local	43	39	0	0	5	17	34	39	39	32	29	37	36	34	21	0	0	0	0	0	0	0
Total Shared Demand			**62**	**0**	**0**	**8**	**30**	**51**	**61**	**55**	**54**	**46**	**58**	**50**	**46**	**31**	**3**	**1**	**1**	**1**	**0**	**0**	**0**

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

UNSHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	11.928	5	3%	8%	27%	57%	79%	83%	87%	91%	91%	97%	100%	91%	74%	47%	26%	20%	17%	1%	1%	1%
Hardware Store	862	5.662	18	0%	0%	9%	55%	73%	100%	64%	95%	68%	91%	50%	45%	36%	5%	0%	0%	0%	0%	0%	0%
Medical Office	720	16.16	52	0%	0%	12%	43%	88%	99%	100%	83%	74%	94%	93%	86%	54%	0%	0%	0%	0%	0%	0%	0%
			75																				

SHARED DEMAND

				Time																		
LAND USE	ITE LUC	SIZE	UNSHARED DEMAND	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a
Warehouse	150	11.928	5	0	0	1	3	4	4	4	4	4	5	5	4	4	2	1	1	1	0	0	0
Hardware Store	862	5.662	18	0	0	2	10	13	18	12	18	13	17	9	8	7	1	0	0	0	0	0	0
Medical Office	720	16.16	52	0	0	6	22	46	52	52	43	39	49	48	45	28	0	0	0	0	0	0	0
Total Shared Demand			**75**	**0**	**0**	**9**	**35**	**63**	**74**	**68**	**65**	**55**	**70**	**62**	**57**	**38**	**3**	**1**	**1**	**1**	**0**	**0**	**0**

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

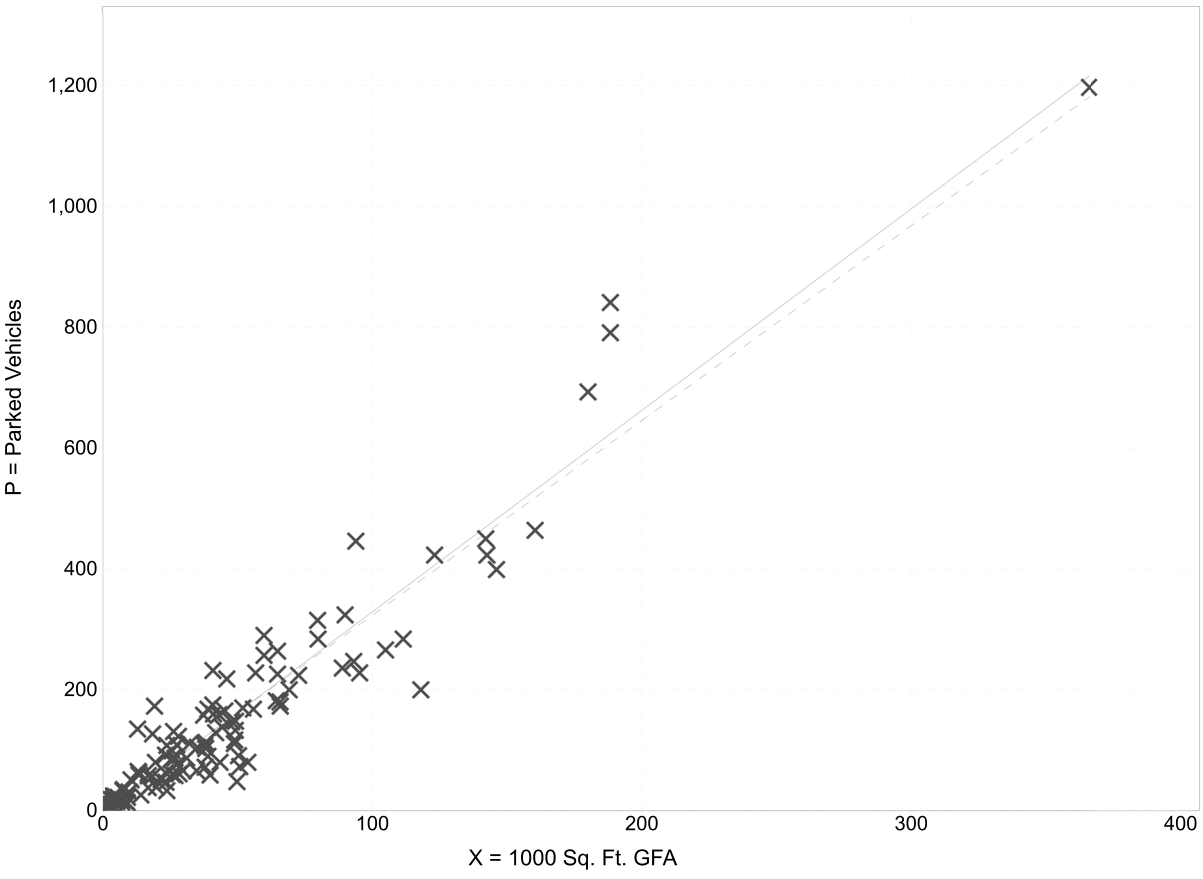
Medical-Dental Office Building
(720)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **9:00 a.m. - 4:00 p.m.**
Number of Studies: 117
Avg. 1000 Sq. Ft. GFA: 46

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
3.23	0.96 - 10.27	2.73 / 4.59	3.04 - 3.42	1.05 (33%)

Data Plot and Equation



Fitted Curve Equation: P = 3.34(X) - 5.21 **R^2= 0.91**

Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

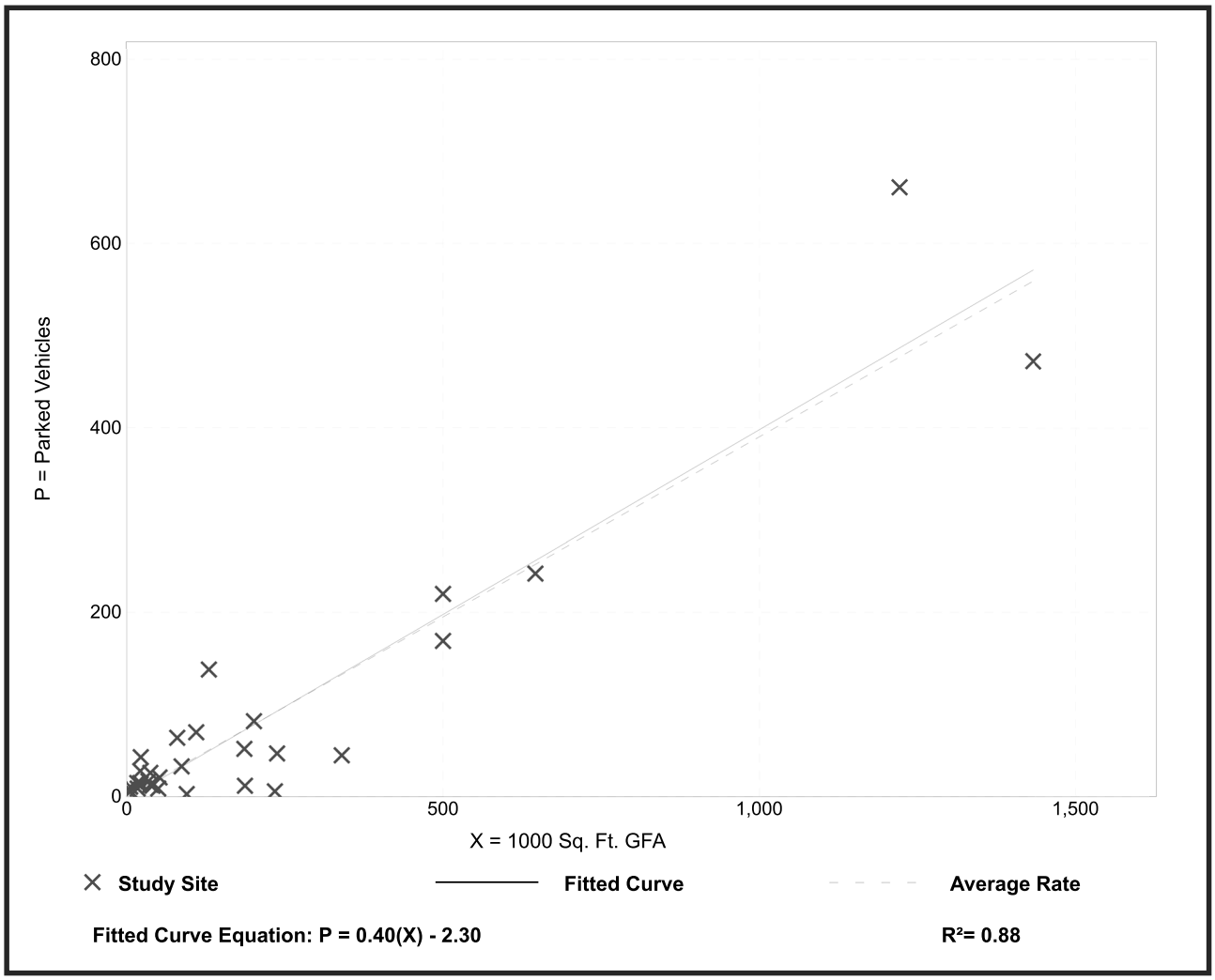
Warehousing
(150)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **11:00 a.m. - 4:00 p.m.**
Number of Studies: 31
Avg. 1000 Sq. Ft. GFA: 212

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.39	0.03 - 1.96	0.34 / 1.11	0.31 - 0.47	0.22 (56%)

Data Plot and Equation



Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

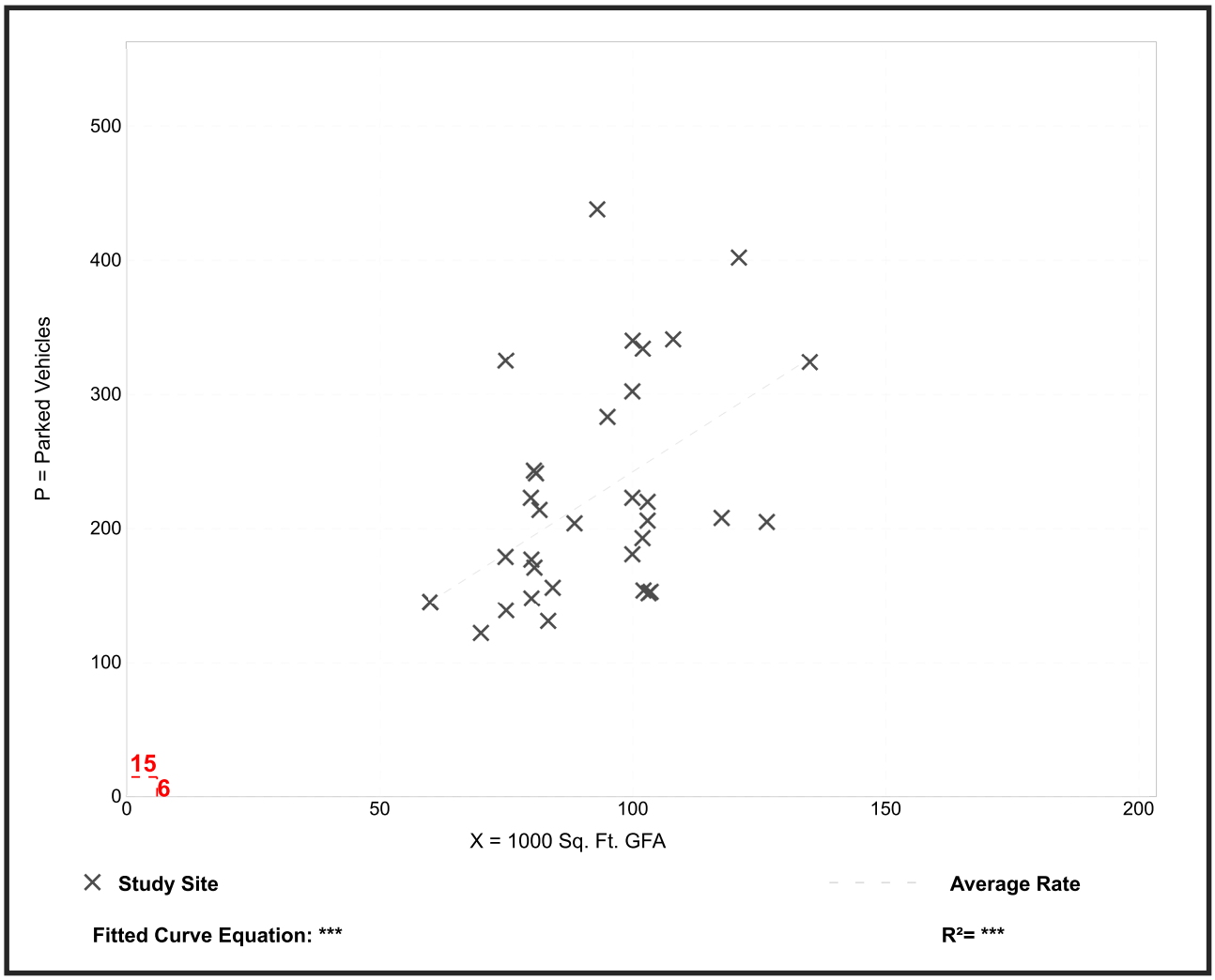
Home Improvement Superstore
(862)

Peak Period Parking Demand vs: **1000 Sq. Ft. GFA**
On a: **Friday**
Setting/Location: **General Urban/Suburban**
Peak Period of Parking Demand: **10:00 a.m. - 4:00 p.m.; 8:00 - 9:00 p.m.**
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 93

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.42	1.47 - 4.71	1.87 / 3.25	2.15 - 2.69	0.79 (33%)

Data Plot and Equation



Parking Generation Manual, 5th Edition ● Institute of Transportation Engineers

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

DAEMEN
STUDENT AFFAIRS

January 18, 2023

Mr. Daniel J. Ulatowski, AICP
Principal Planner/ZEO
Town of Amherst Planning Department
5583 Main Street
Williamsville, New York 14221

Dear Mr. Ulatowski:

As you know, Daemen University is working with Shatkin Dental to utilize 2525 Kensington Ave as the new home of our proposed Shatkin College of Dentistry. Please be advised that Daemen University is fully committed to the dental college initiative currently under review by the New York State Department of Education (NYS DOE) and the Commission on Dental Accreditation (CODA) and in working to resolve any concerns held by the Town of Amherst amicably and in the best interest of all parties.

We understand that there are concerns about the additional parking needs for this location. While the site will be constructed with 83 spaces, Daemen will provide a dedicated shuttle for the 2nd and 3rd year students, 25 and 20 individuals, respectively, to be taken from Daemen's main campus at 4380 Main St, to the 2525 Kensington address, as well as Collegiate Village where many may be residing. We will ensure that the shuttle runs an adequate number of hours on a fixed schedule so that it is fully utilized by students.

We thank you for your support of this transformative initiative.

If I can be of further assistance, please do not hesitate to let me know.

Sincerely,

Dr. Greg Nayor
Senior Vice President for Strategic Initiatives

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

SRF ASSOCIATES
Transportation Planning / Engineering / Design

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

(585) 272-4660
www.srfa.net

Ms. Gina Wilkolaski
Traffic Safety Engineer
Erie County | Highways (DPW)
95 Franklin Street
Buffalo, New York 14202

July 27, 2022

RE: Proposed Shatkin School of Dentistry, Town of Amherst, NY
Signal Warrant Analysis Letter

Dear Ms. Wilkolaski:

This study performed a traffic signal warrant analysis at the Kensington Avenue/Bentham Parkway intersection. Turning movement counts were performed by SRF Associates at the study intersection on Tuesday, June 2, 2022, from 7:00 AM to 7:00 PM.

The need for a traffic signal is determined by comprehensive investigation of existing traffic conditions and physical characteristics at the location. The Standard Specifications Update for the adoption of the National MUTCD (FHWA) and the New York State Supplement were reviewed to investigate the need for a traffic control signal at this location. There are nine (9) warrants, and they are as follows:

Warrant 1	Eight-Hour Vehicular Volume
Warrant 2	Four-Hour Vehicular Volume
Warrant 3	Peak Hour Vehicular Volume
Warrant 4	Pedestrian Volume
Warrant 5	School Crossing
Warrant 6	Coordinated Signal System
Warrant 7	Crash Experience
Warrant 8	Roadway Network
Warrant 9	Intersection Near a Grade Crossing

All supporting materials are included in the Attachments. Prior to applying warrants, the MUTCD suggests consideration of the effects of right-turn volumes on the minor street approach, and a reduction taken in the number of right turning vehicles, where appropriate. A certain number of right-turn vehicles will execute a right-turn on the red (RTOR) indication without actuating a traffic signal (if one were in place). Generally, up to 25% of right-turn vehicles may be assumed to execute at RTOR maneuver and should, therefore, be subtracted for the purposes of the warrant analysis. However, for purposes of this analysis, no adjustments were made to remain conservative. The posted speed limit on Kensington Avenue is 35 MPH, thus 100% thresholds in Table 4C-1, Figure 4C-1, and Figure 4C-3 are used as a basis for analysis.

1. Warrant 1 is subdivided into Condition A and Condition B. The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal. The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. These conditions are satisfied when, for each of any eight hours of an average day, anticipated volumes on the artery and side road are more than the minimum values presented in Tables 4C-1 in the MUTCD. **Based upon these calculations, Conditions A and B are not satisfied.**

2. Warrant 2, the Four-Hour Vehicular Volume signal warrant conditions, are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal. This warrant stipulates that for any four hours of a day, minimum threshold volumes are met on the artery and side road. **This warrant is partially satisfied for two of the four hours.**

3. Warrant 3 is intended for application where minor street traffic suffers undue delay in entering or crossing the major street for one hour of the day. It stipulates that the warrant shall be applied in unusual cases (high-occupancy vehicle facilities – i.e., shopping centers, office parks) where a large number of vehicles discharge over a short period of time. **This warrant is not satisfied.**

4. Warrant 4 is met when pedestrians experience excessive delay in crossing the major street because the traffic volumes are so heavy. The intersection currently has low pedestrian activity. **This warrant is not satisfied.**

5. Warrant 5 is met when a sufficient number of gaps in traffic do not exist for certain size and frequency of school children to cross the major roadway. **This warrant is not satisfied.**

6. Warrant 6 is met when a traffic signal is needed to maintain progressive movement and vehicle platooning in a coordinated signal system. **This warrant is not satisfied.**

7. Warrant 7 is intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal. The need for a traffic control signal shall be considered if *all* of the following criteria are met:

    a. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce crash frequency. **Condition A is not satisfied.**

    b. Five (5) or more reported crashes, of types susceptible to correction by a traffic signal, to have occurred within a 12-month period, each crash involving a personal injury or property damage. Five (5) crashes were documented in the crash analysis over a 12-month period. One crash was animal-related, and one was a medical condition. The three remaining crashes were right angle (2) in the eastbound and westbound directions. These drivers failed to yield the right of way. The last crash was a northbound rear end incident in which the driver of the trailing vehicle was following too closely. **Condition B is not satisfied.**

    Given that both Conditions A and B are not satisfied, this warrant is not satisfied.

8. Warrant 8 is met when a traffic signal might encourage concentration and organization of traffic flow on a roadway network. This warrant primarily focuses on two major intersecting roadways, which is not the case at the study intersection. **This warrant is not satisfied.**

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

9. Warrant 9 is applicable when an intersection is located near an at-grade rail crossing. **This warrant is not satisfied.**

TABLE 1: TRAFFIC SIGNAL WARRANT SUMMARY

WARRANT	SATISFACTION OF WARRANTS
1A – Eight-Hour Condition A	NOT SATISFIED
1B – Eight-Hour Condition B	NOT SATISFIED
2 – Four-Hour	NOT SATISFIED
3 – Peak-Hour	NOT SATISFIED
4 – Pedestrian Volume	NOT SATISFIED
5 – School Crossing	NOT SATISFIED
6 – Coordinated Signal System	NOT SATISFIED
7 – Crash Experience	NOT SATISFIED
8 – Roadway Network	NOT SATISFIED
9 – Intersection Near a Grade Crossing	NOT SATISFIED

Table 1 summarizes the signal warrants at the study intersection under full build conditions and the results of the investigation. The results show that a three-color traffic signal is not warranted.

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
SRF Associates, D.P.C.

David Kruse, AICP, PTP
Senior Transportation Planner

Attachments

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

ATTACHMENT

July 27, 2022

Letter to
Ms. Gina Wilkolaski
Erie County Department of Public Works

Proposed Shatkin School of Dentistry
Kensington Road/Bentham Parkway

Signal Warrant Analysis

Town of Amherst
Erie County, New York

SRF ASSOCIATES

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Traffic Signal Warrant Analysis

Kensington Avenue at Bentham Parkway - Existing Conditions

Town of Amherst, NY | Erie County

Hour			Existing Fluctuation in Artery Volumes				2022 Existing Artery Volume on Kensington Avenue		Warrant 1 - Condition A	Warrant 1 - Condition B	Warrant 2 4 hour
			per 2022 SRF count on Kensington	per 2022 SRF count on Kensington	per 2022 SRF count on Kensington	Hourly Fluctuation		per 2022 SRF count on Bentham	(100%)	(100%)	(100%)
			NB	SB	Two-Way	Two-Way	Total	WB	600/150	900/75	80 vph
7:00 AM	to	8:00 AM	429	295	724	8.39%	724	66	N	N	N
8:00 AM	to	9:00 AM	430	282	712	8.26%	712	50	N	N	N
9:00 AM	to	10:00 AM	345	260	605	7.01%	605	42	N	N	N
10:00 AM	to	11:00 AM	273	268	541	6.27%	541	47	N	N	N
11:00 AM	to	12:00 PM	281	240	521	6.04%	521	41	N	N	N
12:00 PM	to	1:00 PM	293	330	623	7.22%	623	44	N	N	N
1:00 PM	to	2:00 PM	348	318	666	7.72%	666	47	N	N	N
2:00 PM	to	3:00 PM	322	395	717	8.31%	717	37	N	N	N
3:00 PM	to	4:00 PM	404	547	951	11.03%	951	47	N	N	N
4:00 PM	to	5:00 PM	606	438	1044	12.10%	1044	48	N	N	N
5:00 PM	to	6:00 PM	446	440	886	10.27%	886	52	N	N	N
6:00 PM	to	7:00 PM	284	351	635	7.36%	635	41	N	N	N
					8,625				0	0	0

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

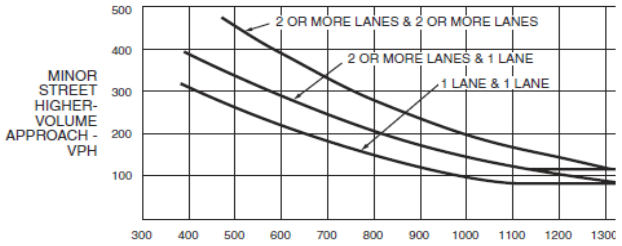
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

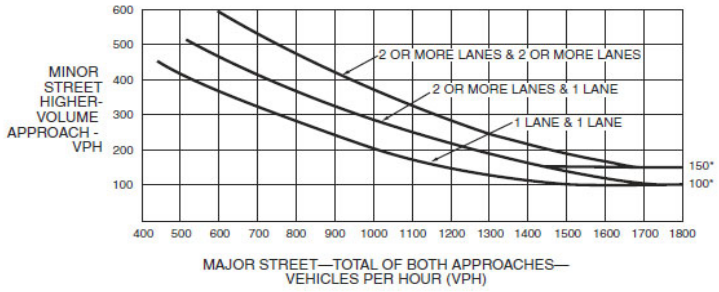
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Traffic Signal Warrant Analysis

Kensington Avenue at Bentham Parkway - Full Build Conditions

Town of Amherst, NY | Erie County

Hour			Existing Fluctuation in Artery Volumes				2022 Existing Artery Volume on Kensington Avenue	Exiting Hourly Fluctuation of ITE LUC 720 - Dental Office Building	Total Hourly Volumes Exiting Bentham Parkway under Full Build Conditions	Warrant 1 - Condition A (100%)	Warrant 1 - Condition B (100%)	Warrant 2 - 4 hour (100%)	Warrant Peak ho (100%
			per 2022 SRF count on Kensington	per 2022 SRF count on Kensington	per 2022 SRF count on Kensington	Hourly Fluctuation							
			NB	SB	Two-Way	Two-Way	Total	Total		600/150	900/75	80 vph	100 vp
7:00 AM	to	8:00 AM	429	295	724	8.39%	739	1.20%	9	N	N	N	N
8:00 AM	to	9:00 AM	430	282	712	8.26%	726	5.70%	44	N	N	N	N
9:00 AM	to	10:00 AM	345	260	605	7.01%	617	9.50%	73	N	N	N	N
10:00 AM	to	11:00 AM	273	268	541	6.27%	552	10.00%	77	N	N	N	N
11:00 AM	to	12:00 PM	281	240	521	6.04%	531	10.60%	82	N	N	Y	N
12:00 PM	to	1:00 PM	293	330	623	7.22%	636	8.70%	67	N	N	N	N
1:00 PM	to	2:00 PM	348	318	666	7.72%	679	7.40%	57	N	N	N	N
2:00 PM	to	3:00 PM	322	395	717	8.31%	731	9.20%	71	N	N	N	N
3:00 PM	to	4:00 PM	404	547	951	11.03%	970	9.90%	77	N	Y	N	N
4:00 PM	to	5:00 PM	606	438	1044	12.10%	1065	10.60%	82	N	Y	Y	N
5:00 PM	to	6:00 PM	446	440	886	10.27%	904	8.80%	68	N	N	N	N
6:00 PM	to	7:00 PM	284	351	635	7.36%	648	3.30%	26	N	N	N	N
					8,625		8,798	1.10	774	0	2	2	0

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

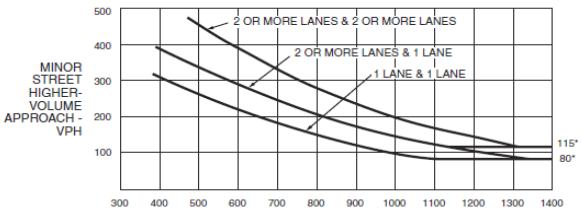
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

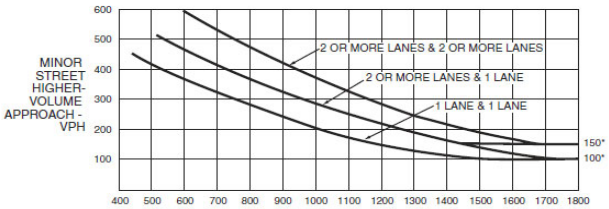
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Page of Pages

Local Codes
RJAM17BMT815
20-016023

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (7/01)

DMV COPY

DOT Case: 38373554

1.n

Accident Date Month Day Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
03 / 17 / 2020	Tue	12:17	2	2	0		☐	☐ Yes ☒ No

☐ VEHICLE 1 ☒ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

[redacted]

	Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code
Vehicle 1	CMJ5699	GA	NISS 2018	DELV	989
Vehicle 2	JPF7857	NY	HYUN 2018	4DSD	100

Ticket/Arrest Number(s): Vehicle 1: AM17BMT8G1

Violation Section(s): Vehicle 1: 1142A

VEHICLE 1

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact		1	2
Box 2 - Most Damage		2	2
Enter up to three more Damage Codes	3	4	5
	1	3	14

Vehicle Towed: By UNITED AUTO To UNITED AUTO

VEHICLE 2

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

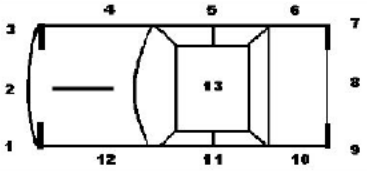
Box 1 - Point of Impact		1	2
Box 2 - Most Damage	10	10	
Enter up to three more Damage Codes	3	4	5
	11 9	2	

Vehicle Towed: By UNITED AUTO To UNITED AUTO

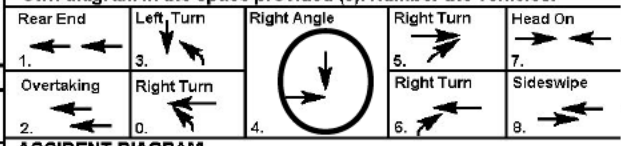
VEHICLE DAMAGE CODING:

1 - 13. SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Check the diagram below that describes the accident or draw your own diagram in the space provided (9). Number the vehicles.



ACCIDENT DIAGRAM

4 Right Angle

9.

Cost of repairs to any one vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☒ Yes ☐ No

Reference Marker	Coordinates *(if available)*
	Latitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ERIE ☐ City ☐ Village ☒ Town of AMHERST, TOWN OF

Road on which accident occurred 2500 KENSINGTON AVE (Route Number or Street Name)

at 1) intersecting street BENTHAM PKWY (Route Number or Street Name)

or 2) ____ Feet ____ Miles ☐N ☐E ☐S ☐W of ____ (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's Notes

See Notes attachment page.

8 9 10 11 12 13 14 15 16 17 BY TO 18 Names of all involved Date of Death

ALL INVOLVED

[redacted]

F														
G														

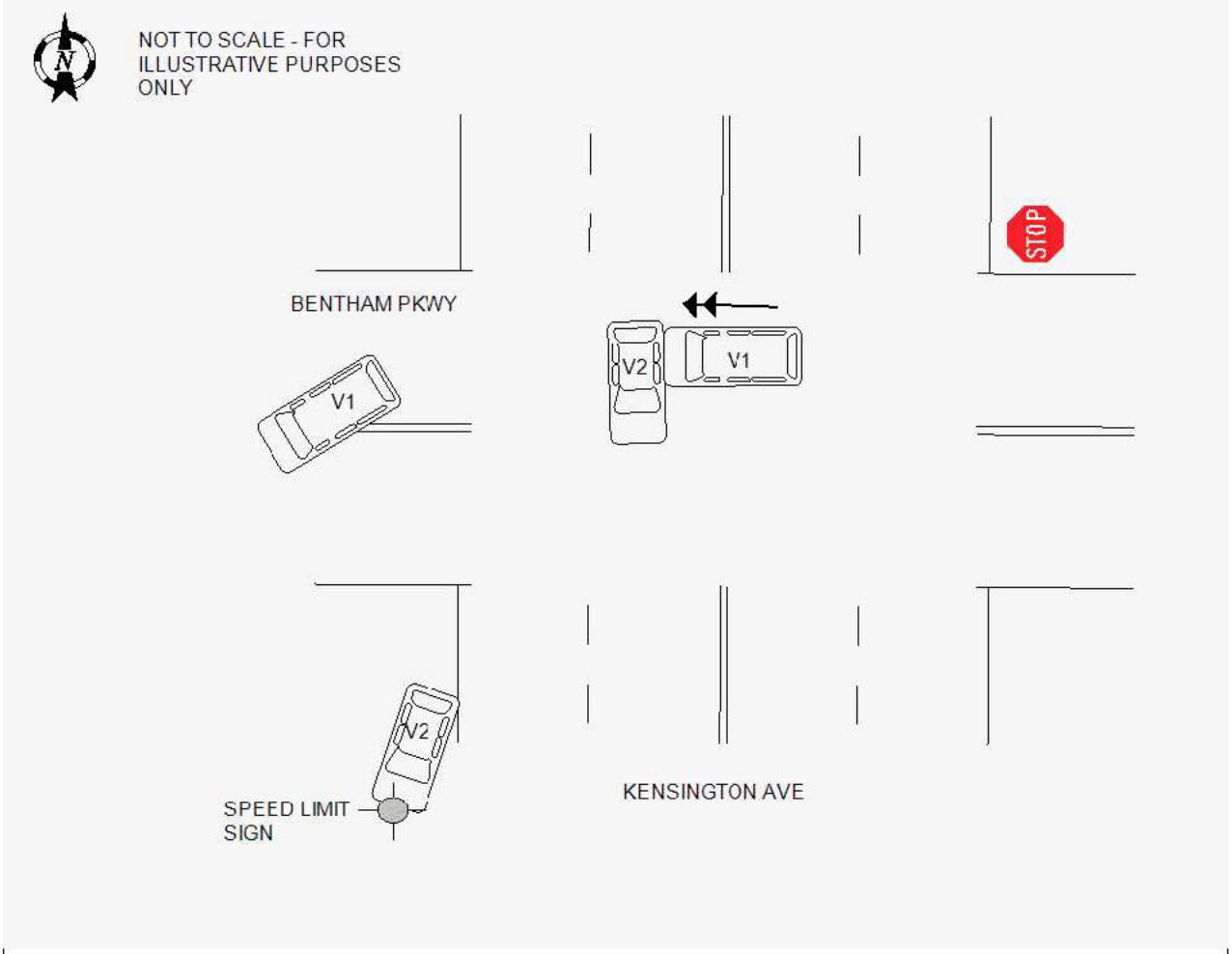
Officer's Rank, Name and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/ Sector	Reviewing Officer	Date/Time Reviewed
SR INV S LARWOOD Steven M. Larwood	0089	01451		AIU	LARWOOD, S	03 / 17 / 2020

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Local Code: RJAM17BMT815 Accident Date: 03 / 17 / 2020 DOT Case: 38373554

1.n

Accident Type: 4



Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Case Number: 38373554

Officer's Notes

VEHICLE 2 WAS SOUTHBOUND ON KENSINGTON AVE WITH NO TRAFFIC CONTROL DEVICES AND THE RIGHT OF WAY. VEHICLE 1, A DELIVERY TRUCK WAS WESTBOUND ATTEMPTING TO CROSSOVER KENSINGTON AVE FROM A STOP SIGN. DRIVER 1 FAILED TO YIELD THE RIGHT OF WAY FROM THE STOP SIGN AND STRUCK VEHICLE 2 CAUSING IT TO GO OFF ROAD AND STRIKE A REGULATORY SIGN ON THE WEST SIDE OF THE ROADWAY. BO VEHICLES WERE TOWED FOR DAMAGE SUSTAINED IN THE COLLISION. DRIVER 1 COMPLAINED OF A LEG INJURY BUT REFUSED TRANSPORT FOI FURTHER EVALUATION. DRIVER 2 DID NOT CLAIM INJURY AT THE SCENE. PASSENGER IN VEHICLE 2 COMPLAINED OF A HAND INJURY BUT REFU TRANSPORT FOR FURTHER EVALUATION. DRIVER 1 WAS ISSUED A SUMMONS FOR VTL VIOLATION 1142A, FAILURE TO YIELD THE RIGHT OF WA FROM A STOP SIGN. VEHICLE 1 HAD OUT OF STATE PLATES AND PRODUCED AN INSURANCE CARD FOR: NATIONAL CONTINENTAL INSURANCE COMPANY (CODE 10243) AND POLICY # 5154404. ADDITIONAL INFORMATION THAT THE VEHICLE OWNER IS A SUBSIDIARY OF ALL POINTS TRUCK AND THE FLEET MANAGER [redacted] ADDITIONAL POLICY # FOR SAME INSURANCE COMPANY IS TAD000072. - WITI [redacted]

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Page of Pages

Local Codes
RJAM99CGJ4DD
20-060755

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (7/01)

DMV COPY

DOT Case: 38620302

1.n

Accident Date (Month Day Year)	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene / Accident Reconstructed	Left Scene	Police Photos
11 / 04 / 2020	Wed	00:52	1	0	0	☐ / ☐	☐	☐ Yes ☒ No

☐ VEHICLE 1 ☐ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

[redacted]

Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code
HUZ4031	NY	VOLK 2019	4DSD	328

Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code

Ticket/Arrest Number(s):

Violation Section(s):

Ticket/Arrest Number(s):

Violation Section(s):

VEHICLE 1

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact		1	2
Box 2 - Most Damage		1	1
Enter up to three more Damage Codes	3	4	5
	1	12	2

Vehicle Towed: By UNITED To UNITED

VEHICLE 2

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

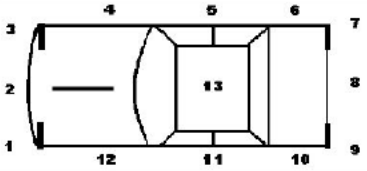
Box 1 - Point of Impact		1	2
Box 2 - Most Damage			
Enter up to three more Damage Codes	3	4	5

Vehicle Towed: By To

VEHICLE DAMAGE CODING:

1 - 13. SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Check the diagram below that describes the accident or draw your own diagram in the space provided (9). Number the vehicles.

Rear End 1.	Left Turn 3.	Right Angle	Right Turn 5.	Head On 7.
Overtaking 2.	Right Turn 0.	4.	Right Turn 6.	Sideswipe 8.

ACCIDENT DIAGRAM

9 Accident Diagram - See Attached.

9.

Cost of repairs to any one vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☒ Yes ☐ No

Reference Marker	Coordinates *(if available)*
	Latitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ERIE ☐ City ☐ Village ☒ Town of AMHERST, TOWN OF

Road on which accident occurred 2572 KENSINGTON AVE (Route Number or Street Name)

at 1) intersecting street _____ (Route Number or Street Name)

or 2) 500 Feet _____ Miles ☐N ☐E ☒S ☐W of 2573 kensington avenue (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's Notes

V1 was traveling Northbound on Kensington Avenue when the driver of V1 stated a deer abruptly ran in front of the vehicle. V1 did strike the deer however, the deer did run off. The driver of V1 was the sole occupant of the vehicle and stated he was uninjured and did not need medical attention. The vehicle was towed by United. Property damage only; minor damage.

ALL INVOLVED

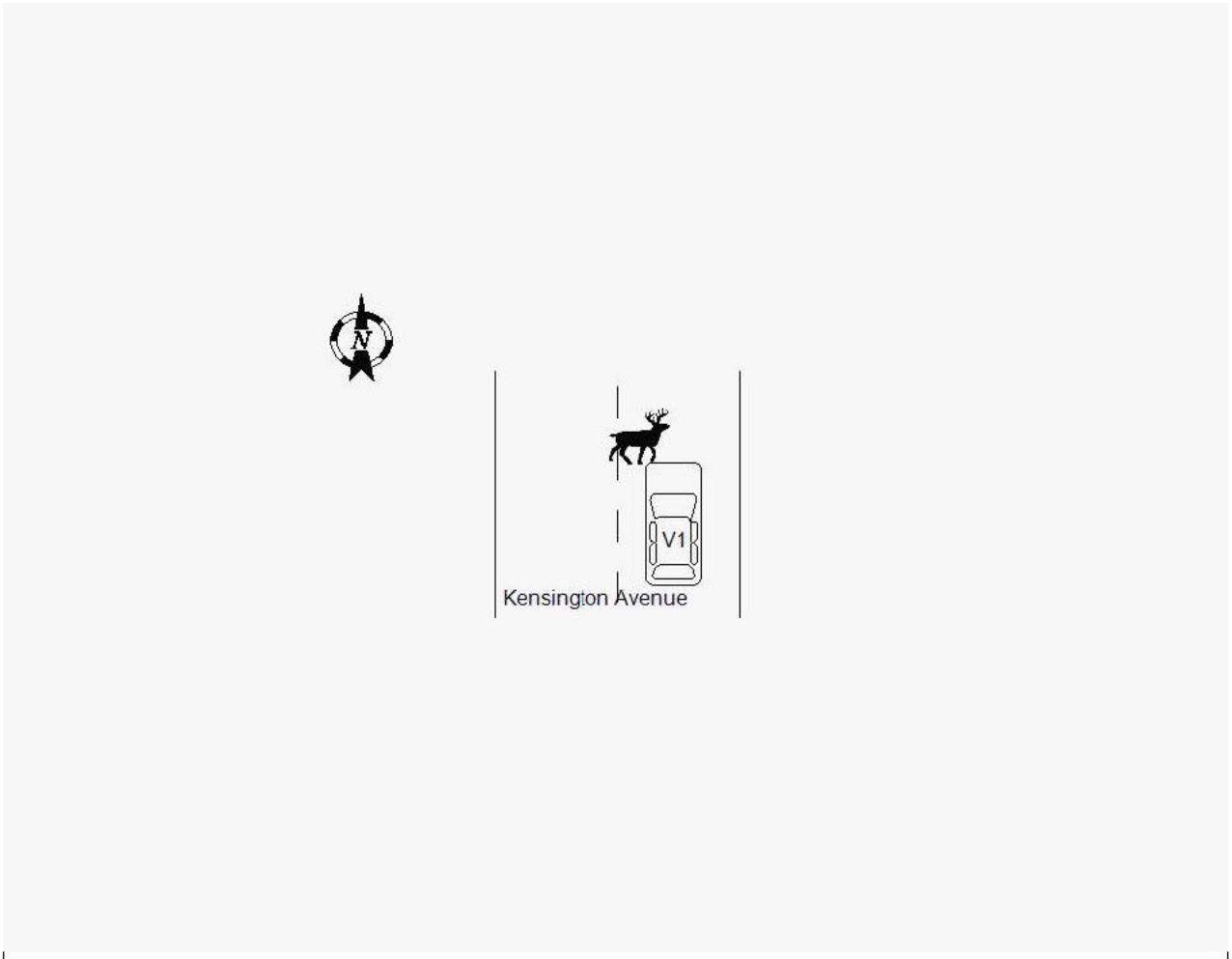
	8	9	10	11	12	13	14	15	16	17	BY	TO	18	Names of all involved	Date of Death
F	[redacted]														
G															

Officer's Rank, Name and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/ Sector	Reviewing Officer	Date/Time Reviewed
PATROL B CATIPOVIC	0050	01451	3	PTRL	CATIPOVIC, B	11 / 05 / 2020

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Local Code: RJAM99CGJ4DD Accident Date: 11 / 04 / 2020 DOT Case: 38620302

Accident Type: 9



Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Page of Pages

Local Codes: RJAM16CHK0WW / 20-062684

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (7/01)

DMV COPY

DOT Case: 38638388

1.n

Accident Date (Month Day Year)	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene / Accident Reconstructed	Left Scene	Police Photos
11 / 13 / 2020	Fri	16:21	1	2	0	☐ / ☐	☐	☐ Yes ☒ No

☐ VEHICLE 1 ☐ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

[redacted]

Ticket/Arrest Number(s)	Violation Section(s)

Ticket/Arrest Number(s)	Violation Section(s)

VEHICLE 1

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact Box 2 - Most Damage		1 2	2 2
Enter up to three more Damage Codes	3 2	4	5

Vehicle Towed: By UNITED To UNITED

VEHICLE 2

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

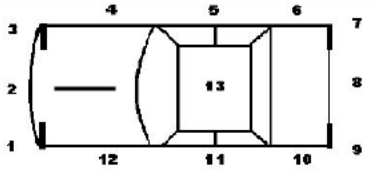
Box 1 - Point of Impact Box 2 - Most Damage		1	2
Enter up to three more Damage Codes	3	4	5

Vehicle Towed: By To

VEHICLE DAMAGE CODING:

1 - 13. SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Check the diagram below that describes the accident or draw your own diagram in the space provided (9). Number the vehicles.

Rear End 1.	Left Turn 3.	Right Angle	Right Turn 5.	Head On 7.
Overtaking 2.	Right Turn 0.	4.	Right Turn 6.	Sideswipe 8.

ACCIDENT DIAGRAM

9 Accident Diagram - See Attached.

9.

Cost of repairs to any one vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☒ Yes ☐ No

Reference Marker	Coordinates *(if available)*
	Latitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ERIE ☐ City ☐ Village ☒ Town of AMHERST, TOWN OF

Road on which accident occurred 2525 KENSINGTON HWY (Route Number or Street Name)

at 1) intersecting street _____ (Route Number or Street Name)

or 2) 50 Feet _____ Miles ☐N ☐E ☒S ☐W of BENTHAM DR (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's Notes

VEHICLE #1 WAS NORTHBOUND ON KENSINGTON HWY APPROACHING MAIN ST. THE DRIVER OF VEHICLE #1 HAD A MEDICAL EPISODE AND WENT OFF THE ROAD, CRASHING INTO A TELEPHONE POLE AND A FIRE HYDRANT. MINOR INJURIES TO BOTH OCCUPANTS. [redacted]

ALL INVOLVED

[redacted]

F																	
G																	

Officer's Rank, Name and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/ Sector	Reviewing Officer	Date/Time Reviewed
PATROL B KERN BC EJ	0077	01451		AIU	KERN, B	11 / 17 / 2020

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Local Code: RJAM16CHK0WW Accident Date: 11 / 13 / 2020 DOT Case: 38638388

Accident Type: 9



Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Page of Pages

Local Codes
RJAM04BKKF0S
20-011354

New York State Department of Motor Vehicles

POLICE ACCIDENT REPORT

MV-104A (7/01)

DMV COPY

DOT Case: 38345725

1.n

Accident Date Month Day Year	Day of Week	Military Time	No. of Vehicles	No. Injured	No. Killed	Not Investigated at Scene ☐ / Accident Reconstructed ☐	Left Scene	Police Photos
02 / 25 / 2020	Tue	07:40	2	0	0		☐	☐ Yes ☒ No

☐ VEHICLE 1 ☒ VEHICLE 2 ☐ BICYCLIST ☐ PEDESTRIAN ☐ OTHER PEDESTRIAN

[redacted]

	Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code
Vehicle 1	HAT8630	NY	CHEV 2019	SUBN	743
Vehicle 2	CGV5106	NY	DODG 2010	SUBN	743

Ticket/Arrest Number(s): Vehicle 1: AM04BKKFB0; Vehicle 2:

Violation Section(s): Vehicle 1: 1129A; Vehicle 2:

VEHICLE 1

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 1 DAMAGE CODES

Box 1 - Point of Impact		1	2
Box 2 - Most Damage		2	2
Enter up to three more Damage Codes	3	4	5
	1	3	

Vehicle Towed: By / To

VEHICLE 2

Check if involved vehicle is:
☐ more than 95 inches wide;
☐ more than 34 feet long;
☐ operated with an overweight permit;
☐ operated with an overdimension permit.

VEHICLE 2 DAMAGE CODES

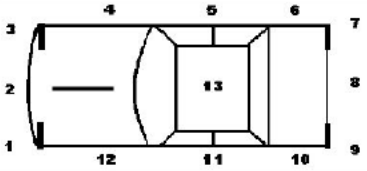
Box 1 - Point of Impact		1	2
Box 2 - Most Damage	8	8	
Enter up to three more Damage Codes	3	4	5
	9 7		

Vehicle Towed: By / To

VEHICLE DAMAGE CODING:

1 - 13. SEE DIAGRAM ON RIGHT.

14. UNDERCARRIAGE
15. TRAILER
16. OVERTURNED
17. DEMOLISHED
18. NO DAMAGE
19. OTHER



Check the diagram below that describes the accident or draw your own diagram in the space provided (9). Number the vehicles.

Rear End 1.	Left Turn 3.	Right Angle 4.	Right Turn 5.	Head On 7.
Overtaking 2.	Right Turn 0.		Right Turn 6.	Sideswipe 8.

ACCIDENT DIAGRAM

1 Rear End

9.

Cost of repairs to any one vehicle will be more than $1000.
☐ Unknown/Unable to Determine ☐ Yes ☒ No

Reference Marker	Coordinates *(if available)*
	Latitude/Northing:
	Longitude/Easting:

Place Where Accident Occurred:

County ERIE ☐ City ☐ Village ☒ Town of AMHERST, TOWN OF

Road on which accident occurred 2525 KENSINGTON AVE (Route Number or Street Name)

at 1) intersecting street BENTHAM E. (Route Number or Street Name)

or 2) ____ Feet ____ Miles ☐N ☐E ☐S ☐W of ____ (Milepost, Nearest intersecting Route Number or Street Name)

Accident Description/Officer's Notes

Vehicle #1 was traveling N/B on Kensington Ave. Vehicle #2 was slowing to stop N/B on Kensington Ave. Vehicle #1 failed to maintain a safe stopping distance ahead and collided with the rear of vehicle #2.

ALL INVOLVED

	8	9	10	11	12	13	14	15	16	17	BY	TO	18	Names of all involved	Date of Death
F	[redacted]														
G															

Officer's Rank, Name and Signature	Badge/ID No.	NCIC No.	Precinct/Post Troop/Zone	Station/Beat/ Sector	Reviewing Officer	Date/Time Reviewed
PATROLMAN W R CLOEN	0117	01451	3	1	CLOEN, W	02 / 25 / 2020

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

MV-104 (5/11) PAGE 1 of 2

FOLD → ← HERE

Use only for accidents that happen in New York State

New York State Department of Motor Vehicles

REPORT OF MOTOR VEHICLE ACCIDENT

www.dmv.ny.gov

BEFORE COMPLETING THIS FORM, READ THE INSTRUCTIONS IN SECTION A ON PAGE 2

DO NOT FORGET ACCIDENT DATE

Page 1 of 1 ☐ *RUSH* - DRIVER OF VEHICLE 1 - LICENSE SUSPENDED FOR FAILURE TO REPORT

Accident Date Month	Day	Year	Day of Week	Time	Number of Vehicles	Number Injured	Number Killed	Did police investigate accident at scene?	If "Yes", Name of Police Agency or Precinct & Accident Number
03	17	2020	TUESDAY	12:17 ☐ AM ☑ PM	2	2	0	☑ Yes ☐ No	Amherst Town PD RJAM17BMT815

DRIVER OF VEHICLE 1 ☑ VEHICLE 2 ☐ PEDESTRIAN ☐ BICYCLIST ☐ OTHER PEDESTRIAN

1 DRIVER

[redacted]

2 REGISTRANT

[redacted]

Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code	Plate Number	State of Reg.	Vehicle Year & Make	Vehicle Type	Ins. Code
JPF7857	NY	2018 Hyund	4DSD	100	CMJ5699	GA	2018 NISS	DELV	989

3 VEHICLE DAMAGE

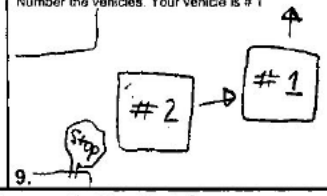
Estimated Cost of Property Damage - Vehicle 1: ☐ $1,001-$1,500 ☐ $1,501-$2,500 ☐ Over $2,500

Estimated Cost of Property Damage - Vehicle 2: ☐ $1,001-$1,500 ☐ $1,501-$2,500 ☐ Over $2,500

Describe damage to vehicle 1

Driver & Rear Left Passenger door impacted. All airbags deployed as well as interior damage along left side

ACCIDENT DIAGRAM: Circle one of the 9 diagrams (numbered 0-8) if it describes the accident, or draw your own diagram below in space #9. Number the vehicles. Your vehicle is # 1



0. Left Turn 1. Rear End 2. Sideswipe (same direction)
3. Left Turn 4. Right Angle 5. Right Turn
6. Right Turn 7. Head On 8. Sideswipe (opposite direction)

Describe damage to vehicle 2

Front fender dented. Driver airbags deployed

4 ACCIDENT LOCATION

Place Where Accident Occurred in New York State

County ERIE ☐ City ☐ Village ☑ Town of AMHERST Permanent Landmark

Road on which accident occurred Kensington Ave (Route Number or Street Name)

at ☑ 1) intersecting street Bentham Pkwy E (Route Number or Street Name)

or 2) ____ Feet ____ Miles ☐N ☐S ☐E ☐W of (Milepost, Nearest intersecting Route Number or Street Name)

How did the accident happen?

I was driving down Kensington Ave as I approached the intersection of Bentham Pkwy E the other vehicle failed to stop at the stop sign and proceeded to cross and directly hit my vehicle(T-BONE).

5 ALL INVOLVED

Names of All Persons Involved	8. Which Veh Occupied	9. Position in/on Vehicle	10. Safety Equip Used	12. Age	13. Sex	16. Injury A B C	Describe Injuries	If Deceased, Enter Date of Death
[redacted]								

6 INSURANCE

Identify Damaged Property Other Than Vehicle(s)

VIN KMHD84LF6JU447116

Name of Insurance Company That Issued Policy For Vehicle 1 Geico

Policy Number [redacted]

Name and Address Policy Holder [redacted]

Policy Period From 02/08/2020 To 08/08/2020

If Vehicle was Operated under ICC, USDOT or NYSDOT, give No. of Permit Holder

If Self-Insured, give Certificate No. and State

Date 03/20/2020 Print Name of Driver (or Representative) of Vehicle 1 [redacted]

★ A representative may sign for the driver if the driver is unable to sign because of injury or death. If you are signing as the driver's representative, check the box that describes why the driver cannot sign. ☐ Injury ☐ Death

An accident report is not considered complete and filed unless it is signed, and if not signed may result in the suspension of your driver's license.

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

TRI-STATE TRAFFIC DATA

Amherst, NY

Tuesday, June 2, 2022
Location: 42.957869, -78.768943

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022
Page No: 1

Turning Movement Data

Start Time	Kensington Ave Southbound						Bentham Pkwy E Westbound				Kensington Ave Northbound						Bentham Pkwy E Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	1	63	3	0	0	67	7	1	0	8	2	93	2	0	0	97	1	0	1	0	0	2	174
7:15 AM	1	54	5	0	0	60	15	0	0	15	1	87	1	0	0	89	2	0	5	0	0	7	171
7:30 AM	3	66	2	1	0	72	22	1	0	23	2	112	0	0	0	114	3	0	9	0	2	12	221
7:45 AM	7	85	4	0	0	96	17	2	1	20	1	125	3	0	0	129	11	1	17	0	0	29	274
Hourly Total	12	268	14	1	0	295	61	4	1	66	6	417	6	0	0	429	17	1	32	0	2	50	840
8:00 AM	5	71	6	0	0	82	9	0	1	10	3	106	2	0	0	111	3	1	4	0	0	8	211
8:15 AM	2	63	7	0	0	72	7	1	2	10	3	101	1	0	1	105	4	0	3	0	1	7	194
8:30 AM	3	61	4	0	0	68	13	1	1	15	2	110	0	0	0	112	3	1	6	0	0	10	205
8:45 AM	5	51	4	0	0	60	14	0	1	15	3	99	0	0	0	102	0	1	3	0	1	4	181
Hourly Total	15	246	21	0	0	282	43	2	5	50	11	416	3	0	1	430	10	3	16	0	2	29	791
9:00 AM	1	69	3	0	0	73	5	1	1	7	0	80	1	0	0	81	0	0	4	0	0	4	165
9:15 AM	5	40	4	0	0	49	7	0	1	8	2	64	2	0	0	68	2	0	3	0	0	5	130
9:30 AM	3	50	6	1	0	60	13	1	4	18	0	95	1	0	1	96	2	0	4	0	0	6	180
9:45 AM	9	67	2	0	0	78	6	0	3	9	2	98	0	0	0	100	1	1	3	0	1	5	192
Hourly Total	18	226	15	1	0	260	31	2	9	42	4	337	4	0	1	345	5	1	14	0	1	20	667
10:00 AM	3	43	7	0	0	53	13	0	3	16	2	64	0	0	1	66	2	0	1	0	0	3	138
10:15 AM	5	56	7	0	0	68	4	0	0	4	3	56	1	0	1	60	2	0	3	0	0	5	137
10:30 AM	4	58	4	0	0	66	11	2	2	15	1	64	1	0	0	66	0	1	4	0	2	5	152
10:45 AM	4	66	11	0	0	81	11	0	1	12	0	81	0	0	1	81	0	0	3	0	0	3	177
Hourly Total	16	223	29	0	0	268	39	2	6	47	6	265	2	0	3	273	4	1	11	0	2	16	604
11:00 AM	6	57	5	0	1	68	7	0	1	8	3	58	1	0	0	62	1	0	3	0	2	4	142
11:15 AM	1	49	11	0	0	61	7	0	0	7	1	74	0	0	0	75	2	1	4	0	0	7	150
11:30 AM	2	50	6	0	0	58	11	0	1	12	3	90	0	0	0	93	0	1	3	0	0	4	167
11:45 AM	2	46	5	0	0	53	11	1	2	14	2	49	0	0	0	51	0	0	6	0	0	6	124
Hourly Total	11	202	27	0	1	240	36	1	4	41	9	271	1	0	0	281	3	2	16	0	2	21	583
12:00 PM	1	70	6	0	0	77	2	1	1	4	0	70	0	0	0	70	1	2	2	0	0	5	156
12:15 PM	0	70	7	0	0	77	12	0	3	15	1	68	0	0	0	69	0	0	4	0	1	4	165
12:30 PM	11	71	11	0	0	93	9	2	1	12	1	79	0	0	0	80	1	0	6	0	0	7	192
12:45 PM	6	67	10	0	0	83	11	1	1	13	1	72	1	0	0	74	2	0	1	0	0	3	173
Hourly Total	18	278	34	0	0	330	34	4	6	44	3	289	1	0	0	293	4	2	13	0	1	19	686
1:00 PM	5	64	7	0	0	76	8	1	3	12	1	75	1	0	0	77	3	0	2	0	0	5	170
1:15 PM	7	69	9	0	1	85	9	0	0	9	2	86	0	0	1	88	4	2	7	0	1	13	195
1:30 PM	1	73	5	0	0	79	13	0	2	15	2	92	1	0	1	95	1	0	0	0	2	1	190
1:45 PM	5	64	9	0	0	78	9	1	1	11	3	81	4	0	0	88	3	1	1	0	0	5	182
Hourly Total	18	270	30	0	1	318	39	2	6	47	8	334	6	0	2	348	11	3	10	0	3	24	737
2:00 PM	2	84	9	0	0	95	7	0	2	9	0	87	2	0	0	89	6	3	6	0	0	15	208
2:15 PM	7	82	8	1	0	98	8	1	1	10	1	67	4	0	0	72	2	0	9	0	3	11	191
2:30 PM	6	80	14	0	0	100	7	0	2	9	3	71	3	0	0	77	2	0	5	0	0	7	193
2:45 PM	3	92	7	0	0	102	6	1	2	9	2	80	2	0	2	84	3	0	4	0	2	7	202
Hourly Total	18	338	38	1	0	395	28	2	7	37	6	305	11	0	2	322	13	3	24	0	5	40	794
3:00 PM	4	103	12	0	0	119	7	2	4	13	0	71	1	0	0	72	1	2	4	0	0	7	211
3:15 PM	3	127	12	0	0	142	12	0	0	12	1	94	2	0	1	97	2	1	4	0	1	7	258
3:30 PM	2	126	20	0	1	148	10	0	4	14	1	100	3	0	1	104	3	0	4	0	0	7	273
3:45 PM	6	119	12	1	0	138	8	0	0	8	2	128	1	0	0	131	6	2	2	0	3	10	287
Hourly Total	15	475	56	1	1	547	37	2	8	47	4	393	7	0	2	404	12	5	14	0	4	31	1029
4:00 PM	2	89	10	0	0	101	10	0	1	11	1	140	3	0	0	144	1	2	3	0	0	6	262
4:15 PM	1	92	14	0	0	107	7	1	1	9	0	144	1	0	1	145	1	0	4	0	1	5	266
4:30 PM	1	103	9	0	0	113	13	0	2	15	3	171	0	0	0	174	1	1	6	0	1	8	310
4:45 PM	6	100	11	0	0	117	12	1	0	13	2	140	1	0	0	143	3	0	5	0	2	8	281
Hourly Total	10	384	44	0	0	438	42	2	4	48	6	595	5	0	1	606	6	3	18	0	4	27	1119
5:00 PM	3	99	14	0	1	116	12	0	2	14	1	153	0	0	0	154	6	0	6	0	2	12	296
5:15 PM	1	123	9	0	0	133	8	1	2	11	1	104	2	0	0	107	2	1	5	0	1	8	259
5:30 PM	1	94	7	1	0	103	13	0	1	14	1	98	2	0	0	101	0	2	2	0	0	4	222
5:45 PM	3	73	12	0	0	88	9	2	2	13	2	79	3	0	0	84	0	2	3	0	0	5	190
Hourly Total	8	389	42	1	1	440	42	3	7	52	5	434	7	0	0	446	8	5	16	0	3	29	967
6:00 PM	3	77	13	0	0	93	8	0	0	8	1	84	0	0	0	85	0	1	3	0	0	4	190
6:15 PM	3	80	7	0	0	90	16	0	2	18	0	69	0	0	2	69	1	0	4	0	0	5	182
6:30 PM	0	76	2	0	1	78	8	0	0	8	3	63	2	0	0	68	0	0	5	0	0	5	159
6:45 PM	4	75	11	0	0	90	6	0	1	7	0	61	1	0	0	62	3	0	2	0	0	5	164
Hourly Total	10	308	33	0	1	351	38	0	3	41	4	277	3	0	2	284	4	1	14	0	0	19	695

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Grand Total	169	3607	383	5	5	4164	470	26	66	562	72	4333	56	0	14	4461	97	30	198	0	29	325	9512
Approach %	4.1	86.6	9.2	0.1	-	-	83.6	4.6	11.7	-	1.6	97.1	1.3	0.0	-	-	29.8	9.2	60.9	0.0	-	-	-
Total %	1.8	37.9	4.0	0.1	-	43.8	4.9	0.3	0.7	5.9	0.8	45.6	0.6	0.0	-	46.9	1.0	0.3	2.1	0.0	-	3.4	-
Motorcycles	0	6	0	0	-	6	1	0	0	1	0	8	0	0	-	8	0	0	0	0	-	0	15
% Motorcycles	0.0	0.2	0.0	0.0	-	0.1	0.2	0.0	0.0	0.2	0.0	0.2	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.2
Cars & Light Goods	167	3543	374	5	-	4089	455	22	58	535	64	4249	55	0	-	4368	89	27	189	0	-	305	9297
% Cars & Light Goods	98.8	98.2	97.7	100.0	-	98.2	96.8	84.6	87.9	95.2	88.9	98.1	98.2	-	-	97.9	91.8	90.0	95.5	-	-	93.8	97.7
Other Vehicles	2	58	9	0	-	69	14	4	8	26	8	76	1	0	-	85	8	3	9	0	-	20	200
% Other Vehicles	1.2	1.6	2.3	0.0	-	1.7	3.0	15.4	12.1	4.6	11.1	1.8	1.8	-	-	1.9	8.2	10.0	4.5	-	-	6.2	2.1
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	20.0	-	-	-	-	-	-	-	-	-	28.6	-	-	-	-	-	6.9	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	27	-	-
% Pedestrians	-	-	-	-	80.0	-	-	-	-	-	-	-	-	-	71.4	-	-	-	-	-	93.1	-	-

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

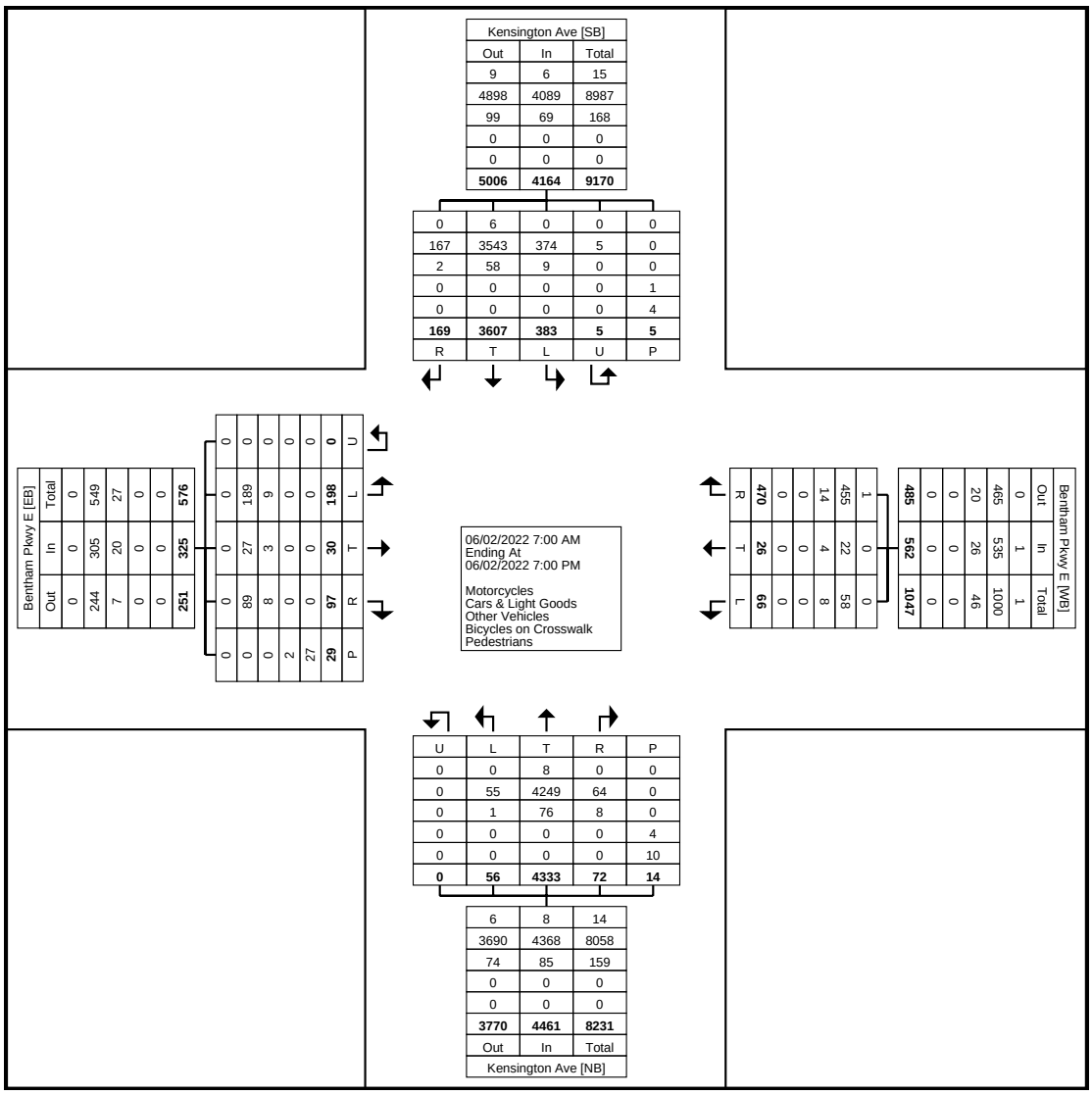
Amherst, NY

Tuesday, June 2, 2022
Location: 42.957869, -78.768943

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022
Page No: 3



Turning Movement Data Plot

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Amherst, NY

Tuesday, June 2, 2022
Location: 42.957869, -78.768943

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Kensington Ave Southbound						Bentham Pkwy E Westbound				Kensington Ave Northbound						Bentham Pkwy E Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:30 AM	3	66	2	1	0	72	22	1	0	23	2	112	0	0	0	114	3	0	9	0	2	12	221
7:45 AM	7	85	4	0	0	96	17	2	1	20	1	125	3	0	0	129	11	1	17	0	0	29	274
8:00 AM	5	71	6	0	0	82	9	0	1	10	3	106	2	0	0	111	3	1	4	0	0	8	211
8:15 AM	2	63	7	0	0	72	7	1	2	10	3	101	1	0	1	105	4	0	3	0	1	7	194
Total	17	285	19	1	0	322	55	4	4	63	9	444	6	0	1	459	21	2	33	0	3	56	900
Approach %	5.3	88.5	5.9	0.3	-	-	87.3	6.3	6.3	-	2.0	96.7	1.3	0.0	-	-	37.5	3.6	58.9	0.0	-	-	-
Total %	1.9	31.7	2.1	0.1	-	35.8	6.1	0.4	0.4	7.0	1.0	49.3	0.7	0.0	-	51.0	2.3	0.2	3.7	0.0	-	6.2	-
PHF	0.607	0.838	0.679	0.250	-	0.839	0.625	0.500	0.500	0.685	0.750	0.888	0.500	0.000	-	0.890	0.477	0.500	0.485	0.000	-	0.483	0.821
Motorcycles	0	1	0	0	-	1	1	0	0	1	0	1	0	0	-	1	0	0	0	0	-	0	3
% Motorcycles	0.0	0.4	0.0	0.0	-	0.3	1.8	0.0	0.0	1.6	0.0	0.2	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.3
Cars & Light Goods	17	274	19	1	-	311	54	2	4	60	6	432	6	0	-	444	21	2	33	0	-	56	871
% Cars & Light Goods	100.0	96.1	100.0	100.0	-	96.6	98.2	50.0	100.0	95.2	66.7	97.3	100.0	-	-	96.7	100.0	100.0	100.0	-	-	100.0	96.8
Other Vehicles	0	10	0	0	-	10	0	2	0	2	3	11	0	0	-	14	0	0	0	0	-	0	26
% Other Vehicles	0.0	3.5	0.0	0.0	-	3.1	0.0	50.0	0.0	3.2	33.3	2.5	0.0	-	-	3.1	0.0	0.0	0.0	-	-	0.0	2.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

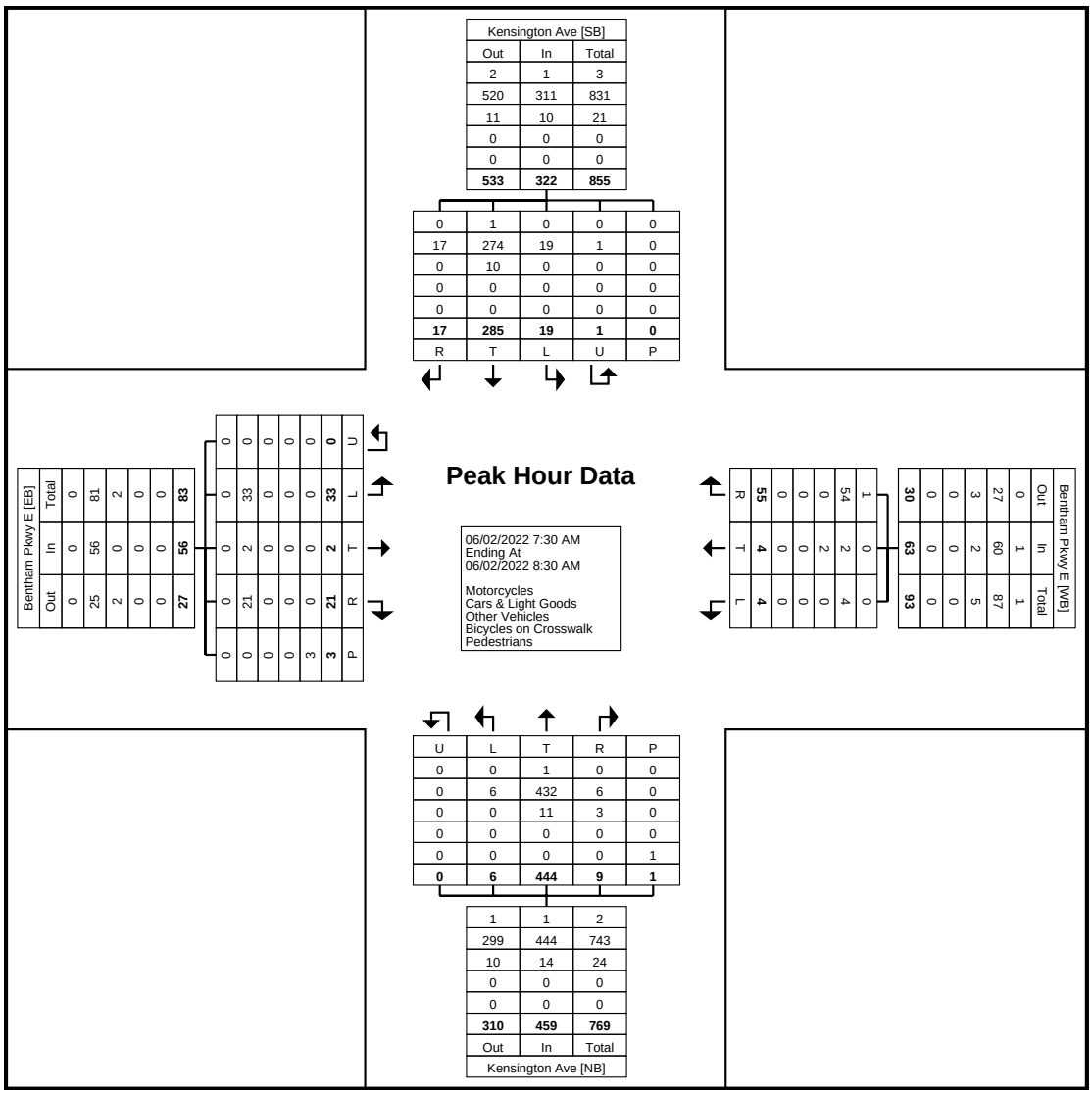
Amherst, NY

Tuesday, June 2, 2022
Location: 42.957869, -78.768943

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022



Turning Movement Peak Hour Data Plot (7:30 AM)

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

Amherst, NY

Tuesday, June 2, 2022
Location: 42.957869, -78.768943

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022

Turning Movement Peak Hour Data (4:15 PM)

Start Time	Kensington Ave Southbound						Bentham Pkwy E Westbound				Kensington Ave Northbound						Bentham Pkwy E Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:15 PM	1	92	14	0	0	107	7	1	1	9	0	144	1	0	1	145	1	0	4	0	1	5	266
4:30 PM	1	103	9	0	0	113	13	0	2	15	3	171	0	0	0	174	1	1	6	0	1	8	310
4:45 PM	6	100	11	0	0	117	12	1	0	13	2	140	1	0	0	143	3	0	5	0	2	8	281
5:00 PM	3	99	14	0	1	116	12	0	2	14	1	153	0	0	0	154	6	0	6	0	2	12	296
Total	11	394	48	0	1	453	44	2	5	51	6	608	2	0	1	616	11	1	21	0	6	33	1153
Approach %	2.4	87.0	10.6	0.0	-	-	86.3	3.9	9.8	-	1.0	98.7	0.3	0.0	-	-	33.3	3.0	63.6	0.0	-	-	-
Total %	1.0	34.2	4.2	0.0	-	39.3	3.8	0.2	0.4	4.4	0.5	52.7	0.2	0.0	-	53.4	1.0	0.1	1.8	0.0	-	2.9	-
PHF	0.458	0.956	0.857	0.000	-	0.968	0.846	0.500	0.625	0.850	0.500	0.889	0.500	0.000	-	0.885	0.458	0.250	0.875	0.000	-	0.688	0.930
Motorcycles	0	1	0	0	-	1	0	0	0	0	0	2	0	0	-	2	0	0	0	0	-	0	3
% Motorcycles	0.0	0.3	0.0	-	-	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.3
Cars & Light Goods	11	388	47	0	-	446	42	2	5	49	6	604	2	0	-	612	10	1	21	0	-	32	1139
% Cars & Light Goods	100.0	98.5	97.9	-	-	98.5	95.5	100.0	100.0	96.1	100.0	99.3	100.0	-	-	99.4	90.9	100.0	100.0	-	-	97.0	98.8
Other Vehicles	0	5	1	0	-	6	2	0	0	2	0	2	0	0	-	2	1	0	0	0	-	1	11
% Other Vehicles	0.0	1.3	2.1	-	-	1.3	4.5	0.0	0.0	3.9	0.0	0.3	0.0	-	-	0.3	9.1	0.0	0.0	-	-	3.0	1.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)

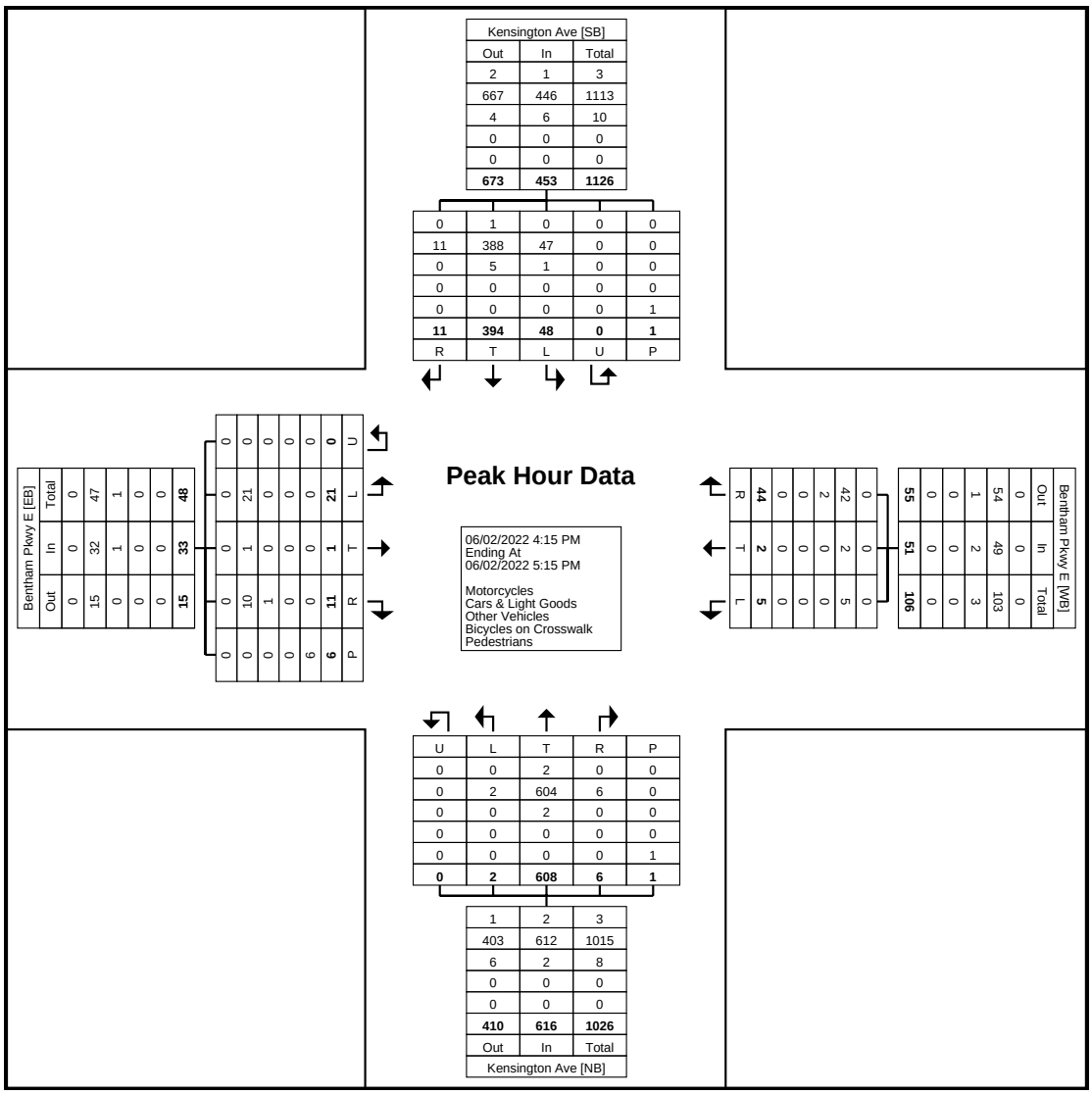
Amherst, NY

Tuesday, June 2, 2022
Location: 42.957869, -78.768943

Tri-State Traffic Data: New York Division
184 Baker Rd

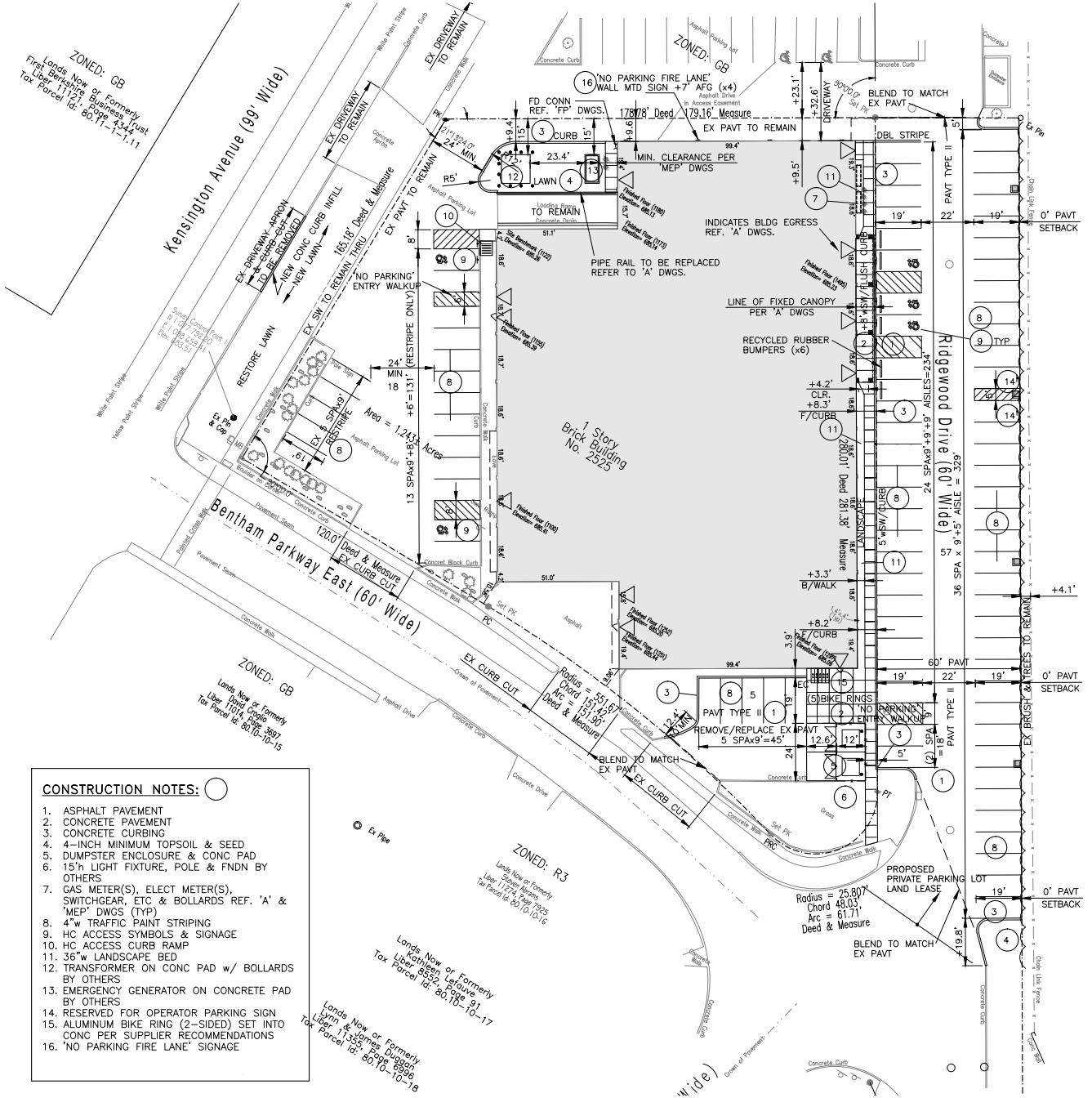
Coatesville , Pennsylvania, United States 19320
610-517-2338 jimvetterlein@gmail.com

Count Name: Kensington Ave/Bentham Pkwy E
Site Code:
Start Date: 06/02/2022



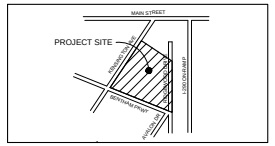
Turning Movement Peak Hour Data Plot (4:15 PM)

Attachment: SP-2022-02 applicaiton 042023 (25490 : Sp-2022-02)



CONSTRUCTION NOTES:

1. ASPHALT PAVEMENT
2. CONCRETE PAVEMENT
3. CONCRETE CURBING
4. 4–INCH MINIMUM TOPSOIL & SEED
5. DUMPSTER ENCLOSURE & CONC PAD
6. 15'h LIGHT FIXTURE, POLE & FNDN BY OTHERS
7. GAS METER(S), ELECT METER(S), SWITCHGEAR, ETC & BOLLARDS REF. 'A' & 'MEP' DWGS (TYP)
8. 4"w TRAFFIC PAINT STRIPING
9. HC ACCESS SYMBOLS & SIGNAGE
10. HC ACCESS CURB RAMP
11. 36"w LANDSCAPE BED
12. TRANSFORMER ON CONC PAD w/ BOLLARDS BY OTHERS
13. EMERGENCY GENERATOR ON CONCRETE PAD BY OTHERS
14. RESERVED FOR OPERATOR PARKING SIGN
15. ALUMINUM BIKE RING (2–SIDED) SET INTO CONC PER SUPPLIER RECOMMENDATIONS
16. 'NO PARKING FIRE LANE' SIGNAGE



SITE LOCATION MAP

SITE LAYOUT PLAN

1" = 20'

N

SITE DATA

CURRENT ZONING: GB

PARCEL AREA: +1.24 ACRES (AC)

TOTAL AREA OF DISTURBANCE (INCL R.O.W.): 22,000SF~0.51AC

NEW PARKING LOT LICENSED AREA: 19636SF ~0.45 AC

INTERIOR GREENSPACE: 984SF (5.5% OF NEW PARKING LOT)

ANTICIPATED AVERAGE DAILY SEWER LOADING: 1120 GPD
OFFICES/DAY SCHOOL: (30 EMPLx15 GPD)+(52 STUDENTSx10 GPD = 450+520 =970 GPD
RETAIL/WAREHOUSE PER EMPLOYEE: (10 EMPLx15 GPD)= 150 GPD

PARKING DATA

SPACES REQUIRED BY NET SF, 2–STY (MEZZ), MULT–TENANT (75% OF GROSS SF), GENERAL OFFICE, RETAIL/WAREHOUSE USES:

GENERAL OFFICE: 15995NSF (INCLUDES MEZZ) x1/200NSF=80;
RETAIL AT >2000SF<25000SF: 5763NSFx 5.5/1000NSF=32;
WAREHOUSE: 12019NSFx 1= 12

TOTAL CAR–PARKS REQUIRED = 80+32+12=124
ACCESSIBLE SPA REQUIRED = CAR–PARKS/25=124/25=5

SPACES PROVIDED OFF–SITE:	60
SPACES PROVIDED ON–SITE:	23
TOTAL SPACES:	83
REGULAR:	78
ACCESSIBLE:	5

REFER TO ALTERNATE PARKING PLAN PROVIDED UNDER SEPARATE COVER

NOTES:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON THIS DRAWING IS FOR INFORMATION ONLY. REFER TO SURVEY(S) PROVIDED BY NIAGARA BOUNDARY & MAPPING JOB No 11187–21, DATED 6/2021.
2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES, AND UTILITY CONNECTIONS.
3. SITE LIGHTING, POWER AND GAS LINES ARE SHOWN FOR INFORMATION ONLY, AND ARE NOT DESIGNED BY TREDO ENGINEERS.
4. A KNOX BOX KEY HOLDER SHALL BE LOCATED AT THE BUILDING MAIN ENTRANCE.
5. THE BUILDING SHALL CONTAIN A SPRINKLER FIRE–PROTECTION SYSTEM.

1.0

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716 . 876 . 7147

PETRILLI ENGINEERING PC
STRUCTURAL ENGINEERS
716 . 854 . 3508

BUFFALO ENGINEERING, PC
MEP AND CIVIL ENGINEERS
716 . 633 . 3300

SHATKIN SCHOOL OF DENTISTRY AT DAEMEN COLLEGE / INSTITUTE FOR MOBILITY AND TECHNOLOGY

2525 KENSINGTON AVENUE, AMHERST NY

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REVISIONS	
2: REVISED	4/19/
3: REVISED	9/19/
4: REVISED	1/23/
DRAWN BY	CHECKED BY
avm	AVM
SCALE	AS NOTED
DATE	Feb 22, 2022

SITE LAYOUT PLAN

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

KOHLER®

Model: 200REOZJF

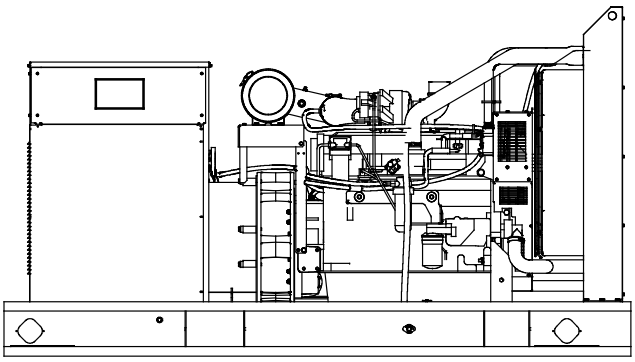
208- 600 V **Diesel**

ISO 9001 KOHLER® NATIONALLY REGISTERED

Tier 3 EPA-Certified for Stationary Emergency Applications

Ratings Range

		60 Hz
Standby:	**kW**	168- 200
	kVA	195- 250
Prime:	**kW**	158- 180
	kVA	175- 225



Generator Set Ratings

Alternator	Voltage	Ph	Hz	130°C Rise Standby Rating kW/kVA	130°C Rise Standby Rating Amps	105°C Rise Prime Rating kW/kVA	105°C Rise Prime Rating Amps
4S13X	120/208	3	60	184/230	638	173/216	600
	127/220	3	60	194/243	636	180/225	590
	120/240	3	60	184/230	553	173/216	520
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	168/210	319	158/198	300
	277/480	3	60	200/250	301	180/225	271
4UA9	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217
4UA13	120/208	3	60	200/250	694	180/225	625
	127/220	3	60	200/250	656	180/225	590
	120/240	3	60	200/250	601	180/225	541
	120/240	1	60	195/195	813	175/175	729
	139/240	3	60	200/250	601	180/225	541
	220/380	3	60	200/250	380	180/225	342
	277/480	3	60	200/250	301	180/225	271
	347/600	3	60	200/250	241	180/225	217

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
  - The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
    (4S13X alternator)
  - The unique Fast-Response® II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
    (4UA9 and 4UA13 alternators)
  - The brushless, rotating-field alternator has broadrange reconnectability.
- Other features:
  - Kohler designed controllers for one-source system integration and remote communication. See Controllers on page 3.
  - The low coolant level shutdown prevents overheating (standard on radiator models only).
  - Integral vibration isolation eliminates the need for under-unit vibration spring isolators.
- Multiple circuit breaker configurations.
- Mount up to three circuit breakers to allow circuit protection of selected priority loads.

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. *Standby Ratings:* The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. *Prime Power Ratings:* At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet
Leads: quantity, type	
4SX, 4UA	12, Reconnectable
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

Specifications		Alternator
Peak motor starting kVA:		(35% dip for voltages below)
480 V	4S13X (12 lead)	570
480 V	4UA9 (12 lead)	700
480 V	4UA13 (12 lead)	960

Application Data

Engine

Engine Specifications	
Manufacturer	John Deere
Engine model	6068HFG85A
Engine type	4-Cycle, Turbocharged, Charge Air-Cooled
Cylinder arrangement	6 Inline
Displacement, L (cu. in.)	6.8 (415)
Bore and stroke, mm (in.)	106 x 127 (4.19 x 5.00)
Compression ratio	17.0:1
Piston speed, m/min. (ft./min.)	457 (1500)
Main bearings: quantity, type	7, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	235 (315)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Valve material:	
Intake	Chromium-Silicon Steel
Exhaust	Stainless Steel
Governor: type, make/model	JDEC Electronic L14 Denso HP3
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m^3/min. (cfm)	42.8 (1510)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	527 (980)
Maximum allowable back pressure, kPa (in. Hg)	Min. 4 (1.2) Max. 10 (3.0)
Exhaust outlet size at engine hookup, mm (in.)	98 (3.86)

Engine Electrical

Engine Electrical System	
Battery charging alternator:	24 Volt
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	45
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each	Two, 925
Battery voltage (DC)	12

Fuel

Fuel System	
Fuel supply line, min. ID, mm (in.)	11.0 (0.44)
Fuel return line, min. ID, mm (in.)	6.0 (0.25)
Max. lift, fuel pump: type, m (ft.)	Mechanical, 1.8 (6.0)
Max. fuel flow, Lph (gph)	92.7 (24.5)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel prime pump	Manual
Fuel filter	
Primary	30 Microns
Secondary	2 Microns @ 98% Efficiency
Water Separator	Yes
Recommended fuel	#2 Diesel

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.) §	32.5 (34.4)
Oil pan capacity with filter, L (qt.) §	33.4 (35.3)
Oil filter: quantity, type §	1, Cartridge
Oil cooler	Water-Cooled

§ Kohler recommends the use of Kohler Genuine oil and filters.

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

Application Data

Cooling

Radiator System	
Ambient temperature, °C (°F) *	50 (122)
Engine jacket water capacity, L (gal.)	11.3 (3.0)
Radiator system capacity, including engine, L (gal.)	27.6 (7.3)
Engine jacket water flow, Lpm (gpm)	230.9 (61)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	94.2 (5360)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	56.1 (3190)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	787 (31)
Fan, kWm (HP)	8.6 (11.5)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H_2O)	0.125 (0.5)

* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

Operation Requirements

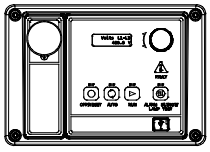
Air Requirements	
Radiator-cooled cooling air, m^3/min. (scfm)‡	368.1 (13000)
Combustion air, m^3/min. (cfm)	17.6 (620)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	46.9 (2670)
Alternator, kW (Btu/min.)	18.5 (1050)

‡ Air density = 1.20 kg/m^3 (0.075 lbm/ft^3)

Fuel Consumption

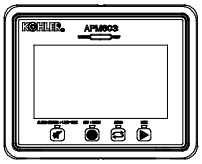
Diesel, Lph (gph) at % load	Standby Rating	
100%	58.0	(15.3)
75%	43.3	(11.4)
50%	31.4	(8.3)
25%	19.7	(5.2)
Diesel, Lph (gph) at % load	**Prime Rating**	
100%	50.1	(13.2)
75%	36.1	(9.5)
50%	25.7	(6.8)
25%	16.6	(4.4)

Controllers



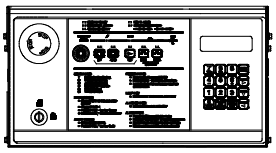
APM402 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-161 for additional controller features and accessories.



APM603 Controller
Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.
- 7-inch graphic display with touch screen and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other APM603 controllers only
- Generator management to turn paralleled generators off and on as required by load demand
- Load management to connect and disconnect loads as required
- Controller supports Modbus® RTU, Modbus® TCP, SNMP and BACnet®
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- UL-listed overcurrent protective device
- NFPA 110 Level 1 capability

Refer to G6-162 for additional controller features and accessories.



Decision-Maker® 6000 Paralleling Controller
Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
  Note: Parallel with other Decision-Maker® 6000 controllers only
- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-107 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.

BACnet® is a registered trademark of ASHRAE.

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

KOHLER

KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-457-4441, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KOHLERPower.com

Standard Features

- Alternator Protection
- Battery Rack and Cables
- Customer Connection (standard with Decision-Maker® 6000 controller only)
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

Available Options

Circuit Breakers

Type

- ❑ Magnetic Trip
- ❑ Thermal Magnetic Trip
- ❑ Electronic Trip (LI)
- ❑ Electronic Trip with Short Time (LSI)
- ❑ Electronic Trip with Ground Fault (LSIG)

Rating

- ❑ 80%
- ❑ 100%

Operation

- ❑ Manual
- ❑ Electrically Operated (for paralleling)

Circuit Breaker Mounting

- ❑ Generator Mounted
- ❑ Remote Mounted
- ❑ Bus Bar (for remote mounted breakers)

Enclosures for Remote Mounted Circuit Breakers

- ❑ NEMA 1
- ❑ NEMA 3R

Approvals and Listings

- ❑ California OSHPD Pre- Approval
- ❑ CSA Certified
- ❑ IBC Seismic Certification
- ❑ UL 2200 Listing
- ❑ Hurricane Rated Enclosure

Enclosed Unit

- ❑ Sound Enclosure (with enclosed critical silencer)
- ❑ Weather Enclosure (with enclosed critical silencer)

Open Unit

- ❑ Exhaust Silencer, Critical (kit: PA-354809)
- ❑ Flexible Exhaust Connector, Stainless Steel

Fuel System

- ❑ Flexible Fuel Lines
- ❑ Fuel Pressure Gauge
- ❑ Subbase Fuel Tanks

Controller

- ❑ Common Failure Relay (Decision-Maker® 6000 and APM603 controllers only)
- ❑ Decision-Maker® Paralleling System (DPS) (Decision-Maker® 6000 controller only)
- ❑ Dry Contact (isolated alarm) (Decision-Maker® 6000 controller only)
- ❑ Two Input/Five Output Module (APM402 controller only)
- ❑ Four Input/Fifteen Output Module (APM603 controller only)
- ❑ Lockable Emergency Stop Switch
- ❑ Remote Emergency Stop Switch
- ❑ Remote Serial Annunciator Panel
- ❑ Run Relay (standard with APM603, optional with others)
- ❑ Manual Key Switch (APM603 controller only)
- ❑ Manual Speed Adjust (APM402 controller only)

Cooling System

- ❑ Block Heater, 1800 W, 90- 120 V, 1 Ph
- ❑ Block Heater, 2000 W, 190- 240 V, 1 Ph Required for ambient temperature below 0°C (32°F)
- ❑ Radiator Duct Flange

Electrical System

- ❑ Generator Heater
- ❑ Battery
- ❑ Battery Charger, Equalize/Float Type
- ❑ Battery Heater

Miscellaneous

- ❑ Air Cleaner, Heavy Duty
- ❑ Air Cleaner Restriction Indicator
- ❑ Certified Test Report
- ❑ Crankcase Emissions Canister
- ❑ Engine Fluids Added
- ❑ Rated Power Factor Testing
- ❑ Rodent Guards

Literature

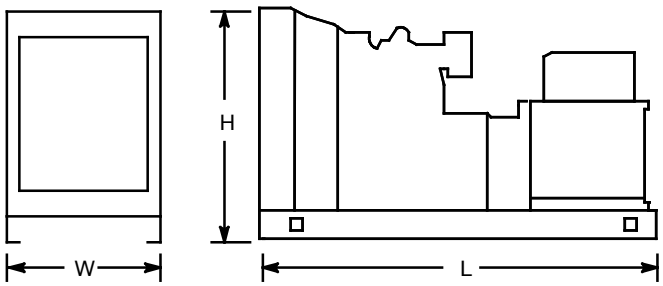
- ❑ General Maintenance
- ❑ NFPA 110
- ❑ Overhaul
- ❑ Production

Warranty

- ❑ 2-Year Basic Limited Warranty
- ❑ 5-Year Basic Limited Warranty
- ❑ 5-Year Comprehensive Limited Warranty

Dimensions and Weights

Overall Size, L x W x H, mm (in.):	3000 x 1300 x 1672 (118.1 x 51.2 x 65.8)
Weight (radiator model), wet, kg (lb.):	1923 (4240)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

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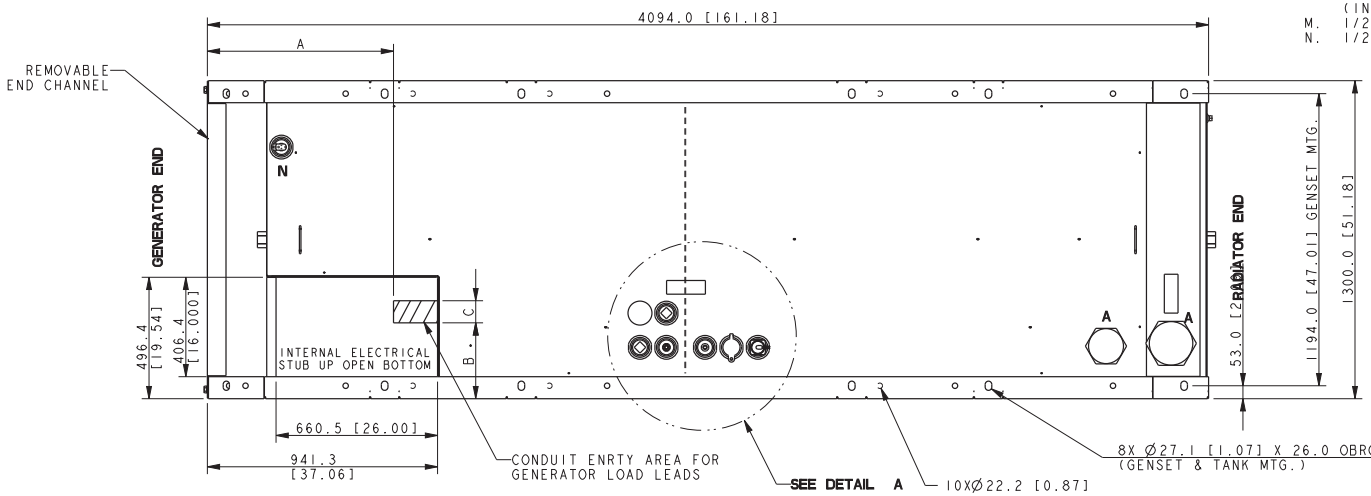
Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

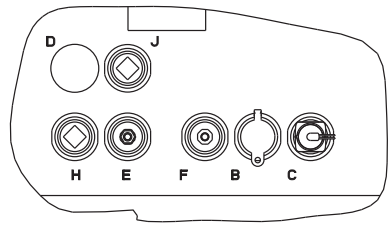
MODEL	CAPACITY		WEIGHT		HEIGHT		F-Vent	
	LITERS	GAL	KG	LBS	MM	IN	SIZE (IN)	QTY
80/200kW	1514	400	933	2057	482.6	19.0	4.0	2.0
80/200kW	2871	758	1327	2926	889.0	35.0	5.0	2.0

TANK FITTINGS:

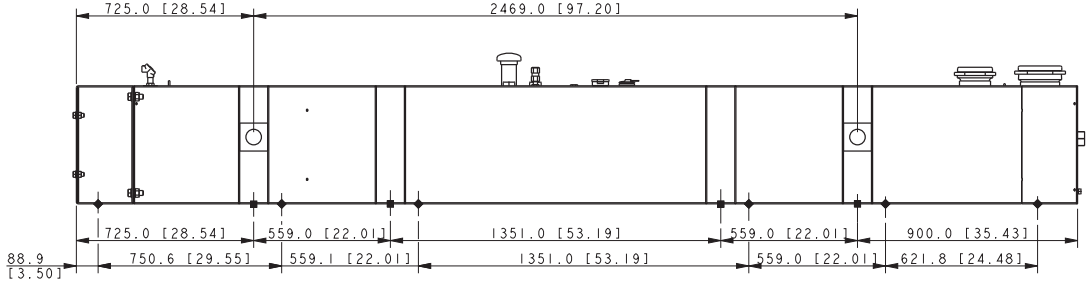
A. 'A' NPT EMERGENCY VENT FITTING PER NFPA 30 WITH VENT CAP
B. 2" NPT FUEL FILL FITTING WITH LOCKABLE CAP
C. 2" NPT FUEL LEVEL GAUGE FITTING
D. 2" NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 5" RISER
E. 2" NPT FITTING FOR REMOVABLE ENGINE SUPPLY DIP TUBE (3/8" NPT FEMALE WITH CHECK VALVE)
F. 2" NPT FITTING FOR REMOVABLE FUEL RETURN DIP TUBE (3/8" NPT FEMALE
H. 2" NPT FOR LOW LEVEL SWITCH (SET AT 50% FULL, SILICONE PACKED)
J. 2" NPT ADDITIONAL FITTING FOR OPTIONAL ACCESSORY (INSTALL STEEL 2" NPT PIPE PLUG)
M. 1/2" NPT BASIN DRAIN (INSTALL STEEL 1/2" NPT PIPE PLUG)
N. 1/2" NPT FOR FUEL IN BASIN SWITCH (INSTALL STEEL 1/2" NPT PIPE PLU(

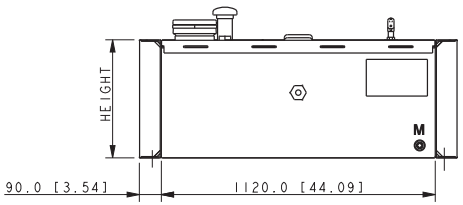
1.0





DETAIL A
SCALE 0.20





■ 8XØ25.4 [1.0] STANDARD MOUNTING
◆ 12XØ22.2 [0.88] IBC/WINDLOAD MOUNTING

GENSET	A	B	C
180KW	761 [30.0]	310 [12.2]	90 [3.5]
200KW	561 [22.1]	303 [11.9]	100 [3.9]

STANDARD TANK

180 MODEL 60HZ 4S15, 4S12X & 4S13X
200 MODEL 4UA9, 4UA13 & 4S13X
RECONNECTABLE
IMPROVED MOTOR STARTING (IMS) &
600V ALTERNATOR
JOHN DEERE 6068HF485, TIER III

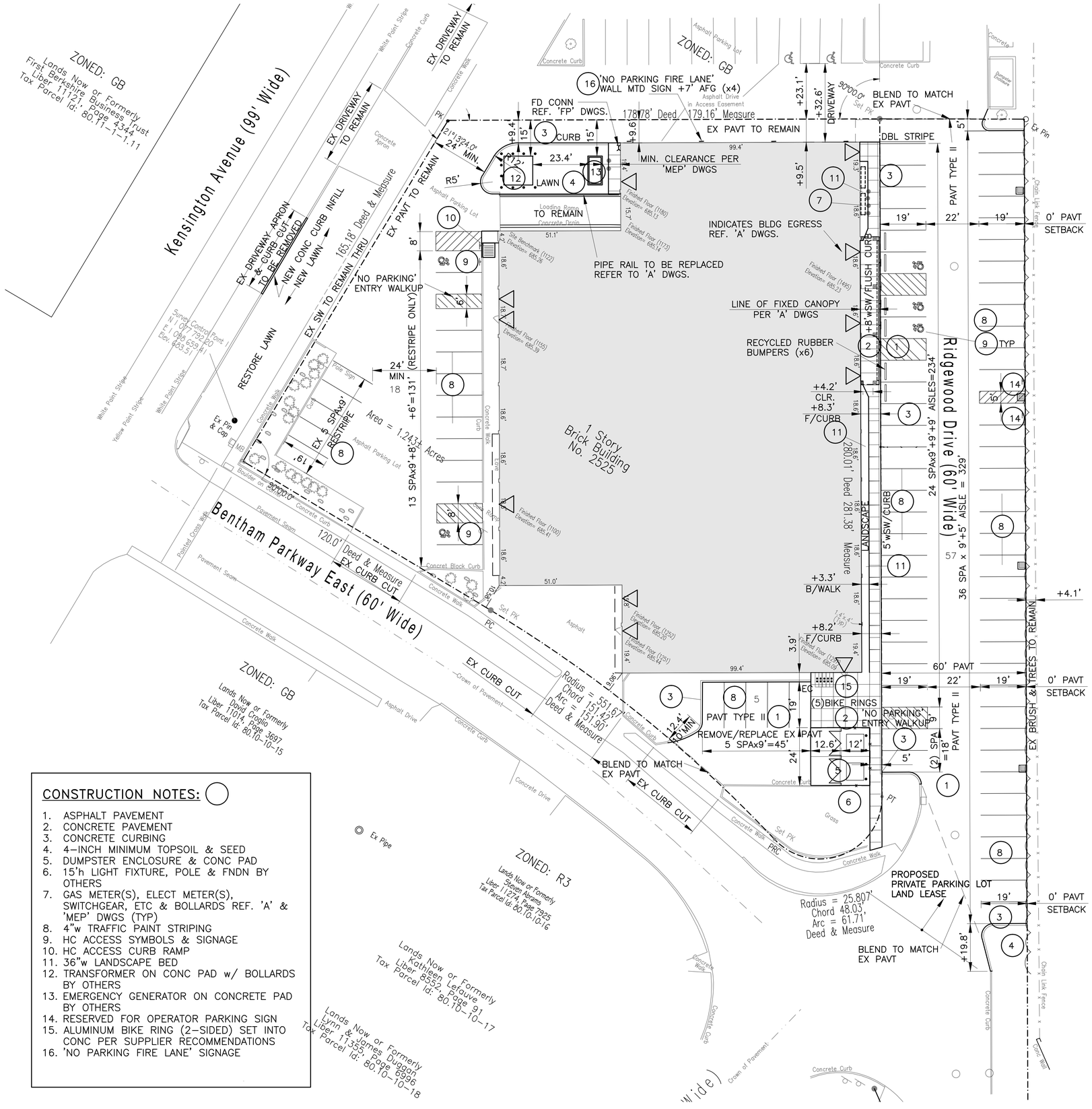
REV	DATE	ON COMPOSITE DWGS, SEE PART NO. FOR REVISION LEVEL	BY
F	08-11-14	(A-4) STANDARD TANK NOTE ADDED & SEE SHEET 2 [CT89102]	PAS
G	2-28-17	(A-8, A-7) 761 WAS 571, 303 WAS 195, (8-D, C-7) DELETE 50.0 UPDATE CONDUIT AREA, SEE SHEET 2, [CT170607]	RMJ
H	2-19-18	SEE SHEET 3 [CT184671]	PAS
J	2-26-19	(A-5) IBC/WINDLOAD MOUNTING WAS IBC MOUNTING; SEE SHEET 2 & 3 [CT193852]	TKK
K	7-2-19	SEE SHEET 2 [CT196925]	JBZ

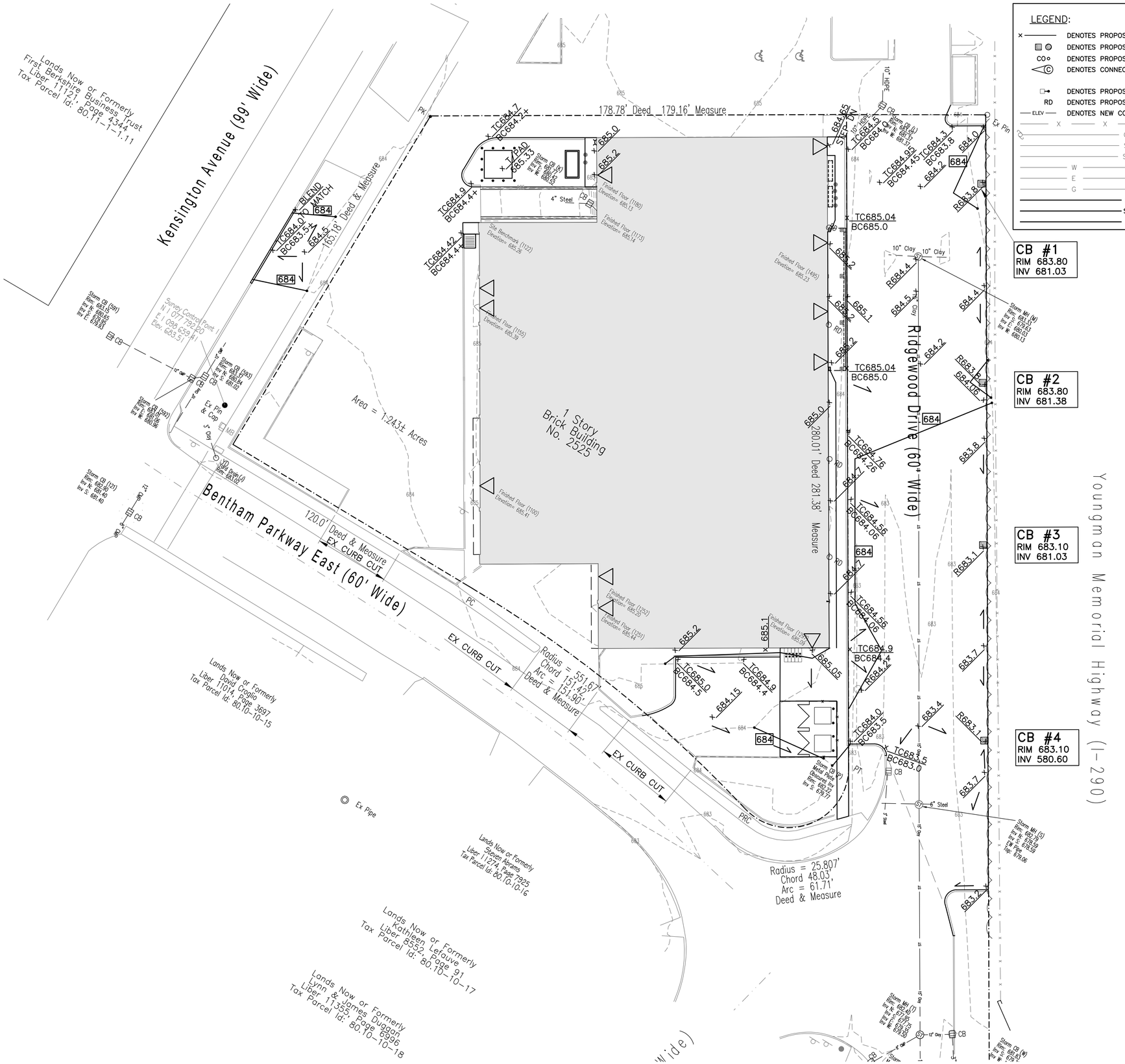
UNLESS OTHERWISE SPECIFIED: 1) DIMENSIONS ARE IN MILLIMETERS 2) TOLERANCES ARE: X.XX ± 0.25, X.X ± 1.0, X ± 1.5, ANGLES ± 0° 30' — SURFACE FINISH MAX. — THIRD ANGLE PROJECTION

APPROVALS	DATE
DRAWN PKD	1-20-10
CHECKED AJD	1-20-10
APPROVED AJD	1-20-10

KOHLER CO. METRIC
POWER SYSTEMS, KOHLER, WI 53044 U
THIS DRAWING IN DESIGN AND DETAIL IS PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH KOHLER CO. WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.
TITLE DIMENSION PRINT
SCALE
DWG

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)


Kensington Avenue (99' Wide)
Bentham Parkway East (60' Wide)
Ridgewood Drive (60' Wide)
Young Memorial Highway (I-290)
ZONED: GB
Lands Now or Formerly
First Berkshire Business Trust
Liber 11121, Page 4344
Tax Parcel Id: 80.11-1-1.11
ZONED: GB
Lands Now or Formerly
David Coglio
Liber 11014, Page 3697
Tax Parcel Id: 80.10-10-15
ZONED: R3
Lands Now or Formerly
Steven Abrams
Liber 11274, Page 7925
Tax Parcel Id: 80.10-10-16
Lands Now or Formerly
Kathleen Lefauve
Liber 8552, Page 91
Tax Parcel Id: 80.10-10-17
Lands Now or Formerly
Lynn & James Duggan
Liber 11355, Page 6996
Tax Parcel Id: 80.10-10-18
EX DRIVEWAY TO REMAIN
EX PAVT TO REMAIN
EX SW TO REMAIN THRU
EX DRIVEWAY APRON & CURB CUT TO BE REMOVED
NEW CONC CURB INFILL
NEW LAWN
RESTORE LAWN
NEW CURB CUT
EX CURB CUT
BLEND TO MATCH EX PAVT
NEW CONC WALK
NEW CONC CURB
NEW CONC APRON
NEW CONC DRIVE



LEGEND:

×	DENOTES PROPOSED SPOT ELEVATIONS	·	DENOTES EXISTING SPOT ELEVATIONS
■ ●	DENOTES PROPOSED CATCH BASIN/MANHOLE	D	DENOTES EXISTING STORM SEWER DROP INLET
CO	DENOTES PROPOSED CLEANOUT	ST	DENOTES EXISTING STORM SEWER MANHOLE
C	DENOTES CONNECTION TO EXISTING UTILITY	SAN	DENOTES EXISTING SANITARY SEWER MANHOLE
			DENOTES EXISTING HYDRANT
	DENOTES PROPOSED LIGHT POLE		DENOTES EXISTING LIGHT POLE
RD	DENOTES PROPOSED ROOF DRAIN		DENOTES EXISTING WATER VALVE
ELEV	DENOTES NEW CONTOURS	ELEV	DENOTES EXISTING CONTOURS
X X X X		X X X X	DENOTES EXISTING CHAIN LINK FENCE
OHE		OHE	DENOTES EXISTING UTILITY POLE AND OVERHEAD UTILITIES
ST		ST	DENOTES EXISTING STORM SEWER LINE
SAN		SAN	DENOTES EXISTING SANITARY SEWER LINE
W		W	DENOTES EXISTING WATER LINE
E		E	DENOTES EXISTING ELECTRIC LINE
G		G	DENOTES EXISTING GAS LINE
ST		ST	DENOTES PROPOSED STORM SEWER LINE
SAN		SAN	DENOTES PROPOSED SANITARY SEWER LINE
W		W	DENOTES PROPOSED WATER LINE

SITE GRADING PLAN

1" = 20'

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
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2525 KENSINGTON AVENUE, AMHERST NY

STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

STATE OF NEW YORK
MATTHEW JOHN RYU
082395
LICENSED PROFESSIONAL ENGINEER

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REVISIONS	
2: REVISED	4/19/22
3: REVISED	9/19/22
4: REVISED	1/23/23

DRAWN BY	CHECKED BY
avm	AVM

SCALE: AS NOTED

DATE: Feb 22, 2022

SITE GRADING PLAN

SP102

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

NEW SERVICES BY ECWA IN R.O.W:
6"x4" TS&V; INCREASE TO
6" DIP, 6"x4" TEE, 4" DIP;
6" GATE VALVE, 4" GATE VALVE
(REDUCE TO 3" METER INSIDE)

FD CONN– REF. 'FP' DWGS

RESTRAINED JOINT & CONC THRUST BLK (TYP)

6" DIP FIRE–PROTECTION

4" DIP DOMESTIC –PROVIDE 5–FT MIN COVER (TYP)

WATER METER AND BACKFLOW PREVENTION LOCATED INSIDE BLDG REF. 'P' & 'FP' DWGS (METER BY ECWA)

EMERGENCY GENERATOR REF. 'MEP' DWGS.

METERING PER 'MEP' DWGS.

TRANSFORMER REF. 'E' DWGS.

3 RECONNECT TO EX SAN LATERAL w/NEW SDR35 PVC REF. 'P' DWGS.

178.78' Deed 179.16' Measure

Kensington Avenue (99' Wide)

Lands Now or Formerly
First Berkshire Business Trust
Liber 11121, page 4344
Tax Parcel Id: 80.11–1–1.11

165.18' Deed & Measure

Survey Control Point
N 1 077792.20
E 1 098 539.41
Elev. 683.51

Area = 1.243± Acres

1 Story Brick Building No. 2525

280.01' Deed 281.36' Measure

Bentham Parkway East (60' Wide)

120.0' Deed & Measure

EX CURB CUT

EX CURB CUT

EX CURB CUT

Radius = 551.67'
Chord 151.42'
Arc = 151.90'
Deed & Measure

Radius = 25.807'
Chord 48.03'
Arc = 61.71'
Deed & Measure

Ridgewood Drive (60' Wide)

Young man Memorial Highway (I–290)

CB #1
RIM 683.80
INV 681.03

CB #2
RIM 683.80
INV 681.38

CB #3
RIM 683.10
INV 681.03

CB #4
RIM 683.10
INV 580.60

INV680.8
+40LF 6" HDPE at 0.50%

+70LF 8" HDPE at 0.50%

+85LF 10" HDPE at 0.50%

INV580.4
+40LF 12" HDPE at 0.50%

Record Location (not recovered in Field)

Lands Now or Formerly
David Coglio
Liber 11014, Page 3697
Tax Parcel Id: 80.10–10–15

Lands Now or Formerly
Steven Abrams
Liber 11274, Page 7925
Tax Parcel Id: 80.10–10–16

Lands Now or Formerly
Kathleen Lefauve
Liber 8552, Page 91
Tax Parcel Id: 80.10–10–17

Lands Now or Formerly
Lynn & James Duggan
Liber 11355, Page 6996
Tax Parcel Id: 80.10–10–18

LEGEND:

×	DENOTES PROPOSED SPOT ELEVATIONS	·	DENOTES EXISTING SPOT ELEVATIONS
▣ ●	DENOTES PROPOSED CATCH BASIN/MANHOLE	DI	DENOTES EXISTING STORM SEWER DROP INLET
CO	DENOTES PROPOSED CLEANOUT	ST	DENOTES EXISTING STORM SEWER MANHOLE
C	DENOTES CONNECTION TO EXISTING UTILITY	SN	DENOTES EXISTING SANITARY SEWER MANHOLE
			DENOTES EXISTING HYDRANT
	DENOTES PROPOSED LIGHT POLE		DENOTES EXISTING LIGHT POLE
RD	DENOTES PROPOSED ROOF DRAIN		DENOTES EXISTING WATER VALVE
ELEV	DENOTES NEW CONTOURS	ELEV	DENOTES EXISTING CONTOURS
X X X X		X X X X	DENOTES EXISTING CHAIN LINK FENCE
OHE		OHE	DENOTES EXISTING UTILITY POLE AND OVERHEAD UTILITIES
ST		ST	DENOTES EXISTING STORM SEWER LINE
SAN		SAN	DENOTES EXISTING SANITARY SEWER LINE
W W		W W	DENOTES EXISTING WATER LINE
E E		E E	DENOTES EXISTING ELECTRIC LINE
G G		G G	DENOTES EXISTING GAS LINE
ST		ST	DENOTES PROPOSED STORM SEWER LINE
SAN		SAN	DENOTES PROPOSED SANITARY SEWER LINE
W		W	DENOTES PROPOSED WATER LINE

SITE UTILITIES & EROSION CONTROL PLAN

1" = 20'

N

CONSTRUCTION NOTES:

1. NEW WATER SERVICE TO BLDG WATER ROOM –RPZ & METERING INSIDE FACILITY REF. 'P' & 'FP' DWGS RESPECTIVELY
2. NEW STORM RECEIVER & HDPE PIPING –CORE–DRILL & GROUT NEW PIPING TO EXISTING MANHOLE (VERIFY CONDITIONS & NOTIFY ENGINEER OF CONFLICTS PRIOR TO PREPARING SHOP DRAWINGS AND ORDERING MATERIAL)
3. REPLACE WASTEWATER LATERAL CONN IN SAME LOCATION AS EXISTING (FIELD VERIFY) –REF. 'P' DWGS FOR NEW SAN PIPING & CONNECTION TO EXISTING.
4. SITE LIGHTING –REF. 'E' DWGS FOR POLE, FNDN, FIXTURE, CIRCUITING & CONDUIT
5. RAISE MH FRAME & COVER w/CONC RINGS TO ELEVATION SHOWN

SILT FENCE OR 12"DIA COMPOST FILTER SOCK

STONE & BLOCK DROP INLET PROTECTION STRUCTURE

EXCAVATED DROP INLET PROTECTION

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425 FRANKLIN STREET
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REVISIONS
2: REVISED 4/19/22
3: REVISED 9/19/22
4: REVISED 1/23/23

DRAWN BY avm
CHECKED BY AVM

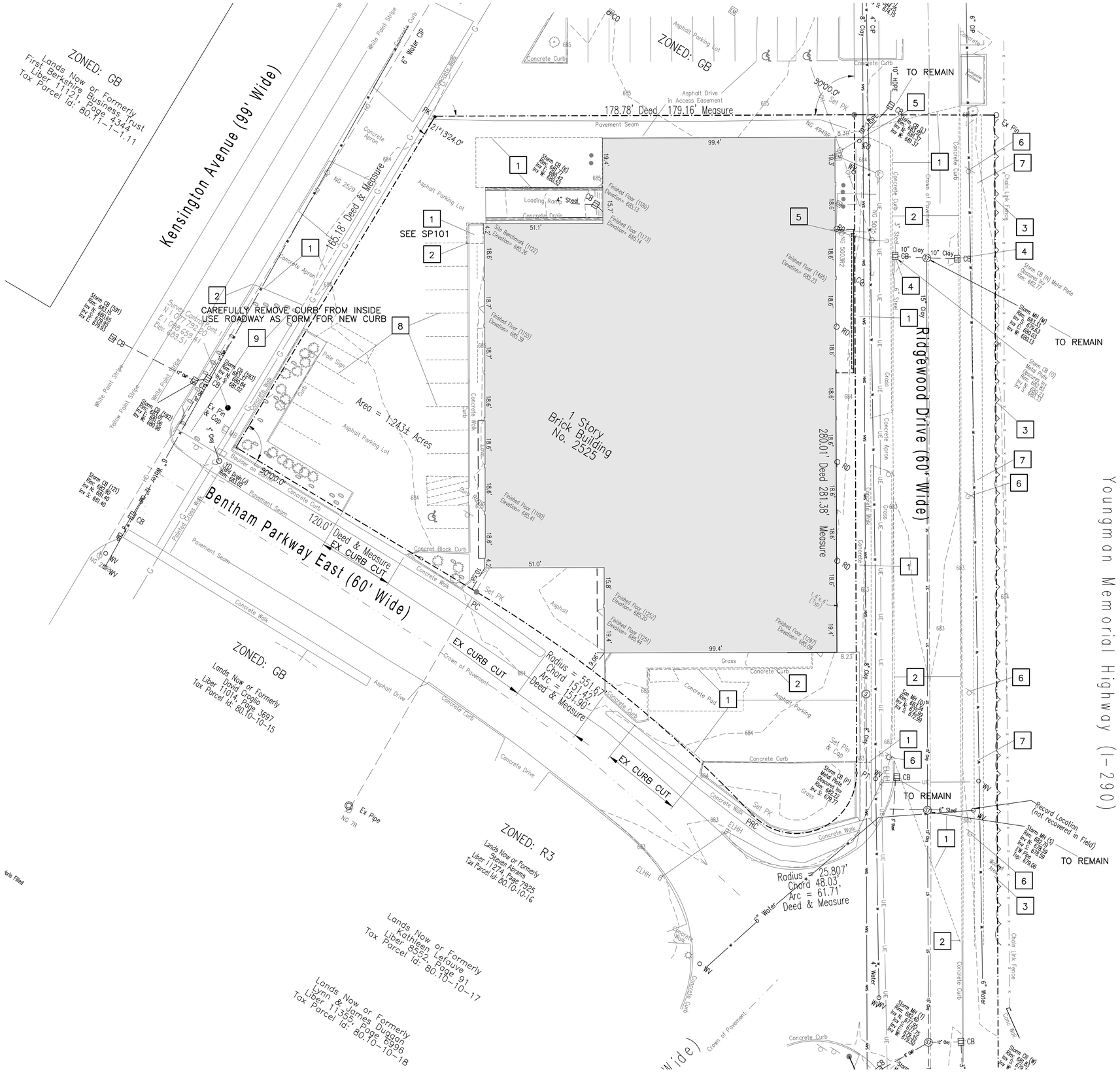
SCALE AS NOTED

DATE Feb 22, 2022

SITE UTILITIES & EROSION CONTROL PLAN

SP103

SP-2022-02 drawings 042023 (25490 : Sp-2022-02)
Attachment: SP-2022-02 (25490 : Sp-2022-02)



SITE DEMOLITION PLAN

1" = 20'

N

SITE DEMOLITION NOTES:

1. SAWCUT & REMOVE EXISTING ASPHALT/ CONC PAVT AND SUBBASE STONE EXCEPT WHERE NEW PAVT OVER TO BE INSTALLED, SUBBASE TO BE PROOFROLLED & REUSED
2. SAWCUT & REMOVE CONCRETE CURBING
3. REMOVE TREES & BRUSH WITHIN TOWN R.O.W. ONLY
4. DRAIN BODY TO BE REMOVED, PLUG EX PIPE END w/CONC
5. UTILITY POLE & OHE POWER TO BE REMOVED –COORD. w/SUPPLIER & 'E' DWGS.
6. SIGN OR LIGHT POLE & FNDN TO BE REMOVED
7. REMOVE REMAINS OF CONC SIDEWALK
8. REMOVE/REPLACE PAINT STRIPING THIS AREA BY INSTALLING SEALER OVER (ROUGHENED) EX ASPHALT
9. REMOVE ALL BOULDER STONES FROM RIGHT–OF–WAY

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DRAWN BY: avm
CHECKED BY: AVM

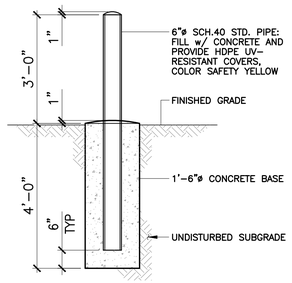
SCALE: AS NOTED

DATE: Feb 22, 2022

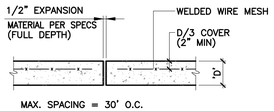
EXISTING CONDITIONS & SITE DEMOLITION PLAN

SP104

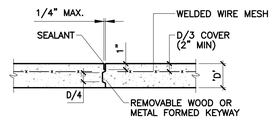
SP-2022-02 drawings 042023 (25490 : Sp-2022-02)
Attachment: SP-2022-02 (25490 : Sp-2022-02)



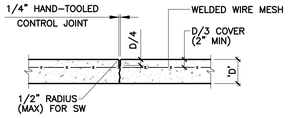
7 STEEL PIPE BOLLARD



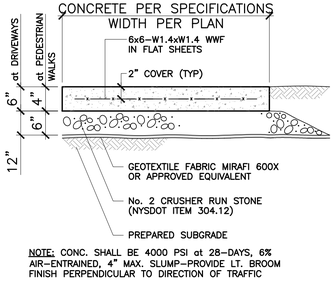
4 EXPANSION JOINT IN EXTERIOR CONC PAVEMENT



5 CONSTRUCTION JOINT IN EXTERIOR CONC PAVEMENT



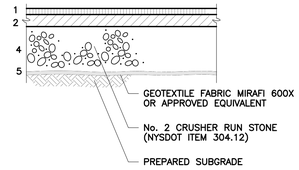
6 CONTROL JOINT IN EXTERIOR CONC PAVEMENT



NOTE: CONC. SHALL BE 4000 PSI at 28-DAYS, 6% AIR-ENTRAINED, 4" MAX. SLUMP-PROVIDE LT. BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAFFIC

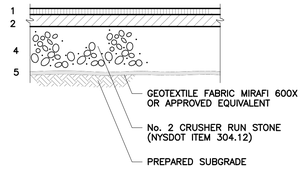
3 TYPICAL CONCRETE SIDEWALK

ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	3"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	18"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



2 TYPICAL TYPE II BITUMINOUS PAVEMENT SECTION DRIVEWAYS

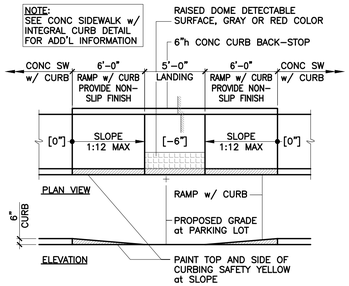
ITEM	DESCRIPTION	DEPTH
1	TOP COURSE 402.099803-9.5 F2-80	1-1/2"
2	BINDER 402.198203-19 F9-80	2"
3	NOT USED	
4	SUBBASE COURSE 304.12 (NYSDOT)	12"
5	GEOTEXTILE FABRIC (NONWOVEN/HEAT BONDED)	



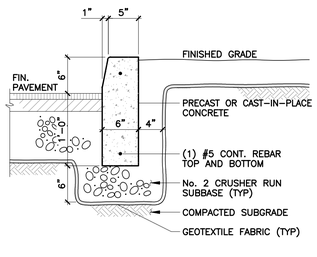
1 TYPICAL TYPE I BITUMINOUS PAVEMENT SECTION PARKING STALLS

GENERAL SITE NOTES

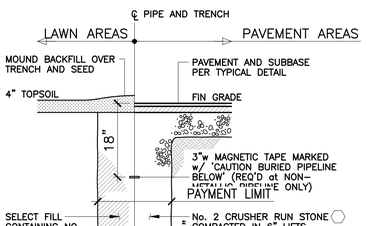
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE TOWN OF AMHERST, THE ERIE COUNTY WATER AUTHORITY, ERIE COUNTY DPW, AND NYSDOT SPECIFICATIONS.
2. INSTALL ALL MATERIALS TO THE MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF THE TRADE INVOLVED.
3. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER APPROVAL AND SHALL BE EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
4. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
5. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER OF ANY DISCREPANCIES IN CONDITIONS SHOWN ON THE DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
6. CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
7. CONTRACTOR SHALL KEEP THE JOB SITE FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF THE OWNER.
8. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK DOES NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
9. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NECESSARY TO PERFORM THE WORK INCLUDING BUT NOT LIMITED TO ERIE COUNTY HIGHWAY WORK PERMIT.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CONTROL OF EROSION FROM THE SITE. SEE PROJECT EROSION CONTROL PLAN AND SWPPP MANUAL.
11. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS, FEATURES AND UTILITY CONNECTIONS.
12. ALL UTILITY TRENCHES UNDER PAVEMENT, CURBS, SIDEWALKS, AND DRIVEWAYS SHALL BE FULLY BACKFILLED WITH No 2 CRUSHER RUN STONE AND PROPERLY COMPACTED TO AVOID SETTLEMENT.
13. CONTRACTOR SHALL REPLACE IN KIND ANY EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CURBS, ROAD PAVEMENTS, SIDEWALKS, AND EXISTING UTILITIES.



10 HANDICAP ACCESS RAMP



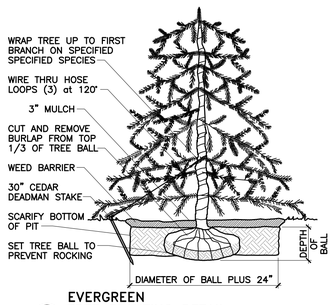
9 TYPICAL CONCRETE CURB



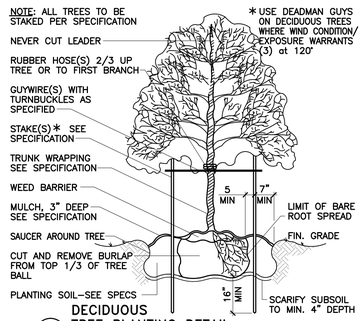
NOTES:
1. PIPE SHALL BE IN ACCORDANCE w/ MANUFACTURER'S RECOMMENDATIONS
2. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING
3. TRENCH DETAILS ARE ONLY SHOWN FOR MATERIAL PLACEMENT PURPOSES
4. AN OSHA APPROVED MOVEABLE PROTECTIVE TRENCH SHIELD MAY BE USED.

MATERIALS:
(A) No. 1 STONE WITH A GRADATION CONFORMING TO NYSDOT SECTION 703-02, LATEST EDITION. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN (1) INCH AND HAVING A MAX. GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'A'.
(B) No. 2 CRUSHER RUN STONE OR No. 2 RUN OF CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 4 AND NYSDOT SECTION 703-02 (COMPACTED IN 6" LIFTS TO 95% DENSITY). NO SLAG SHALL BE USED IN PLACE OF MATERIAL 'B'.

8 TYPICAL UTILITY TRENCH SECTION



12 EVERGREEN TREE PLANTING DETAIL

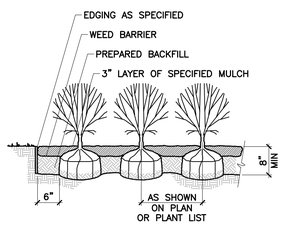


11 DECIDUOUS TREE PLANTING DETAIL

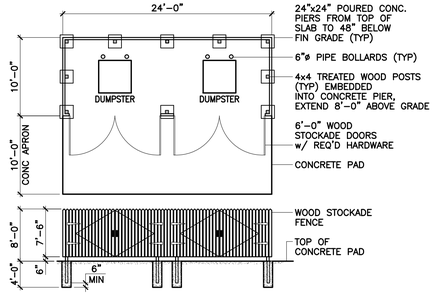
NOTES:
1. HANDICAPPED PARKING SIGNAGE SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS
2. A 'NO PARKING' SIGN SHALL BE PROVIDED at DISCHARGE AISLE BETWEEN HANDICAP PARKING STALLS

14 HANDICAPPED PARKING SIGNAGE LOCATED IN PAVEMENT

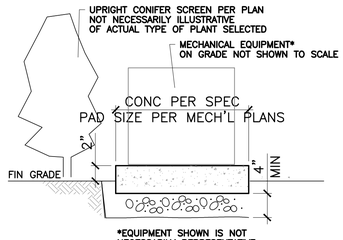
13 HANDICAP SYMBOL DETAIL



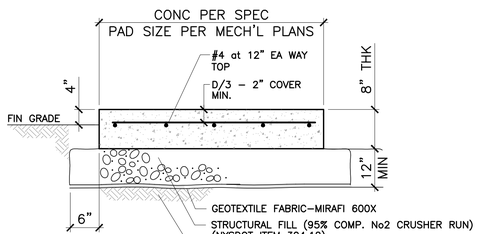
16 SHRUB PLANTING DETAIL



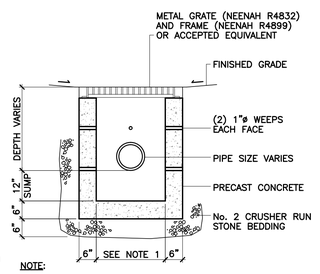
15 DUMPSTER ENCLOSURE WITH CONCRETE PAD



19 MECHANICAL EQUIP. SCREEN



18 GENERATOR PAD SECTION



NOTE:
1. 24" SQUARE FOR PIPES 18"ø OR LESS
30" SQUARE OR PIPES 24"ø OR GREATER

17 TYPICAL CATCH BASIN

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS

TREDO ENGINEERS
CIVIL ENGINEERS
716.876.7147

PETRILLI ENGINEERING PC
STRUCTURAL ENGINEERS
716.854.3508

BUFFALO ENGINEERING, PC
MEP AND CIVIL ENGINEERS
716.633.5300

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2525 KENSINGTON AVENUE, AMHERST NY

STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

STATE OF NEW YORK
MATTHEW JOHN KU
092985
LICENSED PROFESSIONAL ENGINEER

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REVISIONS
1: REISSUED 3/28/22
2: REISSUED 9/19/22
3: REISSUED 1/23/23

DRAWN BY avm
CHECKED BY AVM

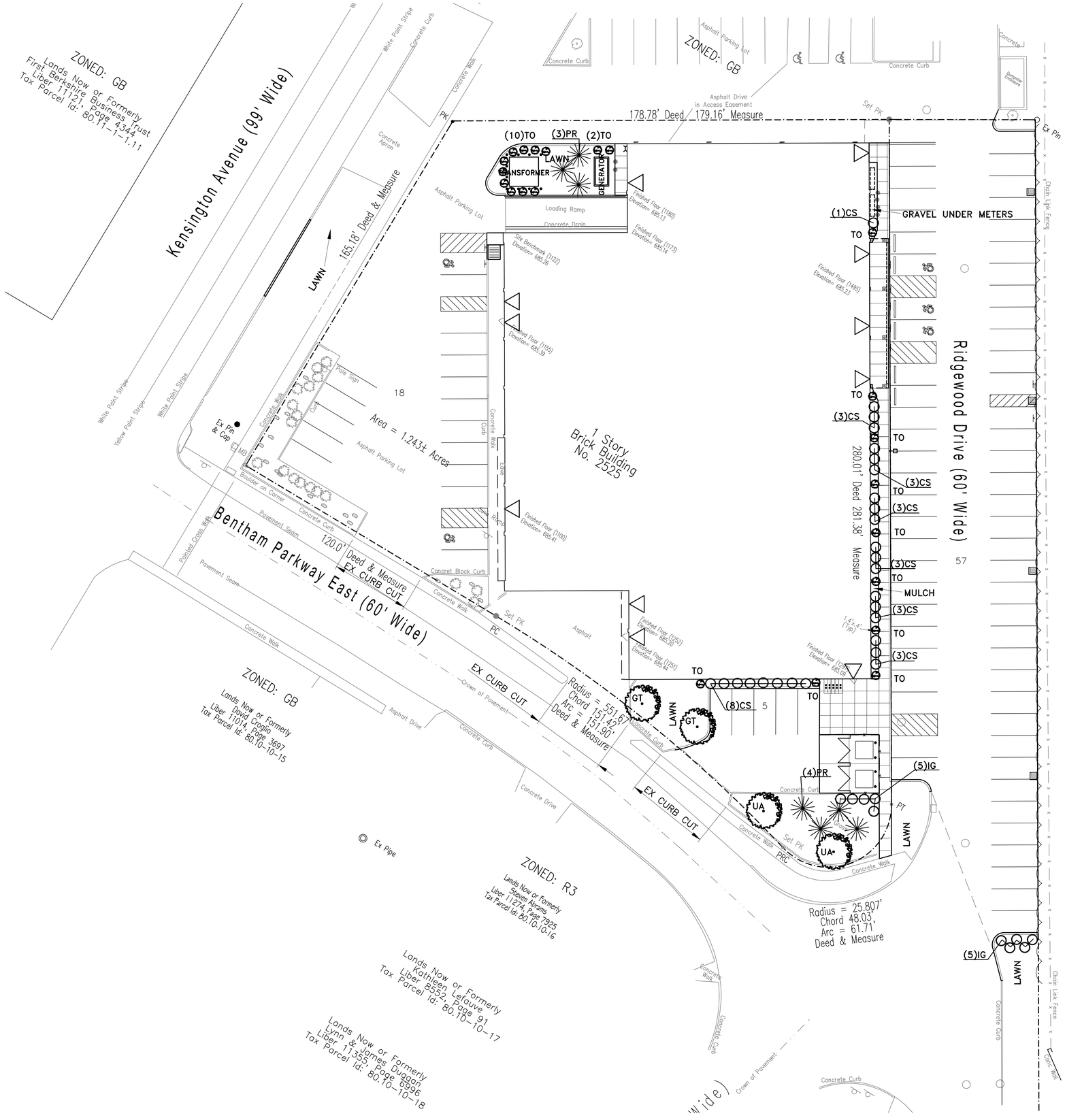
SCALE AS NOTED

DATE Feb 22, 2022

SITE DETAILS

SP201

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)



PLANTING SCHEDULE

MARK	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHRUBS/GRASSES					
TO	22	THUJA OCCIDENTALIS	EMERALD ARBORVITE	4'h MIN.	B&B
CS	26	CORNUS STOLONIFERA	ARCTIC FIRE DOGWOOD	24"h	CONT.
–	–	–			
IG	12	ILEX GLABRA COMPACTA	SHAMROCK INKBERRY	24"h 5'OC	B&B
TREES					
GT	3	GLEDITSIA TRIACANTHOS INERMIS SUNBURST	SUNBURST LOCUST	2 1/2" CAL	B&B
UA	2	ULMUS AMERICANA 'PRINCETON'	AMERICAN ELM	2–1/2"CAL	B&B
PR	7	PINUS RESINOSA	RED PINE	6'h MIN.	

LANDSCAPE PLAN

1" = 20'

N

NOTES:

1. CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PROTECT EXISTING TREES AND PLANTINGS INDICATED TO REMAIN FROM ALL TYPES OF ROOT, TRUNK AND LIMB DAMAGE DURING DEMOLITION AND CONSTRUCTION.
2. EXISTING PLANTED AREAS SHALL REMAIN UNLESS OTHERWISE NOTED.
3. ALL DISTURBED AREAS SHALL RECEIVE 4" MIN. TOPSOIL AND GRASS SEED UNLESS OTHERWISE NOTED.
4. TREE AND SHRUB BEDS SHALL BE COVERED WITH 3" OF HARDWOOD MULCH. ALL ROOTS AND STONES OVER 1 1/2" SHALL BE REMOVED PRIOR TO SEEDING/ PLANTING.
5. ALL STREET AND ISLAND TREES SHALL HAVE FIRST BRANCHING at 6–FOOT MIN.
6. IF A CONFLICT EXISTS BETWEEN THE PLAN AND PLANTING SCHEDULE, THE PLAN SHALL GOVERN.
7. REFER TO ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, FEATURES & UTILITY CONNECTIONS
8. REFER TO GRADING AND UTILITY PLAN(S) FOR ADDITIONAL INFORMATION NOT SHOWN HEREIN.

LEGEND:

- INDICATES NEW TREE PLANTING PER SCHEDULE
- INDICATES NEW SHRUB PLANTING PER SCHEDULE
- EXISTING TREE/SHRUB TO REMAIN & BE PROTECTED THRU–OUT CONSTRUCTION
- EXISTING TREE/SHRUB TO BE REMOVED

LAWN SEED SCHEDULE

Mixtures		Rate per Acre (lbs)	Rate per 1,000 sq. ft. (lbs)
A.	Birdsfoot trefoil or ladino clover	8	0.20
	Tall fescue or mooth bromegrass	20	0.45
	Redtop	2	0.05
		30	0.70
OR			
B.	Kentucky bluegrass	25	0.60
	Creeping red fescue	20	0.50
	Perennial ryegrass	10	0.20
		55	1.30

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
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CONSULTANTS

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REVISIONS
3: REVISED 9/19/22
4: REVISED 10/10/22
5: REVISED 1/23/23

DRAWN BY avm
CHECKED BY AVM

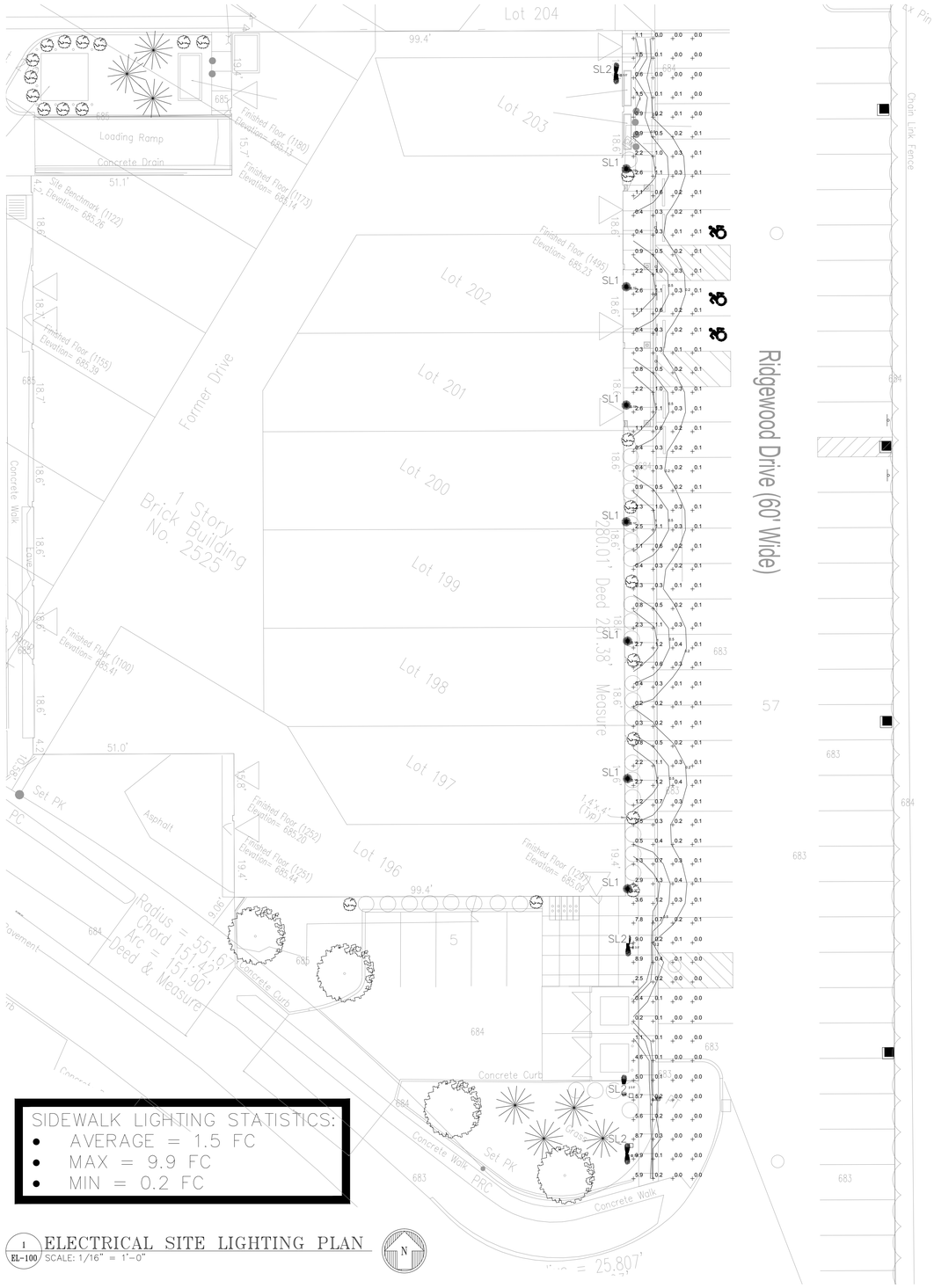
SCALE AS NOTED

DATE Feb 22, 2022

LANDSCAPE PLAN

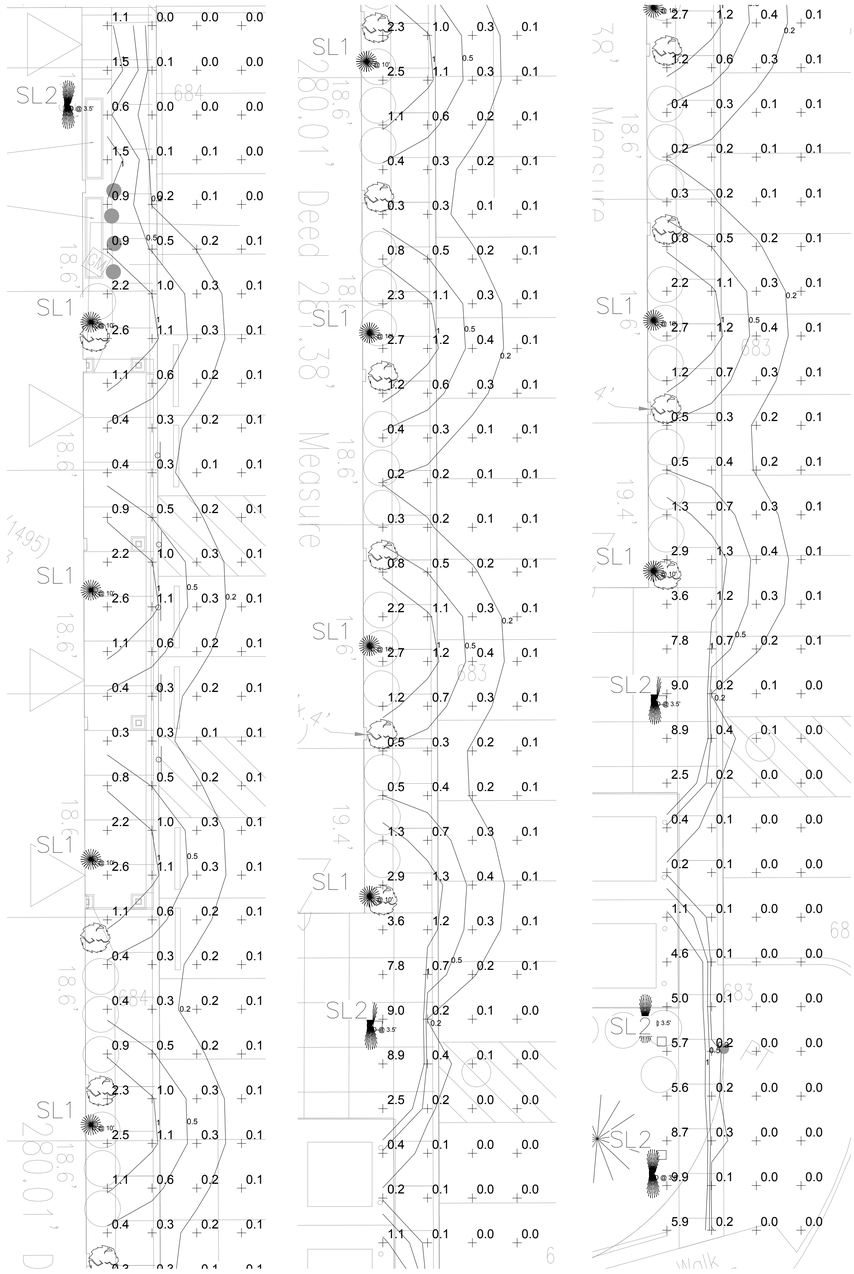
L101

SP-2022-02 drawings 042023 (25490 : Sp-2022-02)
Attachment: SP-2022-02 (25490 : Sp-2022-02)



SIDEWALK LIGHTING STATISTICS:
- AVERAGE = 1.5 FC
- MAX = 9.9 FC
- MIN = 0.2 FC

1 EL-100 ELECTRICAL SITE LIGHTING PLAN
SCALE: 1/16" = 1'-0"



2 EL-100 ENLARGED SIDEWALK SITE LIGHTING PLANS
SCALE: 1/8" = 1'-0"

LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LENS/DIFFUSER	VOLTAGE/ BALLAST	LAMPS/LUMEN PACKAGE	MANUFACTURER & CATALOG NO.
SL1	WALL MOUNTED 4" WIDE LED CYLINDER. DARK SKY COMPLIANT.	WALL MOUNTED AT 10'-0" A.F.F.	CLEAR TEMPERED GLASS	120V	9 WATTS, 850 LUMENS, 4000'K LED SYSTEM	ALUMILITE #YRW 400 LED SERIES
SL2	EXTERIOR LED BOLLARD SITE LIGHTING FIXTURE WITH OPTICAL LENS.	BOLLARD (LIGHT MOUNTED AT 3'6" A.F.F.)	OPTICAL LENS TYPE ONE DISTIRBUTION	120-277V UNV	10 WATTS, 1178 LUMENS, 4000'K LED SYSTEM	ANP LIGHTING #BL0131-A010LD2-T1-40K

1.0

STIEGLITZ SNYDER ARCHITECTURE
425 FRANKLIN STREET
BUFFALO, NEW YORK 14202
716.828.9166
www.stieglitzsnyder.com

CONSULTANTS:
Tredo Engineers
755 Seneca Street Suite 202, Buffalo, NY 14210
Tel 716 . 876 . 7147
Buffalo Engineering
4245 Union Road, Buffalo, NY 14225
Tel 716 . 633 . 5300



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REVISIONS

DRAWN BY: EMW
CHECKED BY:
SCALE: AS NOTED
DATE: 01/25/23

ELECTRICAL SITE LIGHTING PLAN

EL-100

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

YRW 400 LED Series

Features and Characteristics

Alumilite designs reliable products produced with the best available materials, and we stand behind them with superior customer service. Please contact us for more information.

Housing: Heavy gauge extruded aluminum tube form the cylinder housing. For up and down version, with two LED modules, housing is 12" tall and the part # is YRW-2-400

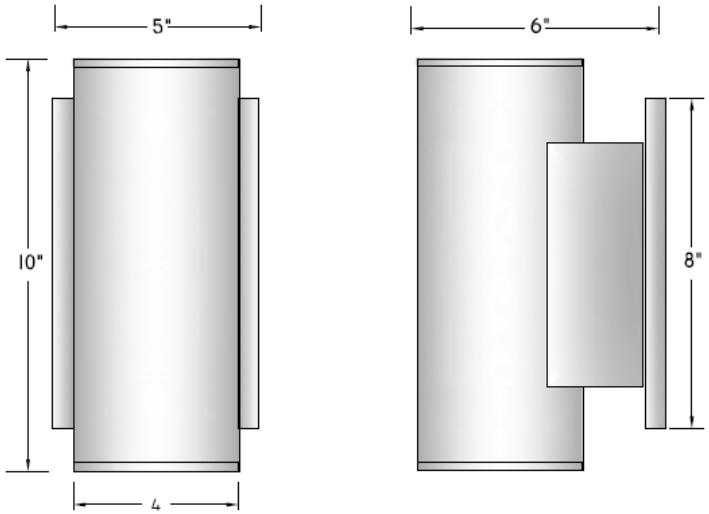
Lens Assembly: Clear tempered glass lens is sealed in regressed cast aluminum frame. Optional with frosted glass "FG" or linear spread lens "SL".

Mounting Bracket: Extruded aluminum arm is internally welded to cast back plate. Arm is welded to housing. Steel zinc plated bracket mounts to wall surface and is attached to the cast plate with two stainless steel fasteners.

Module/Driver: Cree LED modules are incased in a cast aluminum housing and sealed with diffused lens. They provide industry-leading efficacy of 97 lm/W. 9w/850lm or 12w/1250lm are available in 3000, 3500 and 4000k and have a minimum CRI of 90. Drivers are 0-10v dimming with either 120 or 277 line voltage. Extruded aluminum heat sinking system provides optimal thermal management.

Finish: Polyester powder coating on all metal parts. Color to be specified.

Listing: Luminaire is ETL listed for use in wet locations and meets dark sky certification with no light above 90°.



Specifications

Series	Wattage/Lamp	Volts
YRW	9w/LED = 409/LED	120
Down Only	13w/LED = 413/LED	277
YRW-2-		
Up & Down		

Options	Finish
3000k = 30k	BZ = Bronze
3500k = 35k	BK = Black
4000k = 40k	WH = White
FG = Frosted Glass	SL = Silver
SL = Linear Spread Lens	CC = Custom Color

Example

Down light only, 9 watt, LED, 120v, Frosted Glass, 3500k, Bronze
YRW409/LED-120-FG/35k/BZ

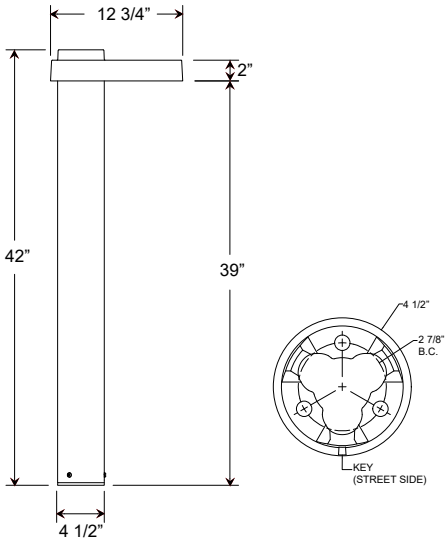
Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

Project: _____

Fixture Type: _____ Quantity: _____

Customer: _____





BL0131
Siteline Bollard

Weight: 12 lbs

Specifications

Material:
All parts are A356 cast aluminum and extruded aluminum. All mounting hardware shall be stainless steel or zinc plated steel.

Lens:
PMMA Optical Lens lens.

Mounting:
Standard anchor bolts are 3/8" x 10" x 2". Bolts, nuts and washers shall be hot dipped galvanized steel.

Bolt pattern diameter is 2 7/8".

Drivers:
Universal voltage 120-277 is standard. 0-10V, TRIAC and ELV dimming to 1% is standard.

See page 2 table for more LED engine and driver specifications.

Electrical:
20KA max/10KA nominal surge protection device is standard.

Certifications:
UL Listed for outdoor, wet location. UL1598 Standard for Safety for Lighting Luminaires.

Finish:
A polyester powder coat high quality finish.

Marine grade finish is available.

Modifications:
Consult factory for custom or modified designs.

Catalog Logic

BL0131	A010LD2	T5	40K	-	N/A	-	72
Bollard Series	Light Source & Wattage	Optics	CCT		Accessories		Finish

Catalog Number

	1	2	3	4		5
BL0131					—	

1 LIGHT SOURCE & WATTAGES

A010LD2	(10W LED Array)
A018LD4	(18W LED Array)
A032LD8	(32W LED Array)

2 OPTICS

T1 (Type I)
T2 (Type II)
T3 (Type III)
T5 (Type V)

3 COLOR TEMPERATURE (CCT)

27K (2700K)
30K (3000K)
35K (3500K)
40K (4000K)

4 ACCESSORIES

HLMSIN	(Integral high-low motion sensor; **See page 2 for specifications**)
HSS180-1	(180° House Side Shield for BL0131)
***IBOLT**	(Eye Bolt)
EMG-LED06	(6W, LED Emergency Driver)
EMG-LED10	(10W, LED Emergency Driver)
EMG-LED16	(16W, LED Emergency Driver; **only compatible with 18w and 32w**)
EMG-LED20	(20W, LED Emergency Driver; **only compatible with 32w**)
***GFI15**	(15 amp GFCI receptacle outlet)
***GFI20**	(20 amp GFCI receptacle outlet)
***GFI-WPU**	(20 amp GFCI receptacle w/weather proof in-use cover)

***Accessory finish will match fixture finish.**

5 FINISHES

***Premium and Marine Grade Finish have additional charges**

Standard Colors		Marine Grade*	Standard Colors	Standard Grade	Marine Grade*
Aspen Green	**10**	10M	Architectural Bronze	**51**	51M
Cantaloupe	**11**	11M	Patina Verde	**52**	52M
Lilac	**12**	12M	Copper Clay	**53**	53M
Putty	**13**	13M	Silver	**56**	56M
Raw Unfinished	**40**	NA	Black Verde	**61**	61M
Black	**41**	41M	Painted Chrome	**70**	70M
Forest Green	**42**	42M	Painted Copper	**71**	71M
Bright Red	**43**	43M	Textured Black	**72**	72M
White	**44**	44M	Matte Black	**73**	73M
Bright Blue	**45**	45M	Textured Architectural Bronze	**76**	76M
Sunny Yellow	**46**	46M	Textured White	**77**	77M
Aqua Green	**47**	47M	Textured Silver	**78**	78M
Galvanized	**49**	NA	**PREMIUM FINISH**	Premium Grade*	Marine Grade*
Navy	**50**	50M	**Carbon Graphite**	**96**	**96M**

Consult Factory for additional paint charges and availability.

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

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ANP reserves the right to change material or design, without prior notice, in a continuing effort to upgrade its products.

Project: _____

Fixture Type: _____ Quantity: _____

Customer: _____

12 LED ARRAY

PERFORMANCE

System Wattage	CCT	CRI	Type I					Type II					Type III					Type V					Drive Current
			Delivered Lumens	Lumens Per Watt	B	U	G	Delivered Lumens	Lumens Per Watt	B	U	G	Delivered Lumens	Lumens Per Watt	B	U	G	Delivered Lumens	Lumens Per Watt	B	U	G	
10W	2700K	80	1003	100	1	0	1	1021	102	1	0	1	1016	102	0	0	1	945	94	1	0	1	250mA
	3000K	70	1097	112	1	0	1	1117	112	1	0	1	1111	111	0	0	1	1033	103	1	0	1	250mA
	3500K	70	1154	115	1	0	1	1175	118	1	0	1	1170	117	0	0	1	1088	109	1	0	1	250mA
	4000K	70	1178	118	1	0	1	1199	120	1	0	1	1193	119	0	0	1	1110	111	1	0	1	250mA
18W	2700K	80	1805	100	1	0	1	1838	102	1	0	1	1829	102	1	0	1	1701	94	1	0	1	450mA
	3000K	70	1974	110	1	0	1	2010	112	1	0	1	2001	111	1	0	1	1860	103	1	0	1	450mA
	3500K	70	2077	115	1	0	1	2115	118	1	0	1	2106	117	1	0	1	1958	109	1	0	1	450mA
	4000K	70	2120	118	1	0	1	2158	120	1	0	1	2148	119	1	0	1	1997	111	1	0	1	450mA
32W	2700K	80	3209	100	2	0	2	3267	102	1	0	1	3252	102	1	0	1	3024	94	2	0	1	800mA
	3000K	70	3509	110	2	0	2	3574	112	1	0	1	3557	111	1	0	1	3307	103	2	0	1	800mA
	3500K	70	3693	115	2	0	2	3761	118	1	0	1	3743	117	1	0	1	3481	109	2	0	1	800mA
	4000K	70	3768	118	2	0	2	3837	120	1	0	1	3819	119	1	0	1	3551	111	2	0	1	800mA

LED SPECIFICATIONS -SMILE LED (CREE XLAMP)

- PMMA Optical Lens
- 12 High-power LEDs
- Efficacy ranges from 94-120 lm/W
- Distributions: Type I, II, III, V
- CCT: 2700K, 3000K, 3500K, 4000K
- Certifications: UL Recognized, RoHS, REACh
- CRI: >70 (2700K is >80)

SURGE SUPPRESSION

- A Surge Protection Device (SPD) is optional featuring a 20kA maximum discharge current 8/20µs Waveform (Imax); 10kA nominal discharge current 8/20µs Waveform (In) and thermally protected varistor technology.
- Meets IEEE C62.41.2 Location Category C High and US Dept of Energy MSSLC Model Spec.
- SPD shall be wired in series and will result in an open circuit during a fault state, resulting in the luminaire to turn off to protect system components thereby indicating SPD module replacement.

FINISHES

- A polyester powder coat high quality finish is electro-statically applied and baked at 430° for exceptional durability and color retention. Products undergo an intensive five-step cleansing and pretreatment process for maximum paint adhesion.
- Marine grade finish provides superior salt, humidity and UV protection. This coating withstands up to 3000 hours of continuous salt spray, comes with a 5-year warranty and is available in either a textured or gloss surface.

WARRANTY

See www.ANPlighting.com for complete fixture warranty.

LED warranty information

- 5 year limited warranty*

*Limited Warranty: A typical year is defined as 4380 hours of operation

DRIVER SPECIFICATIONS-ERP ESS SERIES(10W/18W ONLY)

- Universal Input 120-277V
- Dimming: 0-10V, TRIAC, ELV (Dims to 1%)
- Power Factor @ Full Load >90%
- THD @ Full Load <20%
- Constant Current Output 50/60Hz
- Operating Temperature: -30°C Minimum
- Lifetime: >50,000 hours
- Ingress Protection: IP66
- Certifications: UL Recognized, CE

DRIVER SPECIFICATION-ERP PHB SERIES (32W ONLY)

- Universal Input 120-277V
- Dimming: 0-10V, TRIAC, ELV (Dims to 1%)
- Power Factor @ Full Load >90%
- THD @ Full Load <20%
- Constant Current Output 50/60Hz
- Operating Temperature: -10°C Minimum
- Lifetime: >50,000 hours
- Certifications: UL Recognized, CE

SPECIFICATIONS -IR-TEC LMD-109 OCCUPANCY SENSOR

- Sensor Type: High Frequency Doppler (HFD)
- 360º Detection Range, Approximately 15 (30' Diameter)
- Line Voltage Sensor: 120 / 240 / 277 VAC, 50/60 Hz
- Factory Defaults:
- Dim Levels: High / 30%
- Motion Time Delay: 5 min
- For other settings, consult factory

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

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ANP reserves the right to change material or design, without prior notice, in a continuing effort to upgrade its products.

Project: _____

Fixture Type: _____ Quantity: _____

Customer: _____

ACCESSORIES



HLMSIN



HSS180-1



IBOLT



EMG-LED



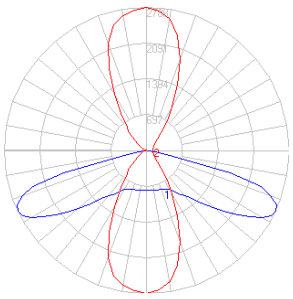
GFI15 & GFI20



GFI-WPU

PHOTOMETRIC DISTRIBUTION - 12 LED ARRAY

TYPE 1



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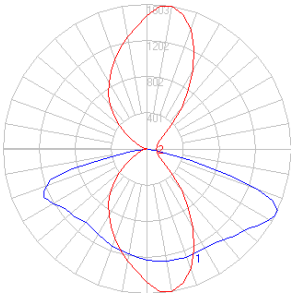

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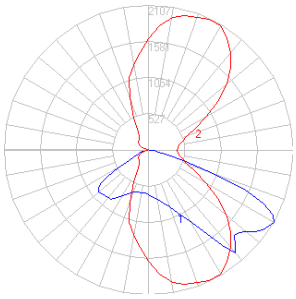

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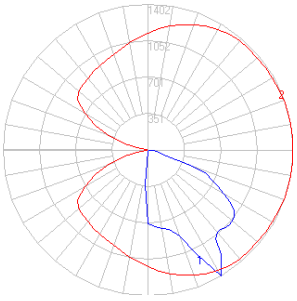

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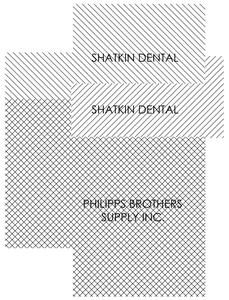
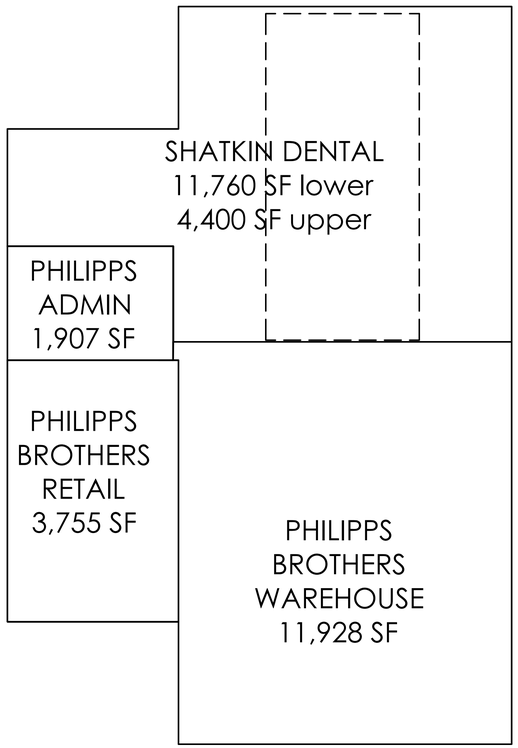
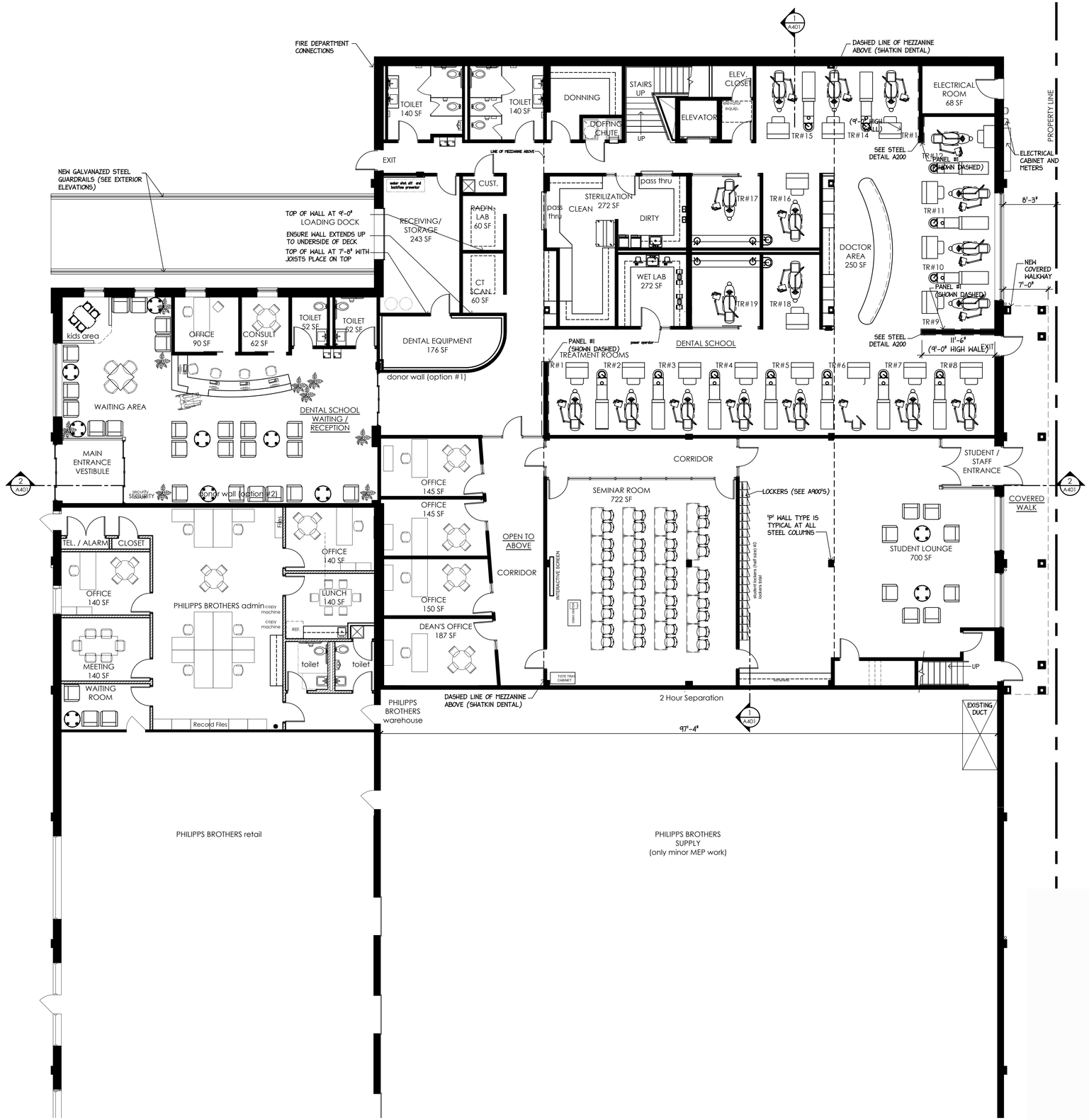


KEY PLAN
SCALE NTS





GROUND FLOOR PLAN
SCALE 1/8" = 1'-0"

STIEGLITZ SNYDER ARCHITECTURE
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BUFFALO, NEW YORK 14202
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www.stieglitzsnyder.com

CONSULTANTS

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716 . 633 . 5300

SHATKIN COLLEGE OF DENTISTRY AT DAEMEN UNIVERSITY

2525 KENSINGTON AVENUE, AMHERST NY

STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

REGISTERED ARCHITECT PHILIP JOHN SNYDER No. 21273 STATE OF NEW YORK

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REVISIONS
SITE PLAN APPLICATION

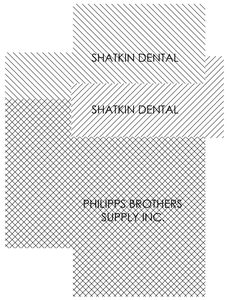
DRAWN BY JRM
CHECKED BY

SCALE
AS NOTED

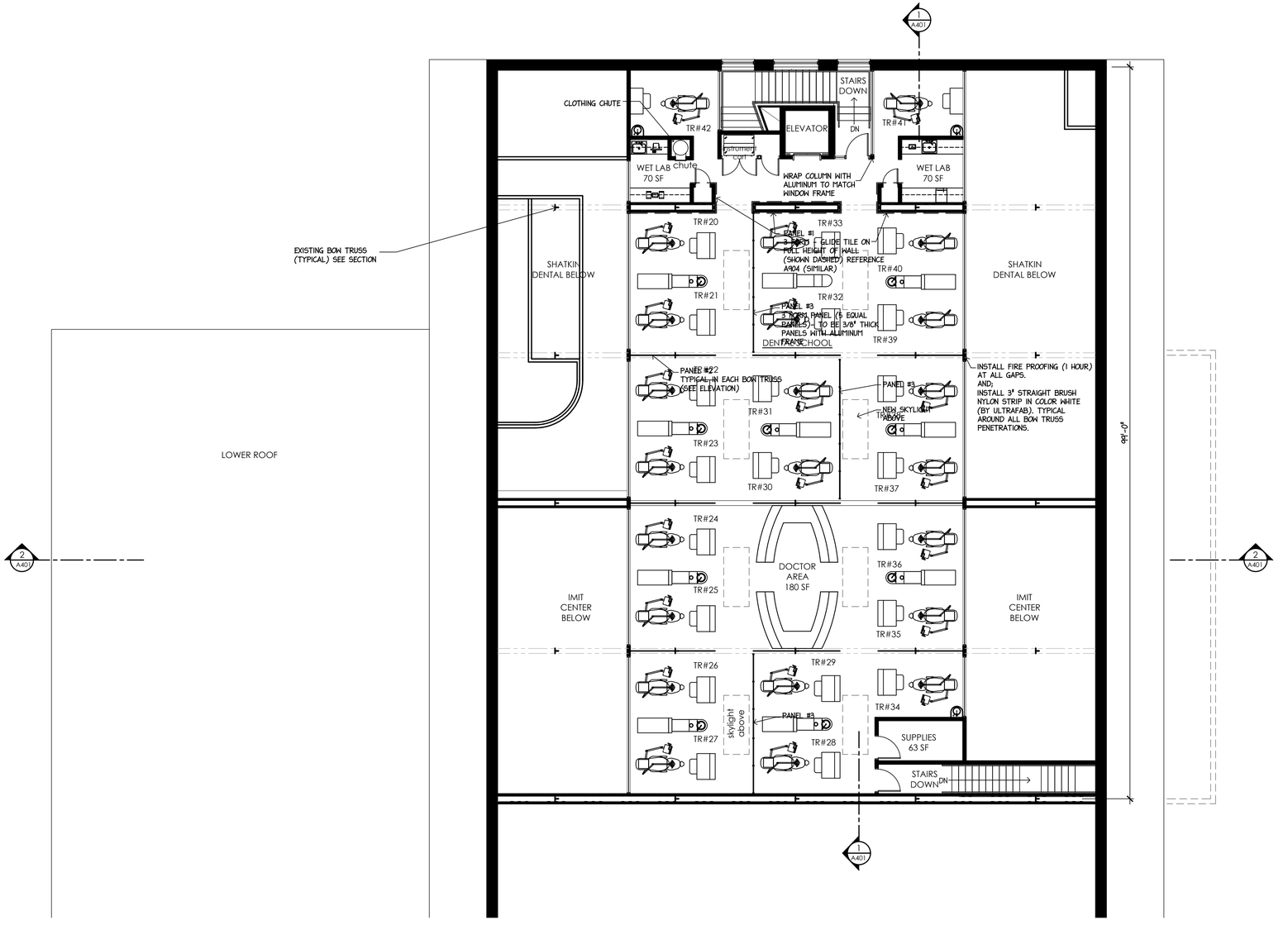
DATE
SEPT 12 2022

GROUND FLOOR PLAN

A101

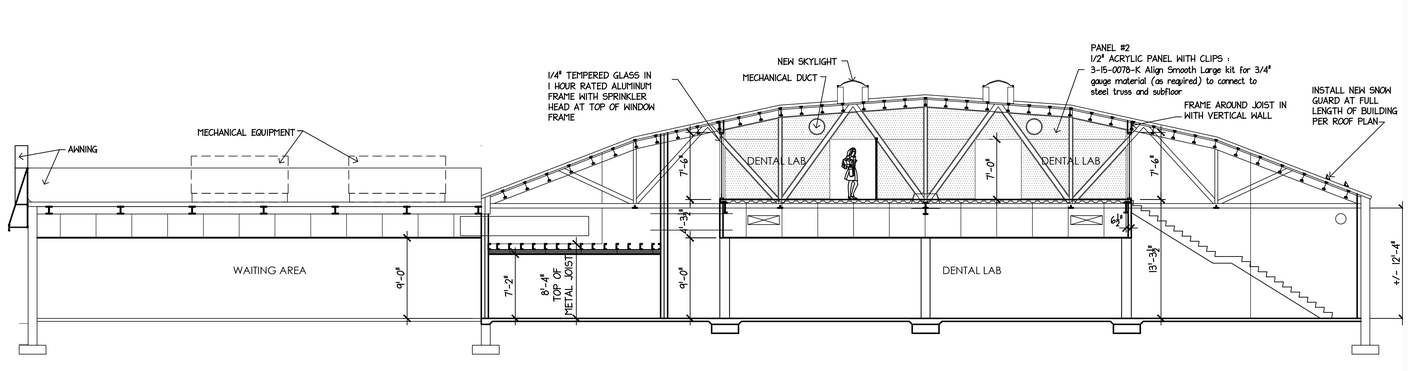


KEY PLAN ①
SCALE NTS



LOWER ROOF

UPPER FLOOR PLAN ①
SCALE 1/8" = 1'-0"



TYPICAL CROSS SECTION ②
SCALE 1/8" = 1'-0"

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SHATKIN COLLEGE OF DENTISTRY AT DAEMEN UNIVERSITY

2525 KENSINGTON AVENUE, AMHERST NY

STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

Attachment: SP-2022-02 drawings 042023 (2549 : Sp-2022-02)

REGISTERED ARCHITECT PHILIP JOHN SNYDER 021473 STATE OF NEW YORK

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REVISIONS
SITE PLAN APPLICATION

DRAWN BY JRM
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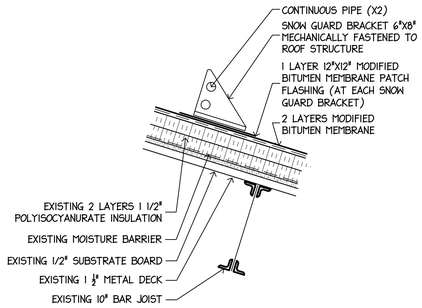
AS NOTED

DATE
SEPT 12 2022

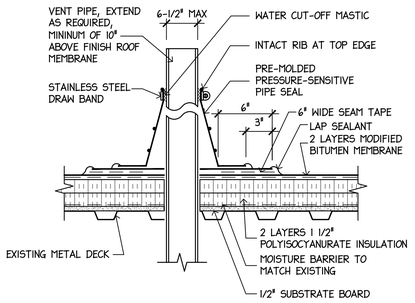
SECOND FLOOR PLAN

A102



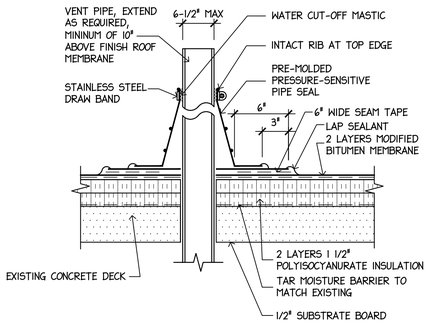
SNOW GUARD DETAIL AT METAL DECK (1)

SCALE 1 1/2" = 1'-0"



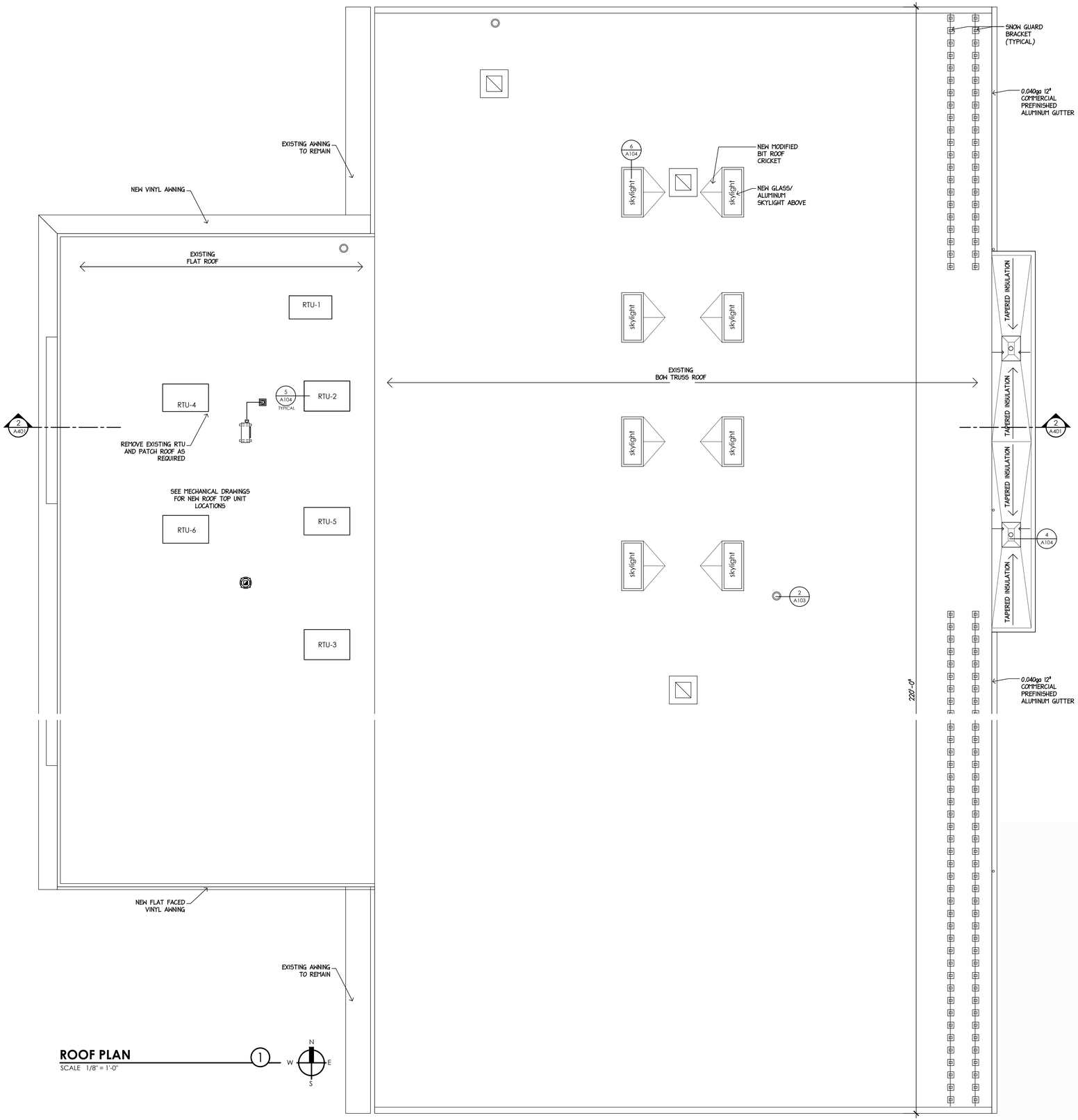
VENT STACK DETAIL AT METAL DECK (2)

SCALE 1 1/2" = 1'-0"



VENT STACK DETAIL AT CONCRETE DECK (3)

SCALE 1 1/2" = 1'-0"



ROOF PLAN (1)

SCALE 1/8" = 1'-0"

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SHATKIN COLLEGE OF DENTISTRY AT DAEMEN UNIVERSITY

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STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

REGISTERED ARCHITECT
PHILIP SCOTT SNYDER
No. 021273
STATE OF NEW YORK

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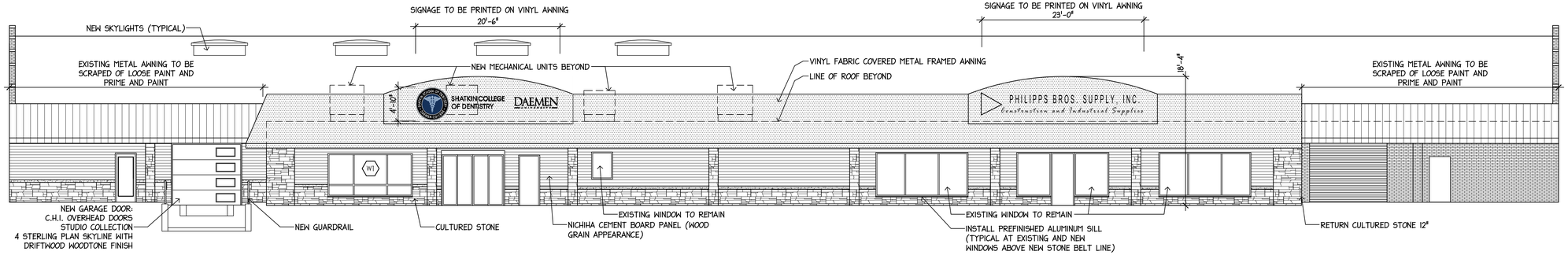
DATE
SEPT 12 2022

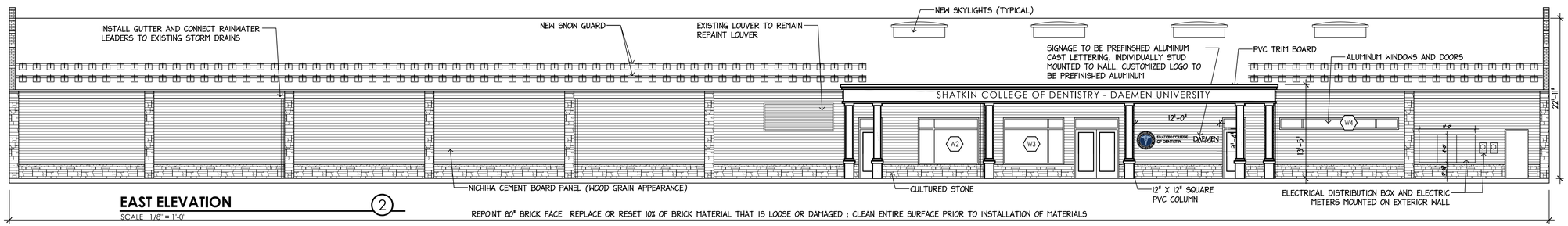
ROOF PLAN

A103



WEST ELEVATION (1)

SCALE 1/8" = 1'-0"



EAST ELEVATION (2)

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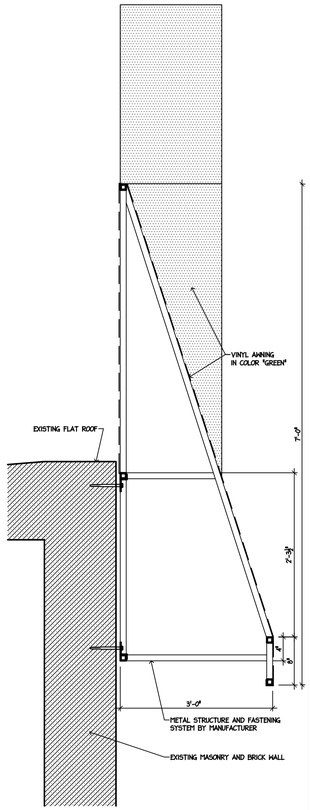
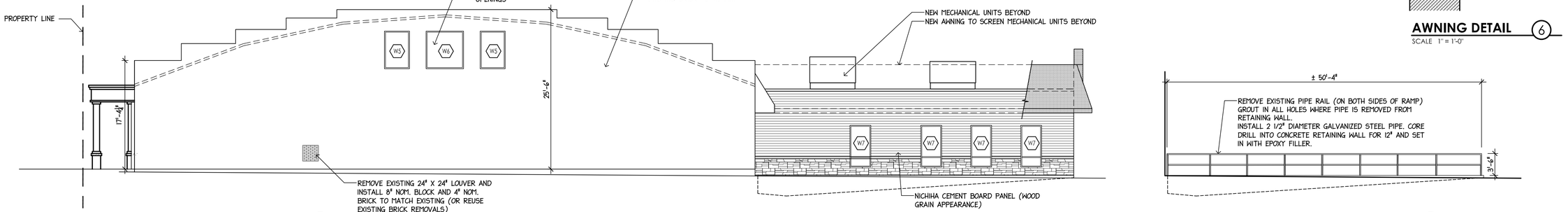


AWNING DETAIL (6)

SCALE 1" = 1'-0"

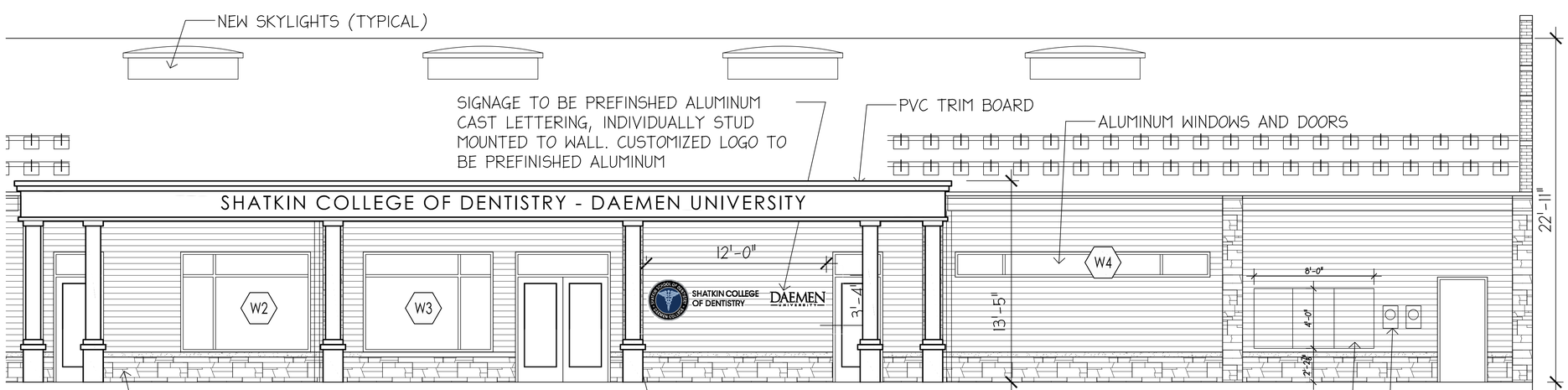


NORTH ELEVATION (3)

SCALE 1/8" = 1'-0"

RAMP RAILING ELEVATION (5)

SCALE 1/8" = 1'-0"



ENLARGED CANOPY ELEVATION (4)

SCALE 1/8" = 1'-0"

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SHATKIN COLLEGE OF DENTISTRY AT DAEMEN UNIVERSITY

2525 KENSINGTON AVENUE, AMHERST NY

STIEGLITZ SNYDER ARCHITECTURE PROJECT 20.09

Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)



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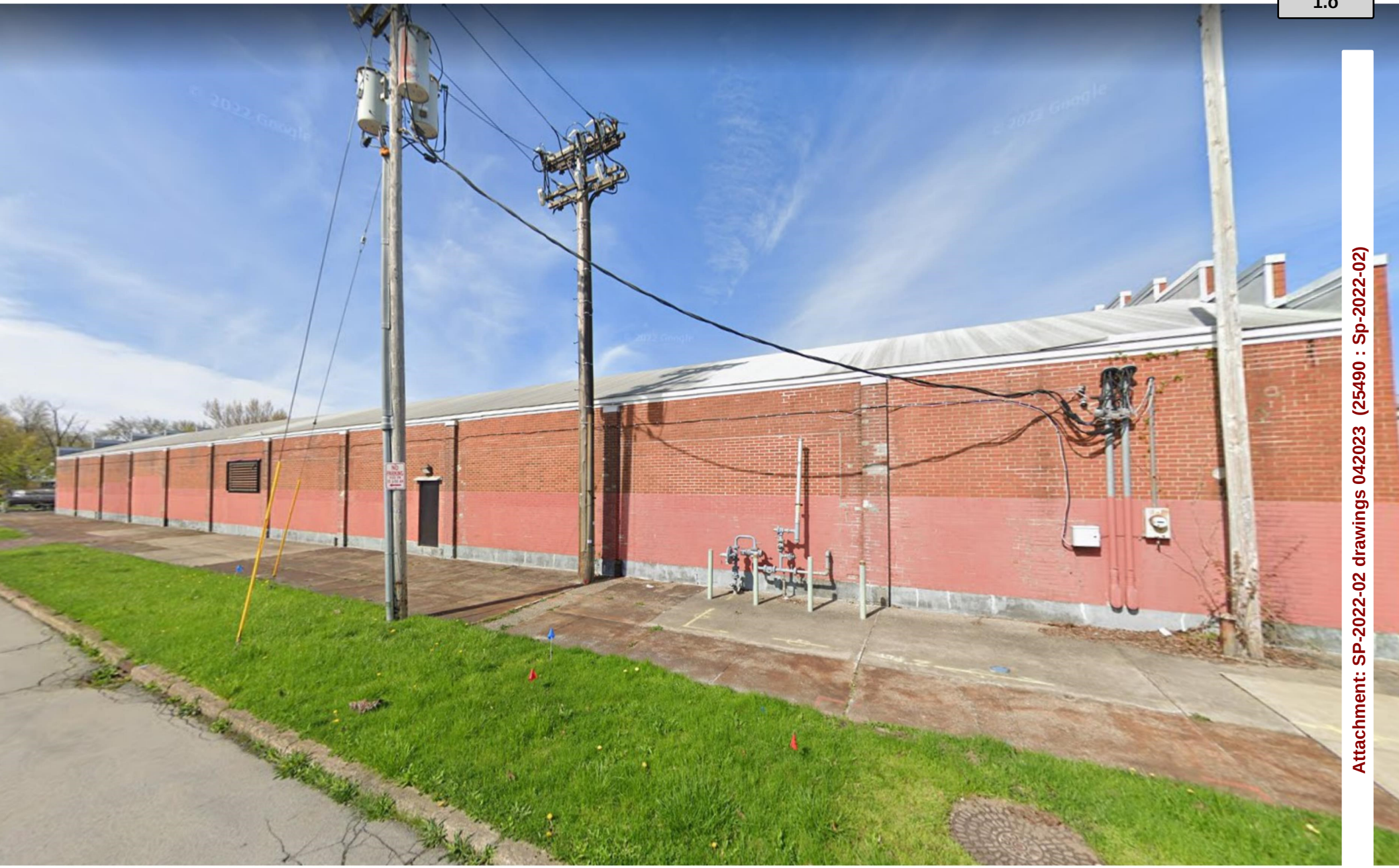
DATE SEPT 12 2022

EXTERIOR ELEVATIONS

A300



Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

ELEVATION - EXISTING

EGLITZ SNYDER
RCHITECTURE

PROPOSED

SHATKIN COLLEGE of DENTISTRY at DAEMEN UNIVERSITY

2525 KENSINGTON AVENUE AMHERST, NY 14226

SHATKIN COLLEGE OF DENTISTRY

DAE



Attachment: SP-2022-02 drawings 042023 (25490 : Sp-2022-02)

ELEVATION

EGLITZ SNYDER
RCHITECTURE

PROPOSED

SHATKIN COLLEGE of DENTISTRY at DAEMEN UNIVERSITY

2525 KENSINGTON AVENUE AMHERST, NY 14226

SHATKIN COLLEGE OF DENTISTRY

DAE

Amherst

Town of Amherst Planning Department *Erie County, New York*

Brian J. Kulpa
Supervisor

Daniel C. Howard,
Planning Direct

Daniel J. Ulatowski,
Assistant Planning Di

SEQR
Negative Declaration

NOTICE OF DETERMINATION OF NON-SIGNIFICANCE

Lead Agency:	Town of Amherst Planning Board	**Project:**	SP-2022-02
Address:	5583 Main Street Williamsville, NY 14221 (716) 631-7051	**Date:**	April 20, 2023

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law, and to Chapter 104 of the Town Code, as amended.

The Lead Agency has determined that the proposed action described below will not have a significant adverse effect on the environment.

Title of Action: Site Plan Review

SEQR Status: Unlisted

Description of Action: Proposed conversion of a portion of the existing 29,350 s.f. Philips Bros. retail/warehouse building for the Shatkin School of Dentistry (16,253 s.f..). Project includes an approximately 4,000 s.f. second floor build-out, as well as redevelopment of Ridgewood Drive for private parking under a license agreement with the Town. Work will include the site improvements not specifically stated above, including, stormwater, utilities, grading, lighting, paving, and landscaping.

Location: 2525 Kensington Avenue, Amherst, Erie County

Petitioner: Philipps Brothers Supply Inc.

'23 APR 26 PM12:5

Attachment: SP-2022-02_signed_neg_dec_042023 (25490 : Sp-2022-02)

REASONS SUPPORTING THIS DETERMINATION

Based on information submitted by the applicant including a Full Environmental Assessment Form (EAF) - Part 1, (as amended), EAF Part 2 and a complete site plan application, a preliminary staff analysis was undertaken. Compared to the criteria listed in Section 617.7, all indications are that this action will not have a significant impact on the environment, as follows:

1. The project is not expected to cause a substantial adverse change in existing air quality, ground or surface water quality or quantity, or noise levels; a substantial increase in solid waste production; or a substantial increase in the potential for erosion, flooding, leaching or drainage problems. The Engineering Department on February 22, 2023 reviewed the: Grading, Drainage and Utility Plans submitted on January 31, 2023; Engineer's Report submitted on February 22, 2022; Erosion Control Plan submitted on January 31, 2023 and Geotechnical Report prepared by Barron & Associates, P.C. submitted on February 22, 2022.

2. The project will not result in the removal or destruction of large quantities of vegetation or fauna; or in significant adverse impacts to fish or wildlife species, habitats or other natural resources. The Planning Department reviewed a Landscape Plan submitted on January 31, 2023 and determined that it meets or exceeds Zoning Ordinance requirements for greenspace. The Landscape Plan has met all Zoning Ordinance and Town requirements for landscaping.

3. The project is not expected to create any material conflict with the Town Comprehensive Plan. The Building Department in their review of September 28, 2022 and the Planning Department in their review of March 27, 2023 has reviewed the application documents, along with the Geotechnical Report submitted on February 22, 2022 and determined in their review of September 28, 2022 that the subject project has or will have met all International Building Code - 2018 and Zoning Ordinance regulations.

4. The project is within an area identified by the State as having potential archaeological or historical significance. However, the site has been previously disturbed, therefore, the project will not impair the character or quality of important historical resources.

5. The project will not impair the character or quality of important aesthetic resources or of existing community or neighborhood character. The project is located in the General Business (GB) zoning district; neighboring uses are commercial, office and residential and zoned for commercial and residential use; therefore, the project is consistent with surrounding land use.

6. The proposed subject development will include a build-out of the second floor for the continuation of the retail/warehouse use and dental school which will not cause a major change in the use of either the quantity or type of energy.

7. The project will not create any hazard to human health. The Fire Chief's Association on March 16, 2023 has reviewed the project and has no objection to the approval of the site plan, as all requirements of this agency has or will have been met.

Attachment: SP-2022-02_signed_neg_dec_042023 (25490 : Sp-2022-02)

'23 APR 26 PM12:57

8. The project will not cause a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses as the approximate 4,400 s.f. (15%) increase in floor area will be consistent with the scale of surrounding land uses.

9. The proposed dental school may increase the number of people using the site over its previous level of use, this increase is not anticipated to result in a significant impact.

10. A Signal Warrant Analysis dated July 27, 2022 concludes that a three-color signal is not warranted. Reviews by the Erie County Division of Highways dated November 1, 2022 and the Town Traffic/Safety Board dated February 3, 2023 indicate that there are no further traffic concerns.

11. A coordinated review of the project has been undertaken by Town Departments including, in addition to those mentioned above, Highway on April 7, 2022, Assessor on March 23, 2022, Plumbing Division on March 9, 2022, and Right-of-Way Agent on February 9, 2023. These reviews did not identify any potential significant adverse environmental issues and indicated that the proposal will not have a significant damaging impact on the environment.

12. Issues not specifically mentioned above and/or those not specifically reviewed were not raised by Town departments, outside agencies or the public and are not determined to cause significant negative environmental impacts.

Planning Board Approval April 20, 2023
Moved by Chmiel; Seconded by Raffaele; Ayes 7, Noes 0.

Gary Palumbo, Associate Planner — 4.24.2023 Date

Robert J. Gilmour, Planning Board Chair — 4-25-23. Date

GP/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-02_(2525_Kensington_Ave)_2022\SP-2022-02_neg dec_042023.doc.docx
cc: Commissioner of Building
Town Engineer
Fire Chiefs'
Highway
Traffic/Safety
ECDEP
NYSDOT
ECDPW
Joseph Molek, Stieglitz Snyder, 425 Franklin St., Buffalo, NY 14202
Philipps Bros. Supply Inc., 2525 Kensington Ave., Amherst, NY 14226
Andrew V. Marino, Tredo Engineers, 755 Seneca Street, Ste. 202, Buffalo, NY 14210

'23 APR 26 PM12:57

Attachment: SP-2022-02_signed_neg_dec_042023 (25490 : Sp-2022-02)

TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-02

PETITIONER

Philipps Bros. Supply Inc.
2525 Kensington Avenue
Amherst, NY 14226

PROPERTY LOCATION

2525 Kensington Avenue

WHEREAS, the Town of Amherst Planning Board on Thursday, April 20, 2023 held a public hearing on a Site Plan for a building addition and parking expansion (Philipps Bros./Shatkin School of Dentistry, and

WHEREAS, the Planning Board reviewed the plans and specifications for the proposed project, and

WHEREAS, the Site Plan was referred to the Town's various review agencies, and

WHEREAS, in accordance with Section 8-7-9 of the Zoning Ordinance, the Planning Board finds that:

A. The proposed site plan is consistent with the development plan if one is required.

B. The proposed site plan is consistent with the purpose and specific requirements of the Zoning Ordinance and generally consistent with the policies of the Comprehensive Plan.

C. Adequate services and utilities will be available prior to occupancy.

D. The site plan is consistent with all other applicable laws.

E. Pursuant to Local Law #3-82, as amended, the Planning Board has determined that the requirements of SEQR are complete and that the subject proposal is not expected to have a significant adverse effect on the environment.

F. Review by the US Army Corps of Engineers under Section 404 of the Clean Water Act may be waived because the parcel is developed.

NOW THEREFORE BE IT RESOLVED that in accordance with 6 NYCRR, Part 617 and Local Law #3-82, as amended, the Planning Board has issued a Negative Declaration attached hereto, and

BE IT FURTHER RESOLVED that the Planning Board, in accordance with Section 8-7 of the Zoning Ordinance approves said Site Plan subject to the following conditions:

'23 APR 26 PM12:57

Attachment: SP-2022-02_signed_resolution_042023 (25490 : Sp-2022-02)

TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-02

PETITIONER	PROPERTY LOCATION
Philipps Bros. Supply Inc.	2525 Kensington Avenue

1. That the conditions be met as stated in the Traffic Safety Board approval letter dated February 3, 2023.

2. That the condition be met as stated in the Erie County DPW letter dated October 31, 2022.

3. That the conditions of the alternative parking plan be met as stated by the Zoning Enforcement Officer in the Planning Department letter dated March 31, 2022, bulleted below:

    - A minimum of 79 parking spaces shall be provided for the project which include those that are being provided within the Ridgewood Drive R.O.W.
    - A re-analysis of parking be performed by the consultant within a year of occupancy to confirm adequacy of parking.
    - Any changes to the approved site plan which may affect future parking demands will require a new alternative parking analysis.

4. That all dumpsters/trash containers and all mechanical equipment, utility structures, multiple meter boards, generators, and similar appurtenances, including those which are mounted on any part of a primary structure shall be appropriately screened with a fence, wall, and/or landscaping. Provide gate on dumpster enclosure that shall be closed whenever dumpster is not being serviced, enclosure shall be high enough to screen the dumpster(s) within.

5. That as-built record drawings, including location of utilities, be provided to the Engineering Department prior to issuance of a Certificate of Occupancy by the Building Department.

6. That the requirements be met as stated in the Planning Department letter dated March 27, 2023, be addressed to the satisfaction of the department.

7. That the Ridgewood Drive right-of-way be appropriately signed for public parking.

8. That adequate shuttle service between Daemon University and the site be provided in perpetuity for the life of the proposed dental school.

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Attachment: SP-2022-02_signed_resolution_042023 (25490 : Sp-2022-02)

TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-02

PETITIONER	PROPERTY LOCATION
Philipps Bros. Supply Inc.	2525 Kensington Avenue

The foregoing resolution was adopted by the Town of Amherst Planning Board, April 20, 2023; moved by Chmiel; seconded by Penberthy; ayes 7, noes 0.

Robert J. Gilmour, Planning Board Chair

4-25-23.
Date

GP/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-02_(2525_Kensington_Ave)_2022\SP-2022-02_resolution_042023.doc

cc: Commissioner of Building
Town Engineer
Fire Chiefs
Traffic/Safety
Highway Superintendent
ECDEP
NYSDOT
NYSDEC
Joseph Molek, Stieglitz Snyder, 425 Franklin St., Buffalo, NY 14202
Philipps Bros. Supply Inc., 2525 Kensington Ave., Amherst, NY 14226
Andrew V. Marino, Tredo Engineers, 755 Seneca Street, Ste. 202, Buffalo, NY 14210

Approved Plan: January 23, 2023
Received: January 31, 2023

Attachment: SP-2022-02_signed_resolution_042023 (25490 : Sp-2022-02)

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TOWN OF AMHERST

APPLICATION & REVIEW PROCEDURE

MAJOR SITE PLAN

MATERIALS MUST BE PROVIDED IN AN ELECTRONIC FORMAT THAT CONTAINS PDF FILES OF THE APPLICATION, EAF, SITE PLAN DRAWING SET SURVEY, LANDSCAPE PLAN, PRELIMINARY BUILDING FLOO PLANS / ELEVATIONS & ANY OTHER SUPPORTING INFORMATION. THIS MUST BE SUBMITTED WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE TRANSMITTED WITHOUT THIS ELECTRONIC INFORMATION.

THIS ALSO APPLIES TO REVISED MATERIALS THAT AR SUBMITTED.

This application package includes the following:

- Application Procedures
- Application Form & Checklist
- Stormwater Pollution Prevention Plan Checklist
- Appendix A Town of Amherst EAF Addendum
- Appendix B Criteria for Required 8½" x 11" Sketches
- Appendix C Erie Sewer District No. 5 – Commercial / Industrial New & Existing Buildings Requirements

- IMPORTANT-

1. A pre-submittal consultation with Planning Department staff is *strongly recommended* prior to submitting an application. The pre-submittal meeting gives the applicant an opportunity to discuss with staff such items as:
   - classifying the action as a major site plan, minor site plan, or minor site plan adjustment;
   - determining what specific information will be required to be submitted with the application;
   - identifying and discussing issues that must be addressed as part of the SEQR review;
   - identifying any potential variances required to implement the project as proposed.

   An appointment is required for all meetings with Planning Department staff.

2. This site plan petition is subject to the requirements of 6 NYCRR Part 617, State Environmental Quality Review Act (SEQR), and Chapter 104 of the Town of Amherst Code, as amended. The Planning Board cannot make a SEQR determination unless a complete Environmental Assessment Form (EAF), including Town of Amherst EAF Addendum, and any required supplementary information such as traffic impact studies, archaeological reports, wetland delineations or geotechnical reports, are submitted. SEQR issues may be discussed with Planning Department staff at a recommended pre-submittal meeting. Unlisted Actions require a Short EAF; Type I Actions require a Full EAF. The following is a link to the NYSDEC website and fillable forms with instructions*:*
   http://www.dec.ny.gov/permits/6191.html.

3. **Review by the Town Design Advisory Board (DAB) is required for Major Site Plans located in the following Mixed-Use zoning districts:**

   Traditional Infill 2.5 (TI-2.5)
   Traditional Infill 4 (TI-4)
   Shallow Corridor 3 (SC-3)
   Deep Corridor 3 (DC-3)
   Deep Corridor 5 (DC-5)
   Center 2.5 (CTR-2.5)
   Center 5 (CTR-5)
   Center 8 (CTR-8)

   The application for DAB review is required to be filed in conjunction with the major site plan application.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

4. The application shall be executed or consented to in writing by the owner of the property.

5. **Any variances from the Zoning Board of Appeals, or any decision from the Town Board (e.g. removal of deed restrictions) must be obtained prior to action by the Planning Board on a Site Plan application.**

6. Submittal of an application grants permission to Town staff and Planning Board members to access the parcel(s) under consideration.

7. All site plan drawings must be prepared by a Registered Architect, Professional Engineer, Landscape Architect, or Land Surveyor (as applicable) licensed to practice in New York State.

8. If you wish to include a Coordinated Sign Plan application with the site plan petition, a separate application must be completed. Contact the Planning Department for a copy of a Coordinated Sign Plan application package.

9. All drawings should be no larger than 24 in. x 36 in. If site characteristics warrant larger plan sheets, they may be accepted subject to Planning Department concurrence. All drawings must also reserve a 4 in. x 6 in. area in the lower right hand corner for official Town use.

APPLICATION PROCEDURES

1. Applicant secures application package from the Planning Department, 5583 Main Street, Williamsville, NY 14221. (716) 631-7051. Forms are also available online at: www.amherst.ny.us, (keyword: Planning).

2. Applicant prepares information as required on the Site Plan Submittal Checklist, attached. NOTE: Some proposals may not require all items on the checklist; please verify with the Planning Department.

3. Applicant schedules an appointment with the Planning Department to review the following:
   - a complete set of site plan drawings, preliminary building elevations and floor plans (no larger than 24" x 36" in size)
   - Environmental Assessment Form (EAF) & Town EAF Addendum
   - any supporting reports and materials
   - verification from the Town Assessor that the address in the application is correct

4. Applicant schedules an application submittal appointment with the Planning Department. NO SITE PLAN WILL BE ACCEPTED FOR REVIEW WITHOUT A PRE-SET SUBMITTAL APPOINTMENT.

5. At the submittal appointment, applicant provides fourteen (14) complete and collated sets of drawings and application information to the Planning Department **(materials will not be accepted unless folded into 9" x 12" in size),** including**:**
   - application form
   - Environmental Assessment Form (EAF)
   - supporting reports / materials
   - complete set of site plan drawings, preliminary building elevations and floor plans (**at least one (1) set of drawings must bear a raised or wet seal and signature of the design professional** who prepared the plans; the remaining copies may be submitted with a facsimile of the seal and signature)
   - digital files of all materials in pdf format
   - an 8½" x 11" reduction of the sketch plan or plat drawing (see Appendix B)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

6. After approval for filing by the Planning Department, applicant submits all necessary fees to the Town Clerk. **(See Schedule of Fees on first page of application and make checks payable to: Town of Amherst.)**

7. The applicant returns a copy of the filing receipt to the Planning Department.

8. The Planning Department transmits remaining thirteen (13) copies of the application and supporting materials to:
   - Assessor
   - Commissioner of Building
   - Town Engineer
   - Superintendent of Highways
   - Traffic/Safety Board
   - Fire Chiefs' Association
   - Plumbing Division
   - Right-of-Way Agent
   - Police Department (if applicable)
   - Zoning Enforcement Officer
   - Other Town and outside agencies, as applicable

9. Within 30 days of its receipt of the complete application for Site Plan approval, each agency completes its review and notifies the Planning Department in writing of its comments or recommendations as required by Ordinance.

10. The applicant may be required to submit revised plans, reports, or materials to address review agency comments. The procedures for submittal of revised plans are as follows:

    - A cover letter addressing all comments received to date is required.
    - "Highlight" the area of change on the drawings and provide a notation describing the change.
    - Revised plans/materials are required. Planning staff should be contacted to determine the number of sets needed.
    - All revised plans and materials must also be provided in an electronic format that contains pdf files of the revised information.

11. The Planning Board reviews the EAF to determine whether a Draft Environmental Impact Statement (DEIS) is required. The petitioner will be advised in the event that a DEIS is required and afforded the opportunity to prepare it. If the petitioner declines, the Planning Board will prepare the DEIS at the petitioner's expense. The public hearing will be held on the DEIS concurrently with the Planning Board hearing on the application.

12. Planning Board Meeting Procedures:

    The applicant or representative presents the project at the public hearing before the Planning Board and is available to answer any questions. The Planning Board may take any of the following actions:

    - Adjourn the hearing to a future Planning Board meeting (hearing remains open).
    - Close the hearing and table action on the site plan to a future Planning Board meeting. (The Planning Board may remove the item from the agenda until such time as all required information is provided.)
    - Close the hearing and make a decision on the site plan.

    All determinations on matters before the Planning Board are made after all public hearings on that meeting's agenda are completed.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

13. A copy of the Planning Board's determination will be provided to the applicant, his / her representative, the Building Commissioner and the Town Clerk approximately 1 week following the Planning Board meeting at which it was heard.

14. If the Planning Board approves a Site Plan with conditions, the Planning Department will work with the applicant to ensure that all conditions of the approval are satisfactorily addressed. When all conditions are satisfied, the applicant submits **seven (7) final copies** of the complete set of all site plan drawings, folded into 9" x 12". For site plans in the Mixed-Use zoning districts, building elevations will also be required.

    All 7 sets must have original wet seals and include the required 4 in. x 6 in area in the lower right hand corner for official Town use. These drawings will be stamped and signed "Approved" by the Planning Director and transmitted to Town Departments for their files and use.

15. A building permit will not be issued by the Building Department until the stamped and signed Site Plan is issued by the Planning Director.

NOTE: Please check with the Planning Department to determine the deadline date for filing applications. Due to the public hearing notice requirements and department reviews, no site plan application will be placed on the Planning Board agenda after the deadline for filing has closed. Scheduling may be delayed if an application is incomplete.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Major Site Plan Review

For Official Use

File #: _____ **Acreage** _____ **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Received by Planning Department _____ RECEIVED BY DATE

Fee Paid to Town Clerk _____ RECEIVED BY DATE

Site Plan Review		**Fill In Applicable Fees**
1 acre or less	$1,250.00	_____
Each additional acre or fraction thereof	$ 650.00/acre	_____
Amendments to Site Plans	$1,200.00	_____
Request for Relief of / Change to Conditions of Site Plan Approval	$1,200.00	_____
Request for Extension of Site Plan Approval	$ 450.00	_____
Stormwater Pollution Prevention Plan		
1 - 4.99 Acres	$ 500.00	_____
5 - 10 Acres	$ 750.00	_____
>10 Acres	$1,000.00	_____
Affidavit Fee for Public Hearing	$ 15.00	_____
	TOTAL FEE:	**$**_____

To Be Completed By Applicant

Petitioner:

Name: 80 Creekside Drive, LLC c/o Christopher Wood, PE Carmina Wood Design

Address: 80 Creekside Drive

Buffalo (city) NY (state) 14023 (zip code)

Phone: 716-842-3165 Fax: _____

E Mail: cwood@carminawooddesign.com

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

MAJOR SITE PLAN APPLICATION (con't) ***Page 2***

Representative (Architect, Engineer, Landscape Architect, Surveyor, or Attorney)**:**

Name: Christopher Wood, PE Carmina Wood Design

Address: 487 Main St

Buffalo (city) NY (state) 14023 (zip code)

Phone: 716-842-3165 Fax:

E Mail: cwood@carminawooddesign.com

Project Location (must be verified by Town Assessor's Office)**:**

Address: 80 Creekside Dr Amherst, NY 14228

SBL No(s): 26.03-2-21.21

Project Name: 80 Creekside Dr Amherst, NY 14228

Project Description:

Construction of a 10,525 sf warehouse addition and associated site improvements.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

MAJOR SITE PLAN APPLICATION (con't) ***Page 3***

If this petition is an amendment to a previously approved site plan, please describe the proposed changes (include type and size of existing structures and number of existing parking spaces):

	existing	proposed	total
Gross Floor Area (non-residential):	10,486 SF	10,525 SF	21,011 SF
Gross Floor Area Residential:			
Number of Residential Units:			
Number of Parking Spaces:			

Acreage of Parcel: 2.2 +/- Acres

(list each parcel separately)

Frontage on Public Roads: 231.10'

(list each road separately)

Existing Zoning District(s) RD (Research & Development District)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Site Plan Submittal Requirements and Checklist

The following checklist outlines the information required by the Planning Department to accept a Site Plan application for review. ***It is strongly recommended that you make an appointment with Planning Staff to determine which items apply to your application***.

Item No.	Item	Submitted	Official use
I Basic Drawing Information			
1.0	**Drawing size not to exceed 24" x 36"**		
2.0	**Title of Drawing**		
3.0	**Name and address of Applicant**		
4.0	**Name of person preparing drawing**		
5.0	**Wet seal/raised seal and signature of NYS licensed architect, engineer, landscape architect, or surveyor (as applicable)**		
6.0	**Project address**		
7.0	**Zoning of subject property and adjacent parcels**		
8.0	**North point, scale, date, and revision date(s)**		
9.0	**4" x 6" reserved area in lower right hand corner for official Town use**		
II Structures, Paved Areas, & Open Space			
1.0	**Existing and Proposed Streets**		
1.1	Names of all existing and proposed streets		
1.2	Width and radii of proposed curb-cuts		
1.3	Existing curb-cuts on adjacent and opposite properties		
1.4	Show ROW width, pavement dimensions, lane widths, pavement markings, and proposed signage on proposed streets		
1.5	Show proposed ROW consistent with planned NYSDOT, Erie County, or Town road projects (if applicable)		
1.6	Show location of proposed cross access to adjacent parcels along with a draft easement		
1.7	Designation of Fire Lanes (if applicable)		
1.8	Fire apparatus access roads		
1.9	Label any proposed roads as public or private		
1.10	Location and dimensions of sidewalks		
1.11	Typical cross sections and profiles of proposed streets, pedestrian walkways, and bikeways		
2.0	**Proposed Structures**		
2.1	Location and complete dimensions of proposed structures		
2.2	Setback dimensions of structure(s) to all property lines		
2.3	Proposed use of structures		
2.4	Gross square feet area of each structure		
2.5	Location of all building entrances		
2.6	Indicate type of roof construction/materials		
2.7	Location, height, and design detail of existing and proposed fences and walls		
2.8	Location of light standards and building mounted lights		
2.9	Location of dumpster and detail of dumpster enclosure with gate		
2.10	Layout and dimensions of the lot(s) proposed for development		

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.	Item	Submitted	Official use
II Structures, Paved Areas, & Open Space (cont'd)			
3.0	**Floor Plans with individual rooms and spaces labeled** (fully dimensioned)		
4.0	**Building elevations with height dimensions from finished grade to the highest point of the roof and to midpoint of gable or hip of a pitched roof.** (fully dimensioned)		
4.1	Show screening of mechanical equipment		
5.0	**Parking/Loading/Stacking Areas**		
5.1	Location and complete dimensions of all paved areas		
5.2	Setback dimensions of all paved areas to property lines		
5.3	Dimension of typical parking space and drive aisles		
5.4	Location and layout of handicapped parking spaces & access aisles		
5.5	Detail of vertical signage for handicapped parking and access aisles		
5.6	Indicate minimum parking requirement & number of spaces provided		
5.7	Proposed signage for directing and guiding traffic		
5.8	Curb cut permits from NYS, Erie County, or Town (if applicable)		
5.9	Pedestrian connections (from proposed structures to public sidewalk network)		
6.0	**Location and proposed development of all open spaces, including parks, playgrounds, and open reservations**		
III Utilities and Drainage			
1.0	**Engineers Report** (bound separately from the Stormwater Pollution Prevention Plan [SWPPP])		
1.1	Stamped/sealed and signed by NYS licensed architect or professional engineer		
1.2	Proposed water service sizing, RPZ pressure and fire safety flow and pressure calculations		
1.3	Proposed sanitary sewer facility load calculations (avg. & peak flows) including calculation of the peaking factor		
1.4	Proposed storm drainage facility calculations (see information included with this application)		
2.0	**Grading Plan**		
2.1	Existing and proposed grades indicated (proposed grades may not exceed 1 on 3)		
3.0	**Water Service**		
3.1	Location, size and material of existing and proposed facilities		
3.2	Location of existing and proposed fire hydrant location(s)		
3.3	Indicate use of sprinklers, location of Fire Department connection, and proposed fire protection systems		
3.4	Existing and proposed meter/RPZ size and location		
3.5	Applicable construction details		
4.0	**Sanitary Sewers**		
4.1	Locations, sizes, slopes, inverts, and materials of all existing and proposed facilities		

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official use
III Utilities and Drainage (cont'd)			
4.2	Applicable construction details		
4.3	Proposed water/oil/grease interceptor sizing calculations by a professional engineer (if applicable)		
5.0	**Storm Drainage**		
5.1	Locations, sizes, slopes, inverts, and materials of existing and proposed storm drainage facilities		
5.2	Connection of roof drains to proposed drainage system		
5.3	Applicable Town Standard construction details		
5.4	Existing and proposed swales and ditches		
5.5	Detention area cross-section and high-level elevations		
5.6	County and State approval for tie-in to existing sewers		
6.0	**Stormwater Pollution Prevention Plan (SWPPP) as applicable** (bound separately from the Engineer's Report) **See attached checklist.**		
7.0	**Natural Gas Service**		
8.0	**Location of transformers, generators and other mechanical equipment; include detail drawings (if applicable)**		
9.0	**Downstream Sanitary Capacity Analysis (DSCA) Report** (must be submitted if proposed average flows are greater than 2,500 gallons per day)		
9.1	The DSCA Report must include a detailed downstream sewer capacity analysis and the calculations of and commitment to (via Developer commitment letter) the required financial contribution to the Town's I/I mitigation fund based on peak flow conditions. The contribution must be based on $250 per gallon per minute of mitigated flow		
IV Lighting Plan			
1.0	**Photometric plan showing light spread in foot candles at property lines**		
1.1	Detail of all light standards, including dimension of height from finished grade		
1.2	Detail of all exterior lighting fixtures		
V Landscape Plan			
1.0	**Wet/raised seal and signature of a licensed Landscape Architect**		
2.0	**Provide a calculation of the total Parking area and a calculation of interior parking area in square feet and as a percentage**		
3.0	**Indicate location, size, number and type of proposed landscape materials**		
4.0	**Indicate location, type and size of <u>all</u> existing trees 4" caliper or larger and indicate which will be removed or retained**		
VI Other Required Information/General Requirements			
1.0	**Complete boundary survey that includes all existing structures, acreage, legal description with reference to a property line, street, or other known feature, and easements plotted to scale by a NYS licensed land surveyor**		

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official Use
VI Other Required Information/General Requirements (cont'd)			
1.1	Copies of all easements, reciprocal access agreement or similar leag documents		
2.0	**Topographic Survey with a 30 ft. buffer outside all property lines by a NYS licensed land surveyor**		
3.0	**Draft of any deed restrictions, covenants, provisions for home associations and common ownership, and reciprocal easement agreements (as applicable).**		
4.0	**For assessment purposes, state intent to apply for condominium status (if applicable).**		
5.0	**Completed and signed Environmental Assessment Form**		
5.1	Soil boring report and geotechnical report prepared by a qualified Professional Engineer (if applicable)		
5.2	Traffic Impact Study (if applicable)		
5.3	Archaeological survey (if applicable		
5.4	Wetland Delineation report (if applicable)		
6.0	**Show existing zoning(s) of both the subject property and adjacent parcels on the Site Plan and the Landscape Plan**		
7.0	**Location of NYSDEC wetlands (including buffer area) and/or federal wetlands; indicate jurisdictional status**		
8.0	**Location of Floodway and floodplain** (if applicable)		
9.0	**Documentation pertaining to any conditions of zonings, including copies of required deed restrictions; indicate date of rezoning and the parcel address under which it was rezoned (if applicable)**		
10.0	**Documentation related to any required variances granted by the ZBA**		
11.0	**For residential site plans, provide a statement from the appropriate school district that adequate school sites and facilities are available.**		
12.0	**8 1/2" X 11" reduction of primary site plan drawing (see appendix "B" of application package for specifications)**		
13.0	**A CD containing a PDF of all site plan drawings (Must also be provided with revised drawings)**		
VII Additional Required Information for Projects in the Mixed Use Districts			
1.0	**Design Advisory Board Application**		
1.1	Required for Major Site Plan		
1.2	Required at the Planning Directors Discretion for Minor Site Plans		
2.0	**Block & Street Network Plan**		
2.1	Designation of Core, Local & Alley streets		
2.2	Dimensions of Blocks		
3.0	**Block Usage Plan (as applicable)**		
3.1	Designation of site usage for each block including open space areas		
4.0	**Phasing Plan**		

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

TOWN OF AMHERST ATTACHMENT
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM

1. For each applicable category of proposed new structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Lamson Very Fine Sandy Loam	✔				
Raynham Silt Loam 0-3% Slope	✔			✔	

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

_____ Geotechnical report attached ✔ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? ☐ Yes ☑ No
On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? ☐ Yes ☑ No

If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? ☐ Yes ☑ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
2.2 +/- acre project site, at 80 Creekside Dr Amherst, NY

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: ☐ Yes ☑ No

Describe_____

(Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per hour upon completion of project 3 (weekday pm peak)
Source: ITE Trip Generator

8. Will blasting occur during construction? ☐ Yes ☑ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ☐ Yes ☑ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:

30 average flow 120 peak flow.

(Please note that average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

For official use only:

_____
Approved/Date

X:\Current_Planning\Application Forms 2013 Working Doc\Major Site Plan\Site Plan Submittal Requirements and Checklist (3).doc

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

CARMINAWOOD
DESIGN

March 29, 2023

Scott A. Marshall
Principal Planner
Town of Amherst Planning Department
5583 Main Street
Williamsville, NY 14221

Re: Proposed Warehouse Addition
80 Creekside Drive
Amherst, NY 14228

Dear Scott:

On behalf of our client, 80 Creekside Drive, LLC, please find enclosed the following documents for processing and review:

(7) Revised Plan Set
(3) Revised Engineer's Report
(3) Revised Short EAF
(3) Geotechnical Report

The following sections of this letter have been prepared for the purpose of responding to the written comments from the Town of Amherst regarding the application and approval process for the proposed warehouse addition. For convenience, each of the written comments received from the Town of Amherst below are in *italics*, followed by a response.

Engineering Department 3/2/23:

1. Plans must be revised to include drainage inlets and associated construction detail(s).

Response: **Project area is proposed to sheet drain stormwater runoff to proposed detention pond.**

2. Engineer's Report must be revised to indicate planned water/sanitary use, if any.

Response: **Water and sewer lines will be tapped off of existing interior building. The engineering report has been revised to reflect this.**

3. The plan must also indicate that all vegetation must be removed from the swale along the eastern property line.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Response: The plan has been revised, please refer to sheet L-100.

Zoning Enforcement Officer Review 3/14/23:

1. Unable to determine compliance with §203-4-9-2 B of Town Code for the building height as no elevations were provided and unable to determine the accuracy of the allotted square footages of the building as no floor plan was provided.

Response: Included in this submittal are copies of the building floor plans at elevations.

2. *Unable to determine compliance with §203-7-1-6 A of Town Code (required parking) as no floor plan of the proposed addition and existing building were provided. It appears that the parking calculations do not account for all or part of the existing building (10,000± sq.ft.) If necessary, provide the required amount of parking stalls per §203-7-1 of Town Code on the site plan.*

Response:

3. The required landscape area adjacent to the proposed building is not provided on the north and west sides of the proposed building addition in accordance with per §203-7-2-3 A (2) of Town Code. Further, provide the locations of any exterior doors for the building addition on the site plan drawings.

Response: There are no proposed exterior doors for the addition. Landscape plan has been updated to on the north and west sides of the proposed addition. Please refer to Sheet L-100.

4. The required buffer and screening is not provided along the west property line opposite the proposed building addition and south of the existing vegetation shown to remain. Provide a low impact screen as required by §203-7-2-4 B of Town Code in this area.

Response: Landscape plan has been updated to reflect those changes. Please refer to Sheet L-100

5. The existing vegetation shown to remain on site will count towards the buffer and screening requirement subject to the requirements of §203-7-2-4 B (1) (a) or §203-7-2-4 B (3) (a) of Town Code as applicable.

Response: Comment Noted

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

6. Unable to determine compliance with §203-7-3-4 D of Town Code for lighting levels at the adjacent property boundaries. Revise the lighting plan to demonstrate the lighting level in foot candles at the adjacent property lines or to a point where zero foot-candles of light are being emitted.

Response: Lighting plan has been revised. Please refer to Sheet LP-100.

7. No details of the proposed light fixtures were provided that indicates that the fixtures are dark sky compliant and full-cutoff at 90 degrees per §203-7-3-5 A (1) of Town Code.

Response: Lighting plan has been revised to include lighting detail for OPF Optiform Luminaire. Please refer to Sheet LP-100.

8. Indicate all areas of any proposed outdoor storage on site including storage trailers, pursuant to §203-7-4 of Town Code.

Response: There are no additional proposed outdoor storage on site. Please refer to site plan Sheet C-100

Planning Department Staff Review 3/14/23:

1. Indicate the zoning districts on the site plan for the properties which abut the subject development.

Response: Site plan has been revised to show adjacent properties zoning districts. Please refer to Sheet C-100.

2. Revised the title of the Planting Schedule on Sheet L-100 to illustrate the correct project address.

Response: Landscape plan has been revised. Please refer to Sheet L-100.

3. During a site visit on March 10, 2023, Planning Staff identified the following;

> *a. A dumpster was identified on the site and not shown on the plans. If the dumpster is to remain on the site provide its location on the site plan drawings, demonstrating compliance with §203-7-2-4 D of Town Code. Further, provide a detail of the required enclosure for review.*
>
> **Response: Site plan has been updated to indicate the location of the proposed dumpster enclosure. Please refer to Sheet C-100.**

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

b. The presence of cars parked outside of the delineated parking spaces on site infers the need for additional parking to be provided.

Response: Site layout has been updated to show eight (8) additional parking spaces. Please refer to Sheet C-100.

4. As required by §203-7-2-4 (C) of Town Code; All dumpsters/trash containers and all mechanical equipment, utility structures, multiple meter boards, generators, RPZ's and similar appurtenances, including those which are mounted on any part of a primary structure shall be appropriately screened with a fence, wall, and/or landscaping. Such screening shall be shown on the plans submitted for review.

Response: Comment Noted

5. On the plans indicate any other site features that may be proposed such, as generators, hot boxes, condenser units, multiple meter boards, external grease interceptors, fire pits, grilling areas, patios etc. and provide the associated details.

Response: There are no proposed site features such as generators, hot boxes, condenser units, multiple meter boards, external grease interceptors, fire pits, grilling areas, patios etc. Please refer to Sheet C-100.

6. Per Town Code, Four (4) foot wide concrete sidewalks are required along the Creekside Drive frontage of the parcel and be continuous across all driveway openings unless waived by the Planning Board. If a waiver is requested, provide the request in writing.

Response: Response to this comment will serve as the applicants request of a sidewalk waiver.

7. Correct the Town of Amherst attachment to the SEQR EAF for item #1. The soil types on the site and listed on the form should all indicate "severe". Check geotechnical report attached" in item 2.

Response: EAF has been revised.

8. The required geotechnical report must be submitted prior to the Planning Board making a SEQR determination.

Response: A geotechnical report will be attached with this submission.

9. Provide the required reserved 4"x6" area in the lower right hand corner of all drawings for official Town use.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Response: **Due to the drawing title block, site data, legend, scale bar, notes, etc. the reserved 4"x6" area may not be directly located in the bottom right corner of the drawings but is provided on all plans near the bottom left corners.**

10. Please provide an $8\frac{1}{2}$" x 11" reduction of the site plan and an electronic version of any revised plans, amended or additional materials submitted for review.

Response: **An electronic version will be submitted with this submission.**

Landscape Architect Review 3/14/23:

1. Petitioner and petitioner's contractor shall take all reasonable measures to protect existing trees which are to be preserved from all possible types of root, trunk, and limb damage; including but not limited to retaining walls which prevent filling on top of roots or excavating tree roots as required by §203-7-2-3 (B) (3) of Town Code.

Response: **Comment Noted**

2. All previously required trees and shrubs from the previously approved site plan must be alive and in a vigorous condition as per Zoning Ordinance 7-2-7. All dead or missing plants shall be re-placed or re-planted in the locations shown on the plan.

Response: **Comment Noted**

3. As per zoning ordinance 7-2-4 (C) (I) Non-single-family residential properties which may be viewed from residential uses, public streets or public park areas shall screen all roof, ground and wall mounted mechanical equipment (utility structures, multiple meter boards, generators, air condi-tioning units, backflow preventer [RPZ] hot boxes, etc.) from view at ground level of the property line.

Response: **Comment Noted**

If you should have any questions regarding this letter, please contact me at (716) 550-3342. Thank you.

Sincerely,

Long Nguyen |Civil Engineer

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
Proposed Warehouse Addition

Project Location (describe, and attach a location map):
80 Creekside Drive Town of Amherst Erie County

Brief Description of Proposed Action:
Construction of a 10,525 sf warehouse addition and associated site improvements.

Name of Applicant or Sponsor:	Telephone: 716-842-3165, ext 103
80 Creekside Drive, LLC c/o Christopher Wood, PE Carmina Wood Design	E-Mail: cwood@carminawooddesign.com

Address:
487 Main St

City/PO:	State:	Zip Code:
Buffalo	NY	14203

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3. a. Total acreage of the site of the proposed action? 2.2 acres
   b. Total acreage to be physically disturbed? 0.8 +/- acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 2.2 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☑ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?	NO	YES
If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES
	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☑	☐
9. Does the proposed action meet or exceed the state energy code requirements?	NO	YES
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☑
10. Will the proposed action connect to an existing public/private water supply?	NO	YES
If No, describe method for providing potable water: _____ _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities?	NO	YES
If No, describe method for providing wastewater treatment: _____ _____	☐	☑
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	NO	YES
	☑	☐
Regarding item b. below, the site has previously been disturbed b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO	YES
	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ Note that wetlands are not present on site _____ _____		

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☐	☑
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe:		
storm water from the proposed project will discharge to an existing on-site ditch and ultimately the drainage system on Creekside Drive.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe:		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Christopher Wood, PE Date: 12/14/22

Signature: Title: project engineer

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

PRINT FORM

EAF Mapper Summary Report

Thursday, December 15, 2022 9:



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	No

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

TOWN OF AMHERST ATTACHMENT
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM

1. For each applicable category of proposed new structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Lamson Very Fine Sandy Loam	✔				
Raynham Silt Loam 0-3% Slope	✔			✔	

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   ✔ Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? ☐ Yes ☑ No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? ☐ Yes ☑ No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? ☐ Yes ☑ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   2.2 +/- acre project site, at 80 Creekside Dr Amherst, NY

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: ☐ Yes ☑ No

   Describe_____

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per hour upon completion of project 3 (weekday pm peak)
   Source: ITE Trip Generator

8. Will blasting occur during construction? ☐ Yes ☑ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ☐ Yes ☑ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:

    30 average flow 120 peak flow.

    (Please note that average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

CARMINAWOOD
DESIGN

ENGINEER'S REPORT

for

Proposed Warehouse Addition
80 Creekside Drive
Town of Amherst, Erie County, NY 14228

Prepared for

80 Creekside Drive, LLC

80 Creekside Drive
Amherst, NY 14228

Prepared by

Carmina Wood Design

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

February 2023



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

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Section 3 – Water System
Section 4 – Sanitary Sewer Service
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Appendix B Hydrocad Report
Appendix C Soil Report

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Proposed Warehouse Addition
80 Creekside Drive
Town of Amherst, NY 14228

3/26/2023

Section 1 - Location & Description

This project is the redevelopment of a 2.2-acre site located at 80 Creekside Dr in the Town of Amherst and is currently zoned 'RD – Research and Development'. Construction will consist of a proposed 10,525 GSF 1-story warehouse addition with associated utility and landscaping improvements on the north side of the site. The existing site consists of a 10,486 SF medical equipment manufacturer facility and a 16 space parking lot. The majority of the existing surface stormwater generated within the project area sheet drains from the west side of the site to the east side into an existing ditch and eventually to existing catching basins around the outside of the site. The proposed site development area to be disturbed for this project is approximately 0.84 acres in total when construction is completed.

Section 2 – Storm Sewer Service

The stormwater runoff from the proposed project area for this proposed development will be routed through the proposed storm sewer system consisting of a detention pond and smooth interior HDPE pipes. Perimeter drains around the proposed warehouse addition will collect roof runoff and will be directed into the detention pond. The proposed hydrology for the re-development project area will consist of a combination of overland sheet flow and pipe channel flow. A proposed 6" culvert will control runoff from the detention pond into an existing ditch on site.

NYSDOT Requirement:
The NYSDOT requires that runoff from the proposed 25-yr storm event be less than the existing 10-yr storm event runoff rate.

Design Criteria
Storm pipes: 10-year storm
Detention: Comparison of the existing 10-year vs. the proposed 25-year runoff.

Event	Ex Runoff (cfs)	Prop Runoff (cfs)
10-yr	***0.88***	0.59
25-yr	1.74	***0.75***

See Appendix B for Storm Water Calculations

Section 3 – Water System

The proposed water service for the warehouse addition will be tapped off of the existing building interior.

Section 4 – Sanitary Sewer Service

The proposed sanitary sewer service for the warehouse addition will be tapped off of the existing building interior.

Section 5 – Erosion Control Summary

Stabilization Practices
Stabilization practices for this site include:

A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
B. Use of stabilization fabric for all slopes having a slope greater than 1V:3H.
C. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
D. Mulching exposed areas.
E. Frequent watering to minimize wind erosion during construction.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Structural Practices
Structural practices for this site include:

A. Inlet protection using a method detailed in the Construction Documents
B. Perimeter protection using temporary silt fence
C. Temporary stone wash off areas

Sequence of Major Activities

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

A. Install perimeter silt fences in the locations shown on the Demo & Erosion Control Plan sheet.
B. Demolition of existing building shown on the Demo & Erosion Control Plan sheet
C. Commence site grading.
D. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
E. Construction of building.
F. Installation of proposed utilities.
G. Finalize pavement subgrade preparation.
H. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all new inlets.
I. Dust control.
J. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
K. Install base material as required for pavement.
L. Carry out final grading and seeding and planting.
M. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

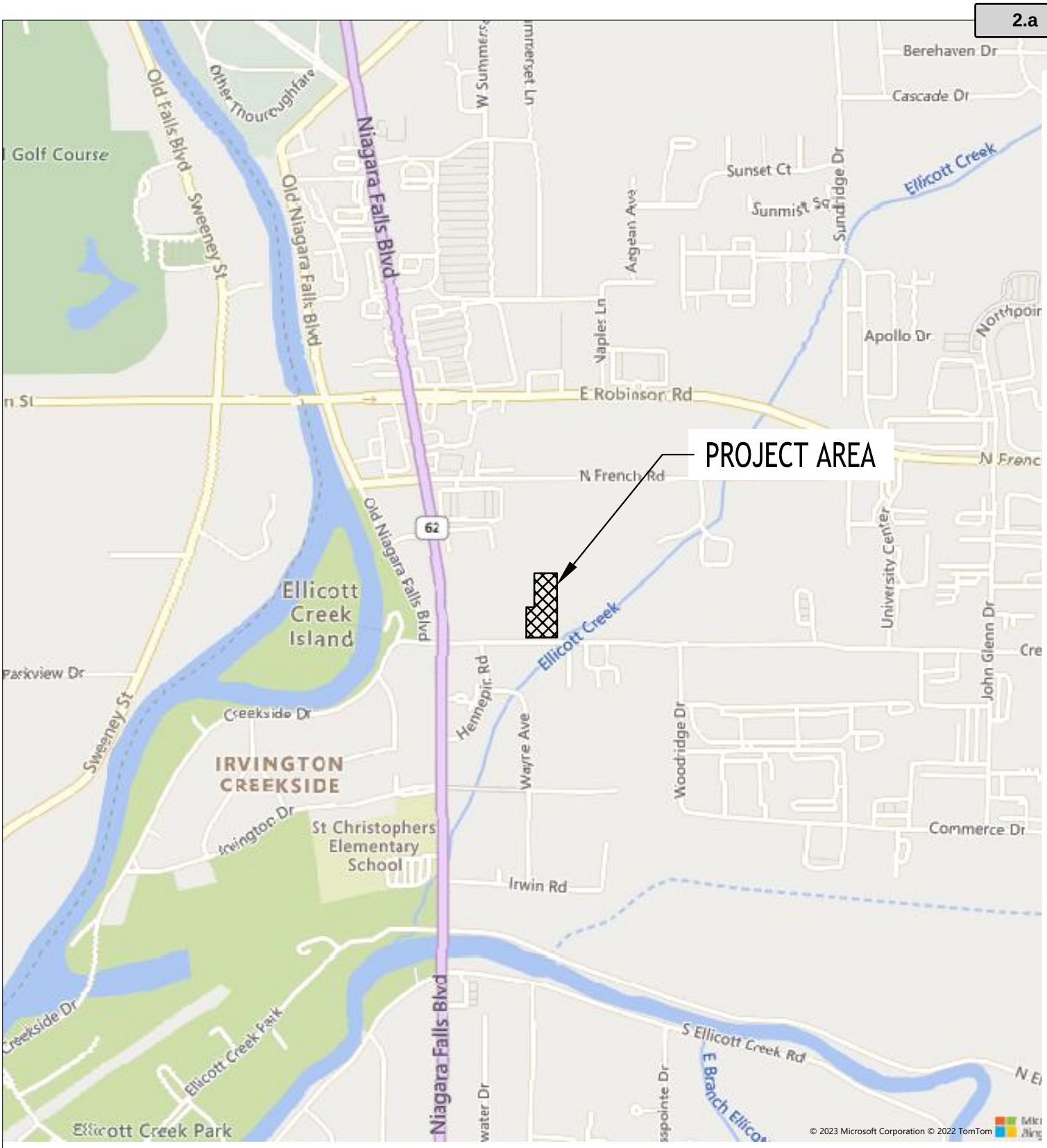
Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Appendix A

Site Location Map

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)



N

SCALE: 1"=1,000'

CARMINA WOOD DESIGN

Buffalo | Utica | Greensboro

PROJECT NAME:
Pro. Warehouse Addition

ADDRESS:
80 Creekside Drive
Amherst, NY 142228

DATE:
12/08/22

DRAWN BY:
C. WOOD

PROJECT NO:
22.350

DRAWING NAME:
Site Location Map

DRAWING NO.
APP-A

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

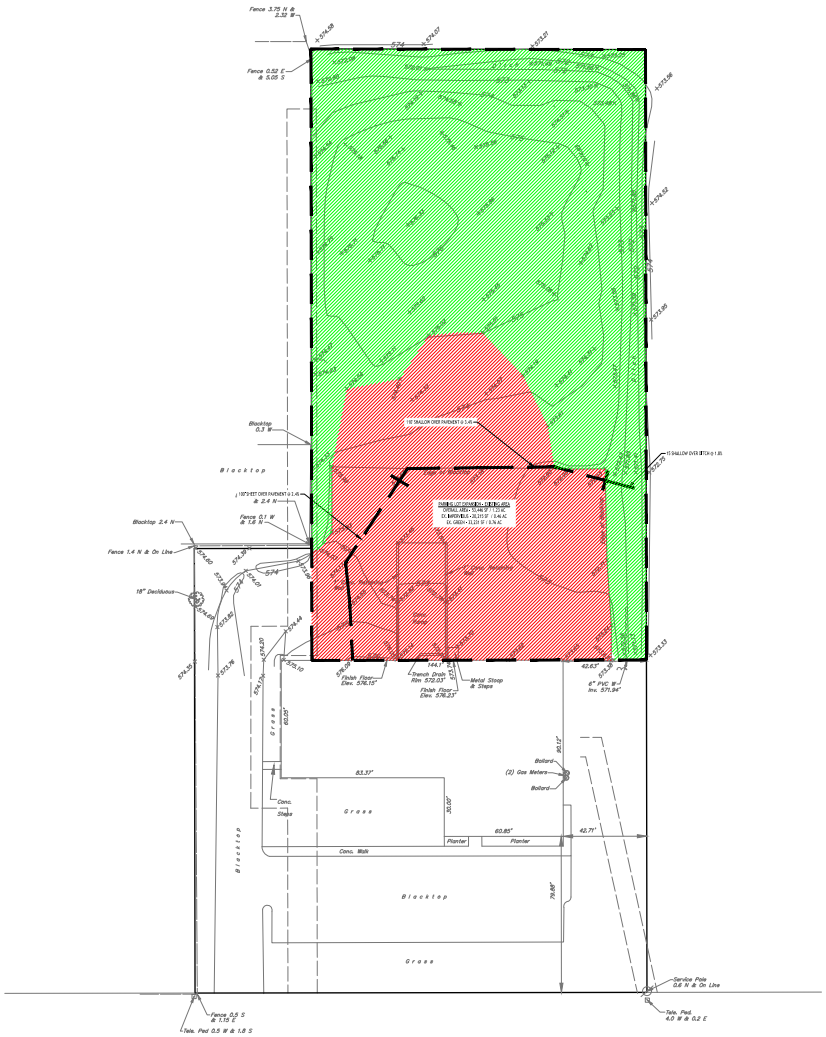
Appendix B

HydroCAD Reports

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

All Rights Reserved. Reuse of these documents without the expressed written permission of CARMINAWOOD DESIGN is prohibited. WARNING is a violation of article 145 sections 7209 and 7210 of the New York State Education Law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor to alter this drawing. If altered such A.A., P.E. or L.L.S. shall affix his or her seal, signature, the date, the notation "Altered By" and a specific description of the alteration.

© CARMINA WOOD DESIGN



CREEKSIDE DRIVE

N

EXISTING STORM DRAINAGE PLAN

SCALE: 1"=30'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60FL

CARMINAWOOD

Prop. Warehouse Addition

REVISIONS:

No.	Description	Date

DRAWING NA

Existing S
Drainage

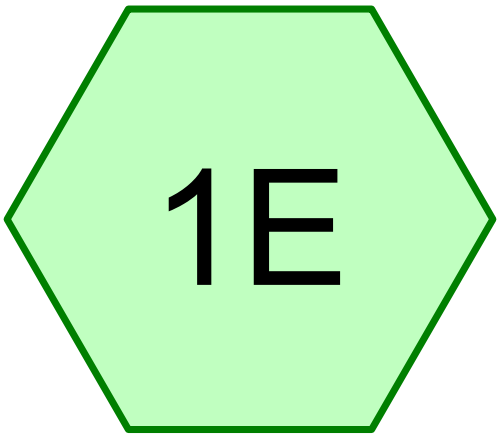
Date: /08/22
Drawn By: . Wood
Scale: : Noted

DRAWING NO.

Project No:

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)



Existing

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Subcat Reach Pond Link

Routing Diagram for 22.350 Existing
Prepared by Carmina Wood Morris, PC, Printed 2/21/2023
HydroCAD® 10.20-2g s/n 05019 © 2022 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	1.87	2
2	5-Year	Type II 24-hr		Default	24.00	1	2.69	2
3	10-Year	Type II 24-hr		Default	24.00	1	3.14	2
4	25-Year	Type II 24-hr		Default	24.00	1	3.84	2
5	100-Year	Type II 24-hr		Default	24.00	1	5.23	2

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1E: Existing

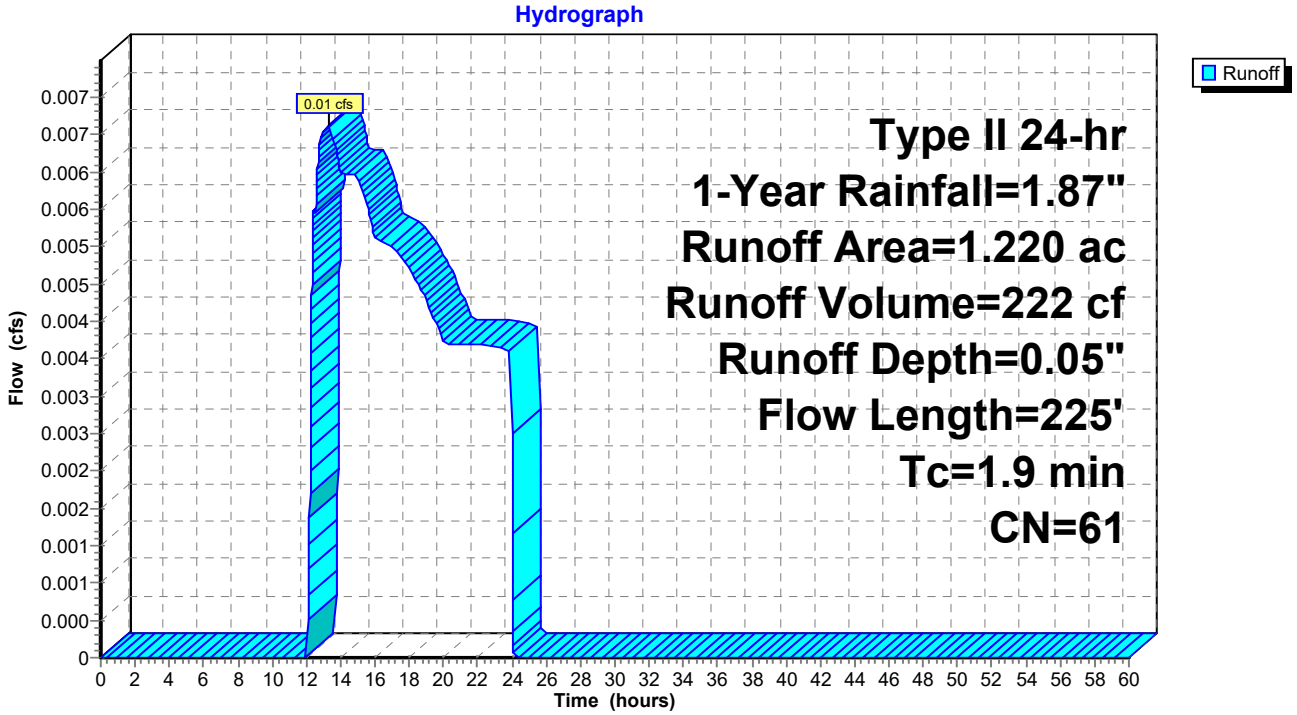
Runoff = 0.01 cfs @ 13.26 hrs, Volume= 222 cf, Depth= 0.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (ac)	CN	Description
0.460	98	Paved parking, HSG A
0.760	39	>75% Grass cover, Good, HSG A
1.220	61	Weighted Average
0.760		62.30% Pervious Area
0.460		37.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0240	1.31		**Sheet Flow, PAVEMENT** Smooth surfaces n= 0.011 P2= 2.50"
0.5	110	0.0340	3.74		**Shallow Concentrated Flow, Shallow Pavement** Paved Kv= 20.3 fps
0.1	15	0.0180	2.01		**Shallow Concentrated Flow, Shallow Grass** Grassed Waterway Kv= 15.0 fps
1.9	225	Total			

Subcatchment 1E: Existing



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1E: Existing

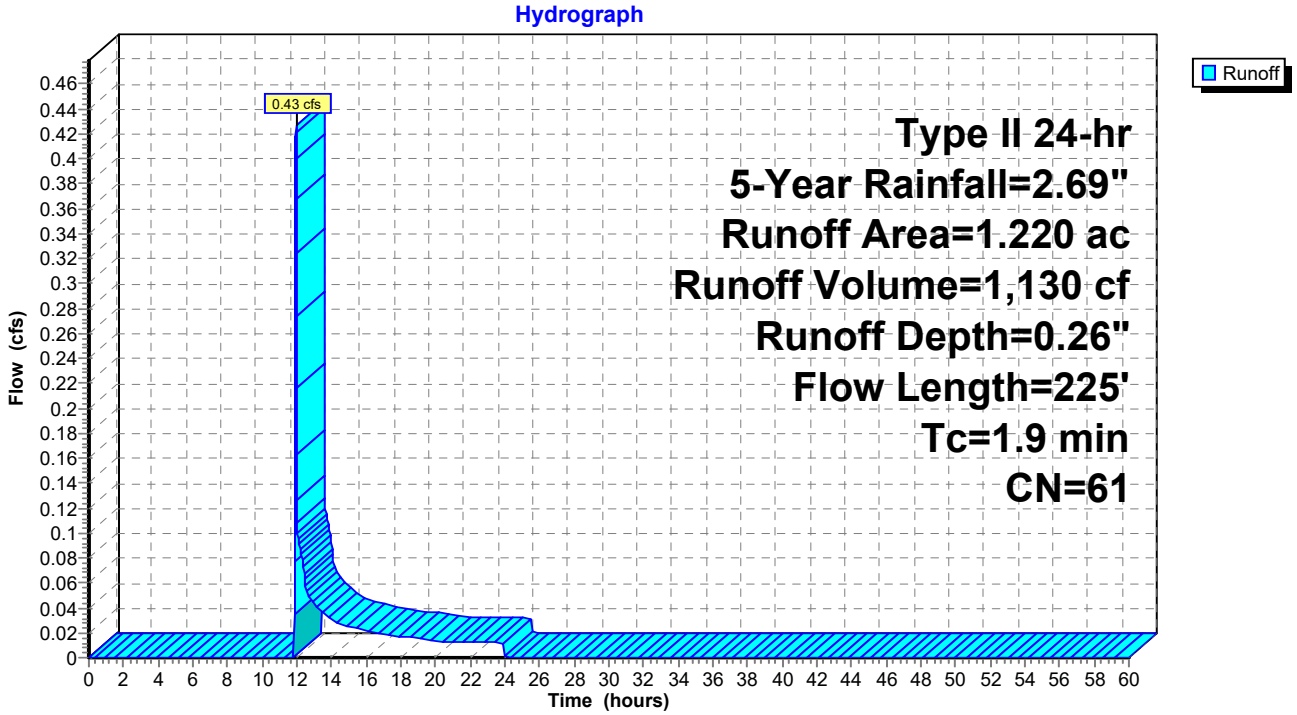
Runoff = 0.43 cfs @ 11.95 hrs, Volume= 1,130 cf, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=2.69"

Area (ac)	CN	Description
0.460	98	Paved parking, HSG A
0.760	39	>75% Grass cover, Good, HSG A
1.220	61	Weighted Average
0.760		62.30% Pervious Area
0.460		37.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0240	1.31		**Sheet Flow, PAVEMENT** Smooth surfaces n= 0.011 P2= 2.50"
0.5	110	0.0340	3.74		**Shallow Concentrated Flow, Shallow Pavement** Paved Kv= 20.3 fps
0.1	15	0.0180	2.01		**Shallow Concentrated Flow, Shallow Grass** Grassed Waterway Kv= 15.0 fps
1.9	225	Total			

Subcatchment 1E: Existing



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1E: Existing

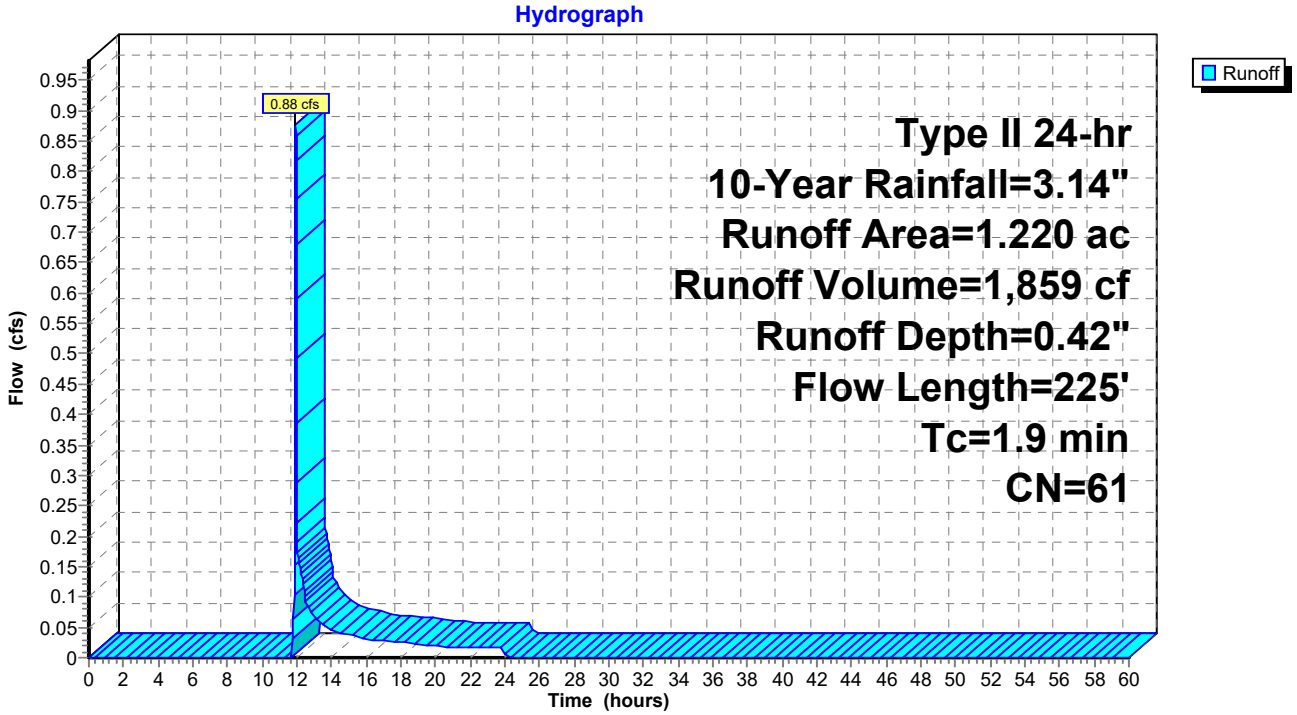
Runoff = 0.88 cfs @ 11.94 hrs, Volume= 1,859 cf, Depth= 0.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (ac)	CN	Description
0.460	98	Paved parking, HSG A
0.760	39	>75% Grass cover, Good, HSG A
1.220	61	Weighted Average
0.760		62.30% Pervious Area
0.460		37.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0240	1.31		**Sheet Flow, PAVEMENT** Smooth surfaces n= 0.011 P2= 2.50"
0.5	110	0.0340	3.74		**Shallow Concentrated Flow, Shallow Pavement** Paved Kv= 20.3 fps
0.1	15	0.0180	2.01		**Shallow Concentrated Flow, Shallow Grass** Grassed Waterway Kv= 15.0 fps
1.9	225	Total			

Subcatchment 1E: Existing



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1E: Existing

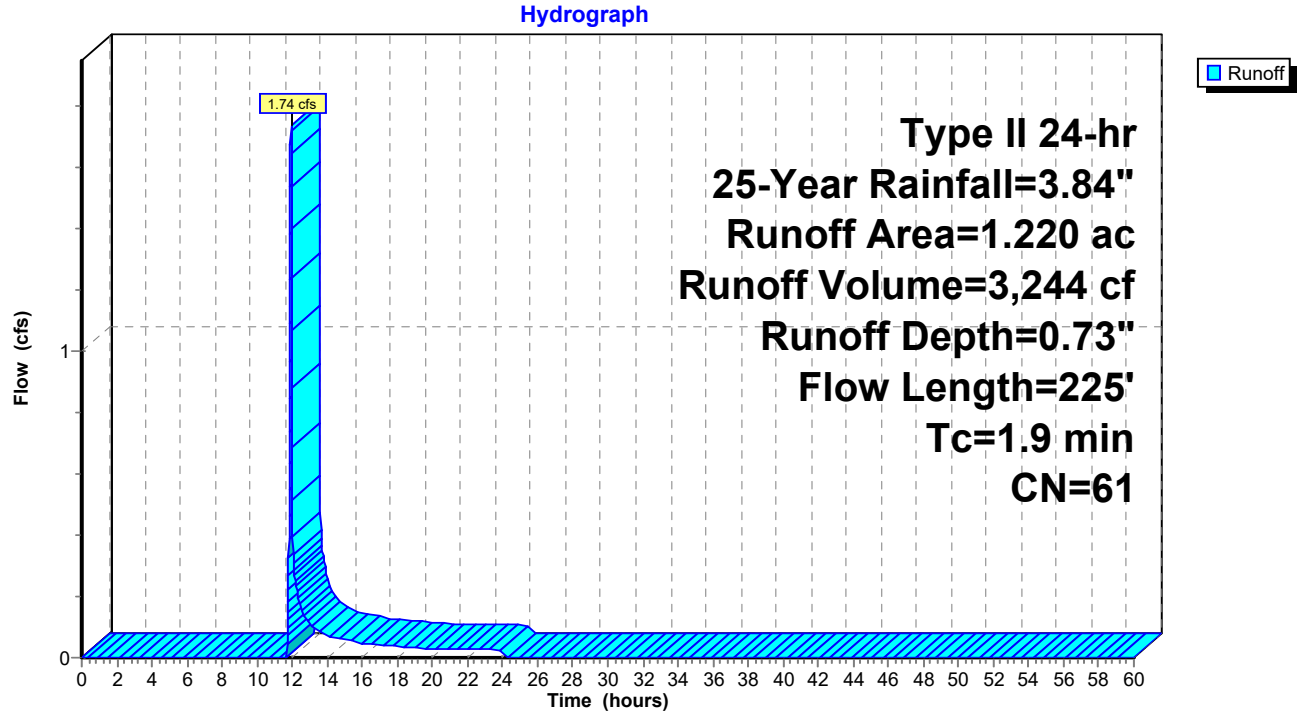
Runoff = 1.74 cfs @ 11.93 hrs, Volume= 3,244 cf, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (ac)	CN	Description
0.460	98	Paved parking, HSG A
0.760	39	>75% Grass cover, Good, HSG A
1.220	61	Weighted Average
0.760		62.30% Pervious Area
0.460		37.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0240	1.31		**Sheet Flow, PAVEMENT** Smooth surfaces n= 0.011 P2= 2.50"
0.5	110	0.0340	3.74		**Shallow Concentrated Flow, Shallow Pavement** Paved Kv= 20.3 fps
0.1	15	0.0180	2.01		**Shallow Concentrated Flow, Shallow Grass** Grassed Waterway Kv= 15.0 fps
1.9	225	Total			

Subcatchment 1E: Existing



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1E: Existing

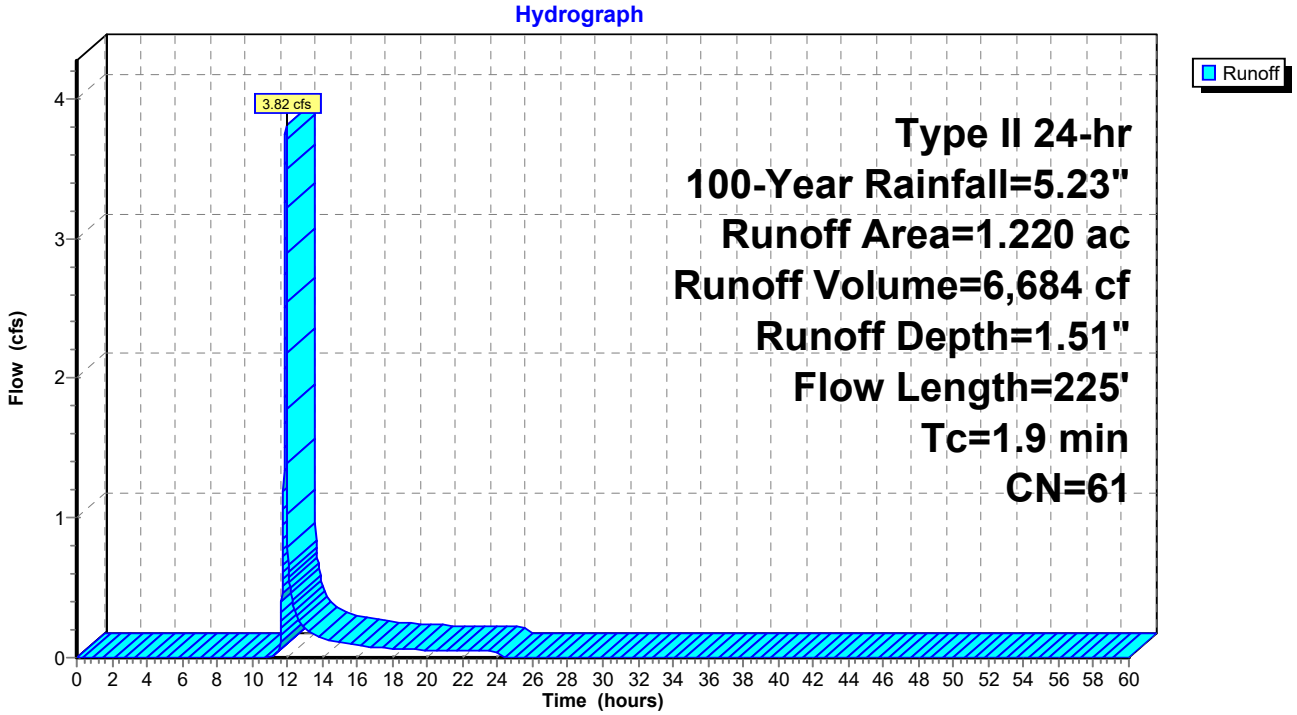
Runoff = 3.82 cfs @ 11.93 hrs, Volume= 6,684 cf, Depth= 1.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (ac)	CN	Description
0.460	98	Paved parking, HSG A
0.760	39	>75% Grass cover, Good, HSG A
1.220	61	Weighted Average
0.760		62.30% Pervious Area
0.460		37.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0240	1.31		**Sheet Flow, PAVEMENT** Smooth surfaces n= 0.011 P2= 2.50"
0.5	110	0.0340	3.74		**Shallow Concentrated Flow, Shallow Pavement** Paved Kv= 20.3 fps
0.1	15	0.0180	2.01		**Shallow Concentrated Flow, Shallow Grass** Grassed Waterway Kv= 15.0 fps
1.9	225	Total			

Subcatchment 1E: Existing



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

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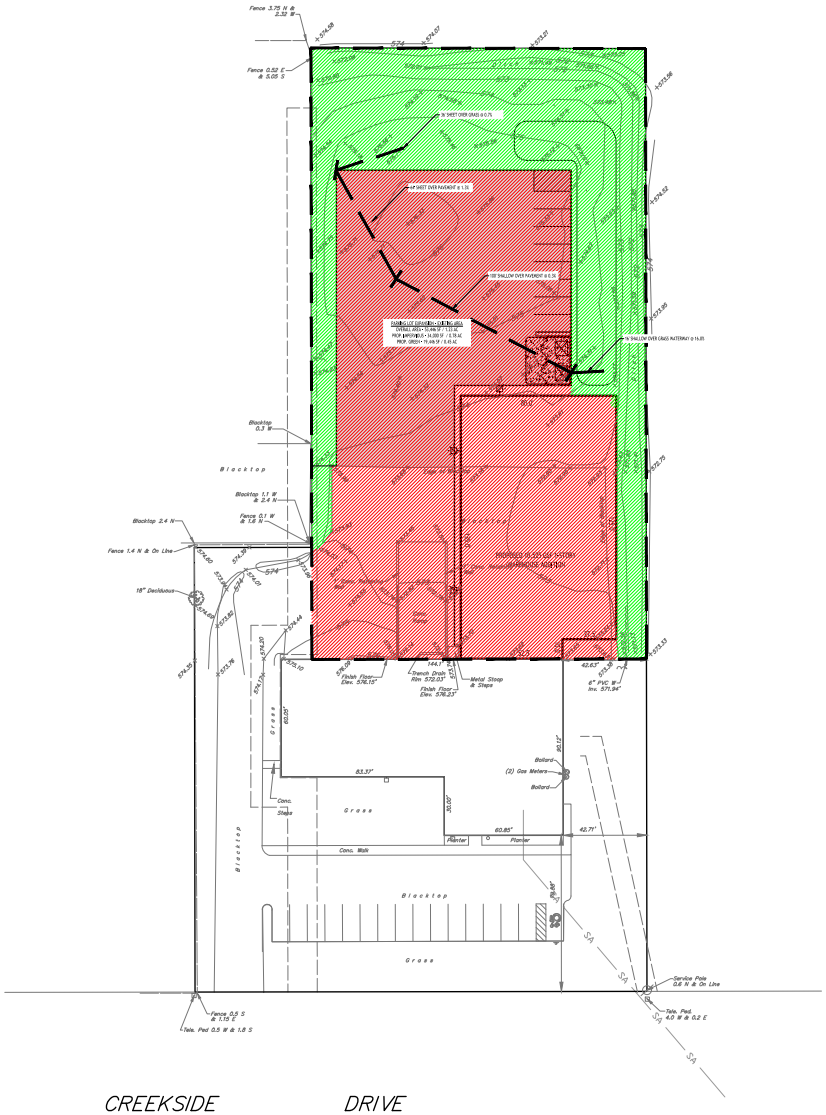


N

PROPOSED STORM DRAINAGE PLAN

SCALE: 1"=30'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS. CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60FL

CARMINAWOOD

Prop. Warehouse Addition

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

REVISIONS:

No.	Description	Date

DRAWING NAME:

Packet Pg. 550

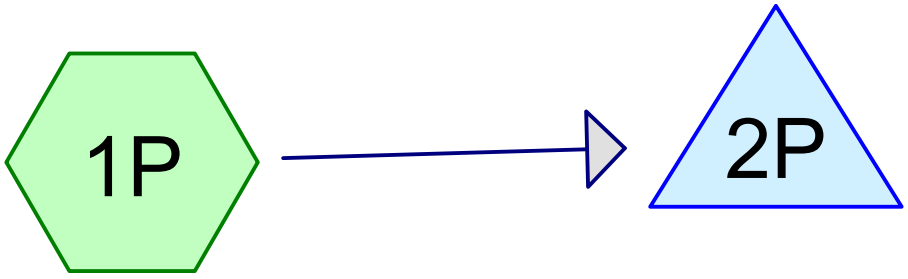
Date: 02/08/23
Drawn By: C. Wood
Scale: As Noted

DRAWING NO.

Project No: 22.350

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Current Drainage Plan



Proposed

Detention Pond

Subcat Reach Pond Link

Routing Diagram for 22.350 Proposed
Prepared by Carmina Wood Morris, PC, Printed 2/21/2023
HydroCAD® 10.20-2g s/n 05019 © 2022 HydroCAD Software Solutions LLC

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type II 24-hr		Default	24.00	1	1.87	2
2	5-Year	Type II 24-hr		Default	24.00	1	2.69	2
3	10-Year	Type II 24-hr		Default	24.00	1	3.14	2
4	25-Year	Type II 24-hr		Default	24.00	1	3.84	2
5	100-Year	Type II 24-hr		Default	24.00	1	5.23	2

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
19,602	39	>75% Grass cover, Good, HSG A (1P)
33,977	98	Paved parking, HSG A (1P)
53,579	**76**	**TOTAL AREA**

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
53,579	HSG A	1P
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
53,579		**TOTAL AREA**

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
19,602	0	0	0	0	19,602	>75% Grass cover, Good	
33,977	0	0	0	0	33,977	Paved parking	
53,579	**0**	**0**	**0**	**0**	**53,579**	**TOTAL AREA**	

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)
1	2P	572.00	571.85	15.0	0.0100	0.012	0.0	6.0	0.0

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Time span=0.00-60.00 hrs, dt=0.01 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: Proposed Runoff Area=1.230 ac 63.41% Impervious Runoff Depth=0.35"
Flow Length=216' Tc=10.0 min CN=76 Runoff=0.57 cfs 1,558 cf

Pond 2P: Detention Pond Peak Elev=572.27' Storage=374 cf Inflow=0.57 cfs 1,558 cf
6.0" Round Culvert n=0.012 L=15.0' S=0.0100 '/' Outflow=0.15 cfs 1,557 cf

Total Runoff Area = 53,579 sf Runoff Volume = 1,558 cf Average Runoff Depth = 0.35"
36.59% Pervious = 19,602 sf 63.41% Impervious = 33,977 sf

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1P: Proposed

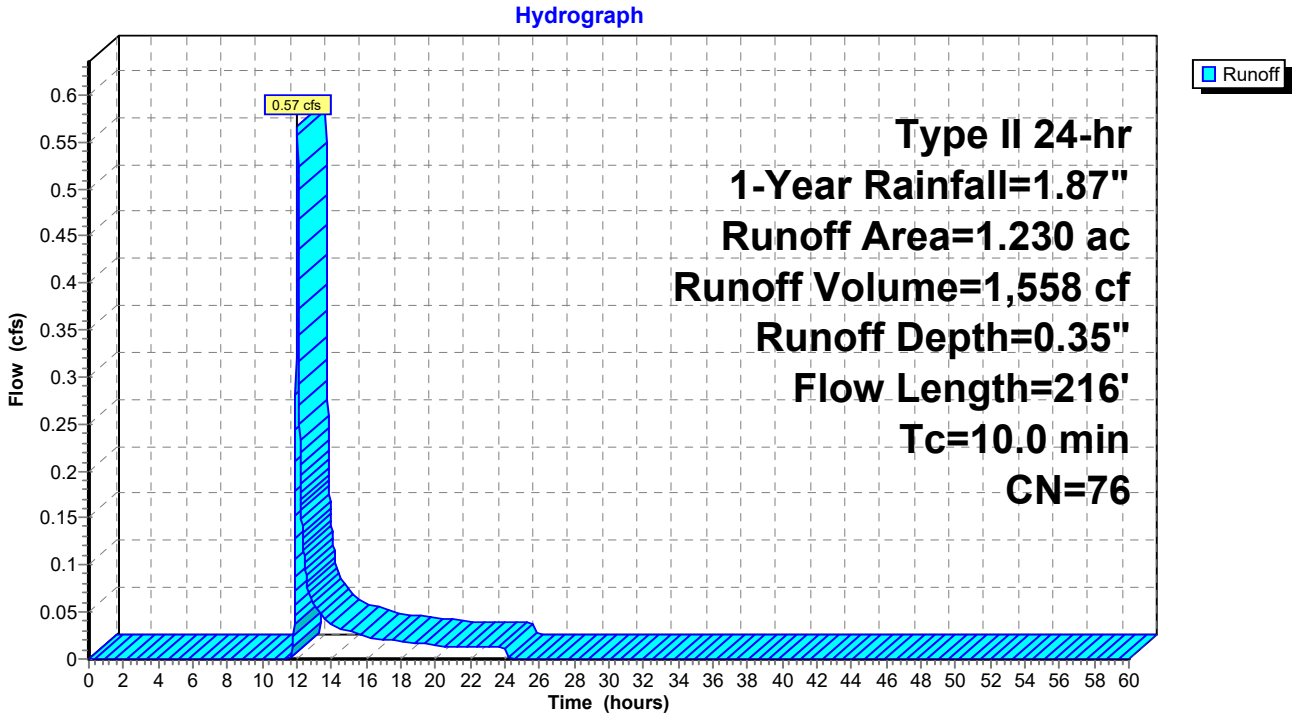
Runoff = 0.57 cfs @ 12.04 hrs, Volume= 1,558 cf, Depth= 0.35"
Routed to Pond 2P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=1.87"

Area (ac)	CN	Description
0.780	98	Paved parking, HSG A
0.450	39	>75% Grass cover, Good, HSG A
1.230	76	Weighted Average
0.450		36.59% Pervious Area
0.780		63.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	36	0.0070	0.08		**Sheet Flow, Sheet-Grass** Grass: Short n= 0.150 P2= 2.50"
1.1	64	0.0130	0.94		**Sheet Flow, Shee-Pavement** Smooth surfaces n= 0.011 P2= 2.50"
1.5	100	0.0030	1.11		**Shallow Concentrated Flow, Shallow-Pavement** Paved Kv= 20.3 fps
0.0	16	0.1600	6.00		**Shallow Concentrated Flow, Shallow Grassway** Grassed Waterway Kv= 15.0 fps
10.0	216	Total			

Subcatchment 1P: Proposed



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Pond 2P: Detention Pond

Inflow Area = 53,579 sf, 63.41% Impervious, Inflow Depth = 0.35" for 1-Year event
Inflow = 0.57 cfs @ 12.04 hrs, Volume= 1,558 cf
Outflow = 0.15 cfs @ 12.27 hrs, Volume= 1,557 cf, Atten= 73%, Lag= 14.2 min
Primary = 0.15 cfs @ 12.27 hrs, Volume= 1,557 cf

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 572.27' @ 12.27 hrs Surf.Area= 1,519 sf Storage= 374 cf

Plug-Flow detention time= 84.3 min calculated for 1,557 cf (100% of inflow)
Center-of-Mass det. time= 84.2 min (981.2 - 897.0)

Volume	Invert	Avail.Storage	Storage Description
#1	572.00'	4,506 cf	**Detention (Prismatic)**Listed below (Recalc)

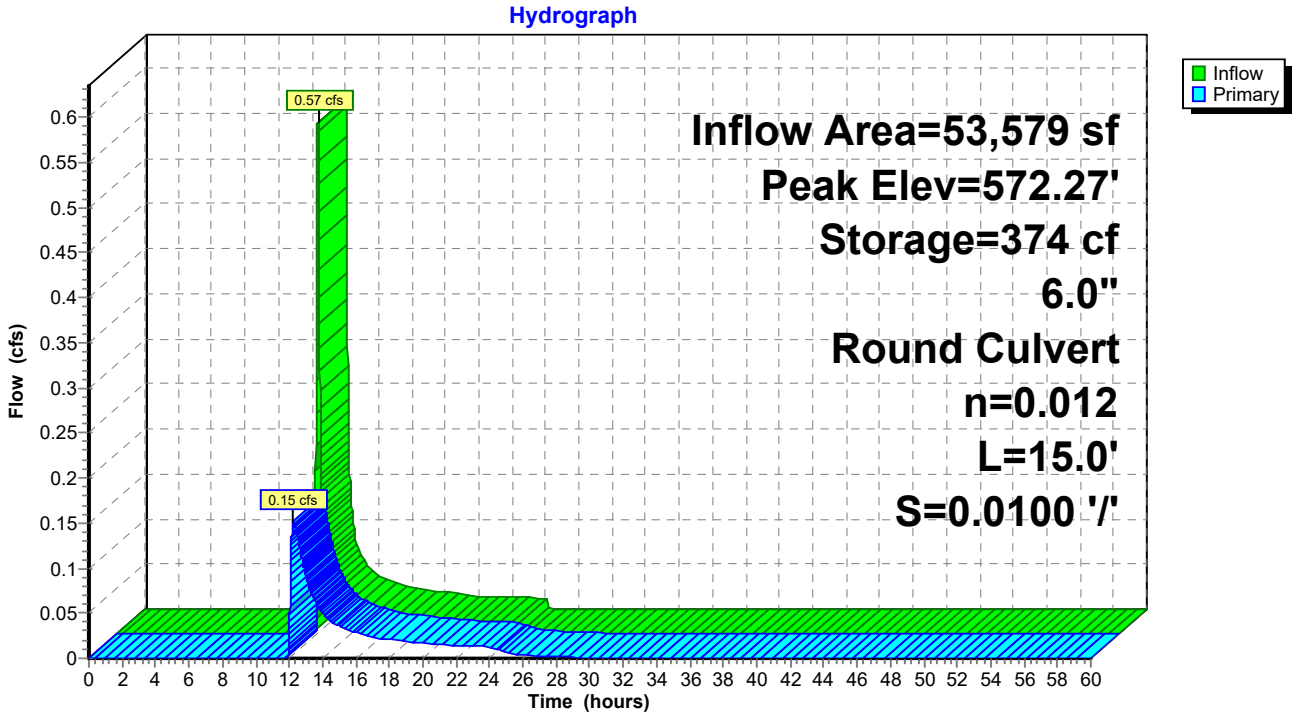
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
572.00	1,254	0	0
573.00	2,239	1,747	1,747
574.00	3,280	2,760	4,506

Device	Routing	Invert	Outlet Devices
#1	Primary	572.00'	**6.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 572.00' / 571.85' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.15 cfs @ 12.27 hrs HW=572.27' (Free Discharge)
1=Culvert (Inlet Controls 0.15 cfs @ 1.40 fps)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Pond 2P: Detention Pond



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Time span=0.00-60.00 hrs, dt=0.01 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: Proposed Runoff Area=1.230 ac 63.41% Impervious Runoff Depth=0.81"
Flow Length=216' Tc=10.0 min CN=76 Runoff=1.49 cfs 3,627 cf

Pond 2P: Detention Pond Peak Elev=572.64' Storage=1,010 cf Inflow=1.49 cfs 3,627 cf
6.0" Round Culvert n=0.012 L=15.0' S=0.0100 '/' Outflow=0.47 cfs 3,626 cf

Total Runoff Area = 53,579 sf Runoff Volume = 3,627 cf Average Runoff Depth = 0.81"
36.59% Pervious = 19,602 sf 63.41% Impervious = 33,977 sf

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1P: Proposed

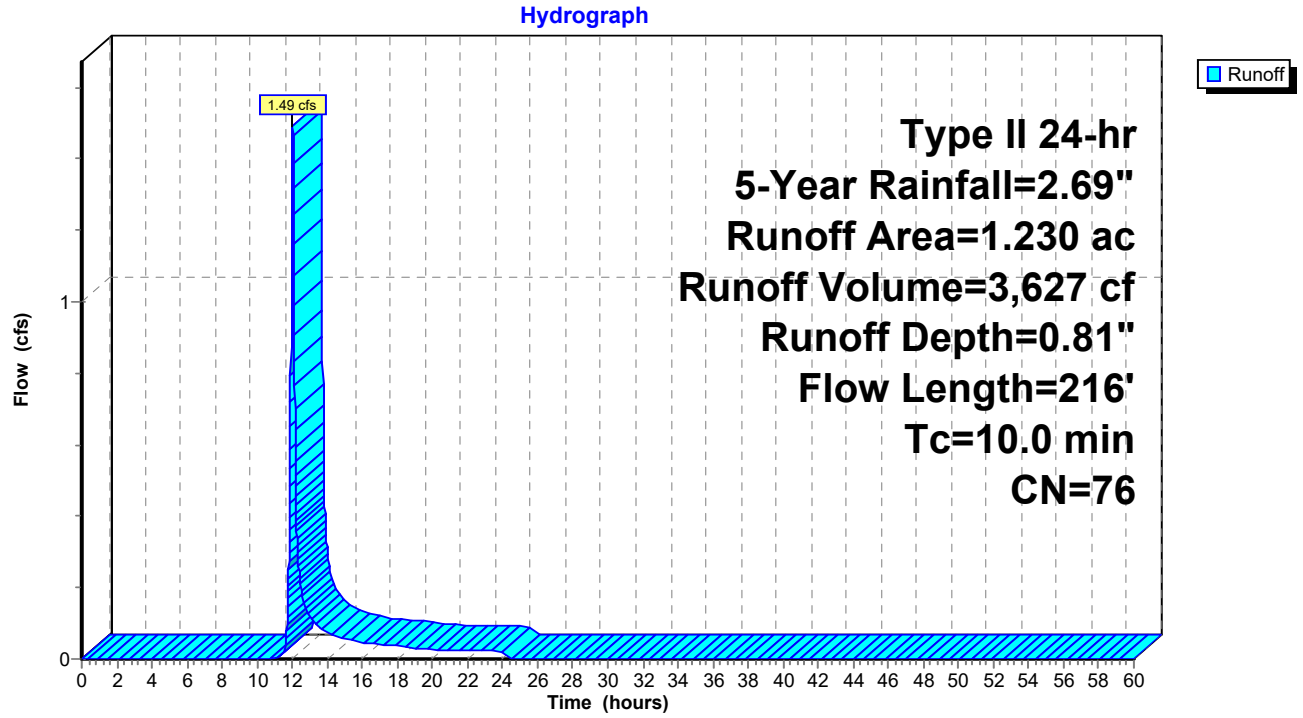
Runoff = 1.49 cfs @ 12.03 hrs, Volume= 3,627 cf, Depth= 0.81"
Routed to Pond 2P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Year Rainfall=2.69"

Area (ac)	CN	Description
0.780	98	Paved parking, HSG A
0.450	39	>75% Grass cover, Good, HSG A
1.230	76	Weighted Average
0.450		36.59% Pervious Area
0.780		63.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	36	0.0070	0.08		**Sheet Flow, Sheet-Grass** Grass: Short n= 0.150 P2= 2.50"
1.1	64	0.0130	0.94		**Sheet Flow, Shee-Pavement** Smooth surfaces n= 0.011 P2= 2.50"
1.5	100	0.0030	1.11		**Shallow Concentrated Flow, Shallow-Pavement** Paved Kv= 20.3 fps
0.0	16	0.1600	6.00		**Shallow Concentrated Flow, Shallow Grassway** Grassed Waterway Kv= 15.0 fps
10.0	216	Total			

Subcatchment 1P: Proposed



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Pond 2P: Detention Pond

Inflow Area = 53,579 sf, 63.41% Impervious, Inflow Depth = 0.81" for 5-Year event
Inflow = 1.49 cfs @ 12.03 hrs, Volume= 3,627 cf
Outflow = 0.47 cfs @ 12.21 hrs, Volume= 3,626 cf, Atten= 69%, Lag= 10.7 min
Primary = 0.47 cfs @ 12.21 hrs, Volume= 3,626 cf

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 572.64' @ 12.21 hrs Surf.Area= 1,887 sf Storage= 1,010 cf

Plug-Flow detention time= 56.6 min calculated for 3,626 cf (100% of inflow)
Center-of-Mass det. time= 56.8 min (923.6 - 866.8)

Volume	Invert	Avail.Storage	Storage Description
#1	572.00'	4,506 cf	**Detention (Prismatic)**Listed below (Recalc)

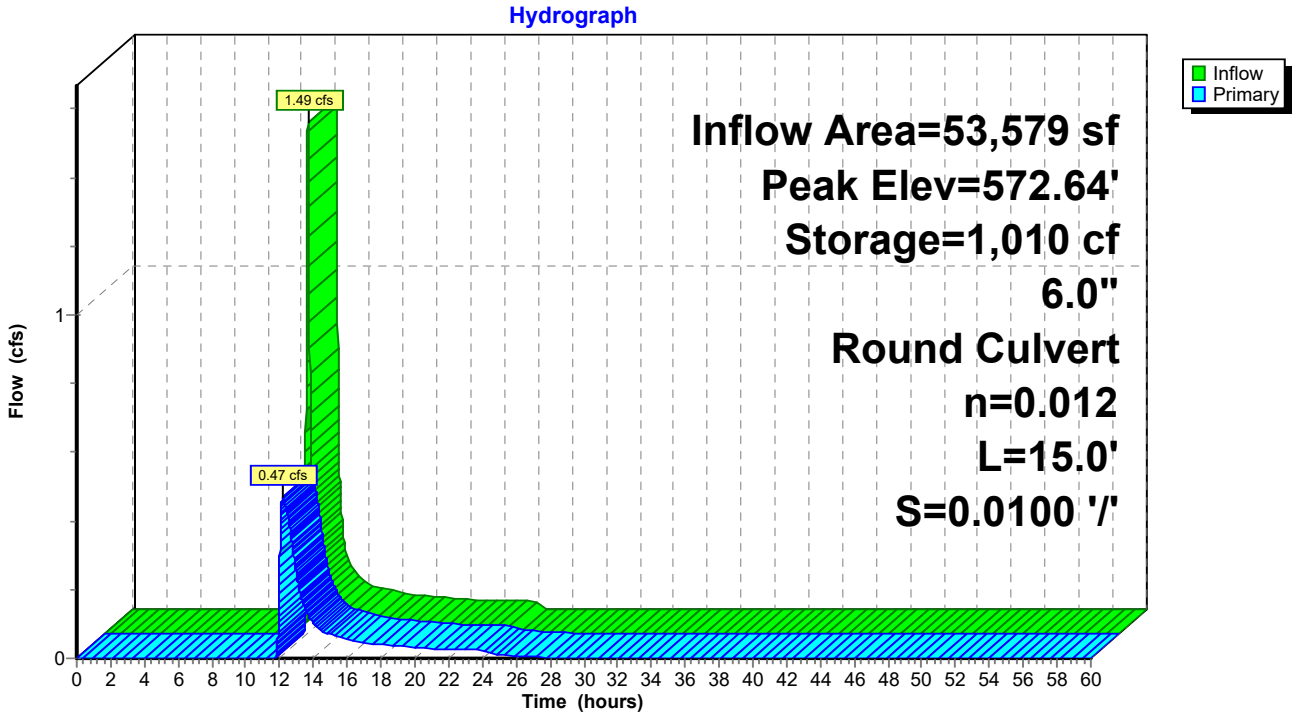
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
572.00	1,254	0	0
573.00	2,239	1,747	1,747
574.00	3,280	2,760	4,506

Device	Routing	Invert	Outlet Devices
#1	Primary	572.00'	**6.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 572.00' / 571.85' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.47 cfs @ 12.21 hrs HW=572.64' (Free Discharge)
1=Culvert (Inlet Controls 0.47 cfs @ 2.38 fps)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Pond 2P: Detention Pond



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Time span=0.00-60.00 hrs, dt=0.01 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: Proposed Runoff Area=1.230 ac 63.41% Impervious Runoff Depth=1.11"
Flow Length=216' Tc=10.0 min CN=76 Runoff=2.08 cfs 4,958 cf

Pond 2P: Detention Pond Peak Elev=572.88' Storage=1,493 cf Inflow=2.08 cfs 4,958 cf
6.0" Round Culvert n=0.012 L=15.0' S=0.0100 '/' Outflow=0.59 cfs 4,958 cf

Total Runoff Area = 53,579 sf Runoff Volume = 4,958 cf Average Runoff Depth = 1.11"
36.59% Pervious = 19,602 sf 63.41% Impervious = 33,977 sf

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1P: Proposed

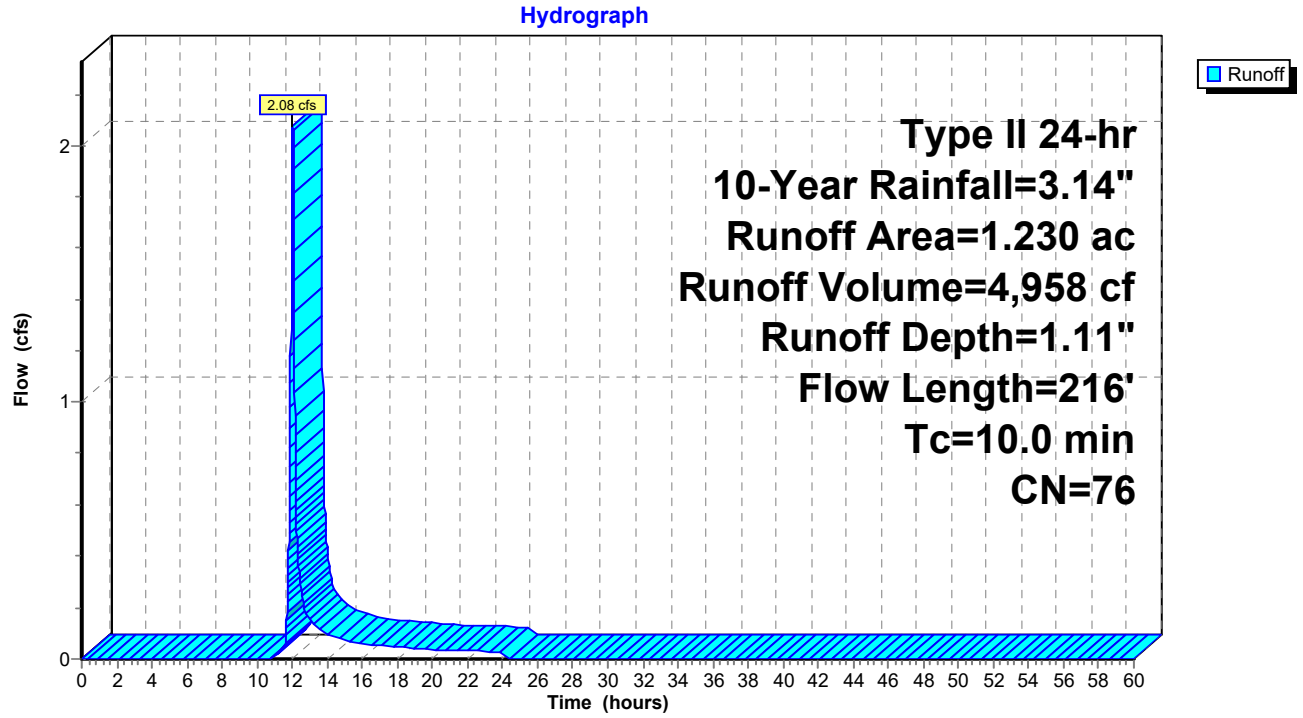
Runoff = 2.08 cfs @ 12.02 hrs, Volume= 4,958 cf, Depth= 1.11"
Routed to Pond 2P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.14"

Area (ac)	CN	Description
0.780	98	Paved parking, HSG A
0.450	39	>75% Grass cover, Good, HSG A
1.230	76	Weighted Average
0.450		36.59% Pervious Area
0.780		63.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	36	0.0070	0.08		**Sheet Flow, Sheet-Grass** Grass: Short n= 0.150 P2= 2.50"
1.1	64	0.0130	0.94		**Sheet Flow, Shee-Pavement** Smooth surfaces n= 0.011 P2= 2.50"
1.5	100	0.0030	1.11		**Shallow Concentrated Flow, Shallow-Pavement** Paved Kv= 20.3 fps
0.0	16	0.1600	6.00		**Shallow Concentrated Flow, Shallow Grassway** Grassed Waterway Kv= 15.0 fps
10.0	216	Total			

Subcatchment 1P: Proposed



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Pond 2P: Detention Pond

Inflow Area = 53,579 sf, 63.41% Impervious, Inflow Depth = 1.11" for 10-Year event
Inflow = 2.08 cfs @ 12.02 hrs, Volume= 4,958 cf
Outflow = 0.59 cfs @ 12.22 hrs, Volume= 4,958 cf, Atten= 71%, Lag= 11.5 min
Primary = 0.59 cfs @ 12.22 hrs, Volume= 4,958 cf

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 572.88' @ 12.22 hrs Surf.Area= 2,125 sf Storage= 1,493 cf

Plug-Flow detention time= 52.2 min calculated for 4,957 cf (100% of inflow)
Center-of-Mass det. time= 52.4 min (909.5 - 857.0)

Volume	Invert	Avail.Storage	Storage Description
#1	572.00'	4,506 cf	**Detention (Prismatic)**Listed below (Recalc)

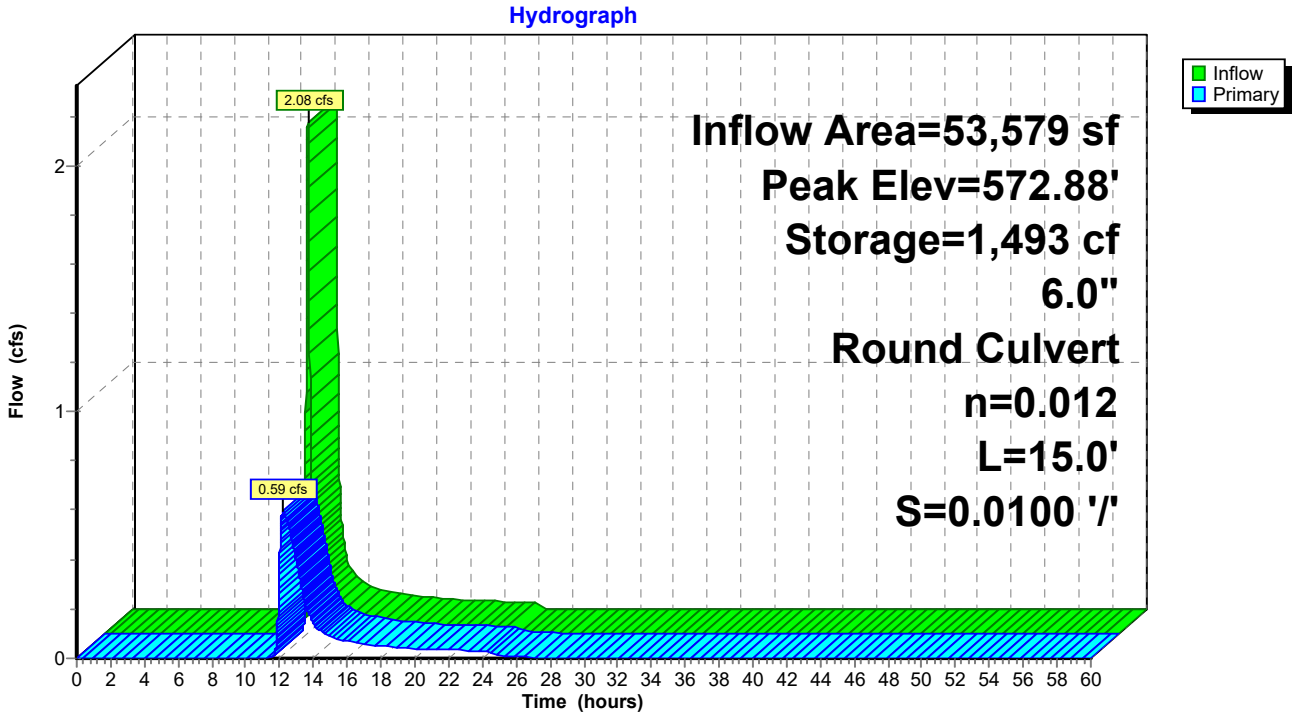
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
572.00	1,254	0	0
573.00	2,239	1,747	1,747
574.00	3,280	2,760	4,506

Device	Routing	Invert	Outlet Devices
#1	Primary	572.00'	**6.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 572.00' / 571.85' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.59 cfs @ 12.22 hrs HW=572.88' (Free Discharge)
1=Culvert (Inlet Controls 0.59 cfs @ 3.03 fps)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Pond 2P: Detention Pond



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Time span=0.00-60.00 hrs, dt=0.01 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: Proposed Runoff Area=1.230 ac 63.41% Impervious Runoff Depth=1.62"
Flow Length=216' Tc=10.0 min CN=76 Runoff=3.06 cfs 7,219 cf

Pond 2P: Detention Pond Peak Elev=573.27' Storage=2,378 cf Inflow=3.06 cfs 7,219 cf
6.0" Round Culvert n=0.012 L=15.0' S=0.0100 '/' Outflow=0.75 cfs 7,219 cf

Total Runoff Area = 53,579 sf Runoff Volume = 7,219 cf Average Runoff Depth = 1.62"
36.59% Pervious = 19,602 sf 63.41% Impervious = 33,977 sf

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1P: Proposed

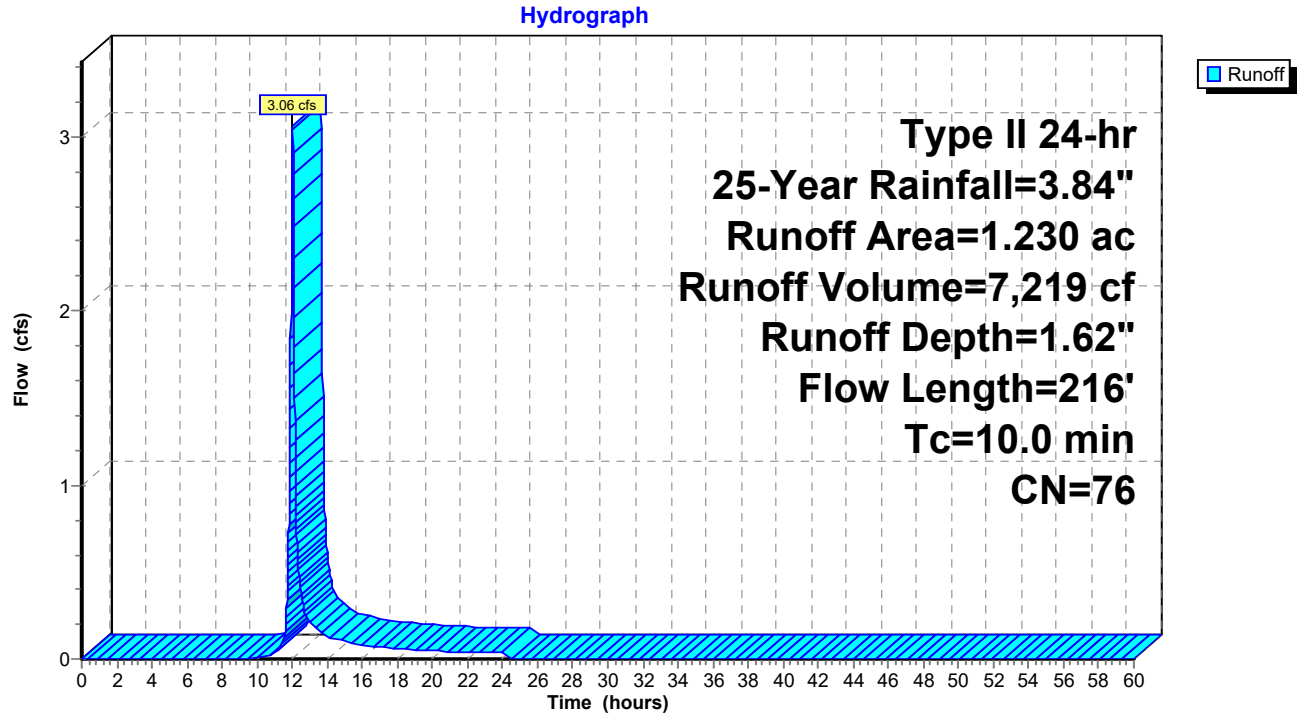
Runoff = 3.06 cfs @ 12.02 hrs, Volume= 7,219 cf, Depth= 1.62"
Routed to Pond 2P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=3.84"

Area (ac)	CN	Description
0.780	98	Paved parking, HSG A
0.450	39	>75% Grass cover, Good, HSG A
1.230	76	Weighted Average
0.450		36.59% Pervious Area
0.780		63.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	36	0.0070	0.08		**Sheet Flow, Sheet-Grass** Grass: Short n= 0.150 P2= 2.50"
1.1	64	0.0130	0.94		**Sheet Flow, Shee-Pavement** Smooth surfaces n= 0.011 P2= 2.50"
1.5	100	0.0030	1.11		**Shallow Concentrated Flow, Shallow-Pavement** Paved Kv= 20.3 fps
0.0	16	0.1600	6.00		**Shallow Concentrated Flow, Shallow Grassway** Grassed Waterway Kv= 15.0 fps
10.0	216	Total			

Subcatchment 1P: Proposed



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Pond 2P: Detention Pond

Inflow Area = 53,579 sf, 63.41% Impervious, Inflow Depth = 1.62" for 25-Year event
Inflow = 3.06 cfs @ 12.02 hrs, Volume= 7,219 cf
Outflow = 0.75 cfs @ 12.24 hrs, Volume= 7,219 cf, Atten= 75%, Lag= 13.0 min
Primary = 0.75 cfs @ 12.24 hrs, Volume= 7,219 cf

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 573.27' @ 12.24 hrs Surf.Area= 2,516 sf Storage= 2,378 cf

Plug-Flow detention time= 51.2 min calculated for 7,219 cf (100% of inflow)
Center-of-Mass det. time= 51.1 min (896.9 - 845.8)

Volume	Invert	Avail.Storage	Storage Description
#1	572.00'	4,506 cf	**Detention (Prismatic)**Listed below (Recalc)

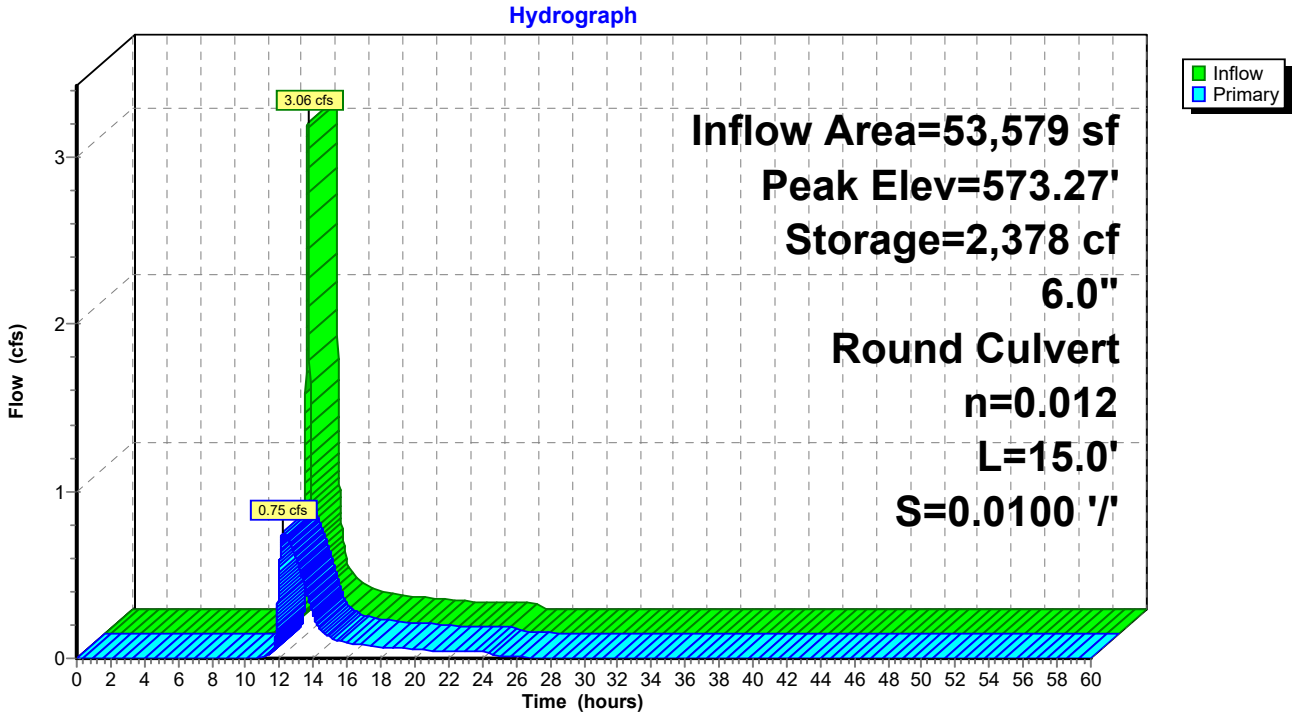
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
572.00	1,254	0	0
573.00	2,239	1,747	1,747
574.00	3,280	2,760	4,506

Device	Routing	Invert	Outlet Devices
#1	Primary	572.00'	**6.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 572.00' / 571.85' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.75 cfs @ 12.24 hrs HW=573.27' (Free Discharge)
1=Culvert (Inlet Controls 0.75 cfs @ 3.83 fps)

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Pond 2P: Detention Pond



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Time span=0.00-60.00 hrs, dt=0.01 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1P: Proposed Runoff Area=1.230 ac 63.41% Impervious Runoff Depth=2.73"
Flow Length=216' Tc=10.0 min CN=76 Runoff=5.17 cfs 12,172 cf

Pond 2P: Detention Pond Peak Elev=573.99' Storage=4,460 cf Inflow=5.17 cfs 12,172 cf
6.0" Round Culvert n=0.012 L=15.0' S=0.0100 '/' Outflow=0.98 cfs 12,172 cf

Total Runoff Area = 53,579 sf Runoff Volume = 12,172 cf Average Runoff Depth = 2.73"
36.59% Pervious = 19,602 sf 63.41% Impervious = 33,977 sf

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Subcatchment 1P: Proposed

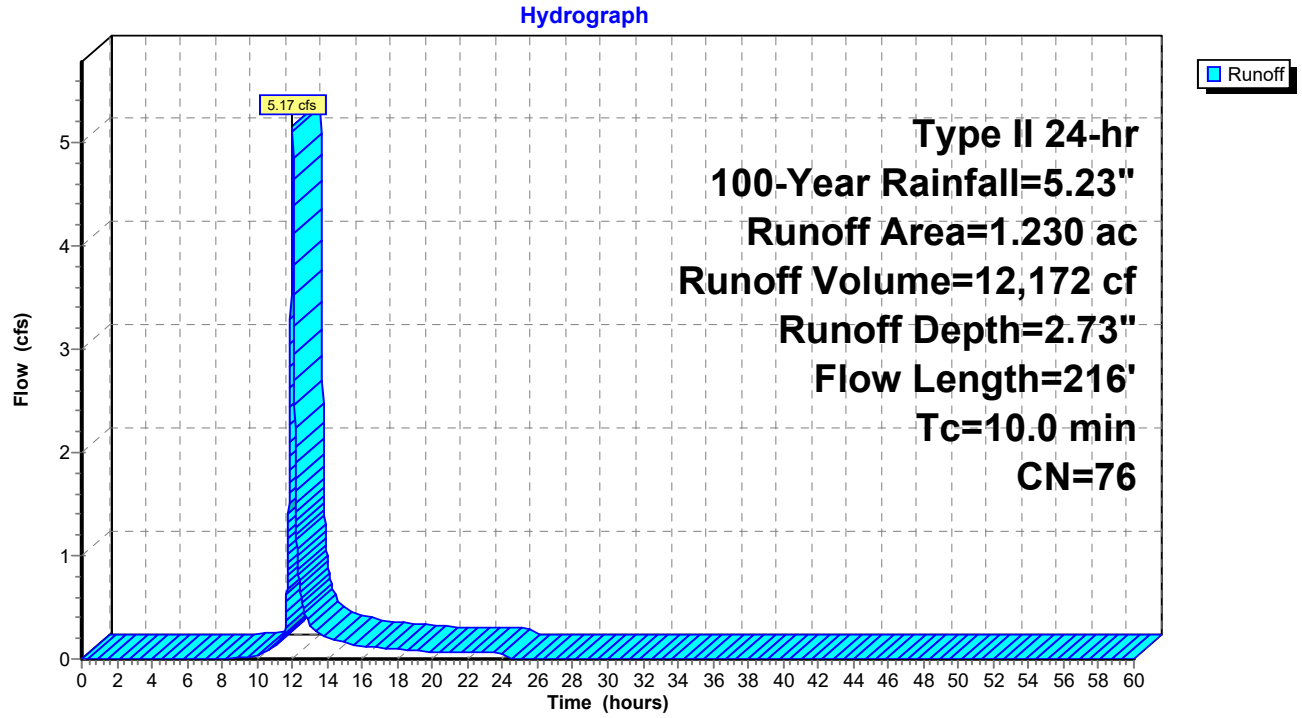
Runoff = 5.17 cfs @ 12.02 hrs, Volume= 12,172 cf, Depth= 2.73"
Routed to Pond 2P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.23"

Area (ac)	CN	Description
0.780	98	Paved parking, HSG A
0.450	39	>75% Grass cover, Good, HSG A
1.230	76	Weighted Average
0.450		36.59% Pervious Area
0.780		63.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	36	0.0070	0.08		**Sheet Flow, Sheet-Grass** Grass: Short n= 0.150 P2= 2.50"
1.1	64	0.0130	0.94		**Sheet Flow, Shee-Pavement** Smooth surfaces n= 0.011 P2= 2.50"
1.5	100	0.0030	1.11		**Shallow Concentrated Flow, Shallow-Pavement** Paved Kv= 20.3 fps
0.0	16	0.1600	6.00		**Shallow Concentrated Flow, Shallow Grassway** Grassed Waterway Kv= 15.0 fps
10.0	216	Total			

Subcatchment 1P: Proposed



Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Summary for Pond 2P: Detention Pond

Inflow Area = 53,579 sf, 63.41% Impervious, Inflow Depth = 2.73" for 100-Year event
Inflow = 5.17 cfs @ 12.02 hrs, Volume= 12,172 cf
Outflow = 0.98 cfs @ 12.29 hrs, Volume= 12,172 cf, Atten= 81%, Lag= 16.2 min
Primary = 0.98 cfs @ 12.29 hrs, Volume= 12,172 cf

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Peak Elev= 573.99' @ 12.29 hrs Surf.Area= 3,265 sf Storage= 4,460 cf

Plug-Flow detention time= 56.1 min calculated for 12,170 cf (100% of inflow)
Center-of-Mass det. time= 56.3 min (887.1 - 830.8)

Volume	Invert	Avail.Storage	Storage Description
#1	572.00'	4,506 cf	**Detention (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
572.00	1,254	0	0
573.00	2,239	1,747	1,747
574.00	3,280	2,760	4,506

Device	Routing	Invert	Outlet Devices
#1	Primary	572.00'	**6.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 572.00' / 571.85' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.98 cfs @ 12.29 hrs HW=573.99' (Free Discharge)
1=Culvert (Inlet Controls 0.98 cfs @ 5.01 fps)

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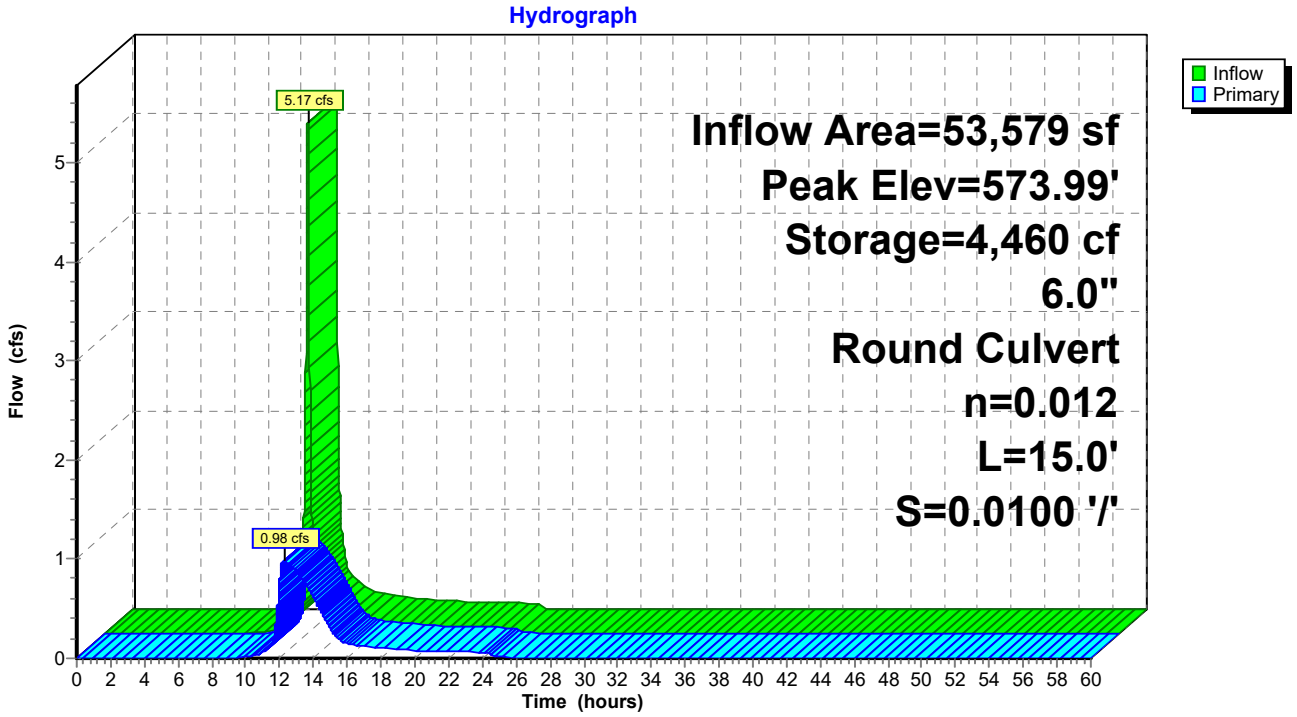
Pond 2P: Detention Pond



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Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Appendix C

Soil Report

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Erie County, New York

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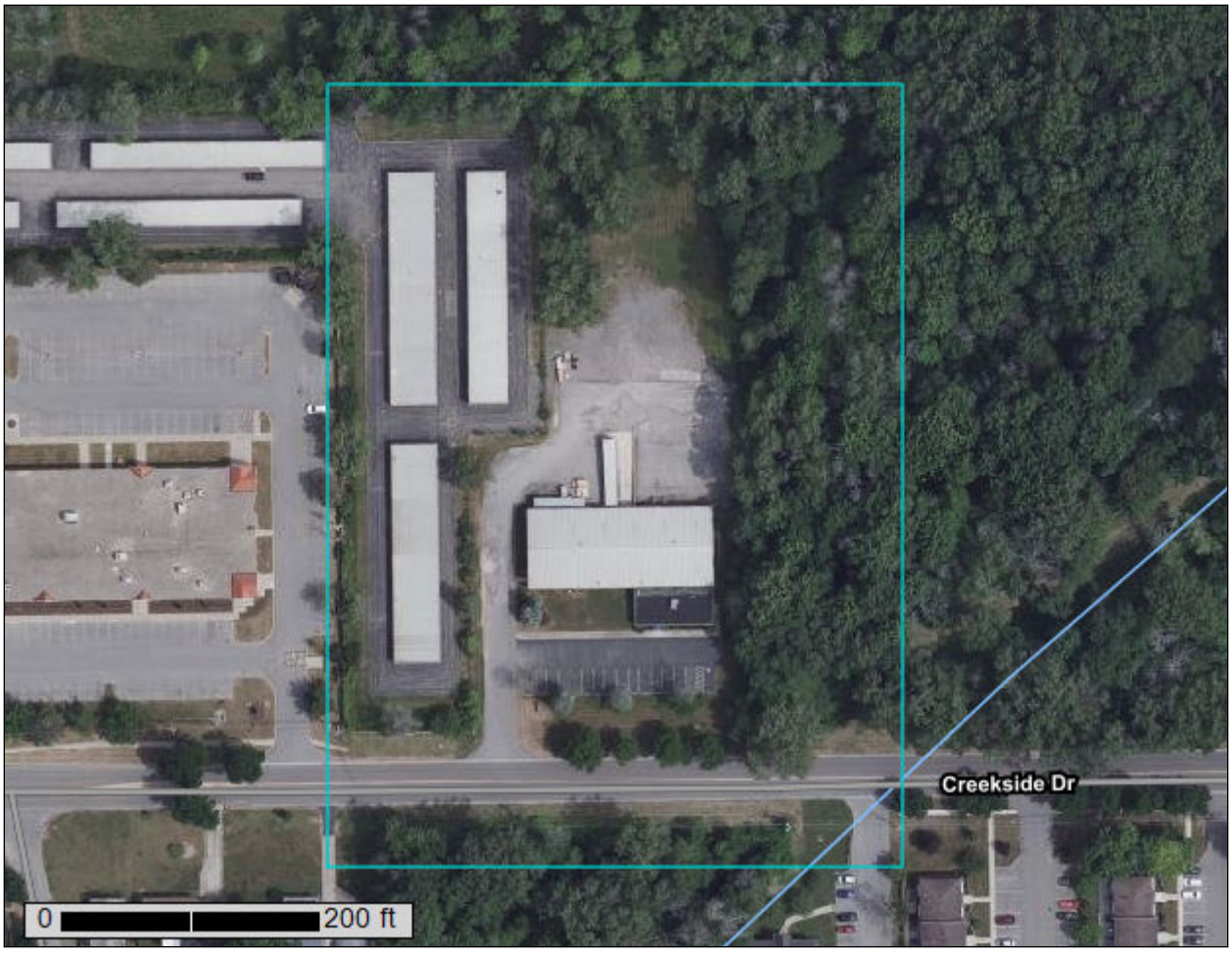

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

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Custom Soil Resource Report
Soil Map



Map Scale: 1:1,080 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

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MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 22, Sep 10, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Lc	Lamson very fine sandy loam	0.3	4.9%
RaA	Raynham silt loam, 0 to 3 percent slopes	5.9	95.1%
Totals for Area of Interest		**6.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

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onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Erie County, New York

Lc—Lamson very fine sandy loam

Map Unit Setting

National map unit symbol: 9rmr
Elevation: 50 to 1,100 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 115 to 195 days
Farmland classification: Not prime farmland

Map Unit Composition

Lamson and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lamson

Setting

Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Deltaic or glaciolacustrine deposits with a high content of fine and very fine sand

Typical profile

H1 - 0 to 9 inches: very fine sandy loam
H2 - 9 to 40 inches: fine sandy loam
H3 - 40 to 60 inches: loamy very fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: A/D
Ecological site: F101XY007NY - Wet Outwash
Hydric soil rating: Yes

Minor Components

Elnora

Percent of map unit: 5 percent

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Hydric soil rating: No

Halsey

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Cheektowaga

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Minoa

Percent of map unit: 5 percent
Hydric soil rating: No

Canandaigua

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

RaA—Raynham silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9rpc
Elevation: 50 to 500 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 115 to 195 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Raynham and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Raynham

Setting

Landform: Lake plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Glaciolacustrine, eolian, or old alluvial deposits, comprised mainly of silt and very fine sand

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 26 inches: silt loam
H3 - 26 to 42 inches: silt loam
H4 - 42 to 60 inches: stratified fine sand to silt loam

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F101XY010NY - Wet Lake Plain Depression
Hydric soil rating: No

Minor Components

Scio

Percent of map unit: 5 percent
Hydric soil rating: No

Lamson

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Williamson

Percent of map unit: 5 percent
Hydric soil rating: No

Minoa

Percent of map unit: 5 percent
Hydric soil rating: No

Niagara

Percent of map unit: 5 percent
Hydric soil rating: No

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Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

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Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

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Custom Soil Resource Report
Map—Hydrologic Soil Group



Map Scale: 1:1,080 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 22, Sep 10, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Lc	Lamson very fine sandy loam	A/D	0.3	4.9%
RaA	Raynham silt loam, 0 to 3 percent slopes	C/D	5.9	95.1%
Totals for Area of Interest			**6.2**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

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Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

GLYNN GROUP
ENGINEERING & ARCHITECTURE, PLLC

Civil • Geotechnical
Structural • Architecture
Material Testing • Consulting

March 28, 2023

Novum Medical Products
80 Creekside Drive,
Amherst, New York 14228

Attn: Joe Manzella
President

Subject: **Proposed 10,000 SF Addition**
80 Creekside Drive, Amherst, New York
Geotechnical Engineering Services Proposal
GGEA 22-9160

Dear Mr. Manzella:

This letter constitutes a formal proposal by Glynn Group Engineering & Architecture, PLLC (GGEA) to provide geotechnical engineering services relative to the construction of a 10,000 square foot addition to the existing building located at 80 Creekside Drive in the Town of Amherst, New York. GGEA will provide services as follows:

- Perform a site visit to examine site topography and establish five (5) soil boring locations within the footprint of the proposed addition.
- Clear underground utilities with Dig Safe NY.
- Mobilize drilling subcontractor, Earth Dimensions Inc. (EDI), with a truck mounted drill rig and support crew.
- Provide SPT soil sampling at each boring location in accordance with ASTM D1586 "Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils". Three borings will be advanced to auger refusal (estimated 40 feet on bedrock) and two borings will be advanced to a depth of 15 feet.
- Provide soil boring logs (prepared by EDI) to include SPT data, N values, soil classification, refusal depth and encountered groundwater conditions.
- Perform laboratory analysis on select recovered soil samples to establish design properties.
- Prepare a geotechnical report to include subsurface conditions and design parameters, allowable bearing capacity, groundwater data, seismic site class, slab on grade recommendations, foundation recommendations and construction recommendations.

GLYNN GROUP ENGINEERING & ARCHITECTURE, PLLC
415 South Transit Street, Lockport, New York 14094
voice 716.625.6933 / fax 716.625.6983
www.glynngroup.com

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

GGEA Services	
Site Visit and Boring Layout	$ 450.00
Subcontractor Management (10 % of Subcontractor Fee)	$ 395.00
Laboratory Analysis	$ 750.00
Geotechnical Report	$ 1,650.00
Subcontracted Drilling Services	$ 3,950.00
Total Estimated Cost	**$ 7,195.00**

GGEA will proceed upon notification from the client and execution of the Authorization/Agreement. Please contact GGEA if you should have any comments or questions.

Sincerely,
G. Edward Lover, P.G.
Senior Geologist
/gel

CLARIFICATIONS:

1. Payment in full will be due in advance, prior to scheduling initial site visit and drilling.
2. The site is presumed clear and accessible by a truck mounted drill rig.
3. Caution will be exercised during drilling operations, however neither GGEA nor EDI are responsible for restorative landscaping.
4. GGEA's scope is specific to the services identified in this proposal. Any services not specifically identified are excluded.

AUTHORIZATION/AGREEMENT

By executing this document, undersigned agrees and acknowledges the provision of this proposal and the Standard Terms and Conditions for Field and Engineering Services.

Novum Medical Products
80 Creekside Drive,
Amherst, New York 14228

_____
(Signature)

_____
(Printed Name)

_____
(Date)

Glynn Group Engineering & Architecture, PLLC
415 South Transit Street
Lockport, New York 14094

_____
(Signature)

FOR
MARK W. GLYNN
(Printed Name)

12/8/22
(Date)

GLYNN GROUP
ENGINEERING & ARCHITECTURE, PLLC

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Standard Terms & Conditions for Services

1. Scope – Services to be provided by Glynn Geotechnical Engineering (hereinafter "GGE") or Glynn Group Engineering & Architecture, PLLC (hereinafter "GGEA") are expressly limited to the scope as set forth in the written proposal and as recognized by generally accepted industry standards, subject to the terms and conditions of these standards.

2. Additional Services – Additional services include making revisions in drawings, specifications, engineering reports, calculations or other documents at the request of the client when such revisions are inconsistent with prior verbal or written instructions of the client or due to other causes not solely within the control of GGE or GGEA. If such revisions are required, the additional effort will be invoiced on the basis of GGE's or GGEA's then current fee schedule. Additional services also include, but are not limited to **1.)** resolution of construction related problems resulting from unauthorized changes and/or construction errors, **2.)** assistance with lawsuits or construction claims, **3.)** review of alternate designs or alternate material submittals **4.)** revisions resulting from changes and / or errors in information supplied by client or client's agent and 5.) postponing or interruption of the project schedule.

3. Confidentiality – Strict confidentiality is maintained in connection with our services to clients. In any instance where information is subpoenaed by law and must be released to a regulatory or legal body, the client shall be promptly notified. Client agrees it will not use GGE's or GGEA's name and/or data in any manner which might cause harm to GGE's or GGEA's reputation and/or business. Under no circumstance is the name of Glynn Geotechnical Engineering or Glynn Group Engineering and Architecture, PLLC to be published, either alone or in association with that of any other party, without prior written approval of GGE or GGEA.

4. Payment Terms – Payment in advance is required for all clients except those with established credit arrangements with GGE or GGEA. For clients with established credit, terms are net 30 days. A 1.5% per month service charge will be applied to all unpaid balances. In the event of default in payment for services rendered, the client will be invoiced and will pay reasonable interest, collection and/or legal fees. GGE or GGEA reserves the right to withhold project services in the event of a delinquent account. Client is hereby barred from making a breach of contract claim as a result of GGE or GGEA withholding services. Plans, specifications, reports and all other instruments of professional service remain the sole property of GGE or GGEA until such time as full payment is made.

5. Billing – All fees will be invoiced directly to the client, in the amount as calculated from hourly rates or the lump sum fee stated in the written proposal, plus any hourly billing for extra services and expenses. Unless specifically included, overnight courier costs and all travel expenses – airfare, lodging, parking fees, taxi, rental cars, meals while traveling, and subcontractor will be invoiced as an additional cost plus a 10% service fee. Mileage will be invoiced per mile for project travel, portal to portal. The billing of a third party will not be accepted without a statement, signed by the third party, which acknowledges and accepts payment responsibility and agreement with these terms and conditions.

6. Contractual Limit – Notwithstanding specific design/buil projects, GGE or GGEA will be responsible only to the client an shall not be signatory to the contract for construction between th contractor/construction manager and the owner.

7. Construction Responsibility – GGE or GGEA will not l responsible for construction means, methods, technique sequences or procedures of construction. GGE or GGEA will n direct any construction forces in the performance of work. GGE GGEA will not assume any responsibility for safety practices on th project site. Client shall provide safe working conditions for GG or GGEA employees. GGE or GGEA may refuse to perfor services where uncontrolled hazards exist. Party responsible f construction shall be knowledgeable and experienced with th required work effort. It is not the responsibility of GGE or GGE to teach or provide instructions related to construction mean methods, or procedures.

8. Site Access – The client must provide reasonable site access ar repairs to the site, if required. Performance of soil testing activiti will likely cause damage to existing surfaces. GGE or GGEA w not be responsible for the replacement or repair of landscaping the cleaning of paved surfaces.

9. Engineering Service – GGE or GGEA is an engineeri professional firm. Our instruments of professional service consi of test results, reports, studies, plans, specifications, designs ar other similar output. We do not provide consumer produc materials, or construction services. We are not a contractor subcontractor in the normal context of the word.

10. Disputes – Subject to the provisions regarding indemnificatic as provided below, in the event of a dispute, controversy or claim client, or anyone claiming by, through or under client, or thi party, arising out of or relating to the performance of proje related services to the client by GGE or GGEA, client sh compensate GGE or GGEA for all costs associated with resoluti of any dispute or controversy, or the defense of any clai Compensation will include but not be limited to all reasonal salary costs, overhead, profit, legal fees and disbursemen consultant fees, court fees, and interest. In the event that any for of dispute resolution occurs, the prevailing party shall be entitled recover all reasonable costs incurred in defense of the clai including, but not limited to, salary costs, overhead, profit, cou costs, attorney fees, expert fees, interest and other claim relat costs. If the results of any form of dispute resolution determi shared responsibility for a claim, the client will compensate GGE GGEA in accordance with their share of responsibility assessed them.

11. Permits – When identified in the proposal and/or scope services to be provided, GGE or GGEA will endeavor to ass client in obtaining permits and/or approval from buildi departments, regulatory agencies and similar authorities to the b of GGE's or GGEA's ability in consideration of the fee charged f the service and the satisfaction of published requirements. GGE GGEA does not guarantee that approvals will be obtained throu the efforts of GGE or GGEA.

Attachment: SP-1987-64A application 042023 (27196 : Sp-1987-64A)

Standard Terms & Conditions for Services

12. Sole Agreement – This document and the written proposal constitute the agreement of the parties, except as noted below. All prior negotiations and agreements between the parties hereto relating to the transactions, and services contemplated hereby are superseded by this agreement, and there are no representations, warranties, understandings or agreements with respect to such transactions, or services other than those expressly set forth herein. However, in the event GGE or GGEA subsequently executes a purchase order issued by client, GGE's or GGEA's terms and conditions shall remain in force and shall supersede any conflicting provisions of client's purchase order, regardless of when client's purchase order is executed by GGE or GGEA.

13. Limit of Liability – To the fullest extent permitted by law, GGE's or GGEA's liability is limited to the amount of GGE's or GGEA's compensation.

14. Intellectual Property – Drawings, specifications, procedures, methods, work plans and other documents, including those in electronic form, prepared by GGE or GGEA and GGE's or GGEA's consultants are instruments of service for use solely with respect to a specific project. GGE or GGEA and GGE's or GGEA's consultants shall be deemed the authors and owners of their respective instruments of service and shall retain all common law, statutory and other reserved rights, including copyrights. Upon execution of an agreement, GGE or GGEA grants to the client a nonexclusive license to reproduce GGE's or GGEA's instruments of service in pdf format only, solely for the purposes of constructing, using and maintaining, expanding, correcting any construction deficiencies, or making any renovations, modifications or repairs to the specific project. Client shall engage a licensed professional to prepare design documents for renovations, modifications or repairs to the specific project. Documents may only be utilized for a specific singular project. Use on subsequent projects is not permitted unless GGE or GGEA is compensated for the service. Client shall assume all risk associated with use and interpretation of electronic documents. Nothing in this agreement obligates GGE or GGEA to provide full digital instruments of service.

15. Indemnification – GGE or GGEA shall indemnify and hold harmless client from and against all claims, cause of actions, liabilities, damages, judgments and any other costs, including reasonable attorney's fees and court costs, attributed to property damage and/or bodily injury, including death, arising out of or resulting from the negligent acts or omissions by GGE or GGEA. However, in the event liability is shared by GGE or GGEA and the client, the client and GGE or GGEA shall contribute in the amount of their proportionate share for all actions, claims, liability, damages, expenses or judgments. In consideration of the foregoing indemnification by GGE or GGEA, client shall indemnify and hold harmless GGE or GGEA from and against all claims, cause of actions, losses, liabilities, damages, judgments and any other costs, including reasonable attorney's fees and court costs, attributed to property damage and/or bodily injury, including death, arising out of or resulting from the negligent acts or omissions of or intentional misconduct by client.

16. Engineer's Responsibility – GGE or GGEA shall perform the scope of services in accordance with professional engineering ethics, published codes and regulations, generally accepted standards of scope and care in the industry relative to the fee charged, the location of the project and the time frame of the service. As required by law or public mandate; submittals, reports and design documents shall bear the seal of a licensed professional engineer.

17. Client's Responsibility – Client shall furnish to GGE or GGEA all available information relative to the project. Electronic drawing files shall be provided in full digital AutoCAD format. All project information required by GGE or GGEA shall be provided at the client's expense and GGE or GGEA shall be entitled to rely on the accuracy and completeness thereof. Client shall pay all fees associated with filing all applications. Client shall provide input to GGE or GGEA on a timely basis, including but not limited to review of the project deliverables. In the event the client becomes aware of any fault or defect in the project, or non-conformance with the documents, prompt written notice shall be given to GGE or GGEA. Client shall review and acknowledge all reports, design documents, and other deliverables; plus assure that the scope and responsibilities of construction are recognized and accepted by Client's Construction Manager, Contractor, Subcontractor, and other project entities. GGE or GGEA will not be responsible for construction and/or design errors, omissions, or faults of any kind resulting from the actions or inactions of others. Client shall designate a single project contact person.

18. Termination – Either party, upon not less than seven days written notice, may terminate the agreement and/or the accepted written proposal. The client is liable for the complete payment of the fee for GGE's or GGEA's services, expenses and termination expenses up to the date the termination or suspension notice is received. Termination and/or suspension expenses including, but not limited to reasonable legal fees are in addition to compensation for basic and additional services, and include those expenses directly related to termination and/or suspension. Failure of the client to make payment to GGE or GGEA, in accordance with this agreement shall be considered non-performance and cause for termination by GGE or GGEA. If the Client fails to pay GGE or GGEA for services and expenses, GGE or GGEA may upon 7 days notice to the client, suspend performance of services. In the event of a suspension of services, GGE or GGEA shall have no liability to the client for delays or damages including, but not limited to loss of use and profits caused by the suspension of services. Client is hereby barred from making a breach of contract claim as a result of GGE or GGEA terminating an agreement under this clause.

19. Severability – If any of the terms or conditions are found, by competent jurisdiction, to be unenforceable, invalid, or illegal, the remaining terms and conditions shall remain in force.

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Proposed Warehouse Addition

80 Creekside Drive

Amherst, New York

AGENCIES

ENGINEERING DEPARTMENT

NAME/TITLE:	JEFF BURROUGHS, P.E., TOWN ENGINEER
COMPANY/DEPT:	TOWN OF AMHERST ENGINEERING DEPARTMENT
ADDRESS:	1100 NORTH FOREST ROAD AMHERST, NEW YORK 14221
TELEPHONE	716-631-7154

PLANNING DEPARTMENT

NAME/TITLE:	DAN HOWARD, PLANNING DIRECTOR
COMPANY/DEPT:	TOWN OF AMHERST PLANNING DEPARTMENT
ADDRESS:	5583 MAIN STREET WILLIAMSVILLE, NEW YORK 14221
TELEPHONE	716-631-7051

BUILDING DEPARTMENT

NAME/TITLE:	MARK BERKE, P.E., BUILDING COMMISSIONER
COMPANY/DEPT:	TOWN OF AMHERST BUILDING DEPARTMENT
ADDRESS:	5583 MAIN STREET WILLIAMSVILLE, NEW YORK 14221
TELEPHONE	716-631-7080

LAND SURVEYOR

NAME/TITLE:	TRUE NORTH LAND SURVEYING, PLLC
COMPANY/DEPT:	150 AERO DRIVE
ADDRESS:	BUFFALO, NEW YORK 14225
TELEPHONE	716-631-5140

UTILITIES

NATURAL GAS

COMPANY/DEPT:.	NATIONAL FUEL GAS CORP.
ADDRESS:	6363 MAIN STREET WILLIAMSVILLE, NEW YORK 14221
TELEPHONE	716-857-7000

TELEPHONE COMPANY

COMPANY/DEPT:	VERIZON
ADDRESS:	65 FRANKLIN STREET BUFFALO, NEW YORK 14203
TELEPHONE	716-840-8748

CABLE COMPANY

COMPANY/DEPT:	TIME WARNER
ADDRESS:	789 CHURCH ROAD WEST SENECA, NEW YORK
TELEPHONE	716-558-8615

ELECTRIC COMPANY

COMPANY/DEPT:	NATIONAL GRID
ADDRESS:	144 KENSINGTON AVENUE BUFFALO, NEW YORK 14214
TELEPHONE	716-236-2738

WATER

COMPANY/DEPT:.	ERIE COUNTY WATER AUTHORITY
ADDRESS:	3030 UNION ROAD CHEEKTOWAGA, NEW YORK 14227
TELEPHONE	716-684-1510

DIG SAFELY NEW YORK

TELEPHONE 1-800-962-7962

OWNER/DEVELOPER

Name:	80 Creekside Drive, LLC
Address:	80 Creekside Drive Amherst, NY 14228
Telephone:	(716) 759-7200



LOCATION MAP
NOT TO SCALE

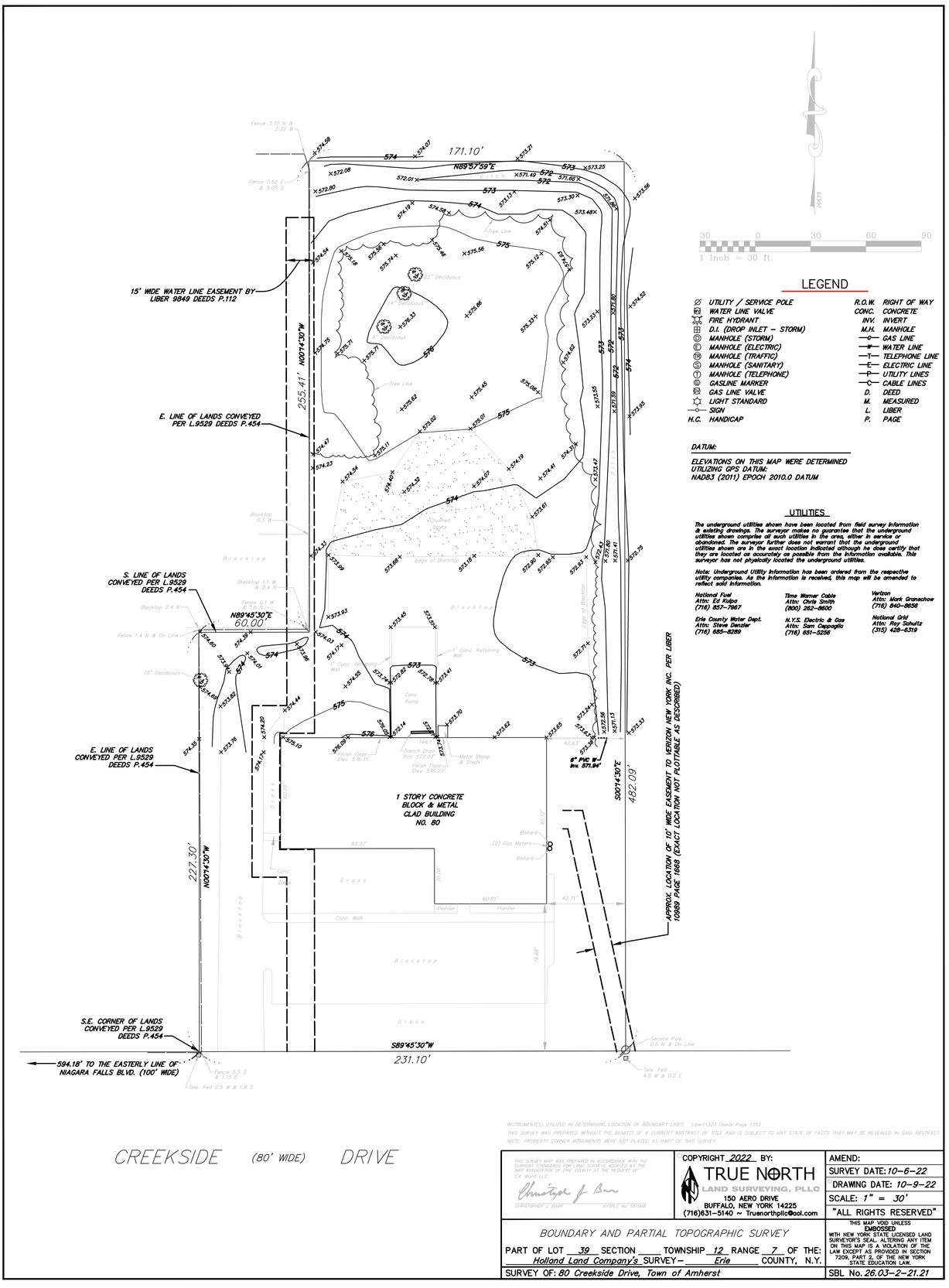
CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

March 2023

DRAWING NO.	DRAWING TITLE
-	COVER SHEET
-	BOUNDARY/TOPO SURVEY (by TRUE NORTH LAND SURVEYING, PLLC)
C-001	DEMOLITION & EROSION CONTROL PLAN & DETAILS
C-100	SITE PLAN & DETAILS
C-200	GRADING & STORM DRAINAGE PLAN & DETAILS
L-100	LANDSCAPE PLAN
LP-100	PHOTOMETRIC PLAN
T-100	VEHICLE MANEUVER PLAN

Attachment: SP-1987-64A drawings 042023 (27196 : Sp-1987-64A)

Attachment: SP-1987-64A drawings 042023 (2719 : SP-1987-64A)



30 0 30 60 90

1 Inch = 30 ft.

LEGEND

UTILITY / SERVICE POLE	R.O.W. RIGHT OF WAY
WATER LINE VALVE	CONC. CONCRETE
FIRE HYDRANT	INV. INVERT
D.I. (DROP INLET – STORM)	M.H. MANHOLE
MANHOLE (STORM)	GAS LINE
MANHOLE (ELECTRIC)	WATER LINE
MANHOLE (TRAFFIC)	TELEPHONE LINE
MANHOLE (SANITARY)	ELECTRIC LINE
MANHOLE (TELEPHONE)	UTILITY LINES
GASLINE MARKER	CABLE LINES
GAS LINE VALVE	D. DEED
LIGHT STANDARD	M. MEASURED
SIGN	L. LIBER
H.C. HANDICAP	P. PAGE

DATUM:

ELEVATIONS ON THIS MAP WERE DETERMINED UTILIZING GPS DATUM: NAD83 (2011) EPOCH 2010.0 DATUM

UTILITIES

The underground utilities shown have been located from field survey information & existing drawings. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from the information available. This surveyor has not physically located the underground utilities.

Note: Underground Utility Information has been ordered from the respective utility companies. As the information is received, this map will be amended to reflect said information.

National Fuel Attn: Ed Rubo (716) 857–7967	Time Warner Cable Attn: Chris Smith (800) 262–8600	Verizon Attn: Mark Granachow (716) 840–8658
Erie County Water Dept. Attn: Steve Danzler (716) 685–5289	N.Y.S. Electric & Gas Attn: Sam Cappiello (716) 851–5256	National Grid Attn: Roy Schultz (315) 428–5319

INSTRUMENT(S) UTILIZED IN DETERMINING LOCATION OF BOUNDARY LINES: Liber11,533 Deeds Page 1752

THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT ABSTRACT OF TITLE AND IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED IN SAID ABSTRACT.

NOTE: PROPERTY CORNER MONUMENTS WERE NOT PLACED AS PART OF THIS SURVEY.

THIS SURVEY MAP WAS PREPARED IN ACCORDANCE WITH THE CURRENT STANDARDS FOR LAND SURVEYS ADOPTED BY THE NYS ASSOCIATION OF ERIE COUNTY AT THE REQUEST OF C4 Blvd LLC

CHRISTOPHER J. BARR NYSPLS No. 050168

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TRUE NORTH LAND SURVEYING, PLLC

150 AERO DRIVE
BUFFALO, NEW YORK 14225
(716)631–5140 ~ Truenorthpllc@aol.com

AMEND:
SURVEY DATE: 10–6–22
DRAWING DATE: 10–9–22
SCALE: 1" = 30'
"ALL RIGHTS RESERVED"

THIS MAP VOID UNLESS EMBOSSED WITH NEW YORK STATE LICENSED LAND SURVEYOR'S SEAL. ALTERING ANY ITEM ON THIS MAP IS A VIOLATION OF THE LAW EXCEPT AS PROVIDED IN SECTION 7209, PART 2, OF THE NEW YORK STATE EDUCATION LAW.

BOUNDARY AND PARTIAL TOPOGRAPHIC SURVEY

PART OF LOT 39 SECTION ____ TOWNSHIP 12 RANGE 7 OF THE: Holland Land Company's SURVEY – Erie COUNTY, N.Y.

SURVEY OF: 80 Creekside Drive, Town of Amherst

SBL No. 26.03–2–21.21

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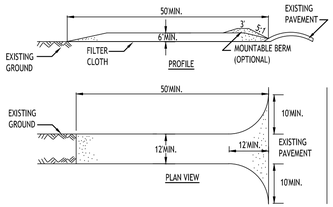


CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

SEQUENCE OF MAJOR ACTIVITIES

THE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING THE FOLLOWING EROSION CONTROL AND STORM WATER MANAGEMENT CONTROL MEASURES. THE CONTRACTOR MAY DESIGNATE THESE TASKS TO CERTAIN SUBCONTRACTORS AS HE SEES FIT, BUT THE ULTIMATE RESPONSIBILITY FOR IMPLEMENTING THESE CONTROLS AND ENSURING THEIR PROPER FUNCTIONING REMAINS WITH THE CONTRACTOR. THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

A. INSTALL STABILIZED CONSTRUCTION ENTRANCE

B. INSTALL PERIMETER SILT FENCES/SILT SOCK IN THE LOCATIONS SHOWN ON THE DEMOLITION AND EROSION CONTROL PLAN SHEET.

C. CLEAR & GRUB SITE.

D. INSTALLATION OF UNDERGROUND DETENTION BASIN.

E. COMMENCE SITE GRADING.

F. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED.

G. CONSTRUCTION OF BUILDINGS.

H. INSTALLATION OF PROPOSED UTILITIES.

I. FINALIZE PAVEMENT SUBGRADE PREPARATION.

J. CONSTRUCT ALL CURB, DRAINAGE INLETS, STORM SEWER PIPES AND STORM SEWER MANHOLES, AS SHOWN ON PLANS. INSTALL TEMPORARY INLET PROTECTION AT THE LOCATION OF ALL INLETS.

K. DUCT CONTROL.

L. REMOVE INLET PROTECTION AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.

M. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT.

N. CARRY OUT FINAL GRADING AND SEEDING AND PLANTINGS.

O. CLEAN STORM SYSTEM FOLLOWING CONSTRUCTION, CLEAN UNDERGROUND DETENTION BASIN AS PER MANUFACTURER RECOMMENDATIONS.

P. REMOVE SILT FENCE/SILT SOCK ONLY AFTER ALL PAVING IS COMPLETE AND EXPOSED SURFACES ARE STABILIZED.

Q. REMOVE TEMPORARY CONSTRUCTION EXITS ONLY PRIOR TO PAVEMENT CONSTRUCTION IN THESE AREAS.

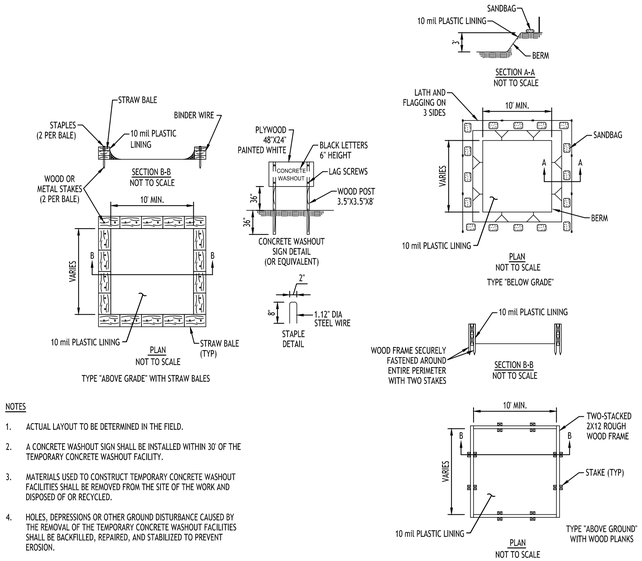
STABILIZATION NOTES

1. ANY SEEDING METHOD MAY BE USED THAT WILL PROVIDE UNIFORM APPLICATION OF SEED TO THE AREA AND RESULT IN RELATIVELY GOOD SOIL TO SEED CONTACT.
   - 1.1. NYSDEC RECOMMENDS IF WORKING IN SPRING/SUMMER/EARLY FALL, SEED THE REQUIRED AREA WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE (APPROX. 0.7 LB./1,000 SF).
   - 1.2. NYSDEC RECOMMENDS IF WORKING IN LATE FALL/EARLY WINTER, SEED THE REQUIRED AREA WITH 'AROOSTOOK' WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE (APPROX. 2.5 LB./1,000 SF).
2. NYSDEC RECOMMENDS TO MULCH THE REQUIRED AREA WITH HAY OR STRAW 2 TONS/ACRE (APPROX. 90 LB./1000 SF). QUALITY OF HAY OR STRAW MULCH ALLOWABLE WILL BE DETERMINED BASED ON LONG TERM USE AND VISUAL CONCERNS. MULCH ANCHORING WILL BE REQUIRED WHERE WIND OR AREAS OF CONCENTRATED WATER ARE OF CONCERN. WOOD FIBER HYDROMULCH OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL (NYLON WEB OR MESH) MAY BE USED IF APPLIED ACCORDING TO MANUFACTURED SPECIFICATION.

CREEKSIDE (80' WIDE) DRIVE

Demolition & Erosion Control Plan

SCALE: 1"=30'

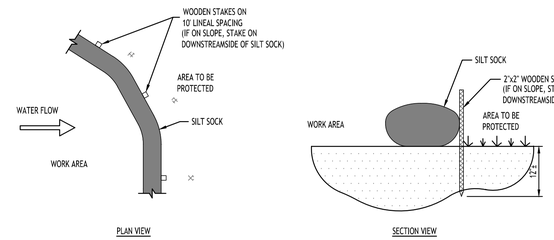


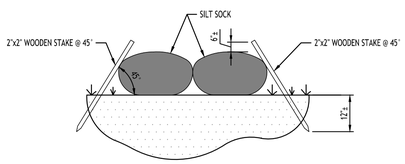
NOTES

1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.
2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

CONCRETE WASHOUT DETAIL

NOT TO SCALE





NOTES:

CONTRACTOR SHALL INSPECT AND MAINTAIN SILT SOCK AS NEEDED DURING THE DURATION OF CONSTRUCTION PROJECT.

CONTRACTOR SHALL REMOVE SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK WHEN IT HAS REACHED ½ OF THE EXPOSED HEIGHT OF THE SILT SOCK. ALTERNATIVELY, RATHER THAN CREATE A SOIL DISTURBING ACTIVITY, THE ENGINEER MAY CALL FOR ADDITIONAL SILT SOCK TO BE ADDED AT AREAS OF HIGH SEDIMENTATION, PLACED IMMEDIATELY ON TOP OF THE EXISTING SEDIMENT LADEN SILT SOCK.

SILT SOCK SHALL BE OVERLAPPED 12" AT JOINTS AND STAKED ON EACH SIDE OF THE SOCK AT A 45° ANGLE

SILT SOCK DETAIL

NOT TO SCALE

DEMOLITION & EROSION CONTROL LEGEND

- EXISTING PAVEMENT TO BE SAWCUT & REMOVED
- PROPOSED SILT SOCK
- EXISTING TREE TO BE REMOVED
- PROPOSED STORM INLET PROTECTION

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 0 30 60FT.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Prop. Warehouse Addition

80 Creekside Drive
Amherst, New York 14228

REVISIONS:

No.	Description	Date



DRAWING NAME:

Demolition & Erosion Control Plan & Details

Date: 02/08
Drawn By: C. W.
Scale: As No

DRAWING NO.

C-001

Project No: 22.350

2.b

Attachment: SP-1987-64A drawing 042023 (27196 : Sp-1987-64A)

Packet Pg. 609

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Site Data

SITE AREA = 2.2 AC
ZONED: RD
BUILDING: 10,525 G.S.F. WAREHOUSE ADDITION
EXISTING: 300 SF OFFICE + 10,186 SF WAREHOUSE

	REQUIRED	PROVIDED
SETBACKS - BUILDING		
FRONT	20 FT	N/A
SIDE (AUBTTING R/ABUTTING COMM.)	30 FT / 15 FT	15' MIN.
REAR (ABUTTING R/ABUTTING COMM.)	30 FT / 15 FT	177.25' MIN.
SETBACKS - PARKING		
FRONT	25 FT	N/A
SIDE (AUBTTING R/ABUTTING COMM.)	25 FT / 10 FT	10' MIN.
REAR (AUBTTING R/ABUTTING COMM.)	25 FT / 10 FT	N/A
PARKING		
# OF SPACES - SEE CALCULATION BELOW	23	24
PARKING SPACE SIZE	9' x 19'	9' x 19'
MAX. BUILDING HEIGHT	65 FT	30 FT
LANDSCAPING		
INTERIOR PARKING AREA (5%)	0.04 AC	> 0.04 AC

PARKING CALCULATION:

WAREHOUSE:
REQ'D = 1 SPACE PER 1,000 G.S.F or 1 SPACE PER EMPLOYEE WHICHEVER IS GREATER
10 EMPLOYEE x 1 SPACE/EMPLOYEE = 21 SPACES REQ'D

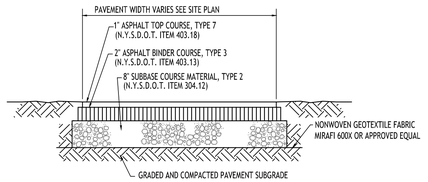
OFFICE:
REQ'D = 1 SPACE PER 200 N.S.F
N.S.F. = 90% OF G.S.F. = 300 G.S.F. x 0.9 = 270 N.S.F
(270) N.S.F./200 = 2 SPACES REQ'D

GENERAL NOTS:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. ALL OTHER PERMITS REQUIRED BY STATE OF NEW YORK, COUNTY OF ERIE, AND TOWN OF AMHERST ARE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER/OWNER.

SITE NOTES:

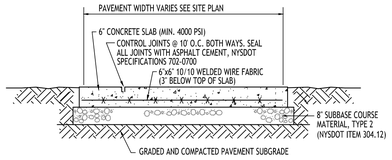
1. ALL RADII SHALL BE 3'-0" UNLESS OTHERWISE NOTED.
2. ALL DISTURBED AREAS SHALL HAVE 4" MIN. OF TOPSOIL AND SEED. FOR DISTURBED AREAS WITHIN NYSDOT R.O.W. DISTURBED AREAS SHALL BE RESTORED USING ITEM 610.1402 - TOPSOIL ROADSIDE AND ITEM 610.1602 - TURF ESTABLISHMENT.
3. ALL DIMENSIONS FROM PROPERTY LINES SHALL BE MEASURED PERPENDICULAR TO THE PROPERTY LINE.
4. CENTER ENTRANCE SIDEWALKS ON DOOR OPENINGS.
5. BUILDING DIMENSIONS ARE APPROXIMATE, REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
6. KNOX KEY BOX TO BE INSTALLED TO ALLOW FIRE DEPARTMENT ACCESS TO BUILDING KEYS, LOCATION TO BE COORDINATED WITH OWNER AND TOWN.
7. ALL EDGES OF PAVEMENT SHALL BE CURVED.
8. ALL SIDEWALKS ARE 5' WIDE UNLESS OTHERWISE NOTED.



NOTE: CONSTRUCTION METHODS FOR ASPHALT PAVEMENT SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 401-3, WITH SUBBASE CONSTRUCTION METHODS CONFORMING TO NYSDOT STANDARD SPECIFICATION 304-3.

STANDARD DUTY ASPHALT SECTION - 1

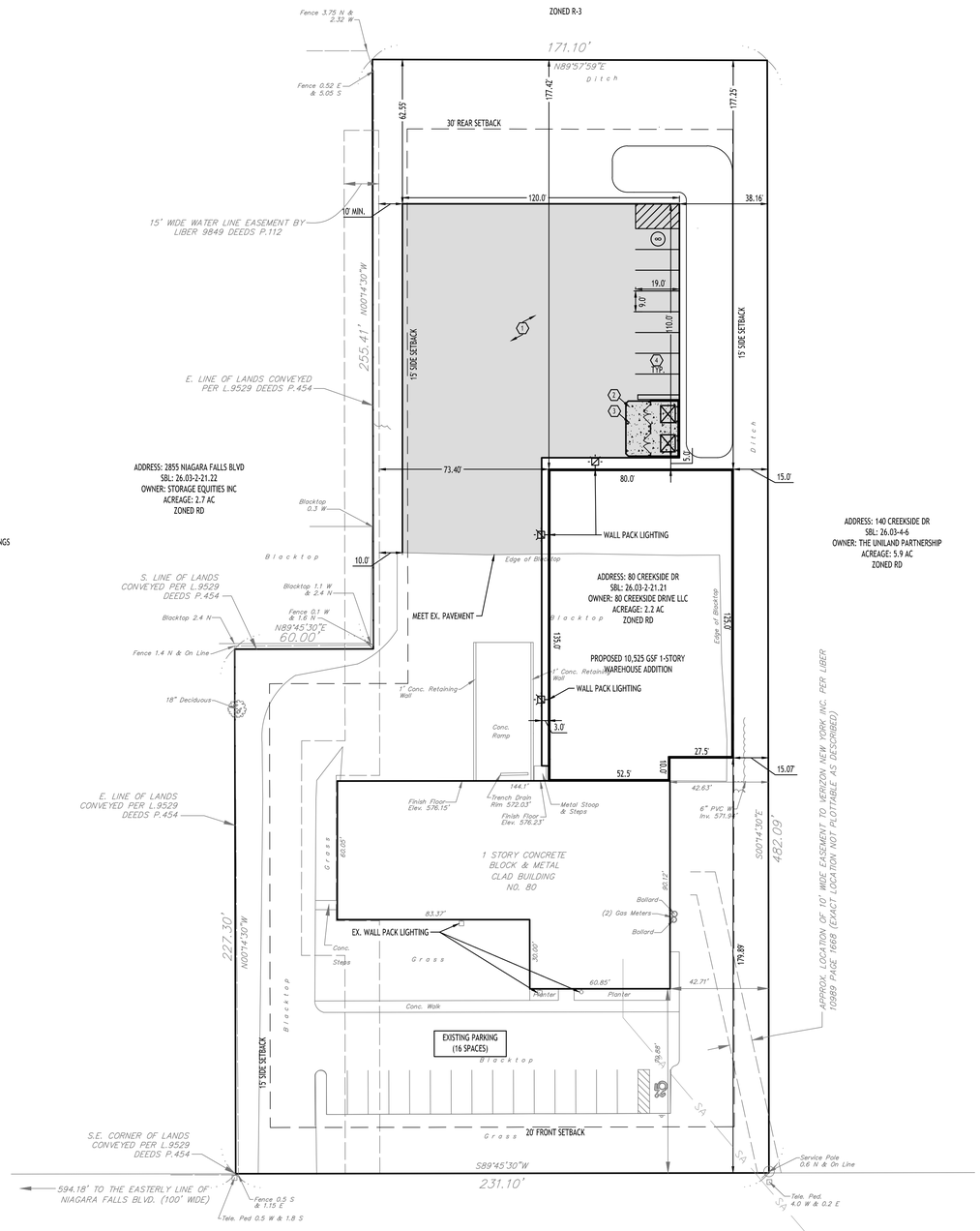
NOT TO SCALE



NOTE: CONCRETE PAVEMENT MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 502-3.

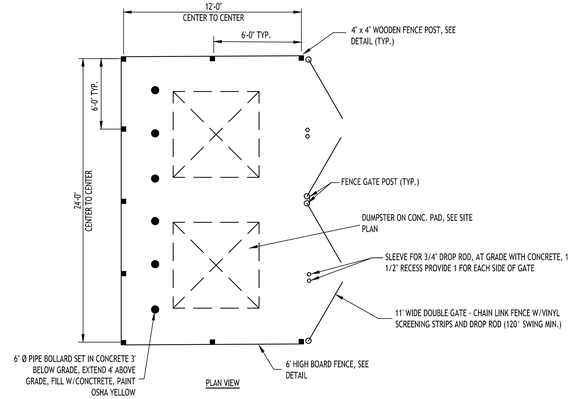
EXTERIOR CONCRETE SLAB-ON-GRADE SECTION - 2

NOT TO SCALE

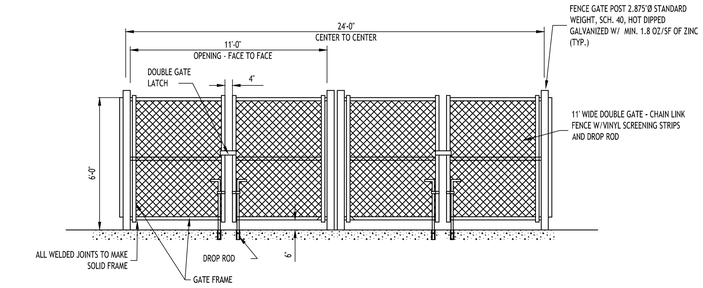


SITE PLAN

SCALE: 1"=30'



PLAN VIEW



FRONT VIEW

CHAIN LINK FENCE GATE NOTES:

1. GATE POST FOOTINGS TO BE MIN. 36" DEEP x (4x) POST DIAMETER, EXTEND POST TO WITHIN 6" OF BOTTOM.
2. GATE FRAMES TO BE 2" SQ. GALVANIZED STEEL, WEIGHING 2.60 LB/FT IN ACCORDANCE WITH ASTM F 900.
3. CHAIN LINK FENCE FABRIC SHALL BE 2" MESH, 9 GAUGE, ZINC COATED STEEL CORE WIRE. INSTALL MESH WITH HOOK BOLTS AND TENSION BARS ON ALL 4 SIDES, ATTACH AT 15" MAX.
4. DOUBLE GATE LATCH TO BE FORKED TYPE CAPABLE OF RETAINING GATE IN CLOSED POSITION AND HAVE PROVISION FOR PAD LOCK. LATCH SHALL BE OPERABLE FROM EITHER SIDE OF GATE.
5. ALL HARDWARE TO BE HOT DIPPED GALVANIZED STEEL TO SUIT GATE SIZE.

DUMPSTER ENCLOSURE -3

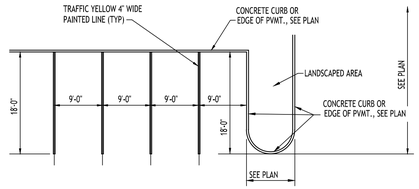
NOT TO SCALE

SITE LEGEND

PROPERTY LINE
NUMBER OF PARKING SPACES (27)
PROPOSED BLDG. MOUNTED LIGHT
PROPOSED ASPHALT PAVEMENT

DETAIL LEGEND

1. HEAVY DUTY ASPHALT
2. 90° PARKING STALL
3. DUMPSTER ENCLOSURE
4. EXTERIOR CONCRETE SLAB-ON-GRADE



90° PARKING STALL LAYOUT - 4

NOT TO SCALE

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30 0 30 60Ft.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Prop. Warehouse Addition

80 Creekside Drive
Amherst, New York 14228

REVISIONS:		
No.	Description	Date
1	Revised Per Town Comments	3/29/23

STATE OF NEW YORK
CHRISTOPHER WOOD
078394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:
Site Plan & Details

Date: 02/08
Drawn By: C. W.
Scale: As No

DRAWING NO.
C-100

Project No: 22.350

Attachment: SP-1987-64A drawings 042023 (27196 : Sp-1987-64A)

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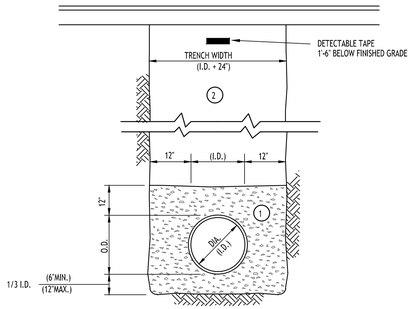


NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

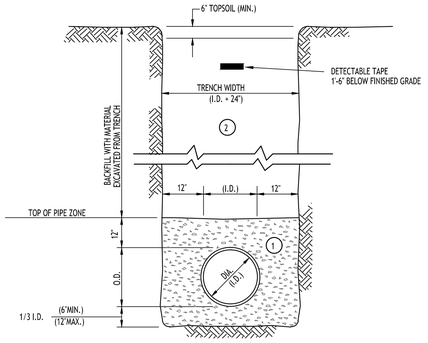
NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

SEWER/WATERLINE TRENCH SECTION IN PAVED AREAS

NOT TO SCALE



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

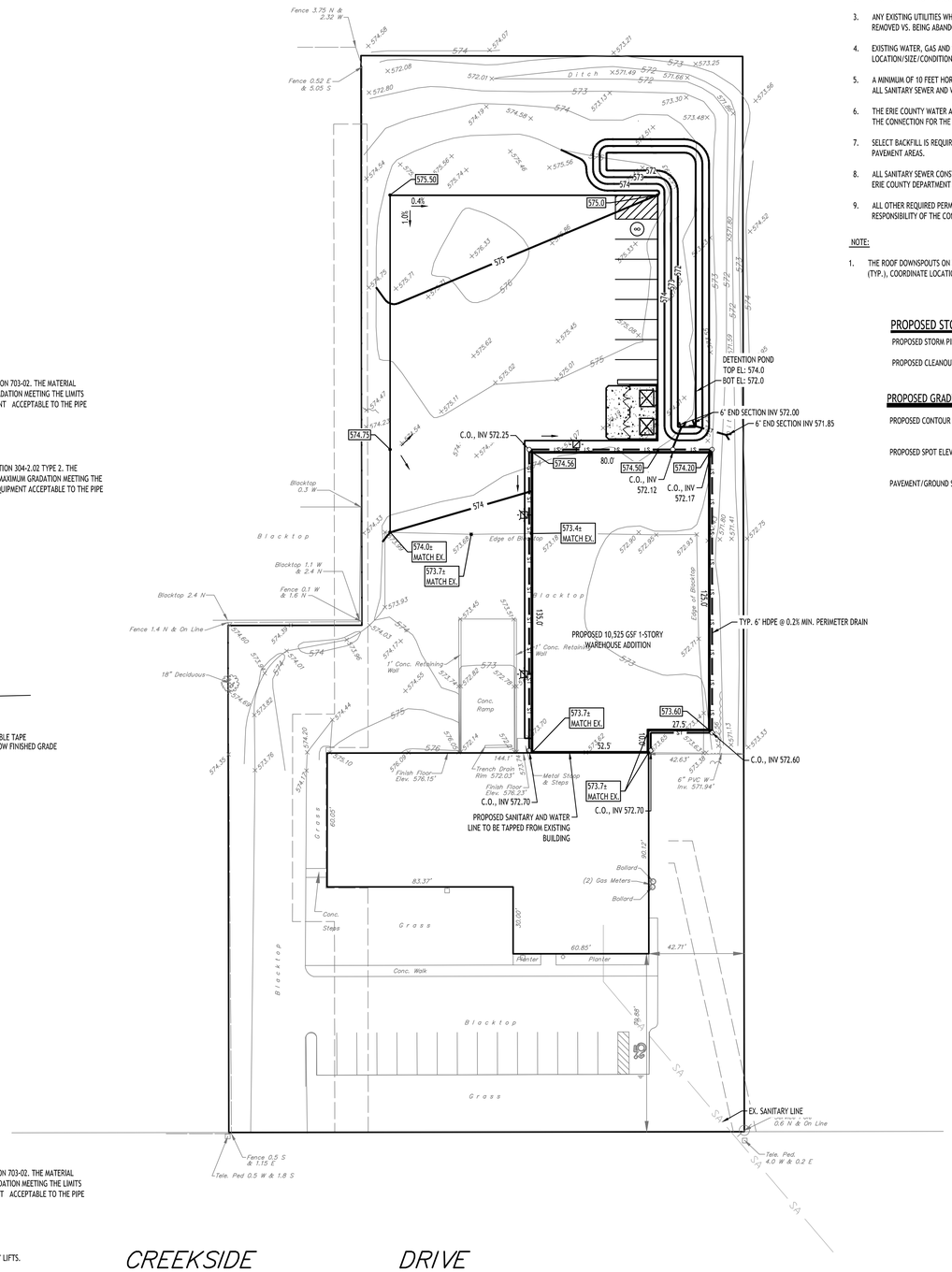
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

SEWER/WATERLINE TRENCH SECTION IN UNPAVED AREAS

NOT TO SCALE



GRADING & STORM DRAINAGE PLAN

SCALE: 1"=30'

UTILITY NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL STORM AND SANITARY LOCATIONS/INVERTS PRIOR TO CONSTRUCTION.
2. PROVIDE FITTINGS AND BLOCKING AS NECESSARY AT ALL BENDS IN WATER LINES.
3. ANY EXISTING UTILITIES WHICH ARE TO BE ABANDONED AND FALL UNDER PAVEMENT OR BUILDINGS SHALL BE REMOVED VS. BEING ABANDONED UNLESS THOSE UTILITIES ARE FILLED WITH FLOWABLE FILL.
4. EXISTING WATER, GAS AND SANITARY LINES SHOWN ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION/SIZE/CONDITION BEFORE CONSTRUCTION.
5. A MINIMUM OF 10 FEET HORIZONTAL AND 18 INCHES OF VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
6. THE ERIE COUNTY WATER AUTHORITY (ECWA) IS TO BE NOTIFIED A MINIMUM OF 48-HOURS PRIOR TO STARTING THE CONNECTION FOR THE NEW WATER SERVICE.
7. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES (GAS, WATER, STORM, SANITARY) THAT CROSS THROUGH PAVEMENT AREAS.
8. ALL SANITARY SEWER CONSTRUCTION SHALL ADHERE TO ERIE COUNTY SEWER SPECIFICATIONS AND DETAILS, AND ERIE COUNTY DEPARTMENT OF HEALTH RULES AND REGULATIONS.
9. ALL OTHER REQUIRED PERMITS BY THE STATE OF NEW YORK, ERIE COUNTY, OR TOWN OF AMHERST ARE THE RESPONSIBILITY OF THE CONTRACTOR.

NOTE:

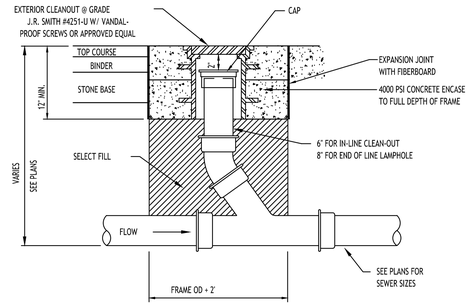
1. THE ROOF DOWNSPOUTS ON WEST SIDE OF BLDG INTO 6" PERIMETER DRAIN (TYP.), COORDINATE LOCATIONS W/ ARCH. PLANS.

PROPOSED STORM DRAINAGE LEGEND

PROPOSED STORM PIPE	ST
PROPOSED CLEANOUT	○

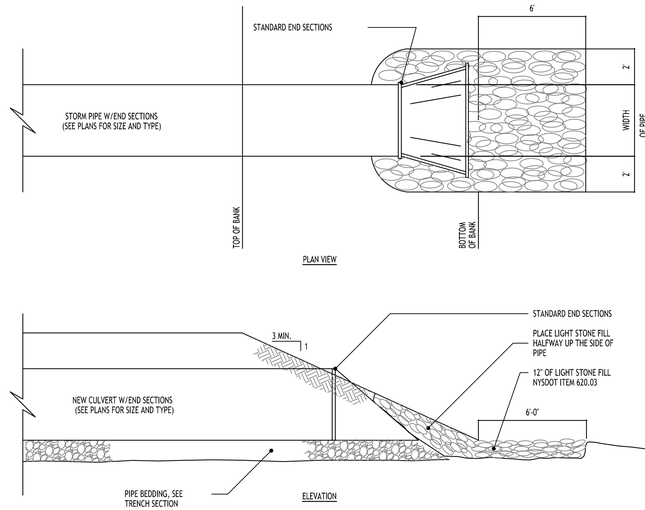
PROPOSED GRADING LEGEND

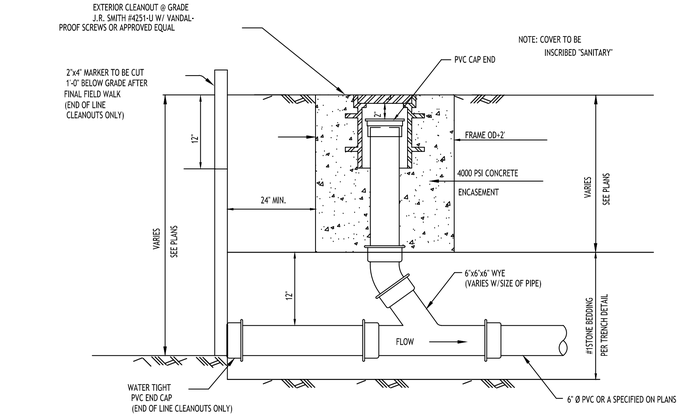
PROPOSED CONTOUR	101
PROPOSED SPOT ELEVATION	100.00
PAVEMENT/GROUND SLOPE	→



Lamphole/Cleanout in Pavement/Sidewalk

NOT TO SCALE





LAMPHOLE/CLEANOUT IN LAWN/FIELD AREAS

NOT TO SCALE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60Ft.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Prop. Warehouse Addition

80 Creekside Drive
Amherst, New York 14228

REVISIONS:

No.	Description	Date
1	Revised Per Town Comments	3/29/23

Attachment: SP-1987-64A drawings 042023 (27196 : Sp-1987-64A)

STATE OF NEW YORK
CHRISTOPHER WOOD
07839A
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:

Grading & Storm Drainage Plan & Details

Date: 02/08
Drawn By: C. W
Scale: As No

DRAWING NO.

C-200

Project No: 22.350

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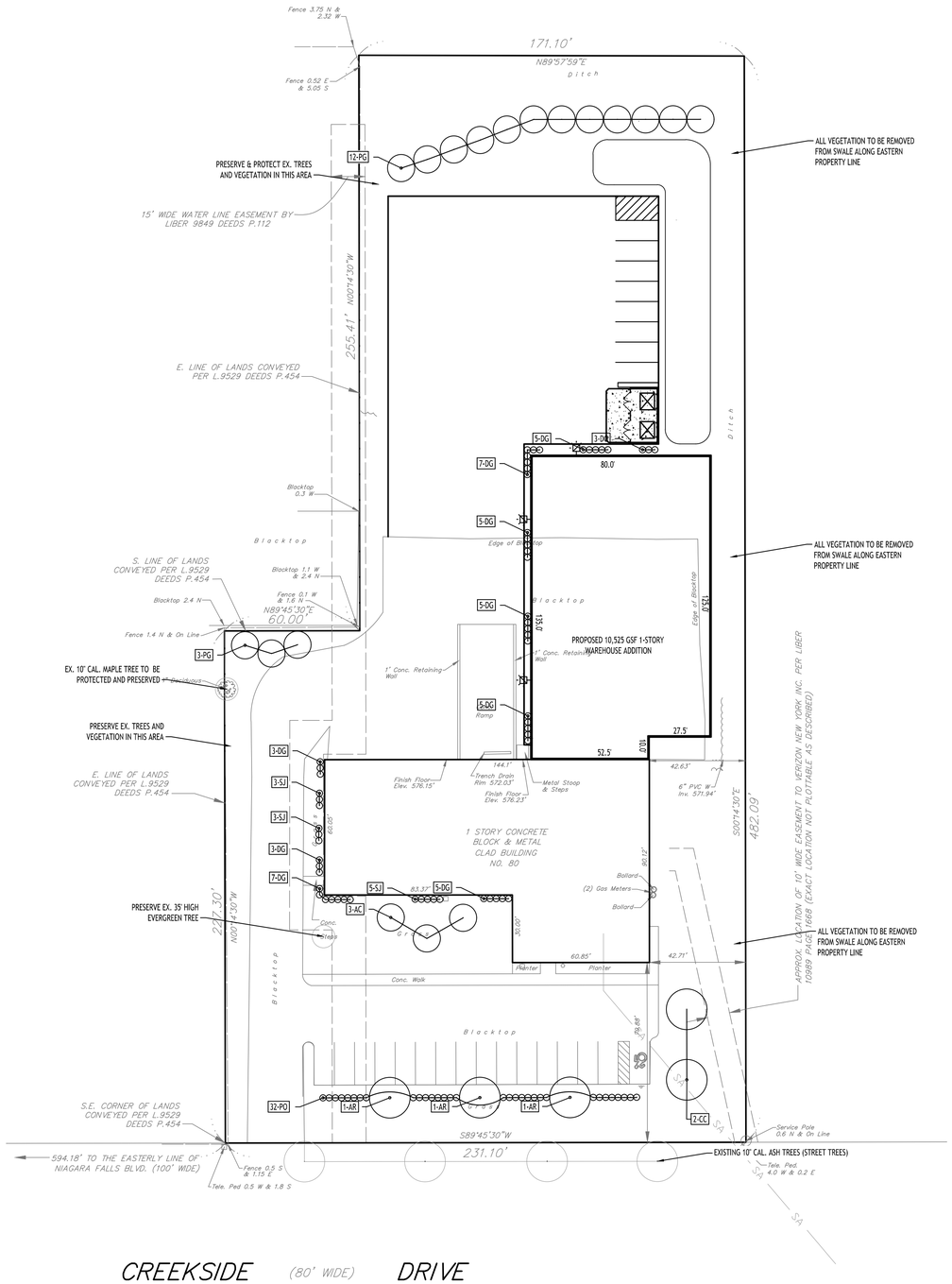


LANDSCAPE PLAN

SCALE: 1"=30'

PLANTING SCHEDULE - 50 CROSSPOINT PKWY, AMHERST, NEW YORK

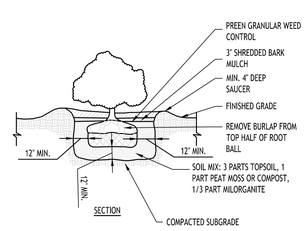
KEY	QTY.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	REMARKS
		DECIDUOUS TREES			
AR	3	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2–1/2" – 3" CAL.	B&B
CC	2	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2–1/2" – 3" CAL.	B&B
		SMALL/ORNAMENTAL TREES			
AC	3	AMELANCHIER CANADENSIS	SERVICEBERRY	8' – 10' HT	B&B; MULTI-STEM, MIN 3 MAJOR STEMS
		EVERGREEN TREES			
PG	15	PICEA GLAUCA	WHITE SPRUCE	5' HIGH MIN.	B&B; FULL TO GROUND
		SHRUBS			
DG	48	DIERVILLA 'G2X88544'	KODIAK ORANGE DIERVILLA	24" HT MIN., NO. 5 CONT.	YELLOW FLOWERS, ORANGE FOLIAGE
PO	32	PHYSOCARPUS OPULIFOLIAS 'SMNPOBLR'	GINGER WINE NINEBARK	24" HT MIN., NO. 5 CONT.	WHITE FLOWER, RED FOLIAGE
SJ	11	SPIRAEA JAPONICA 'YAN'	DOUBLE PLAY GOLD SPIREA	24" HT MIN., NO. 5 CONT.	YELLOW FOLIAGE W/PINK FLOWER

*MEASURED FROM BOTTOM OF LEADER

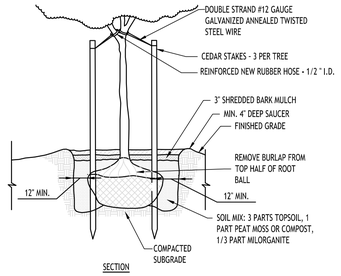
NOTES:
ALL PLANTING BEDS SHALL RECEIVE A MINIMUM 3-INCH DEPTH OF DARK SHREDDED HARDWOOD BARK MULCH

PLANTING NOTES:

1. ALL INTERIOR LANDSCAPED AREAS SHALL HAVE A MINIMUM PLANTING SOIL DEPTH OF THREE (3) FEET AND BE FREE FROM ALL FORMS OF CONSTRUCTION DEBRIS AND FOREIGN MATERIAL.
2. ALL TREE PIT SAUCERS, SHRUB BEDS, ORNAMENTAL GRASS BEDS, AND PERENNIAL FLOWER BEDS SHALL RECEIVE THREE (3) INCHES DEPTH OF DARK SHREDDED HARDWOOD BARK MULCH.
3. ALL SEASONAL FLOWER BEDS SHALL BE A MINIMUM OF TWELVE (12) INCHES DEEP WITH A WELL-BLENDED MIXTURE OF 50% PEAT MOSS & 50% SCREENED TOPSOIL. NO MULCH SHALL BE INSTALLED IN THE SEASONAL FLOWER BEDS.
4. ALL DECIDUOUS AND EVERGREEN TREES SHALL BE STAKED WITH THREE (3) TREE STAKES AS PER TREE PLANTING DETAIL.
5. EXISTING TREE LOCATIONS ARE APPROXIMATE, CONTRACTOR TO LOCATE ALL TREES WITHIN THE PROJECT LIMITS PRIOR TO CONSTRUCTION AND COORDINATE WITH TOWN LANDSCAPE ARCHITECT WHICH TREES SHALL BE REMOVED AND WHICH SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL TAKE RESPONSIBLE MEASURES TO PROTECT EXISTING TREES TO REMAIN FROM ANY POSSIBLE ROOT OR LIMB DAMAGE.



SHRUB PLANTING DETAIL
NOT TO SCALE



TREE PLANTING DETAIL
NOT TO SCALE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30' 30 0 30 60FT.

2.b

CARMINAWOOD DESIGN
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Prop. Warehouse Addition

80 Creekside Drive
Amherst, New York 14228

REVISIONS:

No.	Description	Date
1	Revised Per Town Comments	3/29/23

Attachment: SP-1987-64A drawings 042023 (27196 : Sp-1987-64A)

ROBERT C. WALTER LICENSED LANDSCAPE ARCHITECT NO. 001196 STATE OF NEW YORK

DRAWING NAME:
Landscape Plan

Date: 02/08
Drawn By: C. W
Scale: As No

DRAWING NO.

L-100

Project No: 22.350

Packet Pg. 612

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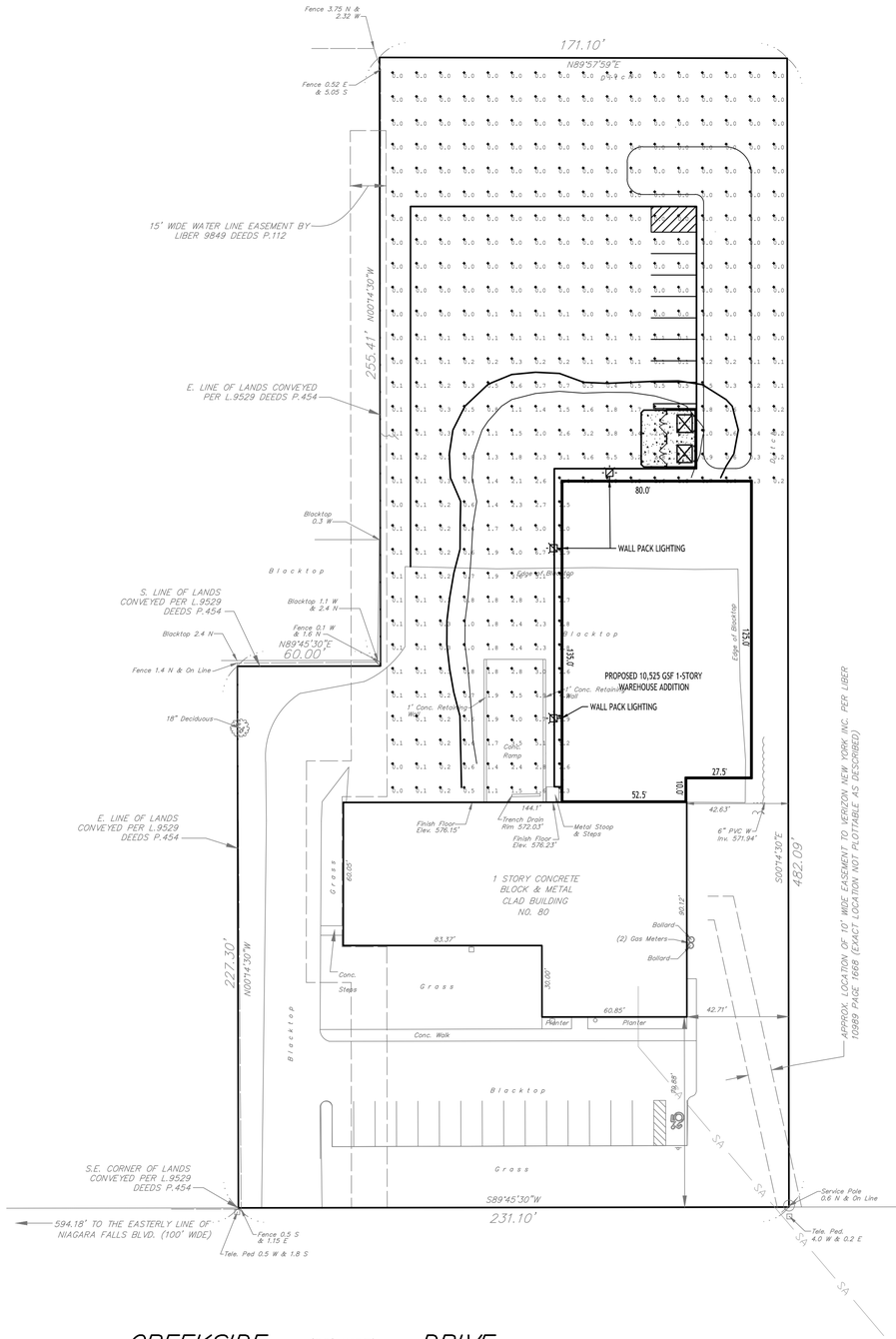


CREEKSIDE (80' WIDE) DRIVE

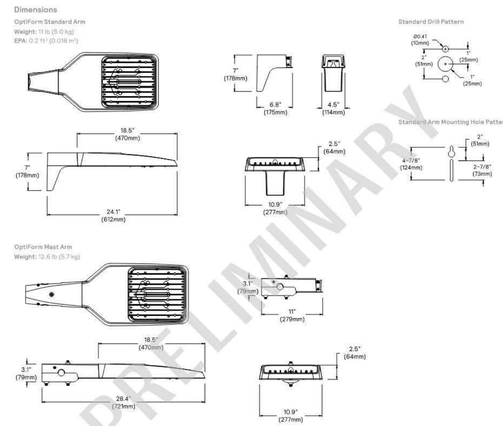
N

PHOTOMETRIC PLAN

SCALE: 1"=30'

OPF-S OptiForm small

Site & area luminaire



PRELIMINARY

OPF-S_OptiForm_Small 12/22 page 10 of 13

LUMINAIRE SCHEDULE			
SYMBOL	QTY	LABEL	DESCRIPTION
	3	SW1	OPF-S-A04-830-T3M-WAL

CALCULATION SUMMARY					
LABEL	CALCTYPE	UNITS	AVG	MAX	MIN
SURFACE	ILLUMINANCE	Fc	0.71	6.7	0.0

1. CALCULATIONS ARE THE EXPECTED MAINTAINED ILLUMINATION

2. CALCULATIONS ARE MEASURED AT GRADE

3. SURFACE REFLECTANCE ARE IS 20%

4. MOUNTING HEIGHTS: TYOPE SW1 - 18FT (ON WALL)

5. ISOLINES REPRESENT A .5 (BLUE) AND A 1 (GREEN) FOOTCANDLE LEVEL AT GRADE

NOTE:
THIS PHOTOMETRIC PLAN WAS PREPARED BY:

LIGHTSPEC
385 CLEVELAND DR, BUFFALO, NY 14215

CONTACT:
DAN SURIANI FOR ORDERING INFORMATION.
PHONE: 716-880-0157
EMAIL: DSURIANI@LIGHTSPEC.COM

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Prop. Warehouse Addition

80 Creekside Drive
Amherst, New York 14228

REVISIONS:

No.	Description	Date
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Attachment: SP-1987-64A drawings 042023 (27196 : Sp-1987-64A)

STATE OF NEW YORK
R. CHRISTOPHER WOOD
076394
LICENSED PROFESSIONAL ENGINEER

DRAWING NAME:

Photometric Plan

Date: 02/08
Drawn By: C. W.
Scale: As No

DRAWING NO.

LP-100

Project No: 22.350

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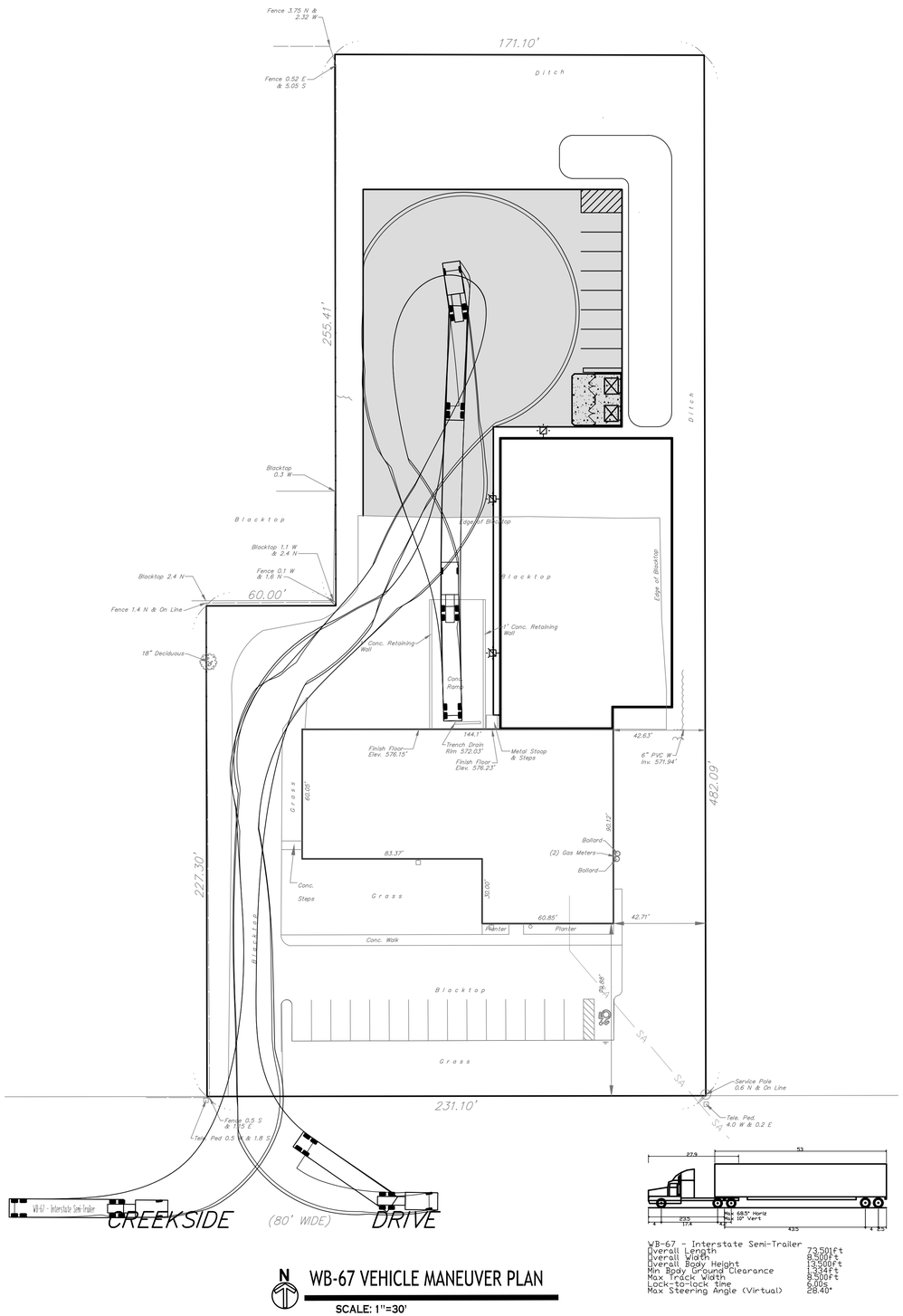
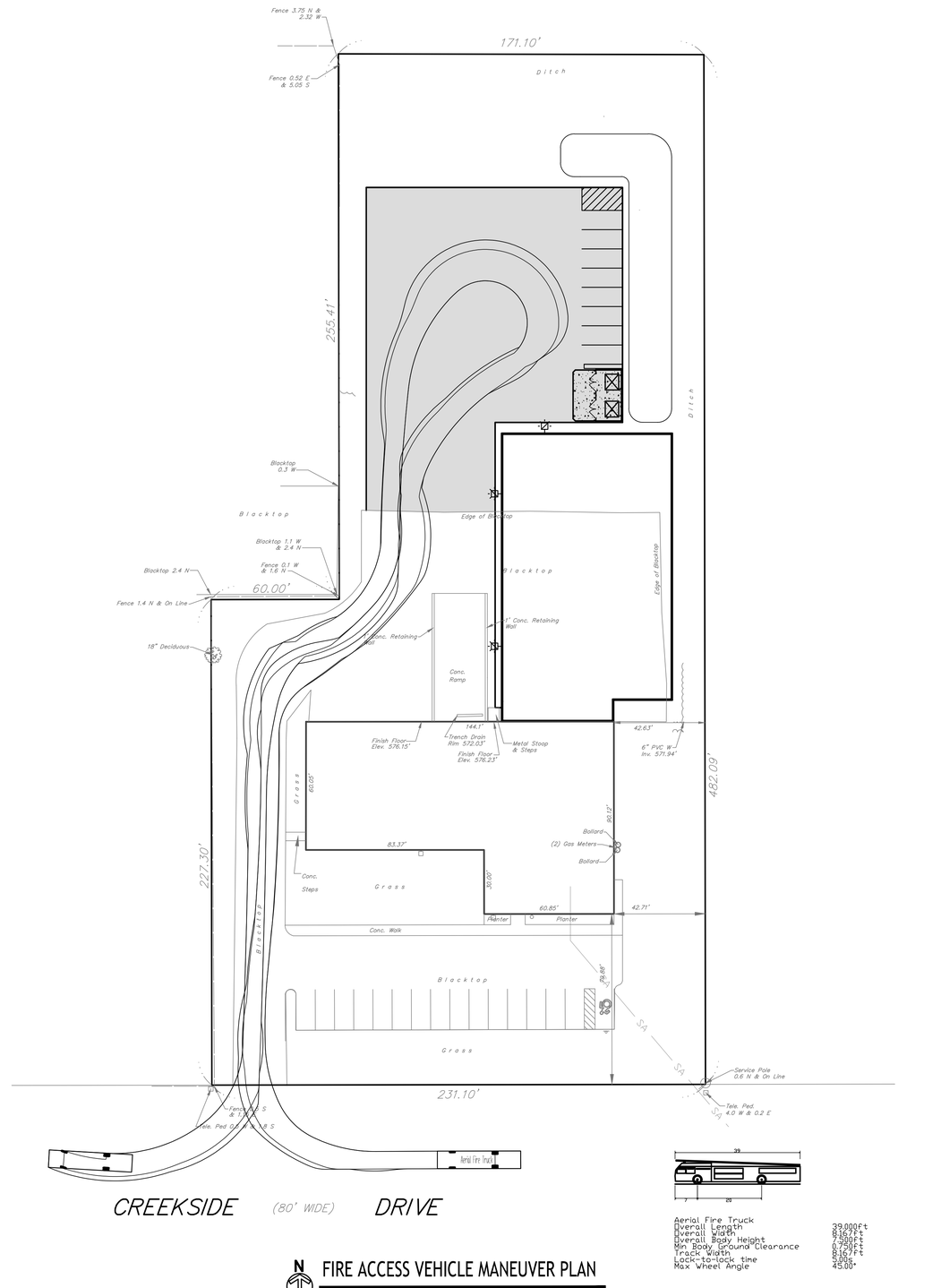


WB-67 - Interstate Semi-Trailer

Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

N WB-67 VEHICLE MANEUVER PLAN

SCALE: 1"=30'



Aerial Fire Truck	
Overall Length	39.000ft
Overall Width	8.167ft
Overall Body Height	7.500ft
Min Body Ground Clearance	0.750ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

N FIRE ACCESS VEHICLE MANEUVER PLAN

SCALE: 1"=30'

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

30 30 0 30 60Ft.

CARMINAWOOD DESIGN
Buffalo | Utica | Greensboro

Prop. Warehouse Addition

80 Creekside Drive
Amherst, New York 14228

REVISIONS:

No.	Description	Date
1	Revised Per Town Comments	3/29/23



DRAWING NAME:

Vehicle Maneuver Plan

Date: 02/08
Drawn By: C. W.
Scale: As No

DRAWING NO.

T-100

Project No: 22.350

Attachment: SP-1987-64A drawings 042023 (27196 : Sp-1987-64A)

Amherst

Town of Amherst Planning Department *Erie County, New York*

Brian J. Kulpa
Supervisor

Daniel C. Howard,
Planning Direct

Daniel J. Ulatowski,
Assistant Planning D

SEQR
Negative Declaration

NOTICE OF DETERMINATION OF NON-SIGNIFICANCE

Lead Agency:	Town of Amherst Planning Board	**Project:**	SP-1987-64_A
Address:	5583 Main Street Williamsville, NY 14221 (716) 631-7051	**Date:**	April 20, 2023

This notice is issued pursuant to Part 617 and Local Law #3-82, as amended, of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law.

The Lead Agency has determined that the proposed action described below will not have a significant adverse effect on the environment.

Title of Action: Site Plan Review

SEQR Status: Unlisted Action

Description of Action: This project consists of a 10,525 square foot building addition on the north side of an existing warehousing building. The addition is 1-story (16.5 feet tall) and is constructed of steel siding and a metal roof. Other site work includes the addition of 8 parking stalls adjacent to the building addition and a dumpster enclosure. A new stormwater detention pond is also included in the site work to offset the additional pavement required in order to facilitate the building addition. Work will include the site improvements not specifically stated above, including, stormwater, utilities, grading, lighting, paving, and landscaping.

Location: 80 Creekside Drive, Amherst, Erie County

'23 APR 26 PM12:51

Petitioner: 80 Creekside Drive, LLC

Attachment: SP-1987-64_A_signed_neg_dec_042023 (27196 : Sp-1987-64A)

Reasons Supporting This Determination

Based on information submitted by the applicant including a Full Environmental Assessment Form (EAF) - Part I, (as amended) and a complete site plan application, a preliminary staff analysis was undertaken. Compared to the criteria listed in Section 617.7, all indications are that this action will not have a significant impact on the environment, as follows:

1. The project is not expected to cause a substantial adverse change in existing air quality, ground or surface water quality or quantity, or noise levels; a substantial increase in solid waste production; or a substantial increase in the potential for erosion, flooding, leaching or drainage problems. The Engineering Department on April 6, 2023 reviewed the Grading, Drainage and Utility Plans submitted on March 30, 2023, Engineer's Report submitted on March 30, 2023, and Erosion Control Plan submitted on March 30, 2023. Based on its review of these documents, the Department has determined that the project has or will have met all applicable requirements and has no objection to its approval. A letter from Mark Dean, AIA project architect, submitted April 20, 2023 states that no significant impacts to the soils are expected to occur based on the scope of the project. A Geotechnical report prepared by Vanderhorst Geotechnical Engineering, P.C. dated August 22, 1997 for a property located at 2865 Niagara Falls Boulevard (within 350 feet of the subject site) was reviewed by the Town of Amherst Building Department as part of the site plan review process for that site. A full Geotechnical Report will be provided by the applicant prior to the issuance of any building permits for the proposed 10,525 square foot building addition. Based on the presence of previously reviewed Geotechnical Report for a neighboring site as well as a letter from the project architect, a significant impact to the soils for the proposed project is not anticipated.

2. The project will not result in the removal or destruction of large quantities of vegetation or fauna; or in significant adverse impacts to fish or wildlife species, habitats or other natural resources. The Planning Department reviewed a Landscape Plan submitted on March 30, 2023 and determined that it meets or exceeds Zoning Ordinance requirements for greenspace. The Landscape Plan has or will have met all Zoning Ordinance and Town requirements for landscaping.

3. The project is not expected to create any substantive conflict with the Town Comprehensive Plan. The Planning Department in their review of March 31, 2023, the Zoning Enforcement Officer in his/her review of March 31, 2023 have reviewed the application documents and Building Department in their review of April 5, 2023 has reviewed the application documents and determined that the subject project has or will have met all International Building Code – 2018 and Zoning Ordinance regulations.

4. The project is within an area identified by the State as having potential archaeological or historical significance. However, the site has been previously disturbed, therefore, the project will not impair the character or quality of important historical resources.

5. The project will not impair the character or quality of important aesthetic resources or of existing community or neighborhood character. The project is located in the Research & Development (RD) zoning district; neighboring uses are single-family residential to the north zoned Residential District 3 (R-3), multifamily residential to the south zoned Multi-Family Residential District 5 (MFR-5), vacant land to the east zoned RD and a warehousing/self-storage facility to the west zoned RD; therefore, the project is consistent with surrounding land use.

Attachment: SP-1987-64_A_signed_neg_dec_042023 (27196 : Sp-1987-64A)

6. The proposed subject development will include a 10,525 square foot building addition on the north side of an existing warehousing building which will not cause a major change in the use of either the quantity or type of energy.

7. The project will not create any hazard to human health. The Fire Chief's Association on March 31, 2023, has reviewed the project and has no objection to the approval of the site plan, as all requirements of this agency have or will have been met.

8. The project will not cause a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses. A 10,525 square foot building addition on the north side of an existing warehousing building will be consistent with the scale of surrounding land uses.

9. The function of the proposed 10,525 square foot building addition on the north side of an existing warehousing building will not significantly increase the number of people using the site over its previous level of use.

10. Review by the Town Traffic/Safety Board dated March 2, 2023, indicates that significant negative traffic impacts are not expected to result from the proposed project.

11. A coordinated review of the project has been undertaken by Town Departments, in addition to those mentioned above, Plumbing Division on March 1, 2023, and Right-of-Way Agent on March 13, 2023. These reviews have not identified any significant environmental issues and indicate that the proposal will not have a significant damaging impact on the environment.

12. Issues not specifically mentioned above and/or those not specifically reviewed were not raised by Town departments, outside agencies or the public and are not determined to cause significant negative environmental impacts.

Planning Board Approval April 20, 2023
Moved by: Giuliani; Seconded by: Gill; Ayes 7; Noes 0.

Thomas Voit, Assistant Planner — Date 4/24/2023

Robert J. Gilmour, Planning Board Chair — Date 4-25-23.

TV/ac
X:\Current_Planning\Files\Site Plans\1987\SP-1987-64_A_(80_Creekside_Dr)_2023\SP-1987-64_A_neg_dec__4202023.docx
cc: Commissioner of Building
Town Engineer
Fire Chiefs'
Highway
Traffic/Safety
Chris Wood, Carmina Wood Design, 487 Main Street, Buffalo, NY 14023
Sean Hopkins, Hopkins Sorgi & McCarthy, 5500 Main St., Suite 343, Williamsville, NY 14221
Kevin Curry

'23 APR 26 PM12:5[illegible]

Attachment: SP-1987-64_A_signed_neg_dec_042023 (27196 : Sp-1987-64A)

TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-1987-64_A

PETITIONER

80 Creekside Drive, LLC
c/o Chris Wood
Carmina Wood Design
487 Main Street
Buffalo, NY 14023

PROPERTY LOCATION

80 Creekside Drive

WHEREAS, the Town of Amherst Planning Board on Thursday, April 20, 2023 held a public hearing on a Site Plan for a 10,525 square foot building addition on the north side of an existing warehousing building, and

WHEREAS, the Planning Board reviewed the plans and specifications for the proposed project, and

WHEREAS, the Site Plan was referred to the Town's various review agencies, and

WHEREAS, in accordance with Section 8-7-9 of the Zoning Ordinance, the Planning Board finds that:

A. The proposed site plan is consistent with the development plan if one is required.

B. The proposed site plan is consistent with the purpose and specific requirements of the Zoning Ordinance and generally consistent with the policies of the Comprehensive Plan.

C. Adequate services and utilities will be available prior to occupancy.

D. The site plan is consistent with all other applicable laws.

E. Pursuant to Local Law #3-82, as amended, the Planning Board has determined that the requirements of SEQR are complete and that the subject proposal is not expected to have a significant adverse effect on the environment.

F. Review by the US Army Corps of Engineers under Section 404 of the Clean Water Act may be waived because the parcel is developed.

NOW THEREFORE BE IT RESOLVED that in accordance with 6 NYCRR, Part 617 and Local Law #3-82, as amended, the Planning Board has issued a Negative Declaration attached hereto, and

NOW THEREFORE BE IT FURTHER RESOLOVED that the Planning Board, in accordance with Part II, Chapter 83, Part IX, Section 1-2 of Town Law waives sidewalks required along the Creekside Drive frontage of the parcel until required at some future time by the Town Board, and

Attachment: SP-1987-64_A_signed_resolution_042023 (27196 : Sp-1987-64A)

TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-1987-64_A

PETITIONER	PROPERTY LOCATION
80 Creekside Drive, LLC	80 Creekside Drive

NOW THEREFORE BE IT FURTHER RESOLVED that the Planning Board, in accordance with Section 8-7 of the Zoning Ordinance approves said Site Plan subject to the following conditions:

1. That the petitioner provide a Geotechnical Report for review and approval by the Building Department, prior to the issuance of any building permits.

2. That the petitioner provide a revised Engineer's Report to indicate if any additional water/sanitary use is planned within the building addition. If additional water/sanitary use is anticipated, the additional use must be quantified as average and peak flows as per the current NYSDEC design standards.

3. That the petitioner satisfy the requirements of the Fire Chief's Association outlined in their letter dated March 31, 2023, to the satisfaction of the Association.

4. That the petitioner satisfy the requirements of the Zoning Enforcement Officer outlined in the officers letter dated March 31, 2023 to the satisfaction of that officer.

5. That the petitioner satisfy the requirements of the Planning Department outlined in their letter dated March 31, 2023 to the satisfaction of that department.

6. That the petitioner satisfy the requirements of the Building Department outlined in their letter dated April 5, 2023 to the satisfaction of that department.

7. That sidewalks be installed along the Creekside Drive frontage at a time when the adjacent parcel to the east at 140 Creekside Drive is developed and sidewalks are required.

8. That the consideration of signs is specifically excluded from this approval as they require a separate review and approval by the Town.

9. That all dumpsters/trash containers and all mechanical equipment, utility structures, multiple meter boards, generators, and similar appurtenances, including those which are mounted on any part of a primary structure shall be appropriately screened with a fence, wall, and/or landscaping. Provide gate on dumpster enclosure that shall be closed whenever dumpster is not being serviced, enclosure shall be high enough to screen the dumpster(s) within.

10. That as-built record drawings, including location of utilities, be provided to the Engineering Department prior to issuance of a Certificate of Occupancy by the Building Department.

Attachment: SP-1987-64_A_signed_resolution_042023 (27196 : Sp-1987-64A)

'23 APR 26 PM12:59

TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-1987-64_A

PETITIONER	PROPERTY LOCATION
80 Creekside Drive, LLC	80 Creekside Drive

The foregoing resolution was adopted by the Town of Amherst Planning Board, April 20, 2023; moved by Chmeil; seconded by Penberthy; ayes 7, noes 0.

Robert J. Gilmour, Planning Board Chair

4-25-23.
Date

TV/ac
X:\Current_Planning\Files\Site Plans\1987\SP-1987-64_A_(80_Creekside_Dr)_2023\SP-1987-64_A_resolution_042023.docx

cc: Commissioner of Building
Town Engineer
Fire Chiefs
Traffic/Safety
Highway Superintendent
Chris Wood, Carmina Wood Design, 487 Main Street, Buffalo, NY 14023
Sean Hopkins, Hopkins Sorgi & McCarthy, 5500 Main St., Suite 343, Williamsville, NY 14221
Kevin Curry (electronically)

Approved Plan: Carmina Wood Design
Received: March 30, 2023

'23 APR 26 PM12:59

Attachment: SP-1987-64_A_signed_resolution_042023 (27196 : Sp-1987-64A)

Rezoning Application - Rezoning of Portion of 2350 Sweet Home Road from OB to MFR-5
Applicant: Essex Homes of WNY, Inc.
Date: January 23, 2023

Prepared By: Sean Hopkins, Esq.
Hopkins Sorgi & McCarthy PLLC
5500 Main Street, Suite 343
Williamsville, NY 14221
Tel: 510-4338
E-mail: shopkins@hsmlegal.com

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Rezoning Review and, if required Comprehensive Plan Amendment

For Official Use

File #: _____ **Acreage** .17 Acres **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Accepted by Town Clerk & Fee Paid ____ _____ AC CEP TB BY DATE

Materials Checked by Building Dept. _____ RECEIVED BY DATE

Materials Received by Planning Dept. _____ RECEIVED BY DATE

		Fill In Applicable Fees
2 ACRES OR LESS	**$1,250**	1,250.00
2 – 20 ACRES **$1,250 + $250/acres or fraction thereof over 2 acres**		_____
20 – 30 ACRES **$5,700 + $150/acre or fraction thereof over 20 acres**		_____
OVER 30 ACRES **$6,900 +$75/acre or fraction thereof over 30 acres**		_____
Request for Relief of/Change to Conditions of Zoning Approval	**$ 1,200**	_____
AFFIDAVIT FEE FOR PUBLIC HEARING	**$ 15.00**	$ 15.00
	TOTAL FEE:	$1,265.00

[**Note**: A completed Short Environmental Assessment Form prepared pursuant to the State Environmental Quality Review Act ("SEQRA") is provided at Exhibit "5".]

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

TO BE COMPLETED BY APPLICANT

1. **Petitioner:** Name: Essex Homes of WNY, Inc.

Address: c/o Sean Hopkins, Esq.
5500 Main Street, Suite 343
Williamsville, New York 14221
City State Zip Code

Phone: 716.510-4338 Fax:

E Mail shopkins@hsmlegal.com

2. **The undersigned hereby petitions the Honorable Town Board to rezone the following described property**

From: OB District

To: MFR-5 District

3. **Street address of land to be rezoned:** (must be verified by Town Assessor's Office)

Portion of 2350 Sweet Home Road

SBL #: 40.12-1-14

4. **Area of land to be rezoned** (in acres): .17 Acres

5. **Owner of Land:**

Name: Essex of WNY, Inc. c/o Sean Hopkins, Esq.

Address: 5500 Main Street, Suite 343 - Williamsville, NY 14221

Telephone: 716.510-4338 [E-mail: shopkins@hsmlegal.com]

6. **Representative** (Architect, Engineer, Landscape Architect, Surveyor or Attorney):

Name: Sean W. Hopkins, Esq., Hopkins Sorgi & McCarthy PLLC

Address: 5500 Main Street, Suite 343
Williamsville, New York 14221
City State Zip Code

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

7. Petitioner's interest in property

_____Option to purchase

__X__Owner

_____Other (explain) _____

8. The following are all others having an interest in this application and join herein with the petitioner named above: (describe extent of interest; attach sheets as needed)

Not Applicable.

9. Attach Survey and Legal description of land to be rezoned. The Survey must be prepared by a New York State Licensed Land Surveyor. Legal description of property to be rezoned from OB to MFR-5 attached as Exhibit "1" and a copy of the survey prepared by GPI Engineering & Surveying is provided at Exhibit "2" Full-size copy of the survey is also attached to this Application.

10. Said property has the following deed restrictions or Covenants: (attach copy)

Liber 11341 Page 2501

Copy of Declaration of Restrictions as recorded on February 21, 2019 attached as Exhibit "3".

11. Information on proposed project:

A. Description of the character of the proposed development:

See Exhibit "4". A reduced-size copy the Site Plan prepared by Carmina Wood Design is provided at Exhibit "6" and a full-size copy is also attached to this Application.

B. Rationale for rezoning request:

1. Why was this site chosen?

See Exhibit "4"

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

2. Why cannot land be used with the existing zoning?

See Exhibit "4".

3. How will this rezoning impact surrounding properties?

See Exhibit "4".

4. How will this rezoning impact the school system?

See Exhibit "4".

12. Quantitative Data:

A. Total # of dwelling units: 48 Attached Residential Units

B. Distribution of dwelling units by type: Attached Townhomes

C. Gross Residential Density per acre: 4.04 units per acre

D. Total amount of Open Space: Approximately 5.2 acres

E. Proposed Non-Residential Floor Area: Not Applicable

13. Development Schedule:

Start: Project under construction.

Finish: To be based on demand for the attached residential units.

Stages (# of): Based on market demand

14. If any portion of the proposed development is planned to be sold or leased, please describe:

The upscale residential units are for sale.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

15. Open Space ownership and maintenance provisions (if applicable):

Greenspace and landscaping will be privately owned and maintained.

16. Basis for Findings (Sec. 8-3-5 of the Town Zoning Code) (Attach sheets and supplemental materials as necessary.)

A. The proposed zoning and development plan must be generally consistent with the policies of the Comprehensive Plan and the Town Zoning Ordinance.

1. State in detail why the proposed zoning is consistent with the adopted Town of Amherst Bicentennial Comprehensive Plan. Cite specific sections, maps, and/or figures in the plan that support the proposed zoning at this location (The Comprehensive Plan document is available at the Planning Department, Town Clerk's Office, Amherst libraries, or at www.amherst.ny.us). Add sheets as needed.

See Exhibit "7".

2. Pursuant to NYS Town Law Section 272a(11), "all Town land use regulations must be in accordance with a comprehensive plan adopted pursuant to this Section." The Town Board adopted the Comprehensive Plan pursuant to NYS Town Law 272 on January 2, 2007. If the rezoning is approved, the Town Board may require the Plan to be amended, as applicable.

Cite all text, map, and / or figures that must be amended to support the proposed zoning at this location (attach pages as necessary) and provide detailed suggested amendments.

See Exhibit "7".

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

3. State why the proposed zoning is consistent with intent and objectives (Sec. 1-2-2) of the Zoning Ordinance:

See Exhibit "7".

B. Adequate Services and Utilities are available or are proposed to be made available with the construction of the development:

1. Sanitary Sewer
   Yes.
2. Storm Sewer/Drainage
   Yes.
3. Water
   Yes.
4. Other Yes.

C. Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:

See Exhibit "7".

D. Suitability of the subject property for uses permitted by the current versus the proposed district:

See Exhibit "7".

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

E. Whether the proposed change tends to improve the balance of uses, or meets a specific demand in the Town:

See Exhibit "7".

17. The petitioner encloses herewith the sum of $ 1,265.00 to pay the fee, and consents to the placement of a sign(s) at the described location identifying this request for a period of time to be determined by the Town Clerk.

18. The undersigned certifies that all information required to be disclosed pursuant to Section 809 of the General Municipal Law (see below) is as follows:

The undersigned swears or affirms that all statements made herein are true, that all drawings submitted correctly show the situation involved in this petition.

[Authorization of Owner of the Project Site is attached.]

Signature of Petitioner

Subscribed and sworn to before me this 23rd day of January, 20 23

Notary Public, Erie County, New York

MARIANNE BRAUTLACHT
Notary Public, State of New York
Qualified in Erie County
My Commission Expires 01/14/2024

N.Y.S. General Municipal Law - Section 809 Disclosure in certain applications:

1. Every application, petition or request submitted for a variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit, pursuant to the provision of any ordinance, local law, rule or regulation constituting the zoning and planning regulations of a municipality shall state the name, residence and the nature and extent of the interest of any state office or any office or employee of such municipality or of a municipality of which such municipality is a part, in the person, partnership or association making such application, petition or request (hereinafter called the applicant) to the extent known to such applicant.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

2. For the purpose of this section an officer or employee shall be deemed to have an interest in the applicant when he, his spouse, or their brothers, sisters, parents, children, grandchildren, or the spouse of any of them

   (a) is the applicant, or
   (b) is an officer, director, partner or employee of the applicant, or
   (c) legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association applicant, or
   (d) is a party to an agreement with such an applicant, express or implied, whereby he may receive any payment or other benefit, whether or not for services rendered, dependent or contingent upon the favorable approval of such applicant, petition or request.

3. In the county of Nassau the provisions of subdivisions one and two of this section shall also apply to a party officer. "Party Officer" shall mean any person holding any position or office, whether by election, appointment or otherwise, in any party as defined by subdivision four or section two of the election law.

4. Ownership of less than five per cent of the stock of a corporation whose stock is listed on the New York or American Stock Exchanges shall not constitute an interest for the purposes of this section.

5. A person who knowingly and intentionally violates this section shall be guilty of a misdemeanor.

P/CurrPlan/Applications2007/Rezoning & Comp Plan Amend App.
10/08

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

Exhibit 1 – Legal Description of Portion of 2350 Sweet Homes Road to be Rezoned from OB to MFR-5

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

EXHIBIT 1

LEGAL DESCRIPTION OF PROPERTY TO BE REZONED FROM OFFICE BUILDING DISTRICT ("OB") TO MULTIFAMILY RESIDENTIAL DISTRICT FIVE ("MFR-5")

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 209.37 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: through the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a line parallel and distant 22.00 feet northerly of a southerly line of said North Forest Properties #5 LLC lands as measured at right angles, a distance of 608.37 feet to a point being distant 25.33 feet easterly from the west line of said North Forest Properties #5 LLC lands;
2) N-00°-12'-48"-W, a distance of 361.56 feet to a point;
3) N-88°-54'-31"-E, a distance of 4.13 feet to a point;
4) S-01°-05'-29"-E, along a line parallel and distant 35.00 feet easterly of the west line of said North Forest Properties #5 LLC lands as measured at right angles, a distance of 353.67 feet to a point;
5) N-89°-47'-10"-E, along a line parallel and distant 30.00 feet northerly of a southerly line of said North Forest Properties #5 LLC lands as measured at right angles, a distance of 598.82 feet to the said west line of Liber 6673 of Deeds at page 573;

THENCE: S-00-12'-50"-E, along the said west line of Liber 6673 of Deeds at page 573, a distance of 8.00 feet to the POINT OF BEGINNING, containing 7,285 square feet or 0.17 acre more or less.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

Exhibit 2 – Reduced-Size Copy of Survey of Property to be Rezoned from OB to MFR-5 as Prepared by Mark Andrews of GPI Engineering & Surveying [Note: Full-size copy also attached

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

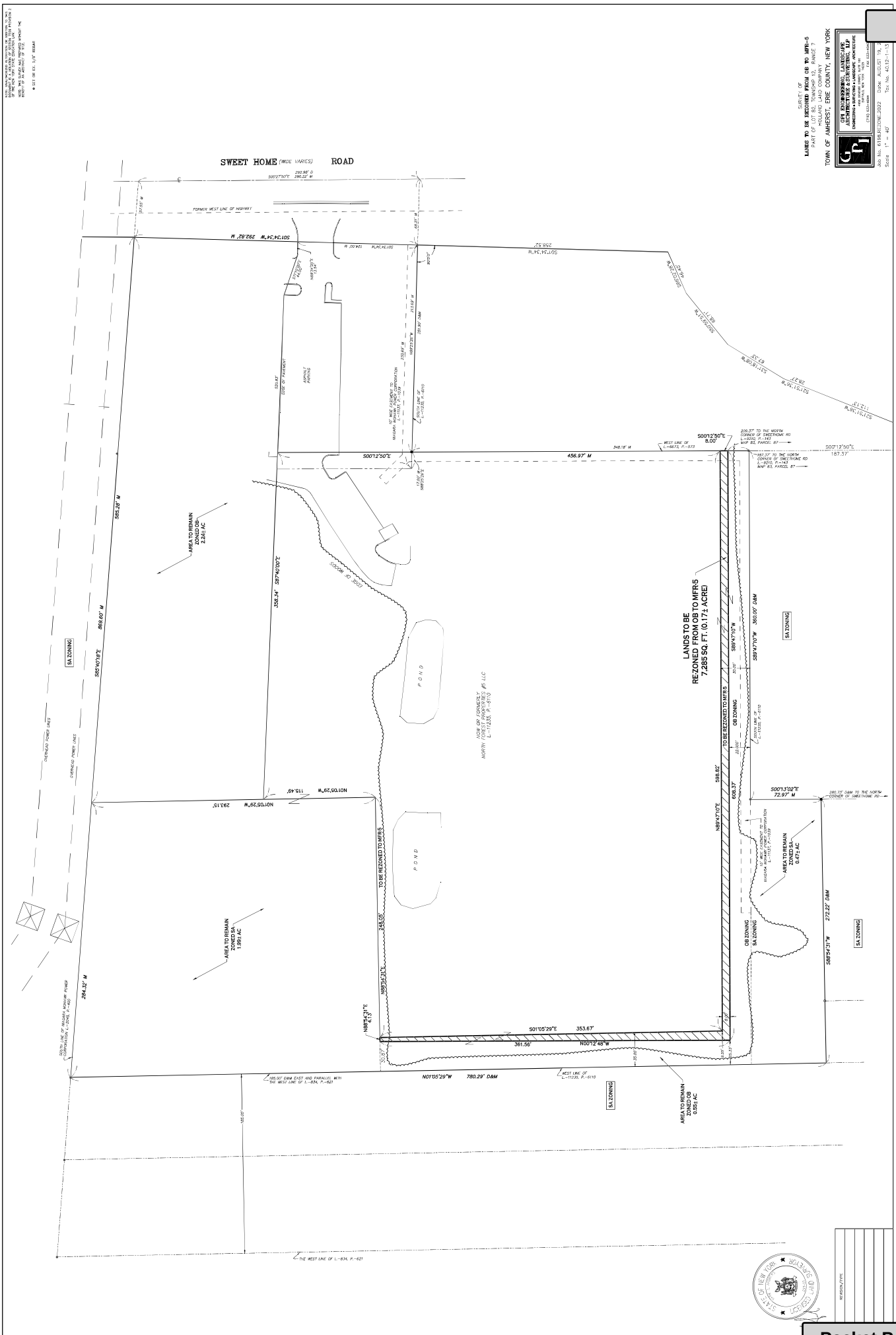

SWEET HOME (WIDE VARIES) ROAD
LANDS TO BE RE-ZONED FROM OB TO MFR-5
7,285 SQ. FT. (0.17± ACRE)
AREA TO REMAIN ZONED OB 2.64± AC
AREA TO REMAIN ZONED SA 1.99± AC
AREA TO REMAIN ZONED SA 0.47± AC
AREA TO REMAIN ZONED OB 0.05± AC
TO BE REZONED TO MFR5
OB ZONING
SA ZONING
POND
456.97' M
S00°12'50"E
8.00'
S00°12'50"E
187.37'
S00°13'02"E
72.97' M
N01°05'29"W
115.49'
N01°05'29"W
293.15'
S01°05'29"E
353.67'
N00°12'48"W
361.56'
N01°05'29"W
780.29' D&M
S89°47'10"W
360.00' D&M
S89°47'10"W
608.37'
S89°47'10"E
598.62'
S89°54'31"W
272.22' D&M
N89°54'31"E
248.08'
N89°54'31"E
N89°54'31"E
394.32' M
S89°40'19"E
869.60' M
S89°40'00"E
358.34' M
S00°04'40"E
582.28' M
S01°34'34"W
292.82' M
S01°34'34"W
258.52'
N89°25'26"W
N89°25'26"W
N89°25'26"W
S00°12'50"E
348.18' M
S00°12'50"E
N89°25'26"W
N89°25'26"W
N89°25'26"W

Exhibit 3 – Copy of Declaration of Restrictions Recorded at the Erie County Clerk's Office on February 21, 2019

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

FILED

FEB 21 2019

ERIE COUNTY
CLERK'S OFFICE

Return Original to Box 460
Hopkins Sorgi & Romanowski PLLC
Attn: Sean W. Hopkins, Esq.

DECLARATION OF RESTRICTIONS

THIS DECLARATION OF RESTRICTIONS (***"Declaration"***) is made as of the 20th day of February, 2019 by **ESSEX HOMES OF WNY, INC.** (hereinafter ***"Declarant"***) under facts and circumstances summarized by the following recitals:

WHEREAS, the Declarant is the owner of real property consisting of 2350 Sweet Home Road as more particularly described in the metes and bounds legal description of 2350 Sweet Home Road attached hereto as **Schedule "A";**

WHEREAS, the Declarant is the owner of real property consisting of a portion of 2360 Sweet Home Road comprised of approximately 10.22 acres as more particularly described in the metes and bounds legal description of a portion of 2360 Sweet Home Road attached hereto as **Schedule "B";**

WHEREAS, in December of 2016, RAS Development I LLC submitted an application with the Town of Amherst requesting that the Town Board of the Town of Amherst (***"Town Board"***) amend the zoning classification of approximately 7.14 acres of a portion of 2360 Sweet Home Road from Office Building District (***"OB"***) to Multifamily Residential District Five (***"MFR-5"***);

WHEREAS, in September of 2017, RAS Development I LLC submitted an application with the Town of Amherst requesting that the Town Board of the Town of Amherst (***"Town Board"***) amend the zoning classification of 2350 Sweet Home Road from General Business District (***"GB"***) to Multifamily Residential District Five (***"MFR-5"***);

WHEREAS, during its meeting held on March 19, 2018, the Town Board adopted Resolution No. 2018-241 for the purpose of approving an amendment of the zoning classification of 2350 Sweet Home Road from GB to MFR-5 subject to eighteen (18) conditions as contained in Resolution No. 2018-241;

WHEREAS, during its meeting held on March 19, 2018, the Town Board adopted Resolution No. 2018-242 for the purpose of approving an amendment of the zoning classification of a portion of 2360 Sweet Home Road from OB to MFR-5 subject to eighteen (18) conditions as contained in Resolution No. 2018-242;

WHEREAS, the conditions contained in Resolutions 2018-241 and 2018-242 as adopted by the Town Board on March 19, 2018 are identical;

WHEREAS, pursuant to Condition No. 18 as contained in Resolutions 2018-241 and 2018-242, Conditions No. 1 to 14 as imposed by the Town Board on March 19, 2018 are to be subject to a Declaration of Restrictions recorded at the Erie County Clerk's Office;

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

WHEREAS, Conditions No. 1 to 14 as contained in Resolutions 2018-241 and 2018-242, Conditions No. 1 to 14 as imposed by the Town Board on March 19, 2018 are as follows:

1. That the 5.2 acres of Permanent Open Space as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 shall not be developed as any buildings or other above ground structures, and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space in the front portion of the buildings such that there shall not be any second story windows provided for the second story loft space on the rear portion of the buildings.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

7. That the minimum setback of the residential buildings on the project site from the southern boundary and western boundary of the project site shall be 35 feet.

8. That the minimum setback of Building No. 5 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the northern boundary of 574 North Ellicott Creek Road shall be 109 feet.

9. That the minimum setback of Building No. 6 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the southern boundary of the project site shall be 137 feet.

10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side and the portion of the western side of 2360 Sweet Home Road to be developed

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

for residential purposes. The Landscaping Plan to be prepared by a licensed landscape architect during the site plan review stage for the residential project on 2360 Sweet Home Road shall be prepared based on consideration of input received by the Petitioner from the owners of the parcels directly south of the project site at 566, 574, 598 and 620 North Ellicott Creek Road and the owner of the parcel west of the project site at 550 North Ellicott Creek Road.

12. That the Lighting Plan to be prepared during the site plan review stage for the residential project on the project site shall demonstrate that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel at 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

WHEREAS, a metes and bounds legal description of the 5.2 acres of Permanent Open Space referenced above in Condition No. 1, as contained in Resolutions 2018-241 and 2018-242 adopted by the Town Board on March 19, 2018, consisting of a portion of 2360 Sweet Home Road, is attached as **Schedule "C"** (hereinafter ***"Permanent Open Space"***);

WHEREAS, in July of 2018, RAS Development I LLC filed an Application for relief of Zoning Condition No. 14 as contained in Resolutions 2018-241 and 2018-242 for the purpose of seeking to allow a gated emergency access driveway to be installed connecting 2350 Sweet Home Road and a portion of 2360 Sweet Home to North Ellicott Creek Road;

WHEREAS, during its meeting held on October 1, 2018, the Town Board adopted Resolution No. 2018-1046 for the purpose of approving the requested Relief of Zoning Condition No. 14 as contained in Resolutions 2018-241 and 2018-242 to allow a gated emergency access driveway to be installed connecting to North Ellicott Creek Road subject to six (6) conditions as follows:

1. The gated emergency access connection will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

2. Pursuant to the Town Code, all property owners within 600 ft. of the project site will receive written notice from the Town of any future proposed amendment of any of the zoning conditions.

3. The amended Zoning Condition No. 14 will be incorporated into the Declaration of Restrictions to be recorded at the Erie County Clerk's Office.

4. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

5. That the gated emergency access driveway to North Ellicott Creek Road be straightened as much as possible.

6. That the final site plan be fully compliant with fire code.

NOW, THEREFORE, in exchange for good and valuable consideration the sufficiency of which is acknowledged, the Declarant agrees to restrict the future use of 2350 Sweet Home Road as described in **Schedule "A"**, a portion of 2360 Sweet Home Road as described in **Schedule "B"** including the Permanent Open Space consisting of a portion of 2360 Sweet Home Road as described in **Schedule "C"**, in accordance with the conditions as set forth in Resolutions No. 2018-241 and 2018-242 as adopted by the Town Board on March 19, 2018 and the conditions set forth in Resolution 2018-1046 as follows:

1. That the 5.2 acres of Permanent Open Space as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 and described in the attached **Schedule "C"** shall not be developed as any buildings or other above ground structures and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space in the front portion of the buildings such that there shall not be any second story windows provided for the second story loft space on the rear portion of the buildings.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

7. That the minimum setback of the residential buildings on the project site from the southern boundary and western boundary of the project site shall be 35 feet.

8. That the minimum setback of Building No. 5 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the northern boundary of 574 North Ellicott Creek Road shall be 109 feet.

9. That the minimum setback of Building No. 6 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the southern boundary of the project site shall be 137 feet.

10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side and the portion of the western side of 2360 Sweet Home Road to be developed for residential purposes. The Landscaping Plan to be prepared by a licensed landscape architect during the site plan review stage for the residential project on 2360 Sweet Home Road shall be prepared based on consideration of input received by the Petitioner from the owners of the parcels directly south of the project site at 566, 574, 598 and 620 North Ellicott Creek Road and the owner of the parcel west of the project site at 550 North Ellicott Creek Road.

12. That the Lighting Plan to be prepared during the site plan review stage for the residential project on the project site shall demonstrate that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel at 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 and a gated emergency access only driveway connection to North Ellicott Creek Road, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

15. The gated emergency access connection to North Ellicott Creek Road will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

16. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

The restrictions being established herein pursuant to the conditions contained in Resolutions No. 2018-241 and 2018-242 as adopted by the Town Board on March 19, 2018 and Resolution No. 2018-1046 as adopted by the Town Board on October 1, 2018 shall be binding on all parties claiming thereunder and shall run and touch the land except that the recorded restriction can be changed, modified or eliminated by a majority vote of the Town Board.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK
SIGNATURE ON FOLLOWIG PAGE]

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

IN WITNESS WHEREOF, the party hereto has the full legal authority to execute this Declaration of Restrictions.

ESSEX HOMES OF WNY, INC.

By: Philip J. Nanula
Name: Philip J. Nanula
Title: President

STATE OF NEW YORK)
ss.:
COUNTY OF ERIE)

On this 12th day of January, 2019, before me, the undersigned, a notary public in and for said state, personally appeared Philip J. Nanula, personally known to me or proved to me on the basis of satisfactory evidence to the be the individual whose name is subscribed to within this instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual or the person upon behalf of which the individual acted, executed the instrument.

Michelle Lynn Ward
Notary Public

MICHELLE LYNN WARD
Notary Public - State of New York
NO. 01WA6275111
Qualified in Niagara County
My Commission Expires 1/14/2021

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

SCHEDULE A

METES AND BOUNDS LEGAL DESCRIPTION OF 2350 SWEET HOME ROAD

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York, being part of Lot 82, Township 12 and Range 7 of the Holland Land Company's Survey, being more particularly described as follows:

BEGINNING at the intersection of the northerly line of North Ellicott Creek Road with the westerly line of Sweet Home Road; Thence N 01°58'37 E, along the westerly line of Sweet Home Road, a distance of 258.52 feet; Thence 88°01'23" W, a distance of 213.69 feet; Thence S 00°11'13" W, a distance of 535.55 feet to a point in the northerly line of North Ellicott Creek Road; Thence N 45°33'50" E, along the northerly line of North Ellicott Creek Road, a distance of 30.24 feet; Thence N 22°15'39" E, along the northerly line of North Ellicott Creek Road, a distance of 140.40 feet; Thence N 31°42'11" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 67.33 feet; Thence N 51°23'54" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 68.71 feet; Thence N 66°26'31" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 46.40 feet to the point of beginning, containing 1.742 acres.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

SCHEDULE B

METES AND BOUNDS LEGAL DESCRIPTION OF PORTION OF 2360 SWEET HOME ROAD

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 187.00 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: along the bounds of the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 360.00 feet to a point;
2) S-00°-13'-02"-E, along a easterly line of said North Forest Properties #5 LLC lands, a distance of 72.97 feet to a point;
3) S-88°-54'-31"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 272.22 feet to a point;
4) N-01°-05'-29"-W, along the west line of said North Forest Properties #5 LLC lands, a distance of 780.29 feet to the northwest corner thereof;
5) S-85°-40'-18"-E, along the north line of said North Forest Properties #5 LLC lands a distance of 619.92 feet to a point;

THENCE: S-00-12'-50"-E, through said North Forest Properties #5 LLC lands, a distance of 304.96 feet to a point;

THENCE: S-88-25'-26"-E, through said North Forest Properties #5 LLC lands, a distance of 26.18 feet to the west line of said lands described in Liber 6673 of Deeds at page 573;

THENCE: S-00-12'-50"-E, along the west line of said Liber 6673 of Deeds at page 573, a distance of 348.18 feet to the POINT OF BEGINNING, containing 10.22 acres more or less.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

SCHEDULE C

METES AND BOUNDS LEGAL DESCRIPTION
PERMANENT OPEN SPACE CONSISTING OF A PORTION OF
2360 SWEET HOME ROAD

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 187.00 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: along the bounds of the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 360.00 feet to a point;
2) S-00°-12'-50"-E, along an easterly line of said North Forest Properties #5 LLC lands, a distance of 72.97 feet to a point;
3) S-88°-54'-31"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 272.22 feet to the southwest corner thereof;
4) N-01°-05'-29"-W, along the west line of said North Forest Properties #5 LLC lands, a distance of 780.29 feet to the northwest corner thereof;
5) S-85°-40'-18"-E, along the north line of said North Forest Properties #5 LLC lands a distance of 619.92 feet to a point;

THENCE: Through said North Forest Properties #5 LLC lands, the following fifteen (15) courses and distances:

6) S-00-12'-50"-E a distance of 166.47 feet to a point;
7) N-87-51'-46"-W a distance of 16.24 feet to a point;
8) S-12-26'-56"-W a distance of 27.13 feet to a point;
9) S-58-06'-54"-W a distance of 97.91 feet to a point;
10) S-46-53'-26"-W a distance of 15.19 feet to a point;
11) S-32-16'-28"-W a distance of 17.19 feet to a point;
12) S-25-41'-59"-W a distance of 28.12 feet to a point;
13) N-80-56'-26"-W a distance of 50.68 feet to a point;
14) N-67-33'-18"-W a distance of 62.20 feet to a point;
15) S-82-26'-00"-W a distance of 63.13 feet to a point;
16) N-71-38'-03"-W a distance of 27.07 feet to a point;
17) S-00-12'-50"-E a distance of 5.50 feet to a point;

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

18) S-88-54'-31"-W a distance of 244.27 feet to a point;
19) S-01-05'-29"-E a distance of 353.63 feet to a point;
20) N-89-47'-10"-E a distance of 598.82 feet to the west line of said lands described in Liber 6673 of Deeds at page 573;

THENCE: S-00-12'-50"-E, along the west line of said Liber 6673 of Deeds at page 573, a distance of 30.00 feet to the POINT OF BEGINNING, containing 5.21 acres more or less.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

MICHAEL P. KEARNS, ERIE COUNTY CLERK
REF:

DATE:2/21/2019
TIME:2:22:37 PM
RECEIPT: 19024620

HOPKINS SORGI & ROMANOWSKI PLLC- BOX 460
ACCOUNT #: 9074

ITEM - 01 781
RECD: 2/21/2019 2:24:28 PM
FILE: 2019035107 BK/PG D 11341/2501
ESSEX HOMES OF WNY INC
Recording Fees 100.00
Subtotal - 100.00

TOTAL DUE	$100.00
PAID TOTAL	$100.00
PAID CHECK	$100.00
Check #1264:	100.00

REC BY: Megan
COUNTY RECORDER

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

Exhibit 4 – Responses to Question No. 11 of the Application

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

EXHIBIT 4

RESPONSES TO QUESTION 11 OF REZONING APPLICATION FOR PORTION OF 2350 SWEET HOME ROAD FROM OB TO MFR-5

Question 11(A): Description of the character of the proposed development:

Response to Question 11(A): The residential project as previously approved by the Planning Board consists of 48 upscale attached residential units with attached garages for sale as depicted on the Site Plan prepared by Carmina Wood Design. The Project Sponsor is seeking the necessary approvals consisting of the rezoning of a small portion of the Project Site from OB to MFR-5 and relief of the Declaration of Restrictions recorded on February 21, 2019 to accommodate the proposed minor modifications to the approved project layout consisting primarily of first floor sunrooms to be constructed on the rear side of the attached townhome buildings on the southern and western boundaries of the Project Site as depicted on the Site Plan [Drawing C-100 – Date: 12/16/22] prepared by Carmina Wood Morris DPC. A reduced-size copy of the Site Plan is provided at **Exhibit "6"** and a full-size copy is also attached to this Application. A draft of the Amended Declaration of Restrictions is provided at **Exhibit "8"**.[1]

Question 11(B)(1): Rationale for rezoning request: 1. What was this site chosen?

Response to Question 11(B)(1): The majority of the Project Site is currently zoned MFR-5 in accordance with decisions issued by the Town Board on March 19, 2018. The Project Sponsor is seeking to amend a small portion of the Project Site from OB to MFR-5 to accommodate minor modifications to the approved project layout. It is important to mention that a large portion of the Project Site

[1] A copy of the Declaration of Restrictions recorded at the Erie County Clerk's Office on February 21, 2019 is provided at **Exhibit "3"**.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

will consist of Permanent Open Space to ensure the residential project is consistent with the character of the surrounding vicinity.[2]

Question 11(B)(2): Why cannot land be used with the existing zoning?

Response to Question 11(B)(2): The Project Site is currently being developed in the accordance with the existing MFR-5 zoning of a majority of the Project Site that was approved by the Town Board on March 19, 2018.

Question 11(B)(3): How will this rezoning impact surrounding properties?

Response to Question 11(B)(3): The proposed rezoning of a small portion of the Project Site from OB to MFR-5 and the requested relief of the Declaration of Restriction in order to accommodate minor modifications to the approved project layout will have any adverse impacts on surrounding properties.

Question 11(B)(4): How will this rezoning impact the school system?

Response to Question 11(B)(4): The project will continue to have positive impacts on the school district. The approved residential project consisting of attached townhomes for sale will not result in any significant increased demand for educational services since the target market for the residential units is empty nesters, seniors and young professionals.

[2] The approximately 5.2 acres of Permanent Open Space shall remain undeveloped in accordance with the Declarations of Restrictions recorded on at the Erie County Clerk's Office on February 21, 2019.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

Exhibit 5 – Short Environmental Assessment Form with Attached Page 5[a]

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

Short Environmental Assessment Form
Part 1 - Project Information

Prepared By: Sean Hopkins, Esq.
Hopkins Sorgi & McCarthy PLLC
5500 Main Street, Suite 343
Williamsville, NY 14221
Tel: 510-4338
E-mail: shopkins@hsmlegal.com

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
Villas at Essex Woods Project

Project Location (describe, and attach a location map):
2350 Sweet Home Road - Town of Amherst - Erie County

Brief Description of Proposed Action:
The action involves the rezoning of approximately 0.17 acres of the Project Site from Office Building District ("OB") to Multifamily Residential District Five ("MFR-5") and a request to modify a Declaration of Restrictions containing zoning conditions imposed by the Town of Amherst Town Board to accommodate minor modifications to the previously approved residential project consisting of 48 attached residential units for sale including the addition of single-story sun rooms on the rear sides of the approved buildings. The project layout is depicted on the Site Plan [Drawing C-100] prepared by Carmina Wood Design dated December 16, 2022. The project is an Unlisted Action pursuant to the State Environmental Quality Review Act ("SEQRA") since the impact do not cross any of the thresholds for a Type I action per 6 NYCRR Part 617.4. It is important to mention that the Town Board, Planning Board and Zoning Board of Appeals have all previously issued negative declarations pursuant to the SEQRA with respect to the approved residential project that is currently under construction.

Name of Applicant or Sponsor:	Telephone: 716.510-4338
Essex Homes of WNY, Inc. c/o Sean W. Hopkins, Esq.	E-Mail: shopkins@hsmlegal.com

Address:
Hopkins Sorgi & McCarthy PLLC - 5500 Main Street, Suite 343

City/PO:	State:	Zip Code:
Williamsville	NY	14221

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: Town Board - Rezoning, Zoning Board of Appeals - Area Variances; Planning Department - Minor Site Plan Amendment	☐	☑

3.a. Total acreage of the site of the proposed action? 11.89 acres
b. Total acreage to be physically disturbed? .12 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 11.89 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

	NO	YES	N/A
5. Is the proposed action, a. A permitted use under the zoning regulations? [Project Sponsor is seeking to amend the zoning classification of .17 acres of the Project Site from OB to MFR-5 to accomodate single-story sun rooms on the rear side of attached townhome buildings.]	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify:	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies:	☐	☑
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water:	☐	☑
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment:	☐	☑
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐
b. Is the proposed action located in an archeological sensitive area? [SHPO issued a No Impact determination for the Project Site on April 21, 2005.]	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: There are not any wetlands located on the portion of the Project Site to be developed. A wetland permit was issued by the USACE on April 20, 2006 and the 0.49 acres of impacts authorized by the permit have previously occurred.		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100 year flood plain?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☑ NO ☐ YES	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES Existing on-site stormwater management system will be utilized as previously approved.		

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

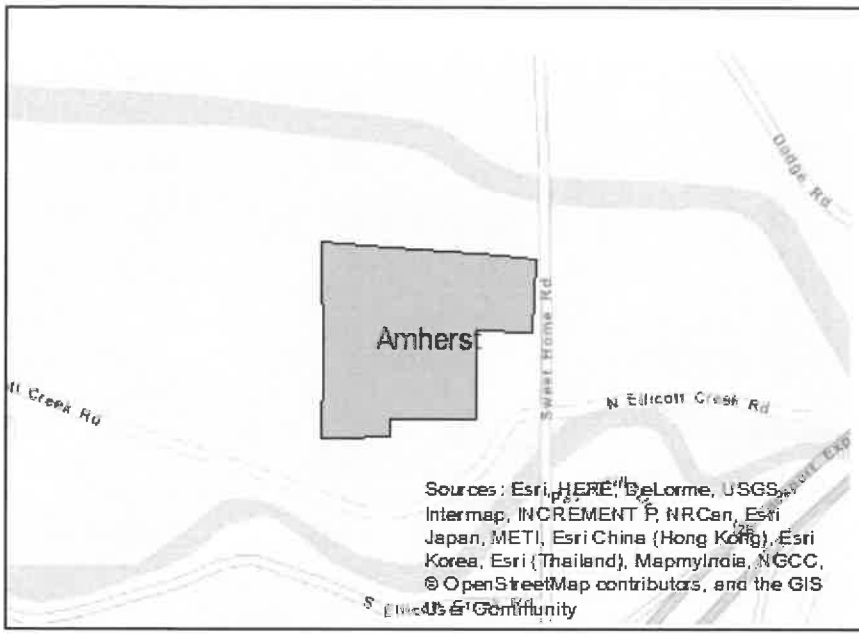
Applicant/sponsor name: Essex Homes of WNY, Inc. Date: January 23, 2023

Signature: Sean W. Hopkins, Esq., Counsel for Applicant

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

PRINT FORM

EAF Mapper Summary Report



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

TOWN OF AMHERST ATTACHMENT
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM

2350 Sweet Home Road

1. For each applicable category of proposed new structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Cosad [Cv]	Severe	Severe	Severe	Severe	Moderate
Swormville [Sw]	Severe	Severe	Severe	Severe	Severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   _x_ Geotechnical report attached _____ Not applicable

   [Note: Three copies of the Geotechnical Report prepared by Barron & Associates dated October 11, 2017 have been submitted with the land use applications dated January 23, 2023.]

3. Is your property located: On Youngs Road between Dodge and Klein Roads? ☐ Yes ● No

   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? ☐ Yes ● No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? ☐ Yes ● No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal: **Not Applicable.**

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: ☐ Yes ● No
   Describe: **Not Applicable.**
   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per hour upon completion of project: **Not Applicable.**

8. Will blasting occur during construction? ☐ Yes ● No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ● Yes ☐ No

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

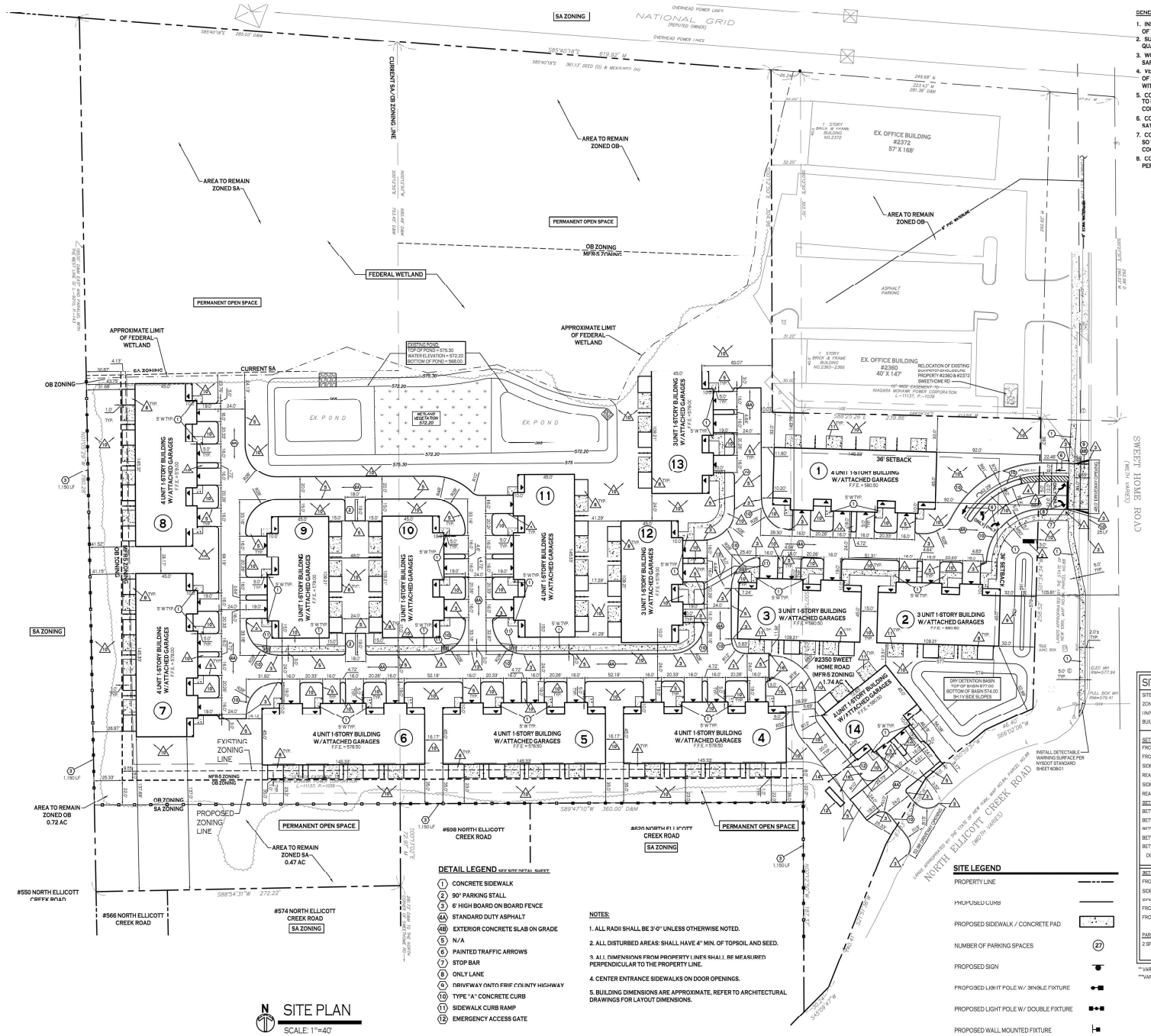
10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project: **Not applicable. The Project Sponsor is not proposing any modifications to approved number of upscale townhome units per the Site Plan approved by the Planning Board for the 48-unit project.**

(Please note that average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

Exhibit 6 – Reduced-Size Copy of Site Plan [Drawing C-100] as Prepared by Carmina Wood Morris DPC [Note: Full-size copy also attached

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)



N SITE PLAN
SCALE: 1"=40'

DETAIL LEGEND

SEE SITE DETAIL SHEET

1. CONCRETE SIDEWALK
2. 90° PARKING STALL
3. 6' HIGH BOARD ON BOARD FENCE
4A. STANDARD DUTY ASPHALT
4B. EXTERIOR CONCRETE SLAB ON GRADE
5. N/A
6. PAINTED TRAFFIC ARROWS
7. STOP BAR
8. ONLY LANE
9. DRIVEWAY ONTO FRIE COUNTY HIGHWAY
10. TYPE "A" CONCRETE CURB
11. SIDEWALK CURB RAMP
12. EMERGENCY ACCESS GATE

NOTES:

1. ALL RADII SHALL BE 3'-0" UNLESS OTHERWISE NOTED.
2. ALL DISTURBED AREAS: SHALL HAVE 4" MIN. OF TOPSOIL AND SEED.
3. ALL DIMENSIONS FROM PROPERTY LINES SHALL BE MEASURED PERPENDICULAR TO THE PROPERTY LINE.
4. CENTER ENTRANCE SIDEWALKS ON DOOR OPENINGS.
5. BUILDING DIMENSIONS ARE APPROXIMATE, REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.

SITE LEGEND

- PROPERTY LINE
- PROPOSED CURB
- PROPOSED SIDEWALK / CONCRETE PAD
- NUMBER OF PARKING SPACES (27)
- PROPOSED SIGN
- PROPOSED LIGHT POLE W/ SINGLE FIXTURE
- PROPOSED LIGHT POLE W/ DOUBLE FIXTURE
- PROPOSED WALL MOUNTED FIXTURE

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.

NOTE LEGEND

1. INSTALL "STOP" SIGN, M.U.T.C.D. SIGN NO. R1-1
2. GROUND SIGN, SEE PLANS BY OTHERS
3. RUNOUT CURB IN 2' OR MATCH EXISTING CURB
4. 4" WIDE YELLOW PAVEMENT STRIPES @ 2' O.C. & @ 45° TO PARKING LINES
5. EDGE OF PAVEMENT
6. 4" WIDE DASHED WHITE PAVEMENT STRIPE
7. 4" WIDE WHITE PAVEMENT STRIPE
8. 12'X14' OWNER OPTION COVERED PATIO OR SUNROOM W/ 12'X14' CONCRETE PAD
9. LANDSCAPE BERM, SEE SHEETS C-200 & L-100
10. LANDSCAPED AREA - SEE LANDSCAPE PLAN, IF NO PLANTINGS, INSTALL TOPSOIL & SEED
11. 12'X14' CONCRETE PATIO PAD W/ 6'H X 12'L PRIVACY FENCE BETWEEN PADS
12. WATER METER & RPZ IN INSULATED ENCLOSURE
13. 4" WIDE WHITE CROSSHATCH LINES @ 2' SPACING
14. EMERGENCY GATE, PROVIDE KNOX BOX ACCESS TO FIRE DEPT.
15. 20' WIDE EMERGENCY ACCESS
16. INSTALL "NO PARKING - FIRE LANE" SIGN

BUILDING COVERAGE (MFR-S ZONED LAND):

REQUIRED BY CODE	PROVIDED
40% MAX. (1,129,983 SF)	27.0% (87,717 SF)

INTERIOR GREENSPACE

REQUIRED BY CODE	PROVIDED
10% (0.18 AC)	19.6% (0.33 AC)

UNIT DENSITY CALCULATION:

1-BDRM UNIT: 3,630 SF / UNIT
2-BDRM UNIT: 4,356 SF / UNIT
3-BDRM UNIT: 5,445 SF/UNIT

LAND REQ'D = 48 x 5445 = 6.0 ACRES

MFR-S LAND PROVIDED = 7.46 ACRES

BLDG. HEIGHT:

PROPOSED BUILDINGS: 18' HIGH MEASURED TO MEAN ROOF LINE
TOTAL HEIGHT OF BUILDING <30 FT ALLOWED IN MFR-S ZONING

SITE DATA

SITE ARE = 11.96 ACRES
ZONED: MFR-S
UNITS: (48) 3-BDRM UNITS W/ ATTACHED GARAGES (3 and 4 UNIT BUILDINGS)
BUILDING HEIGHT TO MEAN ROOFLINE = 18.0'

	REQUIRED	PROVIDED
SETBACKS - BUILDING		
FROM R.O.W.:	36.0 FT	32.0 FT***
FROM CENTERLINE OF SWEETHOME ROAD:	90.0 FT	105.81 FT MIN.
SIDE (W/ WALL OF GREATER LENGTH PARALLEL):	36.0 FT	22.0 FT**
REAR (W/ WALL OF GREATER LENGTH PARALLEL):	36.0 FT	25.97 FT**
SIDE (W/ WALL OF LESSER LENGTH PARALLEL, OR @ ANGLE BTWN 30° & 60°):	27.0 FT	N/A
REAR (W/ WALL OF LESSER LENGTH PARALLEL, OR @ ANGLE BTWN 30° & 60°):	27.0 FT	N/A
SETBACKS - BETWEEN BUILDINGS	BTWN US BLDGS.	
BETWEEN WALLS OF GREATER LENGTH IF PARALLEL:	29.88 FT	17.29 FT**
BETWEEN WALLS OF LESSER LENGTH IF PARALLEL:	27.0 FT	15.0 FT***
BETWEEN WALLS OF GREATER LENGTH IF PERP.:	27.0 FT	N/A
BETWEEN WALLS S IN ANGULAR ARRANGEMENT BTWN 30° & 60°:	27.0 FT	28.29 FT MIN.
BETWEEN WALLS IF BLDG. LINES ARE EXTENDED & DO NOT INTERSECT NEAREST BUILDING:	18.0 FT	N/A
SETBACKS - PARKING		
FROM R.O.W.:	20 FT	3.17 FT***
SIDE & REAR (ABUTTING NON-RESIDENTIAL):	5 FT	10.07 FT
SIDE & REAR (ADJOINING RESIDENTIAL):	10 FT	< 10 FT
FROM MAIN WALL OF BLDG.:	15 FT	15 FT MIN.
FROM END WALL OF BLDG.:	10 FT	5.83 FT***
		96 OPEN SPACES*
PARKING		96 GARAGES
2 SPACES PER DWELLING UNIT	96	4 ADDITIONAL
		196 TOTAL

** VARIANCE REQUIRED
*** VARIANCE GRANTED

*EACH ATTACHED GARAGE ACCOMMODATES 2 CARS W/ 2 SIDE BY SIDE SPACES IN FRONT OF THE GARAGE

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD MORRIS, D.P.C. ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

40' 0 40 80Ft.

Carmina Wood Morris DPC
487 Main Street Suite 600
Buffalo, New York 14203
P 716.842.3165
F 716.842.0263

REVISIONS:
No. Description Date

PROJECT NAME:
Civil Plans For
Villas at Essex Woods
2350 Sweet Home Road
Amherst, New York

Date: 12/16/2022
Drawn by: JPB
Scale: As Noted

DRAWING NAME:
Site Plan

DRAWING NO.
C-1

Project no.: 1

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Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

Exhibit 7 – Responses to Question No. 16 of the Application

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

EXHIBIT 7

RESPONSES TO QUESTION 16 OF REZONING APPLICATION FOR PORTION OF 2350 SWEET HOME ROAD FROM OB TO MFR-5

Question 16(A)(1): **State in detail why the proposed zoning is consistent with the adopted Town of Amherst Bicentennial Comprehensive Plan. Cite specific sections, maps and/or figures in the plan that support the proposed zoning at this location.**

Response to Question 16(A)(1): The Project Sponsor is seeking to amend the zoning classification of a small portion of 2350 Sweet Home Road consisting of only 0.17 acres from OB to MFR-5 to allow first floor sunrooms to be constructed on the rear side of the attached townhome buildings on the southern and western boundaries of the Project Site as depicted on the Site Plan [Drawing C-100 – Date: 12/16/22] prepared by Carmina Wood Morris DPC. A reduced-size copy of the Site Plan is provided at **Exhibit "6"** and a full-size copy is also attached to this Application. The Project Sponsor is simultaneously seeking to modify a Declaration of Restrictions Containing Zoning Conditions Imposed in Connection with a Rezoning Decision. A copy of the Declaration of Restrictions recorded at the Erie County Clerk's Office on February 21, 2019 is provided **at Exhibit "3"** and a draft of the Amended Declaration of Restrictions is provided at **Exhibit "8"**.

The requested rezoning of a small portion of the Project Site from OB to MFR-5 to accommodate the proposed minor modifications to the project layout as depicted on the Site Plan approved by the Planning Board for the residential project at 2350 Sweet Home Road (the "***Project Site***") is consistent with the adopted Bicentennial Comprehensive Plan. The Town of Amherst adopted the Bicentennial Comprehensive Plan in January of 2007 after completing a lengthy planning process that included numerous public meetings and public hearings involving the

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Comprehensive Plan Advisory Committee, the Planning Board and the Town Board.[1] In December of 2020, the Town Board most recently adopted amendments to the Bicentennial Comprehensive Plan. The Comprehensive Plan is intended to guide future growth and redevelopment in the Town.

Figure 6 of the Bicentennial Comprehensive Plan is the Conceptual Land Use Plan and the areas in the vicinity of the Project Site is designated as being appropriate for Mixed Residential uses. The Conceptual Land Use Plan is intended to communicate the overall direction and concept of future development in the Town of Amherst. "Mixed Residential" is described on Page 3-30 of the Comprehensive Plan as 4 to 12 units per acre. The Comprehensive Plan indicates that typical locations for the Mixed Residential category include "Areas of transition between commercial uses and lower density single-family neighborhoods, as well as along collector or arterial highways or other areas that are generally unattractive for large lot, single-family development. Other areas of the Town designated for concentrations of Mixed Residential use include underutilized areas near designated activity centers and commercial areas. Examples include areas adjacent to mixed-use centers at UB, near the I-290/I-990 interchange..." It is also important to mention that the Comprehensive Plan recognizes the need for diverse housing options including housing multifamily units.

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[1] A copy of the resolution adopted by the Town Board on January 2, 2007 for the purpose of adopting the Bicentennial Comprehensive Plan pursuant to Town Law Section 272-a is included at the beginning of the Comprehensive Plan. This resolution recites the lengthy planning history that incorporated numerous opportunities for public input as well as a coordinated environmental review pursuant to SEQRA that involved the preparation a Generic EIS and the issuance of a Findings Statement.

Question 16(A)(2): Cite all text, map, and/or figures that must be amended to support the proposed zoning at this location and provide detailed suggested amendments.

Response to Question 16(A)(2): The requested rezoning of a small portion of the Project Site from OB to MFR-5 does not require an amendment to the Bicentennial Comprehensive Plan.

Question 16(A)(3): State why the proposed zoning is consistent with intent and objectives (Sec. 1-2-2) of the Zoning Ordinance:

Response to Question 16(A)(3): Section 1-2-1 of the Zoning Code is titled "Purpose" and it states as follows:

> *"The purpose of this Zoning Ordinance and the intent of the legislative authority in its adoption is to promote the environment of the town and its public health, safety, convenience, comfort, prosperity and the general welfare by regulating the use of buildings, other structures and land for residences, open space, public facilities, business, services, industry or other purposes; by regulating and restricting the bulk, height, design, building coverage and location of structures; by regulating and limiting population density; and for the aforesaid purposes, to divide the land within the limits of the town into districts of such number and dimensions generally consistent with the policies of the Comprehensive Plan and to provide procedures for the administration and amendment of said Zoning Ordinance."*

The requested rezoning of a small portion of the Project Site from OB to MFR-5 and the requested modification of the Declaration of Restrictions to accommodate the minor modifications to the approved project layout are consistent with the "Purpose" of the Zoning Code. Section 1-2-2 of the Zoning Code sets forth the objectives of the Zoning Code. This section of the Zoning Code lists thirteen objectives that are discussed below as follows:

A. To protect the character and values of residential, institutional and public uses, business, commercial and manufacturing uses and to insure their orderly and beneficial development;

Response: The residential project is consistent with the objective of protecting the character and value of existing land uses. The proposed rezoning of a small portion of the

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Project Site from OB to MFR-5 and the request to modify the Declaration of Restrictions in order to accommodate minor modifications to the approved project layout represents orderly and beneficial development.

B. To provide adequate open spaces for light, air and outdoor uses to include public, common and private open space areas;

Response: The proposed minor modification to the layout of the residential project are not inconsistent with this objective.

C. To prevent overcrowding of land;

Response: The Project Sponsor is not proposing any increase to the density of the approved residential project.

D. To prevent excessive concentration of population and to prevent spare and uncoordinated development;

Response: The Project Sponsor is not proposing any increase to the density of the approved residential project and the minor modifications to the approved project layout represents coordinated development. The minor modifications to the previously approved project layout will require an amendment of the Site Plan previously approved by the Planning Board.

E. To regulate and control the location and spacing of buildings on the lot and in relation to the surrounding property generally consistent with the policies of the Comprehensive Plan.

Response: The requested rezoning of a small portion of the Project Site from OB to MFR-5 and the requested modification of the Declaration of Restrictions to accommodate the minor modifications to the approved project layout are consistent with the policies of the Comprehensive Plan.

F. To protect persons and property from damage and injury due to fire or flood;

Response: The minor modifications to the approved project layout will not increase the likelihood of damage and injury due to fire and flood. The residential buildings will

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continue to be constructed in accordance with building permits issued by the Town of Amherst Building Department.

G. To preserve and protect significant natural features and vegetation, thereby preventing ecological damage and visual blight which occur when those features or vegetation are eliminated or substantially altered to serve development purposes only.

Response: There are not significant natural features located on the previously disturbed portion of the Project Site currently being developed.

H. To assure that structure and land use arrangements are aesthetically harmonious with nearby areas and structures.

Response: The development of the Project Site in a manner generally consistent with the updated Site Plan [Drawing C-100] prepared by Carmina Wood Design will be aesthetically harmonious with nearby areas and structures.

I. To regulate the location of buildings and intensity of uses in relation to streets according to plans so as to cause the least interference with and be damaged least by traffic movements and hence result in lessened street congestion and improved public safety.

Response: The minor modifications to the approved project layout do not involve changes to the access from the Project Site from public roadways.

J. To establish zoning patterns that insure economical extensions for sewers, water supply waste disposal and other public utilities, as well as development of recreation, schools and other public facilities;

Response: The Project Site has access to sanitary sewer and water lines as well as necessary public utilities to service the project.

K. To guide the future development of the town so as to being the gradual conformity of land, structures and uses generally consistent with the policies of the Comprehensive Plan.

Response: The minor modifications to the approved project layout are consistent with this objective since the residential project that is currently under construction is consistent with the policies contained in the Comprehensive Plan.

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L. To accomplish the specific intents and goals set forth in the introduction to the respective sections.

Response: The minor modifications to the approved project layout are consistent with this objective.

M. To protect the community from visual pollution resulting from the unregulated use of signs and other advertising devices.

Response: The minor modifications to the approved project layout are not inconsistent with this objective.

Question 16(C): Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:

Response to Question 16(C): The Project Sponsor is seeking to amend the zoning classification of a small portion of the Project Site from OB to MFR-5, which is the zoning classification of the portion of the Project Site currently being developed as a residential project pursuant to the Site Plan approved by the Planning Board.

Question 16(D): Suitability of the subject property for uses permitted by the current versus the proposed district:

Response to Question 16(D): The small portion of the Project Site the Project Sponsor seeks to rezone from OB to MFR-5 is more suitable for uses permitted by the proposed MFR-5 zoning classification than the existing OB zoning classification.

Question 16(E): Whether the proposed change tends to improve the balance of uses, or meets a specific demand in the Town:

Response to Question 16(D): The project has and will continue to improve the balance of uses and to satisfy a specific demand for upscale attached townhome style units for sale in the Town.

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Exhibit 8 – Draft of Amended Declaration of Restrictions

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

Return Original to Box 460
Hopkins Sorgi & McCarthy PLLC
Attn: Sean W. Hopkins, Esq.

AMENDED DECLARATION OF RESTRICTIONS

THIS AMENDED DECLARATION OF RESTRICTIONS ("***Declaration***") is made as of the ___ day of _____, 2023 by **ESSEX HOMES OF WNY, INC.** (hereinafter "***Declarant***") under facts and circumstances summarized by the following recitals:

WHEREAS, the Declarant is the owner of real property consisting of 2350 Sweet Home Road (hereinafter "***2350 Sweet Home Road***" or the "***Project Site***") as more particularly described in the metes and bounds legal description of 2350 Sweet Home Road attached hereto as **Schedule "A"**;

WHEREAS, in December of 2016, RAS Development I LLC submitted an application with the Town of Amherst requesting that the Town Board of the Town of Amherst ("***Town Board***") amend the zoning classification of approximately 7.14 acres of a portion of 2360 Sweet Home Road from Office Building District ("***OB***") to Multifamily Residential District Five ("***MFR-5***");

WHEREAS, in September of 2017, RAS Development I LLC submitted an application with the Town of Amherst requesting that the Town Board of the Town of Amherst ("***Town Board***") amend the zoning classification of 2350 Sweet Home Road from General Business District ("***GB***") to Multifamily Residential District Five ("***MFR-5***");

WHEREAS, during its meeting held on March 19, 2018, the Town Board adopted Resolution No. 2018-241 for the purpose of approving an amendment of the zoning classification of 2350 Sweet Home Road from GB to MFR-5 subject to eighteen (18) conditions as contained in Resolution No. 2018-241;

WHEREAS, during its meeting held on March 19, 2018, the Town Board adopted Resolution No. 2018-242 for the purpose of approving an amendment of the zoning classification of a portion of 2360 Sweet Home Road from OB to MFR-5 subject to eighteen (18) conditions as contained in Resolution No. 2018-242;

WHEREAS, the conditions contained in Resolutions 2018-241 and 2018-242 as adopted by the Town Board on March 19, 2018 are identical;

WHEREAS, pursuant to Condition No. 18 as contained in Resolutions 2018-241 and 2018-242, Conditions No. 1 to 14 as imposed by the Town Board on March 19, 2018 are to be subject to a Declaration of Restrictions recorded at the Erie County Clerk's Office;

WHEREAS, Conditions No. 1 to 14 as contained in Resolutions 2018-241 and 2018-242, Conditions No. 1 to 14 as imposed by the Town Board on March 19, 2018 were as follows:

1. That the 5.2 acres of Permanent Open Space as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 shall not be

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developed as any buildings or other above ground structures, and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space in the front portion of the buildings such that there shall not be any second story windows provided for the second story loft space on the rear portion of the buildings.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

7. That the minimum setback of the residential buildings on the project site from the southern boundary and western boundary of the project site shall be 35 feet.

8. That the minimum setback of Building No. 5 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the northern boundary of 574 North Ellicott Creek Road shall be 109 feet.

9. That the minimum setback of Building No. 6 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the southern boundary of the project site shall be 137 feet.

10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side and the portion of the western side of 2360 Sweet Home Road to be developed for residential purposes. The Landscaping Plan to be prepared by a licensed landscape architect during the site plan review stage for the residential project on 2360 Sweet Home Road shall be prepared based on consideration of input received by the Petitioner from the owners of the parcels directly south of the project site at

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566, 574, 598 and 620 North Ellicott Creek Road and the owner of the parcel west of the project site at 550 North Ellicott Creek Road.

12. That the Lighting Plan to be prepared during the site plan review stage for the residential project on the project site shall demonstrate that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel at 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

WHEREAS, a metes and bounds legal description of the 5.2 acres of Permanent Open Space referenced above in Condition No. 1, as contained in Resolutions 2018-241 and 2018-242 adopted by the Town Board on March 19, 2018, consisting of a portion of 2360 Sweet Home Road, is attached as **Schedule "B"** (hereinafter **"*Permanent Open Space*"**);

WHEREAS, in July of 2018, RAS Development I LLC filed an Application for relief of Zoning Condition No. 14 as contained in Resolutions 2018-241 and 2018-242 for the purpose of seeking to allow a gated emergency access driveway to be installed connecting 2350 Sweet Home Road and a portion of 2360 Sweet Home to North Ellicott Creek Road;

WHEREAS, during its meeting held on October 1, 2018, the Town Board adopted Resolution No. 2018-1046 for the purpose of approving the requested Relief of Zoning Condition No. 14 as contained in Resolutions 2018-241 and 2018-242 to allow a gated emergency access driveway to be installed connecting to North Ellicott Creek Road subject to six (6) conditions as follows:

1. The gated emergency access connection will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

2. Pursuant to the Town Code, all property owners within 600 ft. of the project site will receive written notice from the Town of any future proposed amendment of any of the zoning conditions.

3. The amended Zoning Condition No. 14 will be incorporated into the Declaration of Restrictions to be recorded at the Erie County Clerk's Office.

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4. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

5. That the gated emergency access driveway to North Ellicott Creek Road be straightened as much as possible.

6. That the final site plan be fully compliant with fire code.

WHEREAS, on February 21, 2019, a Declaration of Restrictions recorded at the Erie County Clerk's Office at Liber 11341 of Deeds at Page 2501 containing the following sixteen (16) restrictions:

1. That the 5.2 acres of Permanent Open Space as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 and described in the attached Schedule "C" shall not be developed as any buildings or other above ground structures and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space in the front portion of the buildings such that there shall not be any second story windows provided for the second story loft space on the rear portion of the buildings.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

7. That the minimum setback of the residential buildings on the project site from the southern boundary and western boundary of the project site shall be 35 feet.

8. That the minimum setback of Building No. 5 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the northern boundary of 574 North Ellicott Creek Road shall be 109 feet.

9. That the minimum setback of Building No. 6 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the southern boundary of the project site shall be 137 feet.

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10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side and the portion of the western side of 2360 Sweet Home Road to be developed for residential purposes. The Landscaping Plan to be prepared by a licensed landscape architect during the site plan review stage for the residential project on 2360 Sweet Home Road shall be prepared based on consideration of input received by the Petitioner from the owners of the parcels directly south of the project site at 566, 574, 598 and 620 North Ellicott Creek Road and the owner of the parcel west of the project site at 550 North Ellicott Creek Road.

12. That the Lighting Plan to be prepared during the site plan review stage for the residential project on the project site shall demonstrate that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel formerly consisting of 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 and a gated emergency access only driveway connection to North Ellicott Creek Road, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

15. The gated emergency access connection to North Ellicott Creek Road will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

16. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

WHEREAS, in January of 2023, the Declarant filed an Application seeking to amend the zoning classification of a portion of 2350 Sweet Home Road consisting of 0.17 acres from Office Building District ("GB") to Multifamily Residential District Five ("MFR-5");

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WHEREAS, in January of 2023, the Declarant filed Application for Relief of Zoning Condition imposed by the Town Board on October 18, 2018 as contained in Resolution No. 2018-1046;

WHEREAS, during its meeting held on _____ __, 2023, the Town Board adopted Resolution No. 2023-__ for the purpose of approving an amendment of the zoning classification of a portion of 2350 Sweet Home Road from OB to MFR-5 and Resolution No. 2023-__ for the purpose of approving the requested Relief of Zoning Conditions contained in Resolution No. 2018-1046; subject to sixteen (16) conditions as follows:

NOW, THEREFORE, in exchange for good and valuable consideration the sufficiency of which is acknowledged, the Declarant agrees to restrict the future use of 2350 Sweet Home Road as described in **Schedule "A"** including the Permanent Open Space consisting of a portion of 2360 Sweet Home Road as described in **Schedule "B"**, in accordance with the conditions as set forth in Resolutions No. 2023-___ and 2023-____as adopted by the Town Board on _____ __, 2023 as follows:

1. That the 5.2 acres of Permanent Open Space as depicted on the Site Plan prepared by Carmina Wood Morris dated December 16, 2022 shall not be developed as any buildings or other above ground structures, and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space. Second story windows are not permitted on the rear side of second story loft space in Buildings Building Nos. 4, 5, 6, 7 and 8 as depicted on the Site Plan prepared by Carmina Wood Morris dated December 16, 2022.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

7. That the portions of the residential buildings that include second story loft space shall have a minimum setback of 35 feet from the southern boundary and the western boundary of the Project Site. Notwithstanding the minimum setback language in the preceding sentence, a first floor only sunroom shall be permitted on the rear side of the residential buildings along the southern side of the Project Site

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so long as the minimum setback of the first floor sunroom is 22 ft. from the southern boundary of the Project Site and a first floor only sunroom shall be permitted on the rear side of the residential buildings along the western side of the Project Site so long as the minimum setback of the first floor sunroom is 25.97 ft. from the western boundary of the Project Site. Additionally, patios on the rear side of the residential buildings on the southern side of the Project Site shall have a minimum setback of 22 ft. from the southern boundary of the Project Site and patios on the rear side of the residential buildings on the western side of the Project Site shall have a minimum setback of 25.97 ft. from the western boundary of the Project Site.

8. That the minimum setback of Building No. 6 as depicted on the Site Plan prepared by Carmina Wood Morris DPC dated December 16, 2022 from the northern boundary of 574 North Ellicott Creek Road shall be 94 feet.

9. That the minimum setback of Building No. 7 as depicted on the Site Plan prepared by Carmina Wood Morris DPC dated December 16, 2022 from the southern boundary of the project site shall be 137 feet.

10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Site Plan prepared by Carmina Wood Morris DPC dated December 16, 2022.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side of the project site and the portion of the western side of the portion of the project site formerly consisting of 2360 Sweet Home Road to be developed for residential purposes in accordance with the Landscape Plan previously approved by the Planning Board.

12. That the lighting to be installed in connection with the residential project shall comply with the Lighting Plan previously approved by the Planning Board demonstrating that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel formerly consisting of 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Site Plan prepared by Carmina Wood Morris DPC dated December 16, 2022 and a gated emergency access only driveway connection to North Ellicott

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Creek Road, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

15. The gated emergency access connection to North Ellicott Creek Road will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

16. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

The restrictions being established herein pursuant to the conditions contained in Resolutions No. 2023-___1 and 2023-___ as adopted by the Town Board on _____ __, 2023 shall be binding on all parties claiming thereunder and shall run and touch the land except that the recorded restriction can be changed, modified or eliminated by a majority vote of the Town Board.

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SIGNATURE ON FOLLOWING PAGE]

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IN WITNESS WHEREOF, the party hereto has the full legal authority to execute this Amended Declaration of Restrictions.

ESSEX HOMES OF WNY, INC.

By: _____
Name: Philip J. Nanula
Title: President

STATE OF NEW YORK)
ss.:
COUNTY OF ERIE)

On this ___ day of _____, 2023, before me, the undersigned, a notary public in and for said state, personally appeared Philip J. Nanula, personally known to me or proved to me on the basis of satisfactory evidence to the be the individual whose name is subscribed to within this instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public

DRAFT

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

SCHEDULE A

Parcel 1:

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York, being part of Lot 82, Township 12 and Range 7 of the Holland Land Company's Survey, being more particularly described as follows:

BEGINNING at the intersection of the northerly line of North Ellicott Creek Road with the westerly line of Sweet Home Road; Thence N 01°58'37 E, along the westerly line of Sweet Home Road, a distance of 258.52 feet; Thence 88°01'23" W, a distance of 213.69 feet; Thence S 00°11'13" W, a distance of 535.55 feet to a point in the northerly line of North Ellicott Creek Road; Thence N 45°33'50" E, along the northerly line of North Ellicott Creek Road, a distance of 30.24 feet; Thence N 22°15'39" E, along the northerly line of North Ellicott Creek Road, a distance of 140.40 feet; Thence N 31°42'11" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 67.33 feet; Thence N 51°23'54" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 68.71 feet; Thence N 66°26'31" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 46.40 feet to the point of beginning, containing 1.742 acres.

Parcel 2 [Formerly 2360 Sweet Home Road]:

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 187.00 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: along the bounds of the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 360.00 feet to a point;
2) S-00°-13'-02"-E, along a easterly line of said North Forest Properties #5 LLC lands, a distance of 72.97 feet to a point;
3) S-88°-54'-31"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 272.22 feet to a point;
4) N-01°-05'-29"-W, along the west line of said North Forest Properties #5 LLC lands, a distance of 780.29 feet to the northwest corner thereof;
5) S-85°-40'-18"-E, along the north line of said North Forest Properties #5 LLC lands a distance of 619.92 feet to a point;

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Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

THENCE: S-00-12’-50”-E, through said North Forest Properties #5 LLC lands, a distance of 304.96 feet to a point;

THENCE: S-88-25’-26”-E, through said North Forest Properties #5 LLC lands, a distance of 26.18 feet to the west line of said lands described in Liber 6673 of Deeds at page 573;

THENCE: S-00-12’-50”-E, along the west line of said Liber 6673 of Deeds at page 573, a distance of 348.18 feet to the POINT OF BEGINNING, containing 10.22 acres more or less.

DRAFT

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

SCHEDULE B

METES AND BOUNDS LEGAL DESCRIPTION
PERMANENT OPEN SPACE CONSISTING OF A PORTION OF
2350 SWEET HOME ROAD

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 187.00 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: along the bounds of the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 360.00 feet to a point;
2) S-00°-12'-50"-E, along an easterly line of said North Forest Properties #5 LLC lands, a distance of 72.97 feet to a point;
3) S-88°-54'-31"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 272.22 feet to the southwest corner thereof;
4) N-01°-05'-29"-W, along the west line of said North Forest Properties #5 LLC lands, a distance of 780.29 feet to the northwest corner thereof;
5) S-85°-40'-18"-E, along the north line of said North Forest Properties #5 LLC lands a distance of 619.92 feet to a point;

THENCE: Through said North Forest Properties #5 LLC lands, the following fifteen (15) courses and distances:

6) S-00-12'-50"-E a distance of 166.47 feet to a point;
7) N-87-51'-46"-W a distance of 16.24 feet to a point;
8) S-12-26'-56"-W a distance of 27.13 feet to a point;
9) S-58-06'-54"-W a distance of 97.91 feet to a point;
10) S-46-53'-26"-W a distance of 15.19 feet to a point;
11) S-32-16'-28"-W a distance of 17.19 feet to a point;
12) S-25-41'-59"-W a distance of 28.12 feet to a point;
13) N-80-56'-26"-W a distance of 50.68 feet to a point;
14) N-67-33'-18"-W a distance of 62.20 feet to a point;
15) S-82-26'-00"-W a distance of 63.13 feet to a point;
16) N-71-38'-03"-W a distance of 27.07 feet to a point;
17) S-00-12'-50"-E a distance of 5.50 feet to a point;

DRAFT

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

18) S-88-54’-31”-W a distance of 244.27 feet to a point;
19) S-01-05’-29”-E a distance of 353.63 feet to a point;
20) N-89-47’-10”-E a distance of 598.82 feet to the west line of said lands described in Liber 6673 of Deeds at page 573;

THENCE: S-00-12’-50”-E, along the west line of said Liber 6673 of Deeds at page 573, a distance of 30.00 feet to the POINT OF BEGINNING, containing 5.21 acres more or less.

DRAFT

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

March 21, 2023

Daniel C. Howard, Planning Director
Town of Amherst Planning Department
5583 Main Street
Williamsville, New York 14221

Re: Request to Rezone 0.17± Acres of Land from OB to MFR-5 [Z-2023-01]
& Request to Amend Declaration of Restrictions [Z-2016-16D & Z-2017-11B]
Location: 2350 & 2360-2372 Sweet Home Road
Applicant/Project Sponsor: Essex Homes of WNY, Inc.
File No. 10065.10

Dear Mr. Howard:

This letter and the enclosed project documentation is being submitted on behalf of Essex Homes of WNY, Inc. ("Project Sponsor") for the purpose of responding to Comment No. 1 as contained in the letters you issued dated March 14, 2023 relative to above referenced pending land use applications. Comment No. 1 stated as follows: "1.Complete the attached revised Town of Amherst Addendum to the EAF."

Enclosed are three (3) copies of the completed Page 5[a] of the Environmental Assessment Form that is applicable to both pending land use applications along with three (3) copies of the Geotechnical Report prepared by Barron & Associates P.C. dated October 11, 2017.

Please feel free to contact me at 510-4338 or via e-mail at shopkins@hsmlegal.com if you have any questions this letter or the enclosed documentation.

Sincerely,

HOPKINS SORGI & MCCARTHY PLLC

Sean W. Hopkins, Esq.

Enc.
cc: Phil Nanula, Essex Homes of WNY, Inc. [Via e-mail w/enclosures]
Kevin Curry, Essex Homes of WNY, Inc. [Via e-mail w/enclosures]
Jon Barniak, Carmina Wood Design DPC [Via e-mail w/enclosures]

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

HOPKINS SORGI & MCCARTHY PLLC
Attorneys at Law
5500 Main Street, Suite 343 • Williamsville, New York 14221
Direct: 716-510-4338 • E-mail: shopkins@hsmlegal.com • www.hsmlegal.com

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --
Date: March 21, 2023

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Cosad Loamy Fine Sand	Severe	Severe	Severe	Severe	Moderate
Odessa Silt Loam	Severe	Severe	Severe	Severe	Severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   X Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? ☐ Yes ☒ No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? ☐ Yes ☒ No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? ☐ Yes ☒ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   Not applicable.

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: ☐ Yes ☒ No

   Describe _____

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project Not applicable.
   Source: _____

8. Will blasting occur during construction? ☐ Yes ☒ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ☐ Yes ☒ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    0 average flow 0 peak flow.

    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? ☐ Yes ☒ No

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

BARRON & ASSOCIATES, P.C.
10440 Main Street
Clarence, New York 14031

Tel: (716) 759-7821 www.barronandassociatespc.com Fax: (716) 759-7823

October 11, 2017 Job No: 17-586

RAS Development Company, LLC
4758 North French Road
East Amherst, New York 14051

ATTN: Mr. Robert Savarino

RE: Preliminary Geotechnical Engineering Report
Proposed Rezoning of Parcel
2350 Sweet Home Road
Town of Amherst, Erie Co., New York 14228

Gentlemen:

This Barron & Associates, P.C. - Buffalo Drilling Company, Inc. (B&A-BDC) letter report presents the findings of the subsurface investigation program and the geotechnical engineering recommendations for the above referenced project. The geographic orientation of the site is illustrated on the U.S. Geologic Survey (USGS) site location map in Figure No. 1. The project site is illustrated in Figure No. 2 and entitled "Test Boring Location Plan". The test boring log is shown in Appendix A. Refer to Appendix B entitled, "Geotechnical Reference Standards", for an explanation of the terminology that is used for soil and rock descriptions.

SITE AND SUBSURFACE CONDITIONS

SITE CONDITIONS: The proposed project site is addressed as 2350 Sweet Home Road in the Town of Amherst, New York and includes an existing single-story building, large asphalt parking lot and entrance roadway addressed. The site topography is relatively level.

PREDOMINATE SUBSURFACE CONDITIONS: A synopsis of the subsurface fill, soil, bedrock and groundwater conditions is as follows:

- Asphalt Pavement: At the boring location a thin two-inch-thick layer of asphalt exists at the ground surface.
- Random Fill Materials: Cohesive fill material was encountered and extends a total depth of four feet below ground surface. This fill consists primarily of silty clay with varying amounts of fine to course sand and gravel. This moderately plastic fill is noted to be in a moist state.
- Organic Materials: No buried topsoil or peat layers were noted to be encountered within the natural soil layers. Organic materials are unacceptable for foundation and load bearing purposes.
- Naturally Deposited Soils: The natural soil deposits in this area of the Town of Amherst are predominately composed of alluvial silty sand and lacustrine silty clay that mantles cohesive glacial till. Beneath the fill, a two-foot-thick layer of silty sand exists in a medium dense and moist state. Beneath the silty sand, lacustrine silty clay exists and extends approximately 30 feet below existing ground surface. This moderately plastic soil ranges from moist and very stiff within the upper portions of the unit to soft and wet below a depth of 14 feet. Based upon regional geology and nearby test borings, hard cohesive glacial till is expected to within close proximity to the bottom of the test boring.
- Bedrock: Auger refusal, generally inferred to be the top of competent bedrock, was not encountered. Based upon our experience and knowledge of regional geology bedrock is expected to be the Camillus Shale Formation.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

- Groundwater Measurements: At the completion of drilling, groundwater was not encountered. The static groundwater level is believed to be below the assumed bearing elevations and no other severe groundwater condition was encountered during the subsurface exploration.

SEISMIC/EARTHQUAKE CONSIDERATIONS: For the given site conditions, the most applicable site definition is Site Class E, as listed in Table 1615.1.1 and Table 1615.1.5 of the Building Code of New York State, © 2010. The design spectral response acceleration parameters S_{DS}, at 0.2 seconds, and S_{D1}, at one second, are 0.37g and 0.12g (g = 32.2 feet/sec^2), respectively.

FOUNDATION AND CONSTRUCTION RECOMMENDATIONS

BUILDING(S): The proposed site development, top of finish first floor elevations and maximum design loads are not known at the time of this preliminary report.

FOOTINGS: Due to the presence of random fill materials, exterior and interior footings are recommended to be placed a minimum of four feet or lower below final grade. The frost depth for Amherst, New York is three and one-half feet. All footings for proposed buildings are recommended to be designed at/near the same contact pressure.

The footings should bear directly on the approved medium dense or better natural inorganic silty sand or on a thoroughly compacted (i.e., 95 percent minimum of ASTM D1557 maximum dry density) select/approved granular fill or other approved fill (i.e., fill used for a raised subgrade) section that extends to the approved stiff or better natural inorganic soil. Refer to Appendix D entitled "General Earthwork Specification", for definition of fill types and gradations, recommended minimum compaction requirements for various site developments, and placement and compaction methods.

The maximum net allowable bearing capacity for continuous strip and spread footings is preliminarily recommended not to exceed 2,000 pounds per square foot (psf) of footing area on approved natural soils or compacted select granular fill. Total and differential settlements of less than one inch and three-fourths of an inch, respectively, may be expected.

FLOOR SLABS: Prior to fill placement, the exposed subgrade surface would be thoroughly compacted and proofrolled. Typically, any encountered soft/medium stiff soils/fills would be removed for subsequent replacement with a select or approved compacted (i.e., minimum 92 percent of the maximum dry density from ASTM D1557) granular fill. If suitable for reuse on-site, the in-place or excavated existing fills/natural soft/medium stiff soils would be conditioned (i.e., sorted, dried, blended) and thoroughly compacted. Where required to raise the subgrade, an approved soil/fill will be placed and thoroughly compacted in thin lifts.

A geotextile fabric that separates the subgrade or raised subgrade and the select granular base layer is recommended. The use of a thin gravel cushion, as a capillary break, or a thin sand cushion over a vapor barrier that is placed beneath the concrete slabs are at the discretion of the design architect/engineer or as required by local code.

Above the approved subgrade, a minimum eight-inch thick select granular fill (i.e., number two crusher run stone or equal) layer is preliminarily recommended as the base course for a concrete floor slabs. The recommended subgrade modulus at the top of the base layer for a concrete floor slab bearing on a thoroughly compacted (i.e., minimum 95 percent compaction) base layer and prepared soil/fill subgrade (i.e., minimum 92 percent compaction) is recommended not to exceed 150 pounds per cubic inch with a Poisson Ratio of 0.40. Isolation of the floor slabs from the foundations-piers-columns and walls appear to be warranted.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

PAVEMENT: It is preliminarily recommended that the approved subgrade surface is adequately graded and/or underdrains are installed to prevent water accumulation. Typically, on an approved subgrade surface (i.e., minimum 92 percent compaction), a minimum three-inch asphalt thickness over a minimum eight-inch thick thoroughly compacted (i.e., minimum 95 percent compaction) select granular layer, as the base course, are recommended for lightly traveled roadway and parking areas (standard duty section). Geotextile filter and strength fabric, on cohesive/fine-grained soil subgrades, and a minimum four-inch asphalt thickness over a minimum 12-inch thick thoroughly compacted base course are recommended for all truck routes and heavily traveled roadways (heavy duty section).

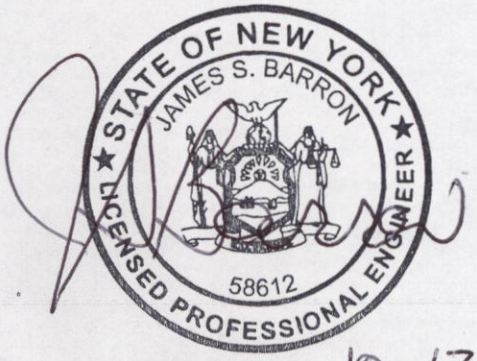
LIMITATIONS: This report is based on the information that is provided by project representatives and the subsurface conditions that were encountered at the test boring locations. Due to the nature of the investigation method, additional test borings and/or test pit excavations will provide a greater level of delineation of the subsurface soil/fill/rock conditions than can be defined by the single test boring data alone. As detailed in Appendix E "Limitations, modification regarding proposed building/structure locations and other site developments can result in changes to the provided recommendations.

Thank you for the opportunity to assist on this project. If questions should arise, please call either of the undersigned at your earliest convenience.

Very truly yours,
BARRON & ASSOCIATES, INC.
and
BUFFALO DRILLING COMPANY, INC.

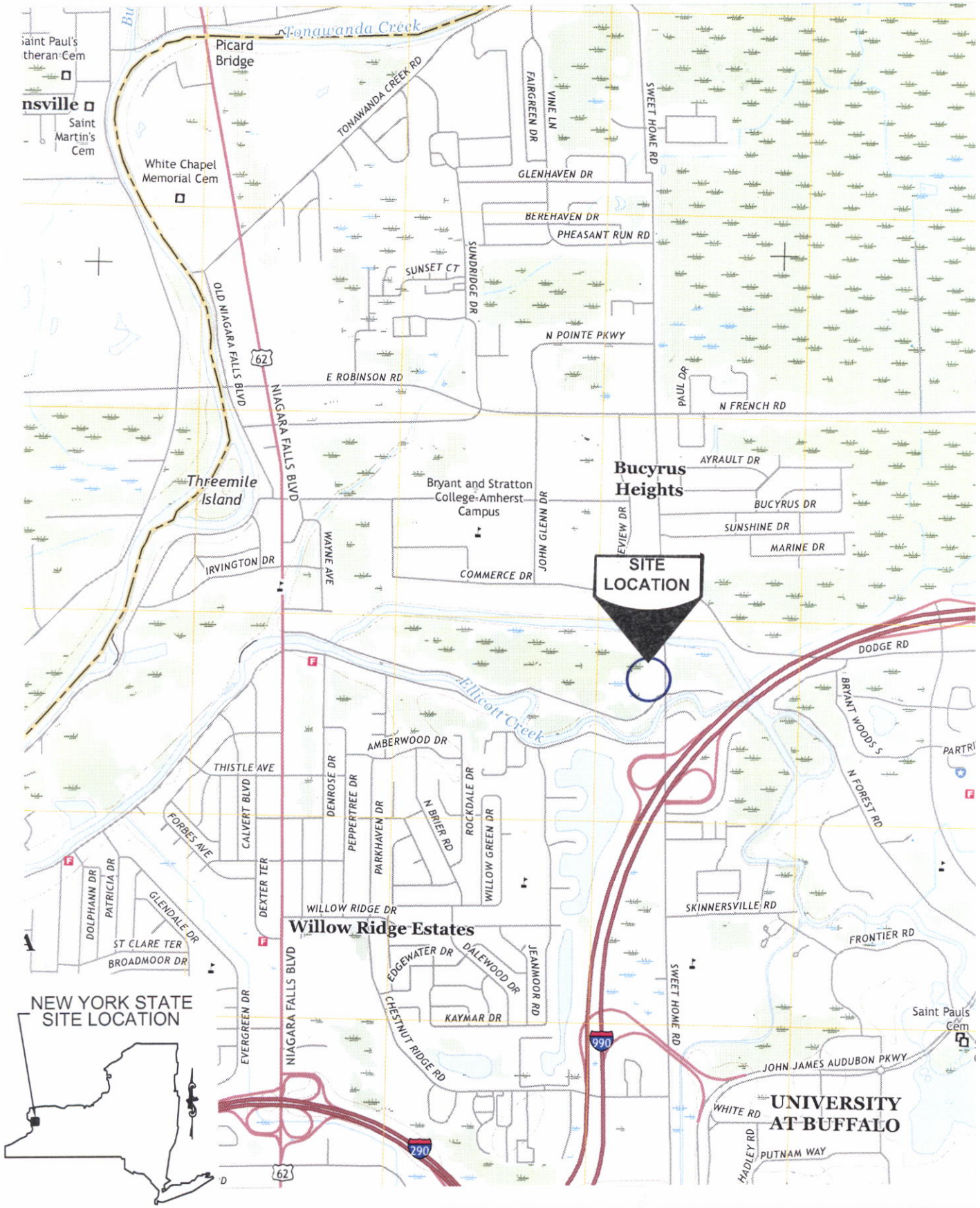
Andrew J. Camping
Senior Geologist

James S. Barron, P.E.
President



10.12.17

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)



BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

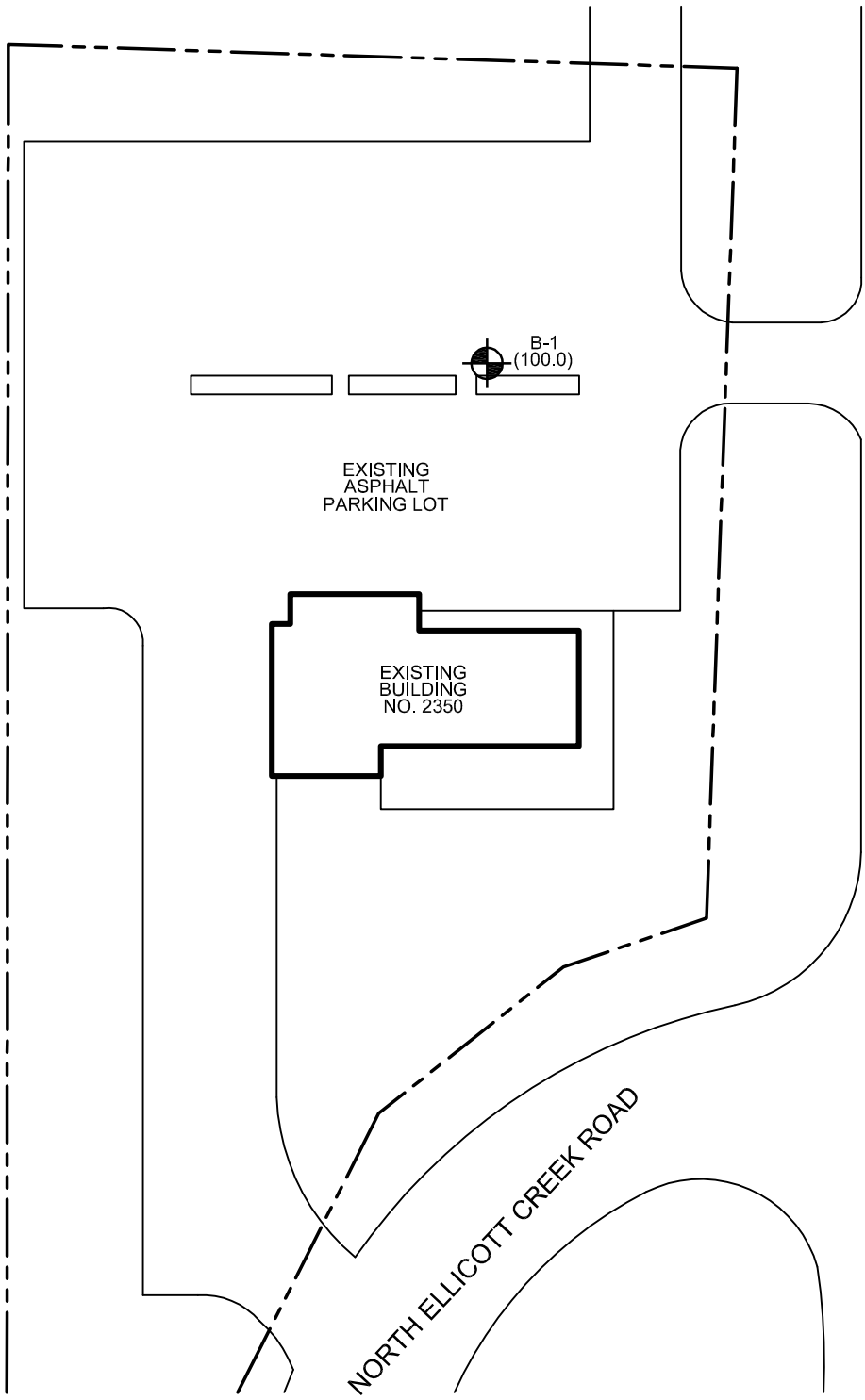
CLIENT: RAS DEVELOPMENT COMPANY, LLC
4758 NORTH FRENCH ROAD
EAST AMHERST, NEW YORK 14051

PROJECT: PROPOSED REZONING OF PARCEL
2350 SWEET HOME ROAD
TOWN OF AMHERST, ERIE CO., NEW YORK 14228

USGS SITE LOCATION PLAN
TONAWANDA EAST, QUAD
2016

JOB NO.: 17-586	SCALE: 1" = 2000' ±
DATE: 9/14/2017	FIGURE NO. 1

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)



LEGEND	
B-1	= TEST BORING & NO.
(100.0)	= RELATIVE GROUND SURFACE ELEVATION (FT.)

NOTES:

1. BORING, BUILDING, SITE FEATURES, PROPERTY LINE LOCATIONS, & SCALE OF DRAWING ARE APPROXIMATE.
2. BASE MAP REFERENCE PROVIDED BY A FIELD SKETCH FROM A BARRON & ASSOCIATES, P.C., REPRESENTATIVE ON 9/11/2017.

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
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DRAWN: DAN KASPROWICZ

CLIENT: RAS DEVELOPMENT COMPANY, LLC
4758 NORTH FRENCH ROAD
EAST AMHERST, NEW YORK 14051

PROJECT: PROPOSED REZONING OF PARCEL
2350 SWEET HOME ROAD
TOWN OF AMHERST, ERIE CO., NEW YORK 14228

TEST BORING LOCATION PLAN

0

JOB NO.: 17-586	SCALE: NOT TO SCALE
DATE: 9/14/2017	FIGURE NO. 2

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

APPENDIX A

TEST BORING LOGS

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

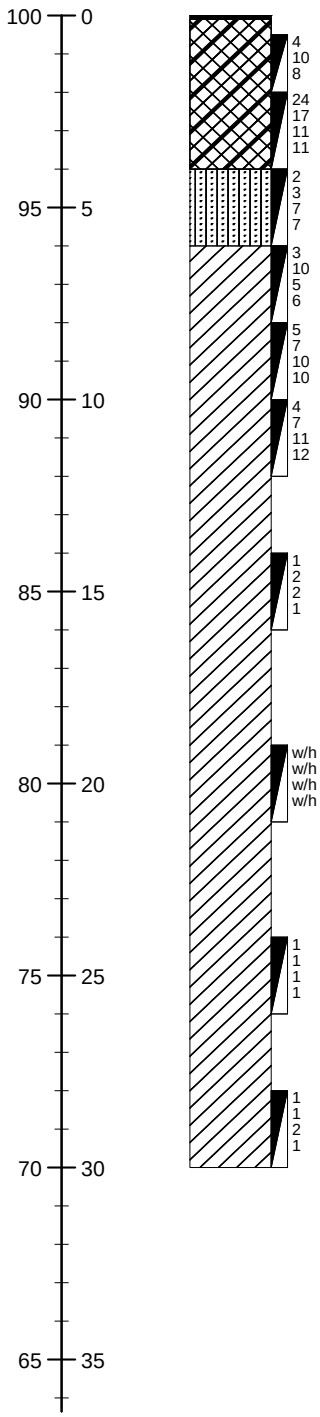
TEST BORING LOG

3.a

JOB No.: 17-586 **BORING No.:** B-1

PROJECT: Proposed Rezoning of Parcel
2350 Sweet Home Road, Town of Amherst, Erie Co., New York 14228

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	9/20/17	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	9/20/17	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None



Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
			Asphalt (2")
S-1 : 0.5'- 2.0'	18	20	Grayish brown, v. stiff Clay, some Silt, little Gravel, little f/c Sand, mod plastic, moist (CL-Fill)
S-2 : 2.0'- 4.0'	28	20	...grade: and Gravel
S-3 : 4.0'- 6.0'	10	50	Gray, m. dense f/c SAND, some Silt, tr. Gravel, tr. Clay non-plastic, moist (SM)
S-4 : 6.0'- 8.0'	15	90	Gray, v. stiff CLAY, some Silt, little f. Sand, tr. Gravel, mod. plastic, moist (CL)
S-5 : 8.0'- 10.0'	17	30	...grade: Brown, tr. f. Sand (Varved)
S-6 : 10.0'- 12.0'	18	40	Same as S-5
S-7 : 14.0'- 16.0'	4	90	...grade: m. stiff, little Silt, wet (Not Varved)
S-8 : 19.0'- 21.0'	1	100	...grade: v. soft
S-9 : 24.0'- 26.0'	2	100	...grade: soft
S-10 : 28.0'- 30.0'	3	100	Same as S-9
			Depth to Bottom of Hole: 30.0 feet

Logged by: B. Smith

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

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10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

APPENDIX B

GEOTECHNICAL REFERENCE STANDARDS

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

GEOTECHNICAL REFERENCE STANDARDS
SUMMARY OF LOGGING TECHNIQUES

Depth (ft.)	Blows per .5 ft.	Sample No.	N	% REC (RQD)	SOIL AND ROCK DESCRIPTION	REMARKS

Depth- The depth column provides the verticle scale of the boring log in feet below ground surface.

The number of blows obtained from each of the 0.5 ft. intervals of sampler penetration.

NOTE: WR represents the static weight of drill rods. WH represents the static weight of rods and hammer.

Sample Identification Number- Disturbed samples are identified with "S" preceding the sample number. Undisturbed samples (shelby tube) samples are identified with "U" preceding the sample number. Rock core samples are identified with "C" preceding the core run.

% Recovery- The length of sample recovered divided by the total length sampled. The result is numerically expressed as percent.

(RQD)- The "Rock Quality Designation". The total length of pieces>4 inches divided by the total length of core run.

N-value- The Standard Penetration Test N-value, as specified by ASTM D1586 is defined as the number of blows required by a 140-pound hammer falling 30 inches each blow to drive a 2 inch outside diameter split spoon sampler 12 inches.

TERMINOLOGY USED FOR SOIL DESCRIPTION

Density Description of Granular Soil

Number of Blows per ft., N.	Relative Density
0-4	Very loose
4-10	Loose
10-30	Medium
30-50	Dense
Over 50	Very dense

Consistency Description of Cohesive Soil

Number of Blows per ft., N.	Consistency
Below 2	Very soft
2-4	Soft
4-8	Medium
8-15	Stiff
15-30	Very stiff
Over 30	Hard

Grain Size

Boulder - greater than 12 inch diameter
Cobble - passing 12 inch, retained on 3 inch
Gravel - passing 3 inch, retained on No. 4 sieve
Sand - Coarse - passing No. 4 sieve, retained on No. 10 sieve
Medium - passing No. 10 sieve, retained on No. 40 sieve
Fine - passing No. 40 sieve, retained on No. 200 sieve
Silt - 0.074 mm to 0.005 mm
Clay - smaller than 0.005 mm

Description of Percentage or Proportions Used in Soil Sample Classification

Trace	0-10%
Little	10-20%
Some	20-35%
And	35-50%

Abbreviations Used In Soil Sample Classification

f - fine	v - very
m - medium	gr - gray
c - coarse	bn - brown
f/m - fine to medium	yel - yellow
f/c - fine to coarse	sl - slight
tr - trace	

Plasticity

Non-plastic - A 1/8 inch thread cannot be rolled at any water content.
Slight plasticity - The thread can barely be rolled.
Moderate Plasticity - Thread is easy to roll and little time is required to reach plastic limit.
Plastic - Considerable time is required to reach plastic limit. Thread can be re-rolled several times after reaching the plastic limit.

Moisture

Dry - Absence of moisture, dusty, dry to the touch.
Moist - Small quantity of moisture. Soil usually above groundwater level.
Wet - Moisture noticeable to the touch. Soil may be below groundwater level.
Saturated - Visible free water, usually soil is below groundwater level.

TERMINOLOGY USED FOR ROCK DESCRIPTION

Bedding

Parting	Less than 0.02 ft.
Band	0.02 to 0.2 ft.
Thin bed	0.2 to 0.5 ft.
Medium bed	0.5 to 1.0 ft.
Thick bed	1.0 to 2.0 ft.
Massive	Over 2.0 ft.

Hardness

Very Soft or Plastic	- Can be indented w/ thumb
Soft	- Can be scratched with fingernail
Moderately Hard	- Can be scratched easily with knife; cannot be scratched with fingernail
Hard	- Difficulty to scratch with knife
Very hard	- Cannot be scratched with knife

Crystallinity or Texture

Dense - Crystals are so small they cannot be distinguished with the naked eye.

Very Fine Crystalline - Crystals barely discernible with the naked eye.

Crystalline - Crystals are medium size -up to 1/8 inch diameter.

Very Coarsely Crystalline - Crystals larger than 1/8 inch diameter.

Voids

Pourous - Smaller than a pinhead. Their presence is indicated by the degree of absorbency.
Pitted - Pinhead size to 1/4 inch. If only thin walls separate the individual pits, the core may be described as honeycombed.
Vug - 1/4 inch to the diameter of the core. The upper limit will vary with core size.
Cavity - Larger than the diameter of the core.

Remarks - Denotes exact depth of recovery and general documentation of drilling efforts.

Notes - Description and classification are based on visual inspection of samples and boring operations.

The stratum lines shown on the boring logs are based upon interpretation and may not represent precise subsurface conditions.

Water level readings have been made in the drill holes at times and under conditions stated on the boring logs. Fluctuations in the water level may occur due to other factors than those present at the time measurements taken.

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SOIL CLASSIFICATION CHART
(Unified Soil Classification System)

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE-GRAINED SOILS More than 50% of material larger than No. 200 sieve	GRAVELS- More than 50% of coarse fraction larger than No. 4 sieve	Clean Gravels (little or no fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with appreciable amounts of fines		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS- Less than 50% of coarse fraction larger than No. 4 sieve	Clean sands (little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sands, little or no fines
		Sand with appreciable amounts of fines		SM	Silty sands, silt-sand mixtures
				SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS Less than 50% of material larger than No. 200 sieve	SILTS AND CLAYS Low plasticity Liquid Limit < 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravely clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS High plasticity Liquid limit > 50%			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
	Highly Organic Soils			Pt	Peat, humus, swamp soils with organic contents
	Miscellaneous Fill			FILL	Miscellaneous fill may belong in any division but is identified as FILL

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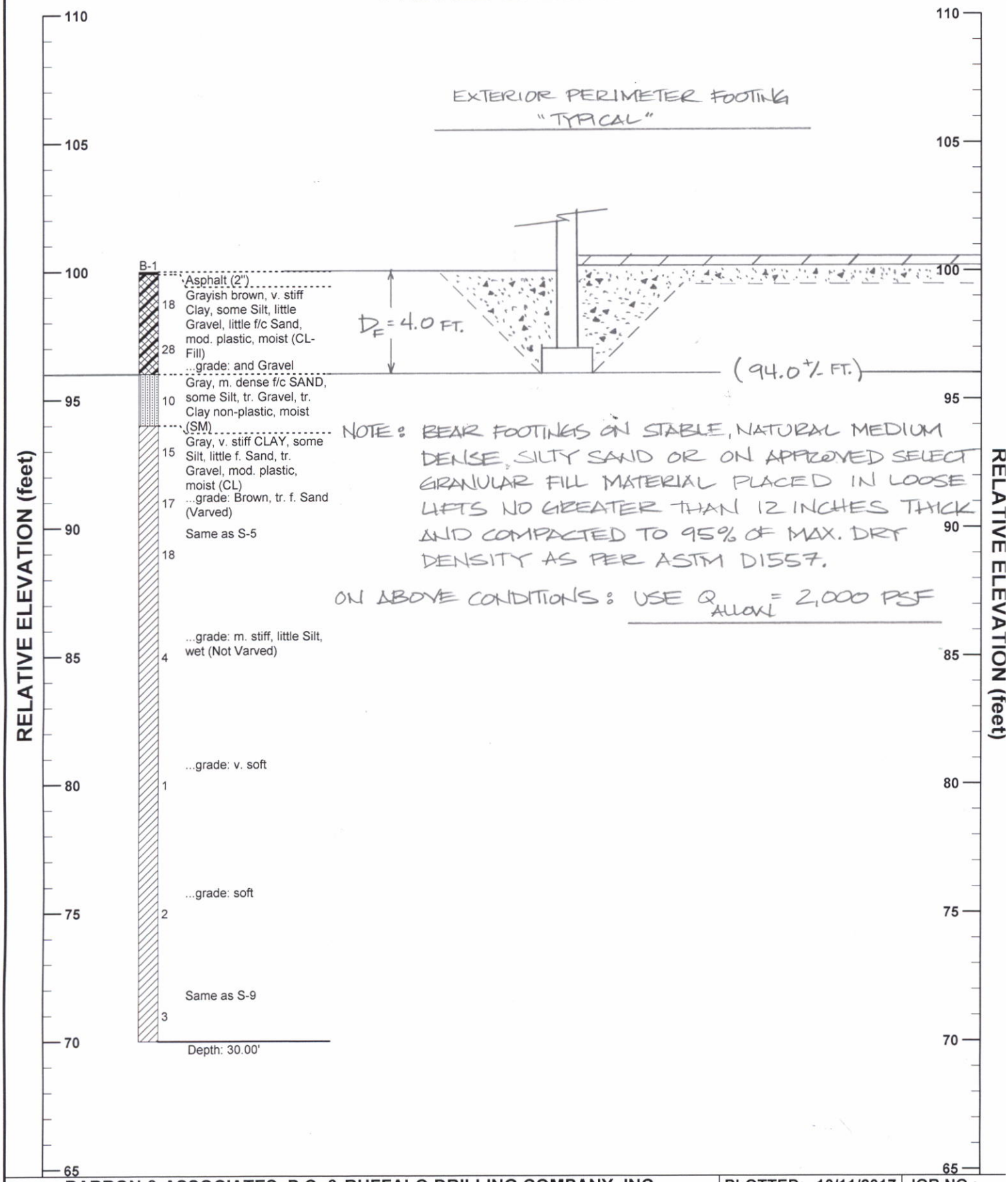
BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

APPENDIX C

ENGINEERING COMPUTATIONS AND SCHEMATICS

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

"PROFILE OF BORING"



BARRON & ASSOCIATES, P.C. & BUFFALO DRILLING COMPANY, INC. 10440 MAIN STREET, CLARENCE, NEW YORK 14031	PLOTTED: 10/11/2017 BY: A. Camping	JOB NO.: 17-586
PROJECT: Proposed Rezoning of Parcel 2350 Sweet Home Road, Town of Amherst, Erie Co., New York 14228	PAGE NO.: 1 of 3	FIGURE NO.: P-1

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BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

DATA INPUT BY: Andrew J. Camping
B&A JOB NO.: 17-586
CLIENT: RAS Development Company, Inc.
PROJECT: Proposed Rezoning of Parcel
2350 Sweet Home Road
Town of Amherst, Erie Co., New York 14228

BUILDING CODE OF NEW YORK STATE © - 2010: USGS 2008 ACCELERATIONS at 2% IN 50 YEARS CALCULATED BY LATITUDE AND LONGITUDE

Site Latitude (○) = +43.0228

Site Longitude (○) = -78.7996

Seismic Site Class = E

Building/Structure with Shallow Foundation

S_s = 0.2 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_s

LAT. = \ LONG. =	-78.8000	-78.7996	-78.7500
43.0000	0.22071		0.22114
+43.0228	0.22013	0.22013	0.22045
43.0500	0.21944		0.21963

S_1 = 1.0 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_1

LAT. = \ LONG. =	-78.8000	-78.7996	-78.7500
43.0000	0.05105		0.05122
+43.0228	0.05104	0.05104	0.05120
43.0500	0.05102		0.05117

SEISMIC SITE CLASS	Site Coefficient and Design Spectral Response Acceleration Values			
	0.2 Second		1.0 Second	
	F_a	$S_{ds} = 0.6667 * F_a * S_s$	F_v	$S_{d1} = 0.6667 * F_v * S_1$
A	0.8000	0.1174 g	0.8000	0.0272 g
B	1.0000	0.1468 g	1.0000	0.0340 g
C	1.2000	0.1761 g	1.7000	0.0578 g
D	1.6000	0.2348 g	2.4000	0.0817 g
E	2.5000	0.3669 g	3.5000	0.1191 g
F	2.5000	0.3669 g	3.5000	0.1191 g

<<------- USE THESE VALUES FOR SHALLOW FOUNDATIONS

NOTE: F_a and F_v values are linearly interpolated, for the above S_s and S_s values, respectively, within the appropriate range of the mapped spectral response accelerations.
(Gridded data at 0.05 degree increments from: http://earthquake.usgs.gov/research/hazmaps/products_data/2008/data/)

Z:\Reports\Seismic and Engineering Sheets\USGS 2008 Seismic g's (Job version 1.0)

Created By: Carmen M. Panuccio

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BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

B&A JOB NO.: 17-586

DATE: 10/11/17

LATERAL EARTH PRESSURE ON GENERIC BLOCK FOUNDATIONS FOR SIGNS, FREE-STANDING RETAINING WALLS, OR BELOW GRADE/BASEMENT/TANK/POOL RETAINING WALLS (Less Than 20 Feet High)

a) Porous filter media, in contact with the basement/below grade foundation wall or retaining walls, protects and is in contact with a minimum 4 inch diameter perforated drainage pipes at the footing/base of the foundation/structural wall (exterior backfill side and interior basement side) and/or weep pipes through the wall, as needed and as applicable.

b) Where recommended, a geotextile filter fabric will protect the gravel filter media from the earth backfill. Overlap unsewn seams as per the manufacturer's recommendations.

c) Waterproof earth side of wall, as is customarily provided in practice.

d) Drainage pipes are connected to an appropriately designed collector pipe, conveyance, and/or sump pump system as is applicable for the intended purpose of the wall and as customarily provided/installed in practice.

e) For potential groundwater table conditions above the top of the basement slab-on-grade condition, install continuous waterstops (with no joints in stop) at wall and floor construction joints, as is customarily provided in practice. Interior intermediate drainage pipes beneath the slab, that are spaced on-center and in both directions, do appear to be needed.

f) Assume a uniformly graded, clean coarse sand or sandy gravel backfills:

* equivalent N-value in a dense state: $(N_1)_{60}$ = 40 blows/foot
* friction angle: ϕ' = 38 degrees {Teng, pg. 12}
* average in-place densities: moist - γ_m = 120 pcf
  saturated - γ_{sat} = 132 pcf submerged - $\gamma' = (\gamma_{sat} - \gamma_w)$ = 70 pcf

g) Assume at base of wall/footing, coefficient of friction against sliding (f_s) at base of wall (Refer to Teng, pg. 320-1):

$f_s = \tan(0.58 \times \phi') = 0.40$ (AREA silty soil to silty coarse-grained soil)

h) Use equivalent fluid pressure design approach {Hough, pg. 249 and NAVFAC pg. 7-10-9}:

* at rest pressure coefficient - $K_0 = 1 - \sin(\phi') = 0.38$
* effective lateral pressure of soil - $\gamma'_l = K_o \times \gamma' = 26.6$ pcf
* hydrostatic pressure - γ_w = 62.4 pcf
* equivalent fluid pressure with water level at the top of the grade at the wall - $\gamma_{eo} = \gamma'_l + \gamma_w$ = 89 pcf (say 90 pcf)
* equivalent fluid pressure with compaction induced lateral stress increase (W&F, pg 409) $\gamma_{eo} = 2 \times K_o \times \gamma_m$ = 91 pcf (say 90 pcf)
* active pressure case - $K_a = [1 - \sin(\phi')] / [1 + \sin(\phi')] = 0.24$
  $\gamma_{ea} = K_a \times \gamma_m$ = 29 pcf (say 30 pcf)
* passive pressure case - $K_p = [1 + \sin(\phi')] / [1 - \sin(\phi')] = 4.2$
  $\gamma_{ep} = K_p \times \gamma_m$ = 504 pcf (say 330 pcf with a F.S. = 1.5)

		Thoroughly Compacted ⇒⇒	Uniformly Graded & Clean Coarse Sand or Sandy Gravel Fill	Non-Plastic Silty Sand or Sandy Silt Fill	
USE:	Earth Pressure Coefficient	Static Active =	0.24	0.33	
		Static At-Rest =	0.76	1.00	
		Static Passive =	2.80	2.00	(with F.S. = 1.5)
		Static Passive =	4.20	3.00	(with F.S. = 1.0)
USE:	Equivalent Fluid Pressure	Static Active =	30 pcf		
		Static At-Rest =	90 pcf (for rigid walls)		
		Static Passive =	330 pcf (with F.S. = 1.5)	[500 pcf with (with F.S. = 1.0)]	

[For earthquakes, structural engineer may elect to use the above Static Passive case instead of the below Earthquake Lateral Load for Non-Yielding Wall movement into the soil backfill.]

USE: Simplified Model for Earthquake Lateral Load/Ft. Wall Length @ 0.6 H_{bw} above base. Loads for Non-Yielding Wall. H_{bw} = Earth Height Behind Wall (feet)

Reduce load by 33% for Yielding Wall (active case) = (6.8 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.25 g)

(γ_m = 120 pcf for S_{ds} value. Add to Static At Rest/ Active Pressure/Load for unsaturated backfill case) = (13.5 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.50 g)

= (17.5 psf / foot) x H_{bw}^2 (NEern NYS, $S_{ds} \le 0.65$ g)

[Above for Site Class C to E soils. Interpolate for other S_{ds} values.
Use 1.75 x values for walls on Class B/A rock or on rigid foundation base. (FEMA NEHRP Guidelines)]

Saturated/Liquified Soil During Earthquake = 132 pcf

(Equivalent Fluid Pressure. Add to inertial hydrodynamic pressure, not presented here.)

{For looser/denser backfills, adjust above pressures by the ratio = new density / 120 pcf or / 132 pcf (for saturated case)}

USE: Coefficient of Friction Against Sliding (f_s) = 0.45 (on compacted NYSDOT Item #304.12 or #304.14 gravels)
(use lowest f_s with no underlying weaker layers) = 0.35 (on compacted granular soil & non-plastic silt)
= 0.20 (slab-on-grade on polyethylene on granular fill)
[with a F.S. = 1.0] = 0.60/0.50 (on clean, rough, & sound bedrock/smooth bedrock)
Min. Factor of Safety Against Sliding = 1.5 *[Rev.9-30-09]*

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BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

APPENDIX D

GENERAL EARTHWORK SPECIFICATION

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

Barron & Associates, P.C.
GENERAL EARTHWORK SPECIFICATION

PART 1 GENERAL

1.1 SITE AND SUBSURFACE CONDITIONS

1.1.1 Overview

This specification is included as a courtesy to the clients of Barron & Associates, P.C, and addresses earthwork site preparation. Additions and modifications are necessary to create a job-specific specification. This specification may serve as a basis for the development for a technical specification under Division 2, *Site Work*.

1.1.2 Site Conditions

The site-specific conditions are described under separate cover or may be available from the OWNER.

1.1.3 Subsurface Conditions

The site-specific subsurface conditions are described under separate cover or may be available from the OWNER.

1.2 REFERENCES

American Standard for Testing and Measurement (ASTM):

ASTM C136	Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C2922	Density for Soil and Soil-Aggregate in Place by Nuclear Methods
ASTM D422	Test Method for Particle-Size Analysis of Soils
ASTM D1140	Amount of Material in Soils Finer Than the No. 200 Sieve
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft^3)
ASTM D2216	Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D2487	1990 Classification of Soils for Engineering Purposes
ASTM D4318	Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.3 DEFINITIONS

1.3.1 Unacceptable Material

Soil material containing debris, wood, scrap material, vegetation, refuse, soft unsound particles, and other organic, frozen, deleterious, or objectionable materials. Contaminated soils shall be properly documented and removed or remediated on site. If necessary, remediation procedure will be defined by the OWNER.

1.3.2 Unsuitable Material

Brown, organic topsoil and underlying soft pockets of organic silt or wet, reworked silty clay.

1.3.3 Ordinary Fill

Friable soil containing no stone greater than two-thirds loose lift thickness and no unacceptable or unsuitable materials. In general, existing random fill is expected to be acceptable for reuse as ordinary fill given proper sorting, blending, drying, and controlled placement methods.

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1.3.4 Granular Fill

Ordinary fill meeting the designation of ASTM D2487 classification of GW with a maximum of 10 percent by weight passing ASTM D1140, No. 200 sieve.

1.3.5 Select Granular Fill

Clean, uncoated soil which contains no unacceptable materials and conforms to the gradation requirements defined in Table A: Select Granular Fill.

Table A: Select Granular Fill	
Sieve Size	Percent Finer by Weight
2/3 of the loose lift thickness	100
No. 10	30 - 95
No. 40	10 - 70
No. 200	0 - 15

1.3.6 Sand and Gravel

Clean, hard, durable, uncoated particle of sand and gravel, free from lumps of clay, containing no unacceptable matter, and conforming to gradation requirements of *Table B : Sand and Gravel*

Table B: Sand and Gravel	
Sieve	Percent Finer by Weight
*	100
No. 4	50 - 85
No. 10	--
No. 40	10 - 35
No. 100	--
No. 200	0 - 8

* Job-Specific. To be determined by the ENGINEER

1.3.7 Crushed Stone

Clean, durable, sharp-angled fragments of rock or crushed gravel stone of uniform quality, containing no unacceptable matter, free from coatings, and conforming to gradation requirements of *Table C: Crushed Stone*

Table C: Crushed Stone		
	Percent Passing	
Sieve Size	¾-inch Stone	1 ¼-inch Stone
1 ½-inch	__	100
1 ¼-inch	__	85-100
1- inch	100	__
¾-inch	90-100	10-40
5/8-inch	__	__
½-inch	10-50	0-8
3/8-inch	0-20	__
#4	0-5	__

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1.3.8 Flowable Fill

Also known as Controlled Low Strength Material – Controlled Density Fill (CLSM-CDF), this material is available under a variety of producer names (e.g., K-Krete©, M-Crete, Flash Fill©, Flowable Mortar, Unshrinkable Fill, etc.). This non-settling backfill mixture is most commonly used for its flowable characteristics, its support strength under traffic loads, and its removability at a later date. The material may be produced on-site or off-site. In either case, the producer of such materials and the product must meet certain certification criteria. Such information is beyond the scope of this specification and will be considered on a site-specific basis.

Flowable fill may be acceptable for use as a backfill for utility trenches of other low-lying areas which require a compacted granular fill. Its use and warranty of performance is left to the CONTRACTOR in such applications.

The use of flowable fill under load-bearing structural components in place of properly placed and compacted granular fill is NOT common and is questionable. The localized use of such material may have profound affects on the performance of a foundation system. Site-specific conditions and the extent of anticipated use of flowable fill must be examined by geotechnical engineer. Cost of such consultation shall be borne by the CONTRACTOR unless specifically directed by the OWNER to seek such consultation. Without such consultation, warranty of performance for such use is left to the CONTRACTOR.

1.4 SUBMITTALS

The following submittals shall be provided in accordance with approved submittals procedures.

1. Fill Source: Provide name and source locations of fill material.

2. Field Test Reports: Field tests will be performed by OWNER's Representative as needed. CONTRACTOR may be required to perform such tests on proposed off-site fill materials.
a. Fill material grain size analyses per ASTM C136, D422, D1140, D2487
b. Moisture/Density test results per ASTM D2216
c. Liquid limit, plastic limit, and plasticity index per ASTM D4318
d. Compaction/Density test results per ASTM C2922 and D1557

3. Sample: Geotextile fabric

PART 2 PRODUCTS

Geotextile Fabric: Mirafi 600X or equal. (Also referred to as synthetic fabric).

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 General

Manner of excavation shall minimize disturbance of underlying natural ground. If deemed necessary by the Engineer, alter construction procedures to reduce subgrade disturbance. Excavate areas which have been excessively disturbed to firm ground and backfill with properly compacted granular fill.

3.1.2 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

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3.1.3 Trees, Shrubs, and Existing Facilities

Protect from any damage all vegetation and facilities identified to remain.

3.1.4 Utility Lines

Locate all utilities within the area of disturbance prior to the start of work. Show locations on initial plans. Protect utility lines from damage. Notify the ENGINEER immediately of damage to or an encounter with an unknown utility. Damage to utility lines are to be repaired by the CONTRACTOR at no additional cost. The CONTRACTOR shall have underground utility owners stake out utility locations prior to the start of clearing and excavation operations.

3.2 VERIFICATION OF CONDITIONS/PROOF-ROLLING

Prior to placement of the initial layer of fill over the natural ground, proof-roll the exposed natural ground above the groundwater table elevation by making two passes with a fully-loaded ten-wheel truck. Excavate unstable areas detected by this process and replace with compacted granular fill.

3.3 PREPARATION

3.3.1 Surface Preparation

Within the site limits indicated on the drawings, excavate all unsuitable material to firm natural ground in the manner specified herein. Follow a construction procedure which permits visual identification of firm natural ground. In the even that groundwater is encountered, the ENGINEER may require that the size of the open excavation be limited to that which can be handled by open pumping to allow visual inspection of the excavation bottom and the performance of backfill operations to be conducted in a dry state.

Excavation of unsuitable material shall be limited to the greater of the following:

- A distance of 5 feet beyond building lines or
- The area defined by a one-horizontal to one-vertical line sloping down from the outside bottom edge of exterior footings to firm natural ground.

3.4 PLACEMENT AND COMPACTION

3.4.1 General

Place fill in accordance with *Table D: Compaction Alternatives*. These alternatives are provided as minimum compaction
standards only and in no way relieve the CONTRACTOR of his obligation to achieve any specified degree of compaction by whatever means may be necessary.

Grade to provide positive drainage and a smooth surface which will readily shed water. To the extent practicable, compact each layer to the specified density on the same day placed. Place fill in horizontal layers. Where horizontal layers meet a natural slope, key layer into slope by cutting a bench.

Fill that is too wet for proper compaction: Disc, harrow, or otherwise dry to proper moisture content for compaction to the required density.

Fill that is too dry for proper compaction: Uniformly apply water over the surface of the loose layer in sufficient quantity to allow compaction to the required density.

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Table D: Compaction Alternatives					
Compaction Method	Max. Stone Size	Maximum Loose Lift Thickness (inches)		Maximum Number of Passes	
		Below Structure and Pavements	Less Critical Areas	Below Structure and Pavements	Less Critical Areas
Hand operated vibratory plate of light roller in confined areas	3	4	4	4	4
Hand operated vibratory drum rollers weighing at least 1,000 pounds in confined areas	4	6	8	4	4
Loaded 10-wheel truck or D-8 crawler	6	10	12	4	2
Light vibratory drum roller; Min. weight at drum 8,000lbs; Min. dynamic force 10,000lbs.	8	12	12	6	2
Minimum vibratory drum; Min. weight at drum 10,000lbs; Min. dynamic force 20,000lbs.	8	18	18	6	4

3.4.2 Dewatering

Provide adequate pumping and drainage facilities to keep excavated areas sufficiently dry of groundwater and surface run-off. Dewatering shall avoid adversely affection construction procedures or causing excessive disturbance of underlying natural ground. Drain all pumped water in such a manner as to avoid damage to adjacent property.

If requested by the ENGINEER, place a 6-inch to 12-inch layer of sand and gravel or crushed stone over the natural underlying soil to stabilize area which have been disturbed due to groundwater seepage pressures and to expedite dewatering operations. Particular attention shall be given areas under proposed foundations.

3.5 FIELD QUALITY CONTROL

3.5.1 Compaction Requirements

Allow the ENGINEER sufficient time to make necessary observations and tests. Base the degree of compaction on maximum dry density as determined by ASTM D1557. The minimum degree of compaction for placed fill shall be as indicated *in Table E: Compaction Requirements.*

Table E: Compaction Requirements	
Area	Minimum Degree of Compaction (%)
Below foundation	95
Pavement and building subbase and base courses	95
Below building slab base course and above bottom of foundation	92
Below pavement subbase and base courses	90
Trench backfill outside of building	90
Trench backfill inside of building	Refer to one of the above-listed categories
Ordinary fill within 5 feet of grade	90
Vegetated areas below 5 feet of grade	85

3.5.2 Testing

Site work should be monitored and tested by geotechnical ENGINEER or his representative and in accordance with requirements of the design team to assure compliance with earthwork and foundation construction specifications.

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The owner will retain a geotechnical ENGINEER or his representative to perform on-site observations and testing during this phase of construction operations. The geotechnical ENGINEER or his representative will:

- Observe excavation and dewatering of building and controlled fill areas;
- Observe backfill and compaction within building and controlled fill areas;
- Laboratory test and analyze fill material; and
- Observe construction – and performing water content, gradation, and compaction tests.

On a timely basis, the CONTRACTOR will receive copies of test results submitted to the OWNER. In addition, during construction the geotechnical ENGINEER will advise the OWNER and CONTRACTOR in writing of conditions which fail to conform to the Contract Documents. The CONTRACTOR shall take immediate action to remedy indicated deficiencies.

The geotechnical ENGINEER or his representative will not supervise or direct the actual work of the CONTRACTOR or employees and representatives of the CONTRACTOR. The presence of, observations by, and testing performed by the geotechnical ENGINEER or his representatives shall not excuse the CONTRACTOR from defects discovered in the work.

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BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

APPENDIX E

LIMITATIONS

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

LIMITATIONS

1. This report is based on the data that was obtained from the subsurface explorations and on the information submitted to the geotechnical engineer. A geotechnical engineer, who is experienced in foundation construction and earthwork, should be engaged to review the final design and specifications in order to determine whether any change in concept may have any effect on the validity of the conclusions presented herein, and whether these conclusions have, in fact, been implemented in the design and specifications.

2. The subsurface conditions, including thickness, between the exploration locations are approximate and simplified representations of the strata and transitions. There is the possibility that variations in soil and rock conditions and boundaries will be encountered during construction. In order to permit correlation between the exploratory soil data and the actual soil conditions encountered during construction and so as to assess conformance with the plans and specifications as originally contemplated, it is recommended that a geotechnical engineer, who is experienced in foundation construction and earthwork monitoring, should be retained to perform continuous construction review during the site preparation and foundation construction operations.

3. The subsurface exploration logs and subsurface conditions may aid in estimating material quality and quantities, such as topsoil/organic matter, fills, natural soils, and rock, but are not to be relied upon as the exclusive means for bid preparation purposes. It is the responsibility of the contractor to perform any additional site examinations and explorations and to prepare an accurate bid.

4. Disclaimers:

   a. In the event that any changes in the nature, design or location of the structure are planned, the conclusions that are contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing.

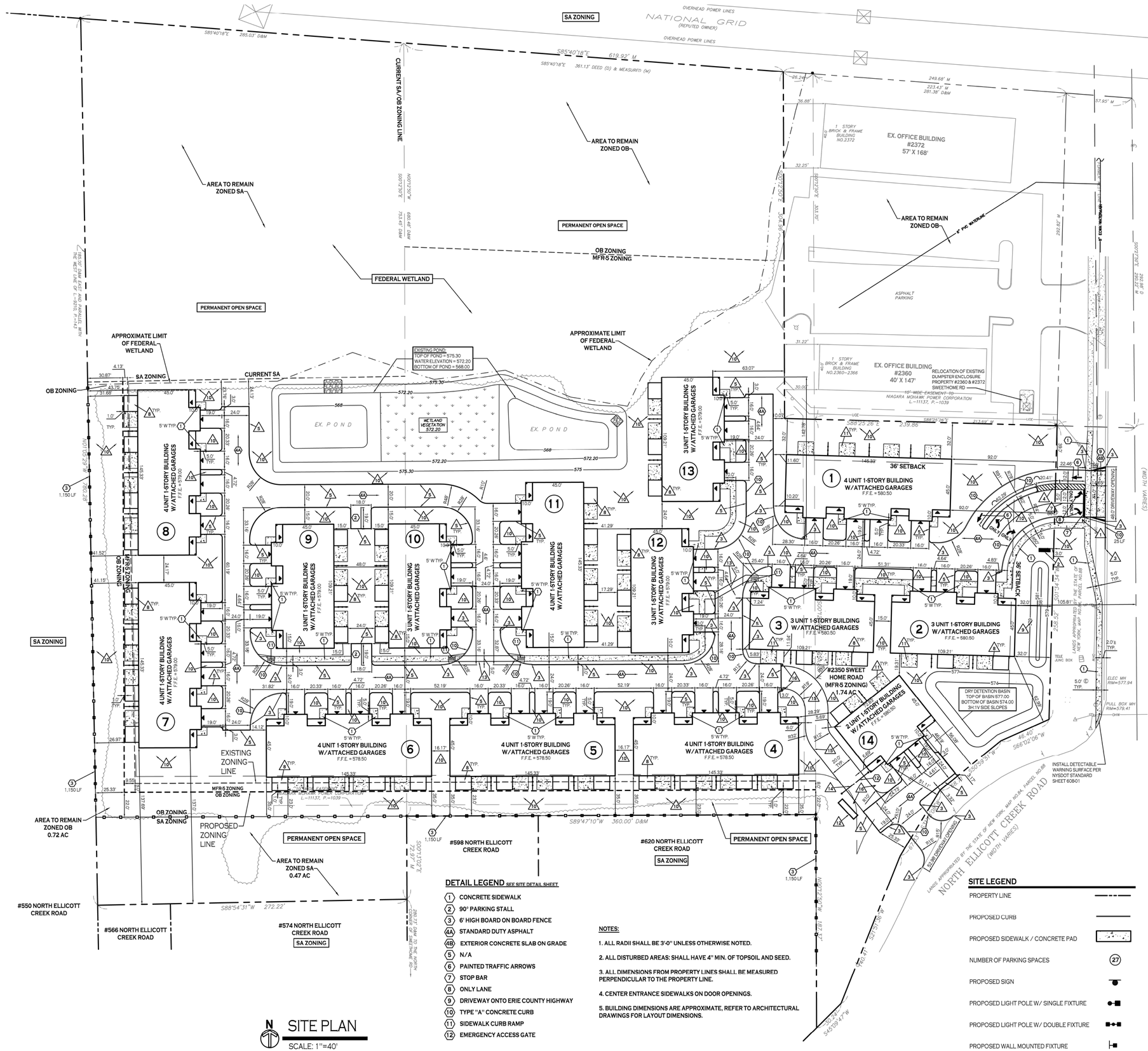
   b. The geotechnical engineering report has been prepared for this project by Barron & Associates, P.C. This report is for assistance in design only and is not a sufficient basis on which to prepare an accurate bid.

   c. This report has been prepared for the exclusive use of RAS Development Company, LLC of East Amherst, New York, their client and their designated design representatives, for specific application to the rezoning of a parcel at 2350 Sweet Home Road in the Town of Amherst, New York and in accordance with generally accepted geotechnical engineering practice. No other warranty, expressed or implied, is made.

Attachment: Z-2023-01 application 042023 (27184 : Z-2023-01)

All rights reserved. Reuse of these documents without the expressed written permission of Carmina Wood Morris PC is prohibited. WARNING: It is violation of article 145 sections 7209N and 7301 of the New York State education law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor to alter this drawing. If altered such R.A., P.E. or L.L.S. shall affix his or her seal, signature, the date, the notation "altered by" and a specific description of the alteration.

© Carmina Wood Morris DPC


SA ZONING
OVERHEAD POWER LINES
NATIONAL GRID
(REPUTED OWNER)
OVERHEAD POWER LINES
S85°40'18"E 619.92' M
S85°40'18"E 361.13' DEED (D) & MEASURED (M)
S85°40'18"E 385.03' D&M
CURRENT SA / OB ZONING LINE
AREA TO REMAIN ZONED OB
AREA TO REMAIN ZONED SA
PERMANENT OPEN SPACE
OB ZONING
MFR-5 ZONING
FEDERAL WETLAND
APPROXIMATE LIMIT OF FEDERAL WETLAND
EXISTING POND:
TOP OF POND = 575.30
WATER ELEVATION = 572.20
BOTTOM OF POND = 568.00
EX. POND
WETLAND VEGETATION 572.20
EX. OFFICE BUILDING #2372
57' X 168'
1 STORY BRICK & FRAME BUILDING NO.2372
EX. OFFICE BUILDING #2360
40' X 147'
1 STORY BRICK & FRAME BUILDING NO.2360-2366
RELOCATION OF EXISTING DUMPSTER ENCLOSURE PROPERTY #2360 & #2372 SWEETHOME RD
10' WIDE EASEMENT TO NIAGARA MOHAWK POWER CORPORATION L.-11137, P.-1039
ASPHALT PARKING
4" PVC WATERLINE
4" ECW WATERLINE
UGE
OHW
1 4 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 580.50
2 3 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 580.50
3 3 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 580.50
4 4 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 578.50
5 4 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 578.50
6 4 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 578.50
7 4 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 579.00
8 4 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 579.00
9 3 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 579.00
10 3 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 579.00
11 4 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 579.00
12 3 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 579.00
13 3 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 579.00
14 2 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 580.50
#2350 SWEET HOME ROAD (MFR-5 ZONING) 1.74 AC
DRY DETENTION BASIN TOP OF BASIN 577.00 BOTTOM OF BASIN 574.00 3H:1V SIDE SLOPES
INSTALL DETECTABLE WARNING SURFACE PER NYSDOT STANDARD SHEET 608-01
SWEET HOME ROAD (WIDTH VARIES)
NORTH ELLICOTT CREEK ROAD (WIDTH VARIES)
LANDS APPROPRIATED BY THE STATE OF NEW YORK, MAP NO.66, PARCEL NO.68
LANDS APPROPRIATED BY THE STATE OF NEW YORK, MAP NO.66, PARCEL NO.69
36' SETBACK
38' SETBACK
48.0' DRIVEWAY OPENING
ONE WAY
EXISTING ZONING LINE
PROPOSED ZONING LINE
AREA TO REMAIN ZONED OB 0.72 AC
AREA TO REMAIN ZONED SA 0.47 AC
#550 NORTH ELLICOTT CREEK ROAD
#566 NORTH ELLICOTT CREEK ROAD
#574 NORTH ELLICOTT CREEK ROAD
#598 NORTH ELLICOTT CREEK ROAD
#620 NORTH ELLICOTT CREEK ROAD
S88°54'31"W 272.22'
S89°47'10"W 360.00' D&M
N00°05'23"W 780.28'
N00°12'50"W 695.98' D&M
753.45' D&M
S00°12'23"E 72.97' M
S00°12'50"E 3.00'
S00°12'50"E 292.26' D
S00°12'50"E 292.26' M
S66°02'06"W 46.40'
S30°55'57"W
S23°51'35"W 182.47'
S45°39'47"W 102.41'
S00°12'50"E 292.26' M
S00°12'50"E 292.26' D

NOTE: UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

NOTE: THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE.

● SET OR EX. 5/8" REBAR

OVERHEAD POWER LINES

OVERHEAD POWER LINES

SOUTH LINE OF NIAGARA MOHAWK POWER CORPORATION L.–2045, P.–400

SA ZONING

284.32' M

S85°40'18"E 869.60' M

585.28' M

57.95' M

AREA TO REMAIN ZONED OB 2.24± AC

AREA TO REMAIN ZONED SA 1.99± AC

293.15'

N01°05'29"W

358.34' S87°40'00"E

115.49'

N01°05'29"W

520.83'

EDGE OF PAVEMENT

S27°10'09"E 44.09'

N89°14'05"E 13.54'

ASPHALT PARKING

S01°34'34"W 292.82' M

FORMER WEST LINE OF HIGHWAY

SWEET HOME (WIDE VARIES) ROAD

S00°27'50"E 292.98' D 290.22' M

185.00'

THE WEST LINE OF L.–634, P.–421

THE WEST LINE OF L.–634, P.–421 PRODUCED NORTH

EDGE OF WOODS

N88°54'31"E 4.13

30.87'

N88°54'31"E 248.05' TO BE REZONED TO MFR-5

S01°34'34"W 124.00' M

S01°12'50"E

10' WIDE EASEMENT TO NIAGARA MOHAWK POWER CORPORATION L.–11137, P.–1039

230.69' M

N88°25'26"W 213.69' M

68.21' M

17.00' M S88°25'26"E

SOUTH LINE OF L.–11235, P.–6110

281.90' D&M

90°0'0"

POND

POND

NOW OR FORMERLY NORTH FOREST PROPERTIES #5 LLC L.–11235, P.–6110

N00°52'59"W 780.29' D&M

361.26'

S01°05'29"E

353.67'

N00°12'48"W

WEST LINE OF L.–11235, P.–6110

SA ZONING

35.00'

AREA TO REMAIN ZONED OB 0.55± AC

456.97' M

348.95' M

WEST LINE OF L.–2045, P.–400

S01°34'34"W 258.52'

S66°02'28"W 46.40'

S50°59'51"W 68.71'

S37°18'08"W 67.33'

S21°51'36"W 28.27'

S21°51'36"W 112.11'

LANDS TO BE RE-ZONED FROM OB TO MFR-5 7,285 SQ. FT. (0.17± ACRE)

S00°12'50"E 8.00'

N89°47'10"E 598.82'

TO BE REZONED TO MFR-5

8.55'

25.33'

8.00'

608.37'

22.000'

OB ZONING

30.00'

S89°47'10"W

OB ZONING

SA ZONING

10' WIDE EASEMENT TO NIAGARA MOHAWK POWER CORPORATION L.–11137, P.–1039

SOUTH LINE OF L.–11235, P.–6110

S89°47'10"W 360.00' D&M

239.37' TO THE NORTH CORNER OF SWEETHOME RD MAP 83, PARCEL 69

S00°12'50"E 222.40' M

AREA TO REMAIN ZONED SA 0.47± AC

SA ZONING

S88°54'31"W 272.22' D&M

280.33' D&M TO THE NORTH CORNER OF SWEETHOME RD

S00°12'50"E 187.33'

SA ZONING

STATE OF NEW YORK — LICENSED LAND SURVEYOR — 050150

DATE	REVISION/TYPE

SURVEY OF

LANDS TO BE REZONED FROM OB TO MFR-5

PART OF LOT 82, TOWNSHIP 12, RANGE 7

HOLLAND LAND COMPANY

TOWN OF AMHERST, ERIE COUNTY, NEW YORK

GPI ENGINEERING, LANDSCAPE ARCHITECTURE & SURVEYING, LLP
ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE
4950 GENESEE STREET, SUITE 100
BUFFALO, NEW YORK 14225
(716) 633-4844 FAX 633-4940

Job No. 6198.REZONE.2022 Date: AUGUST 19, 2022

Scale 1" = 40' Tax No. 40.12-1-13

Attachment: Z-2023-01 drawing 042023 (27184 : Z-2023-01)

TOWN OF AMHERST
PLANNING BOARD
ZONING RESOLUTION
Z-2023-01

PETITIONER

DJC Land, Inc.
c/o Sean Hopkins, Esq.
Hopkins Sorgi & McCarthy
5500 Main Street, Suite 343
Williamsville, NY 14221

PROPERTY LOCATION

2350 Sweet Home Road

WHEREAS the Town of Amherst Planning Board on Thursday, April 20, 2023 held a public hearing on the proposed rezoning of 0.17± acres of land from Office Building District (OB) to Multi-family Residential District Five (MFR-5), and

WHEREAS the Planning Board has reviewed plans and other materials regarding the rezoning proposal, and

WHEREAS the materials and plans have been referred to the Town's various review agencies, and

WHEREAS in accordance with Section 8-3-5 of the Zoning Ordinance the Planning Board finds that:

A. The proposed zoning and development plan is generally consistent with the policies of the Comprehensive Plan and the Zoning Ordinance.

B. There are adequate services and utilities available or proposed to be made available in the construction of the development.

C. The proposal is incompatible with the present zoning and conforming uses of nearby property and with the character of the neighborhood.

D. The subject property is not suitable for uses permitted by the proposed district.

E. The proposed change does not tend to improve the balance of uses, or meet a specific demand in the Town.

F. Review by the US Army Corps of Engineers under Section 404 of the Clean Water Act may be waived because a wetland investigation conducted October 2016 by Wilson Environmental Technologies concluded that no federal or state wetland areas exist within the subject portion of the site.

WHEREAS pursuant to Local Law #3-82, as amended, the Planning Board recommends that the Town Board determine that the requirements of SEQR are complete and that the subject proposal is not expected to have a significant adverse effect on the environment.

'23 APR 26 PM12:5[illegible]

Attachment: Z-2023-01_signed_resolution_042023 (27184 : Z-2023-01)

TOWN OF AMHERST
PLANNING BOARD
ZONING RESOLUTION
Z-2023-01

PETITIONER

DJC Land, Inc.

PROPERTY LOCATION

2350 Sweet Home Road

NOW THEREFORE BE IT RESOLVED that the Planning Board recommends to the Town Board in accordance with Section 8-3-4 of the Zoning Ordinance, that the rezoning request be denied.

The foregoing resolution was adopted by the Town of Amherst Planning Board, April 20, 2023; moved by Penberthy; seconded by Chmiel; ayes 4, noes 3 (Gilmour, Giuliani, Kahn).

Robert J. Gilmour, Planning Board Chair

4-25-23.
Date

SM/ac
X:\Current_Planning\Files\Rezonings\2023\Z-2023-01_(2350_Sweet_Home)_2023\Z-2023-01_resolution_042023.doc
cc: Town Clerk
Commissioner of Building
Highway Superintendent
Town Engineer
Traffic/Safety Coordinator
Sean Hopkins, Hopkins Sorgi & McCarthy, 5500 Main Street, Suite 343, Williamsville, NY 14221

'23 APR 26 PM12:5

Attachment: Z-2023-01_signed_resolution_042023 (27184 : Z-2023-01)

Rezoning Application - Rezoning of Portion of 2350 Sweet Home Road from OB to MFR-5
Applicant: Essex Homes of WNY, Inc.
Date: January 23, 2023

Prepared By: Sean Hopkins, Esq.
Hopkins Sorgi & McCarthy PLLC
5500 Main Street, Suite 343
Williamsville, NY 14221
Tel: 510-4338
E-mail: shopkins@hsmlegal.com

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Rezoning Review and, if required Comprehensive Plan Amendment

For Official Use

File #: _____ **Acreage** .17 Acres **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Accepted by Town Clerk & Fee Paid ____ _____ AC CEP TB BY DATE

Materials Checked by Building Dept. _____ RECEIVED BY DATE

Materials Received by Planning Dept. _____ RECEIVED BY DATE

		Fill In Applicable Fees
2 ACRES OR LESS	**$1,250**	1,250.00
2 – 20 ACRES $1,250 + $250/acres or fraction thereof over 2 acres		_____
20 – 30 ACRES $5,700 + $150/acre or fraction thereof over 20 acres		_____
OVER 30 ACRES $6,900 +$75/acre or fraction thereof over 30 acres		_____
Request for Relief of/Change to Conditions of Zoning Approval	**$ 1,200**	_____
AFFIDAVIT FEE FOR PUBLIC HEARING	**$ 15.00**	$ 15.00
TOTAL FEE:	$1,265.00	

[**Note**: A completed Short Environmental Assessment Form prepared pursuant to the State Environmental Quality Review Act ("SEQRA") is provided at Exhibit "5".]

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

TO BE COMPLETED BY APPLICANT

1. **Petitioner:** Name: Essex Homes of WNY, Inc.

Address: c/o Sean Hopkins, Esq.
5500 Main Street, Suite 343
Williamsville, New York 14221
City State Zip Code

Phone: 716.510-4338 Fax:

E Mail shopkins@hsmlegal.com

2. **The undersigned hereby petitions the Honorable Town Board to rezone the following described property**

From: OB District

To: MFR-5 District

3. **Street address of land to be rezoned:** (must be verified by Town Assessor's Office)

Portion of 2350 Sweet Home Road

SBL #: 40.12-1-14

4. **Area of land to be rezoned** (in acres): .17 Acres

5. **Owner of Land:**

Name: Essex of WNY, Inc. c/o Sean Hopkins, Esq.

Address: 5500 Main Street, Suite 343 - Williamsville, NY 14221

Telephone: 716.510-4338 [E-mail: shopkins@hsmlegal.com]

6. **Representative** (Architect, Engineer, Landscape Architect, Surveyor or Attorney):

Name: Sean W. Hopkins, Esq., Hopkins Sorgi & McCarthy PLLC

Address: 5500 Main Street, Suite 343
Williamsville, New York 14221
City State Zip Code

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

7. Petitioner's interest in property

_____Option to purchase

__X__Owner

_____Other (explain) _____

8. The following are all others having an interest in this application and join herein with the petitioner named above: (describe extent of interest; attach sheets as needed)

Not Applicable.

9. Attach Survey and Legal description of land to be rezoned. The Survey must be prepared by a New York State Licensed Land Surveyor. Legal description of property to be rezoned from OB to MFR-5 attached as Exhibit "1" and a copy of the survey prepared by GPI Engineering & Surveying is provided at Exhibit "2" Full-size copy of the survey is also attached to this Application.

10. Said property has the following deed restrictions or Covenants: (attach copy)

Liber 11341 Page 2501

Copy of Declaration of Restrictions as recorded on February 21, 2019 attached as Exhibit "3".

11. Information on proposed project:

A. Description of the character of the proposed development:

See Exhibit "4". A reduced-size copy the Site Plan prepared by Carmina Wood Design is provided at Exhibit "6" and a full-size copy is also attached to this Application.

B. Rationale for rezoning request:

1. Why was this site chosen?

See Exhibit "4"

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

2. Why cannot land be used with the existing zoning?

See Exhibit "4".

3. How will this rezoning impact surrounding properties?

See Exhibit "4".

4. How will this rezoning impact the school system?

See Exhibit "4".

12. Quantitative Data:

A. Total # of dwelling units: 48 Attached Residential Units

B. Distribution of dwelling units by type: Attached Townhomes

C. Gross Residential Density per acre: 4.04 units per acre

D. Total amount of Open Space: Approximately 5.2 acres

E. Proposed Non-Residential Floor Area: Not Applicable

13. Development Schedule:

Start: Project under construction.

Finish: To be based on demand for the attached residential units.

Stages (# of): Based on market demand

14. If any portion of the proposed development is planned to be sold or leased, please describe:

The upscale residential units are for sale.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

15. Open Space ownership and maintenance provisions (if applicable):

Greenspace and landscaping will be privately owned and maintained.

16. Basis for Findings (Sec. 8-3-5 of the Town Zoning Code) (Attach sheets and supplemental materials as necessary.)

A. The proposed zoning and development plan must be generally consistent with the policies of the Comprehensive Plan and the Town Zoning Ordinance.

1. State in detail why the proposed zoning is consistent with the adopted Town of Amherst Bicentennial Comprehensive Plan. Cite specific sections, maps, and/or figures in the plan that support the proposed zoning at this location (The Comprehensive Plan document is available at the Planning Department, Town Clerk's Office, Amherst libraries, or at www.amherst.ny.us). Add sheets as needed.

See Exhibit "7".

2. Pursuant to NYS Town Law Section 272a(11), "all Town land use regulations must be in accordance with a comprehensive plan adopted pursuant to this Section." The Town Board adopted the Comprehensive Plan pursuant to NYS Town Law 272 on January 2, 2007. If the rezoning is approved, the Town Board may require the Plan to be amended, as applicable.

Cite all text, map, and / or figures that must be amended to support the proposed zoning at this location (attach pages as necessary) and provide detailed suggested amendments.

See Exhibit "7".

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

3. State why the proposed zoning is consistent with intent and objectives (Sec. 1-2-2) of the Zoning Ordinance:

See Exhibit "7".

B. Adequate Services and Utilities are available or are proposed to be made available with the construction of the development:

1. Sanitary Sewer
   Yes.
2. Storm Sewer/Drainage
   Yes.
3. Water
   Yes.
4. Other Yes.

C. Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:

See Exhibit "7".

D. Suitability of the subject property for uses permitted by the current versus the proposed district:

See Exhibit "7".

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

E. Whether the proposed change tends to improve the balance of uses, or meets a specific demand in the Town:

See Exhibit "7".

17. The petitioner encloses herewith the sum of $ 1,265.00 to pay the fee, and consents to the placement of a sign(s) at the described location identifying this request for a period of time to be determined by the Town Clerk.

18. The undersigned certifies that all information required to be disclosed pursuant to Section 809 of the General Municipal Law (see below) is as follows:

The undersigned swears or affirms that all statements made herein are true, that all drawings submitted correctly show the situation involved in this petition.

[Authorization of Owner of the Project Site is attached.]

Signature of Petitioner

Subscribed and sworn to before me this 23rd day of January, 20 23

Notary Public, Erie County, New York

MARIANNE BRAUTLACHT
Notary Public, State of New York
Qualified in Erie County
My Commission Expires 01/14/20 24

N.Y.S. General Municipal Law - Section 809 Disclosure in certain applications:

1. Every application, petition or request submitted for a variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit, pursuant to the provision of any ordinance, local law, rule or regulation constituting the zoning and planning regulations of a municipality shall state the name, residence and the nature and extent of the interest of any state office or any office or employee of such municipality or of a municipality of which such municipality is a part, in the person, partnership or association making such application, petition or request (hereinafter called the applicant) to the extent known to such applicant.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

2. For the purpose of this section an officer or employee shall be deemed to have an interest in the applicant when he, his spouse, or their brothers, sisters, parents, children, grandchildren, or the spouse of any of them

   (a) is the applicant, or
   (b) is an officer, director, partner or employee of the applicant, or
   (c) legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association applicant, or
   (d) is a party to an agreement with such an applicant, express or implied, whereby he may receive any payment or other benefit, whether or not for services rendered, dependent or contingent upon the favorable approval of such applicant, petition or request.

3. In the county of Nassau the provisions of subdivisions one and two of this section shall also apply to a party officer. "Party Officer" shall mean any person holding any position or office, whether by election, appointment or otherwise, in any party as defined by subdivision four or section two of the election law.

4. Ownership of less than five per cent of the stock of a corporation whose stock is listed on the New York or American Stock Exchanges shall not constitute an interest for the purposes of this section.

5. A person who knowingly and intentionally violates this section shall be guilty of a misdemeanor.

P/CurrPlan/Applications2007/Rezoning & Comp Plan Amend App.
10/08

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Exhibit 1 – Legal Description of Portion of 2350 Sweet Homes Road to be Rezoned from OB to MFR-5

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

EXHIBIT 1

LEGAL DESCRIPTION OF PROPERTY TO BE REZONED FROM OFFICE BUILDING DISTRICT ("OB") TO MULTIFAMILY RESIDENTIAL DISTRICT FIVE ("MFR-5")

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 209.37 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: through the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a line parallel and distant 22.00 feet northerly of a southerly line of said North Forest Properties #5 LLC lands as measured at right angles, a distance of 608.37 feet to a point being distant 25.33 feet easterly from the west line of said North Forest Properties #5 LLC lands;
2) N-00°-12'-48"-W, a distance of 361.56 feet to a point;
3) N-88°-54'-31"-E, a distance of 4.13 feet to a point;
4) S-01°-05'-29"-E, along a line parallel and distant 35.00 feet easterly of the west line of said North Forest Properties #5 LLC lands as measured at right angles, a distance of 353.67 feet to a point;
5) N-89°-47'-10"-E, along a line parallel and distant 30.00 feet northerly of a southerly line of said North Forest Properties #5 LLC lands as measured at right angles, a distance of 598.82 feet to the said west line of Liber 6673 of Deeds at page 573;

THENCE: S-00-12'-50"-E, along the said west line of Liber 6673 of Deeds at page 573, a distance of 8.00 feet to the POINT OF BEGINNING, containing 7,285 square feet or 0.17 acre more or less.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Exhibit 2 – Reduced-Size Copy of Survey of Property to be Rezoned from OB to MFR-5 as Prepared by Mark Andrews of GPI Engineering & Surveying [Note: Full-size copy also attached

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

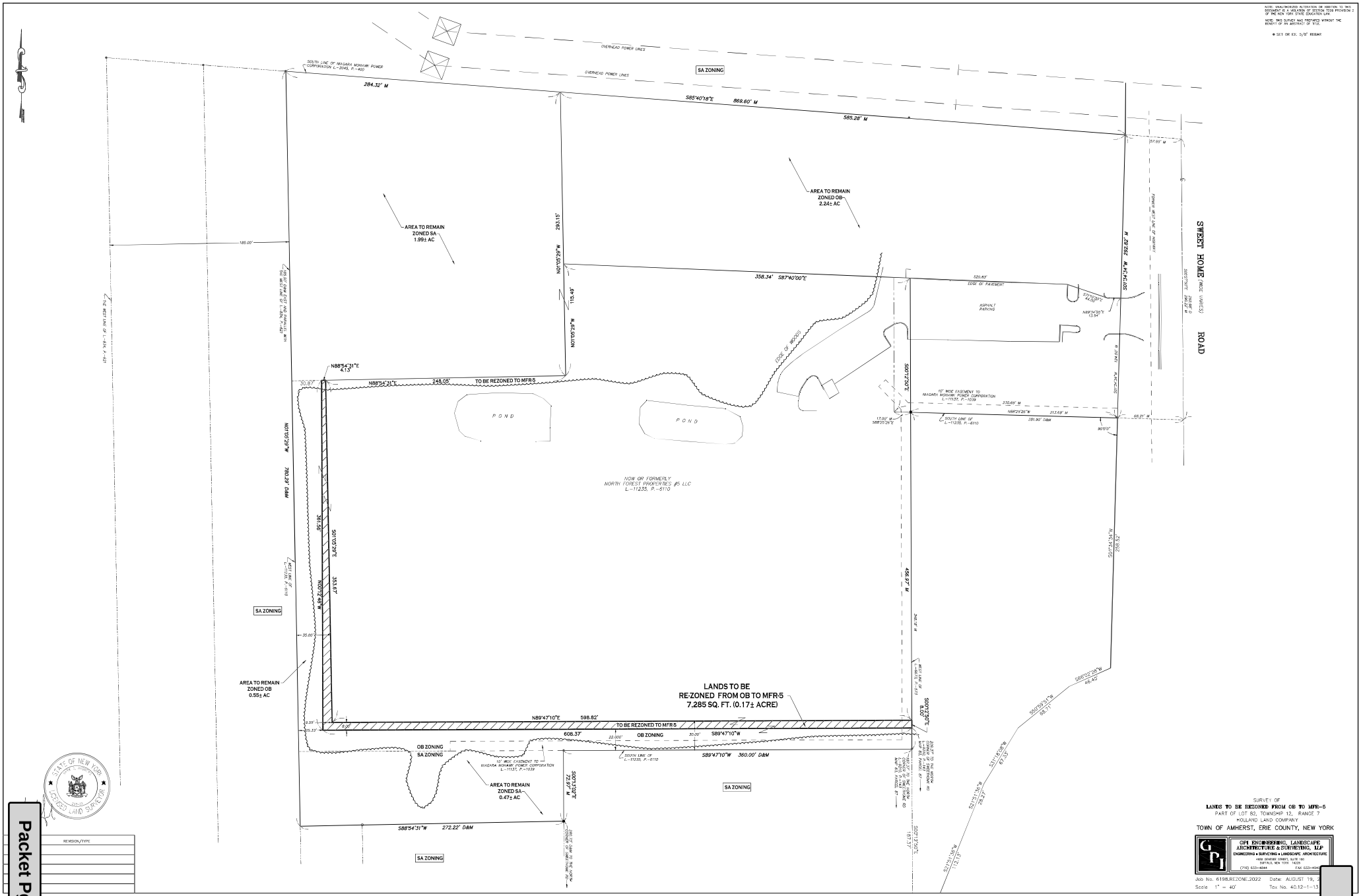

SA ZONING
AREA TO REMAIN ZONED SA 1.99± AC
AREA TO REMAIN ZONED OB 2.84± AC
AREA TO REMAIN ZONED OB 0.55± AC
AREA TO REMAIN ZONED SA 0.47± AC
LANDS TO BE RE-ZONED FROM OB TO MFR-5 7,285 SQ. FT. (0.17± ACRE)
TO BE REZONED TO MFR-5
OB ZONING
SA ZONING
POND
POND
NOW OR FORMERLY NORTH FOREST PROPERTIES #5 LLC L-11235, P-5110
SWEET HOME (WEST WARD) ROAD
ASPHALT PARKING
EDGE OF WOODS
OVERHEAD POWER LINES
SOUTH LINE OF NIAGARA MOHAWK POWER CORPORATION L-2045, P-400
10' WIDE EASEMENT TO NIAGARA MOHAWK POWER CORPORATION L-11137, P-1039
SOUTH LINE OF L-11235, P-5110
284.32' M
585°40'18"E 869.60' M
585.28' M
358.34' S87°40'00"E
N01°05'29"W 293.15'
N01°05'29"W 115.49'
N88°54'31"E 4.13'
N88°54'31"E 248.05'
30.67'
185.00'
S01°05'29"E 305.50'
N01°05'29"W 305.50'
N01°05'29"W 284.32' M
S01°05'29"E 456.97' M
S01°05'29"E 9.00'
N89°47'10"E 598.82'
606.37'
22.000'
30.00'
S89°47'10"W
S89°47'10"W 360.00' D&M
S01°05'29"E 272.97' M
S88°54'31"W 272.22' D&M
S01°05'29"E 456.97' M
S01°05'29"E 285.52'
S01°05'29"E 187.17'
S88°02'26"W 46.40'
S01°05'29"E 68.21'
S01°05'29"E 213.69' M
N88°25'26"W 213.69' M
N88°25'26"W 381.90' D&M
S01°05'29"E 350.69' M
S01°05'29"E 68.21' M
S01°05'29"E 213.69' M
S01°05'29"E

Exhibit 3 – Copy of Declaration of Restrictions Recorded at the Erie County Clerk's Office on February 21, 2019

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

FILED

FEB 21 2019

ERIE COUNTY
CLERK'S OFFICE

Return Original to Box 460
Hopkins Sorgi & Romanowski PLLC
Attn: Sean W. Hopkins, Esq.

DECLARATION OF RESTRICTIONS

THIS DECLARATION OF RESTRICTIONS (*"Declaration"*) is made as of the 20th day of February, 2019 by **ESSEX HOMES OF WNY, INC.** (hereinafter *"Declarant"*) under facts and circumstances summarized by the following recitals:

WHEREAS, the Declarant is the owner of real property consisting of 2350 Sweet Home Road as more particularly described in the metes and bounds legal description of 2350 Sweet Home Road attached hereto as **Schedule "A";**

WHEREAS, the Declarant is the owner of real property consisting of a portion of 2360 Sweet Home Road comprised of approximately 10.22 acres as more particularly described in the metes and bounds legal description of a portion of 2360 Sweet Home Road attached hereto as **Schedule "B";**

WHEREAS, in December of 2016, RAS Development I LLC submitted an application with the Town of Amherst requesting that the Town Board of the Town of Amherst (*"Town Board"*) amend the zoning classification of approximately 7.14 acres of a portion of 2360 Sweet Home Road from Office Building District (*"OB"*) to Multifamily Residential District Five (*"MFR-5"*);

WHEREAS, in September of 2017, RAS Development I LLC submitted an application with the Town of Amherst requesting that the Town Board of the Town of Amherst (*"Town Board"*) amend the zoning classification of 2350 Sweet Home Road from General Business District (*"GB"*) to Multifamily Residential District Five (*"MFR-5"*);

WHEREAS, during its meeting held on March 19, 2018, the Town Board adopted Resolution No. 2018-241 for the purpose of approving an amendment of the zoning classification of 2350 Sweet Home Road from GB to MFR-5 subject to eighteen (18) conditions as contained in Resolution No. 2018-241;

WHEREAS, during its meeting held on March 19, 2018, the Town Board adopted Resolution No. 2018-242 for the purpose of approving an amendment of the zoning classification of a portion of 2360 Sweet Home Road from OB to MFR-5 subject to eighteen (18) conditions as contained in Resolution No. 2018-242;

WHEREAS, the conditions contained in Resolutions 2018-241 and 2018-242 as adopted by the Town Board on March 19, 2018 are identical;

WHEREAS, pursuant to Condition No. 18 as contained in Resolutions 2018-241 and 2018-242, Conditions No. 1 to 14 as imposed by the Town Board on March 19, 2018 are to be subject to a Declaration of Restrictions recorded at the Erie County Clerk's Office;

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

WHEREAS, Conditions No. 1 to 14 as contained in Resolutions 2018-241 and 2018-242, Conditions No. 1 to 14 as imposed by the Town Board on March 19, 2018 are as follows:

1. That the 5.2 acres of Permanent Open Space as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 shall not be developed as any buildings or other above ground structures, and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space in the front portion of the buildings such that there shall not be any second story windows provided for the second story loft space on the rear portion of the buildings.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

7. That the minimum setback of the residential buildings on the project site from the southern boundary and western boundary of the project site shall be 35 feet.

8. That the minimum setback of Building No. 5 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the northern boundary of 574 North Ellicott Creek Road shall be 109 feet.

9. That the minimum setback of Building No. 6 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the southern boundary of the project site shall be 137 feet.

10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side and the portion of the western side of 2360 Sweet Home Road to be developed

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

for residential purposes. The Landscaping Plan to be prepared by a licensed landscape architect during the site plan review stage for the residential project on 2360 Sweet Home Road shall be prepared based on consideration of input received by the Petitioner from the owners of the parcels directly south of the project site at 566, 574, 598 and 620 North Ellicott Creek Road and the owner of the parcel west of the project site at 550 North Ellicott Creek Road.

12. That the Lighting Plan to be prepared during the site plan review stage for the residential project on the project site shall demonstrate that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel at 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

WHEREAS, a metes and bounds legal description of the 5.2 acres of Permanent Open Space referenced above in Condition No. 1, as contained in Resolutions 2018-241 and 2018-242 adopted by the Town Board on March 19, 2018, consisting of a portion of 2360 Sweet Home Road, is attached as **Schedule "C"** (hereinafter "***Permanent Open Space***");

WHEREAS, in July of 2018, RAS Development I LLC filed an Application for relief of Zoning Condition No. 14 as contained in Resolutions 2018-241 and 2018-242 for the purpose of seeking to allow a gated emergency access driveway to be installed connecting 2350 Sweet Home Road and a portion of 2360 Sweet Home to North Ellicott Creek Road;

WHEREAS, during its meeting held on October 1, 2018, the Town Board adopted Resolution No. 2018-1046 for the purpose of approving the requested Relief of Zoning Condition No. 14 as contained in Resolutions 2018-241 and 2018-242 to allow a gated emergency access driveway to be installed connecting to North Ellicott Creek Road subject to six (6) conditions as follows:

1. The gated emergency access connection will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

2. Pursuant to the Town Code, all property owners within 600 ft. of the project site will receive written notice from the Town of any future proposed amendment of any of the zoning conditions.

3. The amended Zoning Condition No. 14 will be incorporated into the Declaration of Restrictions to be recorded at the Erie County Clerk's Office.

4. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

5. That the gated emergency access driveway to North Ellicott Creek Road be straightened as much as possible.

6. That the final site plan be fully compliant with fire code.

NOW, THEREFORE, in exchange for good and valuable consideration the sufficiency of which is acknowledged, the Declarant agrees to restrict the future use of 2350 Sweet Home Road as described in **Schedule "A"**, a portion of 2360 Sweet Home Road as described in **Schedule "B"** including the Permanent Open Space consisting of a portion of 2360 Sweet Home Road as described in **Schedule "C"**, in accordance with the conditions as set forth in Resolutions No. 2018-241 and 2018-242 as adopted by the Town Board on March 19, 2018 and the conditions set forth in Resolution 2018-1046 as follows:

1. That the 5.2 acres of Permanent Open Space as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 and described in the attached **Schedule "C"** shall not be developed as any buildings or other above ground structures and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space in the front portion of the buildings such that there shall not be any second story windows provided for the second story loft space on the rear portion of the buildings.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

7. That the minimum setback of the residential buildings on the project site from the southern boundary and western boundary of the project site shall be 35 feet.

8. That the minimum setback of Building No. 5 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the northern boundary of 574 North Ellicott Creek Road shall be 109 feet.

9. That the minimum setback of Building No. 6 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the southern boundary of the project site shall be 137 feet.

10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side and the portion of the western side of 2360 Sweet Home Road to be developed for residential purposes. The Landscaping Plan to be prepared by a licensed landscape architect during the site plan review stage for the residential project on 2360 Sweet Home Road shall be prepared based on consideration of input received by the Petitioner from the owners of the parcels directly south of the project site at 566, 574, 598 and 620 North Ellicott Creek Road and the owner of the parcel west of the project site at 550 North Ellicott Creek Road.

12. That the Lighting Plan to be prepared during the site plan review stage for the residential project on the project site shall demonstrate that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel at 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 and a gated emergency access only driveway connection to North Ellicott Creek Road, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

15. The gated emergency access connection to North Ellicott Creek Road will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

16. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

The restrictions being established herein pursuant to the conditions contained in Resolutions No. 2018-241 and 2018-242 as adopted by the Town Board on March 19, 2018 and Resolution No. 2018-1046 as adopted by the Town Board on October 1, 2018 shall be binding on all parties claiming thereunder and shall run and touch the land except that the recorded restriction can be changed, modified or eliminated by a majority vote of the Town Board.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK
SIGNATURE ON FOLLOWIG PAGE]

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

IN WITNESS WHEREOF, the party hereto has the full legal authority to execute this Declaration of Restrictions.

ESSEX HOMES OF WNY, INC.

By: Philip J. Nanula
Name: Philip J. Nanula
Title: President

STATE OF NEW YORK)
ss.:
COUNTY OF ERIE)

On this 12th day of January, 2019, before me, the undersigned, a notary public in and for said state, personally appeared Philip J. Nanula, personally known to me or proved to me on the basis of satisfactory evidence to the be the individual whose name is subscribed to within this instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual or the person upon behalf of which the individual acted, executed the instrument.

Michelle Lynn Ward
Notary Public

MICHELLE LYNN WARD
Notary Public - State of New York
NO. 01WA6275111
Qualified in Niagara County
My Commission Expires 1/14/2021

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

SCHEDULE A

METES AND BOUNDS LEGAL DESCRIPTION OF 2350 SWEET HOME ROAD

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York, being part of Lot 82, Township 12 and Range 7 of the Holland Land Company's Survey, being more particularly described as follows:

BEGINNING at the intersection of the northerly line of North Ellicott Creek Road with the westerly line of Sweet Home Road; Thence N 01°58'37 E, along the westerly line of Sweet Home Road, a distance of 258.52 feet; Thence 88°01'23" W, a distance of 213.69 feet; Thence S 00°11'13" W, a distance of 535.55 feet to a point in the northerly line of North Ellicott Creek Road; Thence N 45°33'50" E, along the northerly line of North Ellicott Creek Road, a distance of 30.24 feet; Thence N 22°15'39" E, along the northerly line of North Ellicott Creek Road, a distance of 140.40 feet; Thence N 31°42'11" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 67.33 feet; Thence N 51°23'54" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 68.71 feet; Thence N 66°26'31" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 46.40 feet to the point of beginning, containing 1.742 acres.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

SCHEDULE B

METES AND BOUNDS LEGAL DESCRIPTION OF PORTION OF 2360 SWEET HOME ROAD

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 187.00 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: along the bounds of the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 360.00 feet to a point;
2) S-00°-13'-02"-E, along a easterly line of said North Forest Properties #5 LLC lands, a distance of 72.97 feet to a point;
3) S-88°-54'-31"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 272.22 feet to a point;
4) N-01°-05'-29"-W, along the west line of said North Forest Properties #5 LLC lands, a distance of 780.29 feet to the northwest corner thereof;
5) S-85°-40'-18"-E, along the north line of said North Forest Properties #5 LLC lands a distance of 619.92 feet to a point;

THENCE: S-00-12'-50"-E, through said North Forest Properties #5 LLC lands, a distance of 304.96 feet to a point;

THENCE: S-88-25'-26"-E, through said North Forest Properties #5 LLC lands, a distance of 26.18 feet to the west line of said lands described in Liber 6673 of Deeds at page 573;

THENCE: S-00-12'-50"-E, along the west line of said Liber 6673 of Deeds at page 573, a distance of 348.18 feet to the POINT OF BEGINNING, containing 10.22 acres more or less.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

SCHEDULE C

METES AND BOUNDS LEGAL DESCRIPTION
PERMANENT OPEN SPACE CONSISTING OF A PORTION OF
2360 SWEET HOME ROAD

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 187.00 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: along the bounds of the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 360.00 feet to a point;
2) S-00°-12'-50"-E, along an easterly line of said North Forest Properties #5 LLC lands, a distance of 72.97 feet to a point;
3) S-88°-54'-31"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 272.22 feet to the southwest corner thereof;
4) N-01°-05'-29"-W, along the west line of said North Forest Properties #5 LLC lands, a distance of 780.29 feet to the northwest corner thereof;
5) S-85°-40'-18"-E, along the north line of said North Forest Properties #5 LLC lands a distance of 619.92 feet to a point;

THENCE: Through said North Forest Properties #5 LLC lands, the following fifteen (15) courses and distances:

6) S-00-12'-50"-E a distance of 166.47 feet to a point;
7) N-87-51'-46"-W a distance of 16.24 feet to a point;
8) S-12-26'-56"-W a distance of 27.13 feet to a point;
9) S-58-06'-54"-W a distance of 97.91 feet to a point;
10) S-46-53'-26"-W a distance of 15.19 feet to a point;
11) S-32-16'-28"-W a distance of 17.19 feet to a point;
12) S-25-41'-59"-W a distance of 28.12 feet to a point;
13) N-80-56'-26"-W a distance of 50.68 feet to a point;
14) N-67-33'-18"-W a distance of 62.20 feet to a point;
15) S-82-26'-00"-W a distance of 63.13 feet to a point;
16) N-71-38'-03"-W a distance of 27.07 feet to a point;
17) S-00-12'-50"-E a distance of 5.50 feet to a point;

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

18) S-88-54'-31"-W a distance of 244.27 feet to a point;
19) S-01-05'-29"-E a distance of 353.63 feet to a point;
20) N-89-47'-10"-E a distance of 598.82 feet to the west line of said lands described in Liber 6673 of Deeds at page 573;

THENCE: S-00-12'-50"-E, along the west line of said Liber 6673 of Deeds at page 573, a distance of 30.00 feet to the POINT OF BEGINNING, containing 5.21 acres more or less.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

MICHAEL P. KEARNS, ERIE COUNTY CLERK
REF:

DATE:2/21/2019
TIME:2:22:37 PM
RECEIPT: 19024620

HOPKINS SORGI & ROMANOWSKI PLLC- BOX 460
ACCOUNT #: 9074

ITEM - 01 781
RECD: 2/21/2019 2:24:28 PM
FILE: 2019035107 BK/PG D 11341/2501
ESSEX HOMES OF WNY INC
Recording Fees 100.00
Subtotal - 100.00

TOTAL DUE	$100.00
PAID TOTAL	$100.00
PAID CHECK	$100.00
Check #1264:	100.00

REC BY: Megan
COUNTY RECORDER

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Exhibit 4 – Responses to Question No. 11 of the Application

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

EXHIBIT 4

RESPONSES TO QUESTION 11 OF REZONING APPLICATION FOR PORTION OF 2350 SWEET HOME ROAD FROM OB TO MFR-5

Question 11(A): Description of the character of the proposed development:

Response to Question 11(A): The residential project as previously approved by the Planning Board consists of 48 upscale attached residential units with attached garages for sale as depicted on the Site Plan prepared by Carmina Wood Design. The Project Sponsor is seeking the necessary approvals consisting of the rezoning of a small portion of the Project Site from OB to MFR-5 and relief of the Declaration of Restrictions recorded on February 21, 2019 to accommodate the proposed minor modifications to the approved project layout consisting primarily of first floor sunrooms to be constructed on the rear side of the attached townhome buildings on the southern and western boundaries of the Project Site as depicted on the Site Plan [Drawing C-100 – Date: 12/16/22] prepared by Carmina Wood Morris DPC. A reduced-size copy of the Site Plan is provided at **Exhibit "6"** and a full-size copy is also attached to this Application. A draft of the Amended Declaration of Restrictions is provided at **Exhibit "8"**.[1]

Question 11(B)(1): Rationale for rezoning request: 1. What was this site chosen?

Response to Question 11(B)(1): The majority of the Project Site is currently zoned MFR-5 in accordance with decisions issued by the Town Board on March 19, 2018. The Project Sponsor is seeking to amend a small portion of the Project Site from OB to MFR-5 to accommodate minor modifications to the approved project layout. It is important to mention that a large portion of the Project Site

[1] A copy of the Declaration of Restrictions recorded at the Erie County Clerk's Office on February 21, 2019 is provided at **Exhibit "3"**.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

will consist of Permanent Open Space to ensure the residential project is consistent with the character of the surrounding vicinity.[2]

Question 11(B)(2): Why cannot land be used with the existing zoning?

Response to Question 11(B)(2): The Project Site is currently being developed in the accordance with the existing MFR-5 zoning of a majority of the Project Site that was approved by the Town Board on March 19, 2018.

Question 11(B)(3): How will this rezoning impact surrounding properties?

Response to Question 11(B)(3): The proposed rezoning of a small portion of the Project Site from OB to MFR-5 and the requested relief of the Declaration of Restriction in order to accommodate minor modifications to the approved project layout will have any adverse impacts on surrounding properties.

Question 11(B)(4): How will this rezoning impact the school system?

Response to Question 11(B)(4): The project will continue to have positive impacts on the school district. The approved residential project consisting of attached townhomes for sale will not result in any significant increased demand for educational services since the target market for the residential units is empty nesters, seniors and young professionals.

[2] The approximately 5.2 acres of Permanent Open Space shall remain undeveloped in accordance with the Declarations of Restrictions recorded on at the Erie County Clerk's Office on February 21, 2019.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Exhibit 5 – Short Environmental Assessment Form with Attached Page 5[a]

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Short Environmental Assessment Form
Part 1 - Project Information

Prepared By: Sean Hopkins, Esq.
Hopkins Sorgi & McCarthy PLLC
5500 Main Street, Suite 343
Williamsville, NY 14221
Tel: 510-4338
E-mail: shopkins@hsmlegal.com

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
Villas at Essex Woods Project

Project Location (describe, and attach a location map):
2350 Sweet Home Road - Town of Amherst - Erie County

Brief Description of Proposed Action:
The action involves the rezoning of approximately 0.17 acres of the Project Site from Office Building District ("OB") to Multifamily Residential District Five ("MFR-5") and a request to modify a Declaration of Restrictions containing zoning conditions imposed by the Town of Amherst Town Board to accommodate minor modifications to the previously approved residential project consisting of 48 attached residential units for sale including the addition of single-story sun rooms on the rear sides of the approved buildings. The project layout is depicted on the Site Plan [Drawing C-100] prepared by Carmina Wood Design dated December 16, 2022. The project is an Unlisted Action pursuant to the State Environmental Quality Review Act ("SEQRA") since the impact do not cross any of the thresholds for a Type I action per 6 NYCRR Part 617.4. It is important to mention that the Town Board, Planning Board and Zoning Board of Appeals have all previously issued negative declarations pursuant to the SEQRA with respect to the approved residential project that is currently under construction.

Name of Applicant or Sponsor:	Telephone: 716.510-4338
Essex Homes of WNY, Inc. c/o Sean W. Hopkins, Esq.	E-Mail: shopkins@hsmlegal.com

Address:
Hopkins Sorgi & McCarthy PLLC - 5500 Main Street, Suite 343

City/PO:	State:	Zip Code:
Williamsville	NY	14221

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: Town Board - Rezoning, Zoning Board of Appeals - Area Variances; Planning Department - Minor Site Plan Amendment	☐	☑

3.a. Total acreage of the site of the proposed action? 11.89 acres
b. Total acreage to be physically disturbed? .12 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 11.89 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

	NO	YES	N/A
5. Is the proposed action, a. A permitted use under the zoning regulations? [Project Sponsor is seeking to amend the zoning classification of .17 acres of the Project Site from OB to MFR-5 to accomodate single-story sun rooms on the rear side of attached townhome buildings.]	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify:	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies:	☐	☑
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water:	☐	☑
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment:	☐	☑
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐
b. Is the proposed action located in an archeological sensitive area? [SHPO issued a No Impact determination for the Project Site on April 21, 2005.]	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: There are not any wetlands located on the portion of the Project Site to be developed. A wetland permit was issued by the USACE on April 20, 2006 and the 0.49 acres of impacts authorized by the permit have previously occurred.	☑	☐

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:
☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100 year flood plain?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☑ NO ☐ YES	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES Existing on-site stormwater management system will be utilized as previously approved.		

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

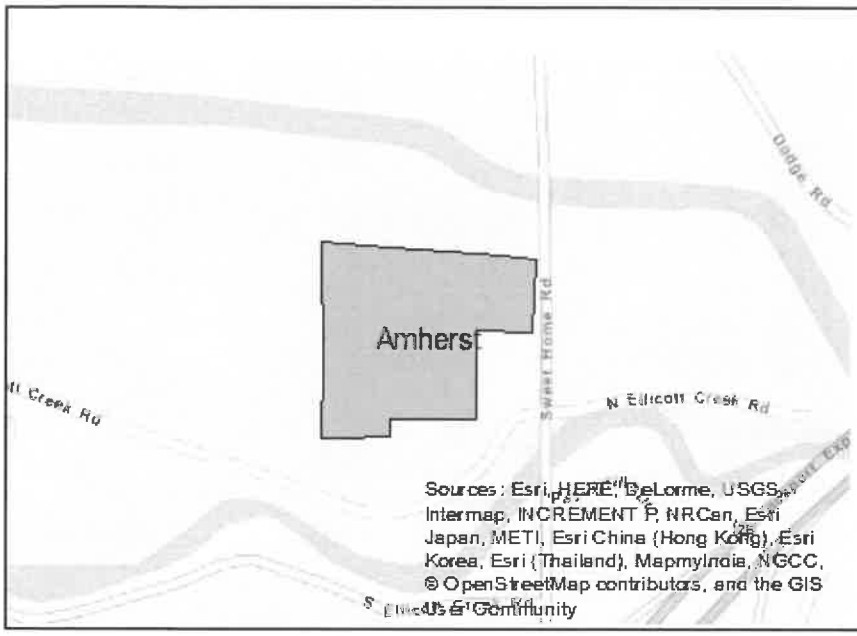
Applicant/sponsor name: Essex Homes of WNY, Inc. Date: January 23, 2023

Signature: Sean W. Hopkins, Esq., Counsel for Applicant

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

PRINT FORM

EAF Mapper Summary Report



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

TOWN OF AMHERST ATTACHMENT
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM

2350 Sweet Home Road

1. For each applicable category of proposed new structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Cosad [Cv]	Severe	Severe	Severe	Severe	Moderate
Swormville [Sw]	Severe	Severe	Severe	Severe	Severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   _x_ Geotechnical report attached _____ Not applicable

   [Note: Three copies of the Geotechnical Report prepared by Barron & Associates dated October 11, 2017 have been submitted with the land use applications dated January 23, 2023.]

3. Is your property located: On Youngs Road between Dodge and Klein Roads? ☐ Yes ● No

   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? ☐ Yes ● No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? ☐ Yes ● No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal: **Not Applicable.**

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: ☐ Yes ● No
   Describe: **Not Applicable.**
   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per hour upon completion of project: **Not Applicable.**

8. Will blasting occur during construction? ☐ Yes ● No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ● Yes ☐ No

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project: **Not applicable. The Project Sponsor is not proposing any modifications to approved number of upscale townhome units per the Site Plan approved by the Planning Board for the 48-unit project.**

(Please note that average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Exhibit 6 – Reduced-Size Copy of Site Plan [Drawing C-100] as Prepared by Carmina Wood Morris DPC [Note: Full-size copy also attached

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

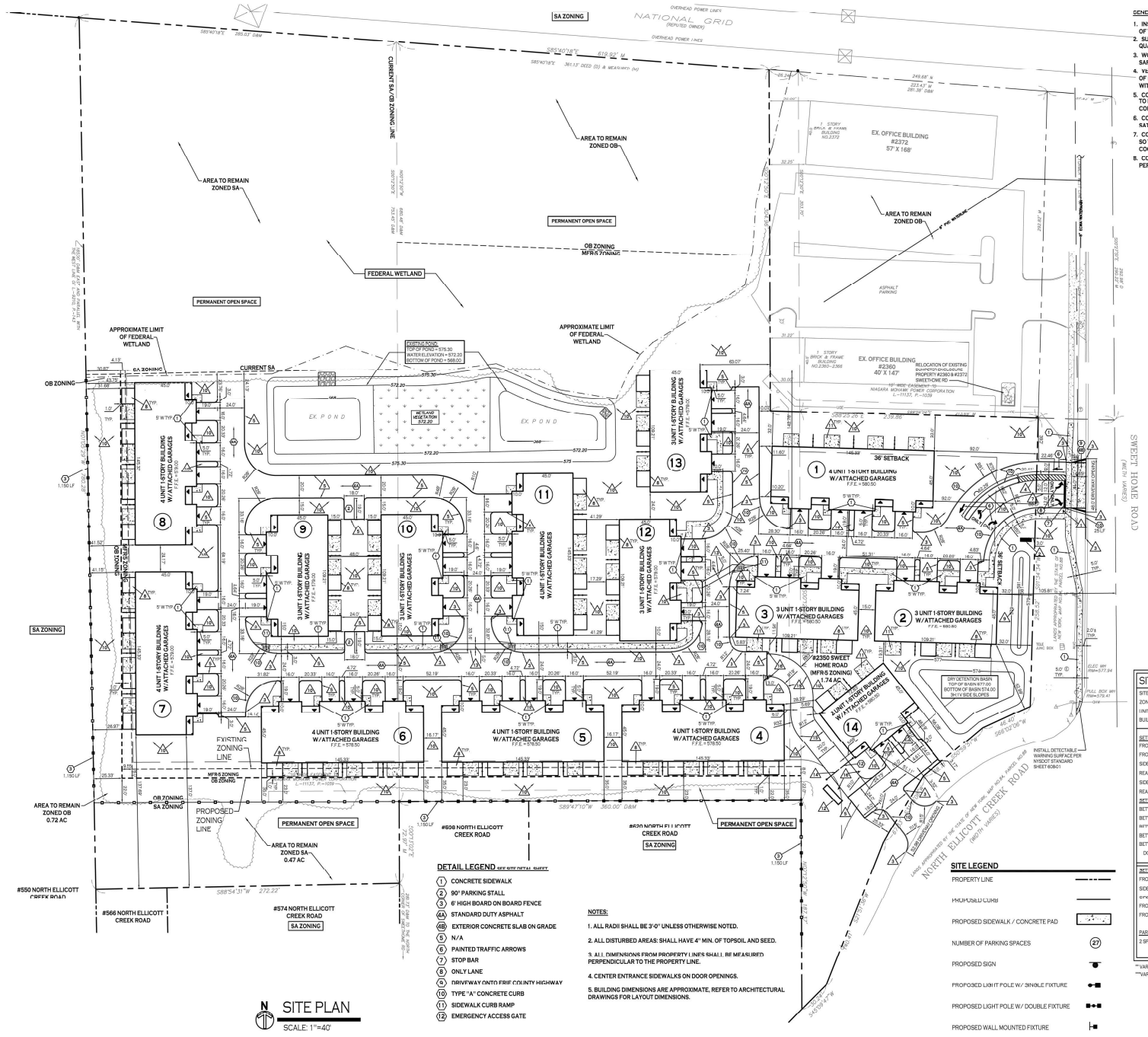

SA ZONING
NATIONAL GRID
(REPUTED OWNER)
OVERHEAD POWER LINES
CURRENT SA/OB ZONING LINE
AREA TO REMAIN ZONED OB
AREA TO REMAIN ZONED SA
PERMANENT OPEN SPACE
OB ZONING
MFR-S ZONING
FEDERAL WETLAND
APPROXIMATE LIMIT OF FEDERAL WETLAND
EX. OFFICE BUILDING #2372 57' X 168'
EX. OFFICE BUILDING #2360 40' X 147'
EX. POND
EXISTING POND TOP OF POND = 575.30 WATER ELEVATION = 572.20 BOTTOM OF POND = 568.00
WETLAND VEGETATION 572.20
ASPHALT PARKING
36' SETBACK
30' SETBACK
SWEET HOME ROAD (NEW YORK STATE ROUTE 400)
NORTH ELLICOTT CREEK ROAD (NORTH VARIES)
#2350 SWEET HOME ROAD (MFR-S ZONING) 1.74 AC
#596 NORTH ELLICOTT CREEK ROAD
#630 NORTH ELLICOTT CREEK ROAD
#550 NORTH ELLICOTT CREEK ROAD
#566 NORTH ELLICOTT CREEK ROAD
#574 NORTH ELLICOTT CREEK ROAD
AREA TO REMAIN ZONED OB 0.72 AC
AREA TO REMAIN ZONED SA 0.47 AC
EXISTING ZONING LINE
PROPOSED ZONING LINE
4 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 578.50
3 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 579.00
4 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 580.50
3 UNIT 1-STORY BUILDING W/ATTACHED GARAGES F.F.E. = 580.80
DRY DETENTION BASIN TOP OF BASIN 577.00 BOTTOM OF BASIN 574.00 3H:1V SIDE SLOPES
INSTALL DETECTABLE WARNING SURFACE PER NYSDOT STANDARD SHEET 608.01
SEE DETENTION POND
SEE ENTRANCE DETAIL
SEE DRIVEWAY OPENING
SEE DRIVEWAY DETAIL
SEE SITE DETAIL SHEET
SEE LANDSCAPE PLAN
SEE GRADING PLAN
SEE UTILITY PLAN
SEE SITE DETAIL SHEET
SEE SITE DETAIL SHEET
SEE SITE DETAIL SHEET

Exhibit 7 – Responses to Question No. 16 of the Application

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

EXHIBIT 7

RESPONSES TO QUESTION 16 OF REZONING APPLICATION FOR PORTION OF 2350 SWEET HOME ROAD FROM OB TO MFR-5

Question 16(A)(1): State in detail why the proposed zoning is consistent with the adopted Town of Amherst Bicentennial Comprehensive Plan. Cite specific sections, maps and/or figures in the plan that support the proposed zoning at this location.

Response to Question 16(A)(1): The Project Sponsor is seeking to amend the zoning classification of a small portion of 2350 Sweet Home Road consisting of only 0.17 acres from OB to MFR-5 to allow first floor sunrooms to be constructed on the rear side of the attached townhome buildings on the southern and western boundaries of the Project Site as depicted on the Site Plan [Drawing C-100 – Date: 12/16/22] prepared by Carmina Wood Morris DPC. A reduced-size copy of the Site Plan is provided at **Exhibit "6"** and a full-size copy is also attached to this Application. The Project Sponsor is simultaneously seeking to modify a Declaration of Restrictions Containing Zoning Conditions Imposed in Connection with a Rezoning Decision. A copy of the Declaration of Restrictions recorded at the Erie County Clerk's Office on February 21, 2019 is provided **at Exhibit "3"** and a draft of the Amended Declaration of Restrictions is provided at **Exhibit "8"**.

The requested rezoning of a small portion of the Project Site from OB to MFR-5 to accommodate the proposed minor modifications to the project layout as depicted on the Site Plan approved by the Planning Board for the residential project at 2350 Sweet Home Road (the "***Project Site***") is consistent with the adopted Bicentennial Comprehensive Plan. The Town of Amherst adopted the Bicentennial Comprehensive Plan in January of 2007 after completing a lengthy planning process that included numerous public meetings and public hearings involving the

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Comprehensive Plan Advisory Committee, the Planning Board and the Town Board.[1] In December of 2020, the Town Board most recently adopted amendments to the Bicentennial Comprehensive Plan. The Comprehensive Plan is intended to guide future growth and redevelopment in the Town.

Figure 6 of the Bicentennial Comprehensive Plan is the Conceptual Land Use Plan and the areas in the vicinity of the Project Site is designated as being appropriate for Mixed Residential uses. The Conceptual Land Use Plan is intended to communicate the overall direction and concept of future development in the Town of Amherst. "Mixed Residential" is described on Page 3-30 of the Comprehensive Plan as 4 to 12 units per acre. The Comprehensive Plan indicates that typical locations for the Mixed Residential category include "Areas of transition between commercial uses and lower density single-family neighborhoods, as well as along collector or arterial highways or other areas that are generally unattractive for large lot, single-family development. Other areas of the Town designated for concentrations of Mixed Residential use include underutilized areas near designated activity centers and commercial areas. Examples include areas adjacent to mixed-use centers at UB, near the I-290/I-990 interchange..." It is also important to mention that the Comprehensive Plan recognizes the need for diverse housing options including housing multifamily units.

[1] A copy of the resolution adopted by the Town Board on January 2, 2007 for the purpose of adopting the Bicentennial Comprehensive Plan pursuant to Town Law Section 272-a is included at the beginning of the Comprehensive Plan. This resolution recites the lengthy planning history that incorporated numerous opportunities for public input as well as a coordinated environmental review pursuant to SEQRA that involved the preparation a Generic EIS and the issuance of a Findings Statement.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Question 16(A)(2): Cite all text, map, and/or figures that must be amended to support the proposed zoning at this location and provide detailed suggested amendments.

Response to Question 16(A)(2): The requested rezoning of a small portion of the Project Site from OB to MFR-5 does not require an amendment to the Bicentennial Comprehensive Plan.

Question 16(A)(3): State why the proposed zoning is consistent with intent and objectives (Sec. 1-2-2) of the Zoning Ordinance:

Response to Question 16(A)(3): Section 1-2-1 of the Zoning Code is titled "Purpose" and it states as follows:

> *"The purpose of this Zoning Ordinance and the intent of the legislative authority in its adoption is to promote the environment of the town and its public health, safety, convenience, comfort, prosperity and the general welfare by regulating the use of buildings, other structures and land for residences, open space, public facilities, business, services, industry or other purposes; by regulating and restricting the bulk, height, design, building coverage and location of structures; by regulating and limiting population density; and for the aforesaid purposes, to divide the land within the limits of the town into districts of such number and dimensions generally consistent with the policies of the Comprehensive Plan and to provide procedures for the administration and amendment of said Zoning Ordinance."*

The requested rezoning of a small portion of the Project Site from OB to MFR-5 and the requested modification of the Declaration of Restrictions to accommodate the minor modifications to the approved project layout are consistent with the "Purpose" of the Zoning Code. Section 1-2-2 of the Zoning Code sets forth the objectives of the Zoning Code. This section of the Zoning Code lists thirteen objectives that are discussed below as follows:

A. To protect the character and values of residential, institutional and public uses, business, commercial and manufacturing uses and to insure their orderly and beneficial development;

Response: The residential project is consistent with the objective of protecting the character and value of existing land uses. The proposed rezoning of a small portion of the

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Project Site from OB to MFR-5 and the request to modify the Declaration of Restrictions in order to accommodate minor modifications to the approved project layout represents orderly and beneficial development.

B. To provide adequate open spaces for light, air and outdoor uses to include public, common and private open space areas;

Response: The proposed minor modification to the layout of the residential project are not inconsistent with this objective.

C. To prevent overcrowding of land;

Response: The Project Sponsor is not proposing any increase to the density of the approved residential project.

D. To prevent excessive concentration of population and to prevent spare and uncoordinated development;

Response: The Project Sponsor is not proposing any increase to the density of the approved residential project and the minor modifications to the approved project layout represents coordinated development. The minor modifications to the previously approved project layout will require an amendment of the Site Plan previously approved by the Planning Board.

E. To regulate and control the location and spacing of buildings on the lot and in relation to the surrounding property generally consistent with the policies of the Comprehensive Plan.

Response: The requested rezoning of a small portion of the Project Site from OB to MFR-5 and the requested modification of the Declaration of Restrictions to accommodate the minor modifications to the approved project layout are consistent with the policies of the Comprehensive Plan.

F. To protect persons and property from damage and injury due to fire or flood;

Response: The minor modifications to the approved project layout will not increase the likelihood of damage and injury due to fire and flood. The residential buildings will

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

continue to be constructed in accordance with building permits issued by the Town of Amherst Building Department.

G. To preserve and protect significant natural features and vegetation, thereby preventing ecological damage and visual blight which occur when those features or vegetation are eliminated or substantially altered to serve development purposes only.

Response: There are not significant natural features located on the previously disturbed portion of the Project Site currently being developed.

H. To assure that structure and land use arrangements are aesthetically harmonious with nearby areas and structures.

Response: The development of the Project Site in a manner generally consistent with the updated Site Plan [Drawing C-100] prepared by Carmina Wood Design will be aesthetically harmonious with nearby areas and structures.

I. To regulate the location of buildings and intensity of uses in relation to streets according to plans so as to cause the least interference with and be damaged least by traffic movements and hence result in lessened street congestion and improved public safety.

Response: The minor modifications to the approved project layout do not involve changes to the access from the Project Site from public roadways.

J. To establish zoning patterns that insure economical extensions for sewers, water supply waste disposal and other public utilities, as well as development of recreation, schools and other public facilities;

Response: The Project Site has access to sanitary sewer and water lines as well as necessary public utilities to service the project.

K. To guide the future development of the town so as to being the gradual conformity of land, structures and uses generally consistent with the policies of the Comprehensive Plan.

Response: The minor modifications to the approved project layout are consistent with this objective since the residential project that is currently under construction is consistent with the policies contained in the Comprehensive Plan.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

L. To accomplish the specific intents and goals set forth in the introduction to the respective sections.

Response: The minor modifications to the approved project layout are consistent with this objective.

M. To protect the community from visual pollution resulting from the unregulated use of signs and other advertising devices.

Response: The minor modifications to the approved project layout are not inconsistent with this objective.

Question 16(C): Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:

Response to Question 16(C): The Project Sponsor is seeking to amend the zoning classification of a small portion of the Project Site from OB to MFR-5, which is the zoning classification of the portion of the Project Site currently being developed as a residential project pursuant to the Site Plan approved by the Planning Board.

Question 16(D): Suitability of the subject property for uses permitted by the current versus the proposed district:

Response to Question 16(D): The small portion of the Project Site the Project Sponsor seeks to rezone from OB to MFR-5 is more suitable for uses permitted by the proposed MFR-5 zoning classification than the existing OB zoning classification.

Question 16(E): Whether the proposed change tends to improve the balance of uses, or meets a specific demand in the Town:

Response to Question 16(D): The project has and will continue to improve the balance of uses and to satisfy a specific demand for upscale attached townhome style units for sale in the Town.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Exhibit 8 – Draft of Amended Declaration of Restrictions

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Return Original to Box 460
Hopkins Sorgi & McCarthy PLLC
Attn: Sean W. Hopkins, Esq.

AMENDED DECLARATION OF RESTRICTIONS

THIS AMENDED DECLARATION OF RESTRICTIONS ("***Declaration***") is made as of the ___ day of _____, 2023 by **ESSEX HOMES OF WNY, INC.** (hereinafter "***Declarant***") under facts and circumstances summarized by the following recitals:

WHEREAS, the Declarant is the owner of real property consisting of 2350 Sweet Home Road (hereinafter "***2350 Sweet Home Road***" or the "***Project Site***") as more particularly described in the metes and bounds legal description of 2350 Sweet Home Road attached hereto as **Schedule "A"**;

WHEREAS, in December of 2016, RAS Development I LLC submitted an application with the Town of Amherst requesting that the Town Board of the Town of Amherst ("***Town Board***") amend the zoning classification of approximately 7.14 acres of a portion of 2360 Sweet Home Road from Office Building District ("***OB***") to Multifamily Residential District Five ("***MFR-5***");

WHEREAS, in September of 2017, RAS Development I LLC submitted an application with the Town of Amherst requesting that the Town Board of the Town of Amherst ("***Town Board***") amend the zoning classification of 2350 Sweet Home Road from General Business District ("***GB***") to Multifamily Residential District Five ("***MFR-5***");

WHEREAS, during its meeting held on March 19, 2018, the Town Board adopted Resolution No. 2018-241 for the purpose of approving an amendment of the zoning classification of 2350 Sweet Home Road from GB to MFR-5 subject to eighteen (18) conditions as contained in Resolution No. 2018-241;

WHEREAS, during its meeting held on March 19, 2018, the Town Board adopted Resolution No. 2018-242 for the purpose of approving an amendment of the zoning classification of a portion of 2360 Sweet Home Road from OB to MFR-5 subject to eighteen (18) conditions as contained in Resolution No. 2018-242;

WHEREAS, the conditions contained in Resolutions 2018-241 and 2018-242 as adopted by the Town Board on March 19, 2018 are identical;

WHEREAS, pursuant to Condition No. 18 as contained in Resolutions 2018-241 and 2018-242, Conditions No. 1 to 14 as imposed by the Town Board on March 19, 2018 are to be subject to a Declaration of Restrictions recorded at the Erie County Clerk's Office;

WHEREAS, Conditions No. 1 to 14 as contained in Resolutions 2018-241 and 2018-242, Conditions No. 1 to 14 as imposed by the Town Board on March 19, 2018 were as follows:

1. That the 5.2 acres of Permanent Open Space as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 shall not be

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

developed as any buildings or other above ground structures, and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space in the front portion of the buildings such that there shall not be any second story windows provided for the second story loft space on the rear portion of the buildings.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

7. That the minimum setback of the residential buildings on the project site from the southern boundary and western boundary of the project site shall be 35 feet.

8. That the minimum setback of Building No. 5 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the northern boundary of 574 North Ellicott Creek Road shall be 109 feet.

9. That the minimum setback of Building No. 6 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the southern boundary of the project site shall be 137 feet.

10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side and the portion of the western side of 2360 Sweet Home Road to be developed for residential purposes. The Landscaping Plan to be prepared by a licensed landscape architect during the site plan review stage for the residential project on 2360 Sweet Home Road shall be prepared based on consideration of input received by the Petitioner from the owners of the parcels directly south of the project site at

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

566, 574, 598 and 620 North Ellicott Creek Road and the owner of the parcel west of the project site at 550 North Ellicott Creek Road.

12. That the Lighting Plan to be prepared during the site plan review stage for the residential project on the project site shall demonstrate that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel at 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

WHEREAS, a metes and bounds legal description of the 5.2 acres of Permanent Open Space referenced above in Condition No. 1, as contained in Resolutions 2018-241 and 2018-242 adopted by the Town Board on March 19, 2018, consisting of a portion of 2360 Sweet Home Road, is attached as **Schedule "B"** (hereinafter **"*Permanent Open Space*"**);

WHEREAS, in July of 2018, RAS Development I LLC filed an Application for relief of Zoning Condition No. 14 as contained in Resolutions 2018-241 and 2018-242 for the purpose of seeking to allow a gated emergency access driveway to be installed connecting 2350 Sweet Home Road and a portion of 2360 Sweet Home to North Ellicott Creek Road;

WHEREAS, during its meeting held on October 1, 2018, the Town Board adopted Resolution No. 2018-1046 for the purpose of approving the requested Relief of Zoning Condition No. 14 as contained in Resolutions 2018-241 and 2018-242 to allow a gated emergency access driveway to be installed connecting to North Ellicott Creek Road subject to six (6) conditions as follows:

1. The gated emergency access connection will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

2. Pursuant to the Town Code, all property owners within 600 ft. of the project site will receive written notice from the Town of any future proposed amendment of any of the zoning conditions.

3. The amended Zoning Condition No. 14 will be incorporated into the Declaration of Restrictions to be recorded at the Erie County Clerk's Office.

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

4. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

5. That the gated emergency access driveway to North Ellicott Creek Road be straightened as much as possible.

6. That the final site plan be fully compliant with fire code.

WHEREAS, on February 21, 2019, a Declaration of Restrictions recorded at the Erie County Clerk's Office at Liber 11341 of Deeds at Page 2501 containing the following sixteen (16) restrictions:

1. That the 5.2 acres of Permanent Open Space as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 and described in the attached Schedule "C" shall not be developed as any buildings or other above ground structures and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space in the front portion of the buildings such that there shall not be any second story windows provided for the second story loft space on the rear portion of the buildings.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

7. That the minimum setback of the residential buildings on the project site from the southern boundary and western boundary of the project site shall be 35 feet.

8. That the minimum setback of Building No. 5 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the northern boundary of 574 North Ellicott Creek Road shall be 109 feet.

9. That the minimum setback of Building No. 6 as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 from the southern boundary of the project site shall be 137 feet.

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side and the portion of the western side of 2360 Sweet Home Road to be developed for residential purposes. The Landscaping Plan to be prepared by a licensed landscape architect during the site plan review stage for the residential project on 2360 Sweet Home Road shall be prepared based on consideration of input received by the Petitioner from the owners of the parcels directly south of the project site at 566, 574, 598 and 620 North Ellicott Creek Road and the owner of the parcel west of the project site at 550 North Ellicott Creek Road.

12. That the Lighting Plan to be prepared during the site plan review stage for the residential project on the project site shall demonstrate that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel formerly consisting of 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Concept Plan prepared by Carmina Wood Morris DPC dated November 16, 2017 and a gated emergency access only driveway connection to North Ellicott Creek Road, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

15. The gated emergency access connection to North Ellicott Creek Road will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

16. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

WHEREAS, in January of 2023, the Declarant filed an Application seeking to amend the zoning classification of a portion of 2350 Sweet Home Road consisting of 0.17 acres from Office Building District ("GB") to Multifamily Residential District Five ("MFR-5");

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

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WHEREAS, in January of 2023, the Declarant filed Application for Relief of Zoning Condition imposed by the Town Board on October 18, 2018 as contained in Resolution No. 2018-1046;

WHEREAS, during its meeting held on _____ __, 2023, the Town Board adopted Resolution No. 2023-__ for the purpose of approving an amendment of the zoning classification of a portion of 2350 Sweet Home Road from OB to MFR-5 and Resolution No. 2023-__ for the purpose of approving the requested Relief of Zoning Conditions contained in Resolution No. 2018-1046; subject to sixteen (16) conditions as follows:

NOW, THEREFORE, in exchange for good and valuable consideration the sufficiency of which is acknowledged, the Declarant agrees to restrict the future use of 2350 Sweet Home Road as described in **Schedule "A"** including the Permanent Open Space consisting of a portion of 2360 Sweet Home Road as described in **Schedule "B"**, in accordance with the conditions as set forth in Resolutions No. 2023-___ and 2023-____as adopted by the Town Board on _____ __, 2023 as follows:

1. That the 5.2 acres of Permanent Open Space as depicted on the Site Plan prepared by Carmina Wood Morris dated December 16, 2022 shall not be developed as any buildings or other above ground structures, and shall remain permanently undeveloped.

2. That the residential development of the project site shall not consist of an apartment complex comprised of rental units but instead shall consist of residential units for sale.

3. That the maximum allowable density of the residential development on the project site shall be 48 units.

4. The residential buildings to be constructed on the project site shall be limited to single-story residential units with second story loft space. Second story windows are not permitted on the rear side of second story loft space in Buildings Building Nos. 4, 5, 6, 7 and 8 as depicted on the Site Plan prepared by Carmina Wood Morris dated December 16, 2022.

5. That maximum allowable height of any building on the project site as measured from finished grade to the peak of the building shall be 30 ft.

6. That there shall be a maximum of four attached residential units in any residential building on the project site.

7. That the portions of the residential buildings that include second story loft space shall have a minimum setback of 35 feet from the southern boundary and the western boundary of the Project Site. Notwithstanding the minimum setback language in the preceding sentence, a first floor only sunroom shall be permitted on the rear side of the residential buildings along the southern side of the Project Site

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

so long as the minimum setback of the first floor sunroom is 22 ft. from the southern boundary of the Project Site and a first floor only sunroom shall be permitted on the rear side of the residential buildings along the western side of the Project Site so long as the minimum setback of the first floor sunroom is 25.97 ft. from the western boundary of the Project Site. Additionally, patios on the rear side of the residential buildings on the southern side of the Project Site shall have a minimum setback of 22 ft. from the southern boundary of the Project Site and patios on the rear side of the residential buildings on the western side of the Project Site shall have a minimum setback of 25.97 ft. from the western boundary of the Project Site.

8. That the minimum setback of Building No. 6 as depicted on the Site Plan prepared by Carmina Wood Morris DPC dated December 16, 2022 from the northern boundary of 574 North Ellicott Creek Road shall be 94 feet.

9. That the minimum setback of Building No. 7 as depicted on the Site Plan prepared by Carmina Wood Morris DPC dated December 16, 2022 from the southern boundary of the project site shall be 137 feet.

10. That a solid high quality vinyl fence with a natural color (not white) with a minimum height of six feet as measured from finished grade shall be installed along portions of the eastern, western and the southern boundary of the project site as depicted on the Site Plan prepared by Carmina Wood Morris DPC dated December 16, 2022.

11. That extensive landscaping as required by the High Impact Screening standard as defined in the Town of Amherst Zoning Code shall be provided along the southern side of the project site and the portion of the western side of the portion of the project site formerly consisting of 2360 Sweet Home Road to be developed for residential purposes in accordance with the Landscape Plan previously approved by the Planning Board.

12. That the lighting to be installed in connection with the residential project shall comply with the Lighting Plan previously approved by the Planning Board demonstrating that the residential project will not result in any lighting spillover onto the parcels contiguous to the project site utilized for residential purposes at 550, 566, 574, 598 and 620 North Ellicott Creek Road. There shall not be any light poles installed on the project site with a height that exceeds 15 feet.

13. That there shall not be an internal driveway located on the Sweet Home Road frontage of the parcel at 2350 Sweet Home Road that connects to the northern side of the parcel formerly consisting of 2360 Sweet Home Road.

14. That with the exception of a driveway that will only service a two-unit building to be located along the North Ellicott Creek Road frontage that is depicted as Building No. 13 on the Site Plan prepared by Carmina Wood Morris DPC dated December 16, 2022 and a gated emergency access only driveway connection to North Ellicott

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Creek Road, there shall not be any driveway or roadway connection from the project site onto North Ellicott Creek Road.

15. The gated emergency access connection to North Ellicott Creek Road will not be accessible by the future residents of the project nor the public and will only be accessible by emergency personnel.

16. That the gated emergency access driveway to North Ellicott Creek Road be paved with a hard surface and not constructed of grass pavers.

The restrictions being established herein pursuant to the conditions contained in Resolutions No. 2023-___1 and 2023-___ as adopted by the Town Board on _____ __, 2023 shall be binding on all parties claiming thereunder and shall run and touch the land except that the recorded restriction can be changed, modified or eliminated by a majority vote of the Town Board.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK
SIGNATURE ON FOLLOWING PAGE]

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

IN WITNESS WHEREOF, the party hereto has the full legal authority to execute this Amended Declaration of Restrictions.

ESSEX HOMES OF WNY, INC.

By: _____
Name: Philip J. Nanula
Title: President

STATE OF NEW YORK)
ss.:
COUNTY OF ERIE)

On this ___ day of _____, 2023, before me, the undersigned, a notary public in and for said state, personally appeared Philip J. Nanula, personally known to me or proved to me on the basis of satisfactory evidence to the be the individual whose name is subscribed to within this instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

SCHEDULE A

Parcel 1:

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York, being part of Lot 82, Township 12 and Range 7 of the Holland Land Company's Survey, being more particularly described as follows:

BEGINNING at the intersection of the northerly line of North Ellicott Creek Road with the westerly line of Sweet Home Road; Thence N 01°58'37 E, along the westerly line of Sweet Home Road, a distance of 258.52 feet; Thence 88°01'23" W, a distance of 213.69 feet; Thence S 00°11'13" W, a distance of 535.55 feet to a point in the northerly line of North Ellicott Creek Road; Thence N 45°33'50" E, along the northerly line of North Ellicott Creek Road, a distance of 30.24 feet; Thence N 22°15'39" E, along the northerly line of North Ellicott Creek Road, a distance of 140.40 feet; Thence N 31°42'11" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 67.33 feet; Thence N 51°23'54" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 68.71 feet; Thence N 66°26'31" E, continuing along the northerly line of North Ellicott Creek Road, a distance of 46.40 feet to the point of beginning, containing 1.742 acres.

Parcel 2 [Formerly 2360 Sweet Home Road]:

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 187.00 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: along the bounds of the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 360.00 feet to a point;
2) S-00°-13'-02"-E, along a easterly line of said North Forest Properties #5 LLC lands, a distance of 72.97 feet to a point;
3) S-88°-54'-31"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 272.22 feet to a point;
4) N-01°-05'-29"-W, along the west line of said North Forest Properties #5 LLC lands, a distance of 780.29 feet to the northwest corner thereof;
5) S-85°-40'-18"-E, along the north line of said North Forest Properties #5 LLC lands a distance of 619.92 feet to a point;

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

THENCE: S-00-12’-50”-E, through said North Forest Properties #5 LLC lands, a distance of 304.96 feet to a point;

THENCE: S-88-25’-26”-E, through said North Forest Properties #5 LLC lands, a distance of 26.18 feet to the west line of said lands described in Liber 6673 of Deeds at page 573;

THENCE: S-00-12’-50”-E, along the west line of said Liber 6673 of Deeds at page 573, a distance of 348.18 feet to the POINT OF BEGINNING, containing 10.22 acres more or less.

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

SCHEDULE B

METES AND BOUNDS LEGAL DESCRIPTION
PERMANENT OPEN SPACE CONSISTING OF A PORTION OF
2350 SWEET HOME ROAD

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Amherst, County of Erie and State of New York being part of Lot No 82, Township 12 Range 7 of the Holland Land Survey, so-called, bounded and described as follows:

BEGINNING at point on the west line of lands described in a deed recorded in the Erie County Clerk's Office in Liber 6673 of Deeds at page 573, distant 187.00 feet N-00-12'-50"-W from the present north right of way line of North Ellicott Creek Road, at the north corner of lands acquired by the New York State Department of Transportation, S. H. 9409, Map 83, Parcel No. 87, recorded in Liber 9210 of Deeds at page 143;

THENCE: along the bounds of the lands conveyed to North Forest Properties #5 LLC by deed recorded in the Erie County Clerk's Office in Liber 11235 of Deeds at page 6110 the following five (5) courses and distances:

1) S-89°-47'-10"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 360.00 feet to a point;
2) S-00°-12'-50"-E, along an easterly line of said North Forest Properties #5 LLC lands, a distance of 72.97 feet to a point;
3) S-88°-54'-31"-W, along a southerly line of said North Forest Properties #5 LLC lands, a distance of 272.22 feet to the southwest corner thereof;
4) N-01°-05'-29"-W, along the west line of said North Forest Properties #5 LLC lands, a distance of 780.29 feet to the northwest corner thereof;
5) S-85°-40'-18"-E, along the north line of said North Forest Properties #5 LLC lands a distance of 619.92 feet to a point;

THENCE: Through said North Forest Properties #5 LLC lands, the following fifteen (15) courses and distances:

6) S-00-12'-50"-E a distance of 166.47 feet to a point;
7) N-87-51'-46"-W a distance of 16.24 feet to a point;
8) S-12-26'-56"-W a distance of 27.13 feet to a point;
9) S-58-06'-54"-W a distance of 97.91 feet to a point;
10) S-46-53'-26"-W a distance of 15.19 feet to a point;
11) S-32-16'-28"-W a distance of 17.19 feet to a point;
12) S-25-41'-59"-W a distance of 28.12 feet to a point;
13) N-80-56'-26"-W a distance of 50.68 feet to a point;
14) N-67-33'-18"-W a distance of 62.20 feet to a point;
15) S-82-26'-00"-W a distance of 63.13 feet to a point;
16) N-71-38'-03"-W a distance of 27.07 feet to a point;
17) S-00-12'-50"-E a distance of 5.50 feet to a point;

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

18) S-88-54’-31”-W a distance of 244.27 feet to a point;
19) S-01-05’-29”-E a distance of 353.63 feet to a point;
20) N-89-47’-10”-E a distance of 598.82 feet to the west line of said lands described in Liber 6673 of Deeds at page 573;

THENCE: S-00-12’-50”-E, along the west line of said Liber 6673 of Deeds at page 573, a distance of 30.00 feet to the POINT OF BEGINNING, containing 5.21 acres more or less.

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Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

March 21, 2023

Daniel C. Howard, Planning Director
Town of Amherst Planning Department
5583 Main Street
Williamsville, New York 14221

Re: Request to Rezone 0.17± Acres of Land from OB to MFR-5 [Z-2023-01]
& Request to Amend Declaration of Restrictions [Z-2016-16D & Z-2017-11B]
Location: 2350 & 2360-2372 Sweet Home Road
Applicant/Project Sponsor: Essex Homes of WNY, Inc.
File No. 10065.10

Dear Mr. Howard:

This letter and the enclosed project documentation is being submitted on behalf of Essex Homes of WNY, Inc. ("Project Sponsor") for the purpose of responding to Comment No. 1 as contained in the letters you issued dated March 14, 2023 relative to above referenced pending land use applications. Comment No. 1 stated as follows: "1.Complete the attached revised Town of Amherst Addendum to the EAF."

Enclosed are three (3) copies of the completed Page 5[a] of the Environmental Assessment Form that is applicable to both pending land use applications along with three (3) copies of the Geotechnical Report prepared by Barron & Associates P.C. dated October 11, 2017.

Please feel free to contact me at 510-4338 or via e-mail at shopkins@hsmlegal.com if you have any questions this letter or the enclosed documentation.

Sincerely,

HOPKINS SORGI & MCCARTHY PLLC

Sean W. Hopkins, Esq.

Enc.
cc: Phil Nanula, Essex Homes of WNY, Inc. [Via e-mail w/enclosures]
Kevin Curry, Essex Homes of WNY, Inc. [Via e-mail w/enclosures]
Jon Barniak, Carmina Wood Design DPC [Via e-mail w/enclosures]

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

HOPKINS SORGI & MCCARTHY PLLC
Attorneys at Law
5500 Main Street, Suite 343 • Williamsville, New York 14221
Direct: 716-510-4338 • E-mail: shopkins@hsmlegal.com • www.hsmlegal.com

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --
Date: March 21, 2023

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Cosad Loamy Fine Sand	Severe	Severe	Severe	Severe	Moderate
Odessa Silt Loam	Severe	Severe	Severe	Severe	Severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   X Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? ☐ Yes ☒ No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? ☐ Yes ☒ No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? ☐ Yes ☒ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   Not applicable.

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: ☐ Yes ☒ No

   Describe _____

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project Not applicable.
   Source: _____

8. Will blasting occur during construction? ☐ Yes ☒ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ☐ Yes ☒ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    0 average flow 0 peak flow.

    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? ☐ Yes ☒ No

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

BARRON & ASSOCIATES, P.C.
10440 Main Street
Clarence, New York 14031

Tel: (716) 759-7821 www.barronandassociatespc.com Fax: (716) 759-7823

October 11, 2017 Job No: 17-586

RAS Development Company, LLC
4758 North French Road
East Amherst, New York 14051

ATTN: Mr. Robert Savarino

RE: Preliminary Geotechnical Engineering Report
Proposed Rezoning of Parcel
2350 Sweet Home Road
Town of Amherst, Erie Co., New York 14228

Gentlemen:

This Barron & Associates, P.C. - Buffalo Drilling Company, Inc. (B&A-BDC) letter report presents the findings of the subsurface investigation program and the geotechnical engineering recommendations for the above referenced project. The geographic orientation of the site is illustrated on the U.S. Geologic Survey (USGS) site location map in Figure No. 1. The project site is illustrated in Figure No. 2 and entitled "Test Boring Location Plan". The test boring log is shown in Appendix A. Refer to Appendix B entitled, "Geotechnical Reference Standards", for an explanation of the terminology that is used for soil and rock descriptions.

SITE AND SUBSURFACE CONDITIONS

SITE CONDITIONS: The proposed project site is addressed as 2350 Sweet Home Road in the Town of Amherst, New York and includes an existing single-story building, large asphalt parking lot and entrance roadway addressed. The site topography is relatively level.

PREDOMINATE SUBSURFACE CONDITIONS: A synopsis of the subsurface fill, soil, bedrock and groundwater conditions is as follows:

- Asphalt Pavement: At the boring location a thin two-inch-thick layer of asphalt exists at the ground surface.
- Random Fill Materials: Cohesive fill material was encountered and extends a total depth of four feet below ground surface. This fill consists primarily of silty clay with varying amounts of fine to course sand and gravel. This moderately plastic fill is noted to be in a moist state.
- Organic Materials: No buried topsoil or peat layers were noted to be encountered within the natural soil layers. Organic materials are unacceptable for foundation and load bearing purposes.
- Naturally Deposited Soils: The natural soil deposits in this area of the Town of Amherst are predominately composed of alluvial silty sand and lacustrine silty clay that mantles cohesive glacial till. Beneath the fill, a two-foot-thick layer of silty sand exists in a medium dense and moist state. Beneath the silty sand, lacustrine silty clay exists and extends approximately 30 feet below existing ground surface. This moderately plastic soil ranges from moist and very stiff within the upper portions of the unit to soft and wet below a depth of 14 feet. Based upon regional geology and nearby test borings, hard cohesive glacial till is expected to within close proximity to the bottom of the test boring.
- Bedrock: Auger refusal, generally inferred to be the top of competent bedrock, was not encountered. Based upon our experience and knowledge of regional geology bedrock is expected to be the Camillus Shale Formation.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

- Groundwater Measurements: At the completion of drilling, groundwater was not encountered. The static groundwater level is believed to be below the assumed bearing elevations and no other severe groundwater condition was encountered during the subsurface exploration.

SEISMIC/EARTHQUAKE CONSIDERATIONS: For the given site conditions, the most applicable site definition is Site Class E, as listed in Table 1615.1.1 and Table 1615.1.5 of the Building Code of New York State, © 2010. The design spectral response acceleration parameters S_{DS}, at 0.2 seconds, and S_{D1}, at one second, are 0.37g and 0.12g (g = 32.2 feet/sec^2), respectively.

FOUNDATION AND CONSTRUCTION RECOMMENDATIONS

BUILDING(S): The proposed site development, top of finish first floor elevations and maximum design loads are not known at the time of this preliminary report.

FOOTINGS: Due to the presence of random fill materials, exterior and interior footings are recommended to be placed a minimum of four feet or lower below final grade. The frost depth for Amherst, New York is three and one-half feet. All footings for proposed buildings are recommended to be designed at/near the same contact pressure.

The footings should bear directly on the approved medium dense or better natural inorganic silty sand or on a thoroughly compacted (i.e., 95 percent minimum of ASTM D1557 maximum dry density) select/approved granular fill or other approved fill (i.e., fill used for a raised subgrade) section that extends to the approved stiff or better natural inorganic soil. Refer to Appendix D entitled "General Earthwork Specification", for definition of fill types and gradations, recommended minimum compaction requirements for various site developments, and placement and compaction methods.

The maximum net allowable bearing capacity for continuous strip and spread footings is preliminarily recommended not to exceed 2,000 pounds per square foot (psf) of footing area on approved natural soils or compacted select granular fill. Total and differential settlements of less than one inch and three-fourths of an inch, respectively, may be expected.

FLOOR SLABS: Prior to fill placement, the exposed subgrade surface would be thoroughly compacted and proofrolled. Typically, any encountered soft/medium stiff soils/fills would be removed for subsequent replacement with a select or approved compacted (i.e., minimum 92 percent of the maximum dry density from ASTM D1557) granular fill. If suitable for reuse on-site, the in-place or excavated existing fills/natural soft/medium stiff soils would be conditioned (i.e., sorted, dried, blended) and thoroughly compacted. Where required to raise the subgrade, an approved soil/fill will be placed and thoroughly compacted in thin lifts.

A geotextile fabric that separates the subgrade or raised subgrade and the select granular base layer is recommended. The use of a thin gravel cushion, as a capillary break, or a thin sand cushion over a vapor barrier that is placed beneath the concrete slabs are at the discretion of the design architect/engineer or as required by local code.

Above the approved subgrade, a minimum eight-inch thick select granular fill (i.e., number two crusher run stone or equal) layer is preliminarily recommended as the base course for a concrete floor slabs. The recommended subgrade modulus at the top of the base layer for a concrete floor slab bearing on a thoroughly compacted (i.e., minimum 95 percent compaction) base layer and prepared soil/fill subgrade (i.e., minimum 92 percent compaction) is recommended not to exceed 150 pounds per cubic inch with a Poisson Ratio of 0.40. Isolation of the floor slabs from the foundations-piers-columns and walls appear to be warranted.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

PAVEMENT: It is preliminarily recommended that the approved subgrade surface is adequately graded and/or underdrains are installed to prevent water accumulation. Typically, on an approved subgrade surface (i.e., minimum 92 percent compaction), a minimum three-inch asphalt thickness over a minimum eight-inch thick thoroughly compacted (i.e., minimum 95 percent compaction) select granular layer, as the base course, are recommended for lightly traveled roadway and parking areas (standard duty section). Geotextile filter and strength fabric, on cohesive/fine-grained soil subgrades, and a minimum four-inch asphalt thickness over a minimum 12-inch thick thoroughly compacted base course are recommended for all truck routes and heavily traveled roadways (heavy duty section).

LIMITATIONS: This report is based on the information that is provided by project representatives and the subsurface conditions that were encountered at the test boring locations. Due to the nature of the investigation method, additional test borings and/or test pit excavations will provide a greater level of delineation of the subsurface soil/fill/rock conditions than can be defined by the single test boring data alone. As detailed in Appendix E "Limitations, modification regarding proposed building/structure locations and other site developments can result in changes to the provided recommendations.

Thank you for the opportunity to assist on this project. If questions should arise, please call either of the undersigned at your earliest convenience.

Very truly yours,
BARRON & ASSOCIATES, INC.
and
BUFFALO DRILLING COMPANY, INC.

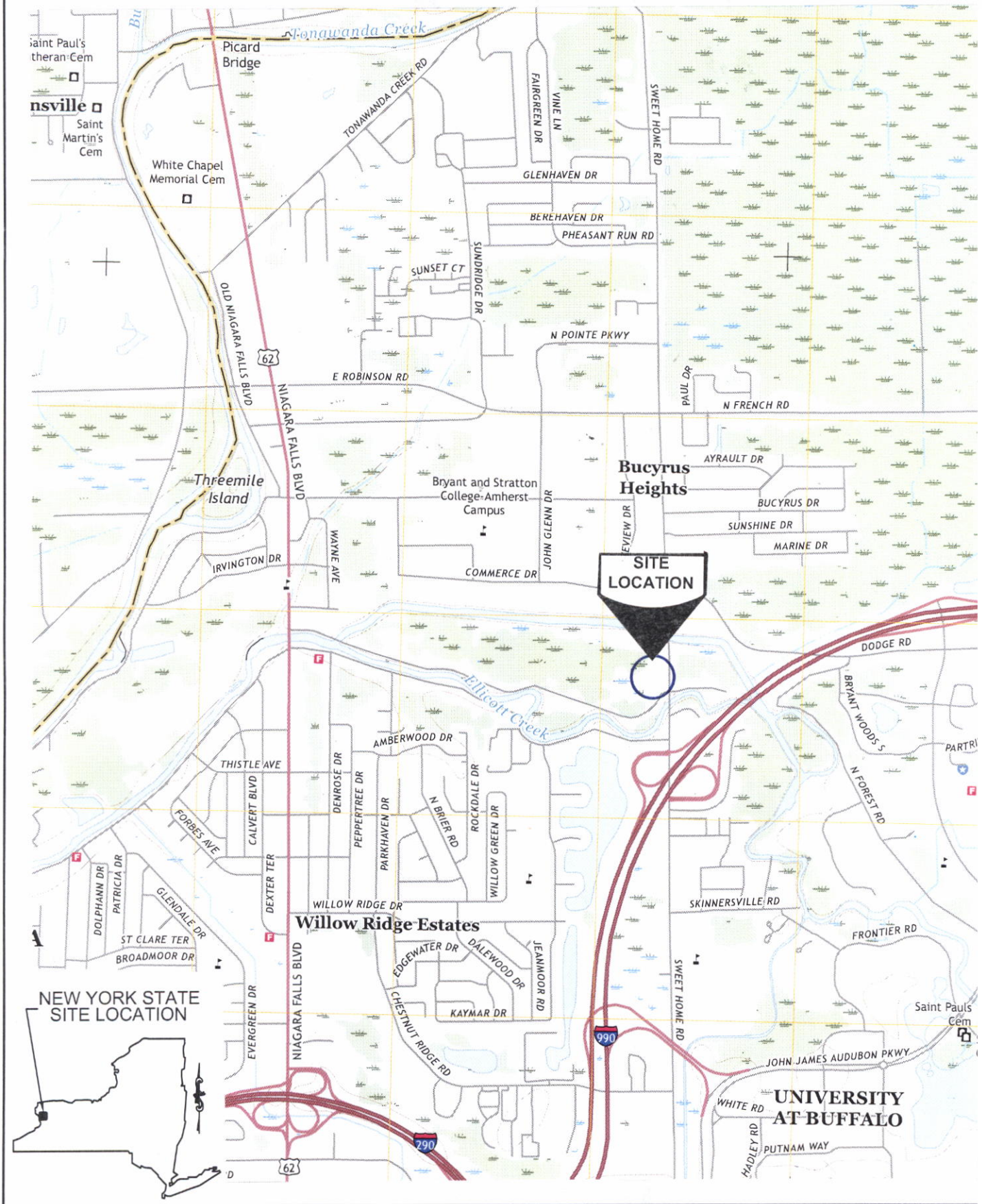
Andrew J. Camping
Senior Geologist

James S. Barron, P.E.
President

STATE OF NEW YORK
JAMES S. BARRON
58612
LICENSED PROFESSIONAL ENGINEER

10.12.17

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)



BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

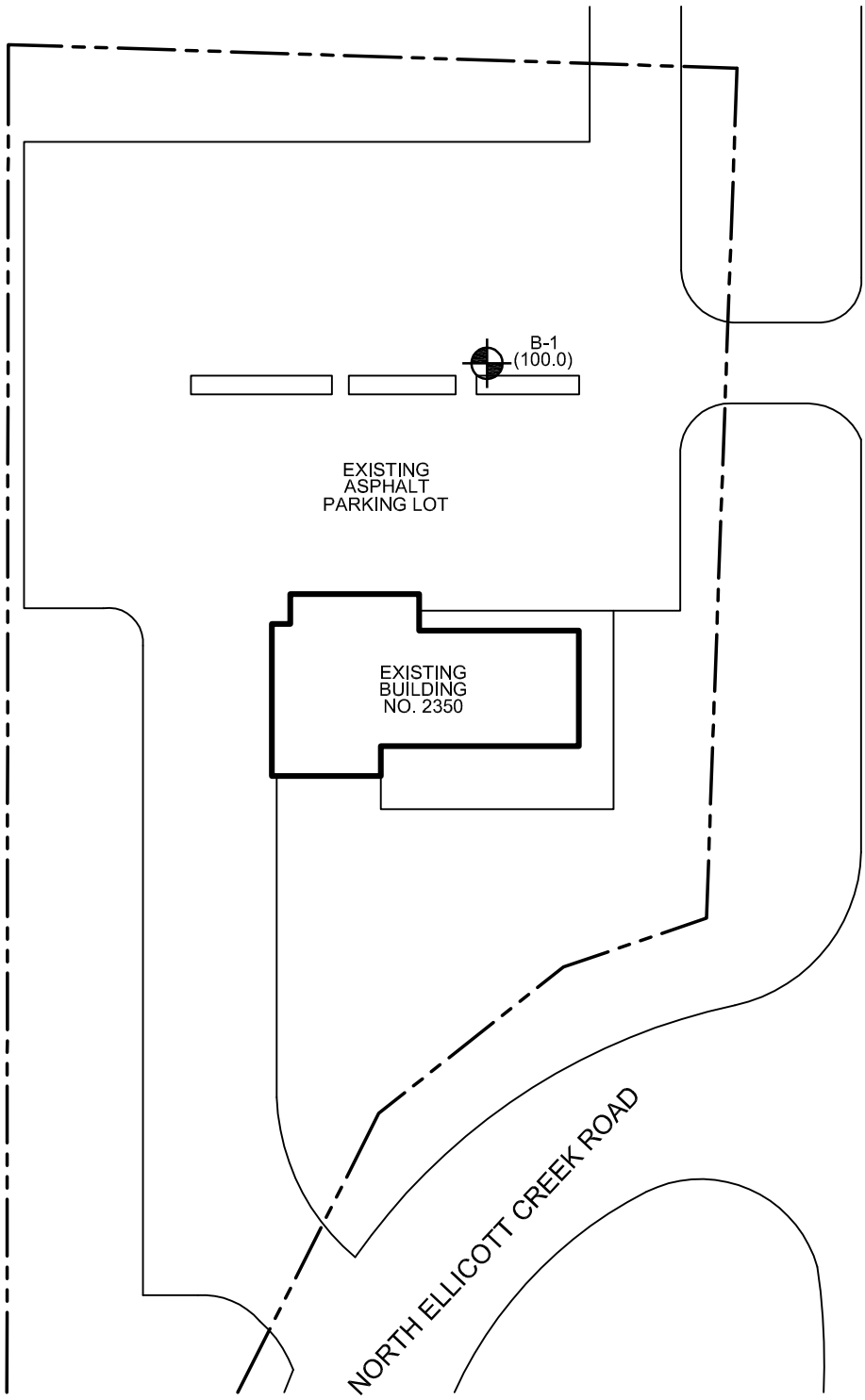
CLIENT: RAS DEVELOPMENT COMPANY, LLC
4758 NORTH FRENCH ROAD
EAST AMHERST, NEW YORK 14051

PROJECT: PROPOSED REZONING OF PARCEL
2350 SWEET HOME ROAD
TOWN OF AMHERST, ERIE CO., NEW YORK 14228

USGS SITE LOCATION PLAN
TONAWANDA EAST, QUAD
2016

JOB NO.: 17-586	SCALE: 1" = 2000' ±
DATE: 9/14/2017	FIGURE NO. 1

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)



LEGEND

B-1 = TEST BORING & NO.

(100.0) = RELATIVE GROUND SURFACE ELEVATION (FT.)

NOTES:

1. BORING, BUILDING, SITE FEATURES, PROPERTY LINE LOCATIONS, & SCALE OF DRAWING ARE APPROXIMATE.
2. BASE MAP REFERENCE PROVIDED BY A FIELD SKETCH FROM A BARRON & ASSOCIATES, P.C., REPRESENTATIVE ON 9/11/2017.

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

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2350 SWEET HOME ROAD
TOWN OF AMHERST, ERIE CO., NEW YORK 14228

TEST BORING LOCATION PLAN

0

JOB NO.: 17-586 | SCALE: NOT TO SCALE

DATE: 9/14/2017 | FIGURE NO. 2

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

APPENDIX A

TEST BORING LOGS

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

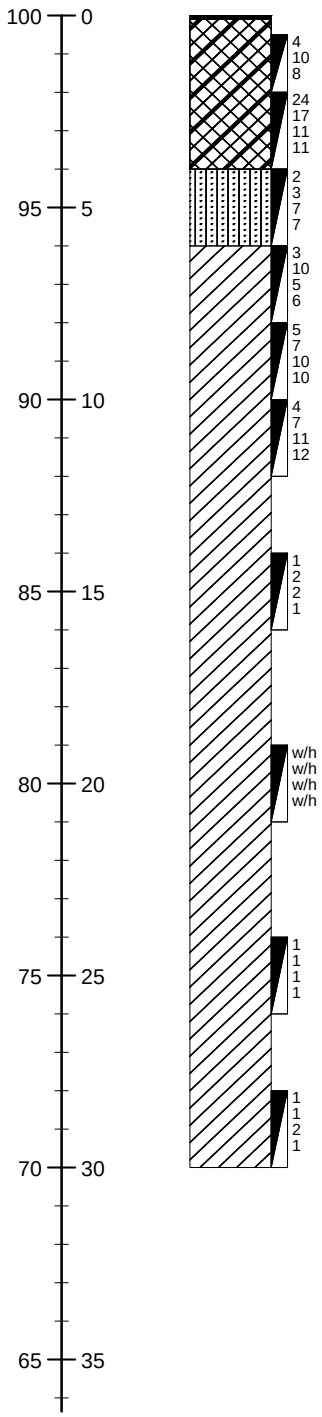
TEST BORING LOG

4.a

JOB No.: 17-586 **BORING No.:** B-1

PROJECT: Proposed Rezoning of Parcel
2350 Sweet Home Road, Town of Amherst, Erie Co., New York 14228

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	9/20/17	**SURFACE ELEVATION (ft.):**	100.0
DATE COMPLETED:	9/20/17	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None



Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
			Asphalt (2")
S-1 : 0.5'- 2.0'	18	20	Grayish brown, v. stiff Clay, some Silt, little Gravel, little f/c Sand, mod plastic, moist (CL-Fill)
S-2 : 2.0'- 4.0'	28	20	...grade: and Gravel
S-3 : 4.0'- 6.0'	10	50	Gray, m. dense f/c SAND, some Silt, tr. Gravel, tr. Clay non-plastic, moist (SM)
S-4 : 6.0'- 8.0'	15	90	Gray, v. stiff CLAY, some Silt, little f. Sand, tr. Gravel, mod. plastic, moist (CL)
S-5 : 8.0'- 10.0'	17	30	...grade: Brown, tr. f. Sand (Varved)
S-6 : 10.0'- 12.0'	18	40	Same as S-5
S-7 : 14.0'- 16.0'	4	90	...grade: m. stiff, little Silt, wet (Not Varved)
S-8 : 19.0'- 21.0'	1	100	...grade: v. soft
S-9 : 24.0'- 26.0'	2	100	...grade: soft
S-10 : 28.0'- 30.0'	3	100	Same as S-9
			Depth to Bottom of Hole: 30.0 feet

Logged by: B. Smith

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

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BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

APPENDIX B

GEOTECHNICAL REFERENCE STANDARDS

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

GEOTECHNICAL REFERENCE STANDARDS
SUMMARY OF LOGGING TECHNIQUES

Depth (ft.)	Blows per .5 ft.	Sample No.	N	% REC (RQD)	SOIL AND ROCK DESCRIPTION	REMARKS

Depth- The depth column provides the verticle scale of the boring log in feet below ground surface.

The number of blows obtained from each of the 0.5 ft. intervals of sampler penetration.

NOTE: WR represents the static weight of drill rods. WH represents the static weight of rods and hammer.

Sample Identification Number- Disturbed samples are identified with "S" preceding the sample number. Undisturbed samples (shelby tube) samples are identified with "U" preceding the sample number. Rock core samples are identified with "C" preceding the core run.

% Recovery- The length of sample recovered divided by the total length sampled. The result is numerically expressed as percent.

(RQD)- The "Rock Quality Designation". The total length of pieces>4 inches divided by the total length of core run.

N-value- The Standard Penetration Test N-value, as specified by ASTM D1586 is defined as the number of blows required by a 140-pound hammer falling 30 inches each blow to drive a 2 inch outside diameter split spoon sampler 12 inches.

TERMINOLOGY USED FOR SOIL DESCRIPTION

Density Description of Granular Soil

Number of Blows per ft., N.	Relative Density
0-4	Very loose
4-10	Loose
10-30	Medium
30-50	Dense
Over 50	Very dense

Consistency Description of Cohesive Soil

Number of Blows per ft., N.	Consistency
Below 2	Very soft
2-4	Soft
4-8	Medium
8-15	Stiff
15-30	Very stiff
Over 30	Hard

Grain Size

Boulder - greater than 12 inch diameter
Cobble - passing 12 inch, retained on 3 inch
Gravel - passing 3 inch, retained on No. 4 sieve
Sand - Coarse - passing No. 4 sieve, retained on No. 10 sieve
Medium - passing No. 10 sieve, retained on No. 40 sieve
Fine - passing No. 40 sieve, retained on No. 200 sieve
Silt - 0.074 mm to 0.005 mm
Clay - smaller than 0.005 mm

Description of Percentage or Proportions Used in Soil Sample Classification

Trace	0-10%
Little	10-20%
Some	20-35%
And	35-50%

Abbreviations Used In Soil Sample Classification

f - fine	v - very
m - medium	gr - gray
c - coarse	bn - brown
f/m - fine to medium	yel - yellow
f/c - fine to coarse	sl - slight
tr - trace	

Plasticity

Non-plastic - A 1/8 inch thread cannot be rolled at any water content.
Slight plasticity - The thread can barely be rolled.
Moderate Plasticity - Thread is easy to roll and little time is required to reach plastic limit.
Plastic - Considerable time is required to reach plastic limit. Thread can be re-rolled several times after reaching the plastic limit.

Moisture

Dry - Absence of moisture, dusty, dry to the touch.
Moist - Small quantity of moisture. Soil usually above groundwater level.
Wet - Moisture noticeable to the touch. Soil may be below groundwater level.
Saturated - Visible free water, usually soil is below groundwater level.

TERMINOLOGY USED FOR ROCK DESCRIPTION

Bedding

Parting	Less than 0.02 ft.
Band	0.02 to 0.2 ft.
Thin bed	0.2 to 0.5 ft.
Medium bed	0.5 to 1.0 ft.
Thick bed	1.0 to 2.0 ft.
Massive	Over 2.0 ft.

Hardness

Very Soft or Plastic - Can be indented w/ thumb
Soft - Can be scratched with fingernail
Moderately Hard - Can be scratched easily with knife; cannot be scratched with fingernail
Hard - Difficulty to scratch with knife
Very hard - Cannot be scratched with knife

Crystallinity or Texture

Dense - Crystals are so small they cannot be distinguished with the naked eye.

Very Fine Crystalline - Crystals barely discernible with the naked eye.

Crystalline - Crystals are medium size -up to 1/8 inch diameter.

Very Coarsely Crystalline - Crystals larger than 1/8 inch diameter.

Voids

Pourous - Smaller than a pinhead. Their presence is indicated by the degree of absorbency.
Pitted - Pinhead size to 1/4 inch. If only thin walls separate the individual pits, the core may be described as honeycombed.
Vug - 1/4 inch to the diameter of the core. The upper limit will vary with core size.
Cavity - Larger than the diameter of the core.

Remarks - Denotes exact depth of recovery and general documentation of drilling efforts.

Notes - Description and classification are based on visual inspection of samples and boring operations.

The stratum lines shown on the boring logs are based upon interpretation and may not represent precise subsurface conditions.

Water level readings have been made in the drill holes at times and under conditions stated on the boring logs. Fluctuations in the water level may occur due to other factors than those present at the time measurements taken.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

SOIL CLASSIFICATION CHART
(Unified Soil Classification System)

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE-GRAINED SOILS More than 50% of material larger than No. 200 sieve	GRAVELS- More than 50% of coarse fraction larger than No. 4 sieve	Clean Gravels (little or no fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with appreciable amounts of fines		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS- Less than 50% of coarse fraction larger than No. 4 sieve	Clean sands (little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sands, little or no fines
		Sand with appreciable amounts of fines		SM	Silty sands, silt-sand mixtures
				SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS Less than 50% of material larger than No. 200 sieve	SILTS AND CLAYS Low plasticity Liquid Limit < 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS High plasticity Liquid limit > 50%			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
	Highly Organic Soils			Pt	Peat, humus, swamp soils with organic contents
	Miscellaneous Fill			FILL	Miscellaneous fill may belong in any division but is identified as FILL

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

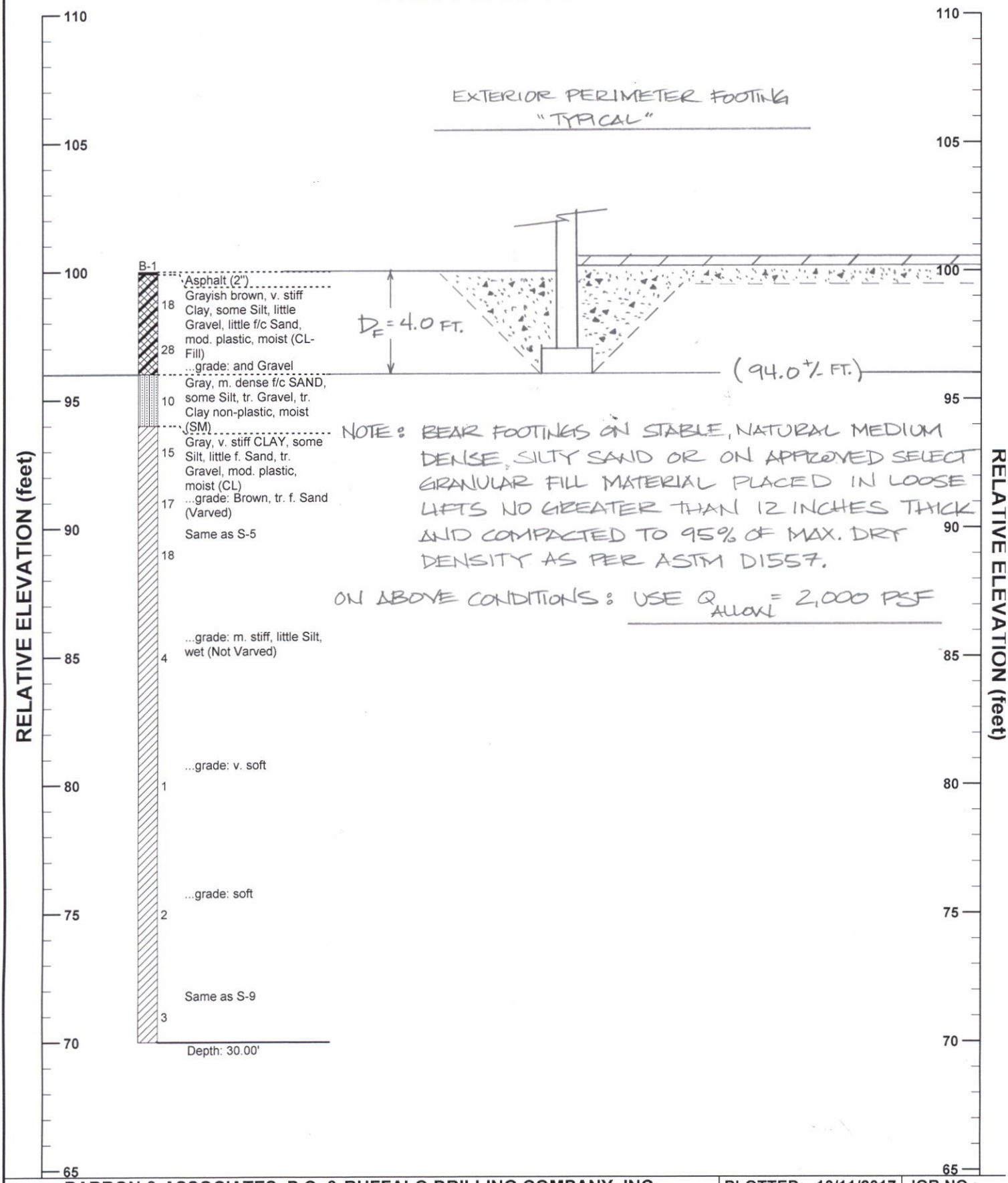
BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

APPENDIX C

ENGINEERING COMPUTATIONS AND SCHEMATICS

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

"PROFILE OF BORING"



BARRON & ASSOCIATES, P.C. & BUFFALO DRILLING COMPANY, INC. 10440 MAIN STREET, CLARENCE, NEW YORK 14031	PLOTTED: 10/11/2017 BY: A. Camping	JOB NO.: 17-586
PROJECT: Proposed Rezoning of Parcel 2350 Sweet Home Road, Town of Amherst, Erie Co., New York 14228	PAGE NO.: 1 of 3	FIGURE NO.: P-1

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

DATA INPUT BY: Andrew J. Camping
B&A JOB NO.: 17-586
CLIENT: RAS Development Company, Inc.
PROJECT: Proposed Rezoning of Parcel
2350 Sweet Home Road
Town of Amherst, Erie Co., New York 14228

BUILDING CODE OF NEW YORK STATE © - 2010: USGS 2008 ACCELERATIONS at 2% IN 50 YEARS CALCULATED BY LATITUDE AND LONGITUDE

Site Latitude (○) = +43.0228

Site Longitude (○) = -78.7996

Seismic Site Class = E

Building/Structure with Shallow Foundation

S_s = 0.2 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_s

LAT. = \ LONG. =	-78.8000	-78.7996	-78.7500
43.0000	0.22071		0.22114
+43.0228	0.22013	0.22013	0.22045
43.0500	0.21944		0.21963

S_1 = 1.0 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_1

LAT. = \ LONG. =	-78.8000	-78.7996	-78.7500
43.0000	0.05105		0.05122
+43.0228	0.05104	0.05104	0.05120
43.0500	0.05102		0.05117

SEISMIC SITE CLASS	Site Coefficient and Design Spectral Response Acceleration Values			
	0.2 Second		1.0 Second	
	F_a	$S_{ds} = 0.6667 * F_a * S_s$	F_v	$S_{d1} = 0.6667 * F_v * S_1$
A	0.8000	0.1174 g	0.8000	0.0272 g
B	1.0000	0.1468 g	1.0000	0.0340 g
C	1.2000	0.1761 g	1.7000	0.0578 g
D	1.6000	0.2348 g	2.4000	0.0817 g
E	2.5000	0.3669 g	3.5000	0.1191 g
F	2.5000	0.3669 g	3.5000	0.1191 g

<<------- USE THESE VALUES FOR SHALLOW FOUNDATIONS

NOTE: F_a and F_v values are linearly interpolated, for the above S_s and S_s values, respectively, within the appropriate range of the mapped spectral response accelerations.
(Gridded data at 0.05 degree increments from: http://earthquake.usgs.gov/research/hazmaps/products_data/2008/data/)

Z:\Reports\Seismic and Engineering Sheets\USGS 2008 Seismic g's (Job version 1.0)

Created By: Carmen M. Panuccio

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

B&A JOB NO.: 17-586

DATE: 10/11/17

LATERAL EARTH PRESSURE ON GENERIC BLOCK FOUNDATIONS FOR SIGNS, FREE-STANDING RETAINING WALLS, OR BELOW GRADE/BASEMENT/TANK/POOL RETAINING WALLS (Less Than 20 Feet High)

a) Porous filter media, in contact with the basement/below grade foundation wall or retaining walls, protects and is in contact with a minimum 4 inch diameter perforated drainage pipes at the footing/base of the foundation/structural wall (exterior backfill side and interior basement side) and/or weep pipes through the wall, as needed and as applicable.

b) Where recommended, a geotextile filter fabric will protect the gravel filter media from the earth backfill. Overlap unsewn seams as per the manufacturer's recommendations.

c) Waterproof earth side of wall, as is customarily provided in practice.

d) Drainage pipes are connected to an appropriately designed collector pipe, conveyance, and/or sump pump system as is applicable for the intended purpose of the wall and as customarily provided/installed in practice.

e) For potential groundwater table conditions above the top of the basement slab-on-grade condition, install continuous waterstops (with no joints in stop) at wall and floor construction joints, as is customarily provided in practice. Interior intermediate drainage pipes beneath the slab, that are spaced on-center and in both directions, do appear to be needed.

f) Assume a uniformly graded, clean coarse sand or sandy gravel backfills:

* equivalent N-value in a dense state: $(N_1)_{60}$ = 40 blows/foot
* friction angle: ϕ' = 38 degrees {Teng, pg. 12}
* average in-place densities: moist - γ_m = 120 pcf
  saturated - γ_{sat} = 132 pcf submerged - $\gamma' = (\gamma_{sat} - \gamma_w)$ = 70 pcf

g) Assume at base of wall/footing, coefficient of friction against sliding (f_s) at base of wall (Refer to Teng, pg. 320-1):

$f_s = \tan(0.58 \times \phi') = 0.40$ (AREA silty soil to silty coarse-grained soil)

h) Use equivalent fluid pressure design approach {Hough, pg. 249 and NAVFAC pg. 7-10-9}:

* at rest pressure coefficient - $K_0 = 1 - \sin(\phi') = 0.38$
* effective lateral pressure of soil - $\gamma'_l = K_o \times \gamma' = 26.6$ pcf
* hydrostatic pressure - $\gamma_w = 62.4$ pcf
* equivalent fluid pressure with water level at the top of the grade at the wall - $\gamma_{eo} = \gamma'_l + \gamma_w = 89$ pcf (say 90 pcf)
* equivalent fluid pressure with compaction induced lateral stress increase (W&F, pg 409) $\gamma_{eo} = 2 \times K_o \times \gamma_m = 91$ pcf (say 90 pcf)
* active pressure case - $K_a = [1 - \sin(\phi')] / [1 + \sin(\phi')] = 0.24$
  $\gamma_{ea} = K_a \times \gamma_m = 29$ pcf (say 30 pcf)
* passive pressure case - $K_p = [1 + \sin(\phi')] / [1 - \sin(\phi')] = 4.2$
  $\gamma_{ep} = K_p \times \gamma_m = 504$ pcf (say 330 pcf with a F.S. = 1.5)

		Thoroughly Compacted ⇒⇒	Uniformly Graded & Clean Coarse Sand or Sandy Gravel Fill	Non-Plastic Silty Sand or Sandy Silt Fill	
USE:	Earth Pressure Coefficient	Static Active =	0.24	0.33	
		Static At-Rest =	0.76	1.00	
		Static Passive =	2.80	2.00	(with F.S. = 1.5)
		Static Passive =	4.20	3.00	(with F.S. = 1.0)
USE:	Equivalent Fluid Pressure	Static Active =	30 pcf		
		Static At-Rest =	90 pcf (for rigid walls)		
		Static Passive =	330 pcf (with F.S. = 1.5)	[500 pcf with (with F.S. = 1.0)]	

[For earthquakes, structural engineer may elect to use the above Static Passive case instead of the below Earthquake Lateral Load for Non-Yielding Wall movement into the soil backfill.]

USE: Simplified Model for Earthquake Lateral Load/Ft. Wall Length @ 0.6 H_{bw} above base. Loads for Non-Yielding Wall. H_{bw} = Earth Height Behind Wall (feet)

Reduce load by 33% for Yielding Wall (active case) = (6.8 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.25 g)

(γ_m = 120 pcf for S_{ds} value. Add to Static At Rest/ Active Pressure/Load for unsaturated backfill case) = (13.5 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.50 g)

= (17.5 psf / foot) x H_{bw}^2 (NEern NYS, $S_{ds} \leq 0.65$ g)

[Above for Site Class C to E soils. Interpolate for other S_{ds} values.
Use 1.75 x values for walls on Class B/A rock or on rigid foundation base. (FEMA NEHRP Guidelines)]

Saturated/Liquified Soil During Earthquake = 132 pcf
(Equivalent Fluid Pressure. Add to inertial hydrodynamic pressure, not presented here.)

{For looser/denser backfills, adjust above pressures by the ratio = new density / 120 pcf or / 132 pcf (for saturated case)}

USE:	Coefficient of Friction Against Sliding (f_s) =	0.45	(on compacted NYSDOT Item #304.12 or #304.14 gravels)
	(use lowest f_s with no underlying weaker layers) =	0.35	(on compacted granular soil & non-plastic silt)
	=	0.20	(slab-on-grade on polyethylene on granular fill)
	[with a F.S. = 1.0] =	0.60/0.50	(on clean, rough, & sound bedrock/smooth bedrock)
	Min. Factor of Safety Against Sliding =	1.5	*[Rev.9-30-09]*

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

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BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
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APPENDIX D

GENERAL EARTHWORK SPECIFICATION

Barron & Associates, P.C.
GENERAL EARTHWORK SPECIFICATION

PART 1 GENERAL

1.1 SITE AND SUBSURFACE CONDITIONS

1.1.1 Overview

This specification is included as a courtesy to the clients of Barron & Associates, P.C, and addresses earthwork site preparation. Additions and modifications are necessary to create a job-specific specification. This specification may serve as a basis for the development for a technical specification under Division 2, *Site Work*.

1.1.2 Site Conditions

The site-specific conditions are described under separate cover or may be available from the OWNER.

1.1.3 Subsurface Conditions

The site-specific subsurface conditions are described under separate cover or may be available from the OWNER.

1.2 REFERENCES

American Standard for Testing and Measurement (ASTM):

ASTM C136	Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C2922	Density for Soil and Soil-Aggregate in Place by Nuclear Methods
ASTM D422	Test Method for Particle-Size Analysis of Soils
ASTM D1140	Amount of Material in Soils Finer Than the No. 200 Sieve
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft^3)
ASTM D2216	Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D2487	1990 Classification of Soils for Engineering Purposes
ASTM D4318	Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.3 DEFINITIONS

1.3.1 Unacceptable Material

Soil material containing debris, wood, scrap material, vegetation, refuse, soft unsound particles, and other organic, frozen, deleterious, or objectionable materials. Contaminated soils shall be properly documented and removed or remediated on site. If necessary, remediation procedure will be defined by the OWNER.

1.3.2 Unsuitable Material

Brown, organic topsoil and underlying soft pockets of organic silt or wet, reworked silty clay.

1.3.3 Ordinary Fill

Friable soil containing no stone greater than two-thirds loose lift thickness and no unacceptable or unsuitable materials. In general, existing random fill is expected to be acceptable for reuse as ordinary fill given proper sorting, blending, drying, and controlled placement methods.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

1.3.4 Granular Fill

Ordinary fill meeting the designation of ASTM D2487 classification of GW with a maximum of 10 percent by weight passing ASTM D1140, No. 200 sieve.

1.3.5 Select Granular Fill

Clean, uncoated soil which contains no unacceptable materials and conforms to the gradation requirements defined in Table A: Select Granular Fill.

Table A: Select Granular Fill	
Sieve Size	Percent Finer by Weight
2/3 of the loose lift thickness	100
No. 10	30 - 95
No. 40	10 - 70
No. 200	0 - 15

1.3.6 Sand and Gravel

Clean, hard, durable, uncoated particle of sand and gravel, free from lumps of clay, containing no unacceptable matter, and conforming to gradation requirements of *Table B : Sand and Gravel*

Table B: Sand and Gravel	
Sieve	Percent Finer by Weight
*	100
No. 4	50 - 85
No. 10	--
No. 40	10 - 35
No. 100	--
No. 200	0 - 8

* Job-Specific. To be determined by the ENGINEER

1.3.7 Crushed Stone

Clean, durable, sharp-angled fragments of rock or crushed gravel stone of uniform quality, containing no unacceptable matter, free from coatings, and conforming to gradation requirements of *Table C: Crushed Stone*

Table C: Crushed Stone		
	Percent Passing	
Sieve Size	¾-inch Stone	1 ¼-inch Stone
1 ½-inch	__	100
1 ¼-inch	__	85-100
1- inch	100	__
¾-inch	90-100	10-40
5/8-inch	__	__
½-inch	10-50	0-8
3/8-inch	0-20	__
#4	0-5	__

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

1.3.8 Flowable Fill

Also known as Controlled Low Strength Material – Controlled Density Fill (CLSM-CDF), this material is available under a variety of producer names (e.g., K-Krete©, M-Crete, Flash Fill©, Flowable Mortar, Unshrinkable Fill, etc.). This non-settling backfill mixture is most commonly used for its flowable characteristics, its support strength under traffic loads, and its removability at a later date. The material may be produced on-site or off-site. In either case, the producer of such materials and the product must meet certain certification criteria. Such information is beyond the scope of this specification and will be considered on a site-specific basis.

Flowable fill may be acceptable for use as a backfill for utility trenches of other low-lying areas which require a compacted granular fill. Its use and warranty of performance is left to the CONTRACTOR in such applications.

The use of flowable fill under load-bearing structural components in place of properly placed and compacted granular fill is NOT common and is questionable. The localized use of such material may have profound affects on the performance of a foundation system. Site-specific conditions and the extent of anticipated use of flowable fill must be examined by geotechnical engineer. Cost of such consultation shall be borne by the CONTRACTOR unless specifically directed by the OWNER to seek such consultation. Without such consultation, warranty of performance for such use is left to the CONTRACTOR.

1.4 SUBMITTALS

The following submittals shall be provided in accordance with approved submittals procedures.

1. Fill Source: Provide name and source locations of fill material.

2. Field Test Reports: Field tests will be performed by OWNER's Representative as needed. CONTRACTOR may be required to perform such tests on proposed off-site fill materials.
a. Fill material grain size analyses per ASTM C136, D422, D1140, D2487
b. Moisture/Density test results per ASTM D2216
c. Liquid limit, plastic limit, and plasticity index per ASTM D4318
d. Compaction/Density test results per ASTM C2922 and D1557

3. Sample: Geotextile fabric

PART 2 PRODUCTS

Geotextile Fabric: Mirafi 600X or equal. (Also referred to as synthetic fabric).

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 General

Manner of excavation shall minimize disturbance of underlying natural ground. If deemed necessary by the Engineer, alter construction procedures to reduce subgrade disturbance. Excavate areas which have been excessively disturbed to firm ground and backfill with properly compacted granular fill.

3.1.2 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

3.1.3 Trees, Shrubs, and Existing Facilities

Protect from any damage all vegetation and facilities identified to remain.

3.1.4 Utility Lines

Locate all utilities within the area of disturbance prior to the start of work. Show locations on initial plans. Protect utility lines from damage. Notify the ENGINEER immediately of damage to or an encounter with an unknown utility. Damage to utility lines are to be repaired by the CONTRACTOR at no additional cost. The CONTRACTOR shall have underground utility owners stake out utility locations prior to the start of clearing and excavation operations.

3.2 VERIFICATION OF CONDITIONS/PROOF-ROLLING

Prior to placement of the initial layer of fill over the natural ground, proof-roll the exposed natural ground above the groundwater table elevation by making two passes with a fully-loaded ten-wheel truck. Excavate unstable areas detected by this process and replace with compacted granular fill.

3.3 PREPARATION

3.3.1 Surface Preparation

Within the site limits indicated on the drawings, excavate all unsuitable material to firm natural ground in the manner specified herein. Follow a construction procedure which permits visual identification of firm natural ground. In the even that groundwater is encountered, the ENGINEER may require that the size of the open excavation be limited to that which can be handled by open pumping to allow visual inspection of the excavation bottom and the performance of backfill operations to be conducted in a dry state.

Excavation of unsuitable material shall be limited to the greater of the following:

- A distance of 5 feet beyond building lines or
- The area defined by a one-horizontal to one-vertical line sloping down from the outside bottom edge of exterior footings to firm natural ground.

3.4 PLACEMENT AND COMPACTION

3.4.1 General

Place fill in accordance with *Table D: Compaction Alternatives*. These alternatives are provided as minimum compaction
standards only and in no way relieve the CONTRACTOR of his obligation to achieve any specified degree of compaction by whatever means may be necessary.

Grade to provide positive drainage and a smooth surface which will readily shed water. To the extent practicable, compact each layer to the specified density on the same day placed. Place fill in horizontal layers. Where horizontal layers meet a natural slope, key layer into slope by cutting a bench.

Fill that is too wet for proper compaction: Disc, harrow, or otherwise dry to proper moisture content for compaction to the required density.

Fill that is too dry for proper compaction: Uniformly apply water over the surface of the loose layer in sufficient quantity to allow compaction to the required density.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

Table D: Compaction Alternatives					
Compaction Method	Max. Stone Size	Maximum Loose Lift Thickness (inches)		Maximum Number of Passes	
		Below Structure and Pavements	Less Critical Areas	Below Structure and Pavements	Less Critical Areas
Hand operated vibratory plate of light roller in confined areas	3	4	4	4	4
Hand operated vibratory drum rollers weighing at least 1,000 pounds in confined areas	4	6	8	4	4
Loaded 10-wheel truck or D-8 crawler	6	10	12	4	2
Light vibratory drum roller; Min. weight at drum 8,000lbs; Min. dynamic force 10,000lbs.	8	12	12	6	2
Minimum vibratory drum; Min. weight at drum 10,000lbs; Min. dynamic force 20,000lbs.	8	18	18	6	4

3.4.2 Dewatering

Provide adequate pumping and drainage facilities to keep excavated areas sufficiently dry of groundwater and surface run-off. Dewatering shall avoid adversely affection construction procedures or causing excessive disturbance of underlying natural ground. Drain all pumped water in such a manner as to avoid damage to adjacent property.

If requested by the ENGINEER, place a 6-inch to 12-inch layer of sand and gravel or crushed stone over the natural underlying soil to stabilize area which have been disturbed due to groundwater seepage pressures and to expedite dewatering operations. Particular attention shall be given areas under proposed foundations.

3.5 FIELD QUALITY CONTROL

3.5.1 Compaction Requirements

Allow the ENGINEER sufficient time to make necessary observations and tests. Base the degree of compaction on maximum dry density as determined by ASTM D1557. The minimum degree of compaction for placed fill shall be as indicated *in Table E: Compaction Requirements.*

Table E: Compaction Requirements	
Area	Minimum Degree of Compaction (%)
Below foundation	95
Pavement and building subbase and base courses	95
Below building slab base course and above bottom of foundation	92
Below pavement subbase and base courses	90
Trench backfill outside of building	90
Trench backfill inside of building	Refer to one of the above-listed categories
Ordinary fill within 5 feet of grade	90
Vegetated areas below 5 feet of grade	85

3.5.2 Testing

Site work should be monitored and tested by geotechnical ENGINEER or his representative and in accordance with requirements of the design team to assure compliance with earthwork and foundation construction specifications.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

The owner will retain a geotechnical ENGINEER or his representative to perform on-site observations and testing during this phase of construction operations. The geotechnical ENGINEER or his representative will:

- Observe excavation and dewatering of building and controlled fill areas;
- Observe backfill and compaction within building and controlled fill areas;
- Laboratory test and analyze fill material; and
- Observe construction – and performing water content, gradation, and compaction tests.

On a timely basis, the CONTRACTOR will receive copies of test results submitted to the OWNER. In addition, during construction the geotechnical ENGINEER will advise the OWNER and CONTRACTOR in writing of conditions which fail to conform to the Contract Documents. The CONTRACTOR shall take immediate action to remedy indicated deficiencies.

The geotechnical ENGINEER or his representative will not supervise or direct the actual work of the CONTRACTOR or employees and representatives of the CONTRACTOR. The presence of, observations by, and testing performed by the geotechnical ENGINEER or his representatives shall not excuse the CONTRACTOR from defects discovered in the work.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, N.Y. 14031
(716) 759-7821
FAX (716) 759-7823
e-mail: info@buffalodrilling.com
info@barronandassociatespc.com

APPENDIX E

LIMITATIONS

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

LIMITATIONS

1. This report is based on the data that was obtained from the subsurface explorations and on the information submitted to the geotechnical engineer. A geotechnical engineer, who is experienced in foundation construction and earthwork, should be engaged to review the final design and specifications in order to determine whether any change in concept may have any effect on the validity of the conclusions presented herein, and whether these conclusions have, in fact, been implemented in the design and specifications.

2. The subsurface conditions, including thickness, between the exploration locations are approximate and simplified representations of the strata and transitions. There is the possibility that variations in soil and rock conditions and boundaries will be encountered during construction. In order to permit correlation between the exploratory soil data and the actual soil conditions encountered during construction and so as to assess conformance with the plans and specifications as originally contemplated, it is recommended that a geotechnical engineer, who is experienced in foundation construction and earthwork monitoring, should be retained to perform continuous construction review during the site preparation and foundation construction operations.

3. The subsurface exploration logs and subsurface conditions may aid in estimating material quality and quantities, such as topsoil/organic matter, fills, natural soils, and rock, but are not to be relied upon as the exclusive means for bid preparation purposes. It is the responsibility of the contractor to perform any additional site examinations and explorations and to prepare an accurate bid.

4. Disclaimers:

   a. In the event that any changes in the nature, design or location of the structure are planned, the conclusions that are contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing.

   b. The geotechnical engineering report has been prepared for this project by Barron & Associates, P.C. This report is for assistance in design only and is not a sufficient basis on which to prepare an accurate bid.

   c. This report has been prepared for the exclusive use of RAS Development Company, LLC of East Amherst, New York, their client and their designated design representatives, for specific application to the rezoning of a parcel at 2350 Sweet Home Road in the Town of Amherst, New York and in accordance with generally accepted geotechnical engineering practice. No other warranty, expressed or implied, is made.

Attachment: Z-2016-16D & Z-2017-11B application 042023 (27185 : Z-2016-16D & Z-2017-11B)

All rights reserved. Reuse of these documents without the expressed written permission of Carmina Wood Morris PC is prohibited. WARNING: It is violation of article 145 sections 7209N and 7301 of the New York State education law for any person, unless acting under the direction of a registered architect, licensed engineer or land surveyor to alter this drawing. If altered such R.A., P.E. or L.L.S. shall affix his or her seal, signature, the date, the notation "altered by" and a specific description of the alteration.

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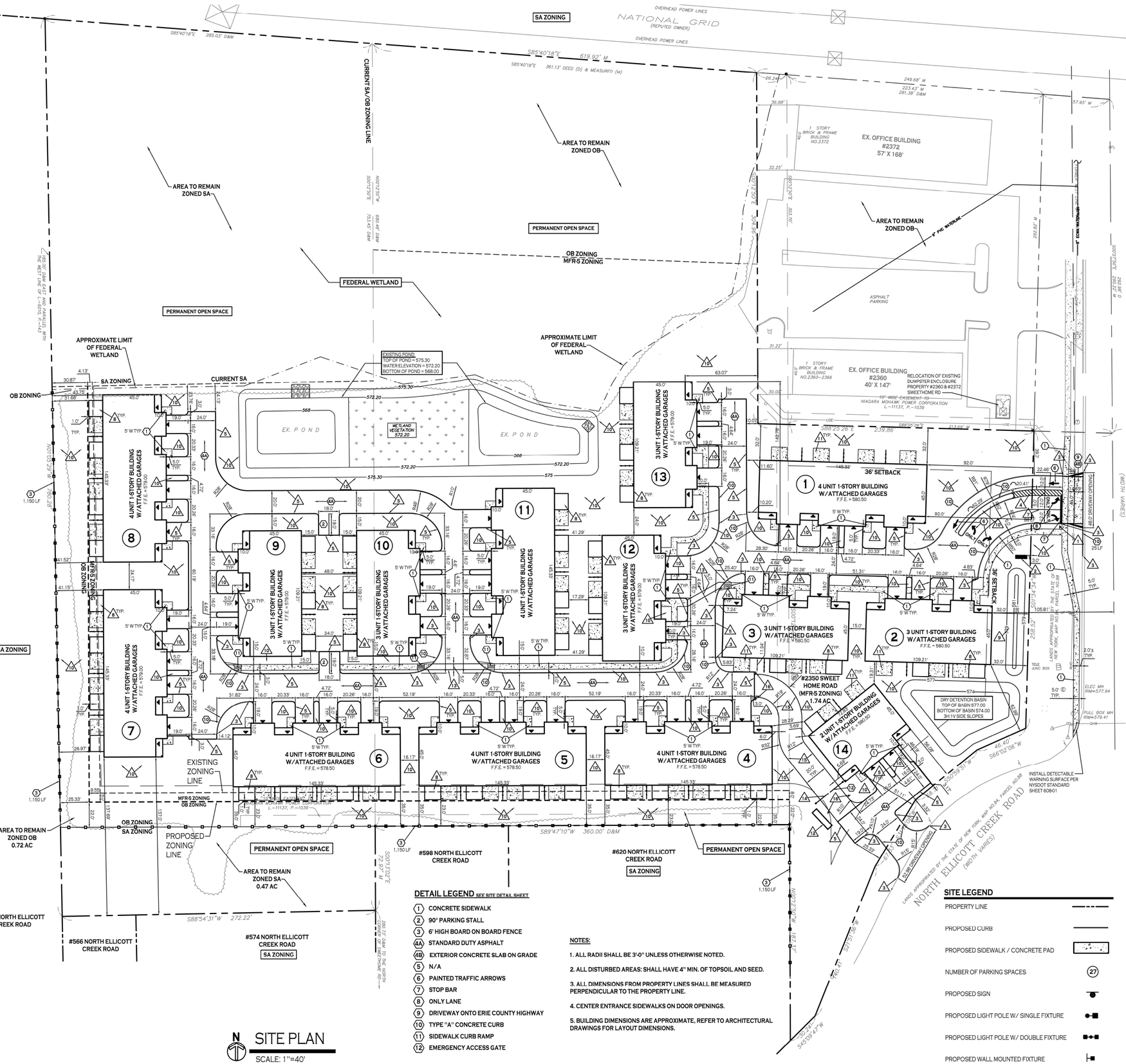
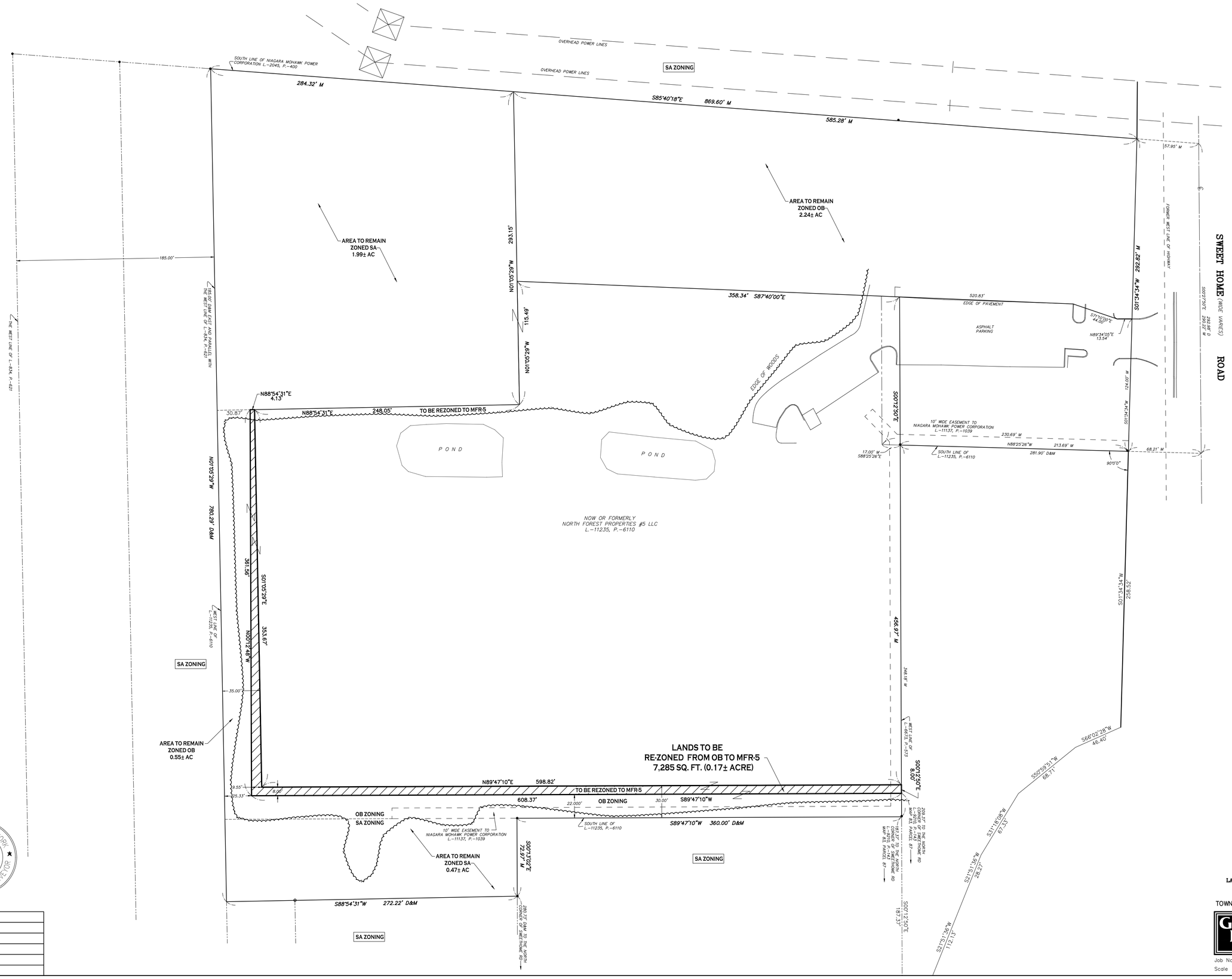

SA ZONING
NATIONAL GRID
(REPUTED OWNER)
OVERHEAD POWER LINES
OVERHEAD POWER LINES
S85°40'18"E 619.92' M
S85°40'18"E 361.13' DEED (D) & MEASURED (M)
S85°40'18"E 385.03' D&M
CURRENT SA / OB ZONING LINE
AREA TO REMAIN ZONED OB
AREA TO REMAIN ZONED SA
PERMANENT OPEN SPACE
OB ZONING
MFR-5 ZONING
FEDERAL WETLAND
PERMANENT OPEN SPACE
APPROXIMATE LIMIT OF FEDERAL WETLAND
APPROXIMATE LIMIT OF FEDERAL WETLAND
EXISTING POND:
TOP OF POND = 575.30
WATER ELEVATION = 572.20
BOTTOM OF POND = 568.00
EX. POND
WETLAND VEGETATION 572.20
EX. POND
1 STORY BRICK & FRAME BUILDING NO.2372
EX. OFFICE BUILDING #2372 57' X 168'
1 STORY BRICK & FRAME BUILDING NO.2360-2366
EX. OFFICE BUILDING #2360 40' X 147'
RELOCATION OF EXISTING DUMPSTER ENCLOSURE PROPERTY #2360 & #2372
SWEETHOME RD
10' WIDE EASEMENT TO NIAGARA MOHAWK POWER CORPORATION L.-11137, P.-1039
ASPHALT PARKING
4" PVC WATERLINE
4" ICAN WATERLINE
UGE
OHW
249.68' M
223.43' M
281.38' D&M
N00°12'50"W 3.90'
N00°12'50"W 295.60' M
S00°12'50"E 292.26' D
292.60' M
S89°47'10"W 360.00' D&M
S00°12'50"E 754.45' D&M
S00°12'50"E 752.97' M
S88°54'31"W 272.22'
N00°05'23"W 780.28'
S89°25'26"E 239.86'
S88°24'26"E 215.69' M
S66°02'06"W 46.40'
S30°55'57"W
S27°51'35"W 182.47'
S45°39'47"W 102.41'
N00°54'34"W 258.52'
N00°54'34"W 105.81' M
S89°54'34"E 105.81' M
N00°54'34"W 258.52'
S00°54'34"E 258.52'
S00°54'34"E 105.81' M

NOTE: UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

NOTE: THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE.

● SET OR EX. 5/8" REBAR



STATE OF NEW YORK
LICENSED LAND SURVEYOR

DATE	REVISION/TYPE

SURVEY OF
LANDS TO BE REZONED FROM OB TO MFR-5
PART OF LOT 82, TOWNSHIP 12, RANGE 7
HOLLAND LAND COMPANY
TOWN OF AMHERST, ERIE COUNTY, NEW YORK

GPI ENGINEERING, LANDSCAPE ARCHITECTURE & SURVEYING, LLP
ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE
4950 GENESEE STREET, SUITE 100
BUFFALO, NEW YORK 14225
(716) 633-4844 FAX 633-4940

Job No. 6198.REZONE.2022 Date: AUGUST 19, 2022
Scale 1" = 40' Tax No. 40.12-1-13

Attachment: Z-2016-16D & Z-2017-11B drawing 042023 (27185 : Z-2016-16D & Z-2017-11B)

TOWN OF AMHERST
PLANNING BOARD
ZONING RESOLUTION – RELIEF OF CONDITIONS
Z-2016-16D & Z-2017-11B

PETITIONER

Essex Homes of WNY
c/o Sean Hopkins, Esq.
Hopkins Sorgi & McCarthy
5500 Main Street, Suite 343
Williamsville, NY 14221

PROPERTY LOCATION

2350 & 2360 Sweet Home Road

WHEREAS the Town of Amherst Planning Board on Thursday, April 20, 2023 held a public hearing on the proposed amendments to previously impose conditions of a rezoning request to amend conditions relating to building setbacks and the provisions against second story windows, and

WHEREAS the Planning Board has reviewed plans and other materials regarding the rezoning proposal, and

WHEREAS the materials and plans have been referred to the Town's various review agencies, and

WHEREAS in accordance with Section 8-3-5 of the Zoning Ordinance the Planning Board finds that:

A. The proposed zoning and development plan is generally consistent with the policies of the Comprehensive Plan and the Zoning Ordinance. The proposal is consistent with the Conceptual Land Use Plan which shows commercial office/mixed residential use in this area of the Town.

B. There are adequate services and utilities available or proposed to be made available in the construction of the development.

C. The proposal is not compatible with the present zoning and conforming uses of nearby property and with the character of the neighborhood.

D. The subject property is suitable for uses permitted by the current district.

E. The proposed changes do not tend to improve the balance of uses, or meet a specific demand in the Town.

F. Review by the US Army Corps of Engineers under Section 404 of the Clean Water Act may be waived as the parcel is developed and the proposed changes to previously imposed conditions of rezoning will not impact any potential federally jurisdictional wetland area.

Attachment: Z-2016-16D_&_Z-2017-11B_signed_resolution_042023 (27185 : Z-2016-16D & Z-2017-11B)

'23 APR 26 PM12:55

TOWN OF AMHERST
PLANNING BOARD
ZONING RESOLUTION – RELIEF OF CONDITIONS
Z-2016-16D & Z-2017-11B

PETITIONER	PROPERTY LOCATION
Essex Homes of WNY	2350 & 2360 Sweet Home Road

WHEREAS pursuant to Local Law #3-82, as amended, the Planning Board recommends that the Town Board determine that the requirements of SEQR are complete and that the subject proposal is not expected to have a significant adverse effect on the environment.

NOW THEREFORE BE IT RESOLVED that the Planning Board recommends to the Town Board in accordance with Section 8-3-4 of the Zoning Ordinance, that the request to amend conditions of a rezoning request be denied.

The foregoing resolution was adopted by the Town of Amherst Planning Board, April 20, 2023; moved by Chmiel; seconded by Penberthy; ayes 4, noes 3 (Gilmour, Giuliani, Kahn).

Robert J. Gilmour, Planning Board Chair

4-25-23
Date

TV/ac
X:\Current_Planning\Files\Rezonings\2016\Z-2016-16_D_(2360-2372_&_2350_Sweet_Home)_2023\Z-2016-16D_&_Z-2017-11B_Resolution_042023.doc
cc: Town Clerk
Commissioner of Building
Highway Superintendent
Town Engineer
Traffic/Safety Coordinator
Sean Hopkins, Hopkins Sorgi & McCarthy, 5500 Main St., Suite 343, Williamsville, NY 14221

'23 APR 26 PM12:59

Attachment: Z-2016-16D_&_Z-2017-11B_signed_resolution_042023 (27185 : Z-2016-16D & Z-2017-11B)

Amended Rezoning Application & Supporting Documentation - Rezoning of 3945 Rensch Road from R-4 to CTR-5 - Applicant: Rensch Group LLC c/o Sean Hopkins, Esq., Hopkins Sorgi & McCarthy PLLC

Date: April 5, 2023

[redacted]gi & McCarthy PLLC
[redacted]ain Street, Suite 343
[redacted]sville, NY 14221
[redacted]4338

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Rezoning Review and, if required Comprehensive Plan Amendment

For Official Use

File #: Z-2023-02 **Acreage** .5 Acres **Fee $** 1,265.00

[redacted]

Address Verified by Assessor's Office _____
VERIFIED BY DATE

Materials Accepted by Town Clerk & Fee Paid _____
ACCEPTED BY DATE

Materials Checked by Building Dept. _____
RECEIVED BY DATE

Materials Received by Planning Dept. _____
RECEIVED BY DATE

		Fill In Applicable Fees
2 ACRES OR LESS	**$1,250**	[redacted]250.00
2 – 20 ACRES **$1,250 + $250/acres or fraction thereof over 2 acres**		[redacted]
20 – 30 ACRES **$5,700 + $150/acre or fraction thereof over 20 acres**		_____
OVER 30 ACRES **$6,900 +$75/acre or fraction thereof over 30 acres**		_____
Request for Relief of/Change to Conditions of Zoning Approval	**$ 1,200**	_____
AFFIDAVIT FEE FOR PUBLIC HEARING	**$ 15.00**	[redacted]15.0
TOTAL FEE:		$ [redacted]265.0

[N[redacted]ed Full Environmental Assessment Form along with Page 3[a] and Attachment "A" dated [redacted]
is [redacted]

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

TO BE COMPLETED BY APPLICANT

1. **Petitioner:** Name: [redacted]

Address: [redacted]

City State Zip Code

Phone: [redacted] Fax: _____

E Mail [redacted]

2. **The undersigned hereby petitions the Honorable Town Board to rezone the following described property**

From: [redacted] District

To: [redacted] District

3. **Street address of land to be rezoned:** (must be verified by Town Assessor's Office)

[redacted]

SBL #: [redacted]

4. **Area of land to be rezoned** (in acres): [redacted]

5. **Owner of Land**:

Name: [redacted]

Address: [redacted]

Telephone: [redacted]

6. **Representative** (Architect, Engineer, Landscape Architect, Surveyor or Attorney):

Name: [redacted]

Address: [redacted]

[redacted]

City State Zip Code

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

7. Petitioner's interest in property

_____Option to purchase

__X_____Owner

___ _____Other (explain)

_____

_____

8. The following are all others having an interest in this application and join herein with the petitioner named above: (describe extent of interest; attach sheets as needed)

[redacted]

_____

_____

9. Attach Survey and Legal description of land to be rezoned. The Survey must be prepared by a New York State Licensed Land Surveyor. [redacted]

10. Said prope[redacted] **deed restrictions or Covenants**[redacted]

Liber _____ Page _____

11. Information on proposed project:

A. Description of the character of the proposed development:

[redacted]

_____

_____

_____

B. Rationale for rezoning request:

1. Why was this site chosen?_____

[redacted]

_____

_____

Attachment: Z-2023-02 application 042023 (Z-2023-02)

2. Why cannot land be used with the existing zoning?

[redacted]

3. How will this rezoning impact surrounding properties?

[redacted]

4. How will this rezoning impact the school system?

[redacted]

12. **Quantitative Data:**

A. Total # of dwelling units [redacted]

B. Distribution of dwelling units by type [redacted]

C. Gross Residential Density per acre 24 units per acre

D. Total amount of Open Space [redacted]

E. Proposed Non-Residential Floor Area [redacted]

13. [redacted]

Finish [redacted]

Stages (# of) [redacted]

14. **If any portion of the proposed development is planned to be sold or leased, please describe:**

[redacted]

Atta 023-02 application 042023 (27197 : Z-2023-02)

15. **Open Space ownership and maintenance provisions (if applicable):**

[redacted]

16. **Basis for Findings (Sec. 8-3-5 of the Town Zoning Code) (Attach sheets and supplemental materials as necessary.)**

A. **The proposed zoning and development plan must be generally consistent with the policies of the Comprehensive Plan and the Town Zoning Ordinance.**

1. State in detail why the proposed zoning is consistent with the adopted Town of Amherst Bicentennial Comprehensive Plan. Cite specific sections, maps, and/or figures in the plan that support the proposed zoning at this location (The Comprehensive Plan document is available at the Planning Department, Town Clerk's Office, Amherst libraries, or at www.amherst.ny.us). Add sheets as needed.

[redacted]

2. Pursuant to NYS Town Law Section 272a(11), "all Town land use regulations must be in accordance with a comprehensive plan adopted pursuant to this Section." The Town Board adopted the Comprehensive Plan pursuant to NYS Town Law 272 on January 2, 2007. If the rezoning is approved, the Town Board may require the Plan to be amended, as applicable.

Cite all text, map, and / or figures that must be amended to support the proposed zoning at this location (attach pages as necessary) and provide detailed suggested amendments.

[redacted]

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

3. State why the proposed zoning is consistent with intent and objectives (Sec. 1-2-2) of the Zoning Ordinance:

See Exhibit 5

B. Adequate Services and Utilities are available or are proposed to be made available with the construction of the development:

1. Sanitary Sewer
   Yes
2. Storm Sewer/Drainage
   Yes
3. Water
   Yes
4. Other Yes

C. Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:

See Exhibit

D. Suitability of the subject property for uses permitted by the current versus the proposed district:

See Exhibit

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

E. Whether the proposed change tends to improve the balance of uses, or meets a specific demand in the Town:

See Exhibit 5.

17. The petitioner encloses herewith the sum of $ 1,265.00 to pay the fee, and consents to the placement of a sign(s) at the described location identifying this request for a period of time to be determined by the Town Clerk. [The filing fee has previously been paid.]

18. The undersigned certifies that all information required to be disclosed pursuant to Section 809 of the General Municipal Law (see below) is as follows:

The undersigned swears or affirms that all statements made herein are true, that all drawings submitted correctly show the situation involved in this petition.

Signature of Petitioner

Subscribed and sworn to before me this 4th day of April, 20 23

Notary Public, Erie County, New York

MARIANNE BRAUTLACHT
Notary Public, State of New Yo
Qualified in Erie County
My Commission Expires 01/14/20

N.Y.S. General Municipal Law - Section 809 Disclosure in certain applications:

1. Every application, petition or request submitted for a variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit, pursuant to the provision of any ordinance, local law, rule or regulation constituting the zoning and planning regulations of a municipality shall state the name, residence and the nature and extent of the interest of any state office or any office or employee of such municipality or of a municipality of which such municipality is a part, in the person, partnership or association making such application, petition or request (hereinafter called the applicant) to the extent known to such applicant.

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2. For the purpose of this section an officer or employee shall be deemed to have an interest in the applicant when he, his spouse, or their brothers, sisters, parents, children, grandchildren, or the spouse of any of them

   (a) is the applicant, or
   (b) is an officer, director, partner or employee of the applicant, or
   (c) legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association applicant, or
   (d) is a party to an agreement with such an applicant, express or implied, whereby he may receive any payment or other benefit, whether or not for services rendered, dependent or contingent upon the favorable approval of such applicant, petition or request.

3. In the county of Nassau the provisions of subdivisions one and two of this section shall also apply to a party officer. "Party Officer" shall mean any person holding any position or office, whether by election, appointment or otherwise, in any party as defined by subdivision four or section two of the election law.

4. Ownership of less than five per cent of the stock of a corporation whose stock is listed on the New York or American Stock Exchanges shall not constitute an interest for the purposes of this section.

5. A person who knowingly and intentionally violates this section shall be guilty of a misdemeanor.

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EXHIBIT 1

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Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Rensch Group LLC		
Project Location (describe, and attach a general location map): 3945 Rensch Road, Town of Amherst - Erie County		
Brief Description of Proposed Action (include purpose or need): The proposed project ("action") consists of a three-story multifamily building consisting of twelve units and related site improvements to be located at 3945 Rensch ("Project Site"). The proposed action has been defined broadly to include all required discretionary approvals and permits as well as all proposed site improvements including an amendment of the zoning classification of the Project Site from R-4 to CTF-5. The project purpose is to develop the Project Site for residential purposes per a recommended land use contained in the Town's adopted Comprehensive Plan. The proposed project is an Unlisted Action and will not result in any potentially significant adverse environmental impacts.		
Name of Applicant/Sponsor: Rensch Group LLC c/o Sean Hopkins, Esq.	Telephone: 716.510-4338 E-Mail: shopkins@hsmlegal.com	
Address: 5500 Main Street, Suite 343		
City/PO: Williamsville	State: NY	Zip Code: 14221
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

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B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes ☐No	Town of Amherst Town Board - Rezoning	Amended Application - April 5, 2023
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town of Amherst Planning Board - Site Plan Approval	To be Determined
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Town of Amherst Building Department - Building Permit	To be Determined
e. County agencies ☑Yes ☐No	ECWA - Water	To be Determined
f. Regional agencies ☐Yes ☑No		
g. State agencies ☐Yes ☑No		
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes ☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes ☐No

If Yes, identify the plan(s):

NYS Heritage Areas:West Erie Canal Corridor

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

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C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Residential District Four ("R-4")

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☑ Yes ☐ No
If Yes,
i. What is the proposed new zoning for the site? Center 5 ("CTR-5")

C.4. Existing community services.

a. In what school district is the project site located? Sweet Home Central School District

b. What police or other public protection forces serve the project site?
Town of Amherst Police Department

c. Which fire protection and emergency medical services serve the project site?
Local Volunteer Fire Department

d. What parks serve the project site?
There are various park that will be accessible to the residents of the Project Site.

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Multifamily

b. a. Total acreage of the site of the proposed action? .5 acres
b. Total acreage to be physically disturbed? .4 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? .5 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: _____ months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

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f. Does the project include new residential uses? ☑ Yes ☐ No

5.a

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				12
At completion of all phases				12

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

_____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

_____

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ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: 2,400 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Erie County Consolidated Water District
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: 2,400 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary wastewater.

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Town of Amherst Wastewater Treatment Plant
- Name of district: Town of Amherst Consolidated Sanitary Sewer District
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

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- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or .2 acres (impervious surface)

_____ Square feet or .5 acres (parcel size)

ii. Describe types of new point sources. _____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater runoff will be directed into the municipal storm water system.

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☐ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐ Yes ☑ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

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h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7:00 to 7:00
- Saturday: 7:00 to 5:00
- Sunday: As needed
- Holidays: Not Applicable

ii. During Operations:

- Monday - Friday: Not Applicable
- Saturday: _____
- Sunday: _____
- Holidays: _____

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m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Construction equipment and activities limited to daytime hours is a temporary and unavoidable adverse impact.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Lighting improvements on the Project Site will comply with the stringent lighting standard contained in the Zoning Code.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:_____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

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5.a

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): Mixed-Use

ii. If mix of uses, generally describe:

Mixtures of land uses including commercial, student housing and multifamily.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	.2	.4	.2
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Greenspace and Landcaping	.3	.1	(.2)

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c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No
If Yes,
i. Identify Facilities:
There is a People Inc. group home located within 1,500 ft. of the Project Site on Rensch Road

e. Does the project site contain an existing dam? ☐ Yes ☑ No
If Yes:
i. Dimensions of the dam and impoundment:
- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No
If Yes:
i. Has the facility been formally closed? ☐ Yes ☐ No
- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No
☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____
☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No
If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

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v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? >10 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: Churchville Silt Loam 100 %

d. What is the average depth to the water table on the project site? Average: >10 feet

e. Drainage status of project site soils:
☐ Well Drained: _____% of site
☐ Moderately Well Drained: _____% of site
☑ Poorly Drained 100 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☑ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

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m. Identify the predominant wildlife species that occupy or use the project site: Typical suburban species.

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

If Yes:

i. Species and listing (endangered or threatened): _____

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:

i. Species and listing: _____

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site? _____

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

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e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: Eligible property:4030 Rensch Road, Amherst

iii. Brief description of attributes on which listing is based:

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s):

ii. Basis for identification:

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource:

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.):

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation:

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Rensch Group LLC Date April 5, 2023

Signature Sean Hopkins Title Attorney for Project Sponsor

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

PRINT FORM

EAF Mapper Summary Report

Monday, February 20, 2023 12:5[illegible] P.M.



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas:West Erie Canal Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Eligible property:4030 Rensch Road, Amherst
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

TOWN OF AMHERST ATTACHMENT
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM

1. For each applicable category of proposed new structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
[redacted] Silt Loam	[redacted]	[redacted]evere	[redacted]ever	[redacted]evere	[redacted]oderat
					[redacted]

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

__x___ Geotechnical report attached _____ Not applicable

[Note: Three copies of the Geotechnical Report prepared by Barron & Associates P.C. dated August 24, 2022 have been submitted to the Planning Department].

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes x [redacted]o
On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes x No

If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes x No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
Not Applicable[redacted].

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes ☒ No
Describe: Not Applicable.

(Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project[redacted]Weekday A.M. Pe[redacted]
Source: [redacted]IT[redacted]oration Report[redacted]

8. Will blasting occur during construction? □ Yes ☒ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ☒ Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
[redacted]400[redacted] average flow [redacted]00[redacted] peak flow.

(Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes ☒ No

[redacted]

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

EXHIBIT 2

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

EXHIBIT 2 OF AMENDED REZONING APPLICATION

LEGAL DESCRIPTION OF PROPERTY TO BE REZONED FROM R-4 to CTR-5

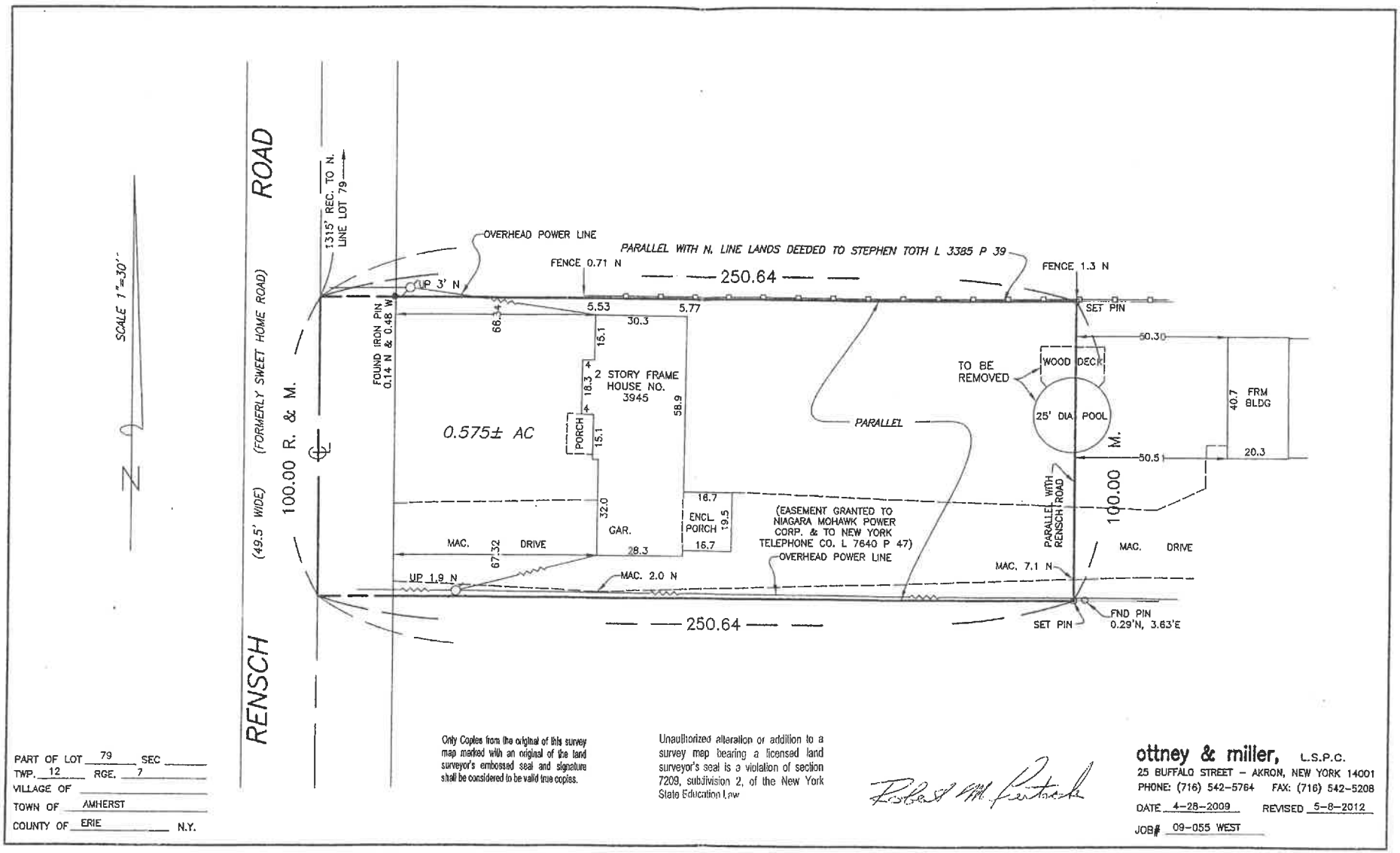
ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie and State of New York, being part of Lot No. 79, Township 12, Range 7 of the Holland Land Company's Survey, described as follows:

Beginning at a point in the center line of Rensch Road (f/k/a Sweet Home Road) distant 1315 feet south of the north line of Lot No. 79, Township 12, Range 7, as measured along the center line of Rensch Road; running thence south along the center line of said Rensch Road 100 feet to a point; running thence east parallel with the north line of lands conveyed to Stephen Toth by a deed recorded in Erie County Clerk's Office in liber 3385 of Deeds at page 39, 250.64 feet to a point; running thence north parallel with the center line of Rensch Road, 100 feet to a point; running thence west and parallel with the said north line of said Toth's lands, 250.64 feet to the point or place of beginning.

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

EXHIBIT 3

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)



PART OF LOT 79 SEC
TWP. 12 RGE. 7
VILLAGE OF
TOWN OF AMHERST
COUNTY OF ERIE N.Y.

Only Copies from the original of this survey map marked with an original of the land surveyor's embossed seal and signature shall be considered to be valid true copies.

Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, subdivision 2, of the New York State Education Law

Robert M. Fantuzzi

ottney & miller, L.S.P.C.
25 BUFFALO STREET – AKRON, NEW YORK 14001
PHONE: (716) 542-5764 FAX: (716) 542-5208

DATE 4-28-2009 REVISED 5-8-2012
JOB# 09-055 WEST

EXHIBIT 4

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

EXHIBIT 4 REZONING APPLICATION

REZONING OF 3945 RENSCH ROAD FROM R-4 TO CTR-5

Question 11(A): Description of the character of the proposed development:

Response to Question 11(A): The proposed multifamily project to be located on the parcel the approximately .5 acre parcel at 3945 Rensch Road ("Project Site") will be upscale in character and will feature an attractive multifamily building that will replace the existing residential structure. A reduced-size copy of the Conceptual Elevation Plan prepared by Sutton Architecture PLLC is provided at **Exhibit "7"**. There will be a total of 12 attached residential units for lease along with related site improvements. The conceptual layout for the proposed upscale multifamily project is depicted on the full-size Site Plan [Drawing C-100] prepared by Christopher Wood, P.E., of Carmina Wood Design attached to this Rezoning Application. A reduced size copy of the Site Plan depicting the project layout is also provided at **Exhibit "6"**.

Question 11(B)(1): Rationale for rezoning request: 1. What was this site chosen?

Response to Question 11(B)(1): The Project Site is an appropriate location for the requested rezoning of the Project Site from R-4 to CT-5 to accommodate the proposed upscale multifamily project given the character and scale of nearby land uses. It is also important to mention that the requested amendment of the zoning classification of portions of the Project Site is consistent with the Conceptual Land Use Plan for the Town of Amherst contained at Figure 6 of the adopted Bicentennial Comprehensive Plan ("Comprehensive Plan"), which designates the Project Site as appropriate for "Medium Residential" use as well as Figure 6-A of the Comprehensive Plan, that designates the Project Site as appropriate for "Suburban Center" [Designation Area No. 7 on

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

Figure 6-A]. Color copies of Figure 6 and Figure 6-A of the adopted Comprehensive Plan are attached as **Exhibit "8"**.

Question 11(B)(2): Why cannot land be used with the existing zoning?

Response to Question 11(B)(2): The Project Site is currently zoned Residential District Four ("R-4") and the R-3 zoning classification is no longer consistent with the zoning classifications and uses of nearby properties that include a large student housing on property zoned MFR-6, a mixed-use project and a hotel on parcels zoned GB, etc. As mentioned previously, Figure 6 of the adopted Comprehensive Plan designates the Project Site as appropriate for "Medium Residential" use.[1]

Question 11(B)(3): How will this rezoning impact surrounding properties?

Response to Question 11(B)(3): The requested rezoning of the Project Site from R-4 to CTR-5 to accommodate the proposed upscale multifamily project will not result in any potentially significant adverse impacts on surrounding properties. The density of the project will not be inconsistent with the surrounding vicinity.

Question 11(B)(4): How will this rezoning impact the school system?

Response to Question 11(B)(4): The proposed project will have positive impacts on the school district since the property taxes that will be generated on an annual basis will be substantially higher than the

[1] Page 3-32 of Chapter 3 of the Comprehensive Plan indicates that the Medium Residential category is appropriate for multifamily housing with a density of 12 to 60 units per acre and states as follows: "Medium Residential comprises the relatively small proportion of the Town's housing stock devoted to multi-family, largely rental apartment housing. Although longstanding policy has tended to favor low-density, single-family residential use, recent development trends have seen a substantial increase in the amount of new multi-family housing. The need for higher density housing will grow along with the component of the population that will increasingly choose smaller housing types, including retirees, empty nesters, singles, and other smaller household types.

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

current property taxes. The proposed project will potentially generate some demand for educational services provided by the Sweet Home Central School District but it is anticipated that the proposed upscale multifamily project will have overall positive fiscal impacts since the annual school taxes will be higher than the cost of educational services for school age children of the residents.

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

EXHIBIT 5

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

EXHIBIT 5

REZONING OF 3945 RENSCH ROAD FROM R-4 TO CTR-5

Question 16(A)(1): **State in detail why the proposed zoning is consistent with the adopted Town of Amherst Bicentennial Comprehensive Plan. Cite specific sections, maps and/or figures in the plan that support the proposed zoning at this location.**

Response to Question 16(A)(1): The Town of Amherst adopted the Bicentennial Comprehensive Plan in January of 2007 after completing a lengthy planning process that included numerous public meetings and public hearings involving the Comprehensive Plan Advisory Committee, the Planning Board and the Town Board.[1] On December 14, 2020, the Town Board most recently adopted amendments to the Bicentennial Comprehensive Plan. The proposed apartment project is consistent with the Comprehensive Plan including Figure 6, which designates the Project Site as appropriate "Medium Residential" use and Figure 6-A, which designates the Project Site as appropriate for multifamily and mixed-use development. Color copies of Figure 6 and 6-A of the adopted Comprehensive Plan are attached as **Exhibit "8"**.

Question 16(A)(2): **Cite all text, map, and/or figures that must be amended to support the proposed zoning at this location and provide detailed suggested amendments.**

Response to Question 16(A)(2): The proposed CTR-5 zoning classification and the proposed multifamily project are consistent with the Comprehensive Plan and such there is not a need to amend the Comprehensive Plan to accommodate the proposed project.

---

[1] A copy of the resolution adopted by the Town Board for the purpose of adopting the Bicentennial Comprehensive Plan pursuant to Town Law Section 272-a is included at the beginning of the Comprehensive Plan. This resolution recites the lengthy planning history that incorporated numerous opportunities for public input as well as a coordinated environmental review pursuant to SEQRA that involved the preparation a Generic EIS and the issuance of a Findings Statement.

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

Question 16(A)(3): State why the proposed zoning is consistent with intent and objectives (Sec. 1-2-2) of the Zoning Ordinance:

Response to Question 16(A)(3): Section 1-2-1 of the Zoning Code is titled "Purpose" and it states as follows:

> *"The purpose of this Zoning Ordinance and the intent of the legislative authority in its adoption is to promote the environment of the town and its public health, safety, convenience, comfort, prosperity and the general welfare by regulating the use of buildings, other structures and land for residences, open space, public facilities, business, services, industry or other purposes; by regulating and restricting the bulk, height, design, building coverage and location of structures; by regulating and limiting population density; and for the aforesaid purposes, to divide the land within the limits of the town into districts of such number and dimensions generally consistent with the policies of the Comprehensive Plan and to provide procedures for the administration and amendment of said Zoning Ordinance."*

The proposed rezoning of the Project Site to accommodate the proposed multifamily project is consistent with the "Purpose" of the Zoning Code. Section 1-2-2 of the Zoning Code sets forth the objectives of the Zoning Code. This section of the Zoning Code lists thirteen objectives that are discussed below as follows:

A. To protect the character and values of residential, institutional and public uses, business, commercial and manufacturing uses and to insure their orderly and beneficial development;

Response: The proposed rezoning of the Project Site will be consistent with the objective of protecting the character and value of existing land uses. The proposed rezoning will allow a portion of the Project Site to be redeveloped as a multifamily building consisting of twelve units represents orderly and beneficial development.

B. To provide adequate open spaces for light, air and outdoor uses to include public, common and private open space areas;

Response: The proposed rezoning of the Project Site will not be inconsistent with this objective.

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

C. To prevent overcrowding of land;

Response: The proposed project will not result in the overcrowding of land. The project is consistent with the type of development designated as appropriate for the Project Site per the adopted Comprehensive Plan.

D. To prevent excessive concentration of population and to prevent spare and uncoordinated development;

Response: The proposed rezoning of the Project Site will not result in excessive concentration of population and the residential project represents an example of coordinated development.

E. To regulate and control the location and spacing of buildings on the lot and in relation to the surrounding property generally consistent with the policies of the Comprehensive Plan.

Response: The responses to the Questions in Section 16 provided above sets forth the reasons the proposed rezoning is consistent with the policies of the Comprehensive Plan.

F. To protect persons and property from damage and injury due to fire or flood;

Response: The Site Plan Application review process will trigger the need for an Engineer's Report to be prepared by a licensed engineer to be prepared for review and approval by the Town's Engineering Department. The project will not increase the likelihood of damage and injury due to fire and flood. The proposed multifamily building will be constructed per the stringent requirements of the NYS Building Code including the fire safety standards contained therein.

G. To preserve and protect significant natural features and vegetation, thereby preventing ecological damage and visual blight which occur when those features or vegetation are eliminated or substantially altered to serve development purposes only.

Response: The proposed rezoning and the proposed project will not be inconsistent with this objective. There are not significant natural features located on the Project Site.

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

H. To assure that structure and land use arrangements are aesthetically harmonious with nearby areas and structures.

Response: The development of the Project Site in a manner consistent with the Site Plan [Drawing C-100] will be aesthetically harmonious with nearby areas and structures.

I. To regulate the location of buildings and intensity of uses in relation to streets according to plans so as to cause the least interference with and be damaged least by traffic movements and hence result in lessened street congestion and improved public safety.

Response: The proposed project will have vehicular access to Rensch Road and will be consistent with the above criteria.

J. To establish zoning patterns that insure economical extensions for sewers, water supply waste disposal and other public utilities, as well as development of recreation, schools and other public facilities;

Response: The Project Site has access to sanitary sewer and water lines as well as necessary public utilities to service the proposed project.

K. To guide the future development of the town so as to being the gradual conformity of land, structures and uses generally consistent with the policies of the Comprehensive Plan.

Response: The proposed rezoning of the Project Site is consistent with this objective since the proposed zoning classification and use are consistent with the policies contained in the Comprehensive Plan.

L. To accomplish the specific intents and goals set forth in the introduction to the respective sections.

Response: The proposed rezoning of the Project Site is consistent with this objective.

M. To protect the community from visual pollution resulting from the unregulated use of signs and other advertising devices.

Response: The proposed rezoning and the proposed project will not be inconsistent with this objective.

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

Question 16(C): **Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:**

Response to Question 16(C): The proposed rezoning of the Project Site is compatible with the present zoning and conforming uses of nearby properties and the character of the neighborhood which includes a mixture of uses including commercial and residential uses on properties zoned GB, MFR-6, etc.

Question 16(D): **Suitability of the subject property for uses permitted by the current versus the proposed district:**

Response to Question 16(D): The Project Site is not suitable for the redevelopment pursuant to its existing R-4 zoning classification [development limited to a duplex] and the existing R-4 zoning classification is inconsistent with the adopted Comprehensive Plan. The Project Site is suitable for redevelopment pursuant to the proposed CTR-5 zoning classification.

Question 16(E): **Whether the proposed change tends to improve the balance of uses, or meets a specific demand in the Town:**

Response to Question 16(D): The proposed change in the zoning classification of the Project Site from R-4 to CTR-5 to accommodate the proposed project will have positive impacts on the balance of uses in the Town by providing residential units for lease within a portion of the Town that has been designated as appropriate for this use by the Town Board per the recommendations of the adopted Comprehensive Plan.

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

EXHIBIT 6

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

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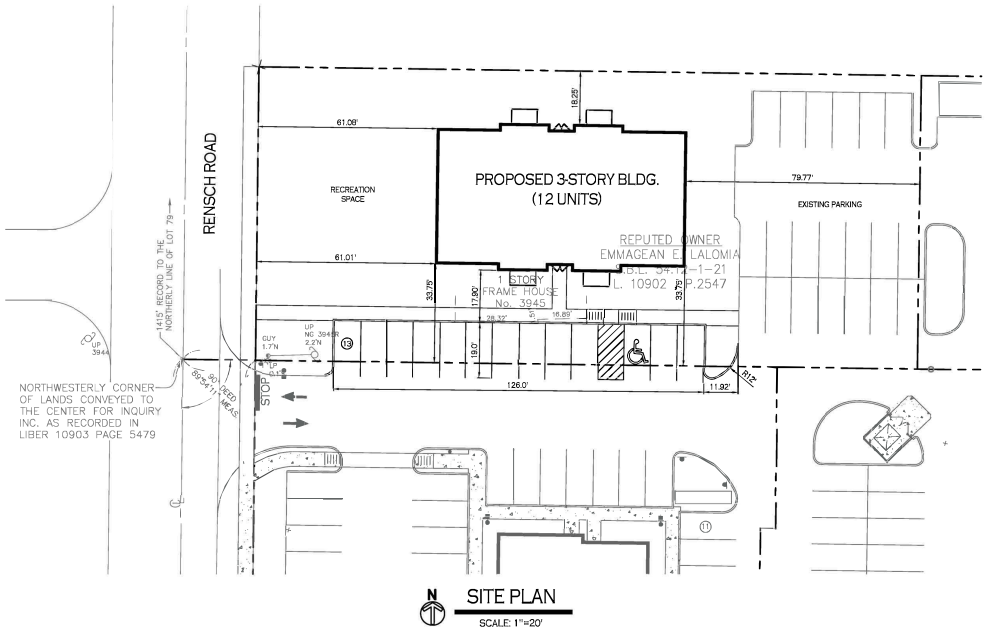


N

SITE PLAN

SCALE: 1"=20'

SITE DATA		
SITE AREA = 0.5 AC		
ZONED: REZONE TO CTR-5		
USE: PROPOSED 3-STORY 12 UNIT APARTMENT BUILDING		
SETBACKS - BUILDING	REQUIRED	PROVIDED
FRONT	5' MIN.	61.01' MIN.
SIDE	0' MIN.	18.25' MIN.
REAR	0' MIN.	79.77' MIN.
SETBACKS - PARKING		
FRONT	10' MIN.	> 10 FT
SIDE	0' MIN.	0'
REAR	0' MIN.	N/A
TOTAL VEHICLE SPACES	12	13
BICYCLE	6	6
ELECTRIC VEHICLE STATION	1	1
GREENSPACE		
INTERIOR PARKING GREENSPACE:	5% (135 SF)	13% (220SF)
MAX. BUILDING HEIGHT	5 STORIES / 75'	3 STORIES / < 75'
OUTDOOR AMENITY SPACE	5% (0.025 AC)	20% (0.1 AC)

PARKING CALCULATION (PER SECTION 5A-9-1-A)

APARTMENTS/TOWNHOMES:
REQ'D: 1 SPACE PER 2-BDRM UNIT = 1 X 12 UNITS = 12 SPACES
REQ'D = 12 SPACES REQ'D

TOTAL PARKING SPACES REQUIRED = 12 SPACES

BICYCLE CALCULATION (PER SECTION 5A-9-1-A)

RESIDENTIAL:
REQ'D: 0.5 PER UNIT (20 MAX.)
REQ'D = 0.5 x 12 = 6 SPACES REQ'D.

TOTAL BICYCLE SPACES REQUIRED = 6 SPACES

ELECTRIC VEHICLE CALCULATION (PER SECTION 5A-9-1-D)

1% OF TOTAL PARKING = 13 x 0.01 = 1 SPACES REQ'D.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

20' 20 0 20 40Ft.

CARMINAWOOD DESIGN
487 Main Street, Suite 500
Buffalo, New York 14203
Phone: (716) 842-3165
111 Bain Street, Suite 332
Greensboro, North Carolina 27406
Phone: (336) 937-9009

Multi-family Development

3945 Rensch Road
Amherst, New York

REVISIONS:

No.	Description	Date

Sealed: XX.XX.XXXX

DRAWING NAME:
Site Plan

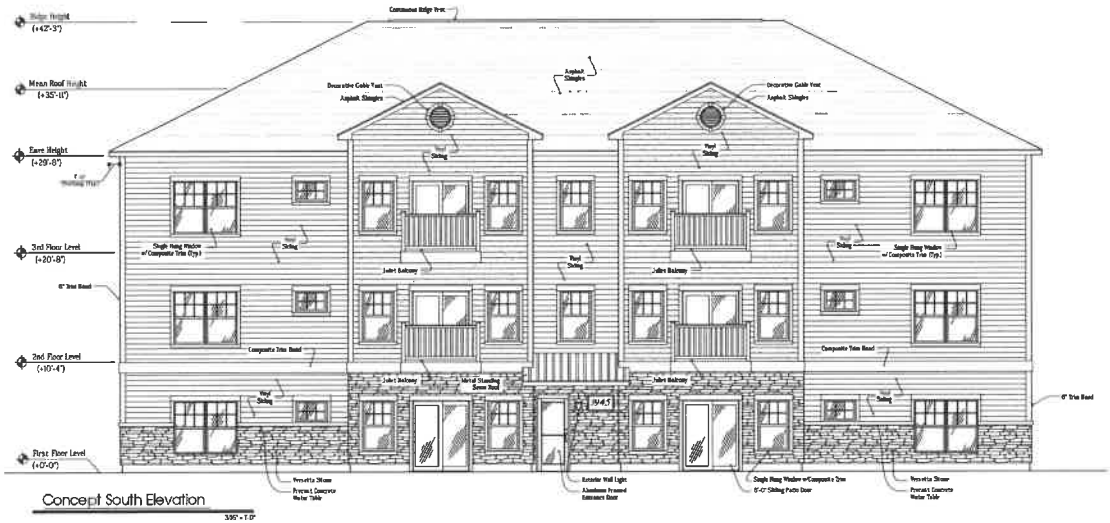
Date: 04.04.23
Drawn By: C. Wood
Scale: As Noted

DRAWING NO.
C-100

Project No:

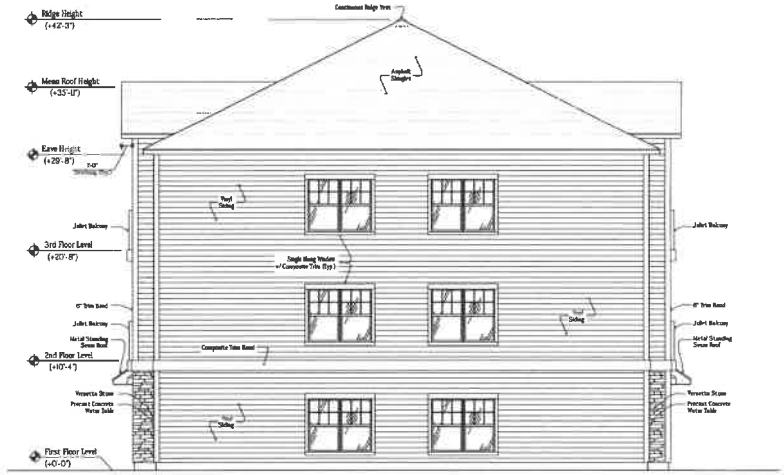
EXHIBIT 7

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)



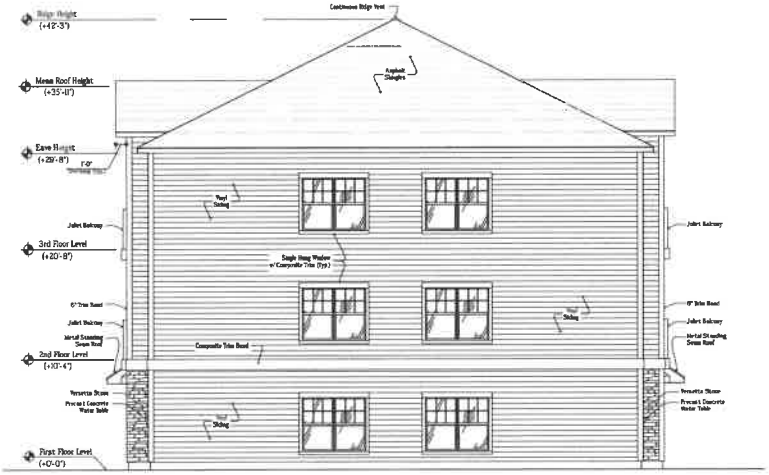
Concept South Elevation

3/16" = 1'-0"



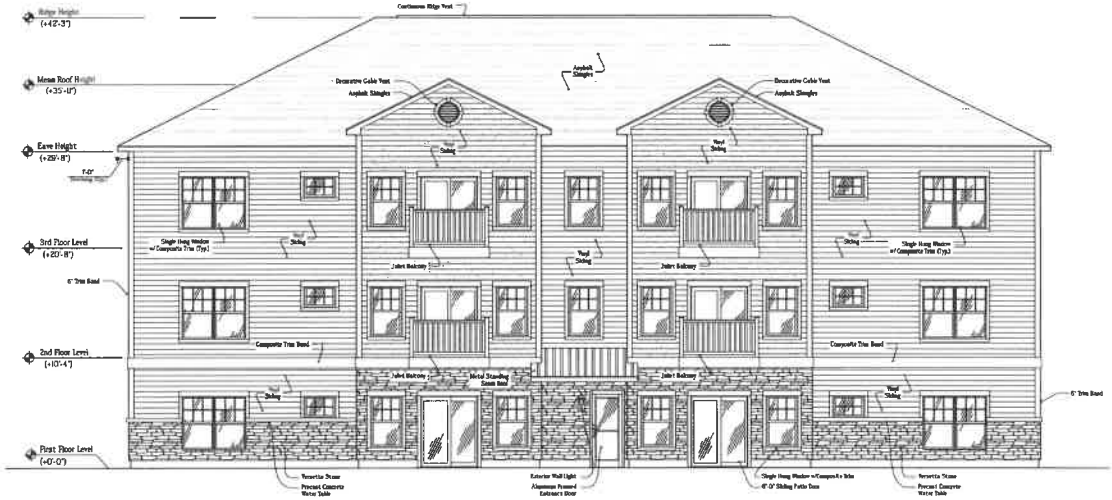
Concept East Elevation

3/16" = 1'-0"



Concept West Elevation

3/16" = 1'-0"



Concept North Elevation

3/16" = 1'-0"

ELLICOTT DEVELOPMENT

Concept First Floor Plan For:
12 Unit Multi Family Building

3945 Rensch Road Amherst, NY

8/24/22

SUTTON architecture

"Design 2 Build"

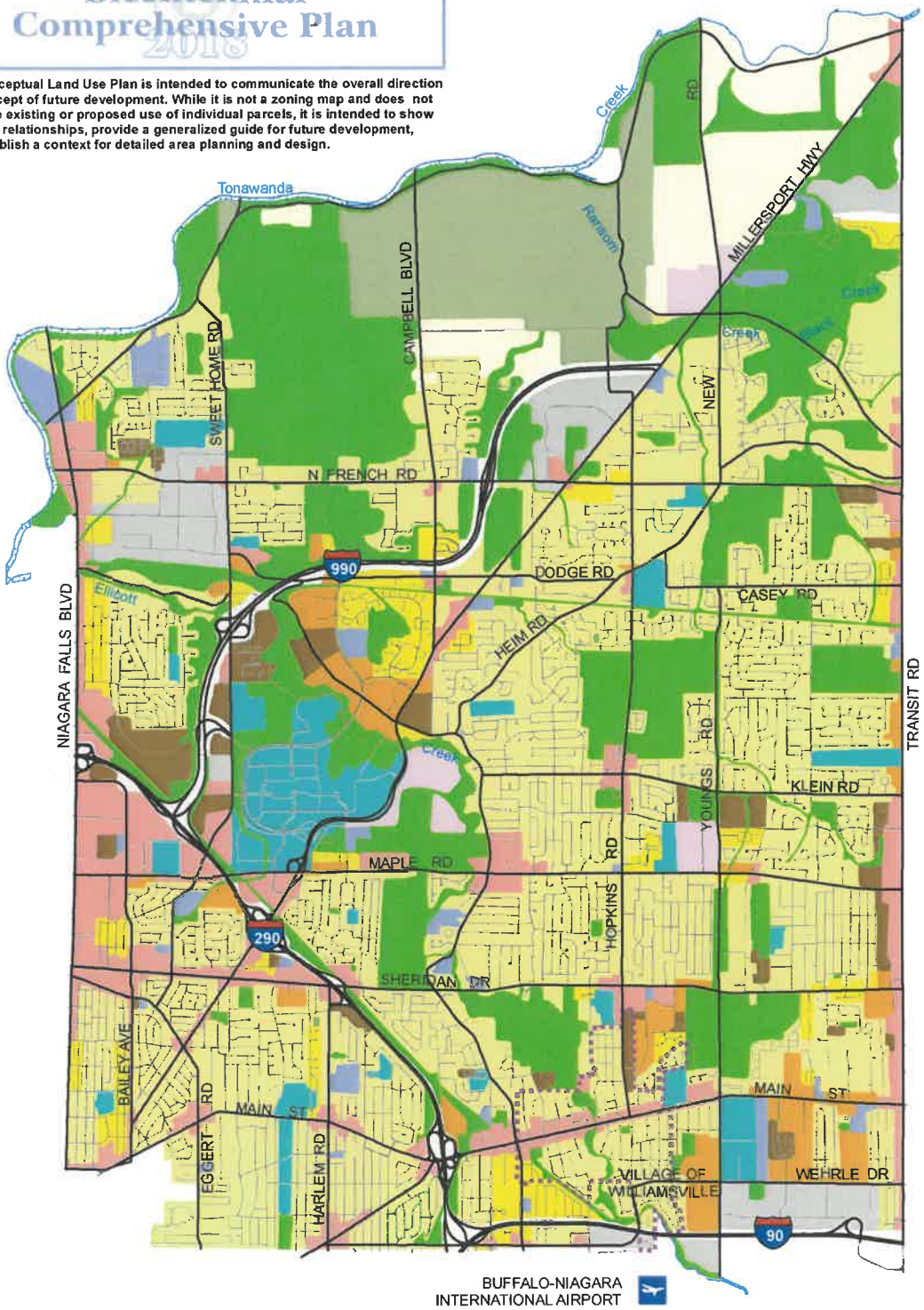
EXHIBIT 8

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

Town of Amherst Bicentennial Comprehensive Plan

1818 2018

The Conceptual Land Use Plan is intended to communicate the overall direction and concept of future development. While it is not a zoning map and does not show the existing or proposed use of individual parcels, it is intended to show land use relationships, provide a generalized guide for future development, and establish a context for detailed area planning and design.



Conceptual Land Use Plan

- Rural Residential
- Single Family Residential
- Mixed Residential
- Medium Residential
- Commercial / Mixed Use*
- Special Use Center
- Commercial - Office
- Industrial - Office
- Community Facilities
- Educational Campus
- Recreation, Open Space & Greenways
- Agriculture
- Transportation
- Surface Water
- Village of Williamsville Boundary

* See Map Figure 6-A for Additional Designations

SOURCE NOTES:

Original Source Data Provided by the Town of Amherst Information Technology Department, URS Corporation and Wallace Roberts & Todd, LLC

Map Compiled by the Town of Amherst Planning Department

Date: December 2020

N

0 0.25 0.5 0.75 1 1.25

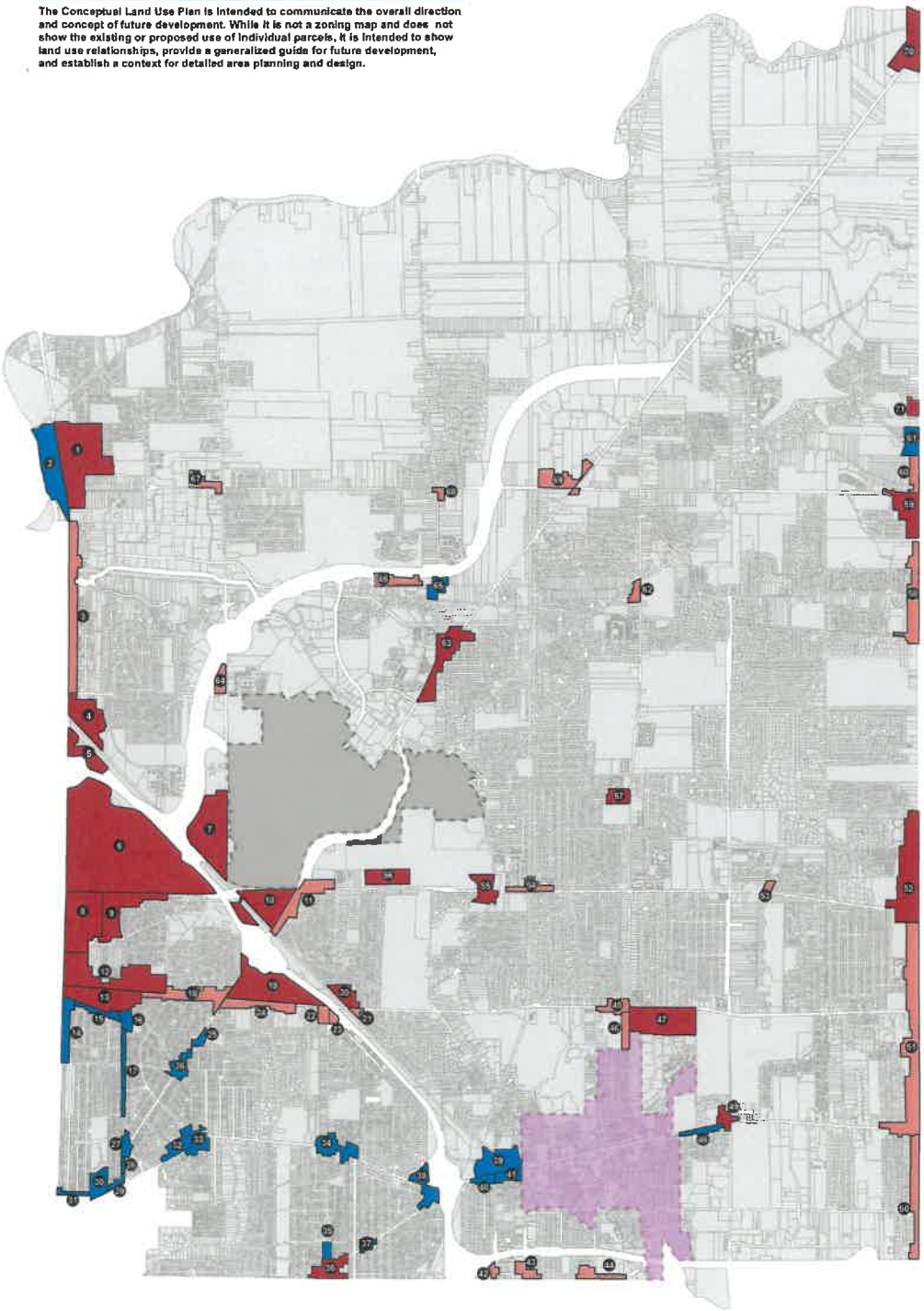
Miles

FIGURE 6

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

Town of Amherst Bicentennial Comprehensive Plan

The Conceptual Land Use Plan is intended to communicate the overall direction and concept of future development. While it is not a zoning map and does not show the existing or proposed use of individual parcels, it is intended to show land use relationships, provide a generalized guide for future development, and establish a context for detailed area planning and design.



1. Wegmans (NFB)
2. Walgreens (NFB)
3. NFB / Ellicott Creek Strip
4. Home Depot (NFB)
5. Inkeepers Lane
6. Consumer Square / Ridge Lea
7. University Place
8. Boulevard Mall
9. Wegmans (Alberta)
10. Golden Triangle
11. Maple / Amherst Manor
12. Walmart (Sheridan)
13. Northtown Plaza
14. NFB Strip
15. Eggert Strip
16. Eggert / Bailey
17. Bailey Strip
18. Sheridan / Millersport Strip
19. Northtown Auto (Sheridan)
20. Sheridan / Sunrise - North Side
21. Sheridan / Sunrise - South Side
22. Sheridan / Harlem - West Side
23. Sheridan / Harlem - East Side
24. Sheridan / Getzville Strip
25. Millersport / Arcade
26. Six Corners
27. Bailey / Grover Cleveland
28. Bailey Live-Work
29. Main / Bailey
30. University Plaza
31. Kenmore Avenue
32. Eggertsville (Main / Eggert - West Side)
33. Eggertsville (Main / Eggert - East Side)
34. Snyder (Main / Harlem)
35. Harlem Strip
36. Harlem / Kensington
37. Kensington / Saratoga
38. Main / Kensington
39. West of Village - North of Main
40. West of Village - South of Main (West Side)
41. West of Village - South of Main (East Side)
42. Wehrle / South Forest
43. Wehrle / South Union
44. Wehrle / Cayuga
45. Sheridan / Hopkins
46. Evans Strip
47. Williamsville Place
48. Main Strip
49. Main / Youngs
50. Transit / Wehrle
51. Transit from Main to Maple
52. Transit / Maple
53. Maple / Ayer
54. Maple Strip
55. Maple / North Forest
56. Gun Club
57. Clearfield Plaza
58. Transit / Casey
59. Transit / North French
60. Transit / Dodge
61. Swormville
62. Hopkins / Dodge
63. Getzville Plaza
64. Sweet Home / Skinnersville
65. Campbell / Dodge
66. Dodge Strip
67. Sweet Home / North French
68. Campbell / North French
69. Crosspointe
70. Transit / Millersport
71. Transit Strip

FIGURE 6-A

Commercial and Mixed-Use Designations

- Suburban Center
- Suburban Corridor
- Traditional Areas
- Village of Williamsville
- University at Buffalo

SOURCE NOTES:

Original Source Data Provided by the Town of Amherst Information Technology Department, URS Corporation and Wallace Roberts & Todd, LLC

Map Compiled by the Town of Amherst Planning Department

Date: December 2020

N

0 0.2 0.4 0.6 0.8 1 Miles

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Rensch Group LLC		
Project Location (describe, and attach a general location map): 3945 Rensch Road, Town of Amherst - Erie County		
Brief Description of Proposed Action (include purpose or need): The proposed project ("action") consists of a three-story multifamily building consisting of twelve units and related site improvements to be located at 3945 Rensch ("Project Site"). The proposed action has been defined broadly to include all required discretionary approvals and permits as well as all proposed site improvements including an amendment of the zoning classification of the Project Site from R-4 to CTF-5. The project purpose is to develop the Project Site for residential purposes per a recommended land use contained in the Town's adopted Comprehensive Plan. The proposed project is an Unlisted Action and will not result in any potentially significant adverse environmental impacts.		
Name of Applicant/Sponsor: Rensch Group LLC c/o Sean Hopkins, Esq.	Telephone: 716.510-4338 E-Mail: shopkins@hsmlegal.com	
Address: 5500 Main Street, Suite 343		
City/PO: Williamsville	State: NY	Zip Code: 14221
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes ☐No	Town of Amherst Town Board - Rezoning	Amended Application - April 5, 2023
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town of Amherst Planning Board - Site Plan Approval	To be Determined
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Town of Amherst Building Department - Building Permit	To be Determined
e. County agencies ☑Yes ☐No	ECWA - Water	To be Determined
f. Regional agencies ☐Yes ☑No		
g. State agencies ☐Yes ☑No		
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes ☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes ☐No

If Yes, identify the plan(s):

NYS Heritage Areas:West Erie Canal Corridor

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Residential District Four ("R-4")

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☑ Yes ☐ No
If Yes,
i. What is the proposed new zoning for the site? Center 5 ("CTR-5")

C.4. Existing community services.

a. In what school district is the project site located? Sweet Home Central School District

b. What police or other public protection forces serve the project site?
Town of Amherst Police Department

c. Which fire protection and emergency medical services serve the project site?
Local Volunteer Fire Department

d. What parks serve the project site?
There are various park that will be accessible to the residents of the Project Site.

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Multifamily

b. a. Total acreage of the site of the proposed action? .5 acres
b. Total acreage to be physically disturbed? .4 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? .5 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: _____ months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				12
At completion of all phases				12

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

_____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

_____

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ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: 2,400 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Erie County Consolidated Water District
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: 2,400 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary wastewater.

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Town of Amherst Wastewater Treatment Plant
- Name of district: Town of Amherst Consolidated Sanitary Sewer District
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or .2 acres (impervious surface)

_____ Square feet or .5 acres (parcel size)

ii. Describe types of new point sources. _____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater runoff will be directed into the municipal storm water system.

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☐ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐ Yes ☑ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7:00 to 7:00
- Saturday: 7:00 to 5:00
- Sunday: As needed
- Holidays: Not Applicable

ii. During Operations:

- Monday - Friday: Not Applicable
- Saturday: _____
- Sunday: _____
- Holidays: _____

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m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Construction equipment and activities limited to daytime hours is a temporary and unavoidable adverse impact.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Lighting improvements on the Project Site will comply with the stringent lighting standard contained in the Zoning Code.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

5.a

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): Mixed-Use

ii. If mix of uses, generally describe:

Mixtures of land uses including commercial, student housing and multifamily.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	.2	.4	.2
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Greenspace and Landcaping	.3	.1	(.2)

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No
If Yes,
i. Identify Facilities:
There is a People Inc. group home located within 1,500 ft. of the Project Site on Rensch Road

e. Does the project site contain an existing dam? ☐ Yes ☑ No
If Yes:
i. Dimensions of the dam and impoundment:
- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No
If Yes:
i. Has the facility been formally closed? ☐ Yes ☐ No
- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No
☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____
☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No
If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? >10 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: Churchville Silt Loam 100 %

d. What is the average depth to the water table on the project site? Average: >10 feet

e. Drainage status of project site soils:
☐ Well Drained: _____% of site
☐ Moderately Well Drained: _____% of site
☑ Poorly Drained 100 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☑ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

m. Identify the predominant wildlife species that occupy or use the project site: Typical suburban species.

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

If Yes:

i. Species and listing (endangered or threatened): _____

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:

i. Species and listing: _____

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site? _____

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: Eligible property:4030 Rensch Road, Amherst

iii. Brief description of attributes on which listing is based:

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s):

ii. Basis for identification:

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource:

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.):

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation:

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Rensch Group LLC Date April 5, 2023

Signature Sean Hopkins Title Attorney for Project Sponsor

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

PRINT FORM

EAF Mapper Summary Report

Monday, February 20, 2023 12:5[illegible] P.M.



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas:West Erie Canal Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Eligible property:4030 Rensch Road, Amherst
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

TOWN OF AMHERST ATTACHMENT
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM

1. For each applicable category of proposed new structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Churchville Silt Loam	Severe	Severe	Severe	Severe	Moderate

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   __x__ Geotechnical report attached _____ Not applicable

   [Note: Three copies of the Geotechnical Report prepared by Barron & Associates P.C. dated August 24, 2022 have been submitted to the Planning Department].

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes x No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes x No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes x No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:

   Not Applicable.

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes ☒ No
   Describe: Not Applicable.

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project 11[Weekday A.M. Peak]
   Source: ITE Trip Generation Report

8. Will blasting occur during construction? □ Yes ☒ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ☒ Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    2,400 average flow 9,600 peak flow.

    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes ☒ No

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

April 5, 2023

Gary Palumbo, AICP, Associate Planner
Town of Amherst Planning Department
5583 Main Street
Williamsville, New York 14221

Re: Amended Rezoning Application & Supporting Documentation
Rezoning of 3945 Rensch Road R-4 to CTR-5 [Z-2023-02]
Applicant/Project Sponsor: Rensch Group LLC c/o Ellicott Development Company
File No. 10173.12

Dear Gary:

Per our recent discussion as well as the comment letter issued by the Planning Department dated April 4th, enclosed is an Amended Rezoning Application with attached supporting documentation being submitted for the purpose of seeking to amend the zoning classification of 3945 Rensch Road ("Project Site") from R-4 to CTR-5 instead of the previously requested SC-3 zoning classification pursuant to the Planning Department's input in order to accommodate the proposed redevelopment of the Project Site as a three-story multifamily building consisting of twelve units. In connection with the updated submission, enclosed is the following:

1. Amended Rezoning Application dated April 5th with attached supporting documentation consisting of Exhibits "1" to "8". The Exhibits consist of the following:

   - **Exhibit 1:** Amended Part 1 of the Full Environmental Assessment Form prepared pursuant to the State Environmental Quality Review Act ("SEQRA") with attached Page 5[a];
   - **Exhibit 2:** Legal description of property to be rezoned from R-3 to CTR-5;
   - **Exhibit 3**: Survey of the Project Site as prepared by Ottney & Miller, L.S.P.C.;
   - **Exhibit 4:** Responses to Question 11 of the Rezoning Application;
   - **Exhibit 5:** Responses to Questions 16A, 16C, 16D and 16E of the of the Rezoning Application;
   - **Exhibit 6:** Reduced-size copy of the updated Concept Site Plan [Drawing C-100 – Date: 04/04/23] as prepared by Christopher Wood, P.E. of Carmina Wood Design;
   - **Exhibit 7:** Conceptual Elevation Plan for the proposed three-story multifamily building as prepared by Sutton Architecture PLLC; and

HOPKINS SORGI & MCCARTHY PLLC
Attorneys at Law
5500 Main Street, Suite 343 • Williamsville, New York 14221
Direct: 716-510-4338 • E-mail: shopkins@hsmlegal.com • www.hsmlegal.com

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

- **Exhibit 8:** Color copies of Figure 6 and Figure 6-A of the Bicentennial Comprehensive Plan

The Project Sponsor is requesting that Planning Board adopt resolutions during its upcoming meeting to be held on **Thursday, April 20th at 6:30 p.m.** for the purpose of recommending that the Town Board issue a negative declaration pursuant to the State Environmental Quality Review Act ("SEQRA") and approving the requested rezoning of the Project Site from R-4 to CTR-5.

If you have any questions regarding the enclosed Amended Rezoning Application and supporting documentation, please feel free to contact me at 716.510-4338 or via e-mail at shopkins@hsmlegal.com.

Sincerely,

HOPKINS SORGI & MCCARTHY PLLC

Sean W. Hopkins, Esq.

Enc.
cc: Thomas M. Fox, Director of Development [Via mail w/enclosures]
Christopher Wood, P.E., Carmina Wood Design [Via e-mail]
David Sutton, Sutton Architecture PLLC [Via e-mail]

Attachment: Z-2023-02 application 042023 (27197 : Z-2023-02)

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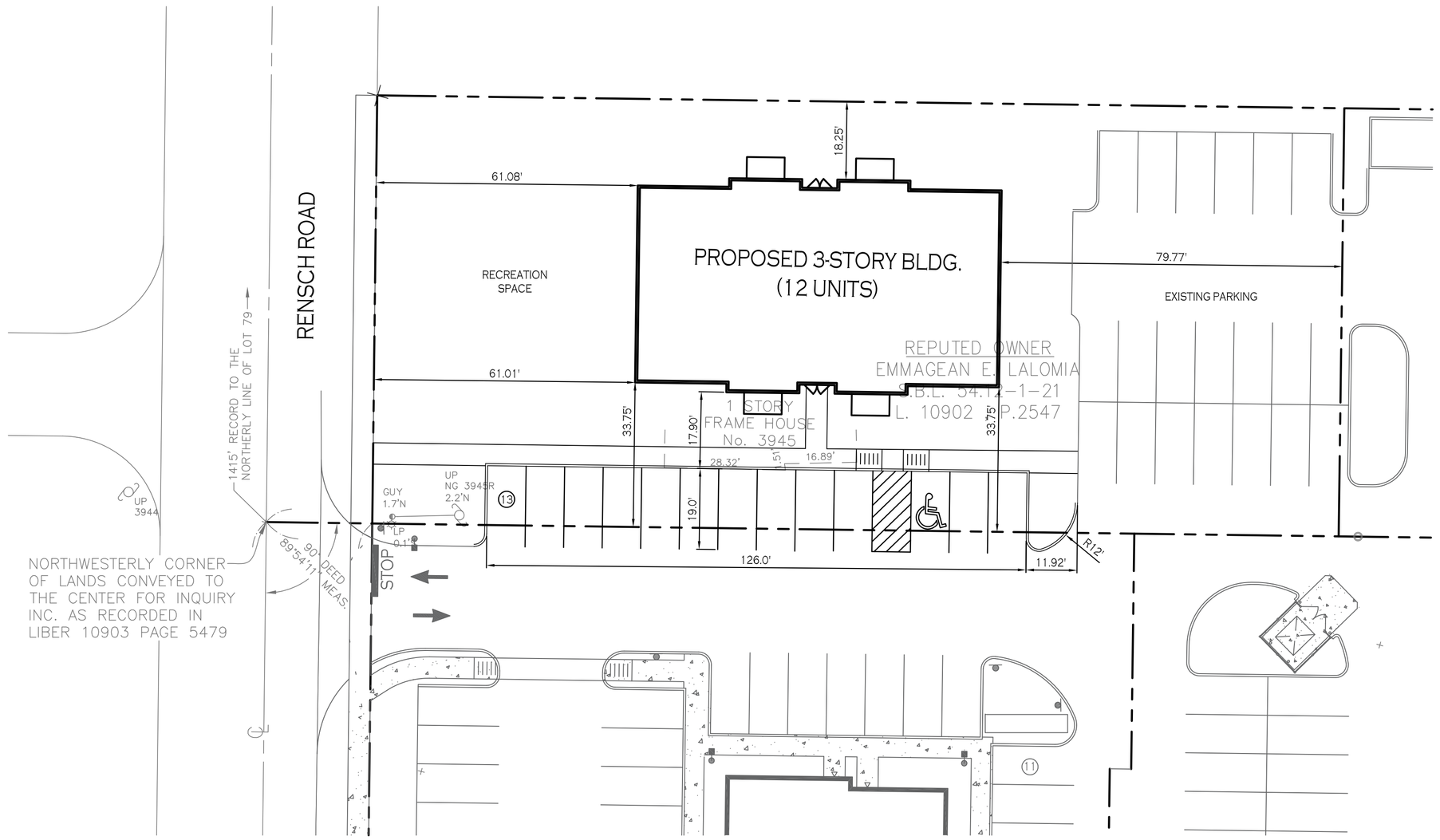
Attachment: Z-2023-02 drawings 042023 (27197 : Z-2023-02)



SITE PLAN

SCALE: 1"=20'

SITE DATA		
SITE AREA = 0.5 AC		
ZONED: REZONE TO CTR - 5		
USE: PROPOSED 3-STORY 12 UNIT APARTMENT BUILDING		
SETBACKS - BUILDING	REQUIRED	PROVIDED
FRONT	5' MIN.	61.01' MIN.
SIDE	0' MIN.	18.25' MIN.
REAR	0' MIN.	79.77' MIN.
SETBACKS - PARKING		
FRONT	10' MIN.	> 10 FT
SIDE	0' MIN.	0'
REAR	0' MIN.	N/A
TOTAL VEHICLE SPACES	12	13
BICYCLE	6	6
ELECTRIC VEHICLE STATION	1	1
GREENSPACE		
INTERIOR PARKING GREENSPACE:	5% (135 SF)	13% (220 SF)
MAX. BUILDING HEIGHT	5 STORIES / 75'	3 STORIES / < 75'
OUTDOOR AMENITY SPACE	5% (0.025 AC)	20% (0.1 AC)

PARKING CALCULATION (PER SECTION 5A-9-1-A)

APARTMENTS/TOWNHOMES:
REQ'D: 1 SPACE PER 2-BDRM UNIT = 1 X 12 UNITS = 12 SPACES
REQ'D = 12 SPACES REQ'D

TOTAL PARKING SPACES REQUIRED = 12 SPACES

BICYCLE CALCULATION (PER SECTION 5A-9-1-A)

RESIDENTIAL:
REQ'D: 0.5 PER UNIT (20 MAX.)
REQ'D = 0.5 x 12 = 6 SPACES REQ'D.

TOTAL BICYCLE SPACES REQUIRED = 6 SPACES

ELECTRIC VEHICLE CALCULATION (PER SECTION 5A-9-1-D)

1% OF TOTAL PARKING = 13 x 0.01 = 1 SPACES REQ'D.

NOTE: BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY OTHERS, CARMINA WOOD DESIGN ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

20' 20 0 20 40Ft.

CARMINAWOOD DESIGN

487 Main Street, Suite 500
Buffalo, New York 14203
Phone: (716) 842-3165

111 Bain Street, Suite 332
Greensboro, North Carolina 27406
Phone: (336) 937-9009

Multi-family Development

3945 Rensch Road
Amherst, New York

REVISIONS:

No.	Description	Date

Sealed: XX.XX.XXXX

DRAWING NAME:

Site Plan

Date: 04.04.23
Drawn By: C. Wood
Scale: As Noted

DRAWING NO.

C-100

Project No: 22.238

TOWN OF AMHERST
PLANNING BOARD
ZONING RESOLUTION
Z-2023-02

PETITIONER

Rensch Group LLC
c/o Sean Hopkins
5500 Main Street, Suite 343
Williamsville, NY 14221

PROPERTY LOCATION

3945 Rensch Road

WHEREAS the Town of Amherst Planning Board on Thursday, April 20, 2023 held a public hearing on the proposed rezoning of land from Residential District Four (R-4) to Center 5 District (CTR-5), and

WHEREAS the Planning Board has reviewed plans and other materials regarding the rezoning proposal, and

WHEREAS the materials and plans have been referred to the Town's various review agencies, and

WHEREAS in accordance with Section 8-3-5 of the Zoning Ordinance the Planning Board finds that:

A. The proposed zoning and development plan is generally consistent with the policies of the Comprehensive Plan and the Zoning Ordinance and is consistent with the Conceptual Land Use Plan which shows medium density residential use in a mixed-use form in this area of the Town.

B. There are adequate services and utilities available or proposed to be made available in the construction of the development.

C. The proposal is compatible with the present zoning and conforming uses of nearby property and with the character of the neighborhood.

D. The subject property is no longer suitable for uses permitted by the current zoning district versus the proposed district.

E. The proposed change does tend to improve the balance of uses, or meets a specific demand in the Town.

F. Review by the US Army Corps of Engineers under Section 404 of the Clean Water Act may be waived because the parcel is developed.

WHEREAS pursuant to Local Law #3-82, as amended, the Planning Board recommends that the Town Board determine that the requirements of SEQR are complete and that the subject proposal is not expected to have a significant adverse effect on the environment.

'23 APR 26 PM1:0(

Attachment: Z-2023-02_signed_resolution_042023 (27197 : Z-2023-02)

TOWN OF AMHERST
PLANNING BOARD
ZONING RESOLUTION
Z-2023-02

PETITIONER

Rensch Group LLC

PROPERTY LOCATION

3945 Rensch Road

NOW THEREFORE BE IT RESOLVED that the Planning Board recommends to the Town Board in accordance with Section 8-3-4 of the Zoning Ordinance, that the rezoning request be approved subject to the following conditions:

1. That the comments and supporting documentation requested by the Engineering Department and Traffic Safety Board be addressed to their satisfaction during the site plan review process.

The foregoing resolution was adopted by the Town of Amherst Planning Board, April 20, 2023; moved by Penberthy; seconded by Chmiel; ayes 7, noes 0.

Robert J. Gilmour, Planning Board Chair

4-25-23
Date

GP/ac
X:\Current_Planning\Files\Rezonings\2023\Z-2023-02_(3945_Rensch_Rd)_2023\Z-2023-02_resolution_042023.doc
cc: Town Clerk
Commissioner of Building
Highway Superintendent
Town Engineer
Traffic/Safety Coordinator
Sean Hopkins, Hopkins Sorgi & McCarthy, 5500 Main Street, Suite 343, Williamsville, NY 14221

'23 APR 26 PM1:0(

Attachment: Z-2023-02_signed_resolution_042023 (27197 : Z-2023-02)

TOWN OF AMHERST PLANNING DEPARTMENT

Zoning & Subdivision Text Amendment Application

File # ZTA-2023-01

1. Zoning Ordinance Text Amendment ☒
2. Subdivision Regulations Text Amendment ☐

RECEIVED
APR 05 2023
TOWN OF AMHERST
PLANNING DEPT.

PETITIONER:

- ☒ Town Board
- ☐ Planning Board
- ☐ Zoning Board of Appeals
- ☐ Commissioner of Building
- ☐ Planning Director
- ☐ Zoning Enforcement Officer

Sections Proposed to be Amended: **(Attach sheets as necessary.)**

203-1-13 to be added.

Description of Amendments: **(Attached sheets as necessary.)**

to exclude the Town of Amherst from certain public uses to comply with the Zoning Ordinance (Chapter 203)

Materials Received by Planning Department

April 5 2023.
RECEIVED BY DATE

Materials Filed with Town Clerk

ACCEPTED BY DATE

X:\Current_Planning\Application Forms 2019\Zoning or Subdivision Text Amend App 2022.doc

Attachment: ZTA-2023-01 application 042023 (27355 : Zta-2023-01)

TOWN OF AMHERST

ERIE COUNTY, NEW YORK

5583 MAIN STREET
WILLIAMSVILLE, NEW YORK 14221
(716) 631-7030
FAX (716) 631-7101
www.amherst.ny.us

Martin A. Polowy
Town Attorney

Nicole M. Burroughs
Senior Paralegal

Samuel A. Alba
Sr. Deputy Town Attorney

Ann Demopoulos
Deputy Town Attorney

Brittanylee Penberthy
Town Prosecutor

RECEIVED
APR 05 2023
TOWN OF AMHERST
PLANNING DEPT.

TO: **Town Board**

FROM: **Martin A. Polowy, Esq., Town Attorney** MAP/nmb

DATE: **April 4, 2023**

RE: **A Local Law Amending Chapter 203 of the Code of the Town of Amherst, Part 1, General Provisions, To Add A New Section, 1-13, To Exclude Certain Public Uses**

Attached please find the final draft of the proposed Local Law with respect to the above matter. The Public Hearing on this matter is scheduled for April 17, 2023 at 7:00 p.m.

By copy of this e-mail to Dan Howard and Mark Berke, we are seeking the recommendations of the Planning Board, Planning Director and Commissioner of Building pursuant to the provisions outlined in Chapter 203-8-5-4 of the Town Code.

Thank you.

MAP:NMB:hs
Attachment
c: Tim Koller, Deputy Town Clerk (*w/attachment*)
Mark S. Berke, PE, Commissioner of Building (*w/attachment*)
Dan Howard, Director of Planning (*w/attachment*)
Daniel Ulatowski, Assistant Planning Director/ZEO (*w/attachment*)

Attachment: ZTA-2023-01 application 042023 (27355 : Zta-2023-01)

RECEIVED
APR 05 2023
TOWN OF AMHERST
PLANNING DEPT.

LOCAL LAW NO.___ -2023

TOWN OF AMHERST

COUNTY OF ERIE, STATE OF NEW YORK

A Local Law Amending Chapter 203 Of The Code Of The Town Of Amherst, Also Known As The Zoning Ordinance, To Exclude Certain Public Uses

Be it enacted by the Town Board of the Town of Amherst as follows:

Section 1. Title.

This Local Law shall be referred to as, "A Local Law Amending Chapter 203 Of The Code Of The Town Of Amherst, Also Known As The Zoning Ordinance, To Exclude Certain Public Uses."

Section 2. Purpose

The purpose of this Local Law shall be to amend Chapter 203 of the Code of the Town of Amherst to exclude certain public uses.

Section 3.

Chapter 203 of the Code of the Town of Amherst is hereby amended to include a new section to Chapter 203, Part 1, namely Section 1-13, as follows:

Chapter 203, Part 1, Section 1-13

§203-1-13 Certain Public Uses Excluded

A. The regulations of this chapter shall not be construed as to limit or interfere with the dedication, development or use of any land or building for public parks, other public recreation areas or public schools required for compulsory education; or with the use of land or buildings owned by the United States of America, the State of New York, the County of Erie or the Town of Amherst and used for governmental purposes; or with the construction, installation, operation and maintenance for public utility purposes of water or gas pipes, mains or conduits, electric light or electric power transmission or distribution lines, telephone or telegraph lines, cable television lines, oil pipe lines, sewers, sewer mains or incidental appurtenances; nor with any highway, railroad right-of-way or mass transit right-of-way existing or hereafter authorized by the United States of

~~Strikethrough~~ = Deleted language; Underline = Added language

Attachment: ZTA-2023-01 application 042023 (27355 : Zta-2023-01)

America, the State of New York, the County of Erie, the Erie County Water Authority, or the Town of Amherst .

B. These exceptions, however, shall not be interpreted to permit yards, garages or other buildings for service or storage by said public utilities which are otherwise permitted by this chapter in appropriate districts; nor shall these exceptions permit wireless telecommunications facilities as permitted by sections 6-7 and section 6-11, unless constructed by or for the Town of Amherst or on the Town's behalf to include governmental use.

C. These exemptions do not apply to the provisions of the State Environmental Review Act (SEQRA) or other state or federal requirements, but are limited only to requirements of the Town of Amherst.

D. The Town Board may prescribe conditions that it deems necessary or desirable and may require a site plan of the proposed installation. Application for such use impacting 20 acres or more may be referred to the Town Planning Board for its recommendation which shall be advisory only.

Section 4. Severability.

If any section, subsection, sentence, clause or phrase of this Local Law is for any reason held to be invalid or unconstitutional, such decision shall not affect the validity of the remaining portions of this Chapter. The Town Board declares that it would have passed this Chapter, and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases may be declared invalid or unconstitutional and, if for any reason this Chapter should be declared invalid or unconstitutional, then the remaining section, subsection, sentence, clause or phrases shall be in full force and effect.

Section 5. Effective Date

This Local Law shall take effect immediately and be filed in the Office of the Secretary of State in accordance with Section 27 of the Municipal Home Rule Law and published pursuant to Sections 130 and 133 of the Town Law and Chapter 28 of the Code of the Town of Amherst.

Francina J. Spoth, Town Clerk
Town of Amherst
County of Erie, New York

~~Strikethrough~~ = Deleted language; Underline = Added language

Attachment: ZTA-2023-01 application 042023 (27355 : Zta-2023-01)

TOWN OF AMHERST
PLANNING BOARD
ZONING ORDINANCE TEXT AMENDMENT RESOLUTION
ZTA-2023-01

PETITIONER

Town of Amherst

WHEREAS the Town of Amherst Planning Board on Thursday, April 20, 2023 held a public hearing on the proposed zoning ordinance changes, which exempt the Town of Amherst Government from the provisions of the Chapter 203 (Zoning Ordinance) of the Amherst Town Code, and

WHEREAS the Planning Board has reviewed materials regarding the text amendments proposal, and

WHEREAS the materials have been referred to the Town's various review agencies, and

NOW THEREFORE BE IT RESOLVED that the Planning Board recommends to the Town Board in accordance with Section 8-3-4 of the Zoning Ordinance, that the Zoning Text Amendment **not be approved.**

The foregoing resolution was adopted by the Town of Amherst Planning Board, April 20, 2023; moved by - Fenberthy; seconded by - Raffaele; ayes 4, noes 3; absent - 0.

Robert J. Gilmour, Planning Board Chair

4-25-23
Date

DU/ac
X:\Current_Planning\Files\Text Amendments\ZTA-2023\ZTA-2023-01_(Chaper 203 zoning immunity)\ZTA-2023-01_Blurb_042023.doc
cc: Traffic/Safety Coordinator
Commissioner of Building
Highway Superintendent
Town Engineer

'23 APR 26 PM4:2

Attachment: ZTA-2023-01_signed_resolution_042023 (27355 : Zta-2023-01)

TOWN OF AMHERST

APPLICATION & REVIEW PROCEDURE

MAJOR SITE PLAN

MATERIALS MUST BE PROVIDED IN AN ELECTRONIC FORMAT THAT CONTAINS PDF FILES OF THE APPLICATION, EAF, SITE PLAN DRAWING SET SURVEY, LANDSCAPE PLAN, PRELIMINARY BUILDING FLOO PLANS / ELEVATIONS & ANY OTHER SUPPORTING INFORMATION. THIS MUST BE SUBMITTED WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE TRANSMITTED WITHOUT THIS ELECTRONIC INFORMATION.

THIS ALSO APPLIES TO REVISED MATERIALS THAT AR SUBMITTED.

This application package includes the following:

- Application Procedures
- Application Form & Checklist
- Stormwater Pollution Prevention Plan Checklist
- Appendix A Town of Amherst EAF Addendum
- Appendix B Criteria for Required 8½" x 11" Sketches
- Appendix C Erie Sewer District No. 5 – Commercial / Industrial New & Existing Buildings Requirements

- IMPORTANT-

1. A pre-submittal consultation with Planning Department staff is *strongly recommended* prior to submitting an application. The pre-submittal meeting gives the applicant an opportunity to discuss with staff such items as:
   - classifying the action as a major site plan, minor site plan, or minor site plan adjustment;
   - determining what specific information will be required to be submitted with the application;
   - identifying and discussing issues that must be addressed as part of the SEQR review;
   - identifying any potential variances required to implement the project as proposed.

   An appointment is required for all meetings with Planning Department staff.

2. This site plan petition is subject to the requirements of 6 NYCRR Part 617, State Environmental Quality Review Act (SEQR), and Chapter 104 of the Town of Amherst Code, as amended. The Planning Board cannot make a SEQR determination unless a complete Environmental Assessment Form (EAF), including Town of Amherst EAF Addendum, and any required supplementary information such as traffic impact studies, archaeological reports, wetland delineations or geotechnical reports, are submitted. SEQR issues may be discussed with Planning Department staff at a recommended pre-submittal meeting. Unlisted Actions require a Short EAF; Type I Actions require a Full EAF. The following is a link to the NYSDEC website and fillable forms with instructions*:*
   http://www.dec.ny.gov/permits/6191.html.

3. **Review by the Town Design Advisory Board (DAB) is required for Major Site Plans located in the following Mixed-Use zoning districts:**

   Traditional Infill 2.5 (TI-2.5)
   Traditional Infill 4 (TI-4)
   Shallow Corridor 3 (SC-3)
   Deep Corridor 3 (DC-3)
   Deep Corridor 5 (DC-5)
   Center 2.5 (CTR-2.5)
   Center 5 (CTR-5)
   Center 8 (CTR-8)

   The application for DAB review is required to be filed in conjunction with the major site plan application.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

4. The application shall be executed or consented to in writing by the owner of the property.

5. **Any variances from the Zoning Board of Appeals, or any decision from the Town Board (e.g. removal of deed restrictions) must be obtained prior to action by the Planning Board on a Site Plan application.**

6. Submittal of an application grants permission to Town staff and Planning Board members to access the parcel(s) under consideration.

7. All site plan drawings must be prepared by a Registered Architect, Professional Engineer, Landscape Architect, or Land Surveyor (as applicable) licensed to practice in New York State.

8. If you wish to include a Coordinated Sign Plan application with the site plan petition, a separate application must be completed. Contact the Planning Department for a copy of a Coordinated Sign Plan application package.

9. All drawings should be no larger than 24 in. x 36 in. If site characteristics warrant larger plan sheets, they may be accepted subject to Planning Department concurrence. All drawings must also reserve a 4 in. x 6 in. area in the lower right hand corner for official Town use.

APPLICATION PROCEDURES

1. Applicant secures application package from the Planning Department, 5583 Main Street, Williamsville, NY 14221. (716) 631-7051. Forms are also available online at: www.amherst.ny.us, (keyword: Planning).

2. Applicant prepares information as required on the Site Plan Submittal Checklist, attached. NOTE: Some proposals may not require all items on the checklist; please verify with the Planning Department.

3. Applicant schedules an appointment with the Planning Department to review the following:
   - a complete set of site plan drawings, preliminary building elevations and floor plans (no larger than 24" x 36" in size)
   - Environmental Assessment Form (EAF) & Town EAF Addendum
   - any supporting reports and materials
   - verification from the Town Assessor that the address in the application is correct

4. Applicant schedules an application submittal appointment with the Planning Department. NO SITE PLAN WILL BE ACCEPTED FOR REVIEW WITHOUT A PRE-SET SUBMITTAL APPOINTMENT.

5. At the submittal appointment, applicant provides fourteen (14) complete and collated sets of drawings and application information to the Planning Department **(materials will not be accepted unless folded into 9" x 12" in size),** including**:**
   - application form
   - Environmental Assessment Form (EAF)
   - supporting reports / materials
   - complete set of site plan drawings, preliminary building elevations and floor plans (**at least one (1) set of drawings must bear a raised or wet seal and signature of the design professional** who prepared the plans; the remaining copies may be submitted with a facsimile of the seal and signature)
   - digital files of all materials in pdf format
   - an 8½" x 11" reduction of the sketch plan or plat drawing (see Appendix B)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

6. After approval for filing by the Planning Department, applicant submits all necessary fees to the Town Clerk. **(See Schedule of Fees on first page of application and make checks payable to: Town of Amherst.)**

7. The applicant returns a copy of the filing receipt to the Planning Department.

8. The Planning Department transmits remaining thirteen (13) copies of the application and supporting materials to:
   - Assessor
   - Commissioner of Building
   - Town Engineer
   - Superintendent of Highways
   - Traffic/Safety Board
   - Fire Chiefs' Association
   - Plumbing Division
   - Right-of-Way Agent
   - Police Department (if applicable)
   - Zoning Enforcement Officer
   - Other Town and outside agencies, as applicable

9. Within 30 days of its receipt of the complete application for Site Plan approval, each agency completes its review and notifies the Planning Department in writing of its comments or recommendations as required by Ordinance.

10. The applicant may be required to submit revised plans, reports, or materials to address review agency comments. The procedures for submittal of revised plans are as follows:

    - A cover letter addressing all comments received to date is required.
    - "Highlight" the area of change on the drawings and provide a notation describing the change.
    - Revised plans/materials are required. Planning staff should be contacted to determine the number of sets needed.
    - All revised plans and materials must also be provided in an electronic format that contains pdf files of the revised information.

11. The Planning Board reviews the EAF to determine whether a Draft Environmental Impact Statement (DEIS) is required. The petitioner will be advised in the event that a DEIS is required and afforded the opportunity to prepare it. If the petitioner declines, the Planning Board will prepare the DEIS at the petitioner's expense. The public hearing will be held on the DEIS concurrently with the Planning Board hearing on the application.

12. Planning Board Meeting Procedures:

    The applicant or representative presents the project at the public hearing before the Planning Board and is available to answer any questions. The Planning Board may take any of the following actions:

    - Adjourn the hearing to a future Planning Board meeting (hearing remains open).
    - Close the hearing and table action on the site plan to a future Planning Board meeting. (The Planning Board may remove the item from the agenda until such time as all required information is provided.)
    - Close the hearing and make a decision on the site plan.

    All determinations on matters before the Planning Board are made after all public hearings on that meeting's agenda are completed.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

13. A copy of the Planning Board's determination will be provided to the applicant, his / her representative, the Building Commissioner and the Town Clerk approximately 1 week following the Planning Board meeting at which it was heard.

14. If the Planning Board approves a Site Plan with conditions, the Planning Department will work with the applicant to ensure that all conditions of the approval are satisfactorily addressed. When all conditions are satisfied, the applicant submits **seven (7) final copies** of the complete set of all site plan drawings, folded into 9" x 12". For site plans in the Mixed-Use zoning districts, building elevations will also be required.

    All 7 sets must have original wet seals and include the required 4 in. x 6 in area in the lower right hand corner for official Town use. These drawings will be stamped and signed "Approved" by the Planning Director and transmitted to Town Departments for their files and use.

15. A building permit will not be issued by the Building Department until the stamped and signed Site Plan is issued by the Planning Director.

NOTE: Please check with the Planning Department to determine the deadline date for filing applications. Due to the public hearing notice requirements and department reviews, no site plan application will be placed on the Planning Board agenda after the deadline for filing has closed. Scheduling may be delayed if an application is incomplete.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Major Site Plan Review

For Official Use

File #: _____ **Acreage** _____ **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Received by Planning Department _____ RECEIVED BY DATE

Fee Paid to Town Clerk _____ RECEIVED BY DATE

Site Plan Review		**Fill In Applicable Fees**
1 acre or less	$1,250.00	_____
Each additional acre or fraction thereof	$ 650.00/acre	_____
Amendments to Site Plans	$1,200.00	_____
Request for Relief of / Change to Conditions of Site Plan Approval	$1,200.00	_____
Request for Extension of Site Plan Approval	$ 450.00	_____
Stormwater Pollution Prevention Plan		
1 - 4.99 Acres	$ 500.00	_____
5 - 10 Acres	$ 750.00	_____
>10 Acres	$1,000.00	_____
Affidavit Fee for Public Hearing	$ 15.00	_____
	TOTAL FEE:	**$**_____

To Be Completed By Applicant

Petitioner:

Name: Benderson Development Company, LLC

Address: 570 Delaware Avenue

Buffalo , New York 14202

city state zip code

Phone: 716-878-9626 Fax: _____

E Mail: jmb@benderson.com

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

MAJOR SITE PLAN APPLICATION (con't) ***Page 2***

Representative (Architect, Engineer, Landscape Architect, Surveyor, or Attorney)**:**

Name: James A. Boglioli

Address: 570 Delaware Avenue

Buffalo , New York 14202
city state zip code

Phone: 716-878-9626 Fax: _____

E Mail: jmb@benderson.com

Project Location (must be verified by Town Assessor's Office)**:**

Address: 4548 - 4564 Main Street

SBL No(s): 68.17-5-219.20, 68.17-5-219.21, 68.17-5-219.22

Project Name: _____

Project Description:

Property is currently occupied by a 2 story brick and wood retail/office building which faces Main Street. The rear and sides on Château and Freihauf contain split level areas. This will be demolished and removed. The new development will be a mixed uses, including approximately 7,000 square feet of commercial space on Main Street level with 45 to 50 apartments on upper levels. The area between the "U" shaped development will contain a terrace area and partial parking area at the Main Street level. Additional parking is accessible from Chateau Street at the rear of the site, Also, a 30' landscape buffer area will be constructed at the rear of the site. Building architecture will meet design guidelines.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

MAJOR SITE PLAN APPLICATION (con't) ***Page 3***

If this petition is an amendment to a previously approved site plan, please describe the proposed changes (include type and size of existing structures and number of existing parking spaces):

Please see the attached letter of intent

	existing	proposed	total
Gross Floor Area (non-residential):	12,146 sf	6,998 sf	-5,148 sf
Gross Floor Area Residential:	N/A	56,204 sf	56,204 sf
Number of Residential Units:	N/A	48 units	48 units
Number of Parking Spaces:	N/A	79	79

Acreage of Parcel: .93+/-

(list each parcel separately)

Frontage on Public Roads: Main Street – 185.64' Fruehauf – 200.0'

(list each road separately) Chateau – 269.63'

Existing Zoning District(s) TI-2.5

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Site Plan Submittal Requirements and Checklist

The following checklist outlines the information required by the Planning Department to accept a Site Plan application for review. ***It is strongly recommended that you make an appointment with Planning Staff to determine which items apply to your application***.

Item No.	Item	Submitted	Official use
I Basic Drawing Information			
1.0	**Drawing size not to exceed 24" x 36"**		
2.0	**Title of Drawing**		
3.0	**Name and address of Applicant**		
4.0	**Name of person preparing drawing**		
5.0	**Wet seal/raised seal and signature of NYS licensed architect, engineer, landscape architect, or surveyor (as applicable)**		
6.0	**Project address**		
7.0	**Zoning of subject property and adjacent parcels**		
8.0	**North point, scale, date, and revision date(s)**		
9.0	**4" x 6" reserved area in lower right hand corner for official Town use**		
II Structures, Paved Areas, & Open Space			
1.0	**Existing and Proposed Streets**		
1.1	Names of all existing and proposed streets		
1.2	Width and radii of proposed curb-cuts		
1.3	Existing curb-cuts on adjacent and opposite properties		
1.4	Show ROW width, pavement dimensions, lane widths, pavement markings, and proposed signage on proposed streets		
1.5	Show proposed ROW consistent with planned NYSDOT, Erie County, or Town road projects (if applicable)		
1.6	Show location of proposed cross access to adjacent parcels along with a draft easement		
1.7	Designation of Fire Lanes (if applicable)		
1.8	Fire apparatus access roads		
1.9	Label any proposed roads as public or private		
1.10	Location and dimensions of sidewalks		
1.11	Typical cross sections and profiles of proposed streets, pedestrian walkways, and bikeways		
2.0	**Proposed Structures**		
2.1	Location and complete dimensions of proposed structures		
2.2	Setback dimensions of structure(s) to all property lines		
2.3	Proposed use of structures		
2.4	Gross square feet area of each structure		
2.5	Location of all building entrances		
2.6	Indicate type of roof construction/materials		
2.7	Location, height, and design detail of existing and proposed fences and walls		
2.8	Location of light standards and building mounted lights		
2.9	Location of dumpster and detail of dumpster enclosure with gate		
2.10	Layout and dimensions of the lot(s) proposed for development		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.	Item	Submitted	Official use
II Structures, Paved Areas, & Open Space (cont'd)			
3.0	**Floor Plans with individual rooms and spaces labeled** (fully dimensioned)		
4.0	**Building elevations with height dimensions from finished grade to the highest point of the roof and to midpoint of gable or hip of a pitched roof.** (fully dimensioned)		
4.1	Show screening of mechanical equipment		
5.0	**Parking/Loading/Stacking Areas**		
5.1	Location and complete dimensions of all paved areas		
5.2	Setback dimensions of all paved areas to property lines		
5.3	Dimension of typical parking space and drive aisles		
5.4	Location and layout of handicapped parking spaces & access aisles		
5.5	Detail of vertical signage for handicapped parking and access aisles		
5.6	Indicate minimum parking requirement & number of spaces provided		
5.7	Proposed signage for directing and guiding traffic		
5.8	Curb cut permits from NYS, Erie County, or Town (if applicable)		
5.9	Pedestrian connections (from proposed structures to public sidewalk network)		
6.0	**Location and proposed development of all open spaces, including parks, playgrounds, and open reservations**		
III Utilities and Drainage			
1.0	**Engineers Report** (bound separately from the Stormwater Pollution Prevention Plan [SWPPP])		
1.1	Stamped/sealed and signed by NYS licensed architect or professional engineer		
1.2	Proposed water service sizing, RPZ pressure and fire safety flow and pressure calculations		
1.3	Proposed sanitary sewer facility load calculations (avg. & peak flows) including calculation of the peaking factor		
1.4	Proposed storm drainage facility calculations (see information included with this application)		
2.0	**Grading Plan**		
2.1	Existing and proposed grades indicated (proposed grades may not exceed 1 on 3)		
3.0	**Water Service**		
3.1	Location, size and material of existing and proposed facilities		
3.2	Location of existing and proposed fire hydrant location(s)		
3.3	Indicate use of sprinklers, location of Fire Department connection, and proposed fire protection systems		
3.4	Existing and proposed meter/RPZ size and location		
3.5	Applicable construction details		
4.0	**Sanitary Sewers**		
4.1	Locations, sizes, slopes, inverts, and materials of all existing and proposed facilities		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official use
III Utilities and Drainage (cont'd)			
4.2	Applicable construction details		
4.3	Proposed water/oil/grease interceptor sizing calculations by a professional engineer (if applicable)		
5.0	**Storm Drainage**		
5.1	Locations, sizes, slopes, inverts, and materials of existing and proposed storm drainage facilities		
5.2	Connection of roof drains to proposed drainage system		
5.3	Applicable Town Standard construction details		
5.4	Existing and proposed swales and ditches		
5.5	Detention area cross-section and high-level elevations		
5.6	County and State approval for tie-in to existing sewers		
6.0	**Stormwater Pollution Prevention Plan (SWPPP) as applicable** (bound separately from the Engineer's Report) **See attached checklist.**		
7.0	**Natural Gas Service**		
8.0	**Location of transformers, generators and other mechanical equipment; include detail drawings (if applicable)**		
9.0	**Downstream Sanitary Capacity Analysis (DSCA) Report** (must be submitted if proposed average flows are greater than 2,500 gallons per day)		
9.1	The DSCA Report must include a detailed downstream sewer capacity analysis and the calculations of and commitment to (via Developer commitment letter) the required financial contribution to the Town's I/I mitigation fund based on peak flow conditions. The contribution must be based on $250 per gallon per minute of mitigated flow		
IV Lighting Plan			
1.0	**Photometric plan showing light spread in foot candles at property lines**		
1.1	Detail of all light standards, including dimension of height from finished grade		
1.2	Detail of all exterior lighting fixtures		
V Landscape Plan			
1.0	**Wet/raised seal and signature of a licensed Landscape Architect**		
2.0	**Provide a calculation of the total Parking area and a calculation of interior parking area in square feet and as a percentage**		
3.0	**Indicate location, size, number and type of proposed landscape materials**		
4.0	**Indicate location, type and size of <u>all</u> existing trees 4" caliper or larger and indicate which will be removed or retained**		
VI Other Required Information/General Requirements			
1.0	**Complete boundary survey that includes all existing structures, acreage, legal description with reference to a property line, street, or other known feature, and easements plotted to scale by a NYS licensed land surveyor**		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official Use
VI Other Required Information/General Requirements (cont'd)			
1.1	Copies of all easements, reciprocal access agreement or similar leag documents		
2.0	**Topographic Survey with a 30 ft. buffer outside all property lines by a NYS licensed land surveyor**		
3.0	**Draft of any deed restrictions, covenants, provisions for home associations and common ownership, and reciprocal easement agreements (as applicable).**		
4.0	**For assessment purposes, state intent to apply for condominium status (if applicable).**		
5.0	**Completed and signed Environmental Assessment Form**		
5.1	Soil boring report and geotechnical report prepared by a qualified Professional Engineer (if applicable)		
5.2	Traffic Impact Study (if applicable)		
5.3	Archaeological survey (if applicable		
5.4	Wetland Delineation report (if applicable)		
6.0	**Show existing zoning(s) of both the subject property and adjacent parcels on the Site Plan and the Landscape Plan**		
7.0	**Location of NYSDEC wetlands (including buffer area) and/or federal wetlands; indicate jurisdictional status**		
8.0	**Location of Floodway and floodplain** (if applicable)		
9.0	**Documentation pertaining to any conditions of zonings, including copies of required deed restrictions; indicate date of rezoning and the parcel address under which it was rezoned (if applicable)**		
10.0	**Documentation related to any required variances granted by the ZBA**		
11.0	**For residential site plans, provide a statement from the appropriate school district that adequate school sites and facilities are available.**		
12.0	**8 1/2" X 11" reduction of primary site plan drawing (see appendix "B" of application package for specifications)**		
13.0	**A CD containing a PDF of all site plan drawings (Must also be provided with revised drawings)**		
VII Additional Required Information for Projects in the Mixed Use Districts			
1.0	**Design Advisory Board Application**		
1.1	Required for Major Site Plan		
1.2	Required at the Planning Directors Discretion for Minor Site Plans		
2.0	**Block & Street Network Plan**		
2.1	Designation of Core, Local & Alley streets		
2.2	Dimensions of Blocks		
3.0	**Block Usage Plan (as applicable)**		
3.1	Designation of site usage for each block including open space areas		
4.0	**Phasing Plan**		

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

For official use only:

_____
Approved/Date

X:\Current_Planning\Application Forms 2013 Working Doc\Major Site Plan\Site Plan Submittal Requirements and Checklist (3).doc

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   _____ Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes □ No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes □ No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes □ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   _____
   _____

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes □ No

   Describe_____
   _____

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project_____
   Source: _____

8. Will blasting occur during construction? □ Yes □ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? □ Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    _____ average flow _____ peak flow.

    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes □ No

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TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Ux-Urban Land Wassaic complex	Severe	Moderate	Severe	Severe	Severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   X Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? ☐ Yes ☒ No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? ☐ Yes ☒ No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? ☐ Yes ☒ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   4445 Main Street (1.02 Acres); 4925 Main Street (2.2 Acres);

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: ☐ Yes ☒ No

   Describe _____

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project 83 Trips
   Source: SRF & Associates Traffic Letter dated July 30, 2021

8. Will blasting occur during construction? ☒ Yes ☐ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ☒ Yes ☐ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    11,860 GPD average flow 33 GPM peak flow.

    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? ☒ Yes ☐ No

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Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Proposed Multi-Story Building		
Project Location (describe, and attach a general location map): 4548-4564 Main Street, 17 Freuhauf Ave, & 22 Chateau Terrace, Town of Amherst, NY 14226		
Brief Description of Proposed Action (include purpose or need): Proposed Action includes: Demolition of existing buildings along Main Street between, Fruehauf Ave and Chateau Terrace and residential property 22 Chateau Terrace and clearing of land; Proposed Multi-Story Building consisting of 48 apartments and 6,624 SF of restaurant space with associated parking garage, improved drainage and utility infrastructure, landscaping and site lighting. The total apartment units are as follows: 22 - 1 Bedroom units, 24 2 Bedroom Units and 2 - 3 Bedroom Units.		
Name of Applicant/Sponsor: Benderson Development Inc.	Telephone: 716-878-9626 E-Mail: jamesboglioli@benderson.com	
Address: 570 Delaware Ave		
City/PO: Buffalo	State: NY	Zip Code: 14202
Project Contact (if not same as sponsor; give name and title/role): James Boglioli, Esq	Telephone: 716-878-9626 E-Mail: jamesboglioli@benderson.com	
Address: 570 Delaware Ave		
City/PO: Buffalo	State: NY	Zip Code: 14202
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

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B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town of Amherst Planning Board	June 2022
c. City Council, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Town of Amherst Traffic Safety Board Town of Amherst Historic Preservation Commision	June 2022
e. County agencies ☑Yes ☐No	Erie County Water Authority	June 2022
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDOT; NYSDEC	June 2022
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

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C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Traditional Infill (TI-2.5)

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Amherst CSD

b. What police or other public protection forces serve the project site?
Amherst Police Department; Erie County Sheriff; NY State Troopers

c. Which fire protection and emergency medical services serve the project site?
Amherst Fire Department - Snyder District

d. What parks serve the project site?
None

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Residential and commercial

b. a. Total acreage of the site of the proposed action? 0.93 acres
b. Total acreage to be physically disturbed? 1.02 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.93 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Lot Combination
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 12 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

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f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	0			
At completion of all phases	48			

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 1

ii. Dimensions (in feet) of largest proposed structure: 35 height; 172.1 width; and 238.8 length

iii. Approximate extent of building space to be heated or cooled: 65,000 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Bio-retention pond

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify: Non-permeable surface runoff

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: 0.006 million gallons; surface area: 0.03 acres

v. Dimensions of the proposed dam or impounding structure: 1.5' height; 58' length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): Earth Fill

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging?

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe.

v. What is the total area to be dredged or excavated? acres

vi. What is the maximum area to be worked at any one time? acres

vii. What would be the maximum depth of excavation or dredging? feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

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ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: 12,034 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Erie County Water Authority
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: 10,940 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary Wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Tonawanda Creek Plant #16
- Name of district: Amherst Sewer District #1
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

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- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: None

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.83 acres (impervious surface)

_____ Square feet or 0.93 acres (parcel size)

ii. Describe types of new point sources. Proposed 12" Storm connected to existing 12" Storm along Chateau Terrace

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Yes, through a series of trench drains, catch basins and bio-retention pond

- If to surface waters, identify receiving water bodies or wetlands: N/A
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☑ No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐ Yes ☑ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐ Yes ☑ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

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h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☑ Evening ☐Weekend
☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: 1

iii. Parking spaces: Existing 50 Proposed 76 Net increase/decrease 26

iv. Does the proposed action include any shared use parking? ☑Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:
New Curb cut access points along Fruehauf Ave and Chateau Terrace

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☑Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☑Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____
TBD

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
National Grid

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 AM -9 PM (as allowed per code)
- Saturday: 7 AM -9 PM (as allowed per code
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: 24 hours
- Saturday: 24 hours
- Sunday: 24 hours
- Holidays: 24 hours

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m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Construction Equipment Monday - Saturday, 7am to 9 pm

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Parking Garage - Overhead LED Fixtures; Outdoor Seating - Architectural Poles on 1st floor

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

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7.a

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

Proposed Multi-Use Building with first floor retail and apartments

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.80	0.83	+ 0.03
• Forested	-	-	-
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	-	-	-
• Agricultural (includes active orchards, field, greenhouse etc.)	-	-	-
• Surface water features (lakes, ponds, streams, rivers, etc.)	-	0.01	+ 0.01
• Wetlands (freshwater or tidal)	-	-	-
• Non-vegetated (bare rock, earth or fill)	0.13	0.10	-0.03
• Other Describe: _____			

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7.a

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No
If Yes,
i. Identify Facilities:
Elder Care Solutions of WNY, Daemen University, Garden Nursery School-Ahmerst, Bornhava School and The Park School of Buffalo

e. Does the project site contain an existing dam? ☐ Yes ☑ No
If Yes:
i. Dimensions of the dam and impoundment:
- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:
_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No
If Yes:
i. Has the facility been formally closed? ☐ Yes ☐ No
- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:
_____
iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:
_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No
☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____
☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____
_____
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☐ No
If yes, provide DEC ID number(s): _____
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):
_____

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7.a

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? +/- 5 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: Ux 100 %
_____ %
_____ %

d. What is the average depth to the water table on the project site? Average: >10' feet

e. Drainage status of project site soils:
☑ Well Drained: 100 % of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☐ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100 year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500 year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

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m. Identify the predominant wildlife species that occupy or use the project site: None

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site? _____

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

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7.a

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Glen Falls - Amherst State Park

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Scenic Park and waterfall

iii. Distance between project and resource: 1.8 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Matthew J. Oates, P.E. Date 12/14/2022

Signature _____ Title Director, Engineering

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PRINT FORM

BENDERSON DEVELOPMENT

570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

September 28, 2022

Robert J. Gilmour, Chairman
Members of the Planning Board
Town of Amherst
5583 Main Street
Williamsville, NY 14221

RE: Application for Site Plan Approval
Proposed Site Redevelopment
4548-4564 Main St, Amherst, NY (BDP # 5202)

Dear Chairman Gilmour and Members of the Planning Board:

Enclosed please find materials in connection with our application for site plan approval for the parcel located at 4548-4564 Main Street (the "Project Site").

The Project Site is approximately 0.93-Acres and consists for four parcels between Fruehauf Ave and Chateau Terrace on the Northside of Main Street. The two parcels along Main Street consist of two existing retail buildings with associated parking lot accessed at the northside of site. All four parcels are in the mixed-use district Traditional Infill 2.5 (TI-2.5). As part of this project, these four parcels shall be combined into a single tax lot.

The proposed project will consist of the following:

- The demolition of existing buildings located on the Project Site (13K removed) and to construct a multi-story mixed use 65,000 +/- square footage building;
- Provide 48 Apartments of various bedroom sizes and 6,995 square feet of restaurant space;
- Provide a two-level parking garage to provide 79 parking spaces and requires 77 parking spaces;
- Provide Outdoor Amenity Space in accordance with the Mixed-Use District Town code;
- Provide new curb cut access drives from Fruehauf Ave and Chateau Terrace;
- Provide new site drainage infrastructures and utilities.

The proposed site plan and building elevations have been designed to meet the intent of the requirements of the TI-2.5 zoning.

We believe the project will be an attractive improvement and look forward to reviewing this project with the Planning Board. Should you have any questions or require any additional information, please do not hesitate to contact me.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James A. Boglioli, Esq.
Director, Right to Build – Northeast US

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PASSERO ASSOCIATES
engineering architecture

January 18, 2023

Mr. Matt Oates, P.E.
Director, Engineering
Benderson Development Company, LLC
570 Delaware Avenue
Buffalo, New York 14202

RE: Proposed 4548-4564 Main Street Mixed-Use Project, Town of Amherst, NY
Traffic Impact Assessment

Dear Mr. Oates:

The purpose of this Traffic Impact Assessment (TIA) is to identify and evaluate the potential traffic impacts associated with the proposed mixed-use project to be located at 4548-4564 Main Street in the Town of Amherst, NY. This assessment identifies the operating characteristics of the proposed access drives and impacts to the adjacent roadway network and recommends mitigating measures (if needed) to minimize any operational concerns. To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project.

SITE LOCATION AND STUDY AREA

The project site is to be located at 4548-4564 Main Street in the Town of Amherst, Erie County, New York. The project site, currently consisting of one to two-story buildings, is bounded by residential to the north, Chateau Terrace to the east, Main Street to the south, and Fruehauf Avenue to the west. Land uses in the vicinity of the site include residential, office, service, and retail.

To ensure a comprehensive analysis of potential traffic impacts, the following existing intersections were included in the analysis:

- Main Street (NY-5)/Chateau Terrace/Bernhardt Drive (signalized)
- Main Street/Fruehauf Avenue (unsignalized)

The site location and study area are illustrated in **Figure 1** (all figures and supporting materials are included at the end of this letter).

EXISTING TRAFFIC CONDITIONS

A. Vehicular Network Description

The following information outlined in **Table 1** provides a description of the existing roadway network within the project study area. **Figure 2** illustrates the lane geometry at the study intersections and the Annual Average Daily Traffic (AADT) volumes on the study roadways. The AADTs reflect the most recently collected data obtained from the New York State Department of Transportation (NYSDOT). Functional classification of highways within the study area is determined by the NYSDOT and the Federal Highway Administration (FHWA). Where recent data is not available, traffic data is shown as an extrapolation of turning movement counts collected by Passero Associates in 2022.

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TABLE 1: EXISTING HIGHWAY SYSTEM

ROADWAY	CLASS[1]	AGENCY[2]	SPEED LIMIT[3]	TRAVEL LANES[4]	ORIENTATION OF TRAVEL	AADT[5]
Main Street (NY-5)	14	NYSDOT	40	4	Two-way/ Northwest-Southeast	21,436 NYSDOT (2019)
Chateau Terrace	19	Town	30	2	Two-way/ North-South	1,210 Passero (2022)
Bernhardt Drive	19	Town	30	2	Two-way/ North-South	400 Passero (2022)
Fruehauf Avenue	19	Town	30	2	Two-way/ North-South	900 Passero (2022)

Notes:
1. State Functional Classification of Roadway: 14 = Urban Principal Arterial, 19 = Urban Local
2. Jurisdictional Agency of Roadway.
3. Posted or Statewide Limit in Miles per Hour (mph).
4. Number of travel lanes. Excludes turning/auxiliary lanes developed at intersections.
5. Estimated AADT in Vehicles per Day (vpd). AADT Source (Year).

B. Multi-Modal Network Description

Sidewalks are present along all study corridors. The signalized intersection of Main Street/Chateau Terrace/Bernhardt Drive consists of actuated pedestrian countdown signals, a high visibility crosswalk across Main Street, and ADA compliant curb ramps. There are no dedicated bicycle lanes, although bicyclists are allowed to share the road with motorists. The Niagara Frontier Transportation Authority has bus stops nearby.

C. Peak Intervals for Analysis

Given the functional characteristics of the study corridors, adjacent land uses, and the proposed land uses (residential, restaurants) for the project site, the peak hours selected for analysis are the weekday commuter AM and PM peak periods. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

D. Existing Traffic Volume Data

Turning movement traffic counts were collected on Tuesday, December 13, 2022, by Passero Associates at the study intersections. Traffic counts were conducted between 7:00-9:00 AM for the weekday AM peak period and 4:00-6:00 PM for the weekday PM peak period. The peak hour traffic periods generally occurred from 7:30-8:30 AM and 4:00-5:00 PM.

All turning movement count data was collected on a typical weekday while local schools were in session. No adverse weather conditions impacted the traffic counts. The traffic volumes were reviewed to confirm the accuracy and relative balance of the collective traffic counts. The actual differences in traffic volumes can be attributed to temporal variations in traffic volumes as well as activity related to parking in the segments between the study intersections. **Figure 3** illustrates the peak hour volumes used for analysis purposes in this study.

E. Field Observations

The study intersections were observed for the project during all peak intervals to assess current traffic operations. Signal timing and phasing information for the signalized intersection was obtained from the NYSDOT to determine peak hour phasing plans and phase durations during each interval. This information was used to support and/or calibrate capacity analysis models described in detail later in this report.

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F. Existing Peak Hour Queuing Assessment

A peak hour queuing assessment was performed along Fruehauf Avenue during the AM and PM peak hours to measure the frequency of southbound vehicles that block the proposed driveway. The centerline of the proposed driveway is located approximately 38 feet from the stop bar. Given this distance, the driveway is located approximately 1.7 vehicle lengths from the stop bar.

Our firm documented southbound queues at the intersection of Main Street/Fruehauf Avenue on Thursday, July 22, 2021, from 7:00-9:00 AM and 4:00-6:00 PM. The peak hours generally occurred from 8:00-9:00 AM and 4:30-5:30 PM. Based on this field investigation during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

G. Existing Crash Analysis

The purpose of this crash analysis is to identify inherent safety issues by studying and quantifying historical crashes at the study intersections and identifying potential crash patterns and clusters.

A crash cluster is defined as an abnormal occurrence of similar crash types occurring at approximately the same location or involving the same geometric features. The severity of the crashes should also be considered. A history of crashes is an indication that further analysis is required to determine the cause(s) of the crash(es) and to identify what actions, if any, could be taken to mitigate the crashes.

A crash investigation within the study area was conducted to assess the safety history from July 31, 2017, through July 31, 2021. The data was provided by the New York State Department of Motor Vehicles through a Freedom of Information (FOIL) request.

Despite the COVID-19 pandemic influencing daily travel in 2020 and 2021, only one crash was reported during this period, and it occurred in 2021. This crash was included in the analysis.

Reportable (non-injury, injury, and fatal injury) type crashes are defined as damage to one person's property in the amount of $1,001 or more. The Non-Reportable type crashes result in property damage of $1,000 or less. Crash rates were computed for the study intersections and compared with NYSDOT average crash rates for similar intersections, as summarized in **Table 2**. Intersection rates are listed as crashes per million entering vehicle (CR/MEV). Pertinent crash data is provided in the Appendices.

TABLE 2: EXISTING CRASH RATES

INTERSECTION	NUMBER OF CRASHES	NUMBER OF ENTERING VEHICLES	ACTUAL CRASH RATE	STATEWIDE AVERAGE CRASH RATE
Main Street/Chateau Terrace/Bernhardt Drive	9	19,800 vpd	0.25	0.26
Main Street/Fruehauf Avenue	0	18,958 vpd	0.00	0.26

Notes:
1. vpd = vehicles per day.
2. **Bold** text denotes crash rate above statewide average

Main Street/Chateau Terrace/Bernhardt Drive

Five of the nine (56%) reported crashes were attributed to rear end collisions. This is characteristic of heavily trafficked signalized intersections. Three of the crashes occurred in the westbound direction. The causes of the rear end crashes were generally due to driver error (e.g., following too closely, driver inattention). The remaining crashes were sideswipe (2), left turn (1), and a crash into a parked vehicle. No geometric improvements are recommended.

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FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed project is anticipated to reach full build-out within approximately two years. Widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis. Local municipal personnel were contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. No projects were identified.

A review of historical NYSDOT traffic volume data in the vicinity of the site indicates that traffic has decreased slightly between 2015 and 2019. To account for normal increases in background traffic growth, including any unforeseen developments in the project study area, a growth rate of 1.0% was applied to the existing traffic volumes. The background traffic volumes are depicted in **Figure 4**.

PROPOSED PROJECT

A. Project Description

The proposed project consists of constructing 48 apartment units, a ±2,513 square foot (SF) fast casual restaurant, and a ±4,111 SF fine dining restaurant. Access will be provided via two full access driveways: one along Chateau Terrace which accesses a parking lot with 54 spaces and one along Fruehauf Avenue which accesses a parking lot with 22 spaces. Chateau Terrace is posted as a "No Outlet" street while Fruehauf Avenue is posted as a "Dead End" street. On-street parking is available along Main Street. Sidewalks are present throughout the adjacent neighborhood. **Figure 5** illustrates the proposed concept plan.

B. Site Traffic Generation

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. Trip Generation Manual (11th Edition) published by the Institute of Transportation Engineers (ITE) is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of the adjacent street traffic and proposed land use, in this case, the weekday commuter AM and PM peaks, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis.

For certain types of developments, the total number of trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Service/retail-oriented developments (i.e., shopping centers, gas stations, coffee/donut shops, and restaurants) often locate adjacent to busy streets to attract the motorists already passing the site on the adjacent street. These sites attract a portion of their trips from traffic passing the site. The "pass-by" traffic refers to the amount of existing traffic already on the roadway adjacent to the site that, as it "passes by" the site, will enter the site driveways to patronize the project site. The quantifying of "pass-by" trips has the net result of reducing the volume of new traffic that is added to the site driveways and/or adjacent roadways. This site is likely to exhibit some level of pass-by traffic. However, no adjustment was made to remain conservative.

Table 3 shows the site generated trips for the proposed project.

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TABLE 3: SITE GENERATED TRIPS

DESCRIPTION	ITE LUC	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Multi-family Residential	220	48 units	5	14	15	9
Fast Casual Restaurant	930	±2,513 SF	2	2	17	15
Quality Restaurant	931	±4,111 SF	2	1	21	11
Total Site Generated Trips			**9**	**17**	**53**	**35**

Note:
1. ITE LUC = ITE Land Use Code.

The proposed project is expected to generate approximately nine entering/17 exiting vehicle trips during the AM peak hour and 53 entering/35 exiting vehicle trips during the PM peak hour.

C. Site Traffic Distribution

The cumulative effect of site generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site. The proposed arrival/departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Residential and employment centers using U.S. Census Data
- Site access locations
- Existing traffic patterns
- Existing traffic conditions and controls

Based on these parameters, **Figure 6A** illustrates the anticipated trip distribution pattern percentages for the residential traffic and **Figure 6B** illustrates the anticipated trip distribution for the restaurant traffic from the proposed project. **Figure 7** illustrates the peak hour project site generated traffic based on those percentages.

D. Full Development Volumes

Proposed design hour traffic volumes were developed for the AM and PM peak hours by combining the background traffic conditions (**Figure 4**) and the total site generated traffic volumes (**Figure 7**) to yield the traffic volumes under full build conditions. The resulting design hour volumes for the proposed project are illustrated in **Figure 8** under full build-out conditions.

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CAPACITY ANALYSIS

A. Description of Capacity Analysis

A capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis typically focuses on intersections, as opposed to highway segments.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing conditions with little to no delay, and LOS "F" with very long and significant delays to motorists. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Attachments. LOS “C” or better is generally desirable, but LOS “D” for signalized locations and LOS “E” for unsignalized are generally acceptable during peak periods so long as the volume to capacity ratio (v/c) is below 1.0.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the Highway Capacity Manual (HCM 2016) published by the Transportation Research Board (TRB). Traffic analysis software, Synchro 11, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service based on the HCM as an indicator of how well intersections operate. This study used HCM 2000 methodology for determining operations at the unsignalized intersections in accordance with local NYSDOT Region 5 guidelines.

B. Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the proposed project were analyzed to assess the operation of the study area intersections. Capacity results for existing, background, and full development conditions are listed in **Table 4**. The discussion following the table summarizes capacity conditions.

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TABLE 4: CAPACITY ANALYSIS RESULTS

INTERSECTION	2022 EXISTING CONDITIONS				2024 BACKGROUND CONDITIONS				2024 FULL DEVELOPMENT CONDITIONS			
	AM		PM		AM		PM		AM		PM	
1. Main Street/Chateau Terrace/Bernhardt Drive (S)												
EB Left - Main Street	A	8.3	A	7.6	A	8.5	A	7.7	A	8.9	A	8.2
EB Thru/Right - Main Street	A	7.9	A	7.9	A	8.0	A	8.0	A	8.4	A	8.4
WB Left - Main Street	A	8.1	A	7.6	A	8.2	A	7.7	A	8.6	A	7.9
WB Thru/Right - Main Street	A	7.8	A	7.6	A	7.9	A	7.7	A	8.3	A	8.0
NB - Bernhardt Drive	C	30.3	D	36.3	C	30.3	D	36.3	C	30.3	D	36.3
SB - Chateau Terrace	D	37.4	D	37.8	D	37.4	D	38.3	D	38.9	D	39.8
Overall LOS	**A**	**9.3**	**A**	**9.5**	**A**	**9.4**	**A**	**9.7**	**A**	**10.0**	**B**	**10.1**
Volume-to-Capacity (v/c) Ratio	**0.43**		**0.44**		**0.44**		**0.45**		**0.48**		**0.48**	
2. Main Street/Fruehauf Avenue (U)												
EB Left - Main Street	A	9.5	A	9.3	A	9.5	A	9.4	A	9.5	A	9.6
SB - Fruehauf Avenue	B	12.5	B	12.5	B	12.6	B	12.6	B	12.8	B	12.8
3. Fruehauf Avenue/Proposed Driveway (U)												
WB - Proposed Driveway	NA		NA		NA		NA		A	8.7	A	8.9
SB - Fruehauf Avenue									A	0.0	A	0.0
4. Chateau Terrace/Proposed Driveway (U)												
EB - Proposed Driveway	NA		NA		NA		NA		A	8.7	A	8.7
NB - Chateau Terrace									A	0.5	A	1.9

Notes:

1. A(2.8) = Level of Service (Delay in seconds per vehicle)
2. EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound
3. (S) = Signalized; (U) = Unsignalized
4. N/A = Approach does not exist and/or was not analyzed during this condition
5. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.
6. The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available and vehicles are not expected to experience significant queues and delays. A v/c ratio between 0.85 and 0.95 generally indicates an intersection is nearing capacity. Intersections with a v/c ratio of 1.0 or greater generally indicate conditions at or above capacity.

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1. Main Street/Chateau Terrace/Bernhardt Drive (Signalized)
All movements generally operate at LOS "D" or better under existing and projected background conditions with moderate delays for the northbound and southbound movements. The overall LOS is projected to change from "A" to "B" during the PM peak hour between background and full development conditions. However, this is a borderline condition as the threshold is 10.0 seconds of delay per vehicle. There are no other projected changes in LOS because of the proposed project. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

2. Main Street/Fruehauf Avenue (Unsignalized)
All movements operate at LOS "B" or better under existing, background, and full development conditions during both peak hours. There are no projected changes in LOS between background and full development conditions. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

3. Fruehauf Avenue/Proposed Driveway (Unsignalized)
All movements are projected to operate at LOS "A" under full development conditions. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

4. Chateau Terrace/Proposed Driveway (Unsignalized)
All movements are projected to operate at LOS "A" under full development conditions. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

SIGHT LINE EVALUATION

Based upon a review of the attached site plan, the proposed building is projected to be built in approximately the same footprint as the existing structures fronting Main Street. There is a marked stop bar for traffic exiting Fruehauf Avenue.

In this case, the primary concern is with the proposed building at the existing Main Street/Fruehauf Avenue intersection. The attached **Figure 9** illustrates the sight line evaluation performed at the intersection to the east of the intersection.

Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection. Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions.

A Policy on Geometric Design of Highways and Streets (2011) published by the American Association of State Highway and Transportation Officials (AASHTO), was used as a reference to establish the required Stopping Sight Distance (SSD) and desirable Intersection Sight Distance (ISD) for the adjacent driveway location. **Table 5** depicts the results of the sight distance evaluation at the Main Street/Fruehauf Avenue intersection.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

TABLE 5: SIGHT LINE EVALUATION

DESCRIPTION		VALUE
POSTED SPEED		40 MPH
DESIGN SPEED[1]		45 MPH
REQUIRED SSD		360 feet
DESIRABLE ISD		500 feet
AVAILABLE SIGHT DISTANCE TO THE EAST	*SSD*	>360 feet
	ISD	505 feet (no vehicles) 155 feet (parked vehicles)

Note:
1. Design speed equals posted speed plus 5 MPH.

The required SSD is satisfied to the east of the study intersection. When cars are parked in the spaces in front of the building, the ISD is not satisfied. However, with no vehicles parked, the ISD is satisfied.

It is understood that urbanized environments consist of on-street parking, limited to zero building setback lines, and other fixed objects (e.g., signs, trees, street furniture). By regulation, on-street parking is restricted within 20 feet of a crosswalk at an intersection and within 30 feet of a traffic signal or stop sign. In this case, parking is restricted for more than 60 feet along the northern side of Main Street from Fruehauf Avenue. Legally parked vehicles may be considered as allowable objects in this case. It is noted that on-street parking can be beneficial in these settings to reduce vehicle speeds and provide a buffer to pedestrians on the sidewalk. This condition is not unique to this study location and can be found in other areas along Main Street in Amherst and Williamsville.

Parking within the sight triangle may occur throughout the day and limit the sight lines, as noted on **Figure 9**. However, given the existing condition of the intersection and intermittent nature of the sight line being impacted, intersection warning signage may be considered as relief.

CONCLUSIONS & RECOMMENDATIONS

This Traffic Impact Assessment identified and evaluated the potential traffic impacts that can be expected from the proposed mixed-use project to be located at 4548-4564 Main Street in the Town of Amherst, NY. The results of this study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting impacts to study area intersections. The following sets forth the conclusions based on the results of the analyses:

1. The proposed project is expected to generate approximately nine entering/17 exiting vehicle trips during the AM peak hour and 53 entering/35 exiting vehicle trips during the PM peak hour.

2. All movements generally operate at LOS “D” or better under existing, projected background, and full development conditions during both peak hours studied at all study intersections. Minimal impacts are projected because of the proposed project. No capacity improvements are recommended at the study intersections.

3. Based upon documentation of southbound queues at the intersection of Main Street/Fruehauf Avenue during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

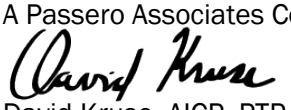
4. Based upon a sight line evaluation at the Main Street/Fruehauf Avenue intersection, the required SSD is satisfied to the east. However, the desirable ISD is not satisfied if/when on-street parking is present. When parked vehicles are not present, the ISD is fully satisfied. The existing and proposed ISD sight distance will be the same and the proposed building will not impact the existing sight distance.

5. For purposes of the environmental review of the proposed project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the proposed project will not result in any potentially significant adverse traffic impacts to the study area.

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,

SRF Associates
A Passero Associates Company



David Kruse, AICP, PTP
Senior Transportation Planner

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

ATTACHMENT

January 18, 2023

Letter to
Mr. Matt Oates, P.E.
Benderson Development

Proposed Mixed-Use Development
4548-4564 Main Street

Traffic Impact Assessment

Town of Amherst
Erie County, New York

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

SRF ASSOCIATES
Transportation Planning / Engineering / Design

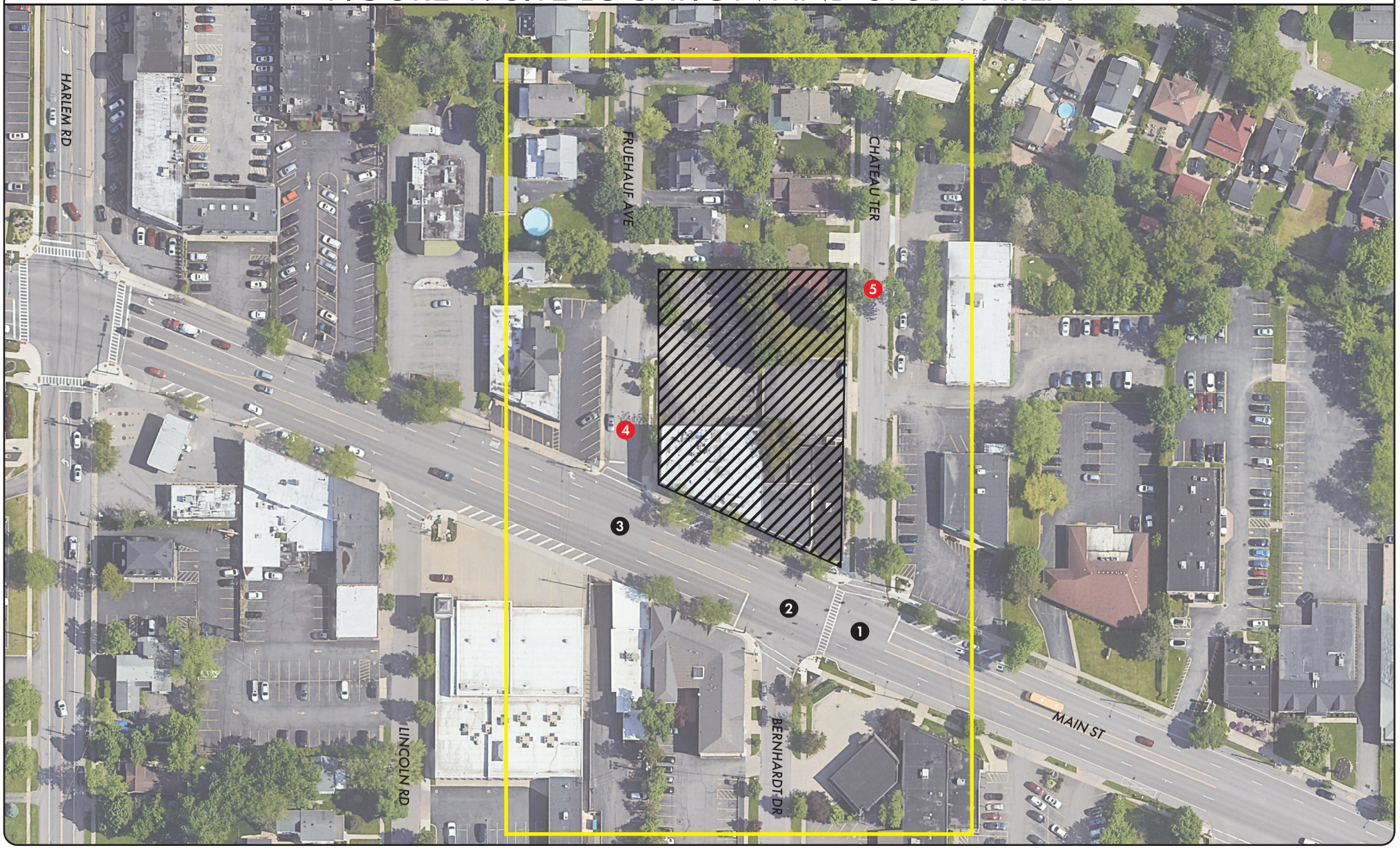
PASSERO ASSOCIATES
engineering architecture

242 West Main Street, Suite 100 Rochester, NY 14614
T 585.325.1000 | www.srfa.net | www.passero.com

FIGURES

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

FIGURE 1: SITE LOCATION AND STUDY AREA



Key

- Study Intersection
- Proposed Intersection
- Site Location
- Study Area

PROPOSED 4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

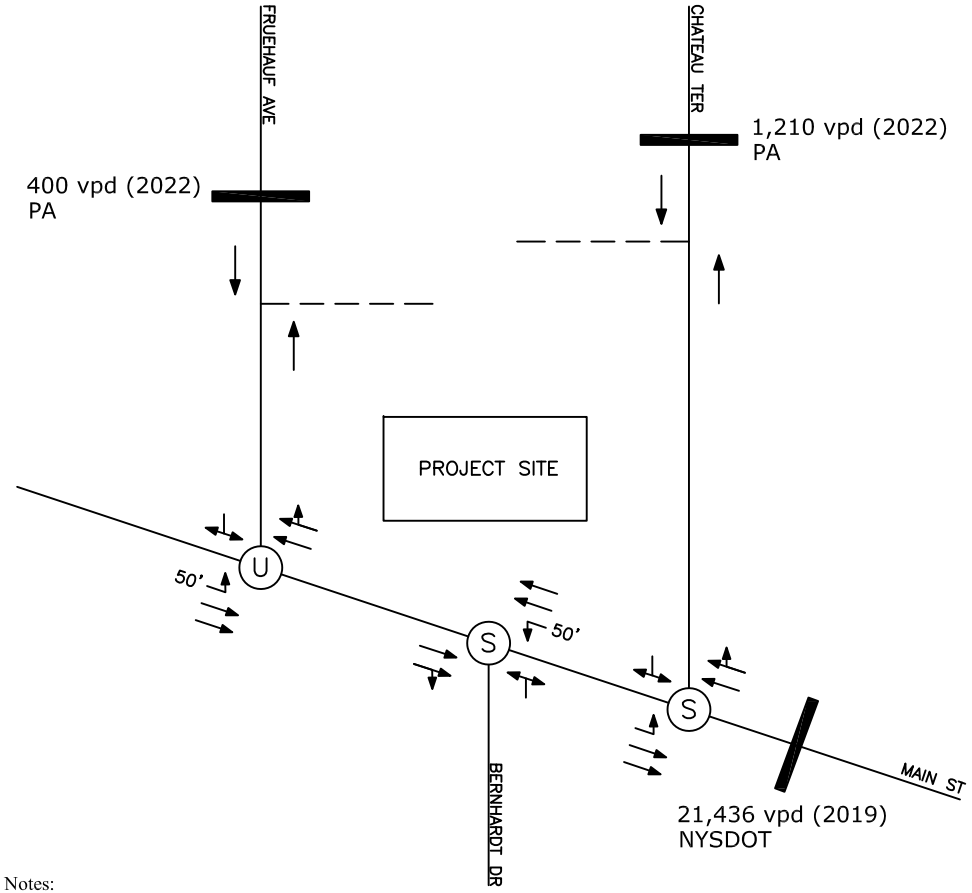
N

0 120
FEET

SRF

PA

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



Notes:
1. All AADT volumes by those noted:
   1.1. NYSDOT = New York State Department of Transportation
   1.2. PA = Passero Associates
2. vpd = Vehicles per Day
3. Turn lane lengths shown

FIGURE 2

LANE GEOMETRY &
AVERAGE DAILY TRAFFIC

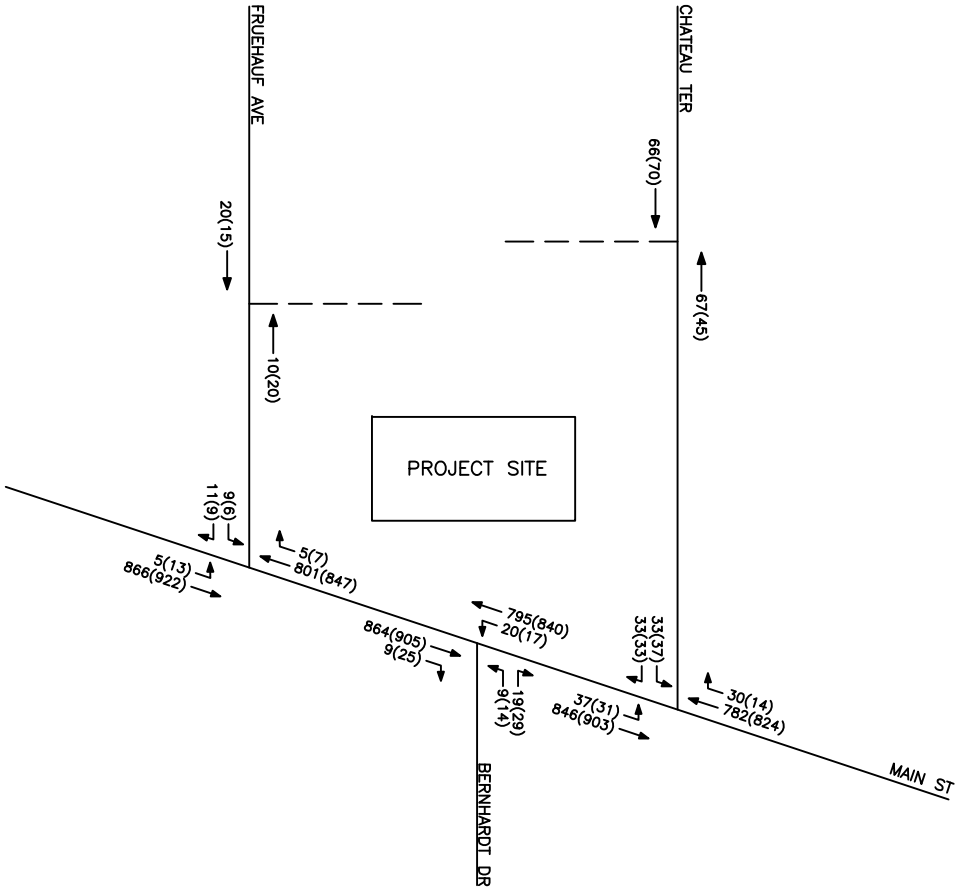


FIGURE 3

PEAK HOUR VOLUMES
2022 EXISTING CONDITIONS

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)
--- PROPOSED DRIVEWAY

TRAFFIC CONTROL
U = Unsignalized
S = Signalized

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

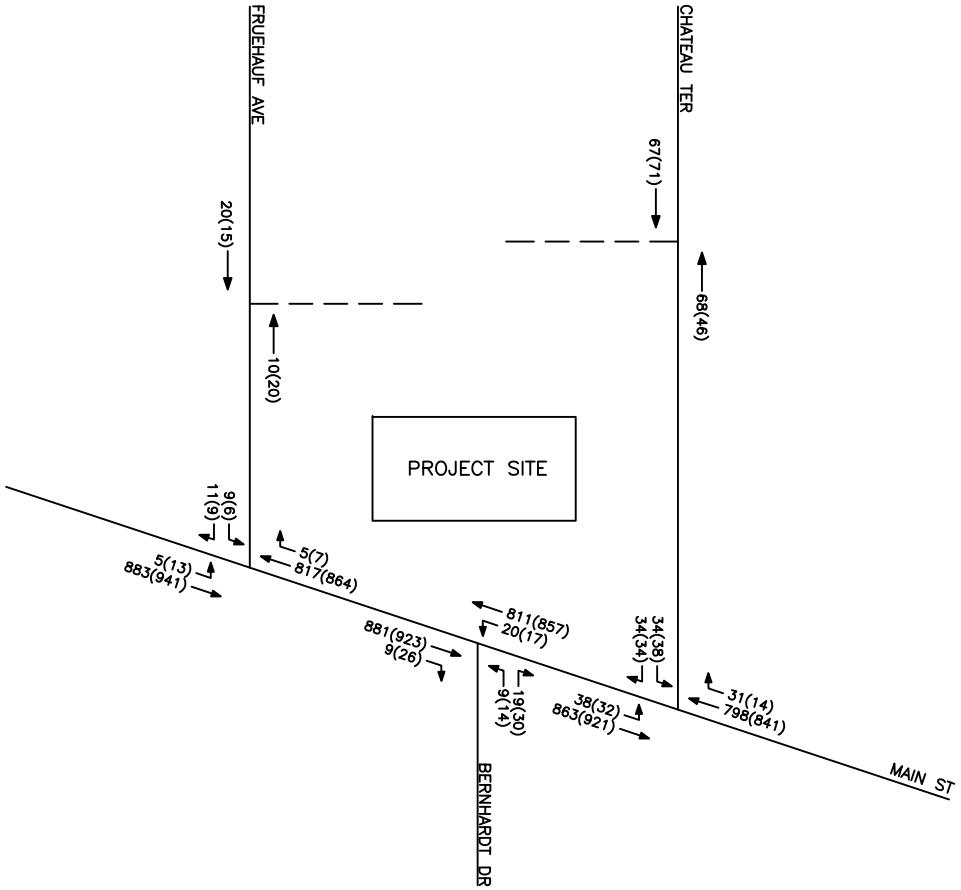


FIGURE 4

PEAK HOUR VOLUMES
2024 BACKGROUND CONDITIONS

SEE SEPARATE SHEET

FIGURE 5

CONCEPT SITE PLAN

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

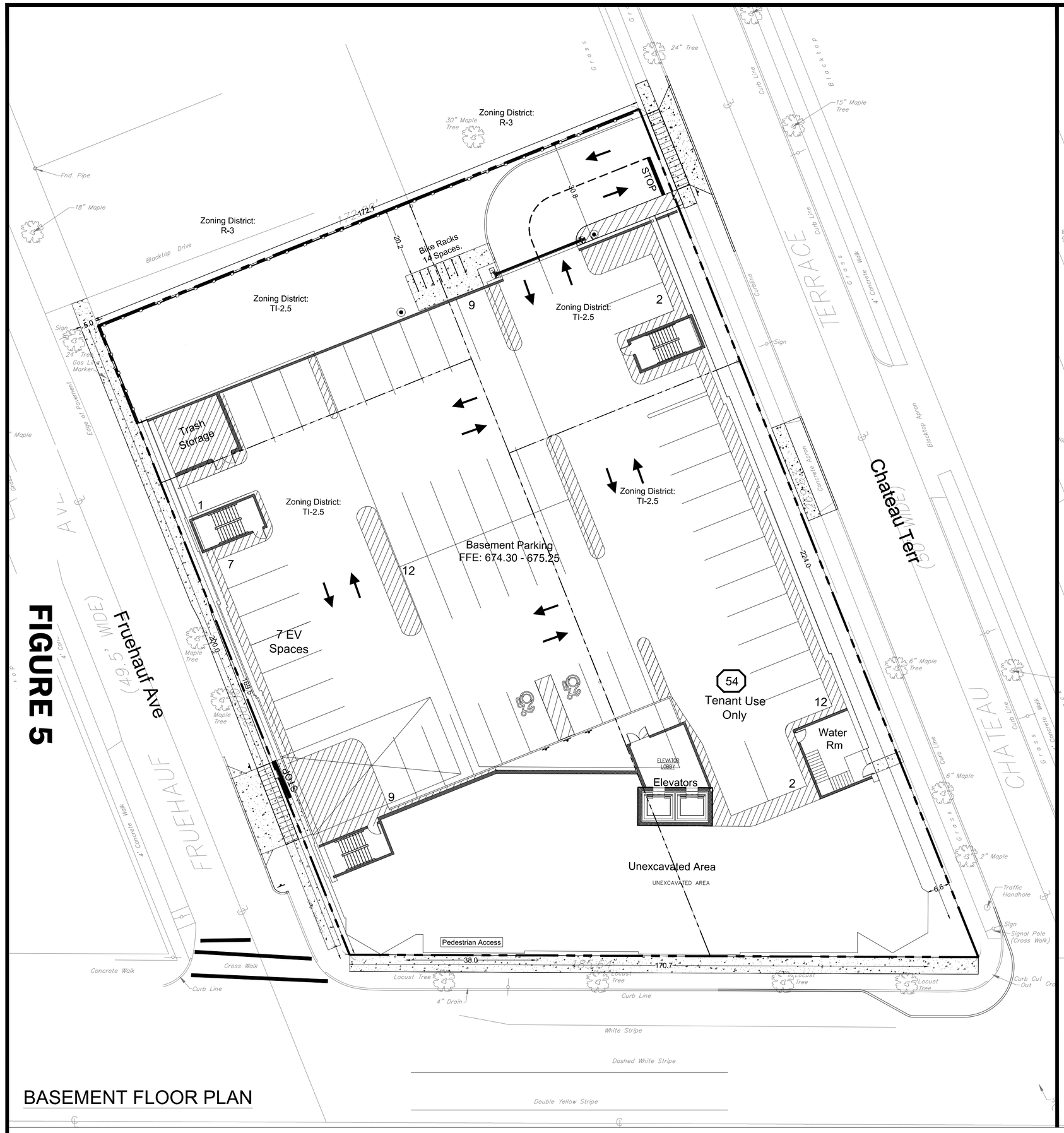
TOWN OF AMHERST, NY

KEY

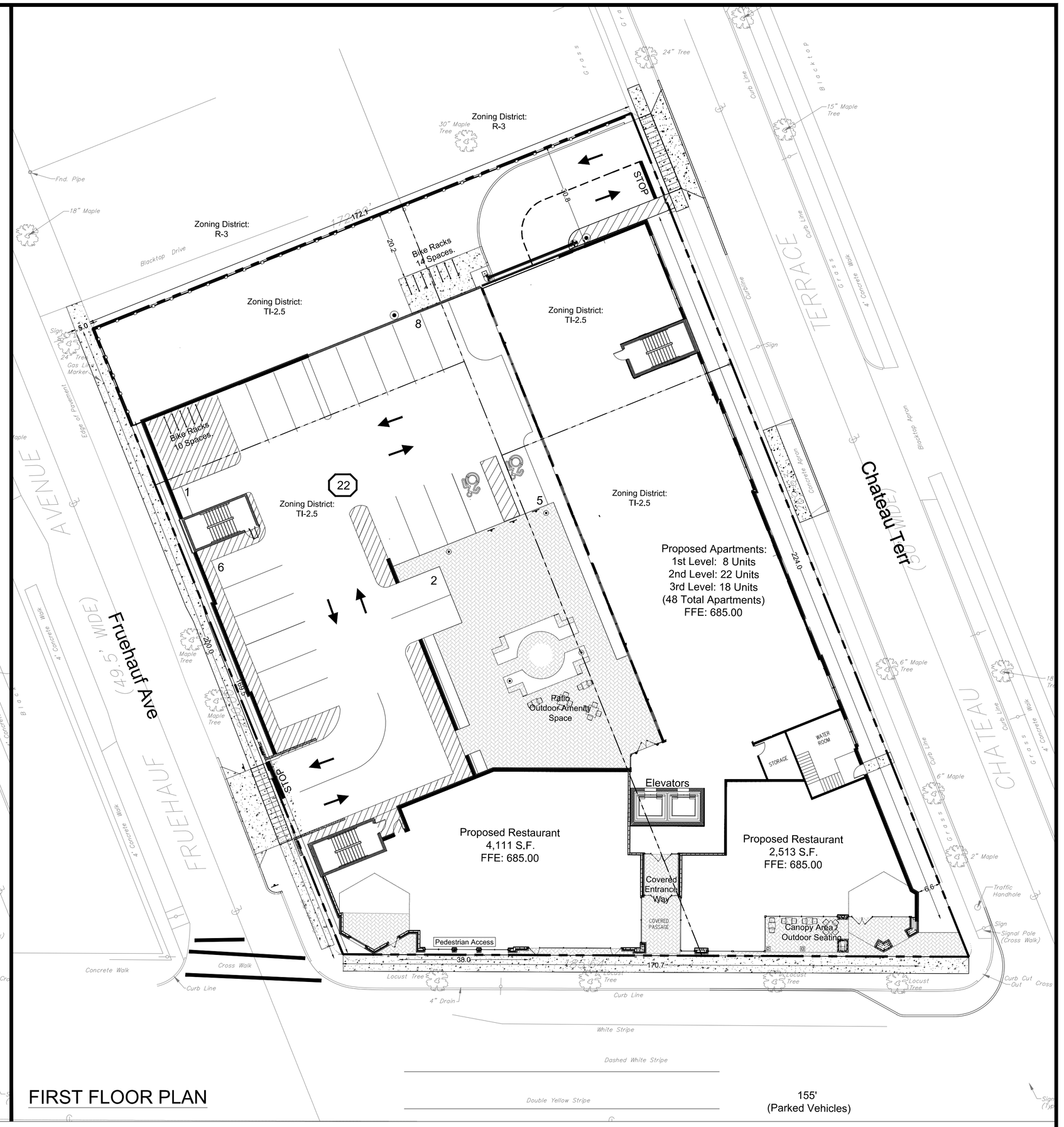
00(00) = AM(PM)
--- PROPOSED DRIVEWAY

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

FIGURE 5



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

TOWN OF AMHERST, NY ZONING ANALYSIS		
	REQUIRED	PROVIDED
ZONED	TI-2.5 (Village Frontage)	TI-2.5 (Village Frontage)
5A-1-3: TI-2.5 Traditional Infill 2.5 Section		
LOT		
Area	0 S.F. min.	40,409 S.F.
Width	0' min.	170.7'
Outdoor Amenity Space	10% min.	11.3% (4,500 S.F.)
At grade level	50% min. *(See 5A-7-1 B(2)*	68.1% (2,825.1 S.F.)
Planted above ground level	25% min. *(See 5A-7-1 B(2)*	31.9% (1,324.9 S.F.)
Seating	1 per 500 S.F. (4,500 / 500 = 9 Seats min.)	10 Seats
BUILDING SETBACKS		
Building-to-zone	Refer to Section 5A-2 Infill Frontages	
Lot Frontage	Refer to Section 5A-2 Infill Frontages	
Common lot line	0' min.	30.8' (North Side)
Alley	0' min.	N/A
PARKING SETBACKS		
Primary and Side Street	Refer to Section 5A-2 Infill Frontages (below)	
Common lot line	0' min.	30.8' (North Side)
Alley	5' min.	N/A
BUILDING HEIGHT		
Top Plate Height	2 Stories / 24' max.	-
Building Height	2.5 Stories / 35' max.	-
Roof Pitch	18:12 max.	-
BUILDING LENGTH	Refer to Section 5A-2 Infill Frontages (below)	
STORY HEIGHT	Refer to Section 5A-2 Infill Frontages (below)	

5A-2-4: Village Frontage		
BUILDING SETBACKS		
Build-to zone	0' min./10' max.	0.0'
Street Frontage:		
Front: Main Street	90% min.	92.0% (170.7')
Side: Fruehaut Ave	-	169.5' - 24' (parking entrance) = 145.5' (72.6%)
Side: Chateau Terr	-	83.1% (224')
PARKING SETBACKS		
Street	20' min.	30.8' (North Side)
BUILDING MASS		
Street facing building length:		
Front: Main Street	200' max.	170.7'
Fruehaut Ave	200' max.	169.5'
Chateau Terr	200' max.	224.0' (Exception 203-5A-2-4 D)
STORY HEIGHT		
Ground floor elevation	0' min. / 2' max.	0.0'
Ground story height	13' min.	-
Upper story height	9' min.	-
TRANSPARENCY		
Ground story	70% min.	1,345S.F./1,890 S.F. = 71.2%
Upper story	20% min.	430 S.F. / 1890 S.F. = 22.7%
Blank wall length	15' max.	7'
PEDESTRIAN ACCESS		
Street facing entrance	Required	Complies
Entrance spacing	50' max.	38'
STREETSCAPE		
Clear pedestrian zone	10' min.	9.8' Total - Existing Condition
Curb zone	6' min.	
Tree planting type	Grates	Noted, Existing
Tree spacing	35' on-center avg.	Noted, Existing

PROPOSED PARKING & BIKE ANAYLSIS TI-2.5 (Section 5A-9-1.A.(1)

USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	6,624 sqft / 1000 x 4 = 27 SPACES	Basement Parking: 54 Spaces Ground Flr Parking: 22 Spaces
RESIDENTIAL (Upper-story)	1.0 per 1&2 bed dwelling unit 1.5 per 3 bed dwelling unit	1.0 x 46 (1&2 Bed) = 46 SPACES 1.5 x 2 (3 Bed) = 3 Spaces	
		Total: 76 SPACES	Total: 76 SPACES
STALL SIZE		9'x19'	9'x19'
ELECTRIC CHARGING STATIONS			
10% of parking spaces to be EV ready. Min. 2 EV ready spaces for parking lots over 20 spaces. EV Ready defined as power be available at spaces in advanced.		Basement Parking: 54 / 10 = 5 Spaces Ground Floor Parking: 22 / 10 = 2 Spaces Total: 7 Spaces	Basement Parking: 7 Spaces Total: 7 Spaces
BIKE PARKING			
Residential Use: Short Term 0.5 space per unit min. 20 max.		0.5 x 48 = 24 24 > 20 max. 20 SPACES	20 SPACES
Public Use: 1 per 3,000 S.F. min. 20 max.		6,624 S.F. / 3000 = 3 SPACES	4 SPACES
		TOTAL: 23 SPACES	TOTAL: 24 SPACES

RESTAURANT: 4,111 S.F. + 2,513 S.F.

1 BEDROOM APARTMENTS: 22 UNITS
2 BEDROOM APARTMENTS: 24 UNITS
3 BEDROOM APARTMENTS: 2 UNITS

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	12.09.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:

ZONING SITE PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C4.0

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

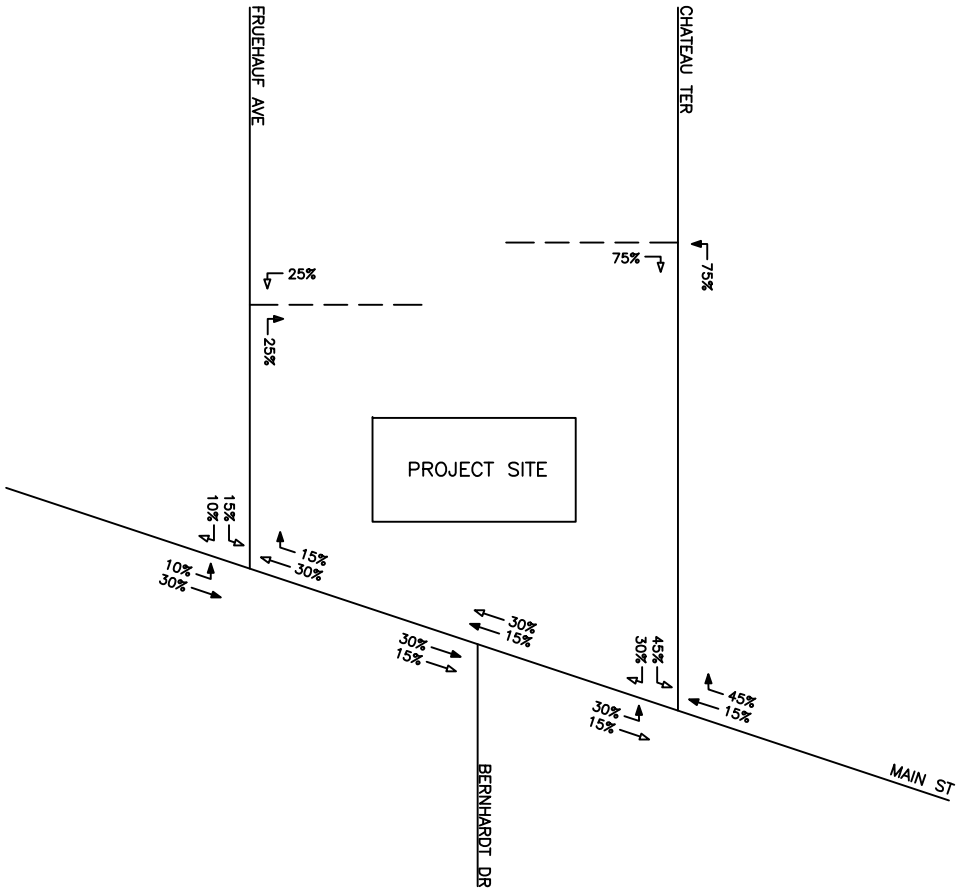


FIGURE 6A

TRIP DISTRIBUTION
RESIDENTIAL

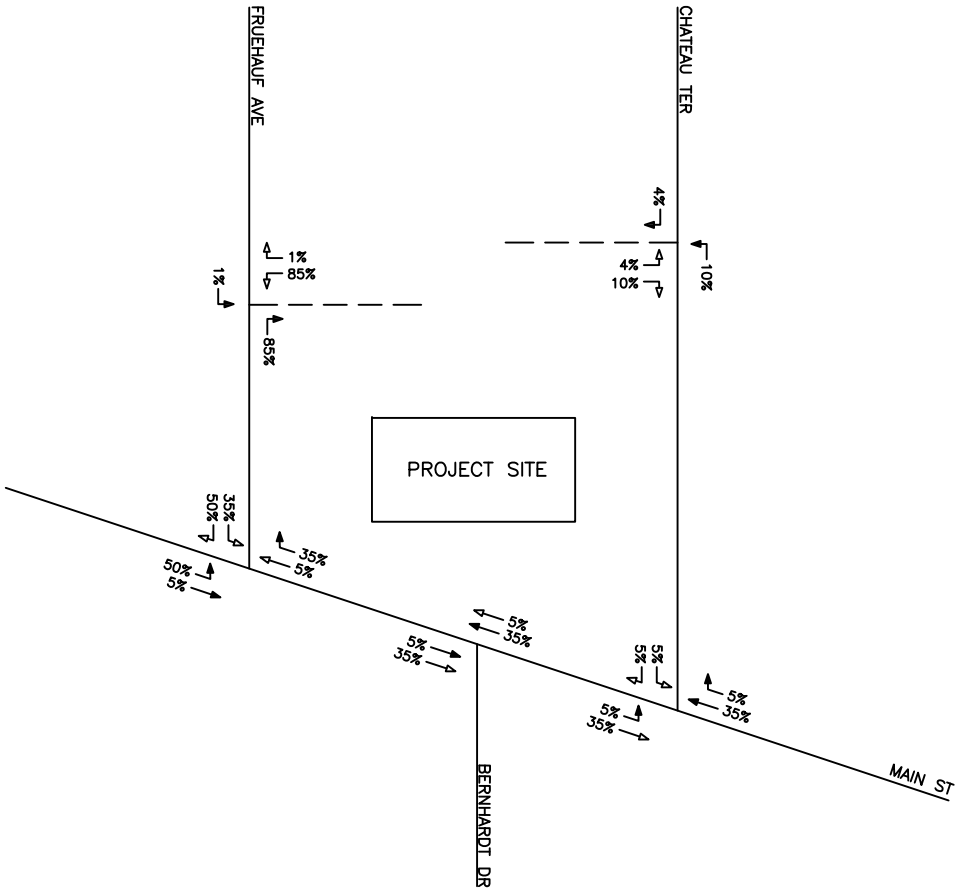


FIGURE 6B

TRIP DISTRIBUTION
RESTAURANTS

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

N
NOT TO SCALE

KEY

00(00) = AM(PM)
--- PROPOSED DRIVEWAY
→ ENTERING TRIP
→ EXITING TRIP

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

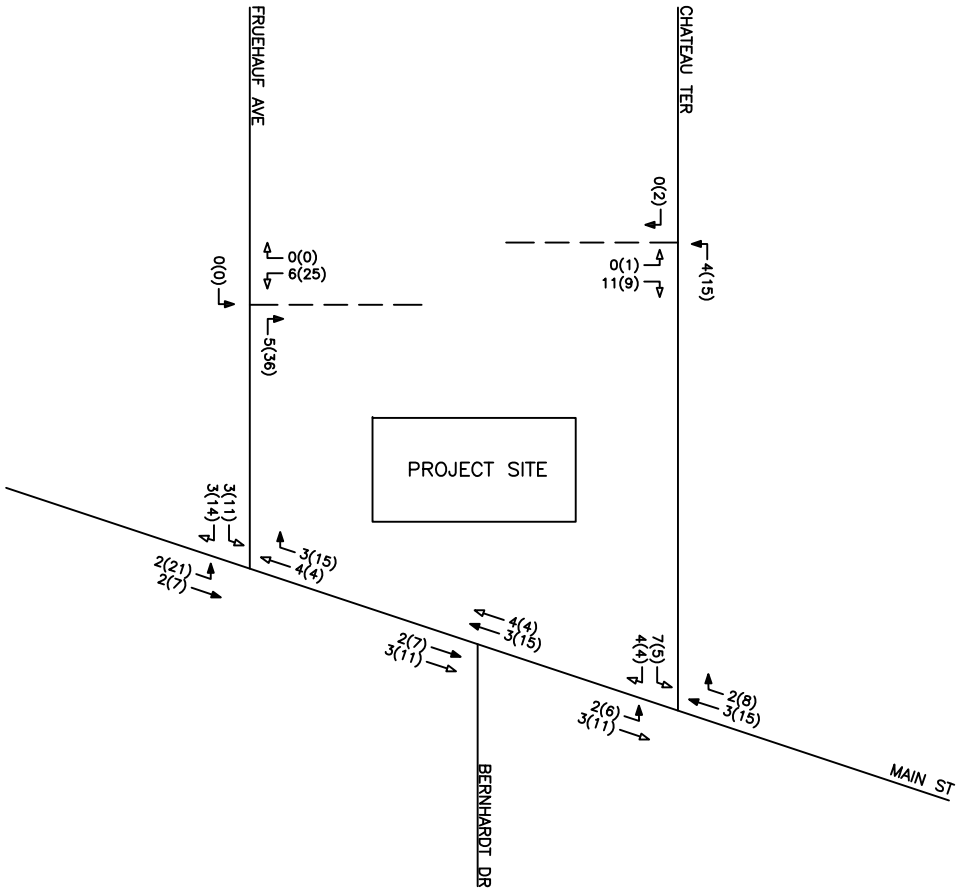


FIGURE 7

SITE GENERATED TRIPS

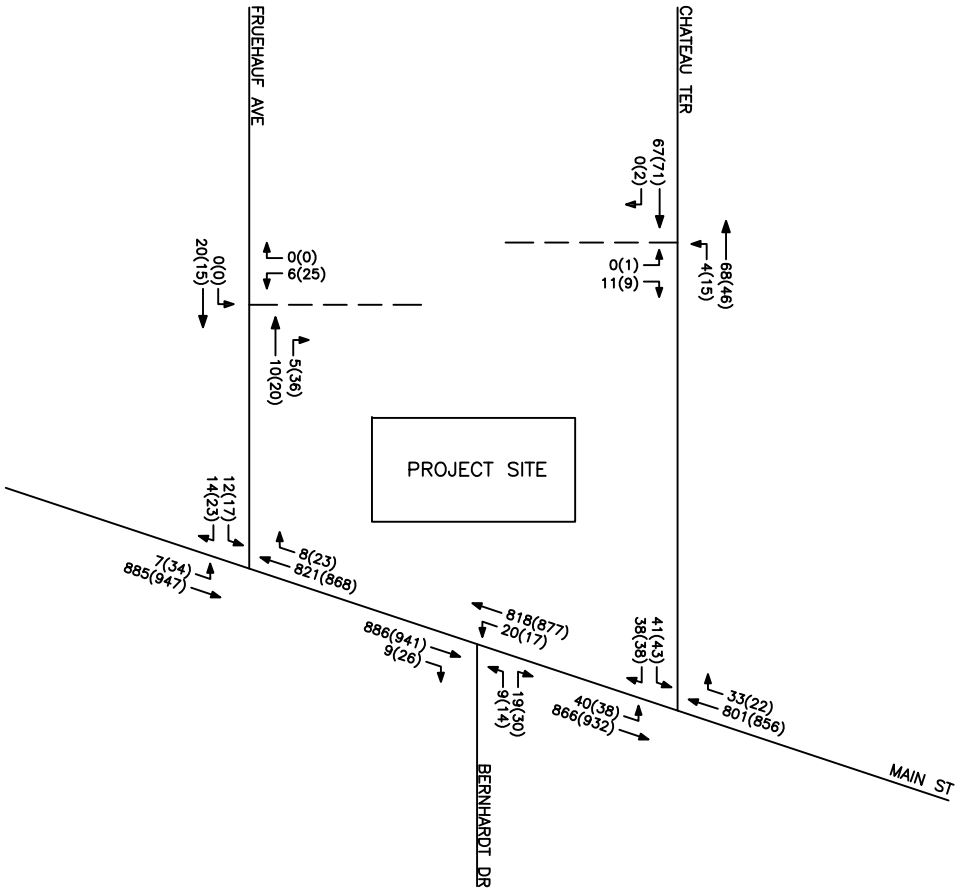


FIGURE 8

PEAK HOUR VOLUMES
FULL DEVELOPMENT CONDITIONS

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

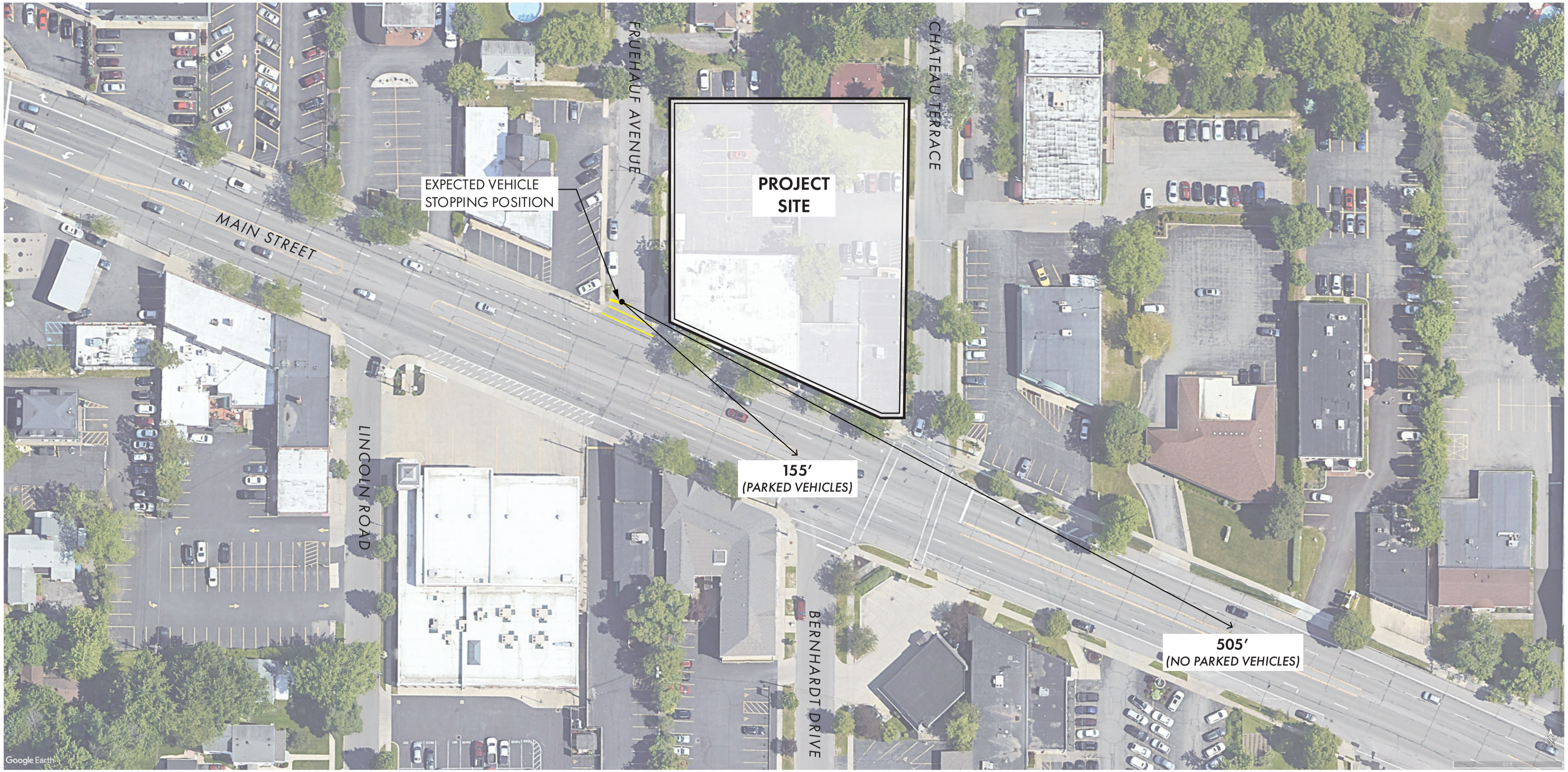
N
NOT TO SCALE

KEY

00(00) = AM(PM)
--- PROPOSED DRIVEWAY
→ ENTERING TRIP
→ EXITING TRIP

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

FIGURE 9



SIGHT LINE EVALUATION

4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

OV

Notes:
Main Street Speed Limit: **40 MPH**
Design Speed: **45 MPH (posted speed limit plus 5 MPH)**
Required Stopping Sight Distance: **360 feet**
Desirable Intersection Sight Distance: **500 feet**

0 80
FEET

SRF ASSOCIATES
242 West Main Street, Suite 100

Packet Pg. 913

7.a

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

TRAFFIC VOLUME DATA

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

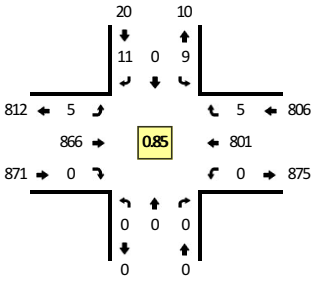
Type of peak hour being reported: Intersection Peak

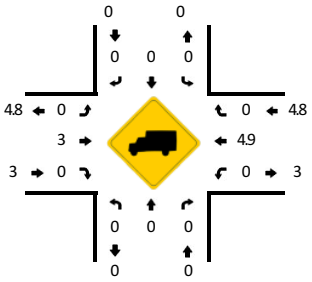
Method for determining peak hour: Total Entering Volume

LOCATION: Fruehauf Ave -- Main St
CITY/STATE: Amherst, NY

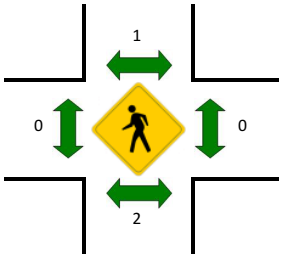
QC JOB #: 16040101
DATE: Tue, Dec 13 2022

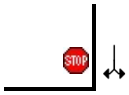
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

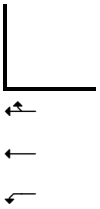


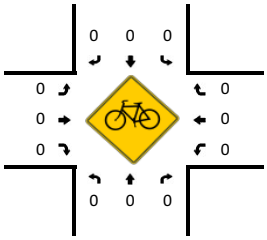


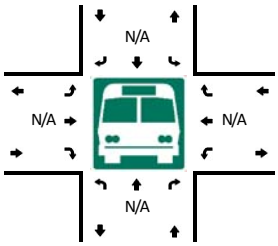
Quality Counts
DATA THAT DRIVES COMMUNITIES

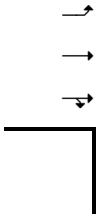


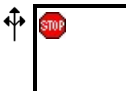


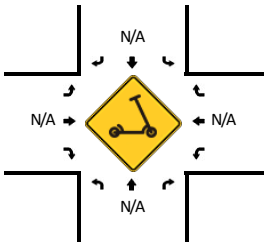












15-Min Count Period Beginning At	Fruehauf Ave (Northbound)				Fruehauf Ave (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	2	0	1	116	0	2	0	130	1	0	253	
7:15 AM	0	0	0	0	4	0	1	0	2	170	0	0	0	159	1	0	337	
7:30 AM	0	0	0	0	2	0	4	0	1	212	0	0	0	201	1	0	421	
7:45 AM	0	0	0	0	4	0	2	0	1	260	0	0	0	230	0	0	497	1508
8:00 AM	0	0	0	0	1	0	4	0	2	186	0	0	0	183	2	0	378	1633
8:15 AM	0	0	0	0	2	0	1	0	1	208	0	0	0	187	2	0	401	1697
8:30 AM	0	0	0	0	0	0	4	0	1	185	0	0	0	142	0	0	332	1608
8:45 AM	0	0	0	0	0	0	2	0	0	191	0	0	0	153	0	0	346	1457

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	8	0	4	1040	0	0	0	920	0	0	1988
Heavy Trucks	0	0	0		0	0	0		0	44	0		0	44	0		88
Buses																	
Pedestrians		4				4				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

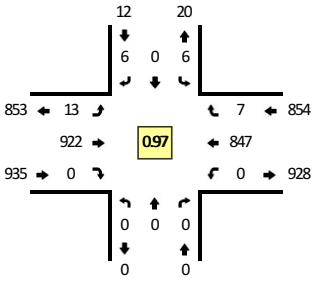
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

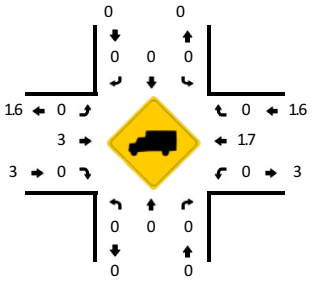
LOCATION: Fruehauf Ave -- Main St
CITY/STATE: Amherst, NY

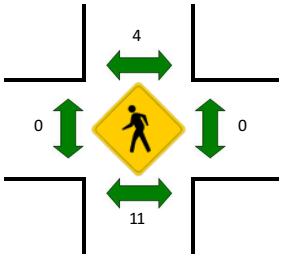
QC JOB #: 16040102
DATE: Tue, Dec 13 2022

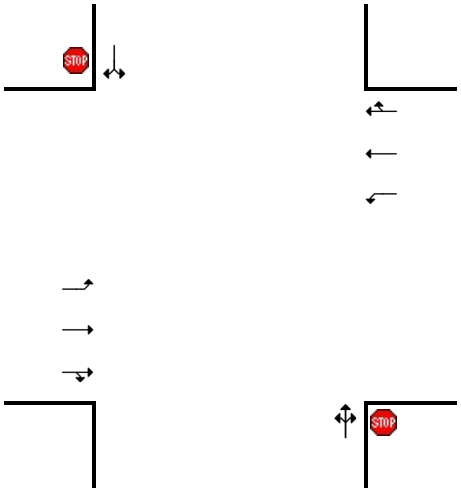
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

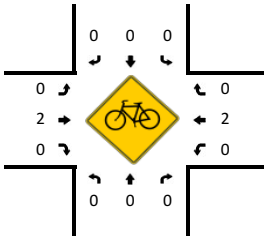


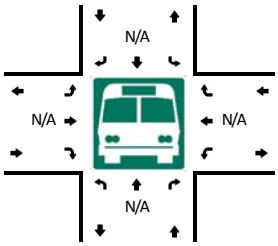


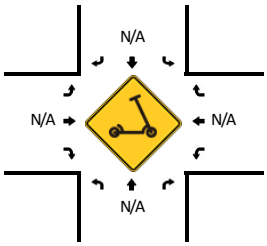












15-Min Count Period Beginning At	Fruehauf Ave (Northbound)				Fruehauf Ave (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	2	0	4	0	5	237	0	0	0	201	1	0	450	
4:15 PM	0	0	0	0	4	0	2	0	3	229	0	0	0	226	1	0	465	
4:30 PM	0	0	0	0	0	0	0	0	3	227	0	0	0	210	4	0	444	
4:45 PM	0	0	0	0	0	0	0	0	2	229	0	0	0	210	1	0	442	1801
5:00 PM	0	0	0	0	0	0	3	0	4	210	0	0	0	173	1	0	391	1742
5:15 PM	0	0	0	0	3	0	0	0	0	217	0	0	0	218	2	0	440	1717
5:30 PM	0	0	0	0	1	0	5	0	3	194	0	0	0	201	2	0	406	1679
5:45 PM	0	0	0	0	1	0	3	0	2	180	0	0	0	208	2	0	396	1633

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	8	0	12	916	0	0	0	904	4	0	1860
Heavy Trucks	0	0	0		0	0	0		0	36	0		0	16	0		52
Buses																	
Pedestrians		0				12				0				0			12
Bicycles	0	0	0		0	0	0		0	8	0		0	8	0		16
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

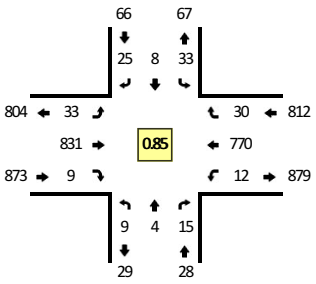
Type of peak hour being reported: Intersection Peak

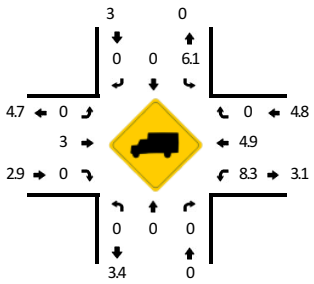
Method for determining peak hour: Total Entering Volume

LOCATION: Chateau Terr/Bernhardt Dr -- Main St
CITY/STATE: Amherst, NY

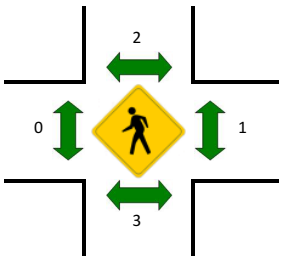
QC JOB #: 16040103
DATE: Tue, Dec 13 2022

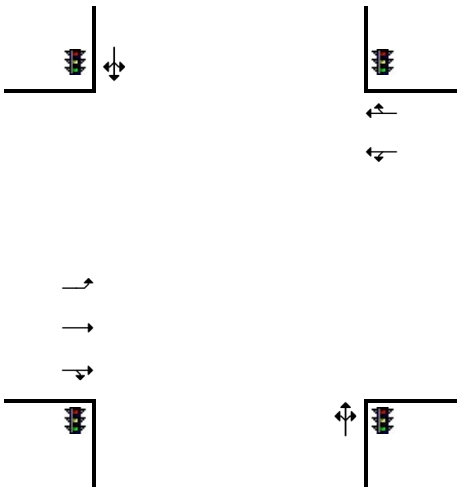
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

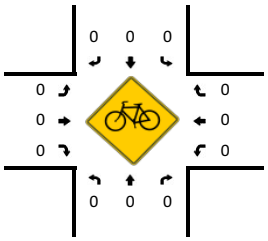


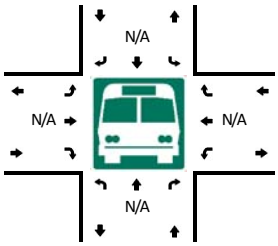


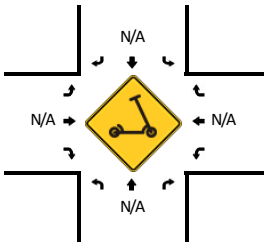
Quality Counts
DATA THAT DRIVES COMMUNITIES











15-Min Count Period Beginning At	Chateau Terr/Bernhardt Dr (Northbound)				Chateau Terr/Bernhardt Dr (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	0	2	0	1	0	1	0	1	116	0	0	3	126	1	0	253	
7:15 AM	2	3	2	0	3	0	3	0	1	170	1	0	1	156	3	0	345	
7:30 AM	2	1	6	0	6	1	2	0	5	207	1	0	2	195	7	0	435	
7:45 AM	3	2	2	0	9	0	5	0	15	248	4	0	4	219	12	0	523	1556
8:00 AM	1	1	4	0	10	4	12	0	11	176	3	0	4	173	10	0	409	1712
8:15 AM	3	0	3	0	8	3	6	0	2	200	1	0	2	183	1	0	412	1779
8:30 AM	2	3	0	0	1	1	3	0	9	175	6	0	2	134	3	0	339	1683
8:45 AM	5	1	4	0	7	1	12	0	7	179	4	0	5	133	5	0	363	1523

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	8	8	0	36	0	20	0	60	992	16	0	16	876	48	0	2092
Heavy Trucks	0	0	0		8	0	0		0	36	0		0	44	0		88
Buses																	
Pedestrians		4				4				0				4			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

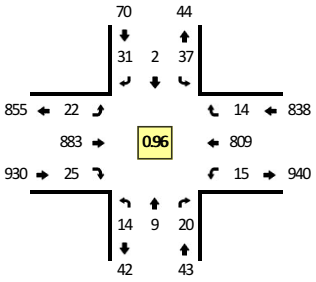
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

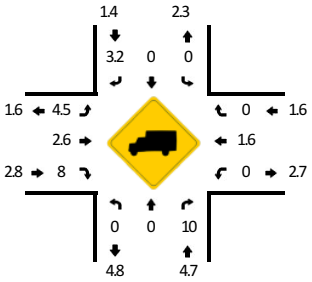
LOCATION: Chateau Terr/Bernhardt Dr -- Main St
CITY/STATE: Amherst, NY

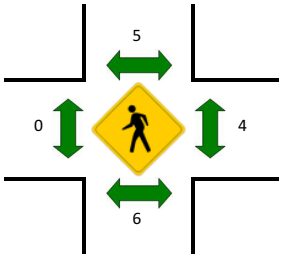
QC JOB #: 16040104
DATE: Tue, Dec 13 2022

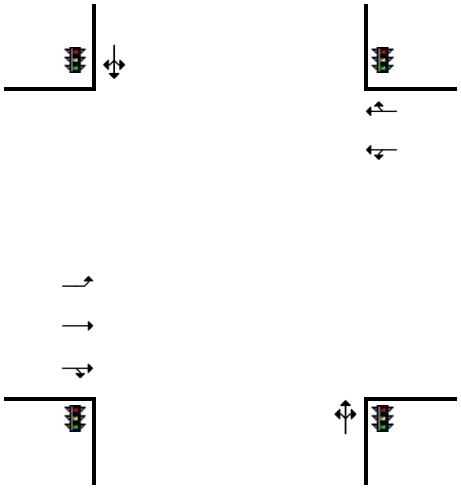
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

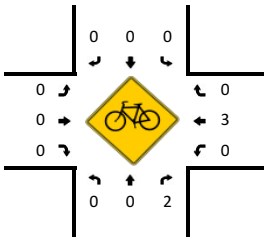


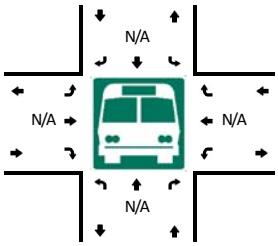


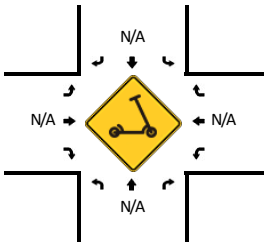












15-Min Count Period Beginning At	Chateau Terr/Bernhardt Dr (Northbound)				Chateau Terr/Bernhardt Dr (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	3	10	0	7	0	6	0	1	227	5	0	2	195	2	0	460	
4:15 PM	4	2	4	0	9	1	10	0	9	224	9	0	4	215	1	0	492	
4:30 PM	4	1	4	0	11	0	8	0	7	217	4	0	5	199	5	0	465	
4:45 PM	4	3	2	0	10	1	7	0	4	215	7	1	4	200	6	0	464	1881
5:00 PM	5	0	2	0	2	1	4	0	4	200	8	0	2	163	5	0	396	1817
5:15 PM	5	1	2	0	1	2	5	0	3	201	7	0	3	202	2	0	434	1759
5:30 PM	2	2	4	0	1	3	3	0	2	192	2	0	3	196	1	0	411	1705
5:45 PM	2	0	2	0	1	0	4	0	2	172	8	0	1	204	1	0	397	1638

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	8	16	0	36	4	40	0	36	896	36	0	16	860	4	0	1968
Heavy Trucks	0	0	0		0	0	0		4	28	4		0	20	0		56
Buses																	
Pedestrians		0				12				0				4			16
Bicycles	0	0	8		0	0	0		0	0	0		0	12	0		20
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

MISCELLANEOUS TRAFFIC DATA AND CALCULATIONS

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Proposed 4548-4564 Main Street Mixed-Use Development, Town of Amherst, Erie County, NY

Documentation of Ambient Traffic Volume Growth

Roadway	Segment starts at	Segment end at	2015	2016	2017	2018	2019	Annual Growth
Main Street (NY-5)	NY-240 Harlem Road	ACC RT 290I	22,313	22,014	22,120	20,853	21,436	-1.00%
Harlem Road (NY-240)	Main Street	NY-324		11,976			11,530	-1.26%
Harlem Road (NY-240)	Main Street	CR-290		13,038			12,973	-0.17%
							AVERAGE	**-0.81%**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

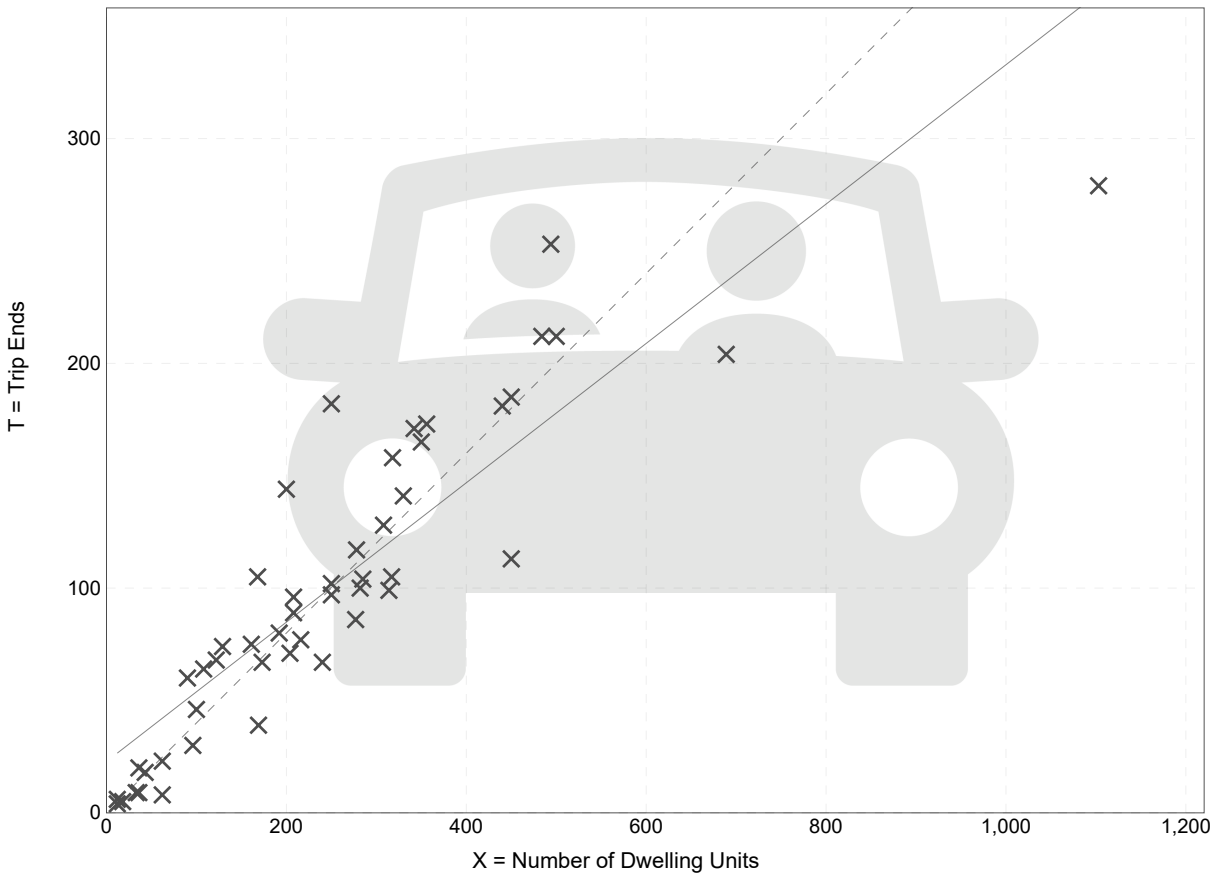
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Fitted Curve Equation: T = 0.31(X) + 22.85

R^2= 0.79

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

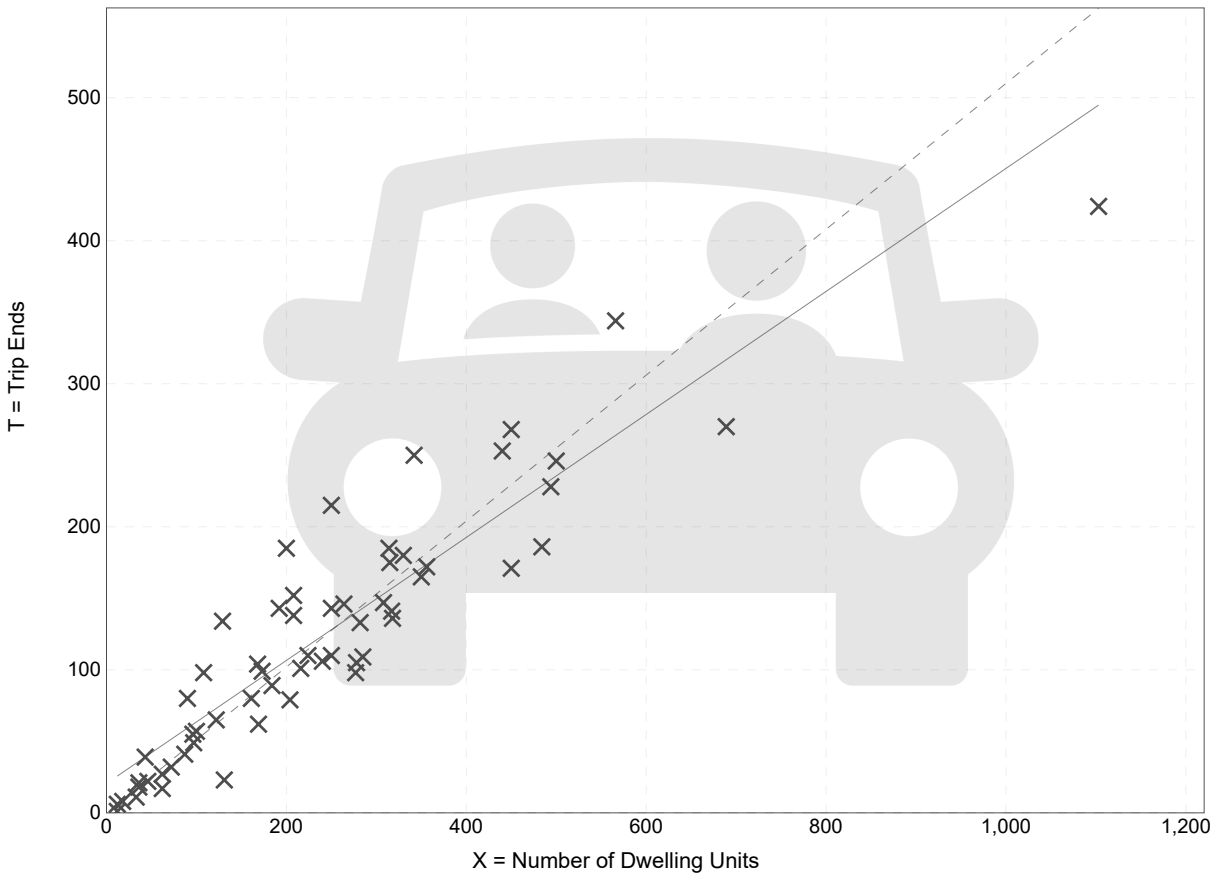
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Fitted Curve Equation: T = 0.43(X) + 20.55

R^2= 0.84

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Fast Casual Restaurant
(930)

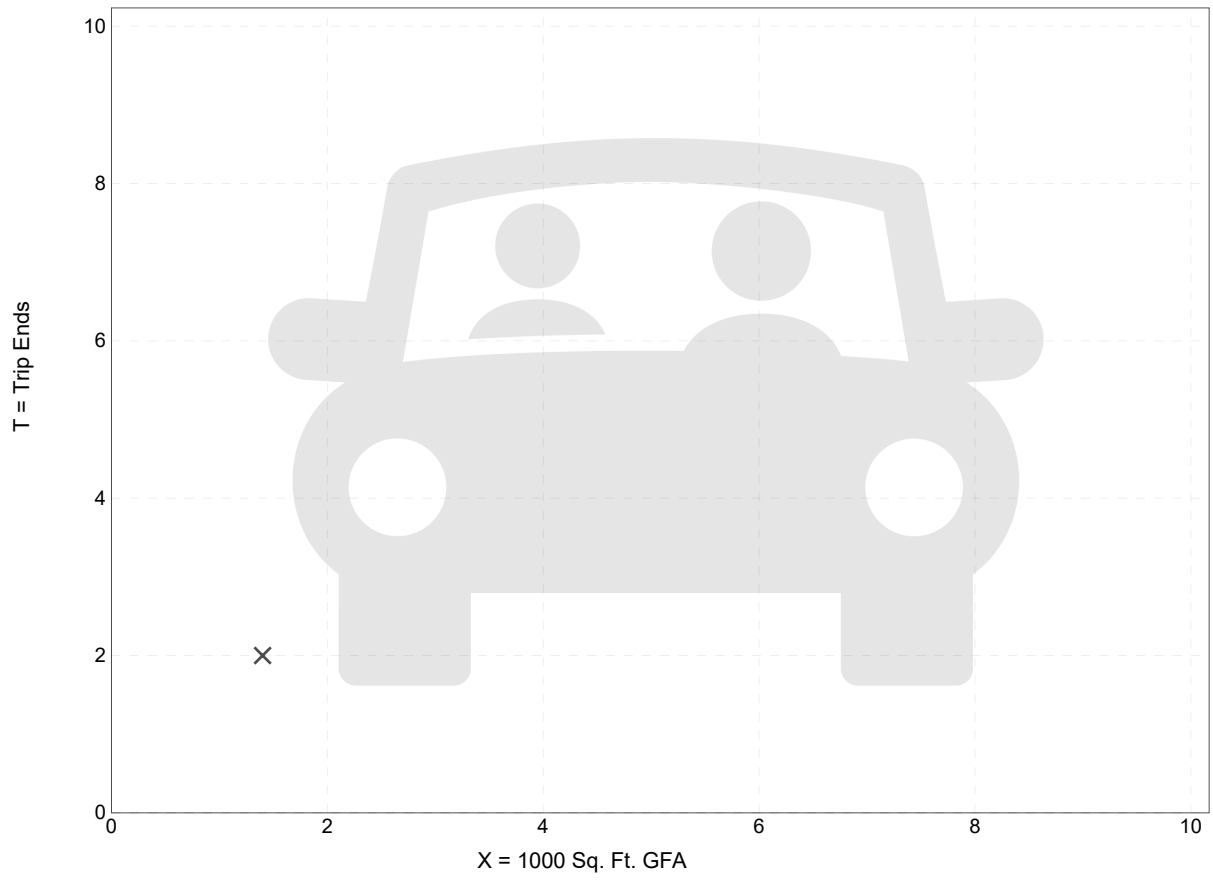
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 1
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.43	1.43 - 1.43	*

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

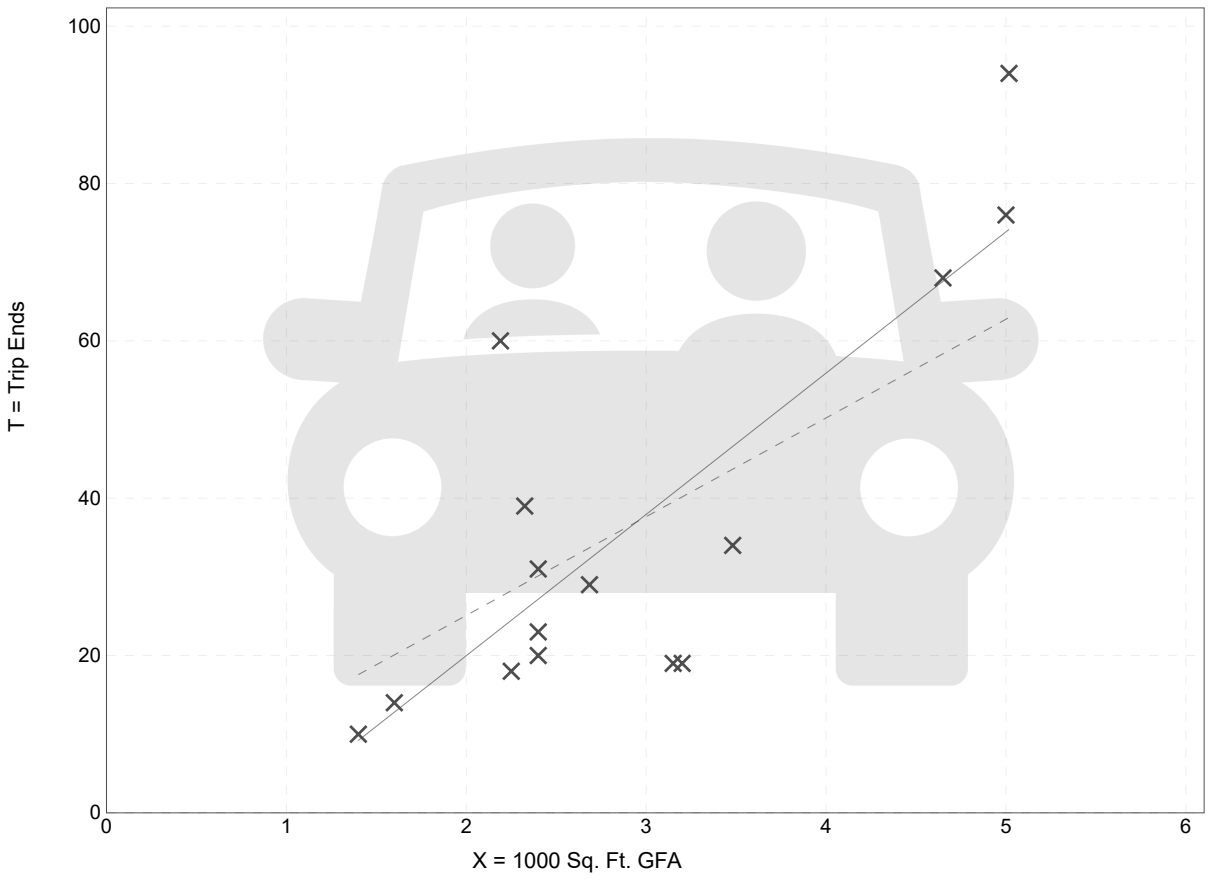
Fast Casual Restaurant
(930)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 15
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
12.55	5.94 - 27.40	5.52

Data Plot and Equation



Fitted Curve Equation: T = 17.96(X) - 15.94

R^2= 0.65

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

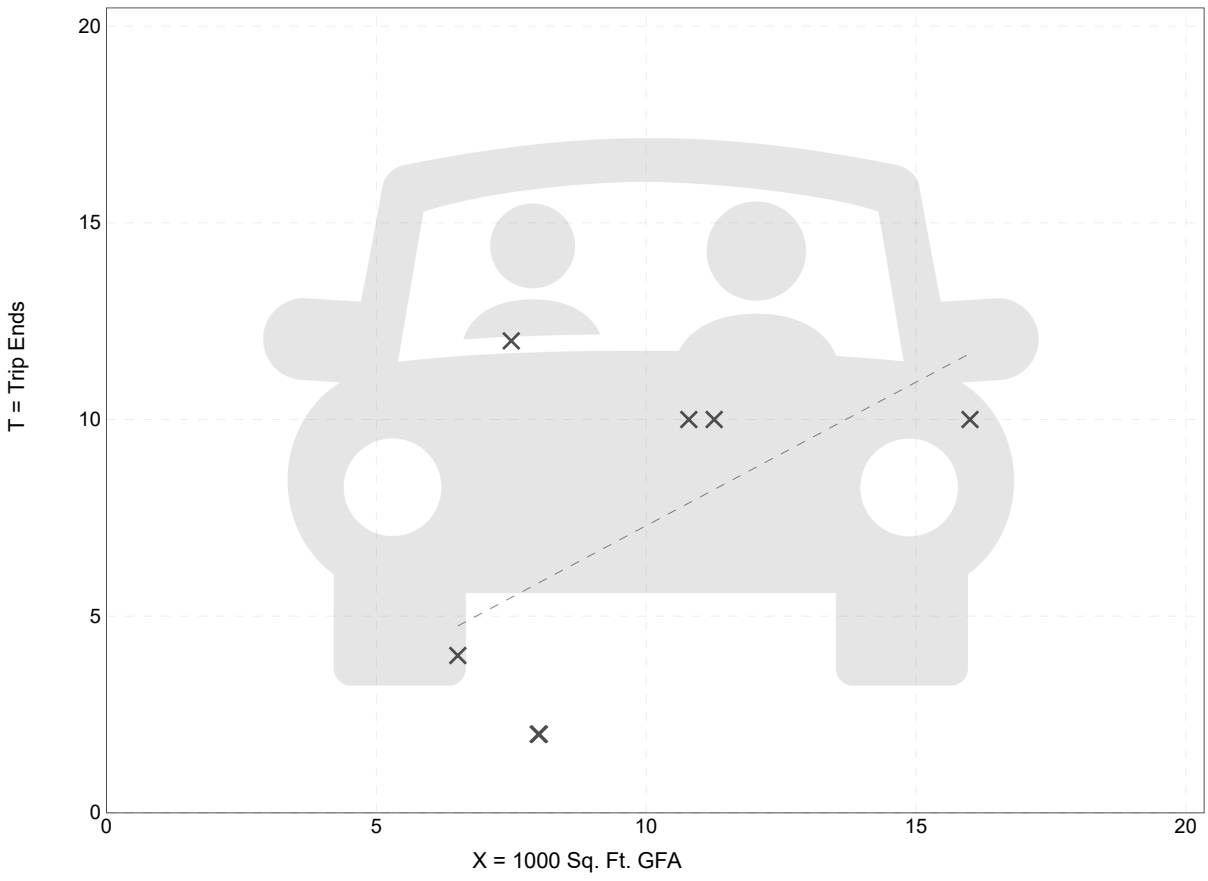
Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. 1000 Sq. Ft. GFA: 10
Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.73	0.25 - 1.60	0.42

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

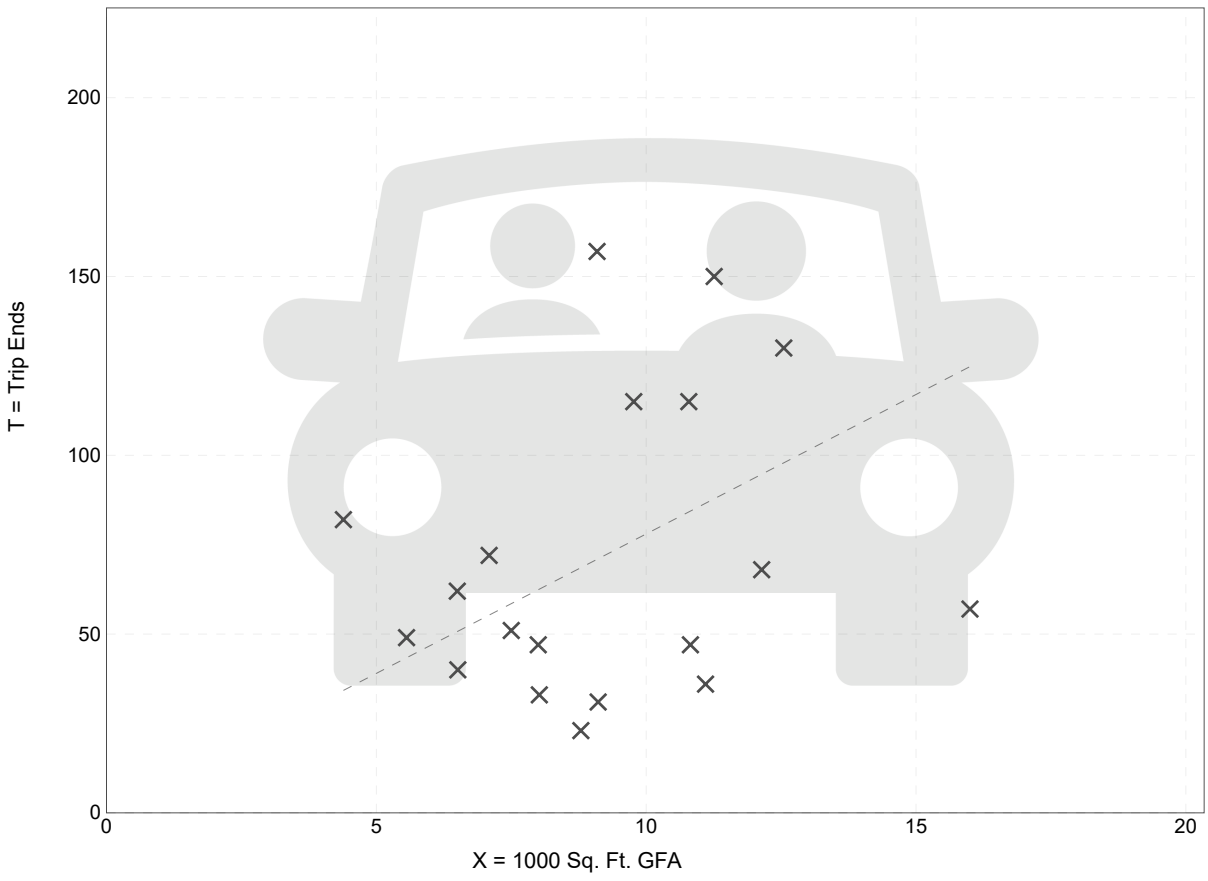
Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 67% entering, 33% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

4548-4564 Main Street Trip Generation Estimates

DESCRIPTION	ITE LUC	SIZE	AM PEAK		PM PEAK	
			ENTER	EXIT	ENTER	EXIT
Residential	822	48 units	5	14	15	9
Fast Casual Restaurant	930	2,513 SF	2	2	17	15
Fine Dining Restaurant	931	4,111 SF	2	1	21	11
Total Vehicle Trips			**9**	**17**	**53**	**35**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Mixed-Use Development
LOCATION: Town of Amherst, NY
PEAK HOUR: AM Peak

Figure Number:		3	4	6A				6B				7	8
			Num of yrs										
			2										
LOCATION NUMBER	INTERSECTION DESCRIPTION	2022 Volumes	2024 Bkgd Vol	Proposed Residential				Proposed Restaurants				Total Site Trips	Full Build Volumes
			1.00%	Enter Dist. %	Exit Dist. %	Trips IN 5	Trips OUT 14	Enter Dist. %	Exit Dist. %	Trips IN 4	Trips OUT 3		
1	Main Street/ Chateau Terrace/Bernhardt Drive												
	SR	25	26		30%		4		5%		0	4	30
	ST - Chateau Terrace	8	8										8
	SL	33	34		45%		7		5%		0	7	41
	WR	30	31	45%		2		5%		0		2	33
	WT - Main Street	770	785	15%		1		35%		2		3	788
	WL	12	12										12
	NR	15	15										15
	NT	4	4										4
	NL	9	9										9
	ER	9	9										9
	ET - Main Street	831	848		15%		2		35%		1	3	851
	EL	33	34	30%		2		5%		0		2	36
2	Main Street/ Fruehauf Avenue												
	SR	11	11		10%		1		50%		2	3	14
	ST - Fruehauf Avenue												
	SL	9	9		15%		2		35%		1	3	12
	WR	5	5	15%		1		35%		2		3	8
	WT - Main Street	801	817		30%		4		5%		0	4	821
	WL												
	NR												
	NT												
	NL												
	ER												
	ET - Main Street	866	883	30%		2		5%		0		2	885
	EL	5	5	10%				50%		2		2	7
3	Fruehauf Avenue/ Proposed Driveway												
	SR												
	ST - Fruehauf Avenue	20	20										20
	SL							1%		0		0	0
	WR								1%		0	0	0
	WT - Proposed Driveway												
	WL				25%		3		85%		3	6	6
	NR			25%		1		85%		4		5	5
	NT - Fruehauf Avenue	10	10										10
	NL												
	ER												
	ET												
	EL												
4	Chateau Terrace/ Proposed Driveway												
	SR							4%		0		0	0
	ST - Chateau Terrace	66	67										67
	SL												
	WR												
	WT												
	WL												
	NR												
	NT - Chateau Terrace	67	68										68
	NL			75%		4		10%		0		4	4
	ER				75%		11		10%		0	11	11
	ET - Proposed Driveway												
	EL								4%		0	0	0

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PROJECT: 4548-4564 Main Street Mixed-Use Development
LOCATION: Town of Amherst, NY
PEAK HOUR: PM Peak

Figure Number: 3 | 4 | 6A | 6B | 7 | 8

Num of yrs: 2

LOCATION NUMBER	INTERSECTION DESCRIPTION	2022 Volumes	2024 Bkgd Vol 1.00%	Proposed Residential				Proposed Restaurants				Total Site Trips	Full Build Volumes
				Enter Dist. %	Exit Dist. %	Trips IN 15	Trips OUT 9	Enter Dist. %	Exit Dist. %	Trips IN 38	Trips OUT 26		
1	Main Street/ Chateau Terrace/Bernhardt Drive												
	SR	31	32		30%		3		5%		1	4	36
	ST - Chateau Terrace	2	2										2
	SL	37	38		45%		4		5%		1	5	43
	WR	14	14	45%		6		5%		2		8	22
	WT - Main Street	809	825	15%		2		35%		13		15	840
	WL	15	15										15
	NR	20	20										20
	NT	9	9										9
	NL	14	14										14
	ER	25	26										26
	ET - Main Street	883	901		15%		1		35%		10	11	912
	EL	22	22	30%		5		5%		2		6	28
2	Main Street/ Fruehauf Avenue												
	SR	9	9		10%		1		50%		13	14	23
	ST - Fruehauf Avenue												
	SL	6	6		15%		1		35%		10	11	17
	WR	7	7	15%		2		35%		13		16	23
	WT - Main Street	847	864		30%		3		5%		1	4	868
	WL												
	NR												
	NT												
	NL												
	ER												
	ET - Main Street	922	941	30%		5		5%		2		6	947
	EL	13	13	10%		2		50%		19		21	34
3	Fruehauf Avenue/ Proposed Driveway												
	SR												
	ST - Fruehauf Avenue	15	15										15
	SL							1%		0		0	0
	WR				1%						0	0	0
	WT - Proposed Driveway												
	WL				25%		2		85%		23	25	25
	NR			25%		4		85%		32		36	36
	NT - Fruehauf Avenue	20	20										20
	NL												
	ER												
	ET												
	EL												
4	Chateau Terrace/ Proposed Driveway												
	SR							4%		2		2	2
	ST - Chateau Terrace	70	71										71
	SL												
	WR												
	WT												
	WL												
	NR												
	NT - Chateau Terrace	45	46										46
	NL			75%		11		10%		4		15	15
	ER				75%		7		10%		2	9	9
	ET - Proposed Driveway												
	EL								4%		1	1	1

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Intersection Crash Rate Calculations

4548-4564 Main Street

Intersection #1: Main Street at Bernhardt Drive/Chateau Terrace
Date of Count: Tuesday, December 13, 2022

Number of Crashes: 9
Number of Injuries: 2
Number of Fatalities: 0
Entering Vehicles (PM): 1881
ADT: 19800
Start Date: July 31, 2017
End Date: July 31, 2022
Number of Years: 5

Intersection Type: 4 Legged
Area Type: Urban
Control Type: Signal w/ Left Turn 5 or More Lanes

crash rate = Number of Crashes x 1 Million / ADT x 365 Days per Year x Number of Years

crash rate = 9 x 1,000,000 / 19800 x 365 x 5

	Crash Rate		Fatality Rate	Injury Rate
Study Intersection	**0.25**	**cr/mve**	**0%**	**22%**
Statewide Average*	**0.26**	**cr/mve**		

ADT = Average Daily Total vehicles entering intersection
cr/mve = crashes per million entering vehicles
* Most recent available 2019 Average Crash Rates for State Highways by Facility Type

	Direction					
Type	Northbound - 1	Southbound - 5	Eastbound - 3	Westbound - 7	Unknown	Totals
Left turn				1		1
Rear-end		1	1	3		5
Overtaking						0
Right Angle						0
Right Turn						0
Head On						0
Side-swipe			2			2
Fixed Object			1			1
Backing						0
Other						0
Bike/Ped						0
Animal						0
Totals	0	1	4	4	0	9

PDO	7
Injury	
Injury + PDO	2
Fatal	
NR	
Total	9

Intersection Crash Rate Calculations

4548-4564 Main Street

Intersection #2: Main Street at Fruehauf Avenue
Date of Count: Tuesday, December 13, 2022

Number of Crashes: 0
Number of Injuries: 0
Number of Fatalities: 0
Entering Vehicles (PM): 1801
ADT: 18958
Start Date: July 31, 2017
End Date: July 31, 2022
Number of Years: 5

Intersection Type: 3 Legged
Area Type: Urban
Control Type: Sign 5 or More Lanes

crash rate = Number of Crashes x 1 Million / ADT x 365 Days per Year x Number of Years

crash rate = 0 x 1,000,000 / 18958 x 365 x 5

	Crash Rate		Fatality Rate	Injury Rate
Study Intersection	**0.00**	**cr/mve**	**#DIV/0!**	**#DIV/0!**
Statewide Average*	**0.07**	**cr/mve**		

ADT = Average Daily Total vehicles entering intersection
cr/mve = crashes per million entering vehicles
* Most recent available 2019 Average Crash Rates for State Highways by Facility Type

	Direction					
Type	Northbound - 1	Southbound - 5	Eastbound - 3	Westbound - 7	Unknown	Totals
Left turn						0
Rear-end						0
Overtaking						0
Right Angle						0
Right Turn						0
Head On						0
Side-swipe						0
Fixed Object						0
Backing						0
Other						0
Bike/Ped						0
Animal						0
Totals	0	0	0	0	0	0

PDO	
Injury	
Injury + PDO	
Fatal	
NR	
Total	0

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LEVEL OF SERVICE: CRITERIA/DEFINITIONS

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Level of Service Criteria

Highway Capacity Manual 2016

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15-minute analysis period. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 20
C	20 – 35
D	35 – 55
E	55 – 80
F	>80

UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 - 50
F	>50

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

LEVEL OF SERVICE CALCULATIONS: EXISTING CONDITIONS

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

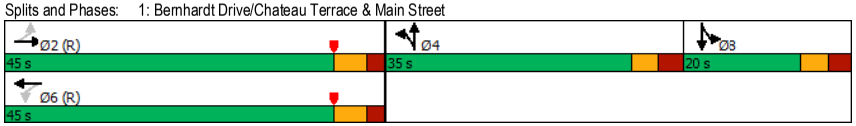
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	831	9	12	770	30	9	4	15	33	8	25
Future Volume (vph)	33	831	9	12	770	30	9	4	15	33	8	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.998			0.994			0.929			0.949	
Flt Protected	0.950			0.950				0.984			0.975	
Satd. Flow (prot)	1805	3498	0	1671	3420	0	0	1725	0	0	1697	0
Flt Permitted	0.279			0.263				0.984			0.975	
Satd. Flow (perm)	530	3498	0	462	3420	0	0	1725	0	0	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4			18			25	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	2		3	3		2			1			1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	0%	8%	5%	0%	0%	0%	0%	6%	0%	0%
Adj. Flow (vph)	39	978	11	14	906	35	11	5	18	39	9	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	989	0	14	941	0	0	34	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		34.1	34.1		32.2	32.2	
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		20.0	20.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		35.0%	35.0%		20.0%	20.0%	
Maximum Green (s)	38.8	38.8		38.8	38.8		28.9	28.9		13.9	13.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	73.7	73.7		73.7	73.7			7.2			9.1	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.07			0.09	
v/c Ratio	0.10	0.38		0.04	0.37			0.24			0.43	
Control Delay	8.3	7.9		8.1	7.8			30.3			37.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.3	7.9		8.1	7.8			30.3			37.4	
LOS	A	A		A	A			C			D	
Approach Delay		7.9			7.8			30.3			37.4	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	8	142		3	133			10			32	
Queue Length 95th (ft)	25	204		11	192			37			69	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	390	2579		340	2522			511			257	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.10	0.38		0.04	0.37			0.07			0.30	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay: 9.3 Intersection LOS: A
Intersection Capacity Utilization 43.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 934
7.a
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	866	801	5	9	11
Future Volume (vph)	5	866	801	5	9	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.927	
Flt Protected	0.950				0.978	
Satd. Flow (prot)	1805	3505	3436	0	1723	0
Flt Permitted	0.950				0.978	
Satd. Flow (perm)	1805	3505	3436	0	1723	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	5%	0%	0%	0%
Adj. Flow (vph)	6	1019	942	6	11	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	1019	948	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	866	801	5	9	11
Future Volume (Veh/h)	5	866	801	5	9	11
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1019	942	6	11	13
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	949				1468	475
vC1, stage 1 conf vol					946	
vC2, stage 2 conf vol					522	
vCu, unblocked vol	679				1266	143
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				97	98
cM capacity (veh/h)	815				352	782

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	6	510	510	628	320	24
Volume Left	6	0	0	0	0	11
Volume Right	0	0	0	0	6	13
cSH	815	1700	1700	1700	1700	502
Volume to Capacity	0.01	0.30	0.30	0.37	0.19	0.05
Queue Length 95th (ft)	1	0	0	0	0	4
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	12.5
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.5
Approach LOS						B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		33.9%	ICU Level of Service	A
Analysis Period (min)		15		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	883	25	15	809	14	14	9	20	37	2	31
Future Volume (vph)	22	883	25	15	809	14	14	9	20	37	2	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.996			0.997			0.937			0.941	
Flt Protected	0.950			0.950				0.984			0.974	
Satd. Flow (prot)	1719	3483	0	1805	3528	0	0	1661	0	0	1705	0
Flt Permitted	0.310			0.278				0.984			0.974	
Satd. Flow (perm)	560	3483	0	527	3528	0	0	1661	0	0	1705	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2			21			31	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	5		6	6		5			4			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	8%	0%	2%	0%	0%	0%	10%	0%	0%	3%
Adj. Flow (vph)	23	920	26	16	843	15	15	9	21	39	2	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	946	0	16	858	0	0	45	0	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		35.2	35.2		32.2	32.2	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		25.0	25.0	
Total Split (%)	45.5%	45.5%		45.5%	45.5%		31.8%	31.8%		22.7%	22.7%	
Maximum Green (s)	43.8	43.8		43.8	43.8		28.9	28.9		18.9	18.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	80.9	80.9		80.9	80.9			7.8			8.9	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.07			0.08	
v/c Ratio	0.06	0.37		0.04	0.33			0.33			0.44	
Control Delay	7.6	7.9		7.6	7.6			36.3			37.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	7.6	7.9		7.6	7.6			36.3			37.8	
LOS	A	A		A	A			D			D	
Approach Delay		7.9			7.6			36.3			37.8	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	5	135		3	117			16			29	
Queue Length 95th (ft)	17	213		13	187			52			73	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	412	2563		387	2596			451			318	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.06	0.37		0.04	0.33			0.10			0.23	

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 25 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 9.5	Intersection LOS: A
Intersection Capacity Utilization 42.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	922	847	7	6	6
Future Volume (vph)	13	922	847	7	6	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.932	
Flt Protected	0.950				0.976	
Satd. Flow (prot)	1805	3505	3536	0	1728	0
Flt Permitted	0.950				0.976	
Satd. Flow (perm)	1805	3505	3536	0	1728	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%
Adj. Flow (vph)	13	951	873	7	6	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	951	880	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	922	847	7	6	6
Future Volume (Veh/h)	13	922	847	7	6	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	13	951	873	7	6	6
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.91				0.91	0.91
vC, conflicting volume	884				1382	444
vC1, stage 1 conf vol					880	
vC2, stage 2 conf vol					502	
vCu, unblocked vol	662				1213	176
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				98	99
cM capacity (veh/h)	844				367	760

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	13	476	476	582	298	12
Volume Left	13	0	0	0	0	6
Volume Right	0	0	0	0	7	6
cSH	844	1700	1700	1700	1700	495
Volume to Capacity	0.02	0.28	0.28	0.34	0.18	0.02
Queue Length 95th (ft)	1	0	0	0	0	2
Control Delay (s)	9.3	0.0	0.0	0.0	0.0	12.5
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.5
Approach LOS						B

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	35.5%	ICU Level of Service	A	
Analysis Period (min)	15			

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7.a
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

LEVEL OF SERVICE CALCULATIONS: BACKGROUND CONDITIONS

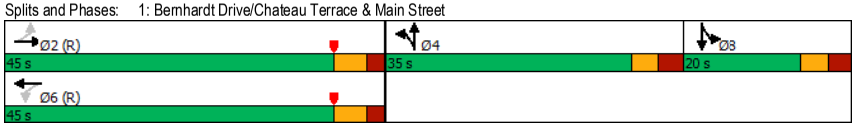
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	848	9	12	785	31	9	4	15	34	8	26
Future Volume (vph)	34	848	9	12	785	31	9	4	15	34	8	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.998			0.994			0.929			0.948	
Flt Protected	0.950			0.950				0.984			0.976	
Satd. Flow (prot)	1805	3498	0	1671	3420	0	0	1725	0	0	1697	0
Flt Permitted	0.272			0.256				0.984			0.976	
Satd. Flow (perm)	516	3498	0	450	3420	0	0	1725	0	0	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			18			26	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	2		3	3		2			1			1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	0%	8%	5%	0%	0%	0%	0%	6%	0%	0%
Adj. Flow (vph)	40	998	11	14	924	36	11	5	18	40	9	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1009	0	14	960	0	0	34	0	0	80	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		34.1	34.1		32.2	32.2	
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		20.0	20.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		35.0%	35.0%		20.0%	20.0%	
Maximum Green (s)	38.8	38.8		38.8	38.8		28.9	28.9		13.9	13.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	73.6	73.6		73.6	73.6			7.2			9.3	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.07			0.09	
v/c Ratio	0.11	0.39		0.04	0.38			0.24			0.44	
Control Delay	8.5	8.0		8.2	7.9			30.3			37.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.5	8.0		8.2	7.9			30.3			37.4	
LOS	A	A		A	A			C			D	
Approach Delay		8.0			7.9			30.3			37.4	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	9	147		3	137			10			33	
Queue Length 95th (ft)	25	211		12	199			37			71	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	379	2574		331	2517			511			258	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.11	0.39		0.04	0.38			0.07			0.31	

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.44		
Intersection Signal Delay: 9.4	Intersection LOS: A	
Intersection Capacity Utilization 44.8%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



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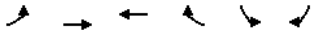
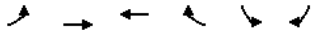
7.a
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	883	817	5	9	11
Future Volume (vph)	5	883	817	5	9	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.927	
Flt Protected	0.950				0.978	
Satd. Flow (prot)	1805	3505	3436	0	1723	0
Flt Permitted	0.950				0.978	
Satd. Flow (perm)	1805	3505	3436	0	1723	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	5%	0%	0%	0%
Adj. Flow (vph)	6	1039	961	6	11	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	1039	967	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	883	817	5	9	11
Future Volume (Veh/h)	5	883	817	5	9	11
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1039	961	6	11	13
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	968				1496	484
vC1, stage 1 conf vol					965	
vC2, stage 2 conf vol					532	
vCu, unblocked vol	690				1290	140
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				97	98
cM capacity (veh/h)	803				346	781

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	6	520	520	641	326	24
Volume Left	6	0	0	0	0	11
Volume Right	0	0	0	0	6	13
cSH	803	1700	1700	1700	1700	495
Volume to Capacity	0.01	0.31	0.31	0.38	0.19	0.05
Queue Length 95th (ft)	1	0	0	0	0	4
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	12.6
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.6
Approach LOS						B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		34.4%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	901	26	15	825	14	14	9	20	38	2	32
Future Volume (vph)	22	901	26	15	825	14	14	9	20	38	2	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.996			0.997			0.937			0.941	
Flt Protected	0.950			0.950				0.984			0.974	
Satd. Flow (prot)	1719	3483	0	1805	3528	0	0	1661	0	0	1704	0
Flt Permitted	0.303			0.271				0.984			0.974	
Satd. Flow (perm)	547	3483	0	514	3528	0	0	1661	0	0	1704	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2			21			31	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	5		6	6		5			4			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	8%	0%	2%	0%	0%	0%	10%	0%	0%	3%
Adj. Flow (vph)	23	939	27	16	859	15	15	9	21	40	2	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	966	0	16	874	0	0	45	0	0	75	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		35.2	35.2		32.2	32.2	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		25.0	25.0	
Total Split (%)	45.5%	45.5%		45.5%	45.5%		31.8%	31.8%		22.7%	22.7%	
Maximum Green (s)	43.8	43.8		43.8	43.8		28.9	28.9		18.9	18.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	80.8	80.8		80.8	80.8			7.8			9.0	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.07			0.08	
v/c Ratio	0.06	0.38		0.04	0.34			0.33			0.45	
Control Delay	7.7	8.0		7.7	7.7			36.3			38.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	7.7	8.0		7.7	7.7			36.3			38.3	
LOS	A	A		A	A			D			D	
Approach Delay		8.0			7.7			36.3			38.3	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	5	139		3	121			16			30	
Queue Length 95th (ft)	17	220		14	192			52			74	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	402	2559		377	2591			451			318	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.06	0.38		0.04	0.34			0.10			0.24	

Intersection Summary		
Area Type:	Other	
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 25 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.45		
Intersection Signal Delay: 9.7	Intersection LOS: A	
Intersection Capacity Utilization 43.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 941
7.a
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	941	864	7	6	6
Future Volume (vph)	13	941	864	7	6	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.932	
Flt Protected	0.950				0.976	
Satd. Flow (prot)	1805	3505	3536	0	1728	0
Flt Permitted	0.950				0.976	
Satd. Flow (perm)	1805	3505	3536	0	1728	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%
Adj. Flow (vph)	13	970	891	7	6	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	970	898	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	941	864	7	6	6
Future Volume (Veh/h)	13	941	864	7	6	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	13	970	891	7	6	6
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	902				1410	453
vC1, stage 1 conf vol					898	
vC2, stage 2 conf vol					511	
vCu, unblocked vol	675				1238	178
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				98	99
cM capacity (veh/h)	832				360	756

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	13	485	485	594	304	12
Volume Left	13	0	0	0	0	6
Volume Right	0	0	0	0	7	6
cSH	832	1700	1700	1700	1700	488
Volume to Capacity	0.02	0.29	0.29	0.35	0.18	0.02
Queue Length 95th (ft)	1	0	0	0	0	2
Control Delay (s)	9.4	0.0	0.0	0.0	0.0	12.6
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.6
Approach LOS						B

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization		36.0%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

LEVEL OF SERVICE CALCULATIONS: FULL DEVELOPMENT CONDITIONS

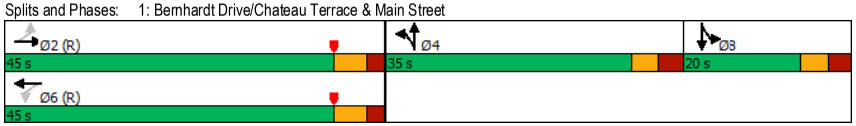
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	851	9	12	788	33	9	4	15	41	8	30
Future Volume (vph)	36	851	9	12	788	33	9	4	15	41	8	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.998			0.994			0.929			0.949	
Flt Protected	0.950			0.950				0.984			0.975	
Satd. Flow (prot)	1805	3498	0	1671	3421	0	0	1725	0	0	1696	0
Flt Permitted	0.269			0.253				0.984			0.975	
Satd. Flow (perm)	511	3498	0	445	3421	0	0	1725	0	0	1696	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			18			26	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			270	
Travel Time (s)		2.6			12.0			16.2			6.1	
Confl. Peds. (#/hr)	2		3	3		2			1			1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	0%	8%	5%	0%	0%	0%	0%	6%	0%	0%
Adj. Flow (vph)	42	1001	11	14	927	39	11	5	18	48	9	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	1012	0	14	966	0	0	34	0	0	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		34.1	34.1		32.2	32.2	
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		20.0	20.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		35.0%	35.0%		20.0%	20.0%	
Maximum Green (s)	38.8	38.8		38.8	38.8		28.9	28.9		13.9	13.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	73.0	73.0		73.0	73.0			7.2			9.9	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.07			0.10	
v/c Ratio	0.11	0.40		0.04	0.39			0.24			0.48	
Control Delay	8.9	8.4		8.6	8.3			30.3			38.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.9	8.4		8.6	8.3			30.3			38.9	
LOS	A	A		A	A			C			D	
Approach Delay		8.4			8.3			30.3			38.9	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	9	151		3	142			10			40	
Queue Length 95th (ft)	27	217		12	206			37			80	
Internal Link Dist (ft)		72			625			632			190	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	373	2554		324	2498			511			258	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.11	0.40		0.04	0.39			0.07			0.36	

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.48		
Intersection Signal Delay: 10.0	Intersection LOS: A	
Intersection Capacity Utilization 47.7%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 944
7.a
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	885	821	8	12	14
Future Volume (vph)	7	885	821	8	12	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.928	
Flt Protected	0.950				0.977	
Satd. Flow (prot)	1805	3505	3436	0	1723	0
Flt Permitted	0.950				0.977	
Satd. Flow (perm)	1805	3505	3436	0	1723	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		110	
Travel Time (s)		8.0	2.6		2.5	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	5%	0%	0%	0%
Adj. Flow (vph)	8	1041	966	9	14	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	1041	975	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	885	821	8	12	14
Future Volume (Veh/h)	7	885	821	8	12	14
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	8	1041	966	9	14	16
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	976				1508	488
vC1, stage 1 conf vol					972	
vC2, stage 2 conf vol					536	
vCu, unblocked vol	690				1297	134
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				96	98
cM capacity (veh/h)	800				344	785

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	8	520	520	644	331	30
Volume Left	8	0	0	0	0	14
Volume Right	0	0	0	0	9	16
cSH	800	1700	1700	1700	1700	491
Volume to Capacity	0.01	0.31	0.31	0.38	0.19	0.06
Queue Length 95th (ft)	1	0	0	0	0	5
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	12.8
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.8
Approach LOS						B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		34.5%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	10	5	0	20
Future Volume (vph)	6	0	10	5	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.955			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1814	0	0	1900
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1814	0	0	1900
Link Speed (mph)	30		30			30
Link Distance (ft)	145		110			611
Travel Time (s)	3.3		2.5			13.9
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	7	0	12	6	0	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	18	0	0	24
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	0	10	5	0	20
Future Volume (Veh/h)	6	0	10	5	0	20
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	7	0	12	6	0	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	39	15			18	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	39	15			18	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	978	1070			1612	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	7	18	24
Volume Left	7	0	0
Volume Right	0	6	0
cSH	978	1700	1612
Volume to Capacity	0.01	0.01	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary				
Average Delay		1.2		
Intersection Capacity Utilization		13.3%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	11	4	68	67	0
Future Volume (vph)	0	11	4	68	67	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected				0.997		
Satd. Flow (prot)	1644	0	0	1809	1900	0
Flt Permitted				0.997		
Satd. Flow (perm)	1644	0	0	1809	1900	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	124			270	178	
Travel Time (s)	2.8			6.1	4.0	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	5%	0%	0%
Adj. Flow (vph)	0	13	5	80	79	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	0	85	79	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	11	4	68	67	0
Future Volume (Veh/h)	0	11	4	68	67	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	13	5	80	79	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				270		
pX, platoon unblocked						
vC, conflicting volume	169	79	79			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	169	79	79			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	823	987	1532			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	13	85	79
Volume Left	0	5	0
Volume Right	13	0	0
cSH	987	1532	1700
Volume to Capacity	0.01	0.00	0.05
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.5	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	0.5	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	912	26	15	840	22	14	9	20	43	2	36
Future Volume (vph)	28	912	26	15	840	22	14	9	20	43	2	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00			1.00			0.99			0.99	
Frt		0.996			0.996			0.937			0.940	
Flt Protected	0.950			0.950				0.984			0.974	
Satd. Flow (prot)	1719	3483	0	1805	3524	0	0	1661	0	0	1702	0
Flt Permitted	0.294			0.266				0.984			0.974	
Satd. Flow (perm)	531	3483	0	505	3524	0	0	1661	0	0	1702	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			3			21			32	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			270	
Travel Time (s)		2.6			12.0			16.2			6.1	
Confl. Peds. (#/hr)	5		6	6		5			4			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	8%	0%	2%	0%	0%	0%	10%	0%	0%	3%
Adj. Flow (vph)	29	950	27	16	875	23	15	9	21	45	2	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	977	0	16	898	0	0	45	0	0	85	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		35.2	35.2		32.2	32.2	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		25.0	25.0	
Total Split (%)	45.5%	45.5%		45.5%	45.5%		31.8%	31.8%		22.7%	22.7%	
Maximum Green (s)	43.8	43.8		43.8	43.8		28.9	28.9		18.9	18.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	80.3	80.3		80.3	80.3			7.8			9.5	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.07			0.09	
v/c Ratio	0.07	0.38		0.04	0.35			0.33			0.48	
Control Delay	8.2	8.4		7.9	8.0			36.3			39.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.2	8.4		7.9	8.0			36.3			39.8	
LOS	A	A		A	A			D			D	
Approach Delay		8.4			8.0			36.3			39.8	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	6	144		3	127			16			36	
Queue Length 95th (ft)	21	228		14	203			52			83	
Internal Link Dist (ft)		72			625			632			190	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	388	2544		368	2574			451			318	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.07	0.38		0.04	0.35			0.10			0.27	

Intersection Summary		
Area Type:	Other	
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 25 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.48		
Intersection Signal Delay: 10.1	Intersection LOS: B	
Intersection Capacity Utilization 44.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



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7.a
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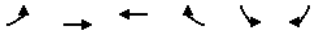
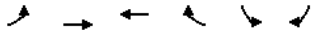


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	34	947	868	23	17	23
Future Volume (vph)	34	947	868	23	17	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.996		0.923	
Flt Protected	0.950				0.979	
Satd. Flow (prot)	1805	3505	3527	0	1717	0
Flt Permitted	0.950				0.979	
Satd. Flow (perm)	1805	3505	3527	0	1717	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		110	
Travel Time (s)		8.0	2.6		2.5	
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%
Adj. Flow (vph)	35	976	895	24	18	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	976	919	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	34	947	868	23	17	23
Future Volume (Veh/h)	34	947	868	23	17	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	35	976	895	24	18	24
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	923				1469	464
vC1, stage 1 conf vol					911	
vC2, stage 2 conf vol					558	
vCu, unblocked vol	685				1294	173
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	96				95	97
cM capacity (veh/h)	820				345	757

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	35	488	488	597	322	42
Volume Left	35	0	0	0	0	18
Volume Right	0	0	0	0	24	24
cSH	820	1700	1700	1700	1700	501
Volume to Capacity	0.04	0.29	0.29	0.35	0.19	0.08
Queue Length 95th (ft)	3	0	0	0	0	7
Control Delay (s)	9.6	0.0	0.0	0.0	0.0	12.8
Lane LOS	A					B
Approach Delay (s)	0.3			0.0		12.8
Approach LOS						B

Intersection Summary					
Average Delay		0.4			
Intersection Capacity Utilization		38.3%	ICU Level of Service		A
Analysis Period (min)		15			

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Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	0	20	36	0	15
Future Volume (vph)	25	0	20	36	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.914			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1737	0	0	1900
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1737	0	0	1900
Link Speed (mph)	30		30			30
Link Distance (ft)	145		110			611
Travel Time (s)	3.3		2.5			13.9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	26	0	21	37	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	0	58	0	0	15
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	0	20	36	0	15
Future Volume (Veh/h)	25	0	20	36	0	15
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	26	0	21	37	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	54	40			58	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	54	40			58	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	100			100	
cM capacity (veh/h)	959	1038			1559	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	26	58	15
Volume Left	26	0	0
Volume Right	0	37	0
cSH	959	1700	1559
Volume to Capacity	0.03	0.03	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	8.9	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.9	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	9	15	46	71	2
Future Volume (vph)	1	9	15	46	71	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878				0.996	
Flt Protected	0.995			0.988		
Satd. Flow (prot)	1660	0	0	1809	1839	0
Flt Permitted	0.995			0.988		
Satd. Flow (perm)	1660	0	0	1809	1839	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	124			270	178	
Travel Time (s)	2.8			6.1	4.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	5%	3%	0%
Adj. Flow (vph)	1	9	16	48	74	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	0	64	76	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	9	15	46	71	2
Future Volume (Veh/h)	1	9	15	46	71	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1	9	16	48	74	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				270		
pX, platoon unblocked						
vC, conflicting volume	155	75	76			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	155	75	76			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	99			
cM capacity (veh/h)	832	992	1536			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	10	64	76
Volume Left	1	16	0
Volume Right	9	0	2
cSH	973	1536	1700
Volume to Capacity	0.01	0.01	0.04
Queue Length 95th (ft)	1	1	0
Control Delay (s)	8.7	1.9	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	1.9	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		

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7.a
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

CARMINAWOOD
DESIGN

RECEIVED
JAN 18 2023
TOWN OF AMHERST
PLANNING DEPT.

DOWNSTREAM SANITARY SEWER CAPACITY ANALYSIS REPORT

for

Proposed Site Redevelopment

4548-4564 Main Street
Town of Amherst, Erie County, New York

Prepared for

Benderson Development Co., LLC

570 Delaware Avenue
Buffalo, New York 14202

Prepared by

Carmina Wood Design

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

December 2022
Rev. January 2023



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Project Description

This project is a redevelopment of four parcels with a total of 0.93-acres currently occupied with two (2) multi-tenant buildings and one (1) 950 sf residential house that are all to be demolished. The project is located along Main Street in the Town of Amherst. Proposed construction will include a 34,121 sf multi-story building with associated parking garage, utility, drainage and site improvements.

The proposed sanitary demand for the proposed building will be served by a private 6" SDR-35 PVC lateral that will connect to a private 8" SDR-35 PVC sanitary sewer. The private 8" sanitary sewer will discharge to an existing Town of Amherst sewer manhole within the Fruehaut Avenue R.O.W. Flows then travel north and are ultimately conveyed to the Town of Amherst Wastewater Treatment Facility. Refer to the sewer node maps located at the end of this downstream sewer capacity analysis report.

Node 1 - Harlem Road (12"):

Existing Peak Flow measured (wet weather event)	= 3.379 cfs (2.184 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 3.453 cfs

Theoretical capacity of existing 12" VTP @ 0.44% = 2.193 cfs

Conclusion: The maximum monitored wet weather flow exceeds the capacity of the existing 8" sewer pipe. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 1 following a 1.56" rainfall event, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. I/I mitigation shall be required for the contribution proposed for this project.

Node 2 - Park School (10"):

Existing Peak Flow measured (wet weather event)	= 1.145 cfs (0.740 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 1.219 cfs

Theoretical capacity of existing 10" VTP @ 1.19% = 7.012 cfs

Conclusion: The proposed total peak flow is less than the capacity of the 10" VTP pipe, therefore there is sufficient capacity.

Node 3 - West Side Interceptor (60"):

Existing Peak Flow measured (wet weather event)	= 116.831 cfs (75.510 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 116.904 cfs
Existing Peak Flow (per (T) Amherst)	= 83.705 cfs (54.100 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 83.779 cfs

Capacity of existing 60" West Side Interceptor = 75.969 cfs (49.1 mgd)

Conclusion: The maximum monitored wet weather flow exceeds the capacity of the existing 60" sewer pipe. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 3 following a 1.56" rainfall event, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. I/I mitigation shall be required for the contribution proposed for this project.

Foot Notes:

Downstream capacity node information provided by Town of Amherst

*Converted from measurements in TECSmith report dated 11/30/22

** See Sanitary Sewage Demand Calculations

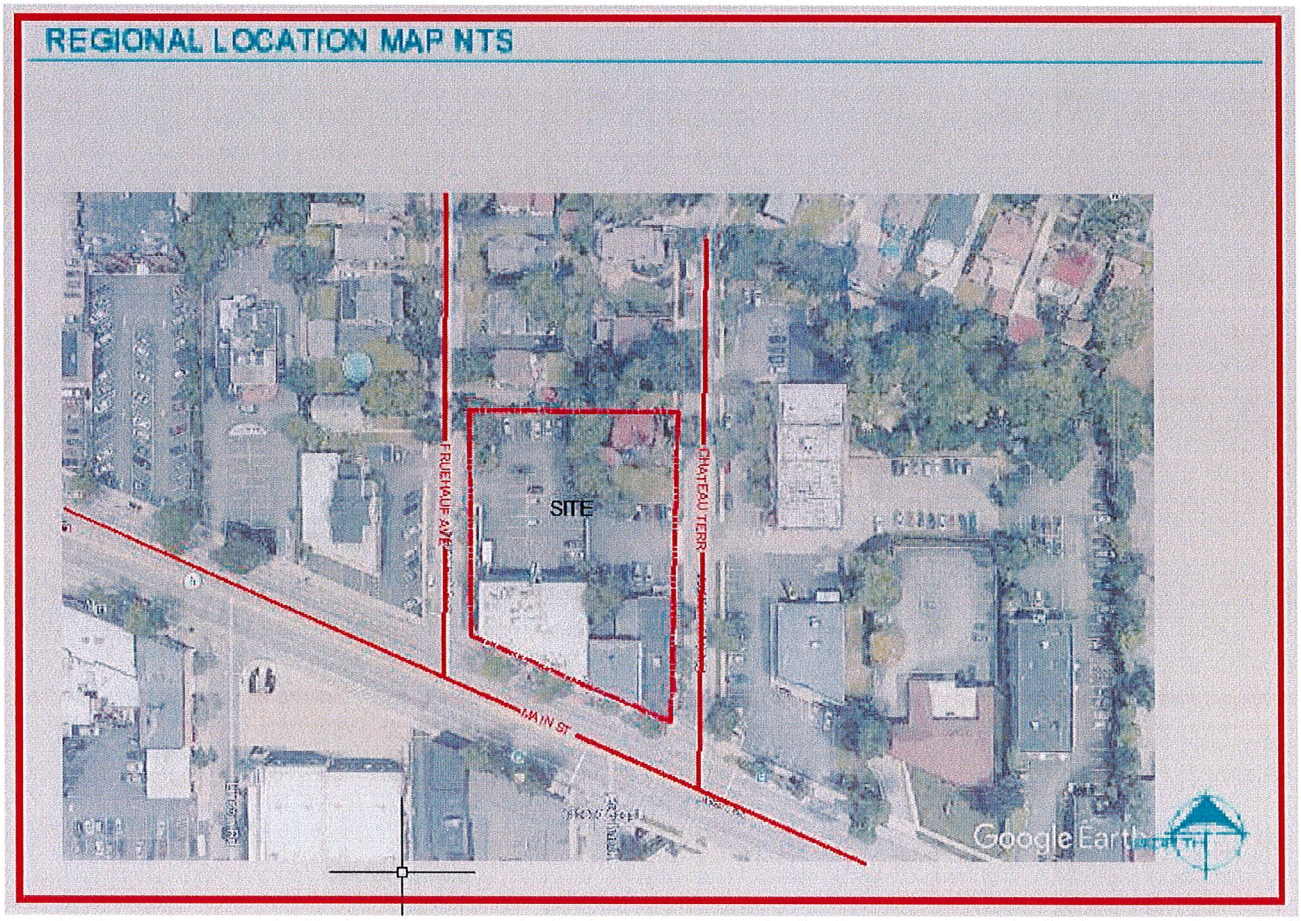
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Location Map

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

FIGURE 1

SITE LOCATION PLAN
ENGINEERING PLANS



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Sanitary Demand Calculations

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

JOB NAME: MAIN ST MULTI-STORY BUILDING
DESCRIPTION: SANITARY & WATER CALCULATIONS
PROPERTY # 5202 DATE: 01.06.2023
CALCULATED BY: DMZ SHEET: 1 OF 2

SANITARY SEWER CALCULATIONS:

Existing Buildings Removed: 13,100 S.F.

Design GPD: Restaurant = 35 GPD / Seat *NYSDEC Design standard for WWTS
Residential = 110 GPD / Bedroom in Apartment (150 GPD per Bed for pre-1980)
Retail = 0.1 GPD/ S.F. + 15gpd/Employee

Existing = 1,950 GPD (Residential) + 1,215 GPD (Retail) = 3,165 GPD
(150GPD/Bed * 13 Beds) + [(0.1GPD/S.F. * 11250 S.F. + 15gpd/employee * 6 Employees)]

Proposed = 2,800 GPD (Restaurant) + 8,140 GPD (Residential) = 10,940 GPD
(35 GPD/Seat*80 Seats) + (110GPD/bed* 74 Beds)

INCREASED SANITARY FLOW = **7,775 GPD**

PEAK SANITARY DEMAND

Total Demand = 10940 GPD
Per Population = 30 Per Capita

Peak Factor: $(18+\sqrt{P}) / (4+\sqrt{P})$ P in Thousands

Peak Factor = 4.37

Peak Sanitary Demand = 10940 x 4.37 = 47,808 gpd = 33.20gpm

WATER CALCULATIONS:

= 1.1 Usage Factor * (GPD)

= GPD / 9hr / 60min
ASSUMED 9HR SHIFT = 12034 / 9 / 60
= **22.29 GPM**

PEAK FACTOR: = GPM X 1.8
= 22.29 X 1.8
Q = **40.11 GPM PEAK**

HEADLOSS FRICTION:

$$= \frac{(10.44) \times (L) \times (Q)^{1.85}}{(C)^{1.85} \times (D)^{4.866}}$$

Q = GPMin
L = LENGTH OF PIPE
C = DESIGN COEF OF PIPE
D = PIPE DIAMETER

$$= \frac{(10.44) \times (18) \times (40.11)^{1.85}}{(140)^{1.85} \times (6)^{4.866}}$$

= **0 PSI**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

CARMINA WOOD DESIGN
487 MAIN STREET, SUITE 500
BUFFALO, NEW YORK, 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 22.323 Date: 12/13/2022
Project Name: Proposed Site Redevelopment
Project Address: 4548-4654 Main St Amherst NY
Subject: Sanitary Sewer
Sheet: 1 of 1

Peak Sanitary Demand = 10,940 x 4.37 = 47,808 gpd
= 0.048 mgd

Required Infiltration and Inflow Mitigation:

Peak Sanitary Flow	=	47,808 gpd	=	33.20 gpm
4:1 offset flow per NYSDEC requirements	=	33.20 x 4	=	132.80 gpm req'd
Mitigation Credit	=	$250 / gpm		
Mitigation Agreement Amount	=	**$33,199.86**		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

TECSmith Monitoring Report

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Attachment: SP-2022-11_application_021623 (26951 : SP-2022-11)

Date	Node 1			Node 2			Node 3			Rain₂	New Snow
	Harlem Rd 12" (12")			Park School 10" (10")			N. Ellicott Crk (59.75")				
	FLOW (GAL x 1,000)	PEAK FLOW (MGD)	PEAK LEVEL (IN)	FLOW (GAL x 1,000)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	FLOW (GAL x 1)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	(inches)	(inches)
11/1/2022	32.000	0.098	2.776	8.902	0.046	1.246	7291659	8.715	16.390	*0.01*	*0*
11/2/2022	70.803	0.108	2.865	18.060	0.063	1.304	6810050	10.005	21.170	*0*	*0*
11/3/2022	66.020	0.091	2.609	18.404	0.057	1.200	6637462	8.338	16.030	*0*	*0*
11/4/2022	64.412	0.133	2.967	15.541	0.063	1.223	6525357	8.162	15.910	*0*	*0*
11/5/2022	65.137	0.098	2.722	17.017	0.087	1.509	6719078	8.583	16.530	*0*	*0*
11/6/2022	131.572	0.318	4.692	69.033	0.262	2.005	14823754	31.217	31.550	*0.38*	*0*
11/7/2022	74.975	0.104	2.914	22.355	0.084	1.501	7733200	9.381	17.230	*0*	*0*
11/8/2022	71.236	0.102	2.829	20.885	0.074	1.426	6894542	8.762	16.450	*0*	*0*
11/9/2022	64.667	0.101	2.832	15.643	0.060	1.295	6842863	8.395	16.120	*0*	*0*
11/10/2022	59.590	0.099	2.776	15.304	0.054	1.182	6537961	8.110	15.880	*0*	*0*
11/11/2022	556.390	2.184	25.869	253.555	0.740	3.082	25848659	75.510	130.100	*1.56*	*0*
11/12/2022	558.945	1.073	7.108	287.113	0.591	2.782	36117004	51.270	125.250	*0.13*	*0*
11/13/2022	202.623	0.285	4.088	103.330	0.194	1.839	16960287	21.024	25.270	*0.04*	*0.2*
11/14/2022	162.921	0.223	3.561	54.369	0.099	1.612	13036958	15.259	21.510	*0*	*0*
11/15/2022	137.224	0.502	3.633	43.356	0.066	1.274	10903734	12.485	19.370	*0.02*	*0*
11/16/2022	196.709	0.413	4.705	80.183	0.308	2.122	14895375	31.949	32.450	*0.08*	*0.1*
11/17/2022	150.339	0.183	3.320	48.841	0.099	1.388	10747286	12.763	19.860	*0.9*	*9.4*
11/18/2022	180.306	0.236	3.782	63.191	0.134	1.645	14101924	19.608	24.380	*0.59*	*5.7*
11/19/2022	185.973	0.237	3.737	65.623	0.131	1.709	13710779	16.597	22.270	*1.49*	*21.5*
11/20/2022	190.214	0.244	3.736	79.001	0.124	1.656	14859457	18.113	23.260	*0*	*0*
11/21/2022	192.331	0.287	3.931	89.392	0.149	1.916	15856032	20.287	25.010	*0*	*0*
11/22/2022	216.776	0.341	4.202	122.753	0.203	2.055	18716668	24.031	27.270	*0*	*0*
11/23/2022	244.754	0.390	4.493	162.150	0.228	2.135	20747374	26.747	29.250	*0*	*0*
11/24/2022	277.595	0.347	4.442	146.598	0.213	2.067	19858616	25.038	27.850	*0*	*0*
11/25/2022	557.277	0.791	6.250	319.304	0.509	3.024	38098700	52.355	43.240	*0.16*	*0*
11/26/2022	364.345	0.495	4.994	188.463	0.250	2.053	24687291	30.556	31.860	*0*	*0*
11/27/2022	366.032	0.607	5.481	170.936	0.288	2.128	25437145	45.700	39.780	*0.26*	*0*
11/28/2022	303.846	0.393	4.550	130.328	0.224	1.986	21449454	27.026	29.540	*0.01*	*0*
11/29/2022	150.565	0.279	3.925	48.933	0.129	1.708	17202810	19.160	24.220	*0*	*0*
---	---	---	---	---	---	---	---	---	---	*5.63*	*36.9*

	MGD	CFS
Wet	2.184	3.379

	MGD	CFS
Wet	0.740	1.145

	MGD	CFS
Wet	75.510	116.831

TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
716-462-0382

Date: November 30, 2022

SANITARY SEWER FLOW CAPACITY STUDY – Summary Review

Prepared For: 4558-4564 Main Capacity Analysis

Christopher Wood, PE Partner
487 Main Street, Suite 500
Buffalo, New York 14203

Project Name: 4558-4564 Main Capacity Analysis

Flow Monitoring Period: November 1, 2022 to November 29, 2022

Rain Events (> 0.5-inches) Monitored: November 11 (1.59"), November 17 (0.90"), November 18 (0.59"), and November 19 (1.49")

Number of Monitoring Nodes: Three (3) downstream manholes

Node Locations and Descriptions:

- Node 1 Harlem Rd 12" (12")
- Node 2 Park School 10" (10")
- Node 3 N. Ellicott Crk (59.75")

Summary Conclusion:

Based on the data presented in this report, specifically the flow depth measurements recorded (see graphs below)

- One time did the flow depth exceed pipe diameter at Node 1 and None 3 of the downstream monitoring points during the wet weather events monitored.
- At no time did the flow depth exceed pipe diameter at Node 2 of the downstream monitoring points during the wet weather events monitored.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

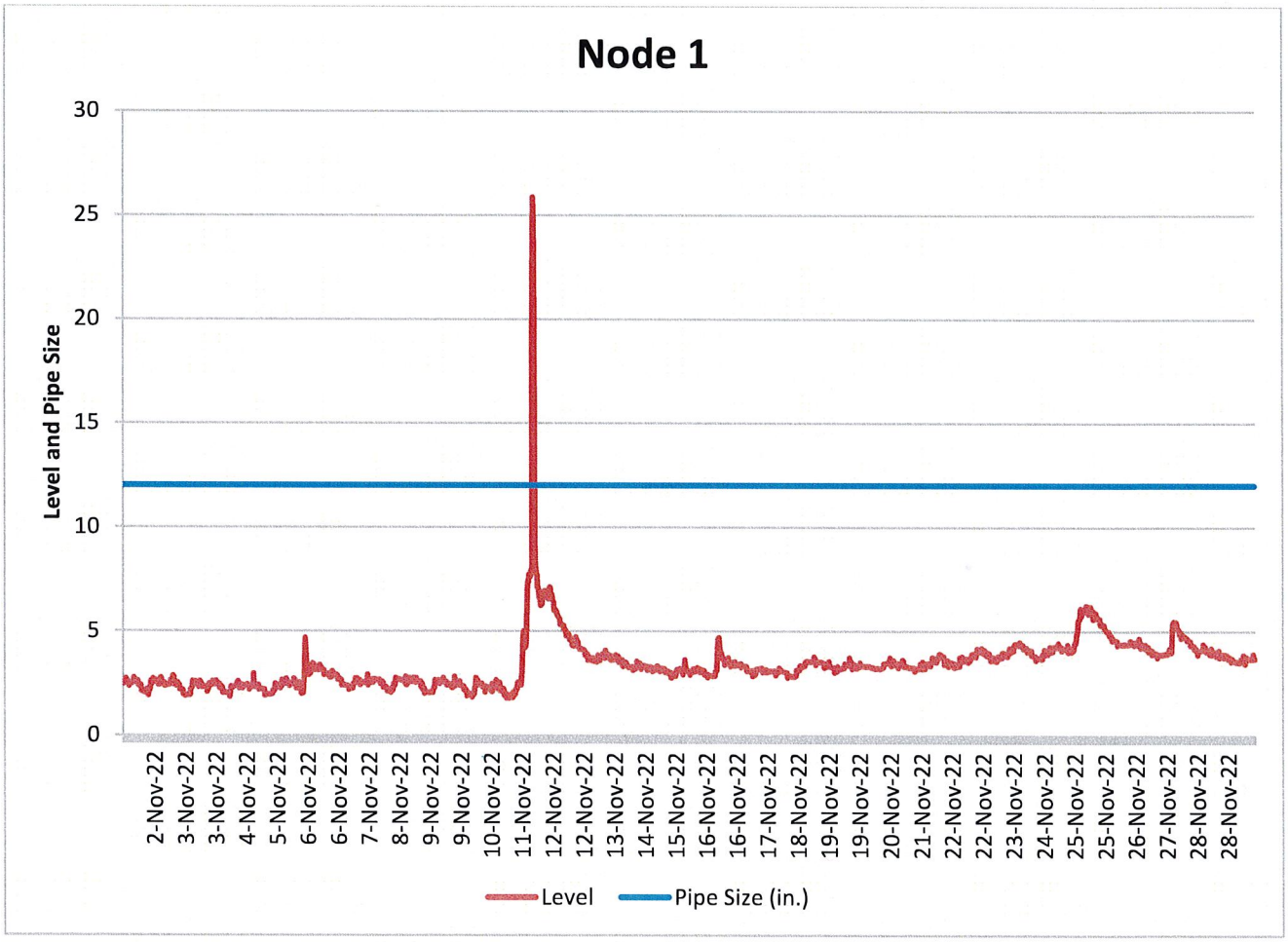
TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
716-462-0382

Depth of Flow Capacity Summary:

Depth of flow capacity is based on diameter of pipe. See graphs below.

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 1.



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TECsmith

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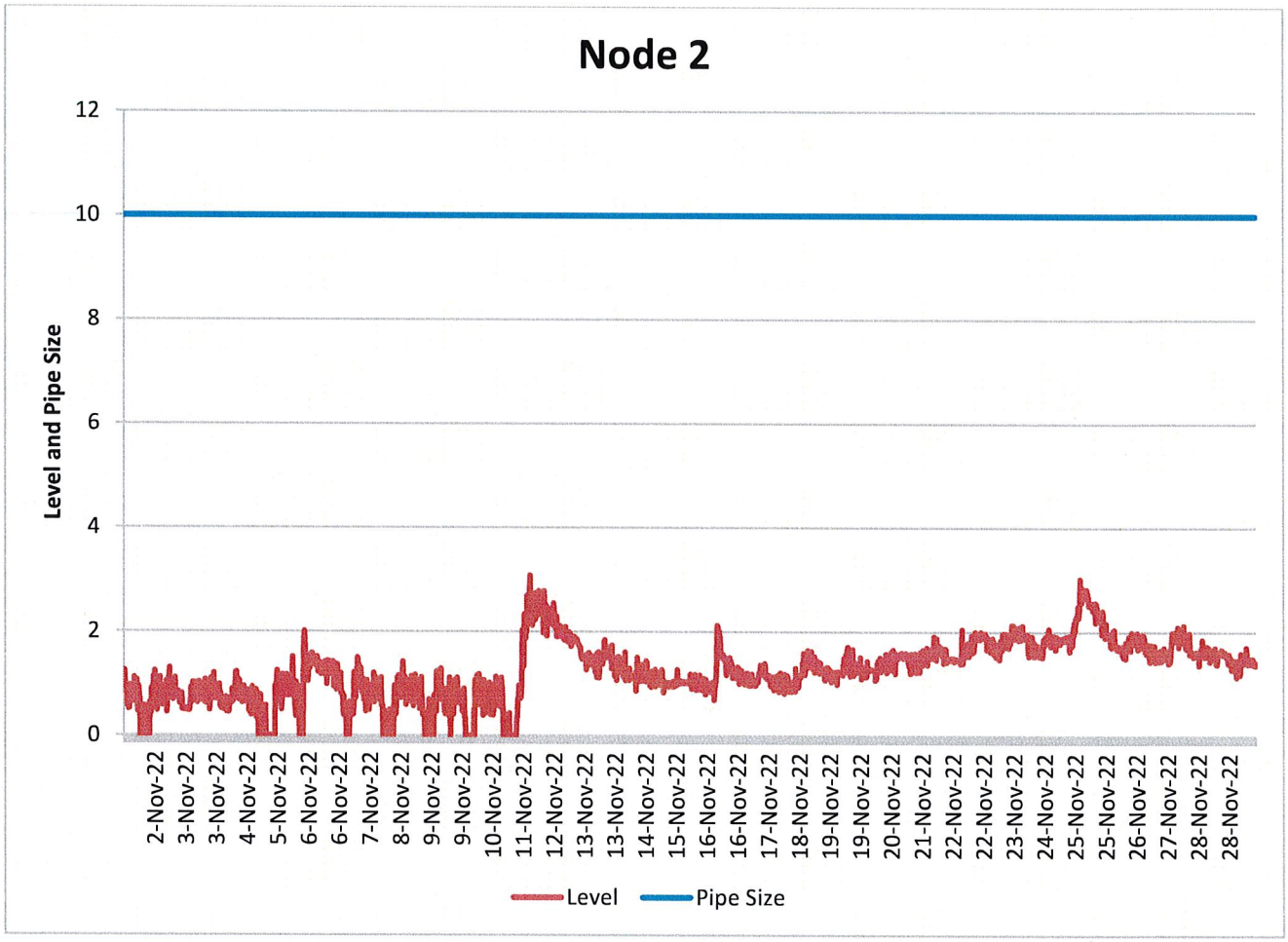
PO Box 95
Clarence, NY 14031
716-462-0382

- At no time during the monitoring period did depth of flow exceed pipe diameter at Node 2.



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TECsmith

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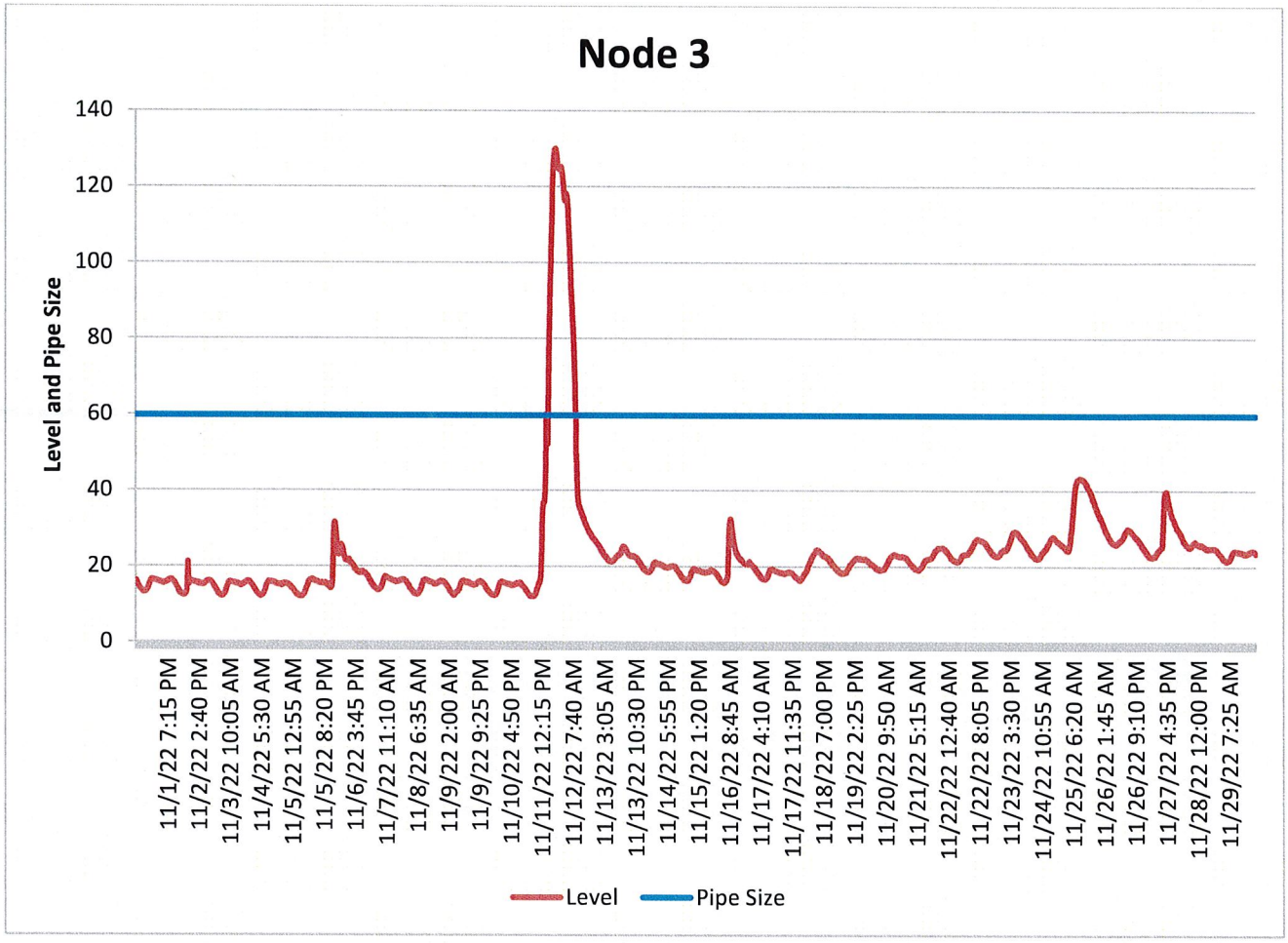
Clarence, NY 14031
716-462-0382

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 3.



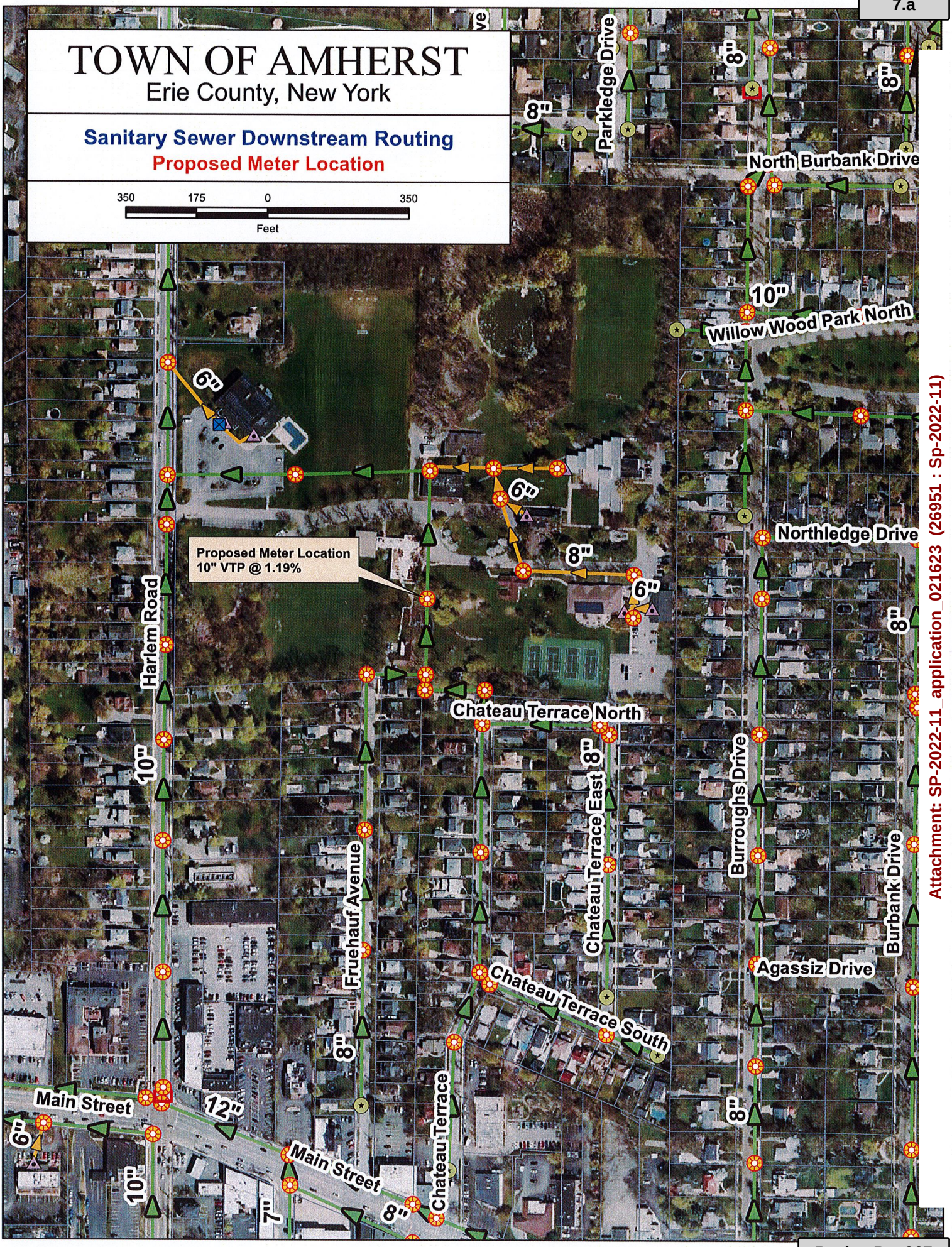
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

(T) Amherst Sanitary Sewer Routing & Node Maps

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

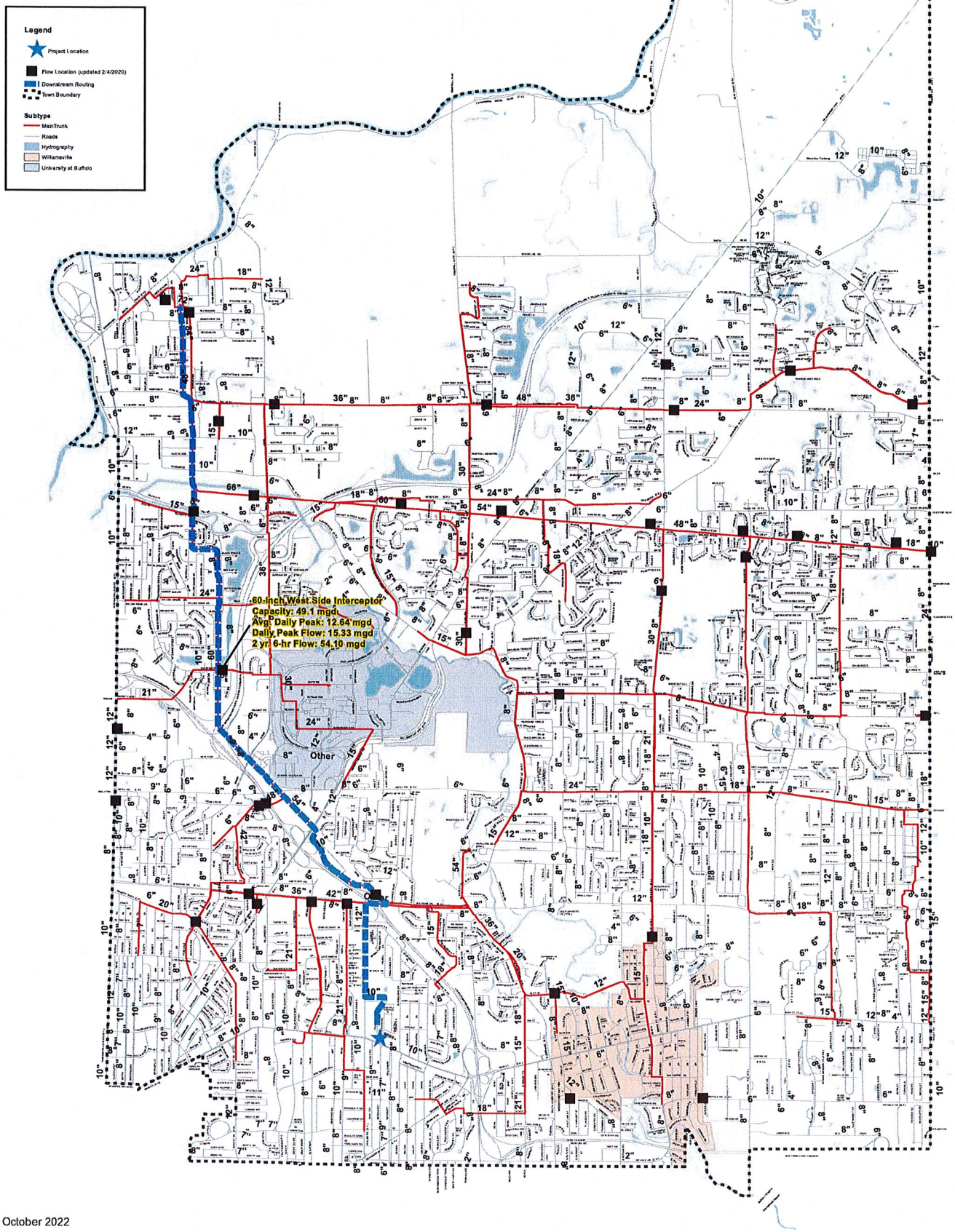


Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

TOWN OF AMHERST
Erie County, New York

Downstream Sewer Routing
Proposed Site: 4548 - 4564 Main Street

1 0.5 0 1
Miles



October 2022

A. Pontikos

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



ENGINEER'S REPORT
FOR
PROPOSED SITE REDEVELOPMENT
4548-4564 MAIN STREET
TOWN OF AMHERST, NEW YORK
PROP # 5202

May 18, 2022
Updated December 13, 2022

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

GENERAL

This project is a redevelopment of four parcels with a total of 0.93-acres currently occupied with two multi-tenant buildings totaling 12,150 S.F. with an associated parking lot, utility and drainage infrastructure and a 950 S.F. residential house with associated driveway and garage. The project is located along Rt. 5 Main Street between Fruehauf Ave and Chateau Terrace in the Town of Amherst. The property abuts general commercial properties along Main Street property and abuts residential properties along the North property line. The existing multi-tenant buildings and residential house will be demolished for the construction of this project.

Existing Conditions:

The site is currently occupied by a multi-tenant building with associated parking lot and a residential house. The site currently is sheet draining any runoff from pavement surface existing on-site drainage structures.

The site contains three existing domestic water services. A ¾" domestic service is located along Main St. that are tapped off the existing 8" water main along the Southside of Main St. A 2" domestic service is tapped off the 6" water main along Fruehauf Ave. A ¾" domestic service, for the residential home, is tapped off the Existing 1" service main along Chateau Terrace. The existing water services will be abandoned as part of this project.

Existing Sanitary Sewers are located along Main Street that discharges into the existing Town of Amherst sewer district #1.

PROJECT OVERVIEW

The proposed project *(Figure 1)* consists of; demolition of the existing 12,150 S.F. multi-tenant buildings, residential house and garage, pavement areas and the clearing of land; construction of a proposed 34,121 S.F. multi-story building with associated parking garage, drainage infrastructure and site improvements to the sites existing grading and utilities.

PROPOSED FACILITIES

Storm Water

SWPPP Engineer's Report prepared by Carmina, Wood, Morris DPC dated May, 2022

Water System

The existing water services to the site are to be abandoned for this proposed project. The proposed development will provide a new water service tap to the 6" main along Chateau Terrace. The proposed domestic and fire services will be backflowed within the proposed building.

Disinfection of the water services following installation will be continuous feed, according to AWWA C-651, latest revision.

Summary: *(Refer to Figure 2)*

Proposed Building:	34,121 S.F.
Operating Demand Increase:	22.29 gpm
Peak Demand Increase:	40.11 gpm
Water Main:	6" main along Chateau Terrace
Static Pressure:	64 PSI
Head Loss Friction:	0.0 psi
Loss through meter/RPZ:	13.0 psi
Elevation Loss:	0.8 psi
Bends Loss:	0 psi
Required Pressure after RPZ:	20 psi
Proposed Pressure after RPZ:	**50.8 PSI**

Sanitary Sewer:

Sanitary services will provide a new sanitary lateral connection to an existing manhole along Fruehauf Ave. The proposed building will be provided a 2,000 Gal grease trap with new 6" SDR-35 PVC lateral sanitary connection.

Summary:

Existing Flow:		3,165 GPD
Proposed New Building S.F.:		34,121 S.F.
Proposed Flow:	Restaurant	35 GPD * 80 Seats = 2,800 GPD
	Residential	110 GPD * 74 Bedrooms = 8,140 GPD
GPD Total =		10,940 GPD
Total Increased Sanitary Flow:		**7,775 GPD**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

FIGURES:

1 Site Location Plan & Engineering Plan

2 Sanitary & Water Calculations

3 SWPPP Report

4 Flow Test performed by ECWA

APPENDICES:

A FEMA Flood Areas

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

FIGURE 1

SITE LOCATION PLAN
ENGINEERING PLANS



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

FIGURE 2

SANITARY & WATER CALCULATIONS

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

JOB NAME: MAIN ST MULTI-STORY BUILDING
DESCRIPTION: SANITARY & WATER CALCULATIONS
PROPERTY # 5202 DATE: 01.06.2023
CALCULATED BY: DMZ SHEET: 1 OF 2

SANITARY SEWER CALCULATIONS:

Existing Buildings Removed:			13,100 S.F.	
Design GPD:	Restaurant	=	35 GPD / Seat	*NYSDEC Design standard for WWTS
	Residential	=	110 GPD / Bedroom in Apartment (150 GPD per Bed for pre-1980)	
	Retail	=	0.1 GPD/ S.F. + 15gpd/Employee	
Existing		=	1,950 GPD (Residential) + 1,215 GPD (Retail)	= 3,165 GPD
			(150GPD/Bed * 13 Beds) + [(0.1GPD/S.F. * 1125 S.F. + 15gpd/employee * 6 Employees)]	
Proposed		=	2,800 GPD (Restaurant) + 8,140 GPD (Residential)	= 10,940 GPD
			(35 GPD/Seat*80 Seats) + (110GPD/bed* 74 Beds)	

INCREASED SANITARY FLOW = **7,775 GPD**

PEAK SANITARY DEMAND

Total Demand = 10940 GPD
Per Population = 30 Per Capita

Peak Factor: $(18+\sqrt{P}) / (4+\sqrt{P})$ P in Thousands

Peak Factor = 4.37

Peak Sanitary Demand = 10940 x 4.37 = 47,808 gpd = 33.20gpm

WATER CALCULATIONS: = 1.1 Usage Factor * (GPD)

= GPD / 9hr / 60min
ASSUMED 9HR SHIFT = 12034 / 9 / 60
= **22.29 GPM**

PEAK FACTOR: = GPM X 1.8
= 22.29 X 1.8
Q = **40.11 GPM PEAK**

HEADLOSS FRICTION:

$$= \frac{(10.44) \times (L) \times (Q)^{1.85}}{(C)^{1.85} \times (D)^{4.866}}$$

Q = GPMin
L = LENGTH OF PIPE
C = DESIGN COEF OF PIPE
D = PIPE DIAMETER

$$= \frac{(10.44) \times (18) \times (40.11)^{1.85}}{(140)^{1.85} \times (6)^{4.866}}$$

= **0 PSI**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

JOB NAME: MAIN ST MULTI-STORY BUILDING
DESCRIPTION: SANITARY & WATER CALCULATIONS
PROPERTY # 5202 DATE: 12.13.22
CALCULATED BY: DMZ SHEET: 2 OF 2

ELEVATION LOSS: = (BUILDING INTAKE - HYDRANT HEIGHT) X 0.433
= (671.0 - 669.0) X 0.433
= **0.8 PSI (+)**

LOSS THROUGH RPZ & METER:

RPZ = 12 PSI (STANDARD)
METER = 1 (STANDARD)
= **13 PSI**

LOSS DUE TO BENDS:
RESISTANCE EQUIVALENT LENGTH METHOD)

TOTAL = **0 FT ADDITIONAL PIPE**

STATIC PRESSURE @ HYDRANT:
= **64 PSI**

PRESSURE AFTER RPZ / METER / BENDS / ELEVATION / HEADLOSS:

= 64 PSI - 13 PSI + 0.8 PSI
(HYD) (RPZ) (ELEVATION)
= **50.8 PSI**

REQUIRED RESIDUAL PRESSURE = 20 PSI

PROPOSED RESIDUAL PRESSURE = 50.8 psi

THEREFORE PROPOSED > REQUIRED
50.8 PSI (GREATER) 20 PSI

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

FIGURE 3

SWPPP Report

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

FIGURE 4

Flow Test by ECWA

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Hydrant FLow Test

Print Date: **4/1**

Residual Hydrant: J07E24 **Test Date/Time:** 11/21/2019 13:15

Location.....: **4301 MAIN ST** **1ST HYD E/O GETZVILLE RD**
TOWN OF AMHERST AMHERST CENTRAL H.S.

Size of Main/Branch: **8"/6"** Fire District: **22021 SNYDER FD 7** Water District: **184 ECWA AREA-TOWN OF AMHE**

Performed By: **DWP/CDB** Comments: **HYDRANT FLOW TEST REQUESTED BY DAVID SCHLANT M/E ENGINEERING**
PHONE: 716-845-5092; EMAIL: DMSCHLANT2@MEENGINEERING.COM

CW #43608

Dischrge Coef: **090** Elvtn Usgs(ft): Static(psi): **64** Residual(psi): **54** Required Residual Pressure(psi): **20**
Gallons Used..: **4,500** Total Flow(gpm): **1,500** Flow at Reqd Resid Pressure: **3,339**

Flow Hydrants:

Flow Hyd	Location	Main/Brnch	Nzle	Size	Pitot	Flow	Comments
J07 E21	**2 BRANTWOOD RD**	**6"/6"**	1:	**2.50**	**20.0**	**750**	
	1ST HYD S/O MAIN ST		2:	**2.50**	**20.0**	**750**	
	C/O MAIN ST		3:			Total Flow: **1,500**	

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

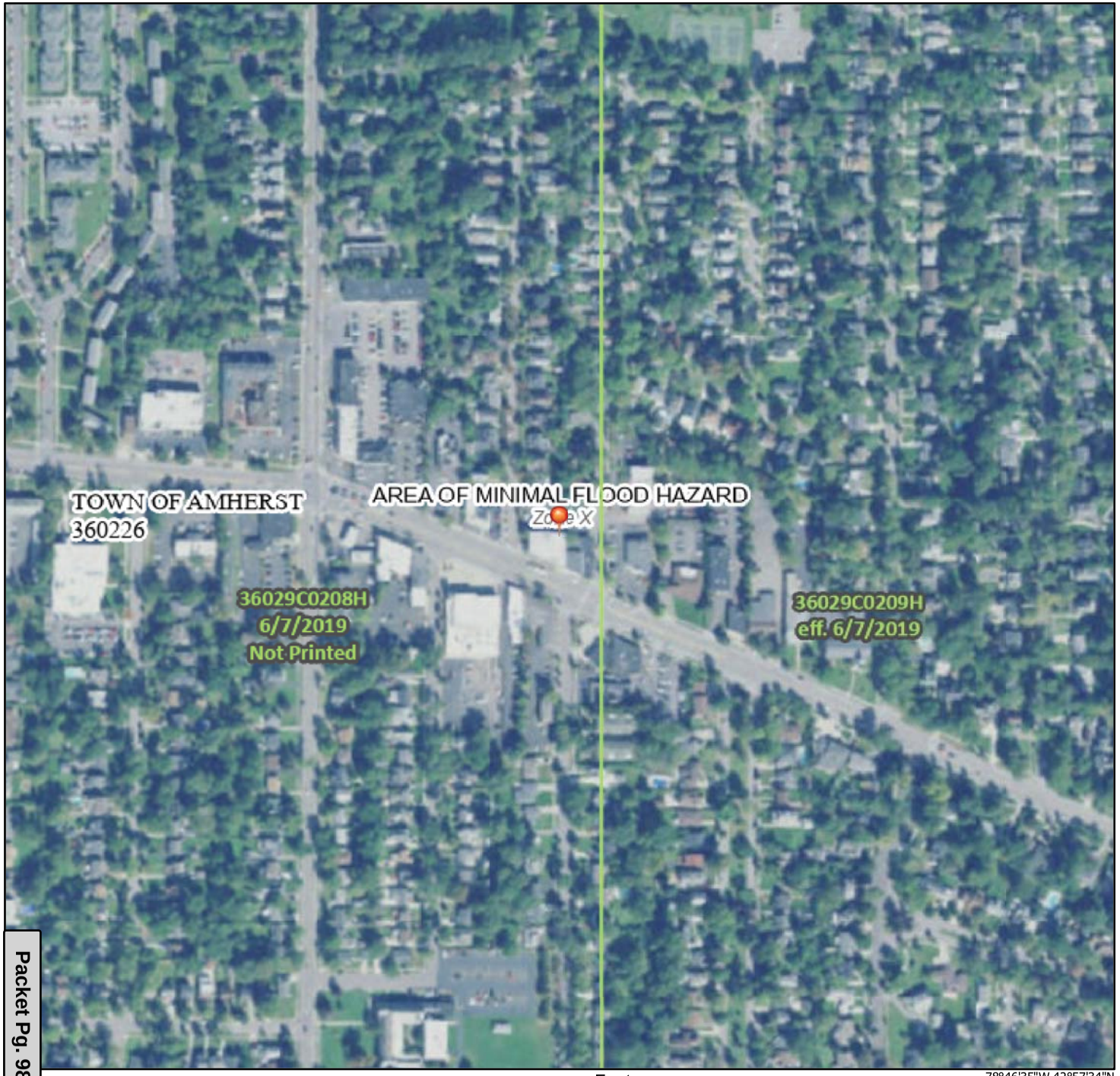
APPENDIX A

FEMA Flood Areas

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

National Flood Hazard Layer FIRMette

78°47'13"W 42°58'N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/11/2021 at 10:16 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following r elements do not appear: basemap imagery, flood zone labe legend, scale bar, map creation date, community identifiers FIRM panel number, and FIRM effective date. Map images for

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Carmina · Wood · Morris DPC

487 Main Street Suite 600 Buffalo, New York 14203 P: 716.842.3165 F: 716.842.0263 W: cwm-ae.com

Architecture Engineering Interior Design

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STORMWATER POLLUTION PREVENTION PLAN
for
CONSTRUCTION ACTIVITIES
At

Proposed Site Redevelopment
4548-4564 Main Street
Town of Amherst, Erie County, New York

Prepared for

Benderson Development Company, LLC

570 Delaware Ave
Buffalo, NY 14202

Prepared by

Carmina Wood Morris, D.P.C.

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

August 2021
(Revised 12/19/2022)



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STORM WATER POLLUTION PREVENTION PROGRAM

801 SCOPE

A. **PURPOSE: Benderson Development LLC** has placed an emphasis on following **the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity** governing storm water discharges during construction, and in accordance with erosion control practices. The Contractor's participation in this program is mandatory and its non-compliance is subject to various remedies, including without limitation, monetary set-offs, withholding payments; reimbursement for costs, expenses (including reasonable attorney's fees), fines and civil penalties incurred by **Benderson Development LLC;** and/or liquidated damages. This section provides a descriptive explanation of **Benderson Development LLC's** Storm Water Pollution Prevention Program and required Contractor participation.

The Engineer of record for this project certifies that this SWPPP meets the requirements and is in compliance with the New York State Stormwater Management Design Manual and latest NYSDEC Phase II stormwater regulation requirements.

B. **SPDES General Permit for Stormwater Discharges from Construction Activity:** Regulations promulgated by the NYSDEC to regulate the discharge of storm water from construction activities on sites where more than **one (1)** acre of soil is disturbed. One of the ways to comply with these regulations for affected sites is to request coverage under the General Permit for Construction Activities for New York State. In order to use the General Permit, a Notice of Intent (NOI) form must be completed and mailed to the **NYSDEC** at least ***5 business days*** prior to any earth-disturbing activities (this time frame may increase to 60 business days if a full review of the SWPPP is determined necessary by the NYSDEC) and a Storm Water Pollution Prevention Plan (SWPPP) for the site must be prepared and followed during the construction activities.

Approval from a regulated, traditional land use control MS4:

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the NYSDEC.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the *MS4* prior to submitting the NOI to the NYSDEC. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under "Notice of Intent (NOI) Submittal".

C. **RESPONSIBILITIES OF THE CONTRACTOR:** The Contractor shall manage the discharge of storm water from the site in accordance with the **NYSDEC** General Permit for Construction Activities conditions and the following provisions of this section. The Operator shall be responsible for conducting the storm water management practices in accordance with the permit. The Contractor shall be responsible for providing qualified inspectors to conduct the inspections required by the SWPPP. The Contractor shall be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the Contractor's failure to comply with the permit provisions. **It shall be the responsibility of the Contractor to make any changes to the SWPPP necessary when the Contractor or any of his subcontractors elects to use borrow or fill or material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites which are used for multiple construction projects are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The Contractor should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage**

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site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.

D. **NOTICE OF INTENT:** The Operator has petitioned the **NYSDEC** for coverage under the storm water discharges during construction at this site to be covered by the **SPDES** General Permit for Construction Activity for the State of **New York.** A Notice of Intent (NOI) for coverage under this permit has been filed by the Operator. The SWPPP must be prepared prior to submittal of the NOI form. The Operator will require the Contractor to be a co-permittee with the Operator. The Contractor will be required to post the NOI at the construction site along with any building permits.

E. **CONTRACTOR CERTIFICATION & TRAINING**: Certification and Training of the Contractor's Project Manager and Superintendent will be performed at the Pre-Construction Meeting and administered by the **Operator's Project Manager** and/or **Operator's Engineer**. This Certification and Training Program has been developed to stress the importance of the following topics:

- Erosion and sediment control for water quality protection
- Implementation of erosion and sediment control plans
- The importance to proper installation of erosion and sediment control measures
- Regular inspection by the **owner/operator** and a **Qualified Professional** of erosion and sediment control measures
- Diligent maintenance of erosion and sediment control measures
- Expedient preparation of accurate and complete records regarding inspection and maintenance of erosion and sediment control measures
- Record-keeping for inspections and maintenance activities

Upon completion of the certification and training program, the project will receive a *SWPPP Ledger* for use by the Contractor's Project Manager and Superintendent with all required certifications and record keeping forms involved with the installation and/or maintenance of erosion and sediment control measures. The Operator's certification and training shall be in addition to any federal, state or local certifications or training required or available to comply with SPDES stormwater permit requirements by the Contractor.

F. **REQUIREMENTS FOR THE GENERAL CONTRACTOR AND SUBCONTRACTOR(S):** The *SWPPP Ledger* shall provide a **"Contractor's Certification Log" (Form SWPPP-1)** for both the General Contractor and Subcontractor(s) identifying the Company Name, Business Address and Telephone Number along with the Responsible Person for the Contractor and all subcontractors' who will implement the measures identified in the SWPPP. **The General Contractor and Subcontractor(s) shall also sign the "Contractor's Certification Statement" (Form SWPPP-2)** verifying they have been instructed on how to comply with and fully understand the requirements of the **SPDES** General Permit for Construction Activity for the State of **New York** and the SWPPP. These certifications must be signed, by a responsible corporate officer or other party meeting the "Signatory Requirements" of the SPDES General Permit, on behalf of each entity, prior to the beginning of any construction activities and shall be filed in the project's *SWPPP Ledger*. A Signatory Authorization Designation **(Form SWPPP-11)** must be filled out by each entity giving the authorization for the individual to sign on behalf of the entity.

G. **STORM WATER POLLUTION PREVENTION PROGRAM LOCATION REQUIREMENTS:** The *SWPPP Ledger* is meant to be a working document that shall be maintained at the site of the Construction Activities at all times throughout the project, shall be readily available upon request by the Operator's personnel or **NYSDEC** or any other agency with regulatory authority over storm water issues, and shall be kept on-site until the site complies with the Final Stabilization section of this document. **A sign or other notice must be posted near the main entrance of the construction site which contains a completed NOI, the location of the SWPPP and the name and phone number of a contact person responsible for scheduling SWPPP viewing times, and any other state specific requirements.**

H. **SWPPP LEDGER:** The SWPPP Ledger shall be a three (3) ring binder, the Ledger shall be tabbed and indexed for the following sections:

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- **Table of Contents**
- **Written SWPPP**
- **Site Map**
- **Erosion and Sedimentation Control Plan(s)**
- **Signed NYSDEC Notice of Intent (NOI)**
- **Copy of Notice of Permit Coverage**
- **Copy of the NYSDEC SPDES General Permit for Construction Activity for the State of New York**
- **Blank Copy of NOI and Notice of Termination (NOT)**
- **Contractor's Certification Log (Form SWPPP-1)**
- **Contractor's Certification Statement (Form SWPPP-2)**
- **Inspection Report(s) (Form SWPPP-3)**
- **Stabilization Schedule (Form SWPPP-4)**
- **Final Stabilization/Termination Checklist (Form SWPPP-5)**
- **Project Rainfall Log (Form SWPPP-6)**
- **Requested Changes to the SWPPP (Form SWPPP-7)**
- **Monthly Training Log (Form SWPPP-8)**
- **Reportable Quantity Release Form (Form SWPPP-9)**
- **Implementation Schedule (Form SWPPP-10)**
- **Signatory Authorization Designation (SWPPP-11)**
- **Owner's Certification (SWPPP-12)**
- **Engineer's Certification (SWPPP-13)**
- **Sample Forms**

The Operator's Project Manager must review and evaluate for compliance the *SWPPP Ledger* at each Project Review. All Inspection and Maintenance Forms must be **signed** by the Operator's Project Manager **(or other duly authorized representative)** at this review and be submitted with the Contractor's Monthly Application for Payment. The approval of the Contractor's Application for Payment will be withheld until the *SWPPP Ledger* is deemed in compliance and all SWPPP Inspection and Maintenance Forms and have been submitted to the satisfaction of the Operator.

I. INSPECTIONS AND RECORD-KEEPING:

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. Owner or Operator Maintenance Inspection Requirements

1. The *owner or operator* shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *owner or operator* can stop conducting the maintenance inspections. The *owner or operator* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of the General Permit as soon as soil

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disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *owner or operator* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. **Qualified Inspector Inspection Requirements**

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

Note: The *trained contractor* identified in Part III.A.6 of the General Permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A of the General Permit. In order to perform these inspections, the *trained contractor* would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity.

1. A *qualified inspector* shall conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B of the General Permit, with the exception of:

   a. The construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C of the General Permit and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

   b. The construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

   c. Construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

   d. Construction activities located in the watersheds identified in Appendix D of the General Permit that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

   a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

   b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

   c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter

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shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F of the General Permit) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the MS4 (provided the MS4 is not the *owner or operator* of the construction activity) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the Regional Office stormwater contact person or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the MS4 (provided the MS4 is not the *owner or operator* of the construction activity). in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.A.1 of the General Permit.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

   a. Date and time of inspection;

   b. Name and title of person(s) performing inspection;

   c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

   d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any *discharges* of sediment from the construction site. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

   e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

   f. Identification of all erosion and sediment control practices that need repair or maintenance;

   g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

   h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

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i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and

k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.C.2 of the General Permit, the inspection reports shall be maintained on site with the SWPPP.

Record Retention - The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves *final stabilization*. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

- **Form SWPPP-3** **Inspection Report**
- **Form SWPPP-4** **Stabilization Schedule**
- **Form SWPPP-5** **Final Stabilization/Termination Checklist**
- **Form SWPPP-6** **Project Rainfall Log**
- **Form SWPPP-7** **Requested Changes to the SWPPP**
- **Form SWPPP-8** **Monthly Training Log**
- **Form SWPPP-9** **Reportable Quantity Release Form**
- **Form SWPPP-10** **Implementation Schedule**
- **Form SWPPP-11** **Signatory Authorization Designation**
- **Form SWPPP-12** **Owner's Certification**
- **Form SWPPP-13** **Engineer's Certification**

J. **SWPPP MODIFICATIONS:** The inspection report should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP is meant to be a dynamic working guide that is to be kept current and amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants or when the plan proves to be ineffective in eliminating or significantly minimizing pollutant discharges. Any such changes to the SWPPP must be made in writing on the "**Requested Changes to the SWPPP" (Form SWPPP-7)** within 7 days of the date of such modification or amendment is made. The Contractor's failure to modify or report deficiencies to the Operator will result in the Contractor being liable for fines and construction delays resulting from any federal, state, or local agency enforcement action.

K. **CONTRACTOR'S MONTHLY TRAINING:** The Contractor shall provide monthly training sessions for all entities and subcontractors involved with installing, applying, performing, maintaining and inspection of the SWPPP. Logs of each monthly training shall be kept by the Contractor on the "Monthly Training Log" **(Form SWPPP-8)**, in the *SWPPP Ledger*. Training shall educate the attendees on the topics of:

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- The Location and Type of Control Measures
- The Construction Requirements for the Control Measures
- Maintenance Procedures for each of the Control Measures
- Spill Prevention and Cleanup Measures
- Inspection and Maintenance Record Keeping Requirements

L. **FINAL STABILIZATION AND TERMINATION OF PERMIT COVERAGE:** A site can be considered finally stabilized when all soil disturbing activities have been completed and a uniform perennial vegetative cover with a density of **85%** for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the facility no longer discharges storm water associated with construction activities and a Notice of Termination (NOT) form filed by the Operator(s) with the NYSDEC. The Operator's Project Manager must complete the NOT. The NOT must be signed by the signatory (or equivalent position) on the NOI and subsequently submitted to the appropriate agency. The Operator's Project Manager must provide a completed copy of the NOT to the Contractor for inclusion in the SWPPP, which will then be optically scanned into the final SWPPP document as required. This filing terminates coverage under the General Permit and terminates the Contractor's responsibility to implement the SWPPP, but the requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed. The owner or operator shall also have the qualified inspector perform a final site inspection prior to submitting the NOT to the Department. In addition, the qualified inspector must verify during the final inspection that all Town of Amherst requirements for Final Stabilization have been satisfied prior to Town of Amherst signature of the NOT. Upon achieving this milestone, the Contractor shall also submit "Final Stabilization Certification/Termination Checklist" **(Form SWPPP-5)**. Final payment and/or the release of retainage will be withheld until all provisions of the SWPPP have been submitted, completed and accepted by the Operator.

802 PROJECT NAME AND LOCATION

Proposed Site Redevelopment
4548-4564 Main Street
Town of Amherst, NY 14226
42.963°N, 78.782°W
Estimated Area of Site ≈ 1.02+/- acres
Estimated Area to be Disturbed by Construction Activities ≈ 1.02+/- acres

A general location map is included as Appendix A.

803 OPERATOR'S NAME AND ADDRESS

Benderson Development LLC
570 Delaware Ave
Buffalo, NY 14202
Contact Person: Matt Oates
Telephone: 716-878-9397

804 PROJECT DESCRIPTION

This redevelopment project will consist of the construction of a 3-story mixed-use building that will include apartments, restaurant space and multi-level parking. The site is located on the north side of Main Street (NY-5), between Fruehauf Ave and Chateau Terrace in the Town of Amherst. The existing site is currently occupied by a 3-story vacant building located along the Main Street frontage. Existing surface parking is located north behind the existing building. Both the existing building and parking areas will be removed as part of this project. The overall site area is approximately 0.93+/- acres, however, construction activities will result in approximately 1.02+/- acres of disturbance area.

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Soil disturbing activities will include:

A. Construction of temporary construction exit point
B. Clearing & grubbing of the site within disturbance limits
C. Construction of detention basin & bioretention area
D. Installation of storm sewer pipes and inlets
E. Construction of utilities
F. Construction of driveways and parking lot
G. Final grading & landscaping
H. Construction of building

This project is owned by **Benderson Development LLC** and will be developed by **Benderson Development LLC**. The work area consists of approximately 1.02+/- acres for which erosion and sediment controls have been developed and fully addressed in this written plan and the Erosion and Sediment Control Plans. See the construction documents for additional details

805 RUNOFF COEFFICIENT, SOILS, AND RAINFALL INFORMATION

The initial runoff curve number for the pre-construction site is "CN" = 95. The post-construction runoff curve number for the site will be "CN" = 95. Approximately 1.02+/- acres will be disturbed by construction activities.

See soils information located in Appendix D

The site is in Erie County, which receives an average of approximately 35 inches rainfall annually with the highest amounts of rainfall received in the months of May thru September. Annual snow for this area is approximately 100 inches.

806 WATERS

The runoff generated from this site will discharge to the existing closed Town of Amherst storm sewer that is ultimately tributary to Ellicott Creek and the Niagara River.

807 INDIAN COUNTRY LANDS

This project is not located on Indian Lands.

808 ENDANGERED AND THREATENED SPECIES

No endangered/threatened species have been determined to be on the site.

809 CRITICAL HABITAT

No critical habitats have been determined to be on the site.

810 HISTORIC PLACES

The assessed property is not listed in the National Register of Historical Places.

811 WETLANDS AND/OR OTHER SURFACE WATERS

No wetlands are located on the site.

812 EROSION AND SEDIMENT CONTROLS

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812.1 STABILIZATION PRACTICES

Stabilization practices for this site include:

A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
B. Use of stabilization method for all slopes having a slope greater than 1V:3H.
C. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
D. Mulching exposed areas.
E. Vegetation preservation in undisturbed areas.
F. Frequent watering to minimize wind erosion during construction.

a. For sites where **5 acres or more** are disturbed at any one time: In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the *New York Standards and Specifications for Erosion and Sediment Control.*
b. The owner or operator shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
c. The owner or operator shall install any additional measures needed to protect water quality.

812.2 STRUCTURAL PRACTICES

Structural practices for this site include:

A. Inlet protection using a method detailed in the Construction Documents.
B. Perimeter protection using temporary silt fence.
C. Outlet protection using rip-rap stone and end sections.
D. Stabilized Construction Entrance.
E. Temporary stone wash off areas.
F. Storm sewer, curb/gutter.
G. Sediment traps and basins.

812.3 SEQUENCE OF MAJOR ACTIVITIES

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

A. Construct temporary construction exits at locations shown on the Demolition & Erosion Control Plan Sheet.
B. Install perimeter silt fences in the locations shown on the Demolition & Erosion Control Plan Sheet.
C. Clear & Grub site.
D. Construction of detention basin & bioretention area.
E. Commence site grading.
F. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
G. Installation of proposed utilities.
H. Finalize pavement subgrade preparation.
I. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all inlets.
J. Dust control.

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K. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
L. Install base material as required for pavement.
M. Carry out final grading and seeding and planting.
N. Clean storm system following construction.
O. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.
P. Remove temporary construction exits only prior to pavement construction in these areas.

A schedule for implementation for the activities identified above is included as Form SWPPP-4 of the SWPPP.

Note: Sediment control storage during construction (traps & basins) during construction shall be 134cy per acre of disturbance per NYSDEC requirements.

812.4 STORM WATER MANAGEMENT: See Appendix D, Engineer's Report

813 OTHER CONTROLS

813.1 OFF-SITE VEHICLE TRACKING

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments. Existing paved areas will remain as long as possible and will be used for vehicle wash areas and to further aid in the reduction of vehicle tracking of sediments. The paved streets adjacent to the site entrance shall be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material to/from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

813.2 EXCAVATION SPOIL MATERIALS

Excavation spoil materials are generated during the excavation of the development's building and utilities installation. These materials must be properly managed to prevent them from contributing to storm water discharges. The materials generated from the development of this project will be hauled off-site or stockpiled for re-use in designated areas which will have temporary erosion & sediment control measures installed. Any removal from site will be done under the necessary permits required by the local governing agencies.

813.3 DUST CONTROL

Minimizing wind erosion and controlling dust will be accomplished by one or more of the following methods:
A. Frequent watering of excavation and fill areas.
B. Providing gravel or paving at entrance/exit drives, parking areas and transit paths.

813.4 WASTE DISPOSAL

If needed, all waste materials will be collected and stored in securely lidded metal dumpsters rented from an approved waste management company. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpsters. The dumpsters will be emptied when full and then hauled to a NYSDEC approved landfill for proper disposal. No construction waste will be buried on-site. All personnel will be instructed regarding the correct procedures for waste disposal.

813.5 SANITARY WASTE

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If needed, portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

813.6 CONCRETE WASTE FROM CONCRETE TRUCKS

A. Emptying of excess unhardened concrete and/or washout from concrete delivery trucks will be allowed on the job site, but in either (1) specifically designated diked areas which have been prepared to prevent contact between concrete and/or washout and storm water which will be discharged from the site or (2) in locations where waste concrete will be poured into forms to make rip-rap or other useful concrete products.

B. Hardened waste concrete from the designated diked areas described above will be disposed of in accordance with applicable local and state regulations with regards to disposal of construction debris.

813.7 HAZARDOUS SUBSTANCES & HAVARDOUS WASTE

A. All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job superintendent, who will also be responsible for seeing these practices are followed. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such products are stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

B. The contractor will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this SWPPP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials of hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge shall be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job superintendent to properly train all personnel in the use of the SPCC plan.

C. Any spills of hazardous materials which are in excess of the Reportable Quantities as defined by the EPA regulations shall be immediately reported to the EPA National Response Center at 1-800-424-8802. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

D. In order to minimize the potential for a spill of hazardous materials to come in contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, under cover, when not in use.
2. The minimum practical quantity of all such materials will be kept on the job site.
3. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
4. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these

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containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

5. All products will be stored in and used from the original container with the original product label.
6. All products will be used in strict compliance with instructions on the product label.
7. The disposal of excess or used products will be in strict compliance with instructions on the product label.

813.8 CONTAMINATED SOILS

A. Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations.

B. The job site superintendent will be responsible for seeing that these procedures are followed.

814 COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

The Contractor will obtain copies of any and all local and state regulations which are applicable to storm water management, erosion control, and pollution minimization at this job site and will comply fully with such regulations. The Contractor will submit written evidence of such compliance if requested by the Operator or any agent of a regulatory body. The Contractor will comply with all conditions of the **SPDES** General Permit for Construction Activity for the State of **New York**, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

815 INSPECTION AND MAINTENANCE PROCEDURES

The following inspection and maintenance practices will be used to maintain erosion and sediment controls and stabilization measures.

1. All control measures will be inspected by the **owner/operator** at least weekly and shall continue until the site complies with the Final Stabilization section of this document (See Section 816)

2. All control measures will be inspected by a **Qualified Professional** twice a week separated by at least two (2) full calendar days and shall continue until the site complies with the Final Stabilization section of this document (See Section 816)

3. All measures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be initiated within 24 hours of report.

4. Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.

5. Silt fences will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.

6. Inlet protection and the stabilized construction entrance shall be inspected to see if these measures are functioning properly or if maintenance is required.

7. Temporary and permanent seeding and all other stabilization measures will be inspected for bare spots, washouts, and healthy growth.

8. A maintenance inspection report will be made after each inspection. Copies of the report forms to be completed by the inspector are included in this SWPPP.

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9. The job site superintendent will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.

10. Personnel selected for the inspection and maintenance responsibilities will receive training from the job site superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms. Documentation of this personnel training will be kept on site with the SWPPP.

11. Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.

12. Report to the NYSDEC within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event. The following events require 24 hour reporting: a) any unanticipated bypass which exceeds any effluent limitation in the permit, b) any upset which exceeds any effluent limitation in the permit, and c) a violation of a maximum daily discharge limitation for any of the pollutants listed by the NYSDEC in the permit to be reported within 24 hours. The written submission must contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.

13. Releases of hazardous substances or oil in excess of reportable quantities (as established under 40 CFR 110, 40 CFR 117 or 40 CFR 302) must be reported.

Upon completion of construction, the property owner is responsible for ensuring that the stormwater facilities are regularly inspected and maintained. Maintenance and inspection procedures are as follows.

1. On a quarterly basis and following significant rainfall events or snow-melts, perform the following:
   - Inspect catch basins, storm manholes, treatment structures, storm piping and stormwater ponds for debris and accumulation of sediment.
   - Remove and properly dispose of any collected debris and sediment in accordance with applicable state, federal and local regulations.
   - Flush piping with water if necessary to remove accumulated sediment.
   - Clean treatment structures per manufacturer's recommendations
   - Check all stone outfall structures for erosion and re-stone if necessary to prevent further erosion.
   - Inspect grassed/landscaped areas for un-vegetated areas or areas with less than 80% healthy stand of grass and reseed and mulch as necessary. Water daily if reseeded in July and August.
   - A record of all inspections should be kept.
2. Maintain all lawn areas by regular mowing, including the grassed slopes of the stormwater ponds and any grass swales. Any eroded areas shall be regarded, seeded and mulched immediately.

816 INSPECTION AND MAINTENANCE REPORT FORMS

Once installation of any required or optional erosion control device or measure has been implemented, inspections shall be performed by a Qualified Professional at least once every seven (7) calendar days. For construction sites where soil disturbance activities are on-going and the owner or operator has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. The owner and contractor shall obtain from the MS4 an approval for disturbing more than five-acres at any given time. For construction sites where active construction has been suspended, inspection frequency under the general permit can be reduced to once every 30 days, provided temporary stabilization measures have been applied to all disturbed areas. The forms found in this SWPPP shall be used by the inspectors to inventory and report the

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condition of each measure to assist in maintaining the erosion and sediment control measures in good working order.

These report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the Operator's Engineer, and the Operator for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these persons, upon request, via mail or facsimile transmission. Inspection and maintenance report forms are to be maintained by the permittee for five years following the final stabilization of the site.

THE TOWN OF AMHERST IS TO BE PROVIDED WITH A COPY OF ALL SWPPP INSPECTIONS WITHIN ONE WORKING DAY OF PERFORMING THE INSPECTION.

817 OTHER RECORD-KEEPING REQUIREMENTS

The Contractor shall keep the following records related to construction activities at the site:

- Dates when major grading activities occur and the areas which were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when an areas is stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

818 SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN

818.1 MATERIALS COVERED

The following materials or substances are expected to be present onsite during construction:

Concrete/Additives/Wastes	Cleaning solvents
Detergents	Petroleum based products
Paints/Solvents	Pesticides
Acids	Fertilizers
Solid and construction wastes	Sanitary wastes
Soil stabilization additives	

818.2 MATERIAL MANAGEMENT PRACTICES

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff. The job site superintendent will be responsible for ensuring that these procedures are followed.

A. Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project.

1. An effort will be made to store only enough products required to do the job.
2. All materials stored onsite will be stored in a neat, orderly manner and, if possible, under a roof or in a containment area. At a minimum, all containers will be stored with their lids on when not in use. Drip pans shall be provided under all dispensers.
3. Products will be kept in their original containers with the original manufacturer's label in legible condition.
4. Substances will not be mixed with one another unless recommended by the manufacturer.
5. Whenever possible, all of a product will be used up before disposing of the container.

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6. Manufacturer's recommendations for proper use and disposal will be followed.
7. The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

B. Hazardous Products

These practices will be used to reduce the risks associated with hazardous materials. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

1. Products will be kept in original containers with the original labels in legible condition.
2. Original labels and material safety data sheets (MSDS's) will be procured and used for each material.
3. If surplus product must be disposed of, manufacturer's or local/state/federal recommended methods for proper disposal will be followed.
4. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
5. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

C. Hazardous Waste

All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job site superintendent, who will also be responsible for seeing that these practices are followed.

D. Product Specific Practices

The following product specific practices will be followed on the job site.

1. Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. **Any petroleum storage tanks stored onsite will be located within a containment area that is designed with an impervious surface between the tank and the ground. The secondary containment must be designed to provide a containment volume that is equal to 110% of the volume of the largest tank.** Drip pans shall be provided for all dispensers. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations. The location of any fuel tanks and/or equipment storage areas must be identified on a plan by the contractor once the locations have been determined.

2. Fertilizers

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Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked in the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

3. Paints, Paint Solvents, and Cleaning Solvents

All containers will be tightly sealed and stored when not in use. Excess paint and solvents will not be discharged to the storm sewer system but will be properly disposed of according to manufacturer's instructions or state and federal regulations.

4. Concrete Wastes

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or wash out and storm water which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

The hardened residue from the concrete wash out diked areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the Contractor. The job site superintendent will be responsible for seeing that these procedures are followed.

All concrete wash out areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges. The location of concrete wash out area(s) must be identified on a plan by the contractor once the locations have been determined. In addition, a standard detail on the construction of the concrete wash out shall be included on this plan.

E. Solid and Construction Wastes

All waste materials will be collected and stored in an appropriately covered container and/or securely lidded metal dumpster rented from a local waste management company which must be a solid waste management company licensed to do business in New York and the Town of Amherst. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of twice per week or more often if necessary, and the trash will be hauled to a landfill approved by the NYSDEC. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedures for waste disposal.

All waste dumpsters and roll-off containers will be located in an area where the likelihood of the containers contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of waste dumpsters and roll-off containers must be identified on a plan by the contractor once the locations have been determined.

F. Sanitary Wastes

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Portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

All sanitary waste units will be located in an area where the likelihood of the unit contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of sanitary waste units must be identified on a plan by the contractor once the locations have been determined.

G. Contaminated Soils

Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Materials Management Plan and in accordance with applicable state and federal regulations.

818.3 SPILL PREVENTION AND RESPONSE PROCEDURES

The Contractor will train all personnel in the proper handling and cleanup of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job site superintendent to properly train all personnel in spill prevention and clean up procedures.

A. In order to minimize the potential for a spill of hazardous materials to come into contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, with their lids on, preferably under cover, when not in use.

2. The minimum practical quantity of all such materials will be kept on the job site.

3. A spill control and containment kit (containing, for example, absorbent materials, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

4. Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.

B. In the event of a spill, the following procedures should be followed

1. All spills will be cleaned up immediately after discovery.

2. The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substances.

3. The project manager and the Engineer of Record will be notified immediately.

Spills of toxic or hazardous materials will be reported to the appropriate federal, state, and/or local government agency, regardless of the size of the spill. Spills of amounts that exceed

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Reportable Quantities of certain substances specifically mentioned in federal regulations (40 CFR 110, 40 CFR 117, and 40 CFR 302) must be immediately reported to the EPA National Response Center, telephone 1-800-424-8802. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

4. If the spill exceeds a Reportable Quantity, the SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The plans must identify measures to prevent the recurrence of such releases and to respond to such releases.

C. The job site superintendent will be the spill prevention and response coordinator. He will designate the individuals who will receive spill prevention and response training. These individuals will each become responsible for a particular phase of prevention and response. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

819 CONTROL OF NON-STORM WATER DISCHARGES

Certain types of discharges are allowable under the **NYSDEC SPDES** General Permit for Construction Activity for the State of **New York**, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures which have been outlined previously in this SWPPP will be strictly followed to ensure that no contamination of these non-storm water discharges takes place. The following allowable non-storm water discharges which may occur at the job site include:

A. Discharges from fire fighting activities.
B. Fire hydrant flushings (see note below)
C. Waters used to wash vehicles or control dust in order to minimize offsite sediment tracking.
D. Routine external building washdown which does not use detergents.
E. Pavement washwaters where spills or leaks of hazardous materials have not occurred or detergents have not been used.
F. Air conditioning condensate.
G. Springs or other uncontaminated groundwater, including dewatering ground water infiltration.
H. Foundation or footing drains where no contamination with process materials such as solvents is present.

Note: The Contractor shall discharge any super-chlorinated water from water distribution pipe disinfection activities into sanitary sewer system

820 STORM WATER CONTROL FACILITY MAINTENANCE

The proposed stormwater drainage system area shall be inspected 2 times per year (spring and fall) for removal of silt and debris. See Appendix H: Stormwater Management Pond and Bioretention Construction and Maintenance Checklist.

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Appendix A

Site Location Maps:

ERIE COUNTY GIS

GOOGLE AERIAL

SHPO

FEMA

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Erie County On-Line Mapping Application





Legend

- Parcels
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road

0 0.02 0.0 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
THIS MAP IS NOT TO BE USED FOR NAVIGATION

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

1: 1,128

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Erie County On-Line Mapping Application





Legend

- Parcels
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
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  - Local Road

0 0.02 0.0 Miles

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1: 1,128

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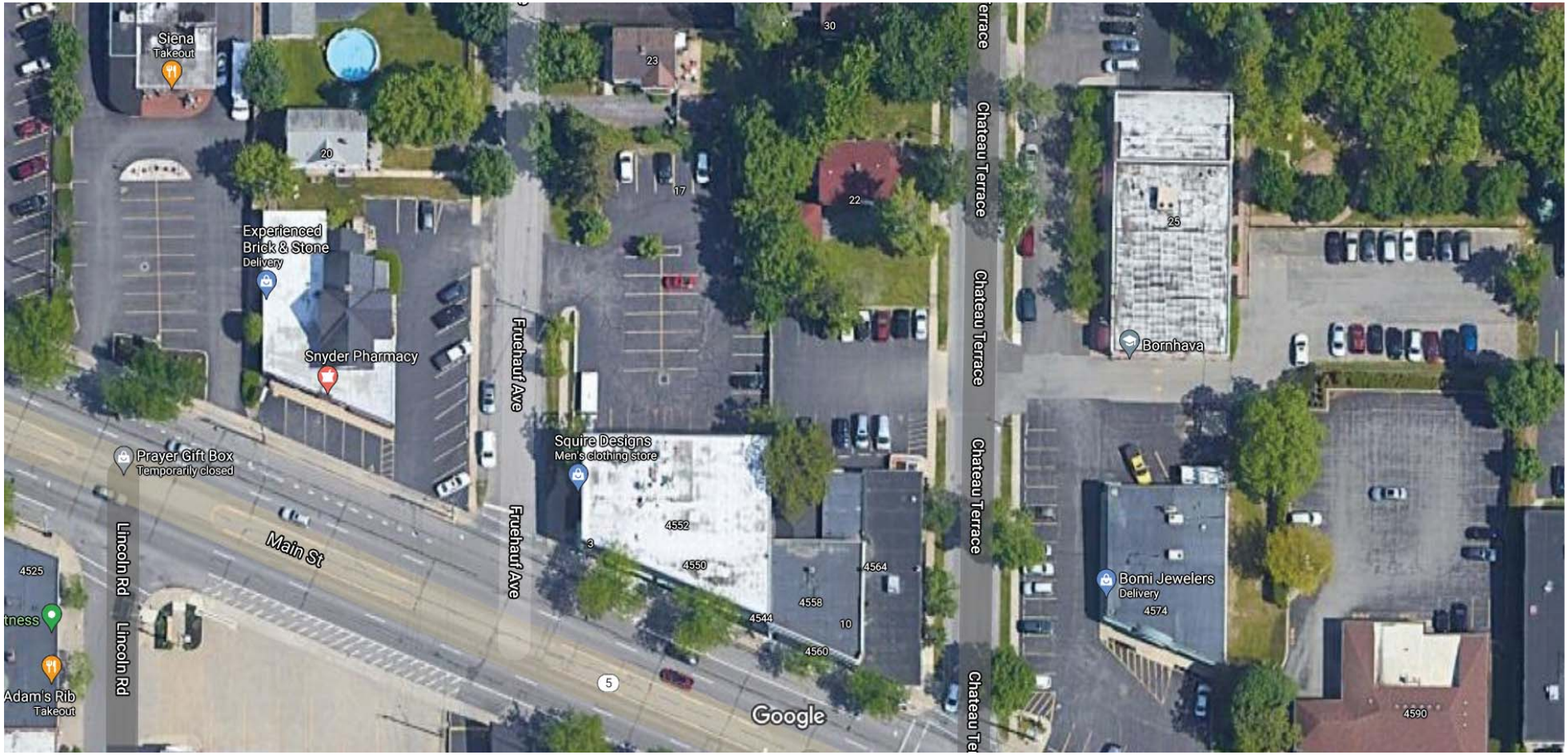
Google Maps



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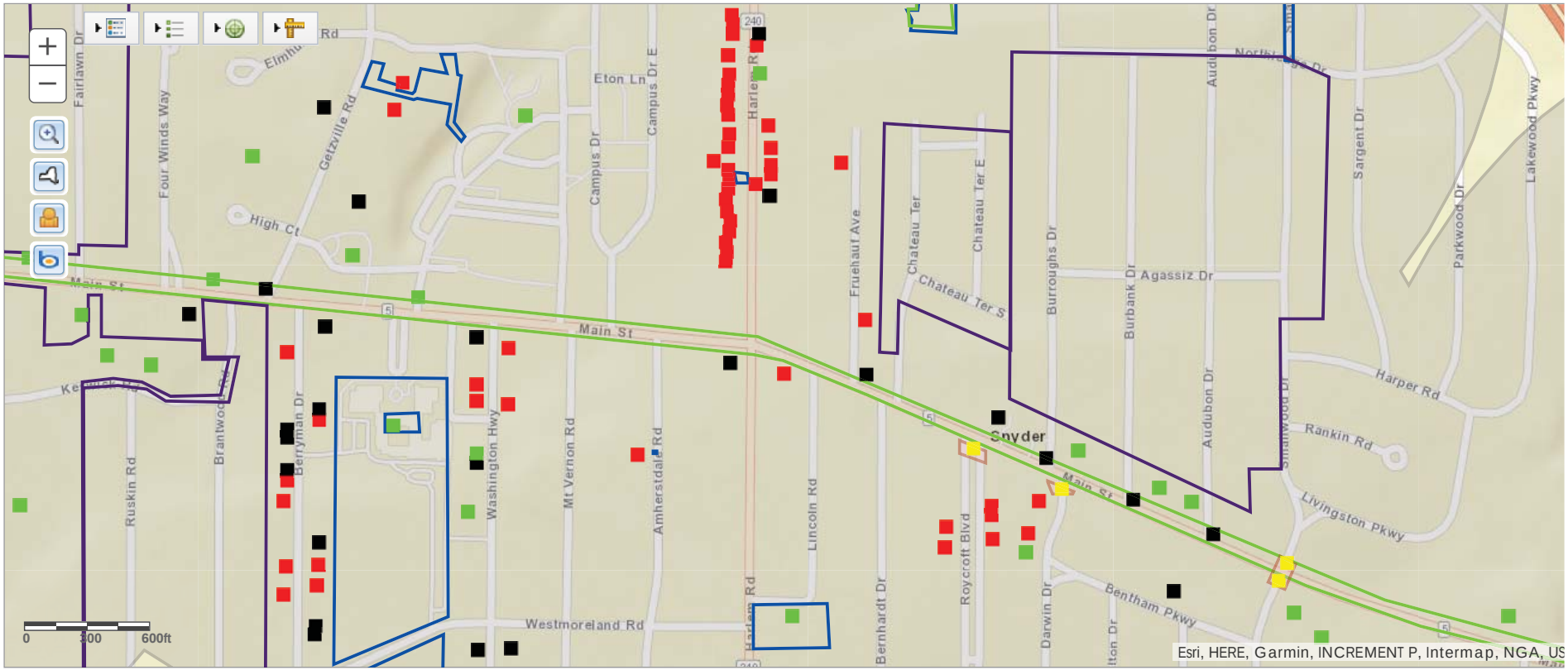
CRIS Cultural Resource Information System

HOME SUBMIT SEARCH COMMUNICATE

Welcome Guest User | Contact U



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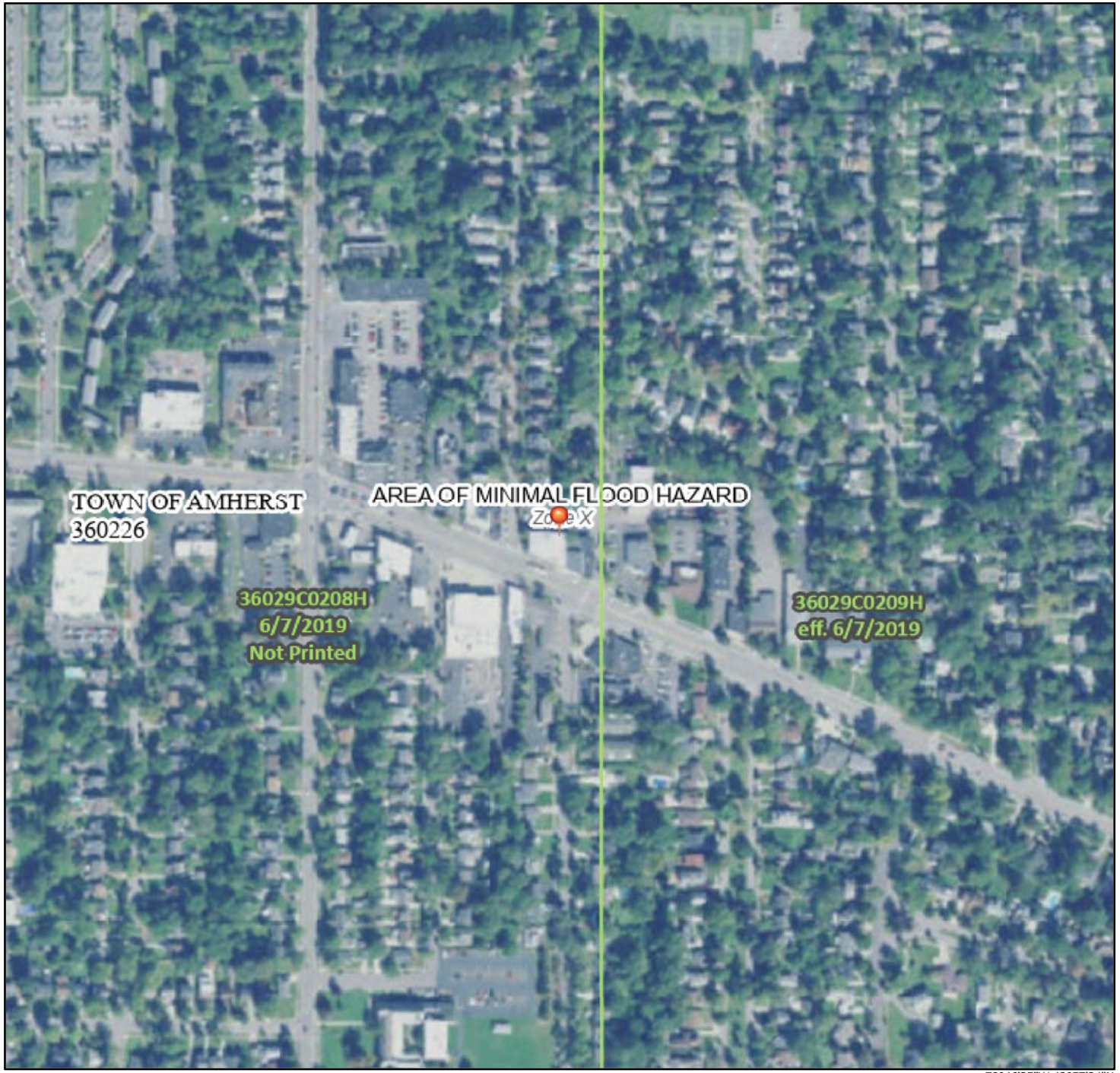
National Flood Hazard Layer FIRMette

FEMA

78°47'13"W 42°58'N



78°46'35"W 42°57'34"N

Feet 1:6,000

0 250 500 1,000 1,500 2,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BF Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, V
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazar of 1% annual chance flood with a depth less than one foot or with d areas of less than one square mil
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk du Levee. See Notes. Zone X
- Area with Flood Risk due to Levee

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zo
- Effective LOMRs
- Area of Undetermined Flood Haza

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Ch
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an appro point selected by the user and does not r an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This ma was exported on 8/11/2021 at 10:16 AM and does not reflect changes or amendments subsequent to this date an time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following n elements do not appear: basemap imagery, flood zone labe legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized area regulatory purposes.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Appendix B

NYSDEC Notice of Intent (NOI)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____ (for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-
RETURN THIS FORM TO THE ADDRESS ABOVE
OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
Benderson Development Company

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Oates

Owner/Operator Contact Person First Name
Matt

Owner/Operator Mailing Address
570 Delaware Ave

City
Buffalo

State: NY
Zip: 14202-____

Phone (Owner/Operator): 716-878-9397
Fax (Owner/Operator): ___-___-____

Email (Owner/Operator)
MattOates@benderson.com

FED TAX ID
__-_____ (not required for individuals)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Project Site Information

Project/Site Name

Proposed Site Redevelopment

Street Address (NOT P.O. BOX)

4548-4564 Main Street

Side of Street

● **North** ○ **South** ○ **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)

Town of Amherst

State: NY

Zip: 14226 -

County: Erie

DEC Region: 9

Name of Nearest Cross Street

Chateau Terrace

Distance to Nearest Cross Street (Feet)

0

Project In Relation to Cross Street

○ **North** ○ **South** ○ **East** ● **West**

Tax Map Numbers
Section-Block-Parcel

68.17-6-20

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site. To do this, go to the NYSDEC Stormwater Interactive Map on the DEC website at:

https://gisservices.dec.ny.gov/gis/stormwater/

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located the centroid of your project site, go to the bottom right hand corner of the map for the X, Y coordinates. Enter the coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)

-7 8782

Ex. -73.749

Y Coordinates (Northing)

42963

Ex. 42.652

2. What is the nature of this construction project?

○ **New Construction**

● **Redevelopment with increase in impervious area**

○ **Redevelopment with no increase in impervious area**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use

- ○ FOREST
- ○ PASTURE/OPEN LAND
- ○ CULTIVATED LAND
- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ● COMMERCIAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY
- ○ PARKING LOT
- ○ OTHER

Post-Development Future Land Use

- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION — Number of Lots
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ● COMMERCIAL
- ○ MUNICIPAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY (water, sewer, gas, etc.)
- ○ PARKING LOT
- ○ CLEARING/GRADING ONLY
- ○ DEMOLITION, NO REDEVELOPMENT
- ○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
- ○ OTHER

***Note**: for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
1.0	1.0	0.8	0.9

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ● **No**

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
0 %	0 %	0 %	100 %

7. Is this a phased project? ○ **Yes** ● **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date	End Date
01/01/2022	01/01/2023

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name: Ellicott Creek

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ● Stream / Creek Off Site
- ○ River On Site
- ○ River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ○ Regulatory Map
- ○ Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001? ● Yes ○ No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? ○ Yes ● No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ Yes ● No
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ Yes ● No
If Yes, what is the acreage to be disturbed?

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ Yes ● No

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15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ● Yes ○ No ○ Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

Town of Amherst closed storm water drainage system

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ Yes ● No ○ Unknown

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ○ Yes ● No

19. Is this property owned by a state authority, state agency, federal government or local government? ○ Yes ● No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ Yes ● No

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ● Yes ○ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ● Yes ○ No
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ● Yes ○ No

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer
Carmina Wood Morris, DPC

Contact Name (Last, Space, First)
Wood, Christopher

Mailing Address
487 Main Street Suite 600

City
Buffalo

State NY Zip 14203-

Phone 716-842-3165

Fax 716-842-0263

Email
cwood@carminawooddesign.com

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name Christopher **MI**

Last Name Wood

Signature



Date 05/20/2022

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

25. Has a construction sequence schedule for the planned management practices been prepared? ● Yes ○ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ● Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ○ Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ● Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ● Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ○ Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ○ Retaining Wall
- ○ Riprap Slope Protection
- ● Rock Outlet Protection
- ○ Streambank Protection

Other

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ○ **Preservation of Undisturbed Areas**
- ○ **Preservation of Buffers**
- ○ **Reduction of Clearing and Grading**
- ● **Locating Development in Less Sensitive Areas**
- ○ **Roadway Reduction**
- ○ **Sidewalk Reduction**
- ○ **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ○ **Building Footprint Reduction**
- ○ **Parking Reduction**

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ● All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

		0	.	0	2	3	**acre-feet**

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

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Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area(acres)	
RR Techniques (Area Reduction)				
○ Conservation of Natural Areas (RR-1)		and/or		
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or		
○ Tree Planting/Tree Pit (RR-3)		and/or		
○ Disconnection of Rooftop Runoff (RR-4)		and/or		
RR Techniques (Volume Reduction)				
○ Vegetated Swale (RR-5)				
○ Rain Garden (RR-6)				
○ Stormwater Planter (RR-7)				
○ Rain Barrel/Cistern (RR-8)				
○ Porous Pavement (RR-9)				
○ Green Roof (RR-10)				
Standard SMPs with RRv Capacity				
○ Infiltration Trench (I-1)				
○ Infiltration Basin (I-2)				
○ Dry Well (I-3)				
○ Underground Infiltration System (I-4)				
○ Bioretention (F-5)			0.288	
○ Dry Swale (O-1)				
Standard SMPs				
○ Micropool Extended Detention (P-1)				
○ Wet Pond (P-2)				
○ Wet Extended Detention (P-3)				
○ Multiple Pond System (P-4)				
○ Pocket Pond (P-5)				
○ Surface Sand Filter (F-1)				
○ Underground Sand Filter (F-2)				
○ Perimeter Sand Filter (F-3)				
○ Organic Filter (F-4)				
○ Shallow Wetland (W-1)				
○ Extended Detention Wetland (W-2)				
○ Pond/Wetland System (W-3)				
○ Pocket Wetland (W-4)				
○ Wet Swale (O-2)				

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area(acres)
○ Hydrodynamic	
○ Wet Vault	
○ Media Filter	
○ Other _____	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

0.012 **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

○ **Yes** ● **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

0.004 **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

● **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

0.018 **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

0.030

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ● **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

0.019 **acre-feet**

CPv Provided

0.019 **acre-feet**

36a. The need to provide channel protection has been waived because:

○ Site discharges directly to tidal waters or a fifth order or larger stream.

○ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

4.29 **CFS**

Post-development

3.62 **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

7.37 **CFS**

Post-development

5.59 **CFS**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

37a. The need to meet the Qp and Qf criteria has been waived because:

- ○ Site discharges directly to tidal waters or a fifth order or larger stream.
- ○ Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● Yes ○ No

If Yes, Identify the entity responsible for the long term Operation and Maintenance

Benderson Development Company

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

RRv criteria is not required for redevelopment activities & onsite soils with slow infiltration rates

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ○ Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP [N][Y][R][ ][ ][ ][ ][ ][ ]
- ○ Other [ ]
- ● None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ **Yes** ● **No**
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][ ][ ].[ ]

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ● **Yes** ○ **No**
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ● **Yes** ○ **No**

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

Matt

MI

Print Last Name

Oates

Owner/Operator Signature

Date

/ /

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Appendix C

MS4 SWPPP Acceptance Form

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information	
1. Owner/Operator Name:	Benderson Development Company
2. Contact Person:	Matt Oates
3. Street Address:	570 Delaware Ave
4. City/State/Zip:	Buffalo, NY 14202
II. Project Site Information	
5. Project/Site Name:	Proposed Site Redevelopment
6. Street Address:	4548-4564 Main Street
7. City/State/Zip:	Amherst, NY 14226
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information	
8. SWPPP Reviewed by:	
9. Title/Position:	
10. Date Final SWPPP Reviewed and Accepted:	
IV. Regulated MS4 Information	
11. Name of MS4:	Town of Amherst
12. MS4 SPDES Permit Identification Number: NYR20A	
13. Contact Person:	
14. Street Address:	
15. City/State/Zip:	
16. Telephone Number:	

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

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Appendix D

Engineer's Report

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Carmina · Wood · Morris DPC

487 Main Street Suite 600 Buffalo, New York 14203 P: 716.842.3165 F: 716.842.0263 W: cwm-ae.com

Architecture Engineering Interior Design

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ENGINEER'S REPORT
for

Proposed Site Redevelopment
4548-4564 Main Street
Town of Amherst, Erie County, New York

Prepared for

Benderson Development Company, LLC

570 Delaware Ave
Buffalo, NY 14202

Prepared by

Carmina Wood Morris, D.P.C.

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

August 2021



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Proposed Site Redevelopment
4548-4564 Main Street
Amherst, NY 14226

8/18/2021

Section 1 – Location & Description

This redevelopment project will consist of the construction of a 3-story mixed-use building that will include apartments, restaurant space and multi-level parking. The site is located on the north side of Main Street (NY-5), between Fruehauf Ave and Chateau Terrace in the Town of Amherst. The existing site is currently occupied by a 3-story vacant building located along the Main Street frontage. Existing surface parking is located north behind the existing building. Both the existing building and parking areas will be removed as part of this project. The overall site area is approximately 0.93+/- acres, however, construction activities will result in approximately 1.02+/- acres of disturbance area.

Section 2 – Stormwater Drainage System

The existing side streets, Fruehauf Ave and Chateau Terrace, slope from south to north. Existing closed stormwater drainage systems are located along Main Street (NYSDOT) and Chateau Terrace (Town of Amherst). The existing northeast parking lot area sheet drains to the north and northeast to Chateau Terrace. The existing northwest parking lot is generally flat and drains to an existing closed stormwater drainage system with unknown outlet. Existing stormwater runoff collected and conveyed from the site is ultimately tributary to Ellicott Creek and the Niagara River.

For purposes of the runoff analysis and the stormwater drainage system design, portions of the project site were classified as “Redevelopment” per NYSDEC Stormwater Management Design Manual Chapter 9 requirements. The nature of this construction project will be a “Redevelopment” with an increase in impervious area. The proposed hydrology of the site development will remain similar to existing hydrologic conditions. The proposed parking and patio areas will consist of a combination of overland sheet flow and pipe channel flow connected by a series of trench drains located throughout the runoff areas. Stormwater runoff from these areas will be conveyed to a proposed onsite stormwater management area located on the north side of the site consisting of a dry detention basin with a bioretention planting area located in the bottom of the basin. Runoff routed through the proposed basin will be discharged via a 6” HDPE outlet control pipe to the existing closed stormwater drainage system along Chateau Terrace. Proposed rooftop runoff will be discharged directly to the existing closed stormwater drainage system along Chateau Terrace.

The dry detention basin volume was designed with an outlet control pipe to attenuate proposed runoff to existing conditions prior to discharge. The bioretention area will provide Runoff Reduction and Water Quality volume requirements. The filter area planting soil depth varies throughout the bioretention

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area but maintains a minimum of at least 18 inches of soil. The 18 inches of soil is an acceptable deviation per the NYSDEC where existing grades prevent the full 2.5'-4' foot soil depth. 6" underdrain below the planting soil will be located throughout the bioretention area connected by an overflow catch basin to convey runoff to the outlet control pipe.

The NYSDEC Stormwater Management Design Manual requires a five-step process for Stormwater Management Planning as outlined in Chapter 3. The five steps include:

1. *Site planning to preserve natural features and reduce impervious cover.*
   - Minimal natural existing features are located onsite and the site is located in a less sensitive area.
2. *Calculation of Water Quality Volume (WQv) for site.*
   - See "Stormwater Drainage Analysis".
3. *Incorporation of Green Infrastructure techniques and standard SMPs with Runoff Reduction Volume (RRv) capacity.*
   - A bioretention area was incorporated into the site design to provide required RRv. See "Stormwater Drainage Analysis".
4. *Use of standard SMPs where applicable, to treat the portion of water quality volume not addressed by green infrastructure techniques and standard SMPs with RRv capacity.*
   - 100% of required Water Quality was addressed by the bioretention area. See "Stormwater Drainage Analysis".
5. *Design of volume and peak rate control practices where required.*
   - See "Stormwater Drainage Analysis".

The NYSDEC Stormwater Management Design Manual requires (5) five different criteria be considered when designing a stormwater management system. Those criteria are Water Quality, Runoff Reduction Volume, Channel Protection, Overbank Flooding and Extreme Storm Protection. Below is a summary of each item and how it is incorporated into this project.

Water Quality:
The NYSDEC requires water quality treatment prior to discharge. This will be achieved by the application of a bioretention area. The total WQv provided was 1,301 cf and greater than the required WQv of 1,002 cf.

Runoff Reduction Volume:
The NYSDEC requires reduction of the total water quality volume by green infrastructure techniques and SMPs to replicate pre-development hydrology. A bioretention area was incorporated into the site layout to provide the required RRv for contributing runoff areas in the WQv. The RRv provided was 520 cf and greater than the required RRv min. of 172 cf.

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100% of the required WQv was not reduced due to the followings site specific limitations: *RRv criteria is not required for redevelopment activities & onsite soils with slow infiltration rates.* In addition, below is a summary of how each green infrastructure technique was evaluated and determined to be feasible or infeasible:

1) Conservation of natural areas: the site development is located in a less sensitive area.
2) Sheetflow to riparian buffers or filter strips: no riparian buffers possible on the site; filter strips not feasible given the limited area for development.
3) Vegetated Open Swales: swales are not feasible given the limited area for development.
4) Tree Plantings: new trees to be planted throughout the site.
5) Disconnection of Roof Top Runoff: roof top runoff will be connected to closed stormwater drainage system.
6) Stream Daylighting: is not feasible given the limited area for development.
7) Rain Garden: this method is not recommended for these types of projects.
8) Green Roof: the proposed use of the building makes this an unfeasible practice.
9) Stormwater Planter: this method is not recommended for these types of projects.
10) Rain Barrels & Cisterns: collected water would not be used for irrigation.
11) Porous Pavement: porous pavement is not recommended for areas with impermeable soils (Type D) and areas with sediment laden runoff (salting in winter months).

Channel Protection:
The NYSDEC requires that 24-Hour extended detention be provided for the proposed 1-year storm event. A volume of 842 cf (0.019 ac-ft) will be accommodated in the detention basin onsite.

Overbank Flooding:
The NYSDEC requires that the 10-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. Storage of this storm will be provided within the detention basin onsite. At this storm event the stormwater drainage system will allow discharge of 3.62 cfs, which is below the existing peak 10-year runoff of 4.29 cfs.

Extreme Storm Protection:
The NYSDEC requires that the 100-year proposed storm event be attenuated with detention and that the outlet be restricted to the 100-year existing storm event. Storage of this storm will be provided within the detention basin onsite. At this

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storm event the stormwater drainage system will allow discharge of 5.59 cfs, which is below the existing peak 100-year runoff of 7.37 cfs.

Town of Amherst:
The Town of Amherst requires that the 25-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. Storage will be provided within the detention basin onsite. At the 25-year storm event the stormwater drainage system will allow discharge of 4.28 cfs, which is below the existing peak 10-year runoff of 4.29 cfs.

Design Criteria:
Storm pipes: 10-year storm
Detention:
- Comparison of the existing 1-year vs. the proposed 1-year runoff
- Comparison of the existing 10-year vs. the proposed 10-year runoff
- Comparison of the existing 100-year vs. the proposed 100-year runoff
- Comparison of the existing 10-year vs. the proposed 25-year runoff

Bioretention: RRv = 100% of post-development water quality volumes

RUNOFF ANALYSIS OF PROPOSED DEVELOPMENT AREA:

STORM EVENT	EXISTING RUNOFF	PROPOSED RUNOFF
1 YEAR	2.28 CFS	1.61 CFS
10 YEAR	4.29 CFS	3.62 CFS
25 YEAR	5.33 CFS	4.28 CFS
100 YEAR	7.37 CFS	5.59 CFS

WATER QUALITY SUMMARY:
WQv REQUIRED = 1,002 CF (0.023 AC-FT)
RRv MIN. REQUIRED = 172 CF (0.004 AC-FT)
RRv PROVIDED WITHIN BIORETENTION AREA = 520 CF (0.012 AC-FT)
WQv PROVIDED WITHIN BIORETENTION AREA = 1,301 CF (0.030 AC-FT)

BIORETENTION FILTER AREA & ELEVATION SUMMARY:
FILTER AREA = 1,115 SF @ 672.50

See attached “Stormwater Drainage Analysis” for additional information.

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Appendix A

STORMWATER DRAINAGE ANALYSIS

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WATER QUALITY REQUIRED FOR PROPOSED DEVELOPMENT AREA Area, Acres = 1.02

(Note: Reference Chap. 9 NYSDEC Stormwater Design Manual)

"Redevelopment Activity", Acres = 0.835 "New development", Acres = 0.185
(existing, disturbed impervious area)

Total proposed impervious, Acres = 0.873 Adjusted impervious, Acres = 0.25
"New" impervious, Acres = 0.04 (25% redevelopment, 100% new development)

Water Quality Volume (WQv) WQv=P*R*A/12

Where:	P=90% Rainfall Event Number	P= 1
	Rv= 0.05+0.009*(I)	Rv= 0.27
	IC=Impervious Cover, Acres	IC= 0.25
	I=Impervious Cover (%)	I= 24
	A=Runoff Area, Acres	A= 1.02

WQv (ac-ft)= 0.023
WQv (cf)= 991

Note: Runoff Reduction Volume (RRv) sizing criteria not required for "Redevelopment Activity" portion of project.
See attached Green Infrastructure Worksheets for RRv sizing for "New Development" portion of project.

RRv PROVIDED FOR PROPOSED DEVELOPMENT AREA (See NYSDEC worksheets)

		WQv, cf	RRv, cf
Min. RRv Req'd, cf = 172	RRv, Green Infrastructure (Bioretention)	1,301	520
Min. RRv Req'd, ac-ft = 0.004			
	TOTAL, cf	1301	520
	TOTAL, ac-ft	0.030	0.012

WQ & RR SUMMARY (ac-ft):

TOTAL WATER QUALITY PROVIDED FOR PROPOSED DEVELOPMENT AREA 0.030

IS WATER QUALITY VOLUME REQUIREMENT MET? Yes
(WQv provided equal to or greater than WQv required)

IS RUNOFF REDUCTION VOLUME REQUIREMENT MET? Yes
(RRv provided equal to or greater than Min. RRv required)

Revised _/_/____

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Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?.....	No

Design Point:		
P=	1.00	*inch*

Manually enter P, Total Area and Impervious Cover.

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description
1	1.02	0.25	25%	0.27	1,002	
2						
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	1.02	0.25	25%	0.27	**1,002**	**Subtotal 1**
Total	1.02	0.25	25%	0.27	**1,002**	**Initial WQv**

Identify Runoff Reduction Techniques By Area

Technique	Total Contributing Area *(Acre)*	Contributing Impervious Area *(Acre)*	Notes
Conservation of Natural Areas	0.00	0.00	*minimum 10,000 sf*
Riparian Buffers	0.00	0.00	*maximum contributing length 75 feet to 150 feet*
Filter Strips	0.00	0.00	
Tree Planting	1.02	0.25	*Up to 100 sf directly connected impervious area may be subtracted per tree*
Total	**1.02**	**0.25**	

Recalculate WQv after application of Area Reduction Techniques

	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Runoff Coefficient Rv	WQv *(ft^3)*
"<<Initial WQv"	1.02	0.25	25%	0.27	1,002
Subtract Area	-1.02	-0.25			
WQv adjusted after Area Reductions	**0.00**	**0.00**	0%	0.05	0
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.00	0.00	0%	0.05	**0**

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Minimum RRv

Enter the Soils Data for the site		
Soil Group	Acres	S
A		55%
B		40%
C		30%
D	**1.02**	20%
Total Area	1.02	
Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	0.25	*acre*
Precipitation	1	*in*
Rv	0.95	
Minimum RRv	**172**	***ft3***
	0.00	af

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Bioretention Worksheet

(For use on HSG C or D Soils with underdrains)

Af=WQv*(df)/[k*(hf+df)(tf)]

Af	Required Surface Area (ft2)
WQv	Water Quality Volume (ft3)
df	Depth of the Soil Medium (feet)
hf	Average height of water above the planter bed
tf	Volume Through the Filter Media (days)

k — The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor &

Design Point:

Enter Site Data For Drainage Area to be Treated by Practice

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Precipitation *(in)*	Description
1	1.02	0.25	0.25	0.27	1001.88	1.00	
Enter Impervious Area Reduced by Disconnection of Rooftops			25%	0.27	1,002	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.						*ft^3*	

Soil Information

Soil Group	D		
Soil Infiltration Rate		*in/hour*	
Using Underdrains?	Yes	*Okay*	

Calculate the Minimum Filter Area

		Value	Units	Notes
WQv		1,002	*ft^3*	
Enter Depth of Soil Media	*df*	1.5	*ft*	*2.5-4 ft*
Enter Hydraulic Conductivity	*k*	0.5	*ft/day*	
Enter Average Height of Ponding	*hf*	0.25	*ft*	*6 inches max.*
Enter Filter Time	*tf*	2	*days*	
Required Filter Area	***Af***	**859**	***ft^2***	

Determine Actual Bio-Retention Area

Filter Width	33.39	*ft*	
Filter Length	33.39	*ft*	
Filter Area	1114.8921	*ft^2*	
Actual Volume Provided	1301	*ft^3*	

Determine Runoff Reduction

Is the Bioretention contributing flow to another practice?			Select Practice	N/A
RRv	520			
RRv applied	**520**	***ft^3***	***This is 40% of the storage provided or WQv whichever is less.***	
Volume Treated	482	*ft^3*	*This is the portion of the WQv that is not reduced in the practice.*	
Volume Directed	0	*ft^3*	This volume is directed another practice	

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Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	78.782 degrees West
Latitude	42.963 degrees North
Elevation	0 feet
Date/Time	Wed, 11 Aug 2021 14:14:36 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.27	0.41	0.50	0.66	0.83	1.01	**1yr**	0.71	0.94	1.14	1.34	1.57	1.81	2.12	**1yr**	1.61	2.03	2.45	2.94	3.43	**1yr**
2yr	0.31	0.47	0.59	0.78	0.98	1.20	**2yr**	0.84	1.10	1.35	1.61	1.89	2.19	2.48	**2yr**	1.94	2.38	2.81	3.34	3.84	**2yr**
5yr	0.36	0.56	0.71	0.95	1.21	1.50	**5yr**	1.05	1.37	1.69	2.00	2.33	2.67	3.03	**5yr**	2.37	2.91	3.41	4.01	4.59	**5yr**
10yr	0.41	0.64	0.81	1.10	1.43	1.78	**10yr**	1.24	1.63	2.01	2.37	2.73	3.11	3.53	**10yr**	2.75	3.39	3.95	4.61	5.26	**10yr**
25yr	0.48	0.77	0.98	1.35	1.79	2.23	**25yr**	1.55	2.05	2.51	2.94	3.37	3.79	4.32	**25yr**	3.36	4.15	4.80	5.55	6.30	**25yr**
50yr	0.55	0.88	1.13	1.58	2.12	2.64	**50yr**	1.83	2.43	2.98	3.48	3.95	4.41	5.03	**50yr**	3.91	4.84	5.56	6.38	7.22	**50yr**
100yr	0.62	1.01	1.30	1.84	2.52	3.15	**100yr**	2.17	2.89	3.55	4.12	4.65	5.14	5.87	**100yr**	4.55	5.64	6.45	7.34	8.29	**100yr**
200yr	0.72	1.17	1.51	2.17	2.99	3.74	**200yr**	2.58	3.44	4.21	4.86	5.45	5.99	6.84	**200yr**	5.30	6.58	7.48	8.45	9.51	**200yr**
500yr	0.86	1.41	1.84	2.68	3.75	4.70	**500yr**	3.24	4.34	5.28	6.06	6.74	7.34	8.39	**500yr**	6.49	8.07	9.11	10.18	11.41	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.35	0.43	0.58	0.71	0.89	**1yr**	0.61	0.87	0.85	1.16	1.46	1.65	1.95	**1yr**	1.46	1.87	2.12	2.54	3.11	**1yr**
2yr	0.30	0.46	0.56	0.76	0.94	1.08	**2yr**	0.81	1.05	1.18	1.44	1.73	2.12	2.40	**2yr**	1.87	2.31	2.72	3.24	3.72	**2yr**
5yr	0.33	0.51	0.64	0.88	1.11	1.28	**5yr**	0.96	1.25	1.41	1.69	2.03	2.46	2.80	**5yr**	2.18	2.70	3.15	3.73	4.22	**5yr**
10yr	0.36	0.56	0.70	0.97	1.26	1.45	**10yr**	1.08	1.42	1.58	1.90	2.30	2.75	3.15	**10yr**	2.43	3.03	3.52	4.14	4.59	**10yr**
25yr	0.42	0.64	0.79	1.13	1.49	1.71	**25yr**	1.28	1.68	1.84	2.22	2.69	3.18	3.67	**25yr**	2.81	3.53	4.05	4.75	5.05	**25yr**
50yr	0.46	0.70	0.87	1.25	1.68	1.94	**50yr**	1.45	1.90	2.06	2.48	3.02	3.55	4.14	**50yr**	3.14	3.98	4.50	5.28	5.43	**50yr**
100yr	0.50	0.76	0.95	1.37	1.88	2.19	**100yr**	1.63	2.14	2.30	2.76	3.40	3.97	4.65	**100yr**	3.51	4.47	5.00	5.87	5.78	**100yr**
200yr	0.55	0.83	1.06	1.53	2.13	2.49	**200yr**	1.84	2.43	2.55	3.07	3.80	4.44	5.23	**200yr**	3.93	5.03	5.55	6.51	6.13	**200yr**
500yr	0.63	0.94	1.21	1.75	2.49	2.93	**500yr**	2.15	2.86	2.92	3.51	4.39	5.15	6.13	**500yr**	4.56	5.89	6.34	7.46	6.56	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.30	0.46	0.56	0.75	0.92	1.07	**1yr**	0.80	1.05	1.21	1.41	1.69	1.93	2.30	**1yr**	1.71	2.21	2.62	3.12	3.66	**1yr**
2yr	0.32	0.49	0.61	0.82	1.01	1.17	**2yr**	0.87	1.15	1.30	1.58	1.87	2.28	2.58	**2yr**	2.02	2.48	2.95	3.46	4.06	**2yr**
5yr	0.39	0.60	0.75	1.03	1.31	1.55	**5yr**	1.13	1.52	1.71	2.09	2.46	2.91	3.28	**5yr**	2.57	3.15	3.69	4.32	4.94	**5yr**
10yr	0.46	0.71	0.88	1.23	1.59	1.91	**10yr**	1.38	1.87	2.12	2.59	3.05	3.50	3.94	**10yr**	3.10	3.79	4.41	5.12	5.84	**10yr**
25yr	0.59	0.89	1.11	1.58	2.09	2.54	**25yr**	1.80	2.48	2.83	3.44	4.03	4.49	5.01	**25yr**	3.97	4.82	5.60	6.42	7.30	**25yr**
50yr	0.69	1.05	1.31	1.89	2.54	3.16	**50yr**	2.19	3.09	3.52	4.29	4.97	5.42	6.03	**50yr**	4.80	5.80	6.73	7.63	8.68	**50yr**
100yr	0.83	1.25	1.57	2.26	3.11	3.91	**100yr**	2.68	3.82	4.41	5.34	6.15	6.54	7.24	**100yr**	5.79	6.97	8.07	9.07	10.29	**100yr**
200yr	0.99	1.48	1.88	2.72	3.80	4.86	**200yr**	3.28	4.75	5.53	6.68	7.61	7.90	8.69	**200yr**	6.99	8.36	9.69	10.80	12.24	**200yr**
500yr	1.25	1.86	2.40	3.48	4.96	6.47	**500yr**	4.28	6.33	7.46	8.97	10.12	10.16	11.08	**500yr**	8.99	10.66	12.35	13.59	15.38	**500yr**

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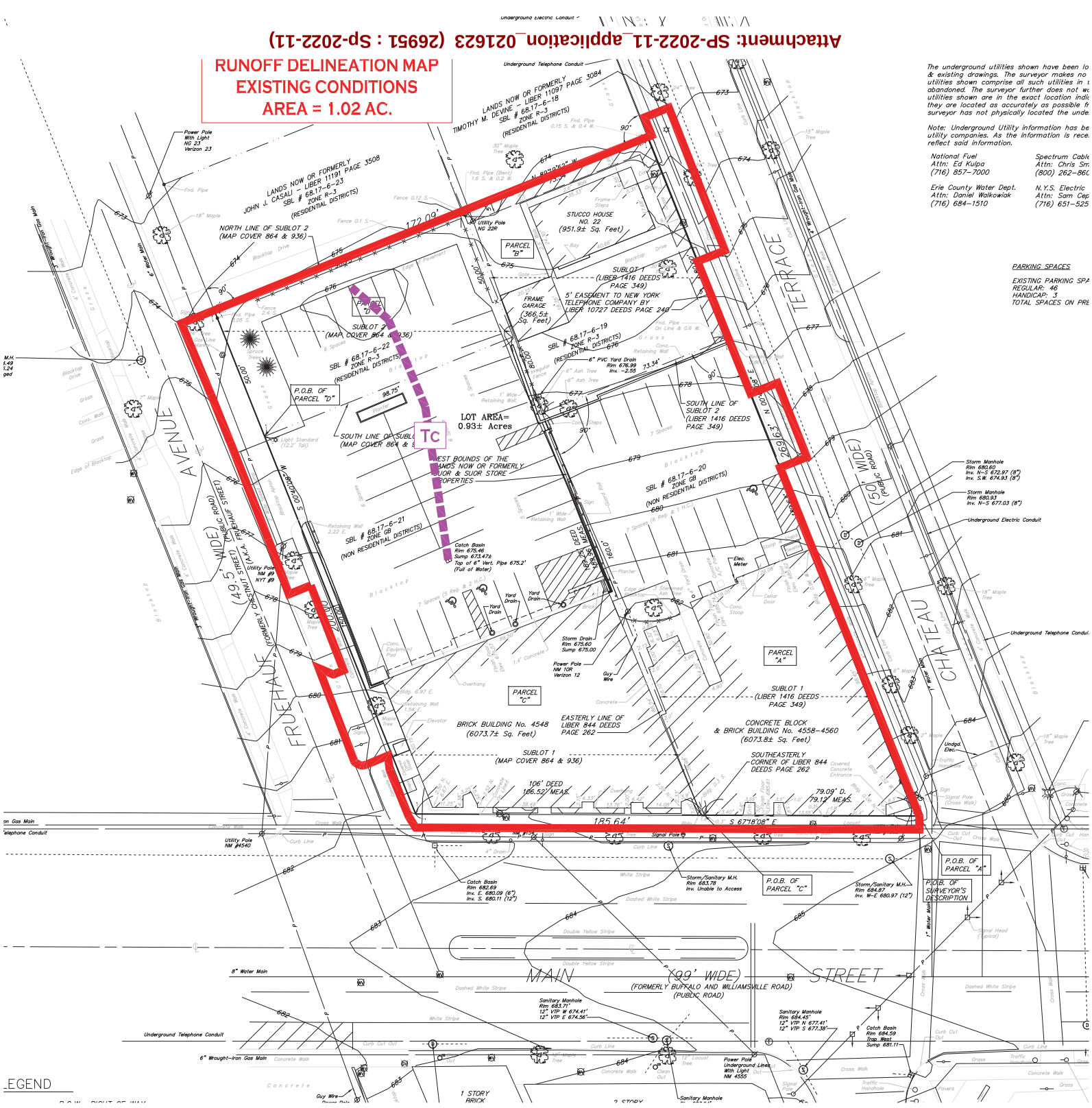

Events for Subcatchment 1S: Existing Site

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	2.28	0.111	1.30
2-Year	2.87	0.141	1.66
5-Year	3.61	0.181	2.13
10-Year	4.29	0.217	2.56
25-Year	5.33	0.274	3.22
50-Year	6.27	0.326	3.84
100-Year	**7.37**	**0.387**	**4.56**

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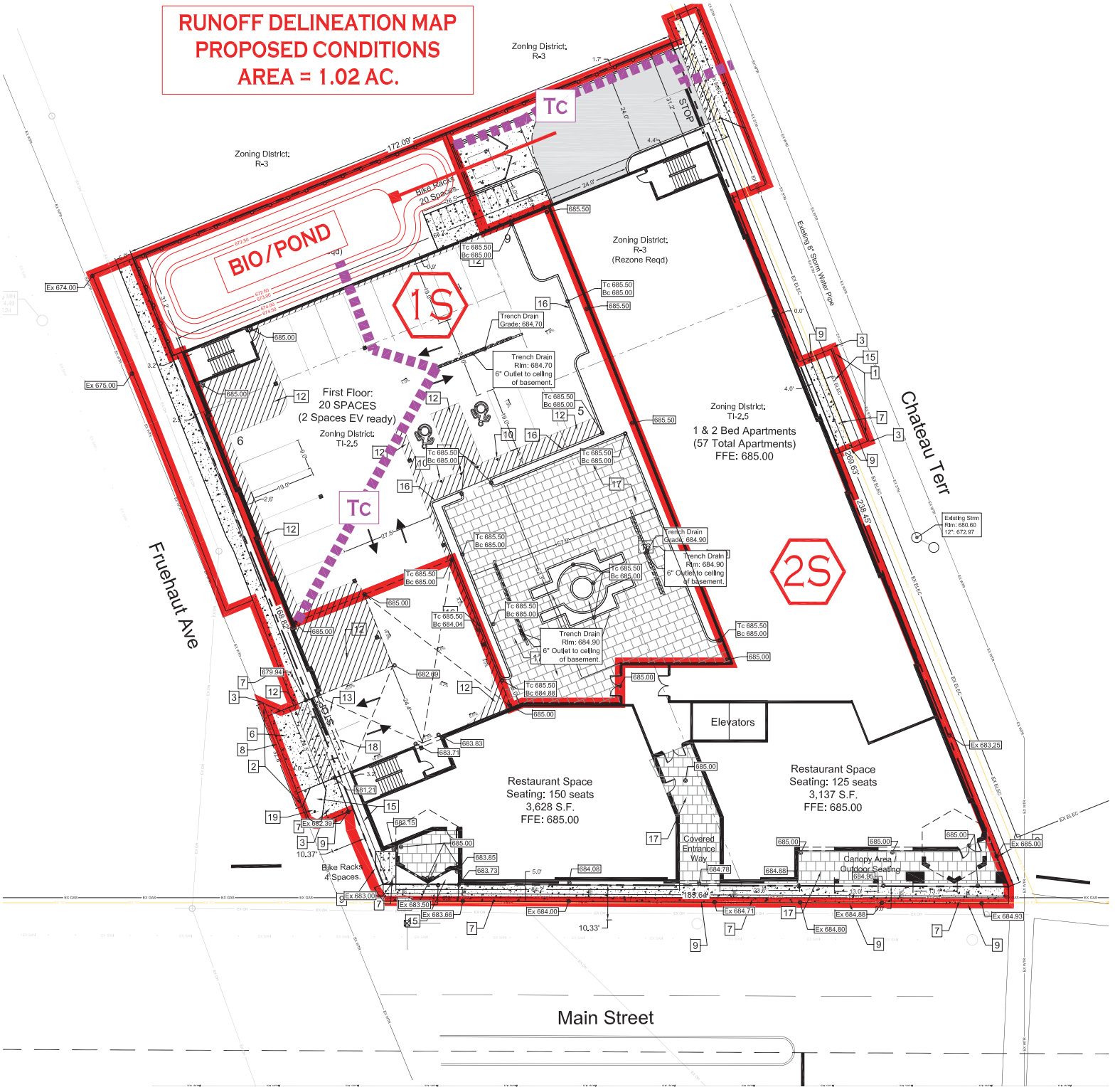


Events for Pond 1P: Proposed Stormwater Storage & Outlet

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-Year	0.84	0.28	673.12	842
2-Year	1.06	0.61	673.21	976
5-Year	1.35	0.78	673.30	1,134
10-Year	1.61	0.79	673.41	1,313
25-Year	2.01	0.82	673.57	1,597
50-Year	2.38	0.84	673.70	1,859
100-Year	**2.80**	**0.86**	**673.87**	**2,185**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 4.45" for 100-Year event
Inflow = 2.80 cfs @ 11.96 hrs, Volume= 0.142 af
Outflow = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af, Atten= 69%, Lag= 6.8 min
Primary = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.87' @ 12.07 hrs Surf.Area= 2,037 sf Storage= 2,185 cf

Plug-Flow detention time= 107.0 min calculated for 0.127 af (89% of inflow)
Center-of-Mass det. time= 53.3 min (821.6 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.86 cfs @ 12.07 hrs HW=673.87' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.86 cfs @ 4.37 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.86 cfs of 5.20 cfs potential flow)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Events for Link 1L: Proposed Runoff

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-Year	1.61	1.61	**0.00**
2-Year	2.35	2.35	0.00
5-Year	3.19	3.19	0.00
10-Year	3.62	3.62	0.00
25-Year	4.28	4.28	0.00
50-Year	4.89	4.89	0.00
100-Year	**5.59**	**5.59**	0.00

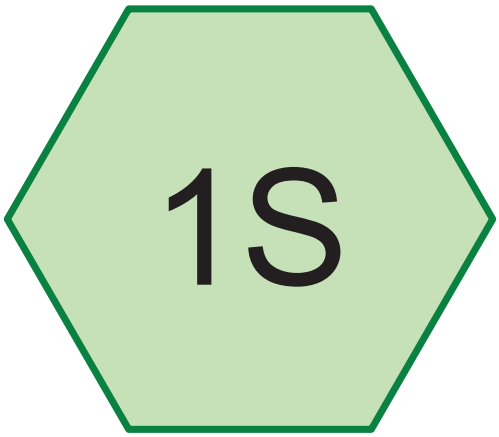
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Appendix B

STORMWATER DRAINAGE ANALYSIS

HydroCAD

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



Existing Site

Subcat Reach Pond Link

Routing Diagram for 21.152 Existing
Prepared by HP Inc., Printed 8/12/2021
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Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.185	84	50-75% Grass cover, Fair, HSG D (1S)
0.835	98	Impervious (1S)
1.020	**95**	**TOTAL AREA**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.185	HSG D	1S
0.835	Other	1S
1.020		**TOTAL AREA**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.185	0.000	0.185	50-75% Grass cover, Fair	1S
0.000	0.000	0.000	0.000	0.835	0.835	Impervious	1S
0.000	**0.000**	**0.000**	**0.185**	**0.835**	**1.020**	**TOTAL AREA**	

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=1.30"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=2.28 cfs 0.111 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.111 af Average Runoff Depth = 1.30"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

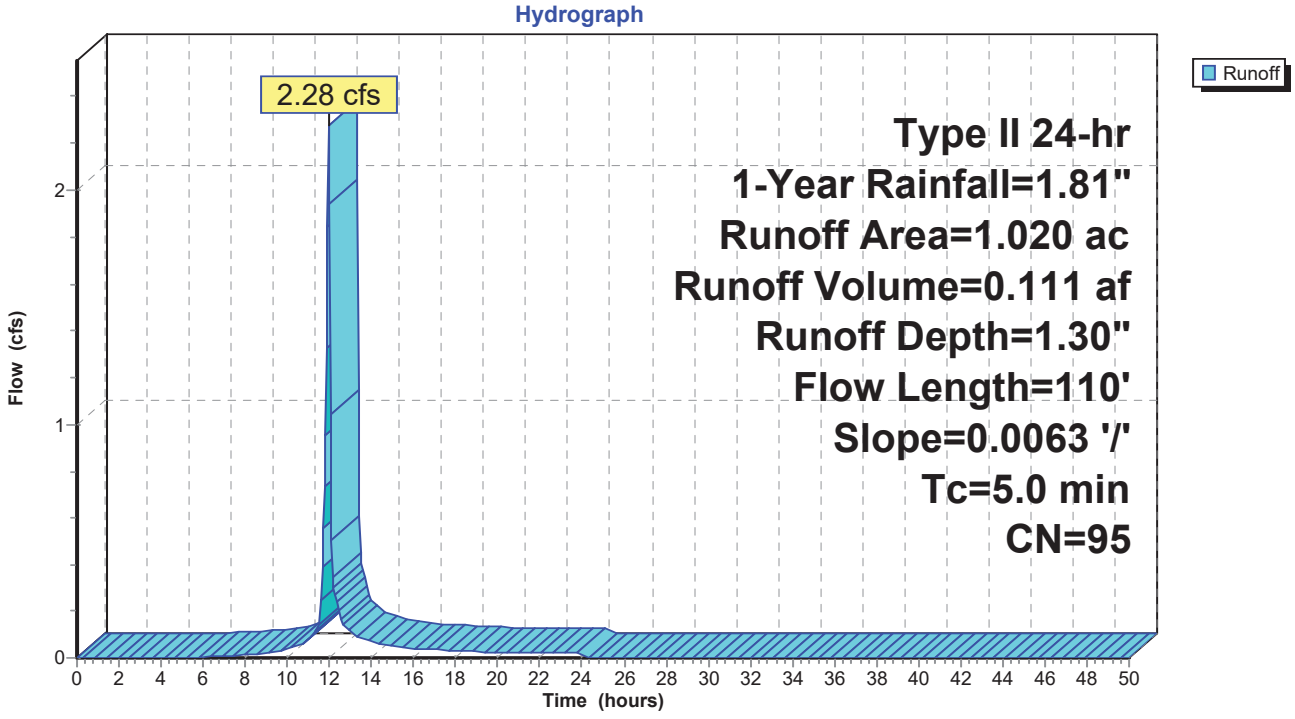
Runoff = 2.28 cfs @ 11.95 hrs, Volume= 0.111 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=1.81"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=2.56"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=4.29 cfs 0.217 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.217 af Average Runoff Depth = 2.56"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

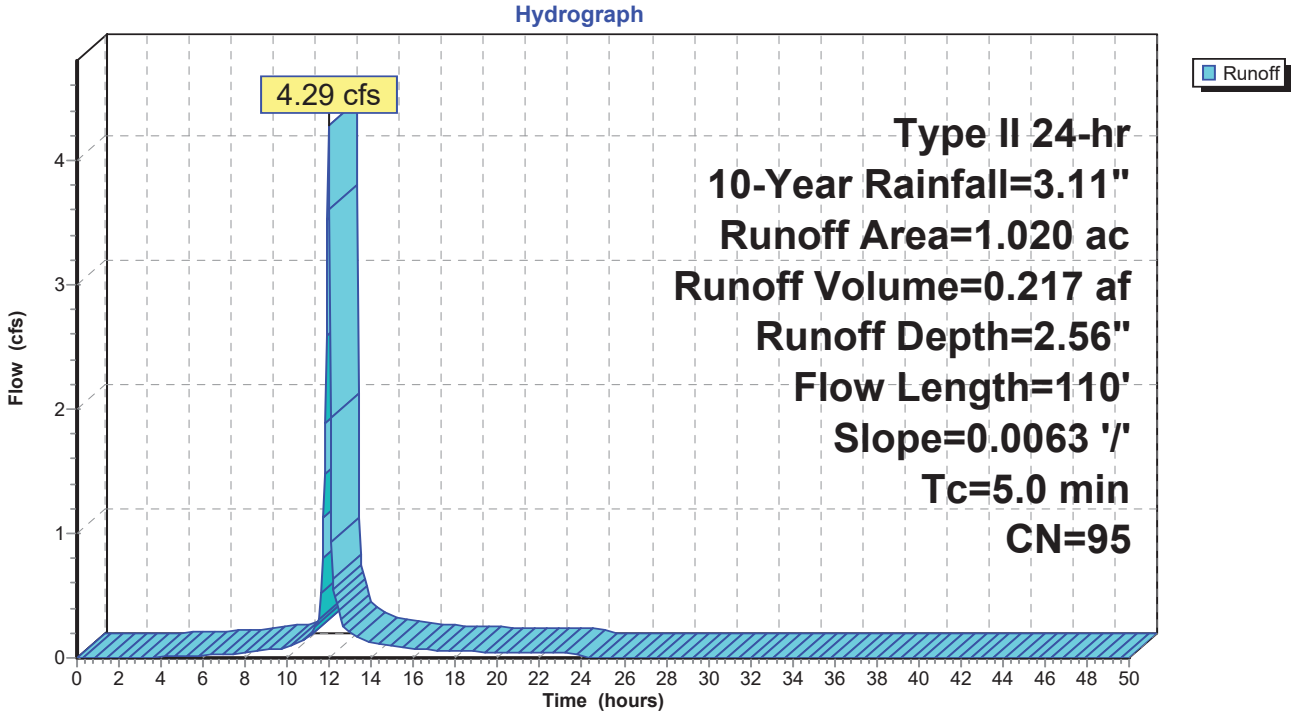
Runoff = 4.29 cfs @ 11.95 hrs, Volume= 0.217 af, Depth= 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.11"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=3.22"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=5.33 cfs 0.274 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.274 af Average Runoff Depth = 3.22"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

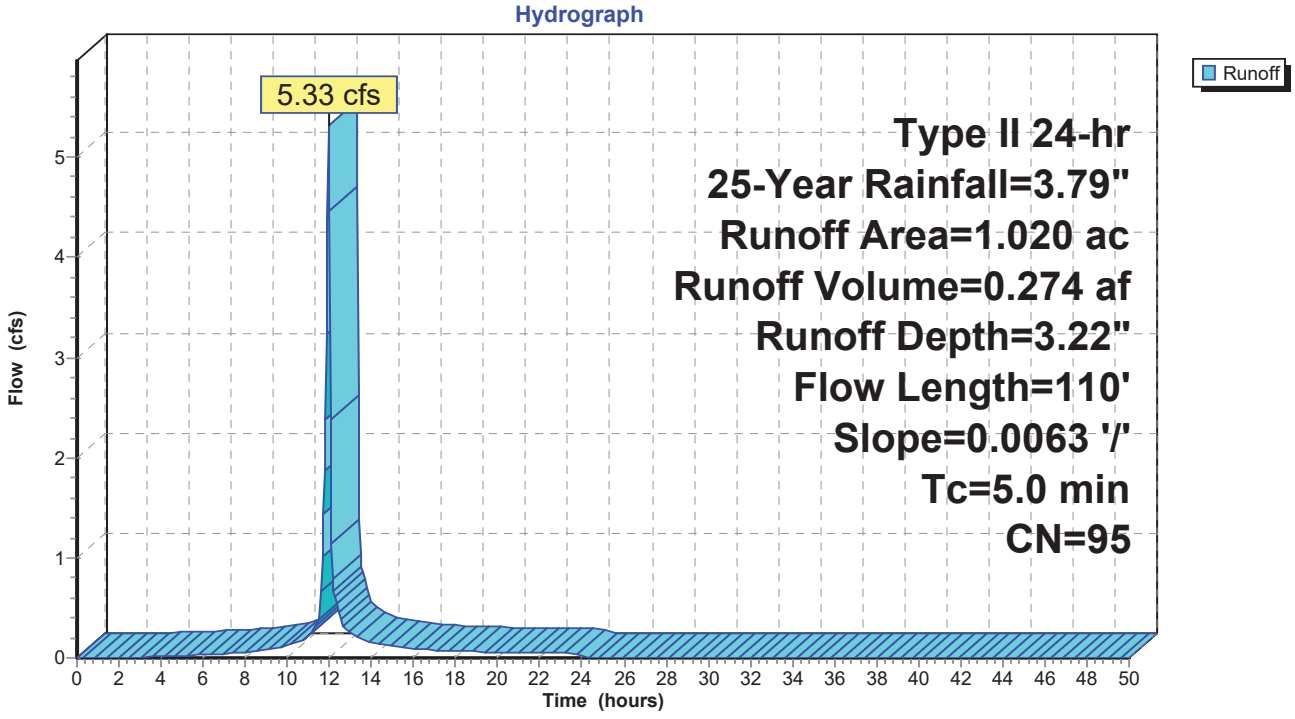
Runoff = 5.33 cfs @ 11.95 hrs, Volume= 0.274 af, Depth= 3.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=3.79"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=4.56"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=7.37 cfs 0.387 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.387 af Average Runoff Depth = 4.56"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

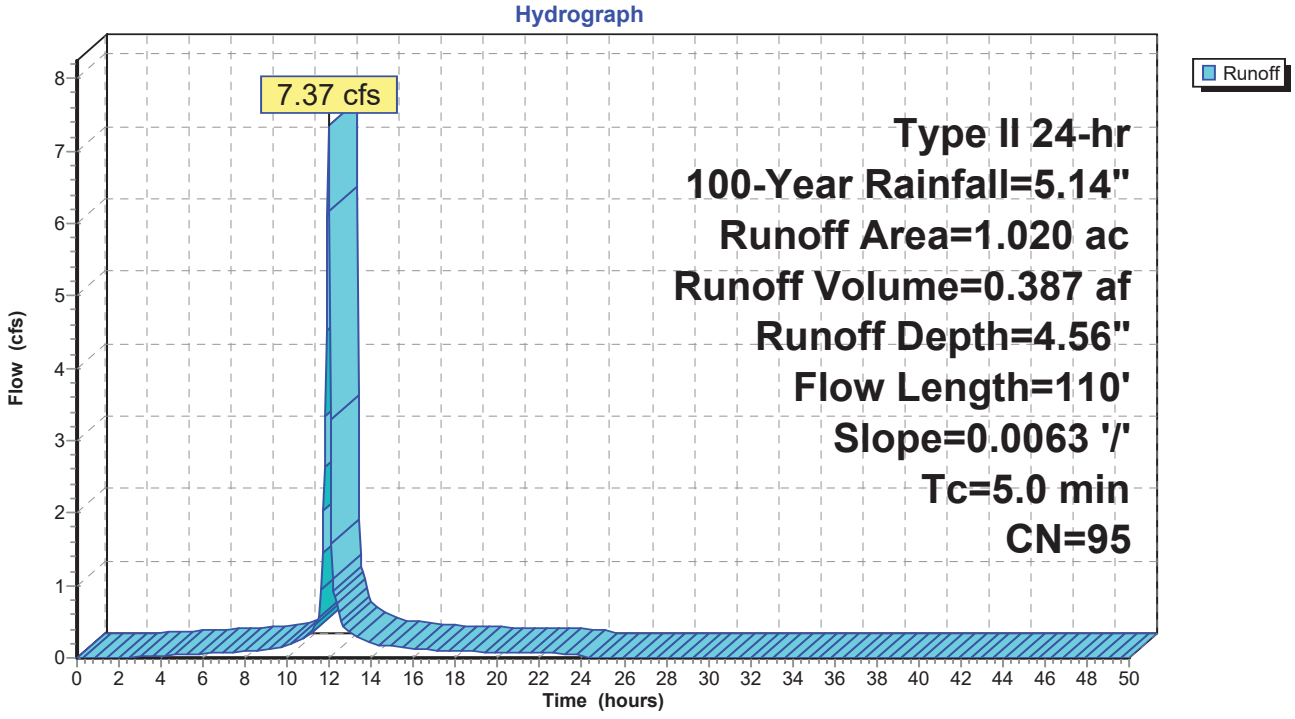
Runoff = 7.37 cfs @ 11.95 hrs, Volume= 0.387 af, Depth= 4.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.14"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



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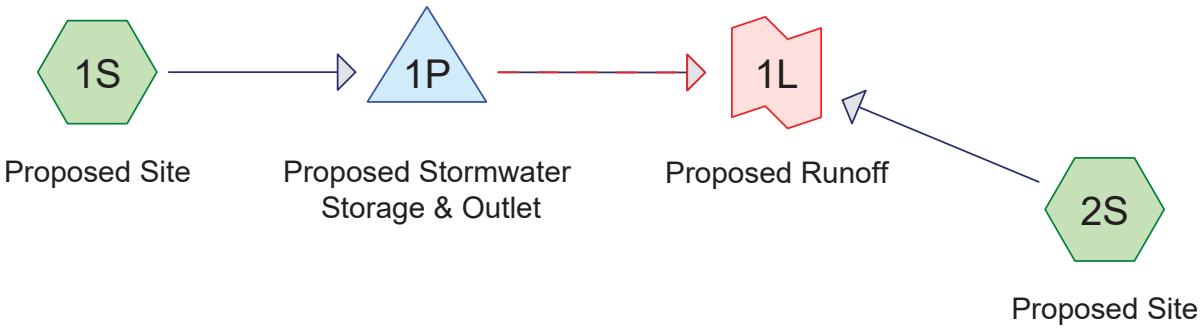


Subcat Reach Pond Link

Routing Diagram for 21.152 Proposed
Prepared by HP Inc., Printed 8/12/2021
HydroCAD® 10.00-18 s/n 05021 © 2016 HydroCAD Software Solutions LLC

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.147	80	>75% Grass cover, Good, HSG D (1S, 2S)
0.872	98	Impervious, HSG D (1S, 2S)
1.019	**95**	**TOTAL AREA**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
1.019	HSG D	1S, 2S
0.000	Other	
1.019		**TOTAL AREA**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.147	0.000	0.147	>75% Grass cover, Good	1S, 2S
0.000	0.000	0.000	0.872	0.000	0.872	Impervious	1S, 2S
0.000	**0.000**	**0.000**	**1.019**	**0.000**	**1.019**	**TOTAL AREA**	

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	670.25	670.15	50.0	0.0020	0.020	6.0	0.0	0.0

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=1.22"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=0.84 cfs 0.039 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=1.49"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=1.59 cfs 0.079 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.12' Storage=842 cf Inflow=0.84 cfs 0.039 af
Outflow=0.28 cfs 0.024 af

Link 1L: Proposed Runoff Inflow=1.61 cfs 0.103 af
Primary=1.61 cfs 0.103 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.118 af Average Runoff Depth = 1.39"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

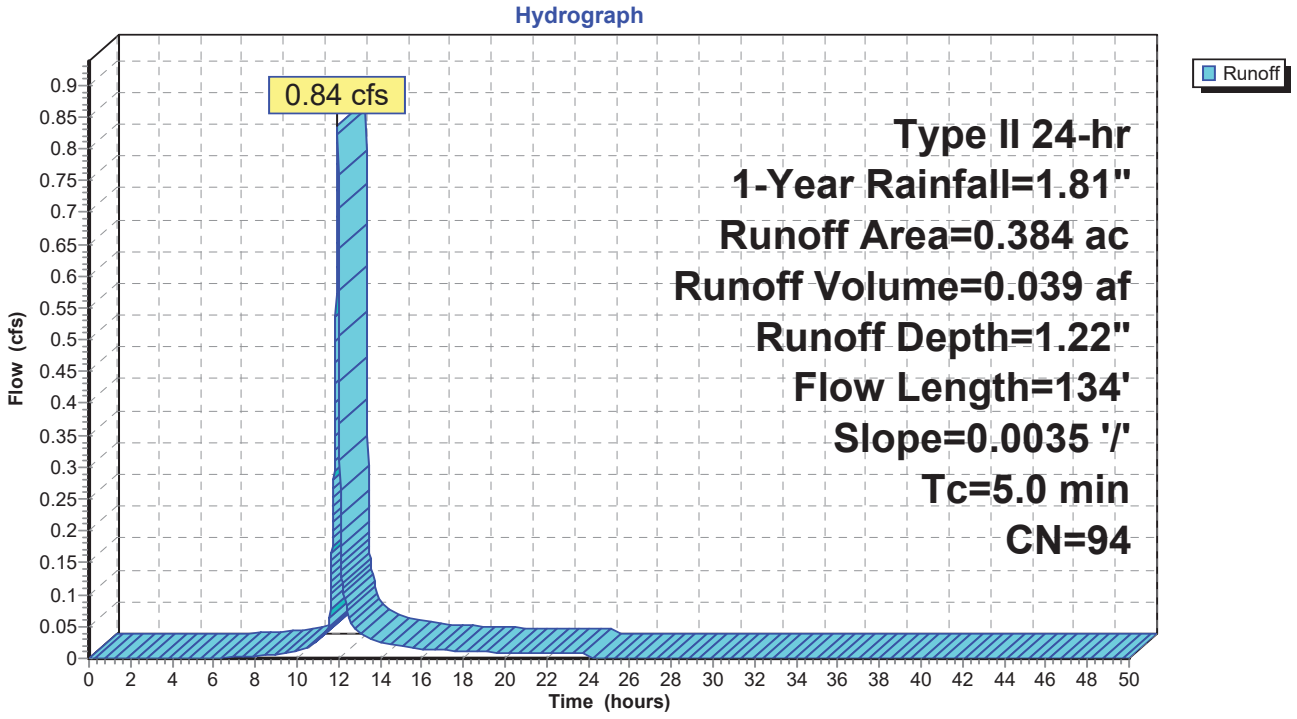
Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.039 af, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=1.81"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

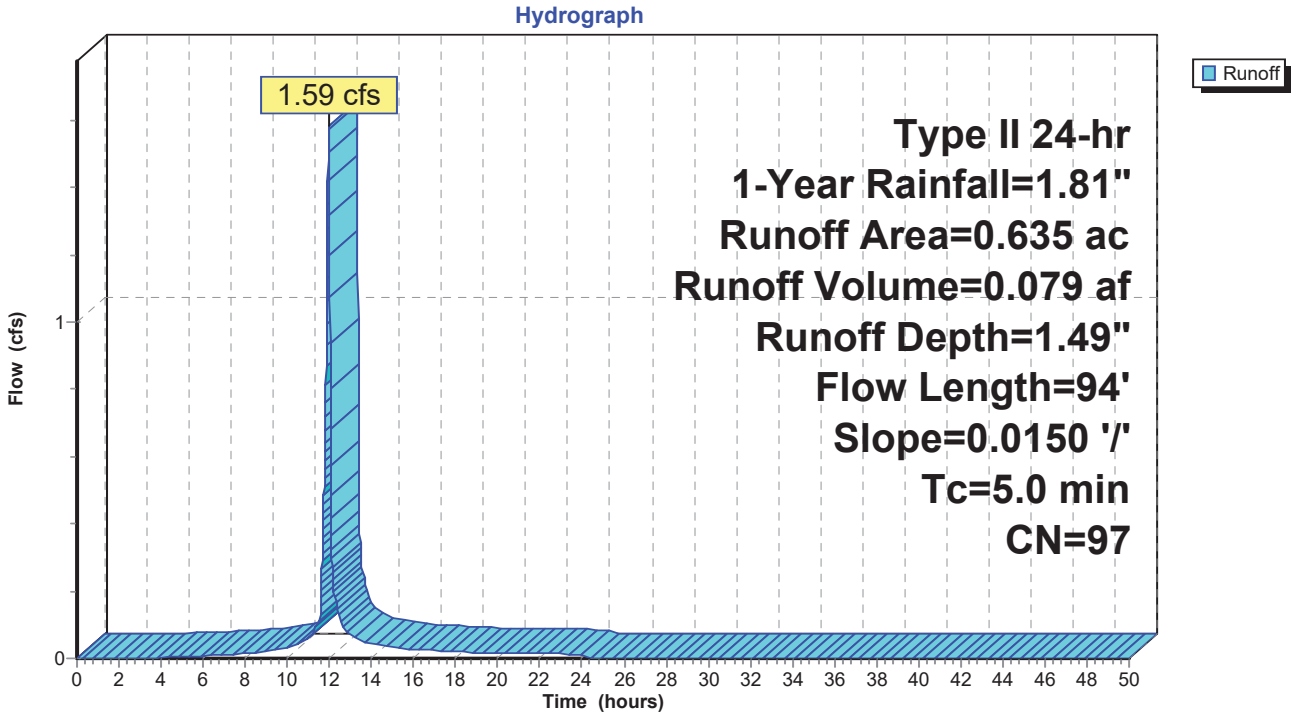
Runoff = 1.59 cfs @ 11.96 hrs, Volume= 0.079 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=1.81"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 1.22" for 1-Year event
Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.039 af
Outflow = 0.28 cfs @ 12.07 hrs, Volume= 0.024 af, Atten= 67%, Lag= 6.5 min
Primary = 0.28 cfs @ 12.07 hrs, Volume= 0.024 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.12' @ 12.07 hrs Surf.Area= 1,571 sf Storage= 842 cf

Plug-Flow detention time= 205.5 min calculated for 0.024 af (62% of inflow)
Center-of-Mass det. time= 99.2 min (902.7 - 803.5)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

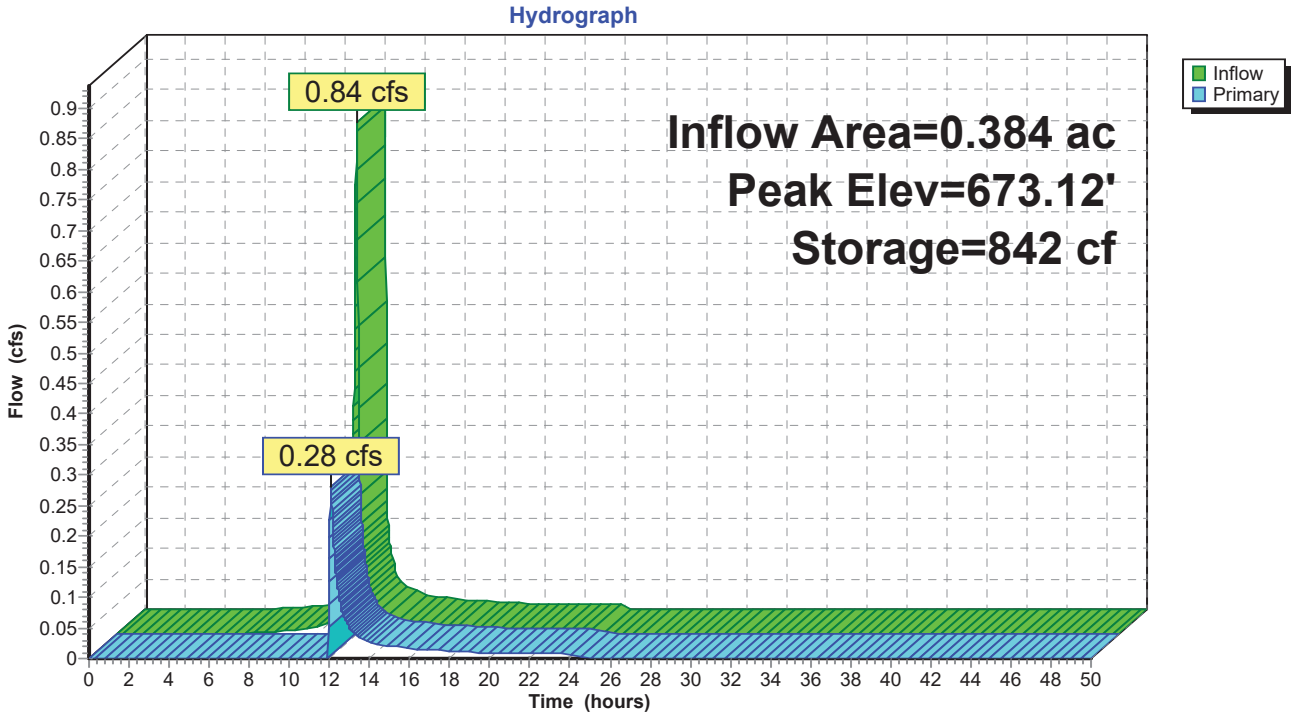
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.28 cfs @ 12.07 hrs HW=673.12' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Passes 0.28 cfs of 0.75 cfs potential flow)
↑—**2=Grate - Outlet Structure** (Orifice Controls 0.28 cfs @ 1.13 fps)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



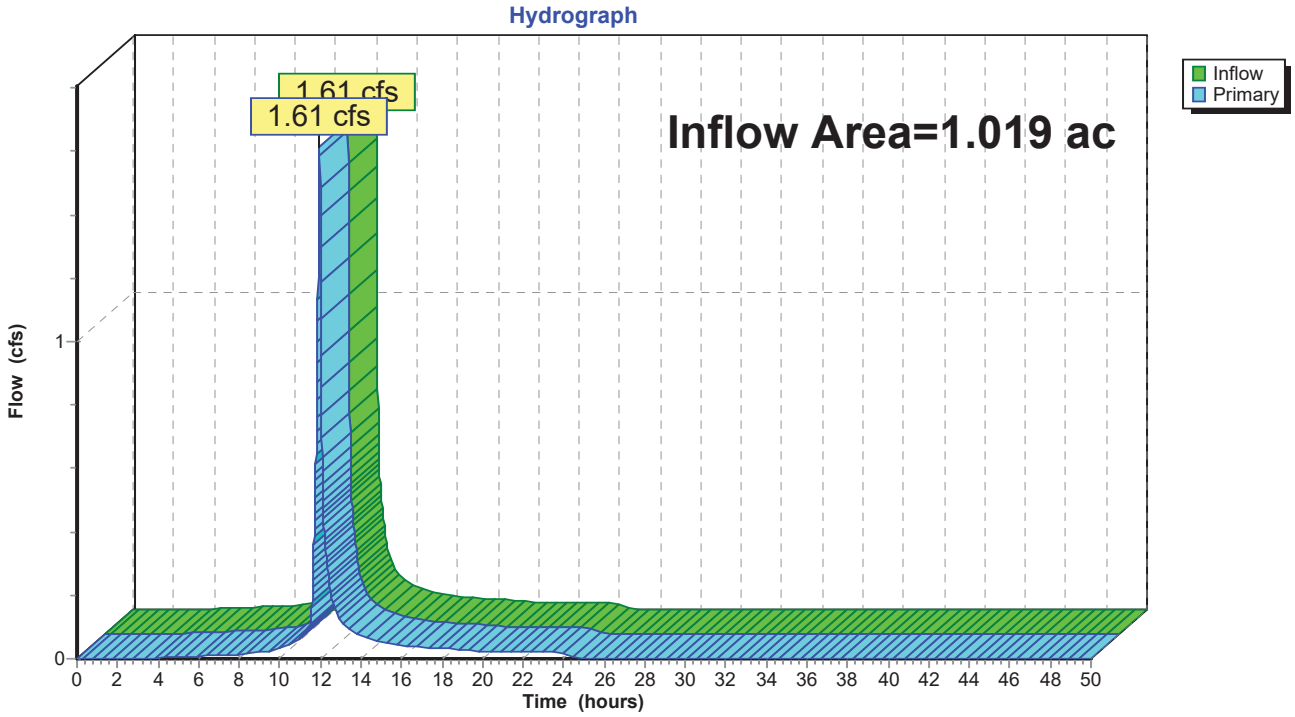
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 1.21" for 1-Year event
Inflow = 1.61 cfs @ 11.97 hrs, Volume= 0.103 af
Primary = 1.61 cfs @ 11.97 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=2.46"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=1.61 cfs 0.079 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=2.77"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=2.84 cfs 0.146 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.41' Storage=1,313 cf Inflow=1.61 cfs 0.079 af
Outflow=0.79 cfs 0.064 af

Link 1L: Proposed Runoff Inflow=3.62 cfs 0.210 af
Primary=3.62 cfs 0.210 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.225 af Average Runoff Depth = 2.65"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

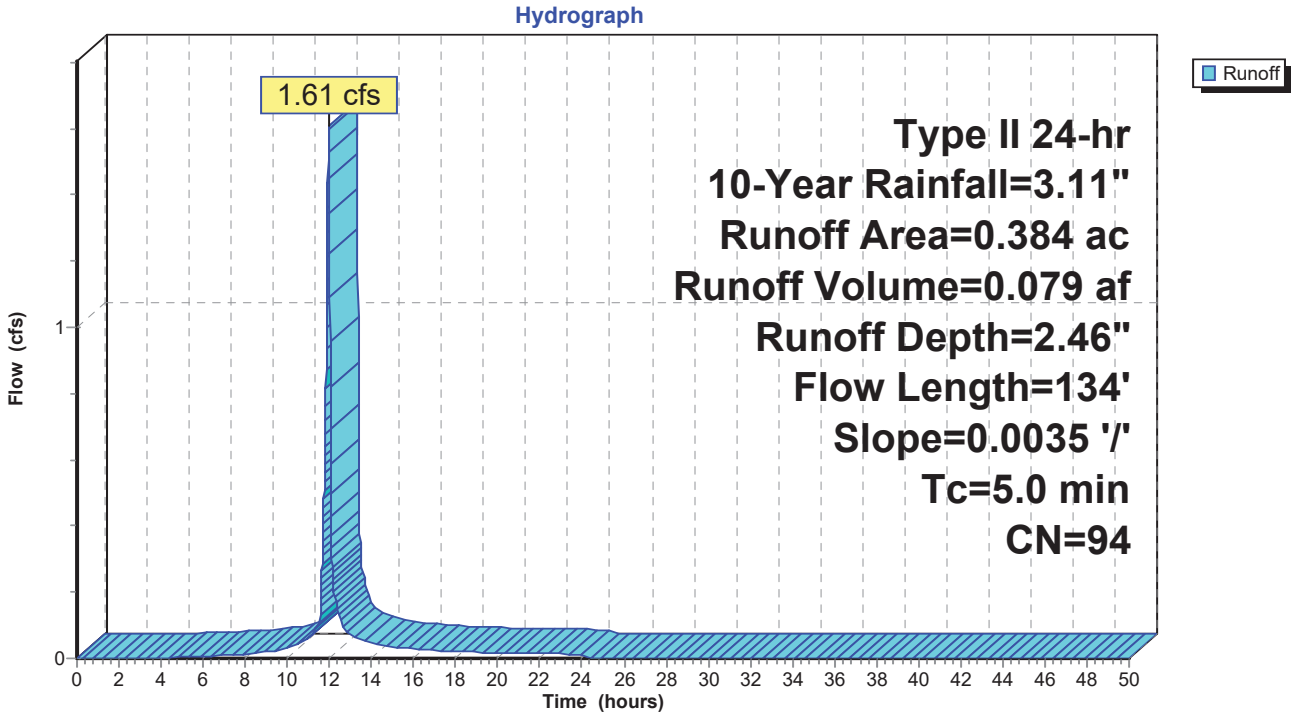
Runoff = 1.61 cfs @ 11.96 hrs, Volume= 0.079 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.11"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

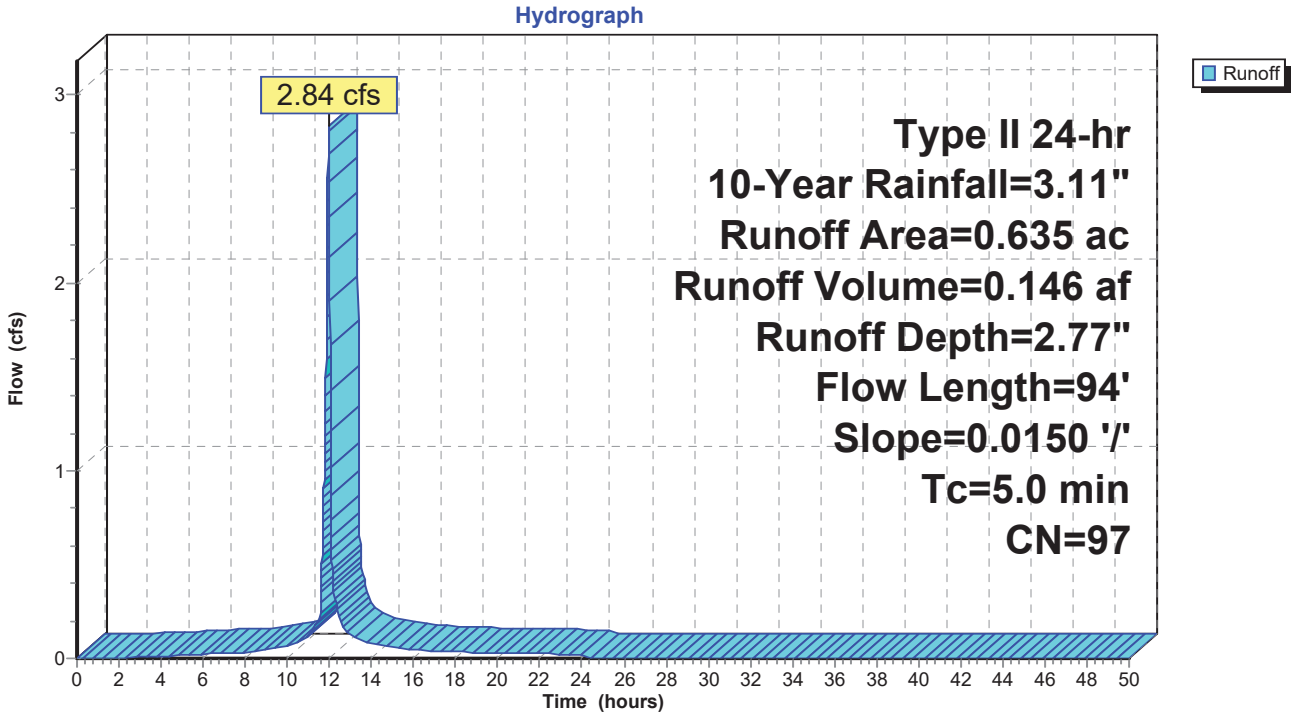
Runoff = 2.84 cfs @ 11.96 hrs, Volume= 0.146 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.11"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 2.46" for 10-Year event
Inflow = 1.61 cfs @ 11.96 hrs, Volume= 0.079 af
Outflow = 0.79 cfs @ 12.04 hrs, Volume= 0.064 af, Atten= 51%, Lag= 5.1 min
Primary = 0.79 cfs @ 12.04 hrs, Volume= 0.064 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.41' @ 12.04 hrs Surf.Area= 1,748 sf Storage= 1,313 cf

Plug-Flow detention time= 137.3 min calculated for 0.064 af (81% of inflow)
Center-of-Mass det. time= 59.3 min (843.2 - 783.9)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

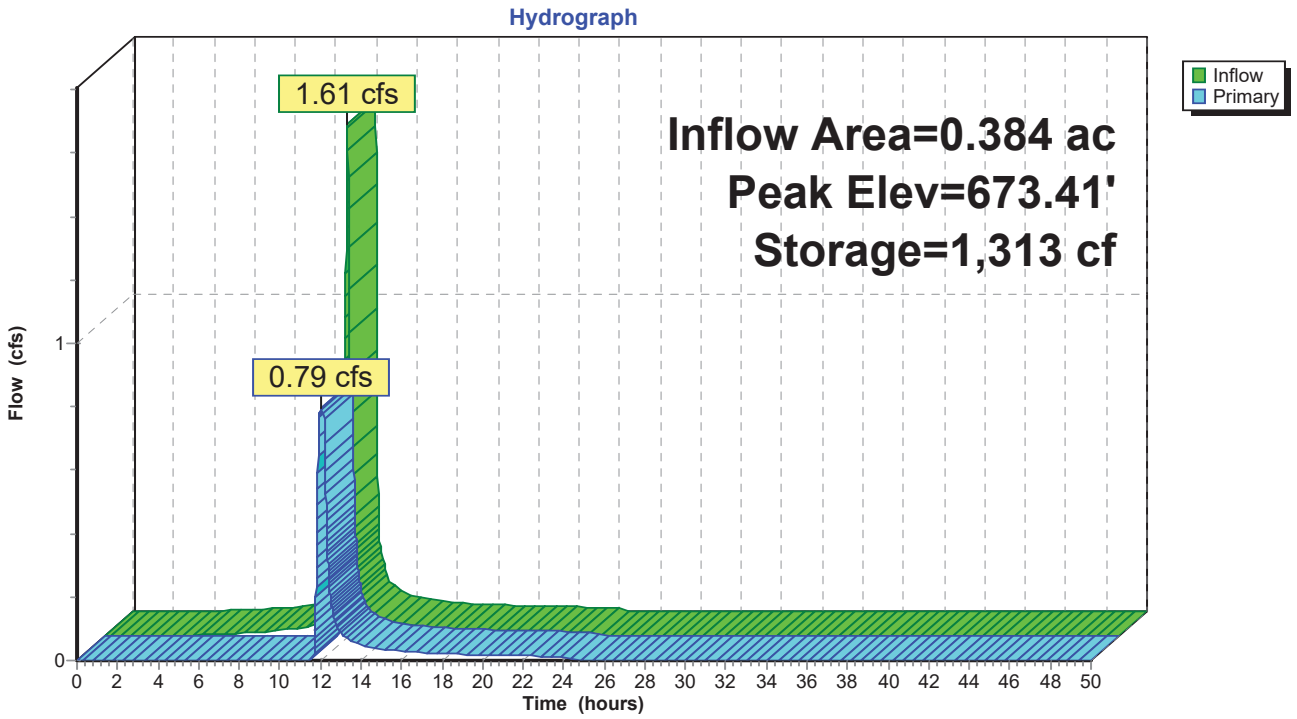
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.79 cfs @ 12.04 hrs HW=673.41' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.79 cfs @ 4.04 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.79 cfs of 1.67 cfs potential flow)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



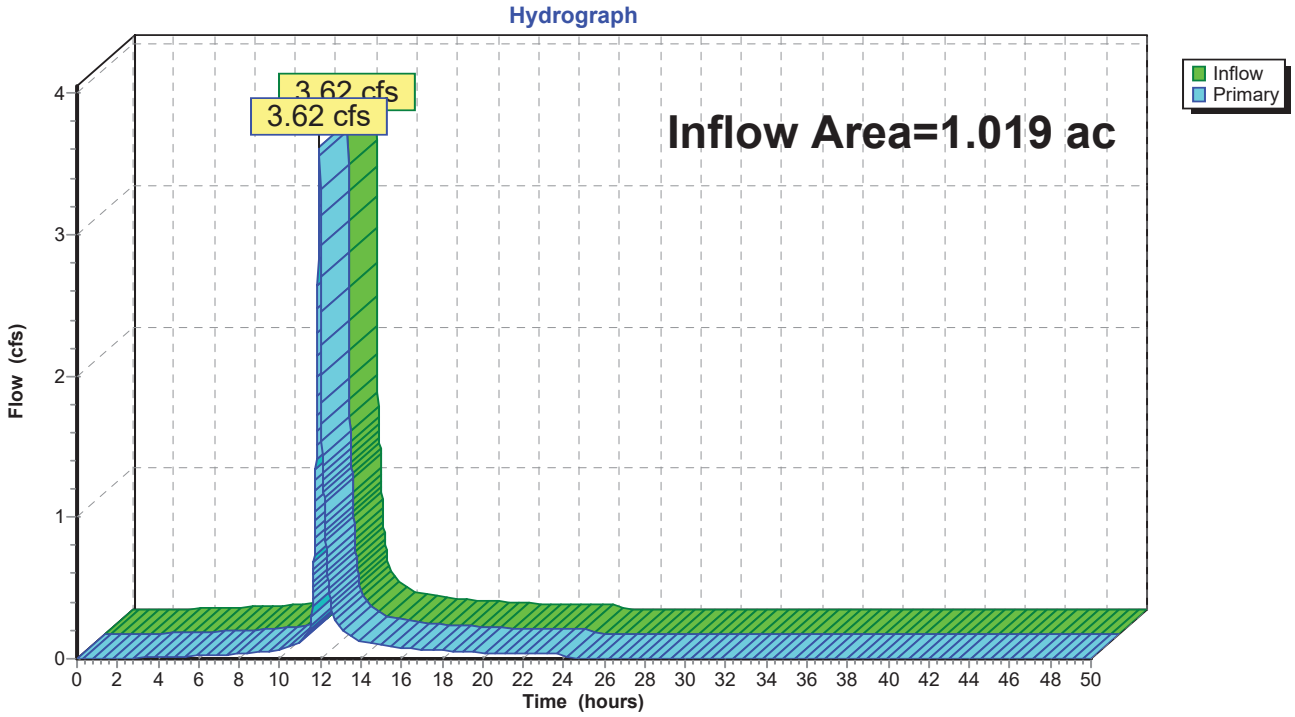
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 2.47" for 10-Year event
Inflow = 3.62 cfs @ 11.96 hrs, Volume= 0.210 af
Primary = 3.62 cfs @ 11.96 hrs, Volume= 0.210 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=3.12"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=2.01 cfs 0.100 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=3.44"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=3.49 cfs 0.182 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.57' Storage=1,597 cf Inflow=2.01 cfs 0.100 af
Outflow=0.82 cfs 0.085 af

Link 1L: Proposed Runoff Inflow=4.28 cfs 0.267 af
Primary=4.28 cfs 0.267 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.282 af Average Runoff Depth = 3.32"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

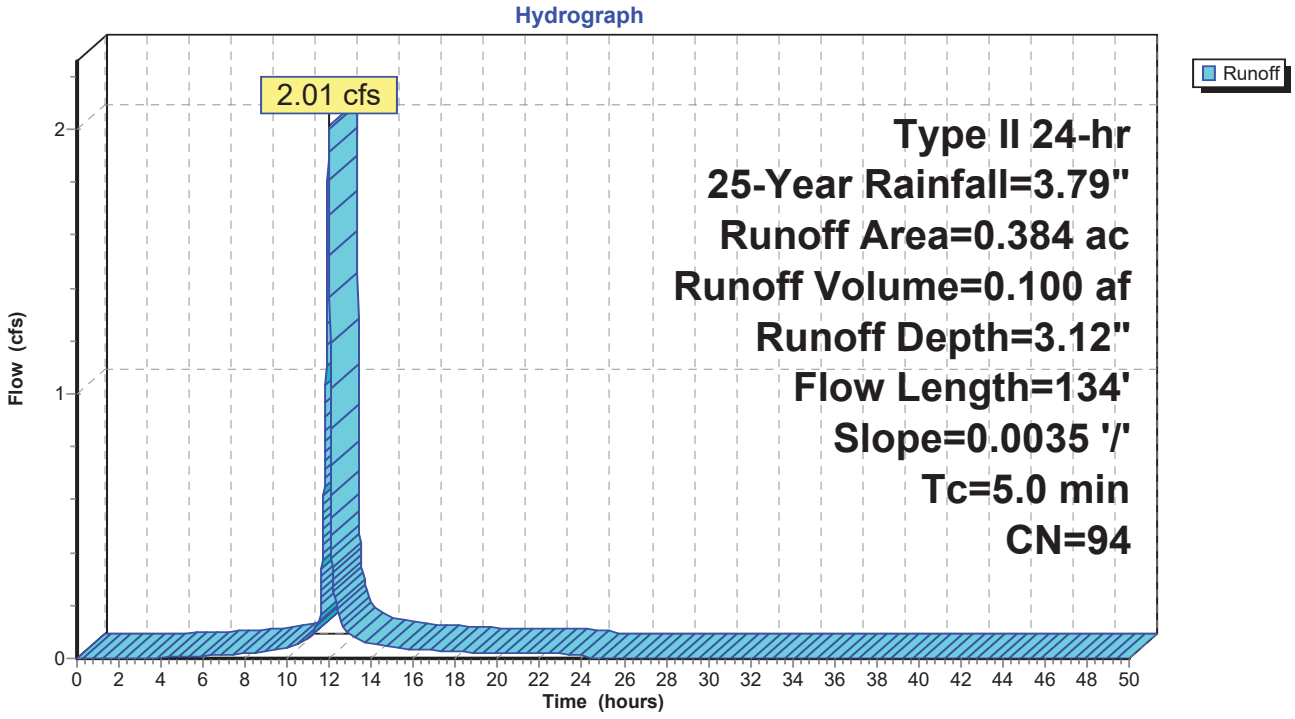
Runoff = 2.01 cfs @ 11.96 hrs, Volume= 0.100 af, Depth= 3.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=3.79"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

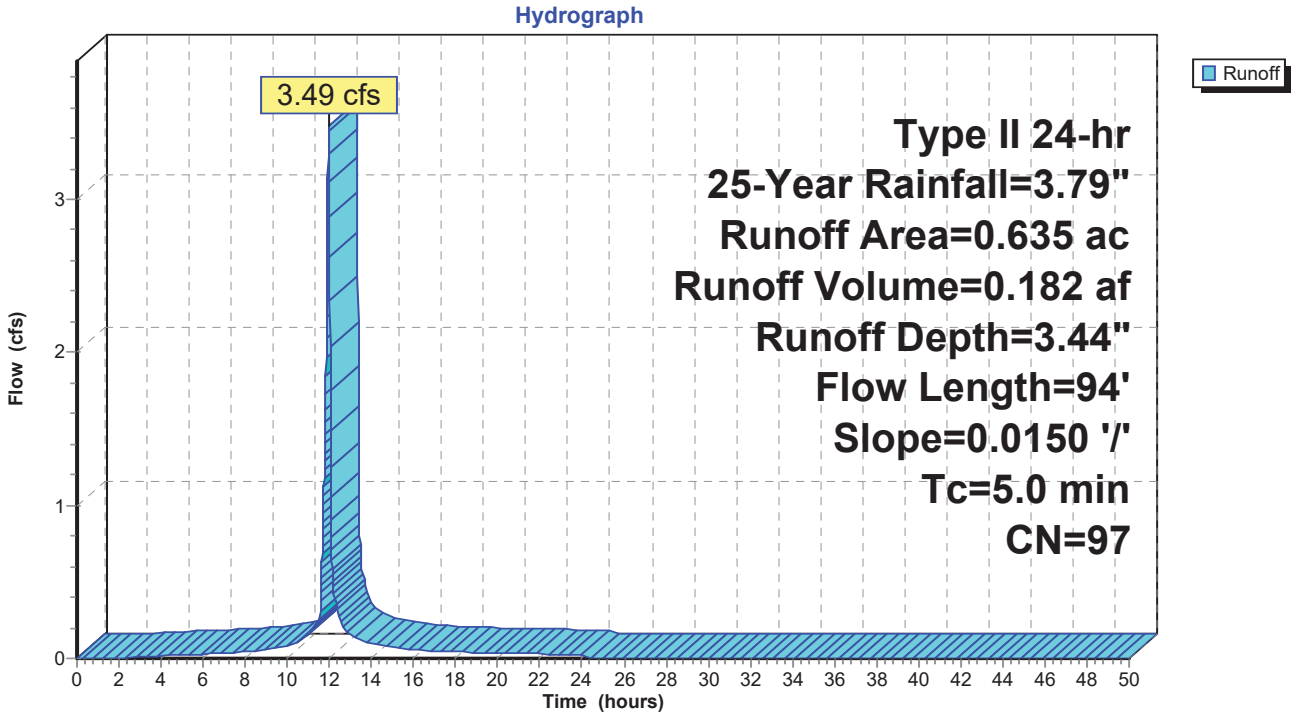
Runoff = 3.49 cfs @ 11.96 hrs, Volume= 0.182 af, Depth= 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=3.79"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 3.12" for 25-Year event
Inflow = 2.01 cfs @ 11.96 hrs, Volume= 0.100 af
Outflow = 0.82 cfs @ 12.05 hrs, Volume= 0.085 af, Atten= 59%, Lag= 5.8 min
Primary = 0.82 cfs @ 12.05 hrs, Volume= 0.085 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.57' @ 12.05 hrs Surf.Area= 1,847 sf Storage= 1,597 cf

Plug-Flow detention time= 123.7 min calculated for 0.085 af (85% of inflow)
Center-of-Mass det. time= 55.9 min (833.3 - 777.4)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

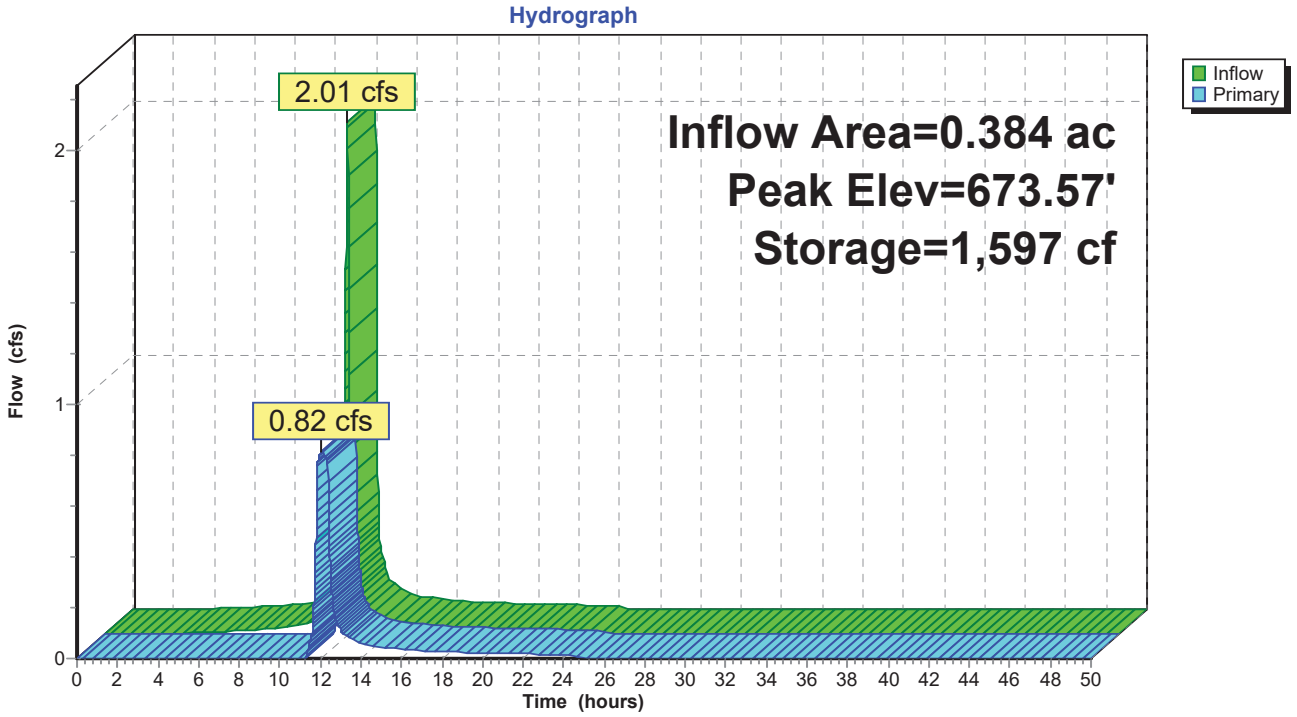
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.82 cfs @ 12.05 hrs HW=673.57' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.82 cfs @ 4.16 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.82 cfs of 2.73 cfs potential flow)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



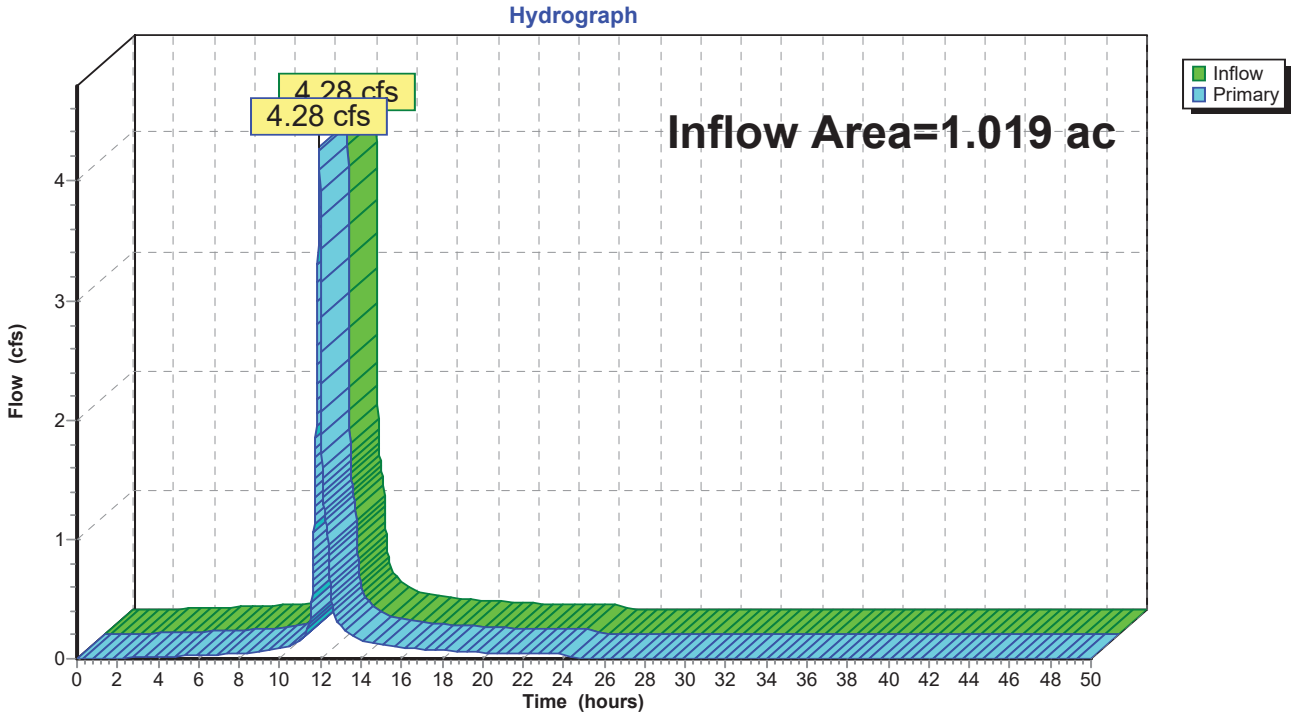
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 3.14" for 25-Year event
Inflow = 4.28 cfs @ 11.96 hrs, Volume= 0.267 af
Primary = 4.28 cfs @ 11.96 hrs, Volume= 0.267 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=4.45"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=2.80 cfs 0.142 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=4.79"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=4.77 cfs 0.253 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.87' Storage=2,185 cf Inflow=2.80 cfs 0.142 af
Outflow=0.86 cfs 0.127 af

Link 1L: Proposed Runoff Inflow=5.59 cfs 0.381 af
Primary=5.59 cfs 0.381 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.396 af Average Runoff Depth = 4.66"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

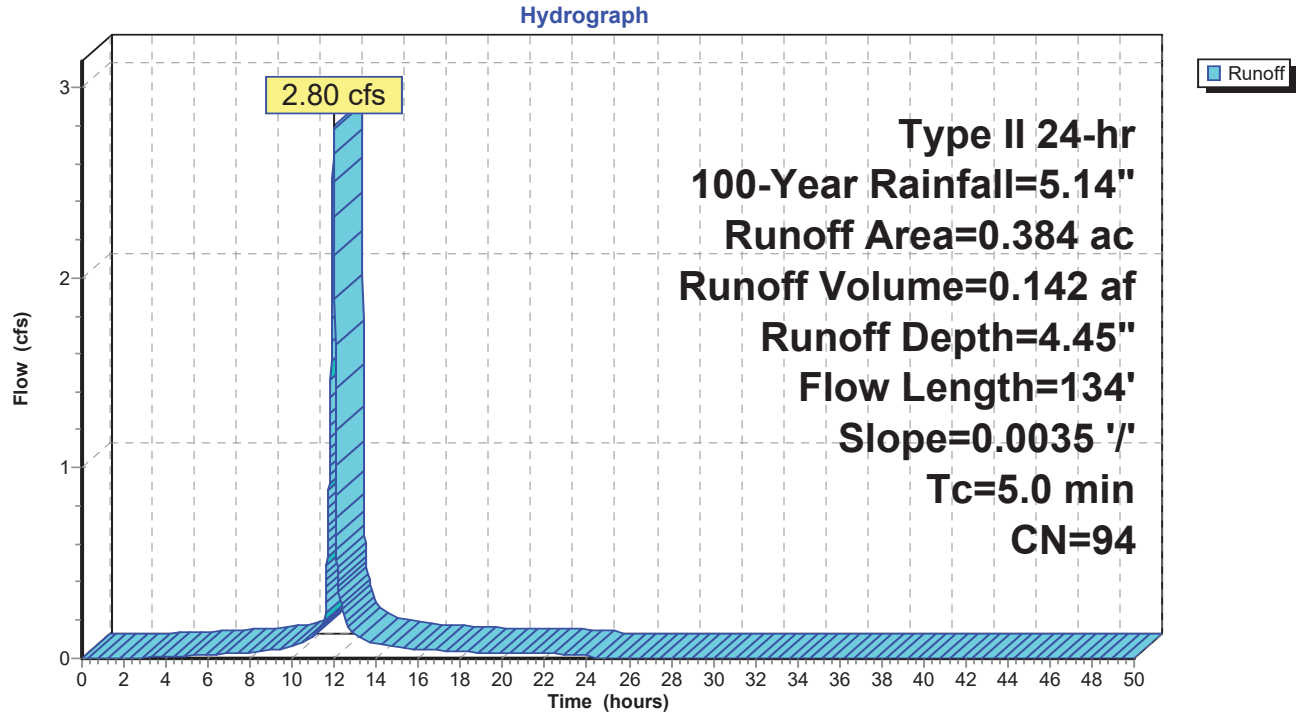
Runoff = 2.80 cfs @ 11.96 hrs, Volume= 0.142 af, Depth= 4.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.14"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

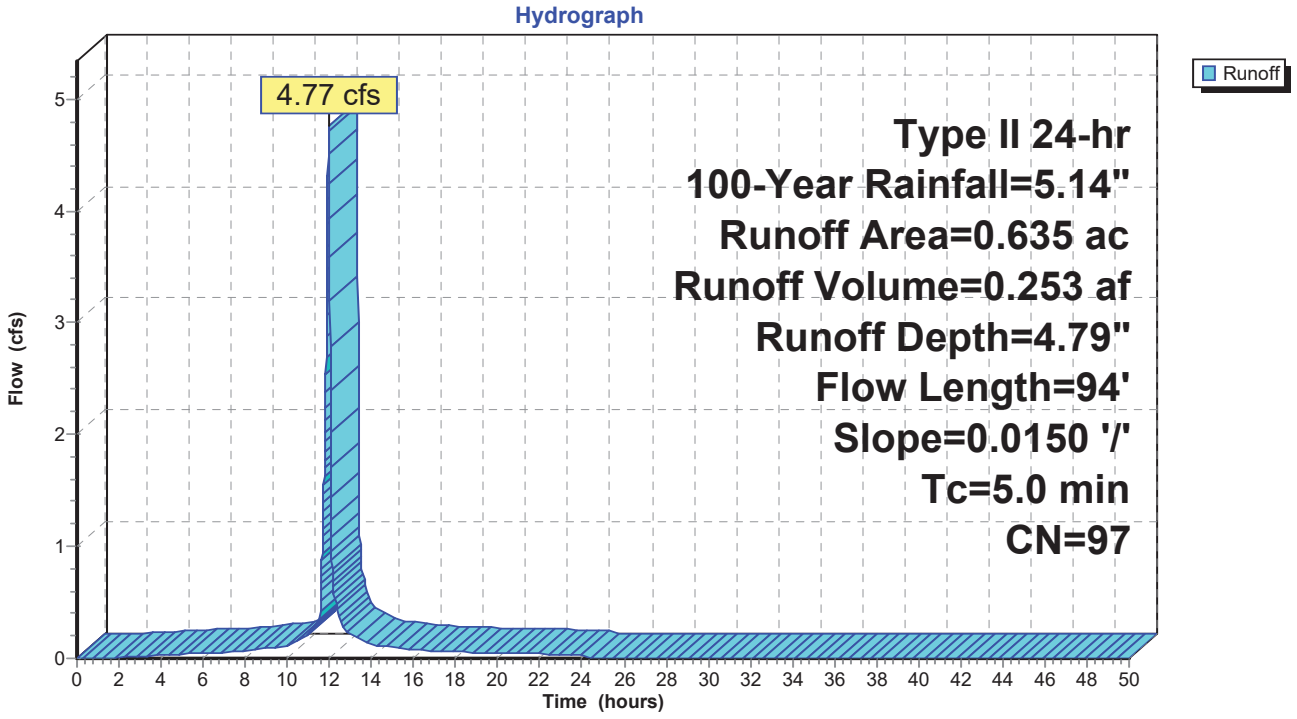
Runoff = 4.77 cfs @ 11.96 hrs, Volume= 0.253 af, Depth= 4.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.14"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 4.45" for 100-Year event
Inflow = 2.80 cfs @ 11.96 hrs, Volume= 0.142 af
Outflow = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af, Atten= 69%, Lag= 6.8 min
Primary = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.87' @ 12.07 hrs Surf.Area= 2,037 sf Storage= 2,185 cf

Plug-Flow detention time= 107.0 min calculated for 0.127 af (89% of inflow)
Center-of-Mass det. time= 53.3 min (821.6 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

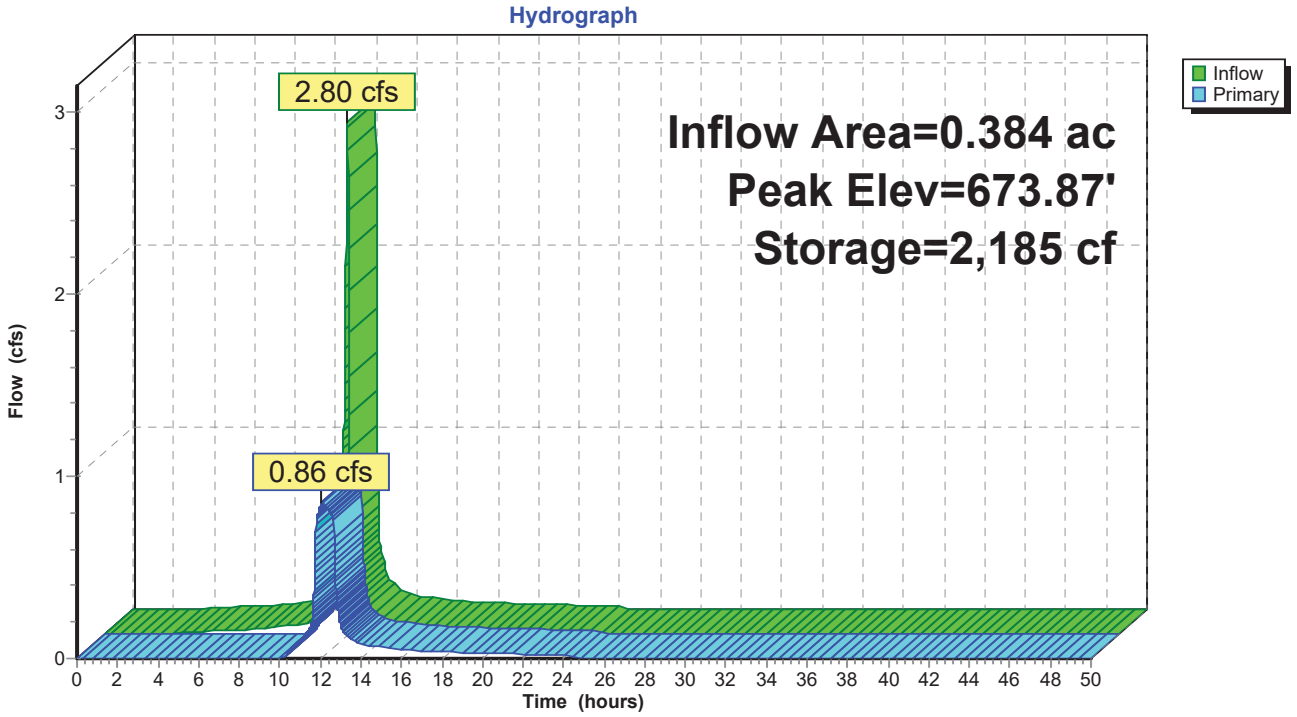
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.86 cfs @ 12.07 hrs HW=673.87' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.86 cfs @ 4.37 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.86 cfs of 5.20 cfs potential flow)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



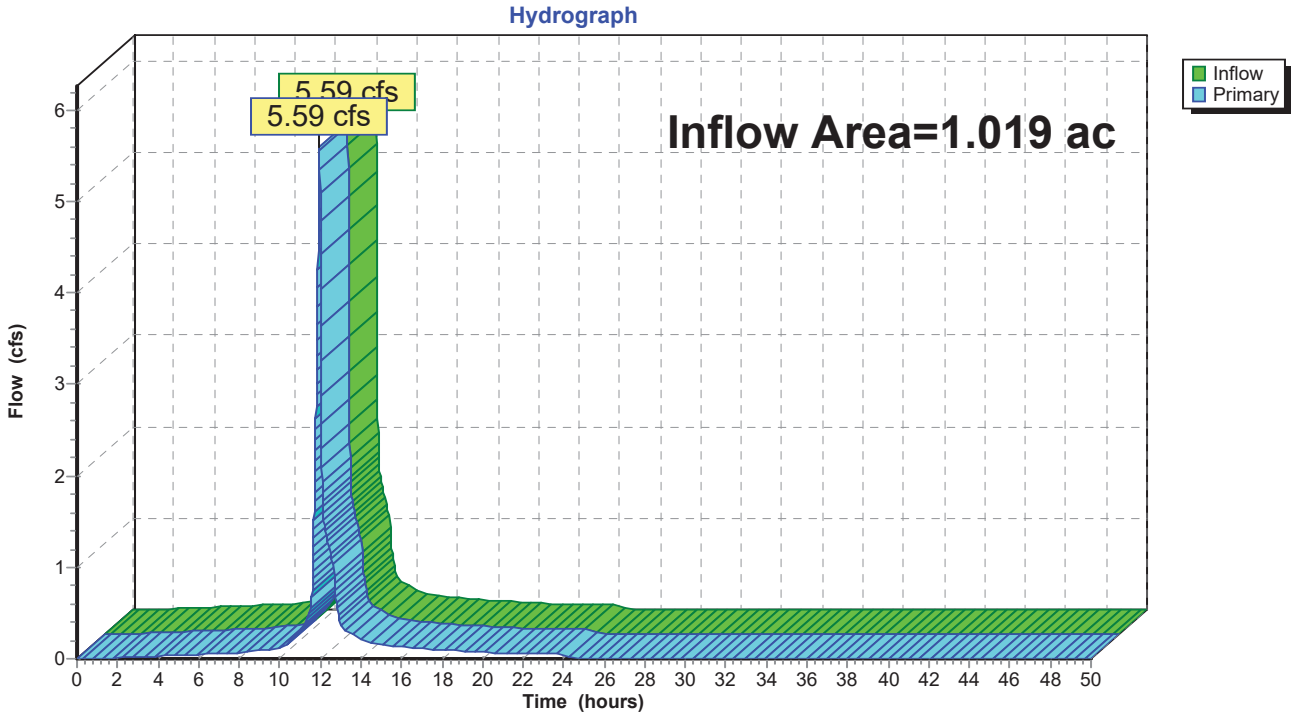
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 4.48" for 100-Year event
Inflow = 5.59 cfs @ 11.96 hrs, Volume= 0.381 af
Primary = 5.59 cfs @ 11.96 hrs, Volume= 0.381 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



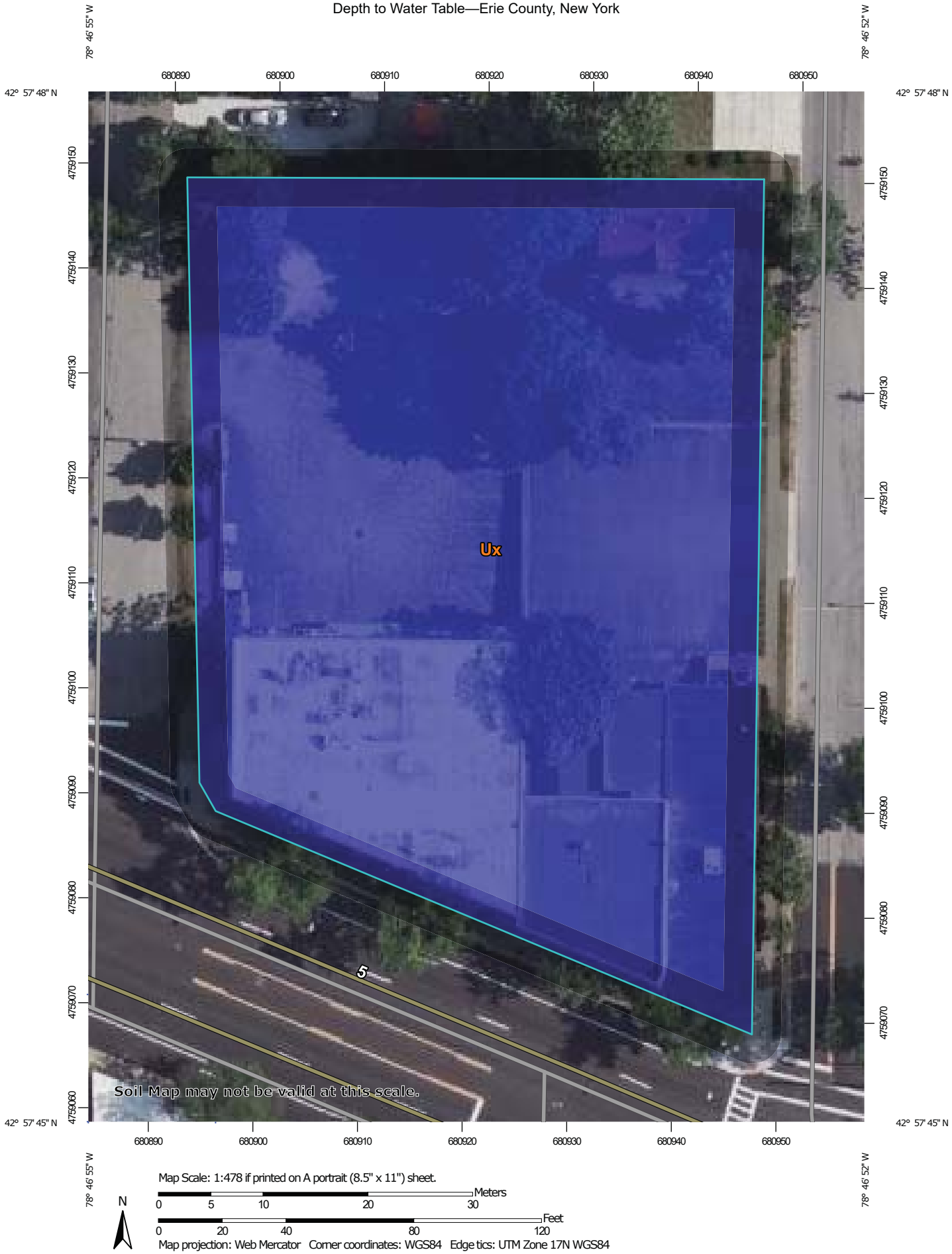
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Appendix C

SOILS INFORMATION

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Depth to Water Table—Erie County, New York



Map Scale: 1:478 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 20 40 80 120

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Lines

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Points

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
Ux	Urban land-Wassaic complex	>200	0.9	100.0%
Totals for Area of Interest			**0.9**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

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Appendix E

NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001

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NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature

Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

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PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System ("NPDES")* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* ("SWPPP") the reason(s) for the

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deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

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listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharges*.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

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(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

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For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

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calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

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c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

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d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

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E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

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operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

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8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

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(i) No Affect
(ii) No Adverse Affect
(iii) Executed Memorandum of Agreement, or

d. Documentation that:

(i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharge*s from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

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B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

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must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

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b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

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use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

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regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

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operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

    a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

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b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

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the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

    a. Background information about the scope of the project, including the location, type and size of project

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b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

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schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

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b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

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3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

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begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

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in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

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d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

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a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

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l. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

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b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

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b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

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Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

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E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

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(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

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superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

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include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner’s or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

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3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

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R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

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APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

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Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "*Construction Activity(ies)*" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for "*Commence (Commencement of) Construction Activities"* and "*Larger Common Plan of Development or Sale" also.*

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

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and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

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Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term "plan" in "larger common plan of development or sale" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

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New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

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Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

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SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

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Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

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training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

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APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

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Table 1 (Continued) Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

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Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

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Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

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APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

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Appendix C

Figure 1 - New York City Watershed East of the Hudson

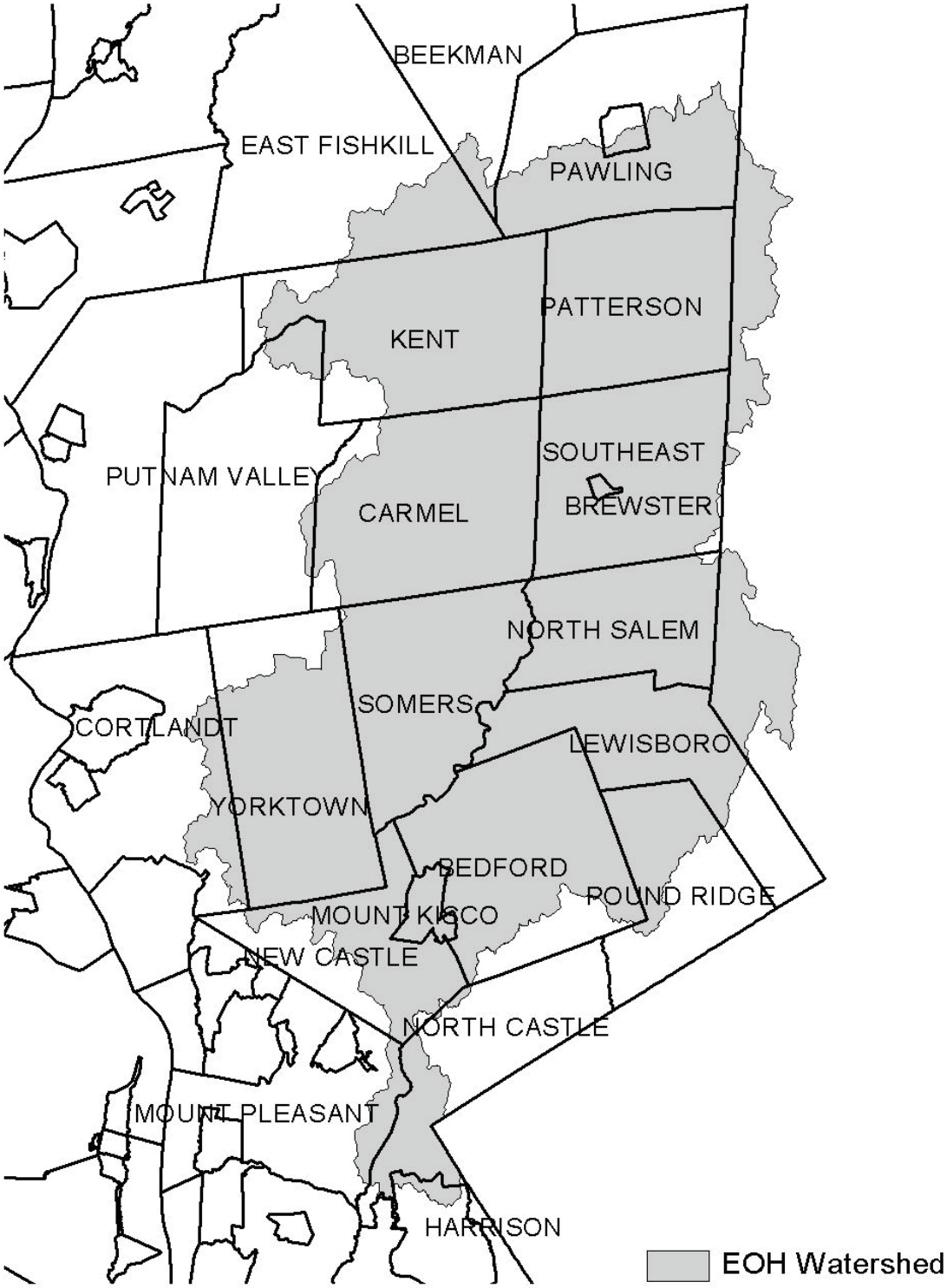

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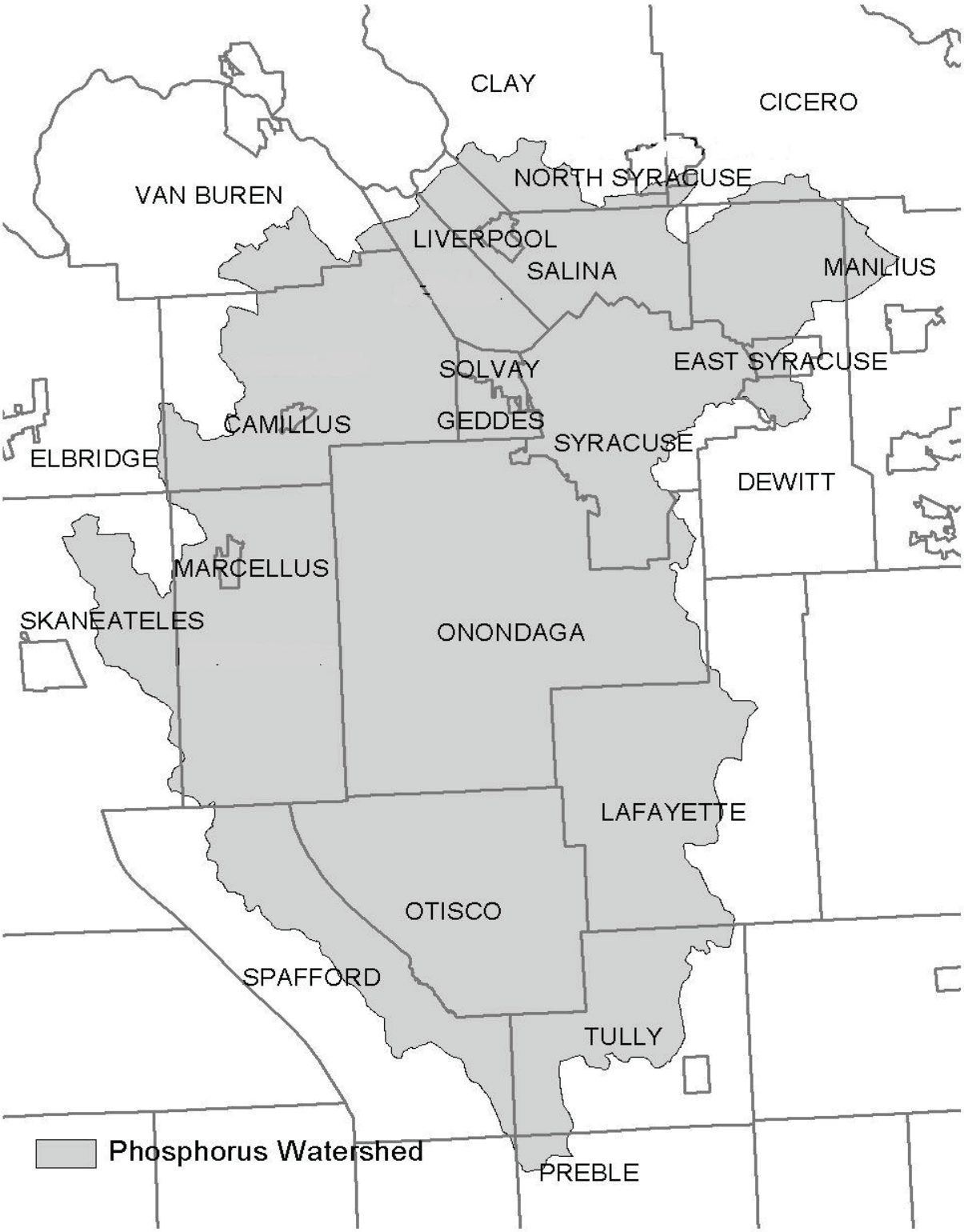
Figure 2 - Onondaga Lake Watershed



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Appendix C

Figure 3 - Greenwood Lake Watershed



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Figure 4 - Oscawana Lake Watershed

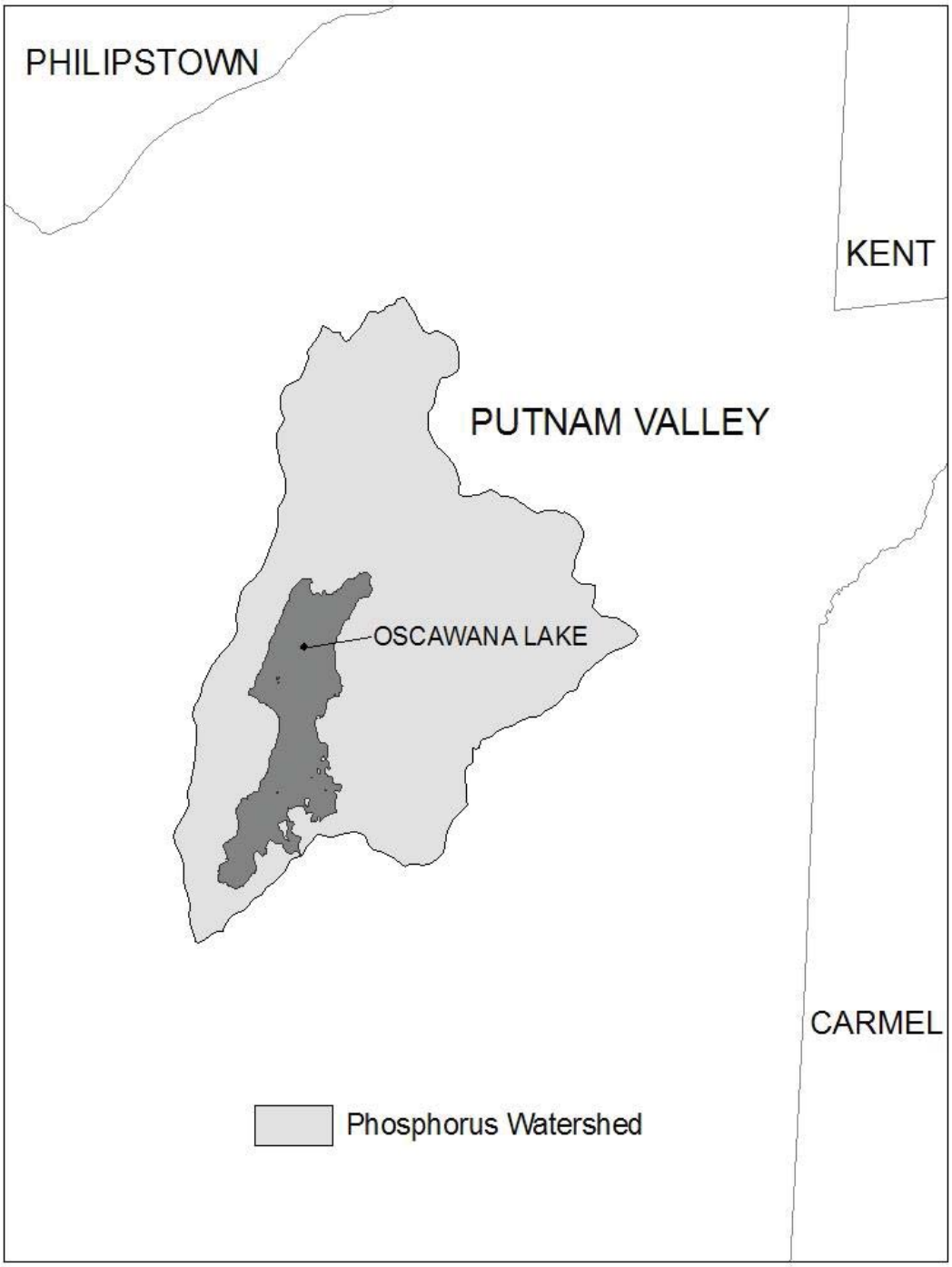

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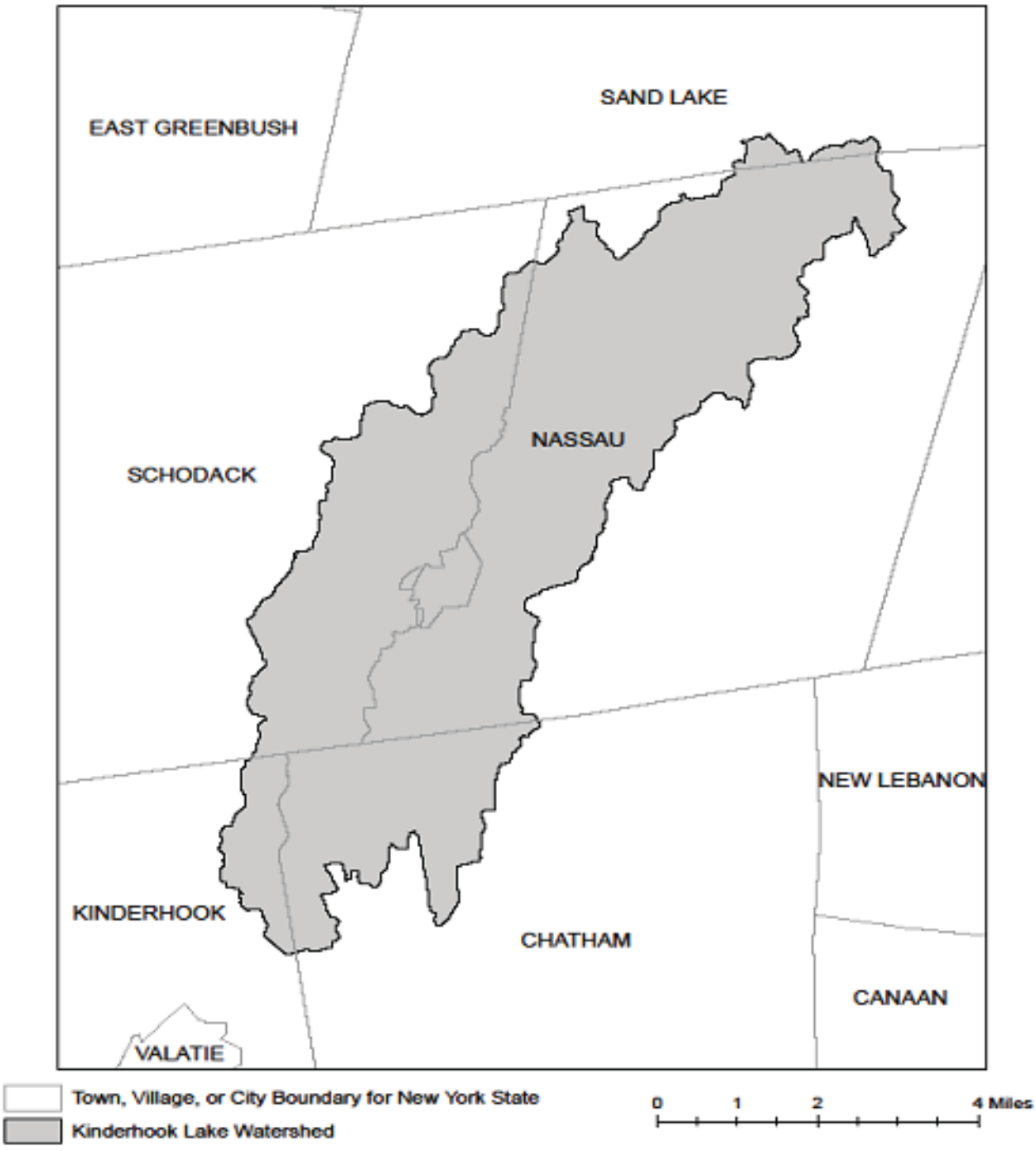
Figure 5 - Kinderhook Lake Watershed



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APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

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APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

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303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

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APPENDIX F – List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	100 Hillside Avenue, Suite 1W White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Appendix F

Forms

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN

CONTRACTOR'S CERTIFICATION LOG

FORM SWPPP-1

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Company Name _____
Address

Contact Name _____
Telephone Number
Cell Phone/Pager

Scope of Services _____

Certification Date _____

Company Name _____
Address

Contact Name _____
Telephone Number
Cell Phone/Pager

Scope of Services _____

Certification Date _____

Company Name _____
Address

Contact Name _____
Telephone Number
Cell Phone/Pager

Scope of Services _____

Certification Date _____

Contractor's Project Manager_____

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
CONTRACTOR'S CERTIFICATION STATEMENT

FORM SWPPP-2

Construction Site

STORM WATER POLLUTION PREVENTION PROGRAM

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

SUBCONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Note: The contractor shall have at least one NYSDEC trained individual onsite at all times when earthwork and other SWPPP associated work is being performed from each contractor(s) and subcontractor(s). Each contractor(s) and subcontractor(s) shall provide copies of these individuals' certifications to the Town of Orchard Park.

Name: _____
(Print)

Signature: _____

Title: _____

Company Name: _____

Address: _____

Telephone Number: _____

Date: _____

Scope of Services: _____

Contractor's Project Manager_____

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" of the NYSDEC SPDES General Permit

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION REPORT (Page 1 of 2)

FORM SWPPP-3

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Inspections/reports are required at least once every seven (7) calendar days.

Inspection Type: ☐ **Routine (every 7 calendar days)** ☐ **Routine (every 30 calendar days)** ☐ **Storm**

Date: _____ Week Ending: _____

Weather/Storm Event Information:

Storm Start Time: _____ Storm Duration: _____

Time Elapsed Since Last Storm: _____ Approximate Amount of Rainfall (inches): _____

Based on the results of the inspection, necessary control modifications shall be implemented within seven (7) calendar days. These reports shall be kept on file as part of the Storm Water Pollution Prevention Plan for at least five (5) years from the date of completion and submission of the Final Stabilization Certification/Termination Checklist and Notice of Termination. A copy of the SWPPP shall be kept at the site at all times during construction.

Certification Statement:
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name of Inspector: _____ Title of Inspector: _____

Qualifications of Inspector: _____

_____

Inspector's Signature: _____

Construction phasing/sequencing is consistent with the SWPPP and Erosion Control Plans: ☐ **Yes** ☐ **No**

Compliance Certification
I certify that, based on no incidents of non-compliance identified during the inspection, the site is in compliance with the SWPPP and the Construction General Permit.

Name of Operator's Duly Authorized Representative (Printed): _____

Signature of Operator's Duly Authorized Representative: _____

Date: _____

*Note: This Compliance Certification is only to be signed by the Operator's Duly Authorized Representative (Project Manager) when there are no **"unsatisfactory" conditions and the construction phasing/sequencing is consistent with the SWPPP, rendering the site in full compliance with** the SWPPP and the Construction General Permit.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Form SWPPP-3 Continued

Inspection Areas (Structural)	Satisfactory	Unsatisfactory (provide location or numeric identification per plan sheet)	N/A	Corrective Action Required	Implementation Date of Corrective Action
Construction Entrance/Exit					
Perimeter Silt Fence					

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Contractor's Project Manager_____

STORM WATER POLLUTION PREVENTION PLAN

Stabilization Schedule for Major Grading Activities

FORM SWPPP-4

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

*This form should be updated as necessary

Major Grading Activity/Area to be Stabilized	Begin Date	Date Activity Temporarily Ceased / Date Activity Resumed	Date Temporary Stabilization Measures Initiated and Method of Stabilization (if activities cease for more than 14 days, this column must be completed)	Date Activity Permanently Ceased	Date Permanent Stabilization Measures Initiated	Permanent Stabilization Measure(s) Used (i.e., stone, seeded, rolled, tracked)	Name of Contractor Responsible for Implementing Stabilization Measures
Construction Entrance(s)/Exit(s)							
Seeded, Landscaped Areas							

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Major Grading Activity/Area to be Stabilized	Begin Date	Date Activity Temporarily Ceased / Date Activity Resumed	Date Temporary Stabilization Measures Initiated and Method of Stabilization (if activities cease for more than 14 days, this column must be completed)	Date Activity Permanently Ceased	Date Permanent Stabilization Measures Initiated	Permanent Stabilization Measure(s) Used (i.e., stone, seeded, rolled, tracked)	Name of Contractor Responsible for Implementing Stabilization Measures

FORM SWPPP-4 CONTINUED

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN

FINAL STABILIZATION CERTIFICATION /NOTICE OF TERMINATION CHECKLIST

FORM SWPPP-5

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

1. ☐ **All soil disturbing activities are complete.**

2. ☐ **Temporary Erosion and Sediment Control Measures have been removed or will be removed at the appropriate time.**

3. ☐ **All areas of the Construction Site not otherwise covered by a permanent pavement or structure have been stabilized with a uniform perennial vegetative cover with a density of 85% or equivalent measures have been employed.**

CONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Company Name _____

Name (Print) _____

Signature _____

Title _____

Date _____

Contractor's Project Manager _____

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

YEAR 20___

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226
STORM WATER POLLUTION PREVENTION PLAN
PROJECT RAINFALL LOG

FORM SWPPP-6

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Day												
1												
2												
3												
4												
5												
6												
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31												
PM Initials												

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
MODIFICATION REPORT

FORM SWPPP-7

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

CHANGES REQUIRED FOR STORM WATER POLLUTION PREVENTION PLAN

The SWPPP must be amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has a significant effect on the discharge of pollutants to the waters of the United States that has not been previously addressed in the SWPPP, if inspections or investigations by site staff, local, state or federal officials determine that discharges are causing water quality exceedances or the SWPPP is ineffective in eliminating or significantly minimizing pollutants in storm water discharges from the construction site, or based on the results of an inspection, the SWPPP must be modified to include additional or modified BMPs designed to correct identified problems. Revisions must be completed within seven (7) calendar days following the inspection.

To:	**Project Manager**	**Date:**	
Address:			
Telephone:			
Facsimile:			
Sent Via:	☐ **Facsimile**	☐ **Courier**	☐ **US Mail**

INSPECTOR: _____ DATE: _____
(Print)

_____
(Signature)

QUALIFICATIONS OF INSPECTOR: _____

CHANGES REQUIRED TO THE STORMWATER POLLUTION PREVENTION PLAN: _____

_____

_____

REASONS FOR CHANGES: _____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

Contractor's Project Manager: _____

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
MONTHLY TRAINING LOG

FORM SWPPP-8

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Storm Water Pollution Prevention Plan Topic: (Check as appropriate)

☐ **Temporary Soil Stabilization**
☐ **Temporary Sediment Control**
☐ **Wind Erosion Control**
☐ **Tracking Control**
☐ **Non-Storm Water Management**
☐ **Waste Management and Materials Pollution Control**
☐ **Erosion & Sediment Control Plan**

Specific Training Objective: _____

Date: _____

Instructor: _____
Location: _____
Telephone: _____

Attendance Roster

Name	Company	Telephone Number	Signature

Contractor's Project Manager _____

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
REPORTABLE QUANTITY RELEASE FORM

FORM SWPPP-9

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

The discharges of hazardous substances or oil in storm water discharges from construction sites must be prevented or minimized in accordance with the SWPPP. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under 40CFR110, 40CFR117 and 40CFR302 occurs, the following steps must be taken:

1. All measures must be taken to contain and abate the spill and to prevent the discharge of the pollutant(s) to storm water or off-site.

2. Notice must be provided to the National Response Center (NRC) at 1-800-424-8802 and the NYSDEC in accordance with regulations referenced above as soon as site staff has knowledge of the discharge.

3. Contact the Project Manager or Engineer of Record immediately upon knowledge of release.

4. The SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The plans must identify measures to prevent the recurrence of such releases and to respond to such releases.

Date of Spill	Material Spilled	Approximate Quantity of Spill (in gallons)	Agency(s) Notified	Date of Notification	SWPPP Revision Date

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
IMPLEMENTATION SCHEDULE

FORM SWPPP-10

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

*To be completed prior to initiation of construction by the contractor.

The Contractor will be responsible for implementing all erosion control and storm water management control structures. The Contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor.

Refer to Section 812.3 for Sequence of Activities

Construction Activity	Proposed Initiation Date	Proposed Completion Date	Contractor Responsible for Implementation

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
SIGNATORY AUTHORIZATION DESIGNATION

FORM SWPPP-11

Construction Site

STORMWATER POLLUTION PREVENTION PLAN

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

"In accordance with the **NYSDEC SPDES General Permit for Storm Water Discharges from Construction Activities, Part V, paragraph H, Signatory Requirements**, _____is hereby duly authorized to sign on my behalf, all reports and certifications that are required under the Permit and as part of this Storm Water Pollution Prevention Plan."

Signed: _____

Printed Name: _____

Title: _____

Company Name: _____

Address: _____

Telephone Number: _____

Date: _____

Note: Multiple designation forms may be required
(i.e., one from the Operator and one from the General Contractor).

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges From Construction Activity (GP-0-20-001)

Project Site Information

Project/Site Name

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Owner/Operator Information

Owner/Operator (Company Name/Private Owner/Municipality Name)

Benderson Development Company, LLC - 570 Delaware Ave - Buffalo, NY 14202

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Christopher		Wood
First name	MI	Last Name

Signature 

5/20/22
Date

Revised: January 2020

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

eNOI Submission Number: _____

eNOI Submitted by: ☐ **Owner/Operator** ☑ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Owner/Operator First Name M.I. Last Name

_____

Signature

_____

Date

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Appendix G

NYSDEC Notice of Termination (NOT)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:	
Title/Position:	
Signature:	Date:

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Appendix H

Stormwater Management Pond and Bioretention Construction and Maintenance Checklist

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Stormwater/Wetland Pond Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
Pre-Construction/Materials and Equipment		
Pre-construction meeting		
Pipe and appurtenances on-site prior to construction and dimensions checked		
1. Material (including protective coating, if specified)		
2. Diameter		
3. Dimensions of metal riser or pre-cast concrete outlet structure		
4. Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans		
5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope		
6. Number and dimensions of prefabricated anti-seep collars		
7. Watertight connectors and gaskets		
8. Outlet drain valve		
Project benchmark near pond site		
Equipment for temporary de-watering		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
2. Subgrade Preparation		
Area beneath embankment stripped of all vegetation, topsoil, and organic matter		
3. Pipe Spillway Installation		
Method of installation detailed on plans		
A. Bed preparation		
Installation trench excavated with specified side slopes		
Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation)		
Invert at proper elevation and grade		
B. Pipe placement		
Metal / plastic pipe		
1. Watertight connectors and gaskets properly installed		
2. Anti-seep collars properly spaced and having watertight connections to pipe		
3. Backfill placed and tamped by hand under “haunches” of pipe		
4. Remaining backfill placed in max. 8 inch lifts using small power tamping equipment until 2 feet cover over pipe is reached		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
3. Pipe Spillway Installation		
Concrete pipe		
1. Pipe set on blocks or concrete slab for pouring of low cradle		
2. Pipe installed with rubber gasket joints with no spalling in gasket interface area		
3. Excavation for lower half of anti-seep collar(s) with reinforcing steel set		
4. Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant		
5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix		
6. Upper half of anti-seep collar(s) formed with reinforcing steel set		
7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary.		
C. Backfilling		
Fill placed in maximum 8 inch lifts		
Backfill taken minimum 2 feet above top of anti-seep collar elevation before traversing with heavy equipment		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
4. Riser / Outlet Structure Installation		
Riser located within embankment		
A. Metal riser		
Riser base excavated or formed on stable subgrade to design dimensions		
Set on blocks to design elevations and plumbed		
Reinforcing bars placed at right angles and projecting into sides of riser		
Concrete poured so as to fill inside of riser to invert of barrel		
B. Pre-cast concrete structure		
Dry and stable subgrade		
Riser base set to design elevation		
If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely		
Watertight and structurally sound collar or gasket joint where structure connects to pipe spillway		
C. Poured concrete structure		
Footing excavated or formed on stable subgrade, to design dimensions with reinforcing steel set		
Structure formed to design dimensions, with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
Forms stripped & inspected for “honeycomb” prior to backfilling; parge if necessary		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Embankment Construction		
Fill material		
Compaction		
Embankment		
1. Fill placed in specified lifts and compacted with appropriate equipment		
2. Constructed to design cross-section, side slopes and top width		
3. Constructed to design elevation plus allowance for settlement		
6. Impounded Area Construction		
Excavated / graded to design contours and side slopes		
Inlet pipes have adequate outfall protection		
Forebay(s)		
Pond benches		
7. Earth Emergency Spillway Construction		
Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc.		
Excavated to proper cross-section, side slopes and bottom width		
Entrance channel, crest, and exit channel constructed to design grades and elevations		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
8. Outlet Protection		
A. End section		
Securely in place and properly backfilled		
B. Endwall		
Footing excavated or formed on stable subgrade, to design dimensions and reinforcing steel set, if specified		
Endwall formed to design dimensions with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing, if necessary)		
Forms stripped and structure inspected for "honeycomb" prior to backfilling; parge if necessary		
C. Riprap apron / channel		
Apron / channel excavated to design cross-section with proper transition to existing ground		
Filter fabric in place		
Stone sized as per plan and uniformly place at the thickness specified		
9. Vegetative Stabilization		
Approved seed mixture or sod		
Proper surface preparation and required soil amendments		
Excelsior mat or other stabilization, as per plan		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
10. Miscellaneous		
Drain for ponds having a permanent pool		
Trash rack / anti-vortex device secured to outlet structure		
Trash protection for low flow pipes, orifices, etc.		
Fencing (when required)		
Access road		
Set aside for clean-out maintenance		
11. Stormwater Wetlands		
Adequate water balance		
Variety of depth zones present		
Approved pondscaping plan in place Reinforcement budget for additional plantings		
Plants and materials ordered 6 months prior to construction		
Construction planned to allow for adequate planting and establishment of plant community (April-June planting window)		
Wetland buffer area preserved to maximum extent possible		

Comments:

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Actions to be Taken:

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Bioretention Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
If designed as exfilter, soil testing for permeability		
Facility location staked out		
2. Excavation		
Size and location		
Lateral slopes completely level		
If designed as exfilter, ensure that excavation does not compact susoils.		
Longitudinal slopes within design range		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
3. Structural Components		
Stone diaphragm installed correctly		
Outlets installed correctly		
Underdrain		
Pretreatment devices installed		
Soil bed composition and texture		
4. Vegetation		
Complies with planting specs		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
5. Final Inspection		
Dimensions		
Proper stone diaphragm		
Proper outlet		
Soil/ filter bed permeability testing		
Effective stand of vegetation and stabilization		
Construction generated sediments removed		
Contributing watershed stabilized before flow is diverted to the practice		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Comments:

Actions to be Taken:

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Project _____
Location: _____
Site Status: _____

Date: _____
Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After Major Storms)		
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam “As-Built”		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)		
Type: Reinforced concrete _____ Corrugated pipe _____ Masonry _____ 1. Low flow orifice obstructed		
2. Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
3. Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
5. Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
8. Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (monthly)		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual , After Major Storms)		
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
1. Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
2. Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
4. Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants “choked” with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		

Comments:

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Actions to be Taken:

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Bioretention Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Bioretention and contributing areas clean of debris		
No dumping of yard wastes into practice		
Litter (branches, etc.) have been removed		
2. Vegetation (Monthly)		
Plant height not less than design water depth		
Fertilized per specifications		
Plant composition according to approved plans		
No placement of inappropriate plants		
Grass height not greater than 6 inches		
No evidence of erosion		
3. Check Dams/Energy Dissipaters/Sumps (Annual, After Major Storms)		
No evidence of sediment buildup		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Sumps should not be more than 50% full of sediment		
No evidence of erosion at downstream toe of drop structure		
4. Dewatering (Monthly)		
Dewaters between storms		
No evidence of standing water		
5. Sediment Deposition (Annual)		
Swale clean of sediments		
Sediments should not be > 20% of swale design depth		
6. Outlet/Overflow Spillway (Annual, After Major Storms)		
Good condition, no need for repair		
No evidence of erosion		
No evidence of any blockages		
7. Integrity of Filter Bed (Annual)		
Filter bed has not been blocked or filled inappropriately		

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Comments:

Actions to be Taken:

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Appendix I

Construction Documents

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

PROPOSED SITE DEVELOPMENT

Main St. / Chateau Terrace / Fruehauf Ave.

4548 - 4564 Main St, Amherst, NY

BDC Property # 5202

SITE DEVELOPMENT DRAWINGS

INDEX OF DRAWINGS

DWG. #	DRAWING NAME	REVISION	DATE
C1.0	COVER SHEET	3	12.14.2022
C2.0	EXISTING SURVEY		
C3.0	DEMOLITION & EROSION CONTROL PLAN	3	12.14.2022
C3.1	BORING LOCATION PLAN	3	12.14.2022
C3.2	DEMOLITION & EROSION CONTROL DETAILS	3	12.14.2022
C4.0	OVERALL SITE PLAN	3	12.14.2022
C4.1	DETAILED SITE PLAN	3	12.14.2022
C4.2	CONSTRUCTION DETAILS	3	12.14.2022
C5.0	GRADING PLAN	3	12.14.2022
C5.1	DRAINAGE PLAN	3	12.14.2022
C5.2	DRAINAGE DETAILS	3	12.14.2022
C6.0	UTILITY PLAN	3	12.14.2022
C6.1	UTILITY DETAILS	3	12.14.2022
C7.0	LANDSCAPE PLAN	3	12.14.2022
C8.0	LIGHTING PLAN	3	12.14.2022
C8.1	LIGHTING DETAILS	3	12.14.2022

OWNER/DEVELOPER:

NAME: BENDERSON DEVELOPMENT COMPANY, LLC
ADDRESS: 570 DELAWARE AVENUE, BUFFALO, NY 14202
CONTACT: DAVID ZUPPELLI
PHONE: 716 - 878 - 9683

BENDERSON DEVELOPMENT COMPANY, LLC
570 Delaware Ave.
Buffalo, New York 14202

SURVEYOR

NAME: MILLARD, MACKAY & DELLES LAND SURVEYORS, LLP
ADDRESS: 150 AERO DRIVE BUFFALO, NY 14225
CONTACT: FRANCIS C. DELLES
PHONE: 716-631-5140

UTILITIES:

WATER DEPARTMENT
NAME/TITLE: ADAM MASSARO
COMPANY/DEPT: ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION RD, CHEEKTOWAGA, NY
PHONE: 716 - 685-8207

DIG SAFELY NEW YORK
PHONE: 1 - 800 - 962 - 7962 OR (811)

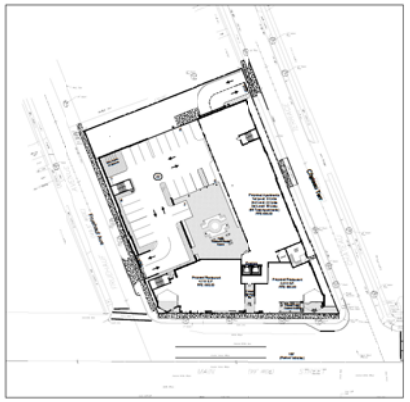
AGENCIES:

ENGINEERING DEPARTMENT
NAME/TITLE: JEFF BURROUGHS
COMPANY/DEPT: TOWN OF AMHERST, NY - ENGINEERING DPT
ADDRESS: 1100 NORTH FOREST RD, WILLIAMSVILLE, NY
PHONE: 716 - 631 - 7154 EX 7418

BUILDING & PLUMBING DEPARTMENT
NAME/TITLE: -
COMPANY/DEPT: TOWN OF AMHERST, NY - BUILDING DPT
ADDRESS: 5583 MAIN STREET, WILLIAMSVILLE, NY 14221
PHONE: 716 - 631 - 7080

NYSDOT - HIGHWAY & UTILITY PERMITS
NAME/TITLE: ALFRED I. OYOYO, ASSISTANT RESIDENT ENGINEER
COMPANY/DEPT: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NORTH ERIE RESIDENCY)
ADDRESS: 111 INDIAN ROAD, DEPEW, NEW YORK 14043
PHONE: 716 - 683 - 3476 (EXT - 27)

SITE LOCATION MAP 1"=60'



REGIONAL LOCATION MAP NTS



OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	05.23.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:
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NOTICE
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811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: --

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

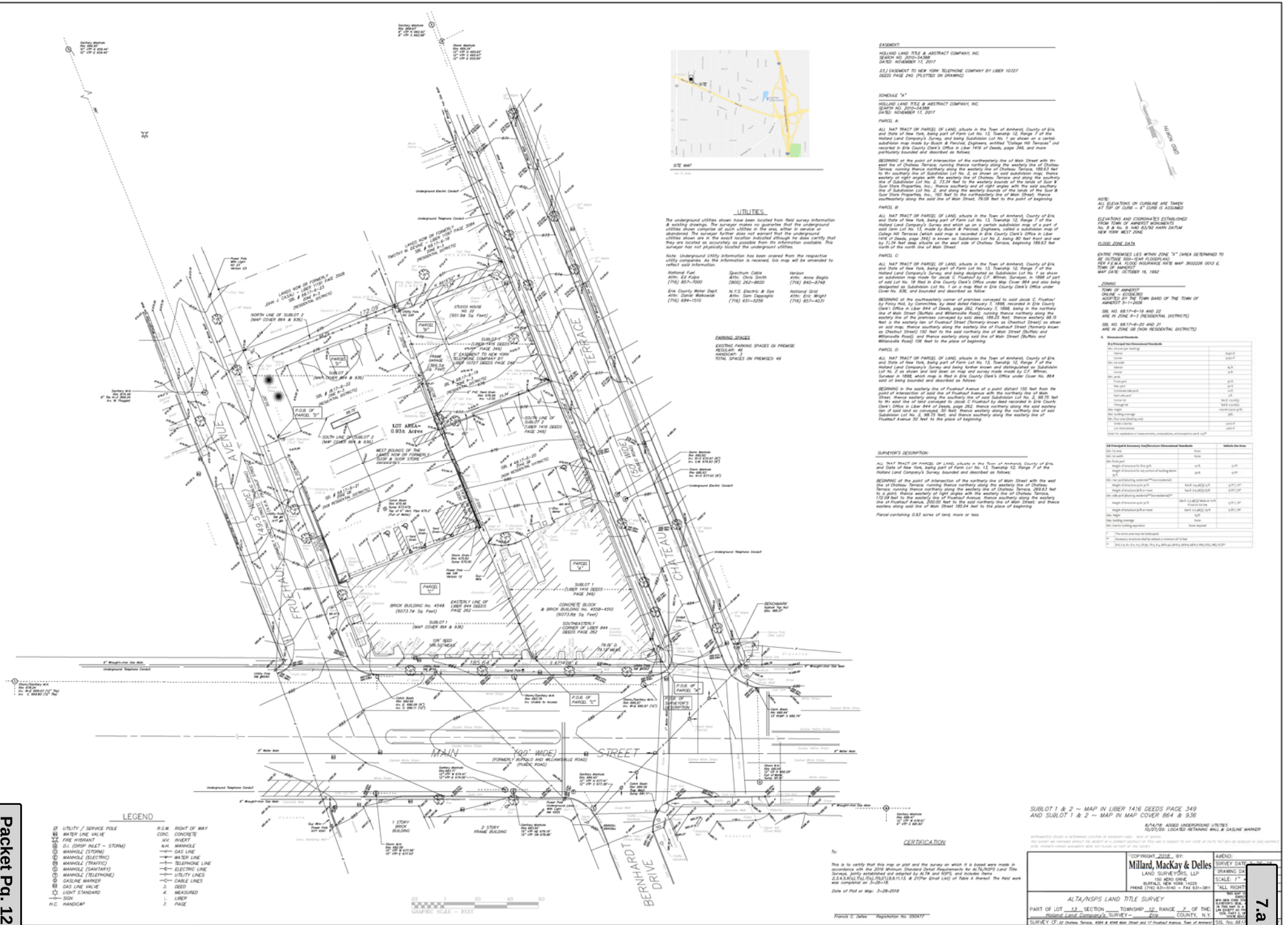
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE: COVER SHEET

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C1.0

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



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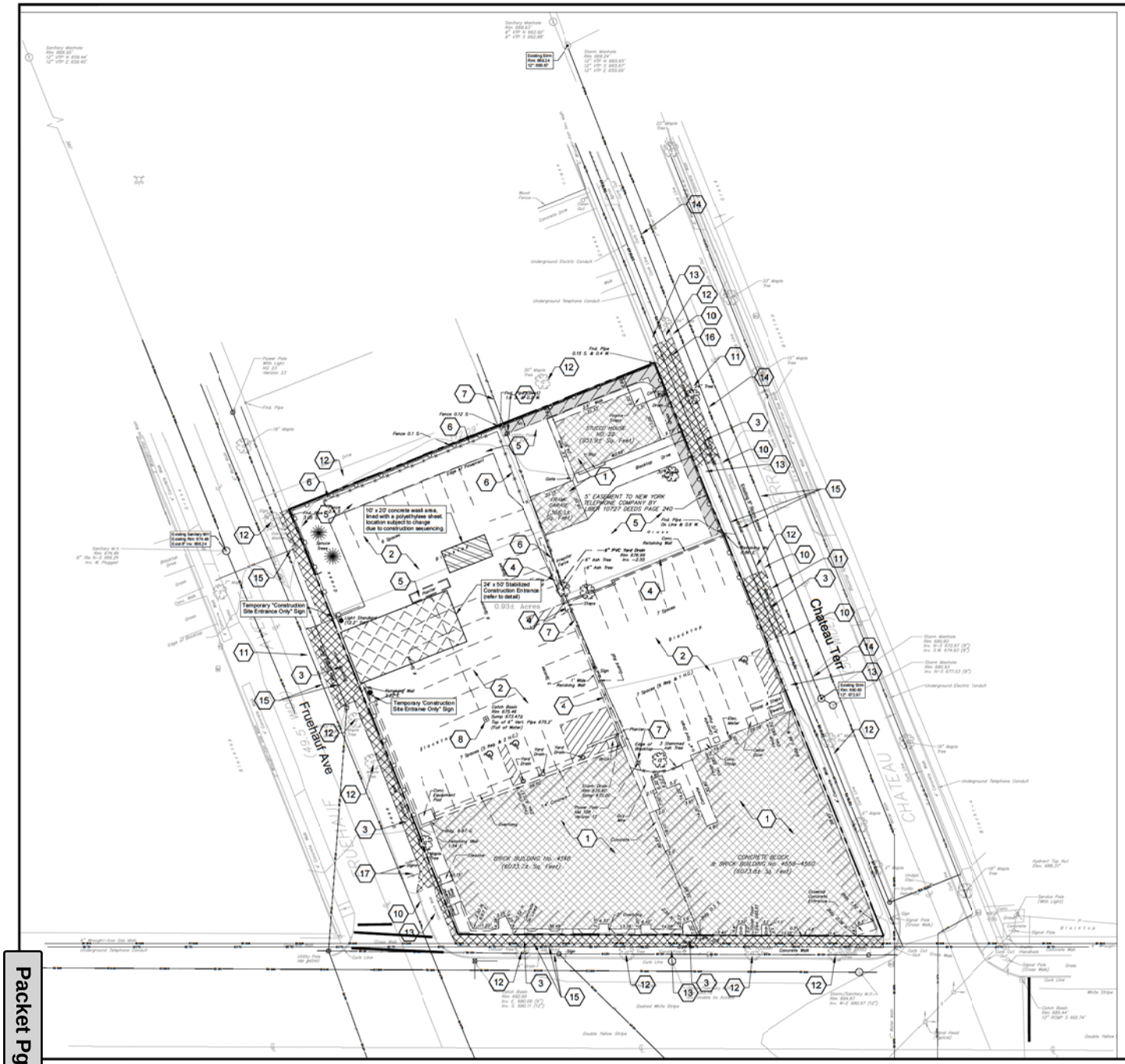

GENERAL NOTES:
1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONING.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (#1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (#1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DEMOLITION & EROSION NOTES:
1. USE ENTRANCE FROM FRUEHAUF AVE. FOR CONSTRUCTION ENTRANCE
2. INSTALL TEMPORARY EROSION CONTROL DEVICES AS DIRECTED WITHIN THE WORKING AREA TO PREVENT SEDIMENT MIGRATION. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS PROVIDED.
3. ALL EROSION CONTROL DEVICES SHALL BE REPLACED WHEREVER THEY BECOME INOPERABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
5. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION, DURING EARTHWORK OPERATIONS, WATER-SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR, AND WATER SPREAD AS NECESSARY AND AS DIRECTED IN ORDER TO CONTROL DUST.
6. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED AND ROAD SURFACES CLEANED BY THE CONTRACTORS ON A DAILY BASIS, OR MORE FREQUENTLY IF DEEMED NECESSARY.
7. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM OF 4" DEPTH AND SEEDED IMMEDIATELY AFTER FINE GRADING TAKES PLACE AND AS SOON AS PHYSICALLY POSSIBLE.
8. THE CONTRACTOR IS RESPONSIBLY FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES AND CULVERTS. SILT BUILDUP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS, DETENTION PONDS, BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR CITY.
9. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE ALL GRADING WORKS ARE COMPLETE.

DEMOLITION LEGEND:
- Property Line
- Existing Electric
- Existing Gas
- Existing Water
- Existing Overhead Utility
- Existing Sanitary
- Existing Storm
- Existing Telecoms
- Saw Cut Line
- Silt Fence/Sock
- Inlet Protection "Sedi-Bag" or similar
- Existing Easement to be removed.
- Existing Building to be removed.

DEMOLITION NOTES:
1. Existing Buildings to be removed.
2. Existing Pavement to be removed.
3. Existing R.O.W. Driveway, Curb and Sidewalk to be removed.
4. Existing Retaining Wall and Steps to be removed.
5. Existing Landscape Area to be removed.
6. Existing Fence to be removed.
7. Existing Utility to be removed.
8. Existing Storm Drainage/CB to be removed.
9. Existing Sign to be removed.
10. Existing Curb to remain.
11. Existing Pavement to remain.
12. Existing Landscape area to remain.
13. Eising Sidewalk to remain.
14. Existing Storm Drainage/CB to remain and be protected during Construction.
15. Existing Utility to remain and be protected dering construction.
16. Existing Light Pole to remain and be poteded during construction.
17. Existing Sign to be relocated.

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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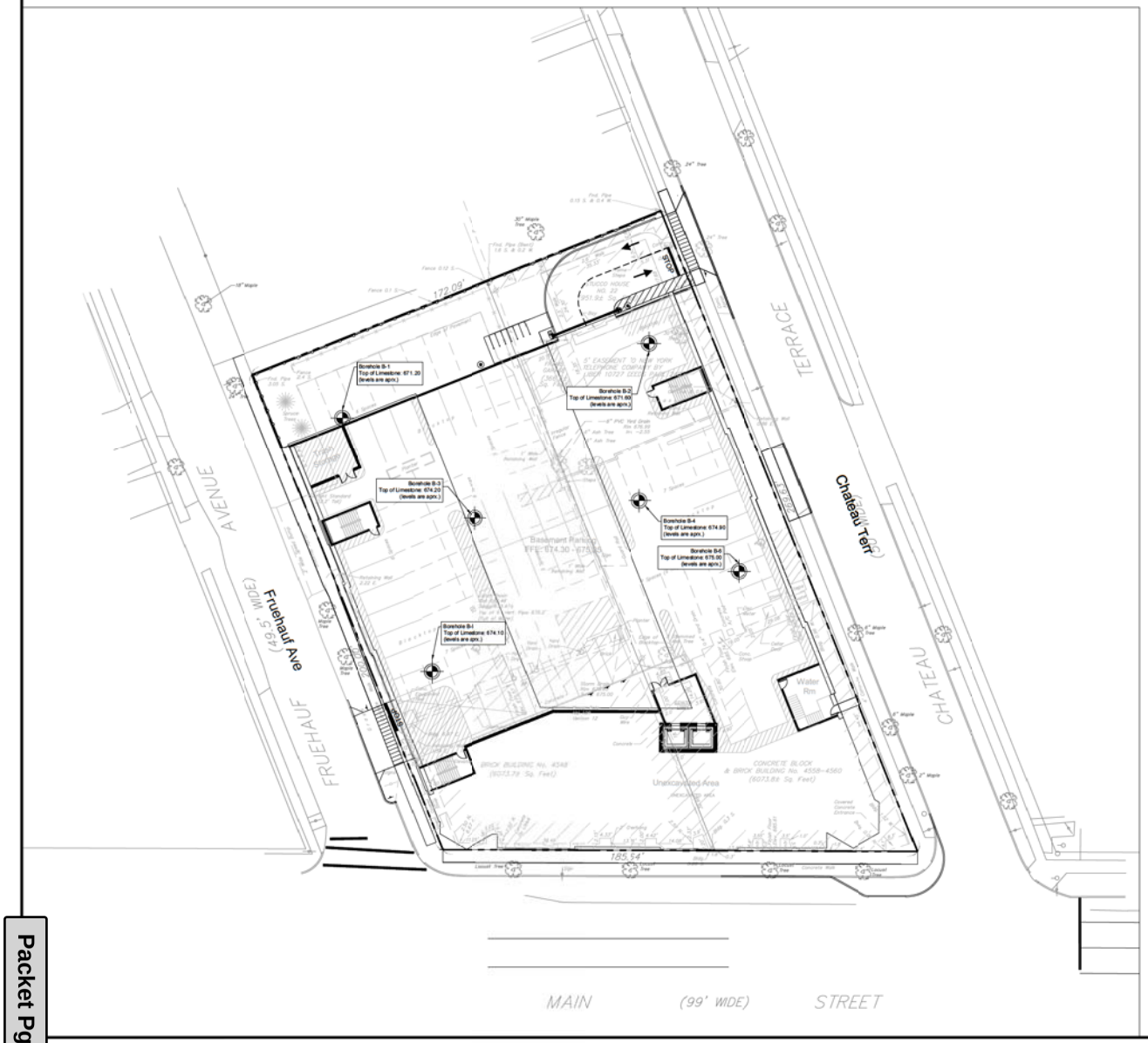
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE:
DEMO & EROSION CONTROL PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C3.0

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



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7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (#1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (#1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

BOREHOLE TEST NOTES:

BOREHOLE LOCATIONS ARE APPROXIMATE. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR LOCATIONS AND INFORMATION.

OFFICIAL TOWN USE ONLY

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4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE:

BORING LOCATION PLAN

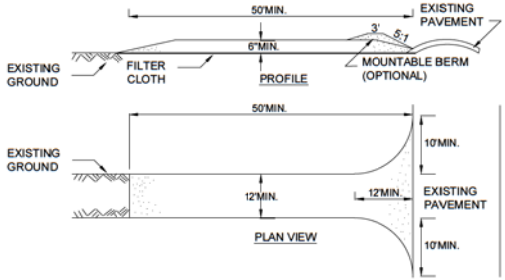
SCALE: 1:20

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

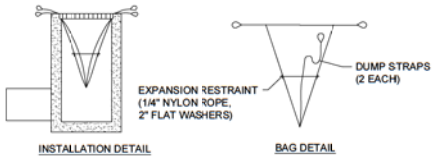
DRAWING NO.: C3.1

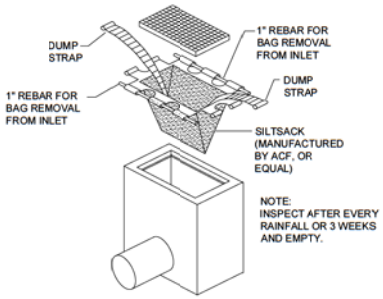


STABILIZED CONSTRUCTION ENTRANCE DETAIL

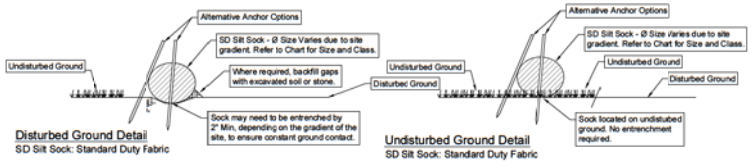
NOT TO SCALE

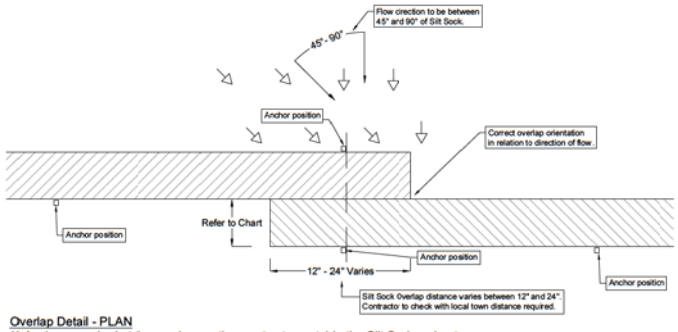
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.





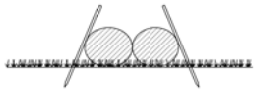
SILT SACK DETAIL
N.T.S.





Overlap Detail - PLAN

1) Anchors required at the overlap section are to stay outside the Silt Sock and not pierce through the material. See alternative anchor positons in details above.

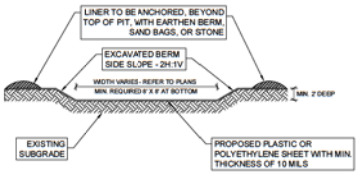


Anchor at Overlaped Ends - SECTION

Size & Class Chart			
	Diameter		
Gradient	8"	12"	18"
0 - 2%	30	55	75
2.1 - 5%	25	40	55
5.1 - 10%	15	30	40
10.1 - 33%	10	15	20
> 33%	5	10	15

SD SILT SOCK DETAIL

SD Silt Sock: Standard Duty Fabric



TYPICAL CONCRETE WASH OUT DETAIL

NOTES:
1. CONSTRUCT TO 2016 NYSDEC BLUE BOOK DESIGN CRITERIA

Notes:

1 - Do not use sock below the normal watermark or perpendicular to flow in river and where the maximum incline is greater than 50%.
2 - Contractors shoud be aware of federal, state and local laws, rules regulations or permit requirements for the use of Silt Socks on site.
3 - Sock should be positioned on the outline of the area to be protected, but must be installed between 45° to 90° from directions of flow.
4 - Sock may be required to be entrenched a minimum of 2" on disturbed ground to ensure constant ground contact.
5 - All gaps and ruts must be backfilled with soil or sock material.
6 - Sock overlap should be in the direction of the flow. Overlap amount will be between 12" and 24". Contractor to check with local town for requirements.
7 - If sediment collects to 1/2 the height of the sock, then a second sock may be stacked immediately up slope of the original instead of removing the sediment.
8 - Sock joint is where two sock sections meet on a level grade, overlap and adjoining ends, tightening the ends together, and anchoring through each end. Where two sections meet on un-level ground, j-hook higher elevated end, anchor, and begin new section just below. Back fill any gaps.
9 - Sock should be inspected and repaired as neeced.
10 - If ruts begin under the sock they should be backfilled with soil and compacted so that the ground and sock have continuous contact.
11 - If sock rolls out of place, the sock should be repositioned and secured with additional anchors.
12 - Tears in the Sock fabric may be repaired by wrapping a new piece of fabric over the sock and securing, or by place a second sock immediately up slope with the required overlap beyond deformation.
13 - A section of sock should be replaced whenever it has weakened to such an extent that the efficiency is reduced or diminished. Weakening can occur because the natural mesh fabric breaks down over time of from being moved/dragged on site.
14 - Sock should be replaced when sediment has built up and has been removed three times.
15 - All sediment in disturbed area next to sock must be removed and correctly disposed of before the sock can be removed.
16 - When removing, cut sock open and spread the filler material around. The neting should be removed from site.
17 - Sock should be installed before works commence on site.

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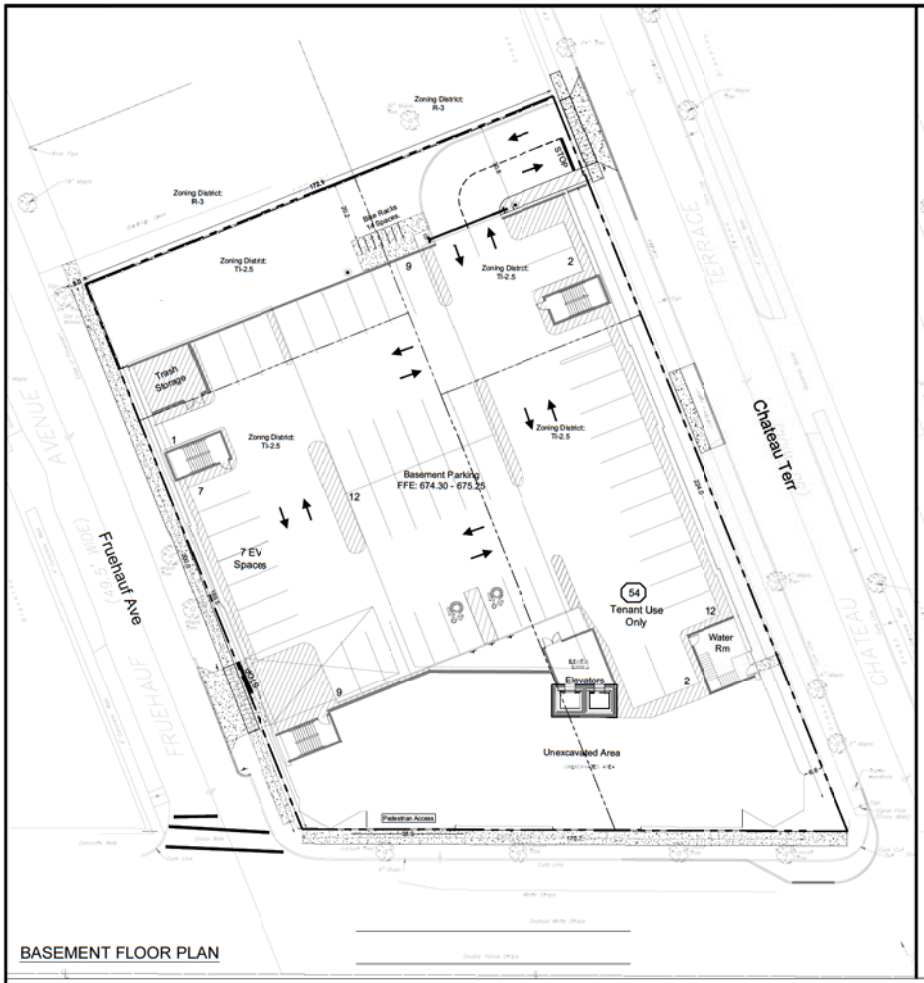
CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

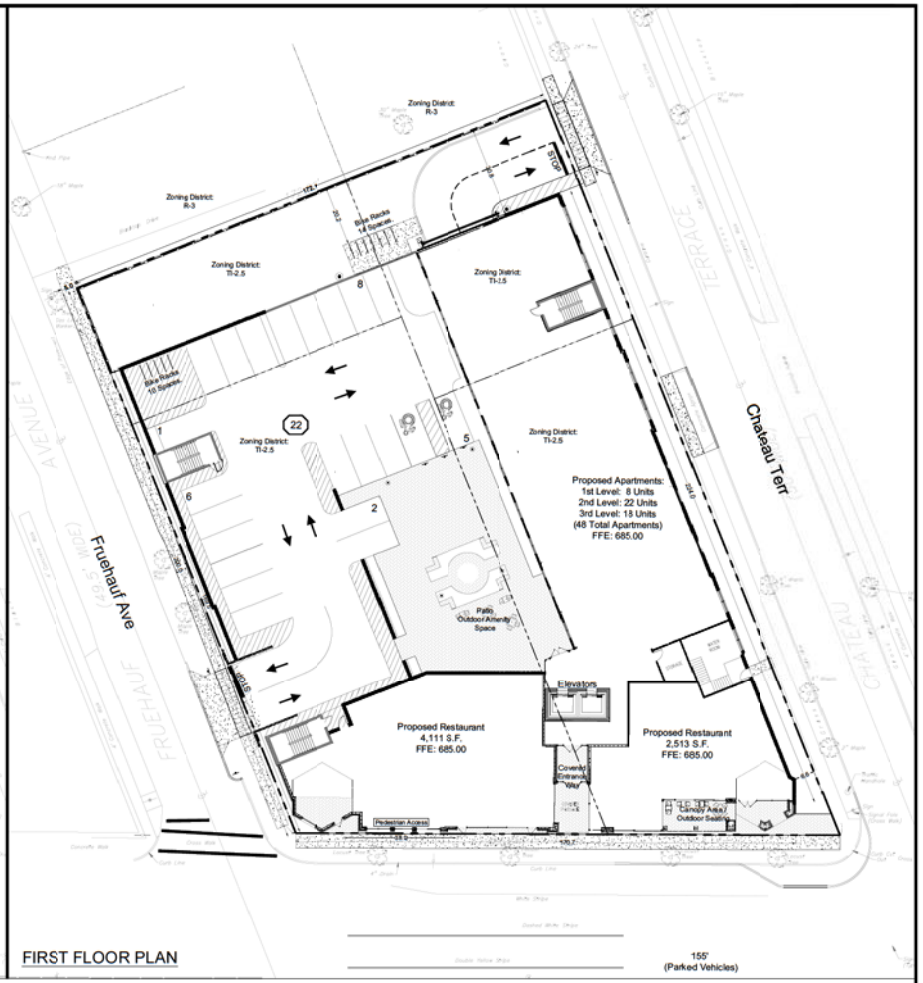
SEAL

TITLE: DEMOLITION & EROSION CONTROL DETAILS

SCALE: -
DRAWN BY: DMZ
DRAWING NO.: C3.0
CHECKED BY: JAR
DATE: 05.05.2022



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

155'
(Parked Vehicles)

TOWN OF AMHERST, NY ZONING ANALYSIS		
	REQUIRED	PROVIDED
ZONED	TI-2.5 (Village Frontage)	TI-2.5 (Village Frontage)
SA-1.3: TI-2.5 Traditional Infill 2.5 Section		
LOT		
Area	0 S.F. min.	40,409 S.F.
Width	0' min.	170.7'
Outdoor Amenity Space	10% min.	11.3% (4,500 S.F.)
At grade level	50% min. (See SA-7.1 B(2)	68.1% (2,825.1 S.F.)
Planted above ground level	25% min. (See SA-7.1 B(2)	31.9% (1,324.9 S.F.)
Seating	1 per 500 S.F. (4,500 / 500 = 9 Seats min.)	10 Seats
BUILDING SETBACKS		
Building-to-zone	Refer to Section 5A-2 Infill Frontages	
Lot Frontage	Refer to Section 5A-2 Infill Frontages	
Common lot line	0' min.	30.8' (North Side)
Alley	0' min.	N/A
PARKING SETBACKS		
Primary and Side Street	Refer to Section 5A-2 Infill Frontages (below)	
Common lot line	0' min.	30.8' (North Side)
Alley	5' min.	N/A
BUILDING HEIGHT		
Top Plate Height	2 Stories / 24' max.	-
Building Height	2.5 Stories / 35' max.	-
Roof Pitch	18:12 max.	-
BUILDING LENGTH	Refer to Section 5A-2 Infill Frontages (below)	
STORY HEIGHT	Refer to Section 5A-2 Infill Frontages (below)	

5A-2.4: Village Frontage		
BUILDING SETBACKS		
Build-to zone	0' min./10' max.	0.0'
Street Frontage:		
Front: Main Street	90% min.	92.0% (170.7')
Side: Fruehauf Ave	-	169.5' - 24' (parking entrance) = 145.5' (72.6%)
Side: Chateau Terr	-	83.1% (224')
PARKING SETBACKS		
Street	20' min.	30.8' (North Side)
BUILDING MASS		
Street facing building length:		
Front: Main Street	200' max.	170.7'
Fruehauf Ave	200' max.	169.5'
Chateau Terr	200' max.	224.0' (Exception 203-5A-2.4 E)
STORY HEIGHT		
Ground floor elevation	0' min. / 2' max.	0.0'
Ground story height	10' min.	-
Upper story height	9' min.	-
TRANSPARENCY		
Ground story	70% min.	1,345S.F./1,890 S.F. = 71.2%
Upper story	20% min.	430 S.F. / 1890 S.F. = 22.7%
Blank wall length	15' max.	7'
PEDESTRIAN ACCESS		
Street facing entrance	Required	Complies
Entrance spacing	50' max.	38'
STREETSCAPE		
Clear pedestrian zone	10' min.	
Curb zone	6' min.	9.8' Total - Existing Condition
Tree planting type	Grates	Noted. Existing
Tree spacing	38' on-center avg.	Noted. Existing

PROPOSED PARKING & BIKE ANAYLSIS TI-2.5 (Section 5A-9.1.A.(1))			
USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	4,624 sq ft / 1000 x 4 = 25 SPACES	
RESIDENTIAL (Upper-story)	1.0 x 48 Unit Beds = 48 SPACES; 1.5 x 2.0 Beds = 3 Spaces	Basement Parking: 54 Spaces; Ground Flr Parking: 22 Spaces	
		Total: 76 SPACES	Total: 76 SPACES
STALL SIZE		9'x19'	9'x19'
ELECTRIC CHARGING STATION			
10% of parking spaces to be EV ready. Min. 2 EV ready spaces to parking lots over 20 spaces. EV Ready defined as power be available at spaces in advanced		Basement Parking: 54 / 10 = 5 Spaces; Ground Floor Parking: 22 / 10 = 2 Spaces; Total: 7 Spaces	Basement Parking: 7 Spaces; Total: 7 Spaces
BIKE PARKING			
Residential Use: Short Term 0.5 space per unit min. 20 max.		0.5 x 48 = 24; 24 > 20 min. 20 SPACES	20 SPACES
Public Use: 1 per 3,000 S.F. min. 20 max.		5,638 S.F. / 3000 = 1.88 SPACES	4 SPaCES
		TOTAL: 23 SPACES	TOTAL: 24 SPACES

RESTAURANT: 4,111 S.F. +2,513 S.F.

1 BEDROOM APARTMENTS: 21 UNITS
2 BEDROOM APARTMENTS: 24 UNITS
3 BEDROOM APARTMENTS: 3 UNITS

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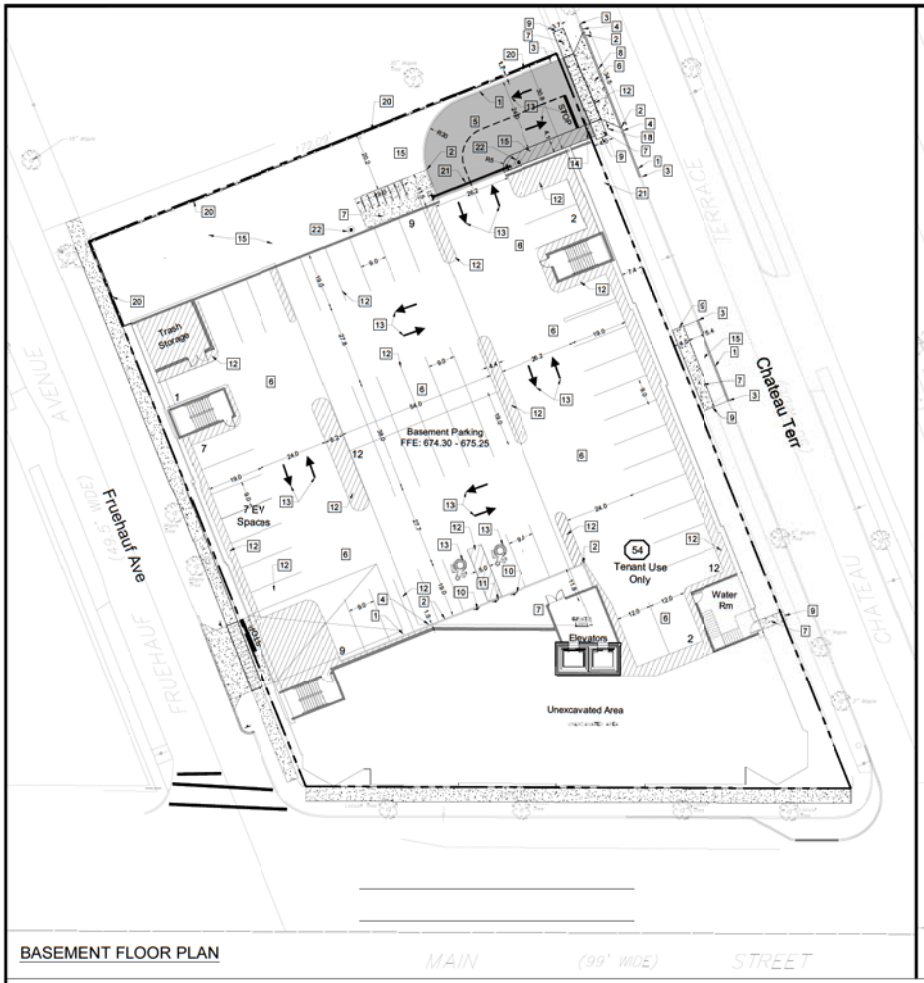
SEAL

TITLE:
ZONING SITE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C4.0
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



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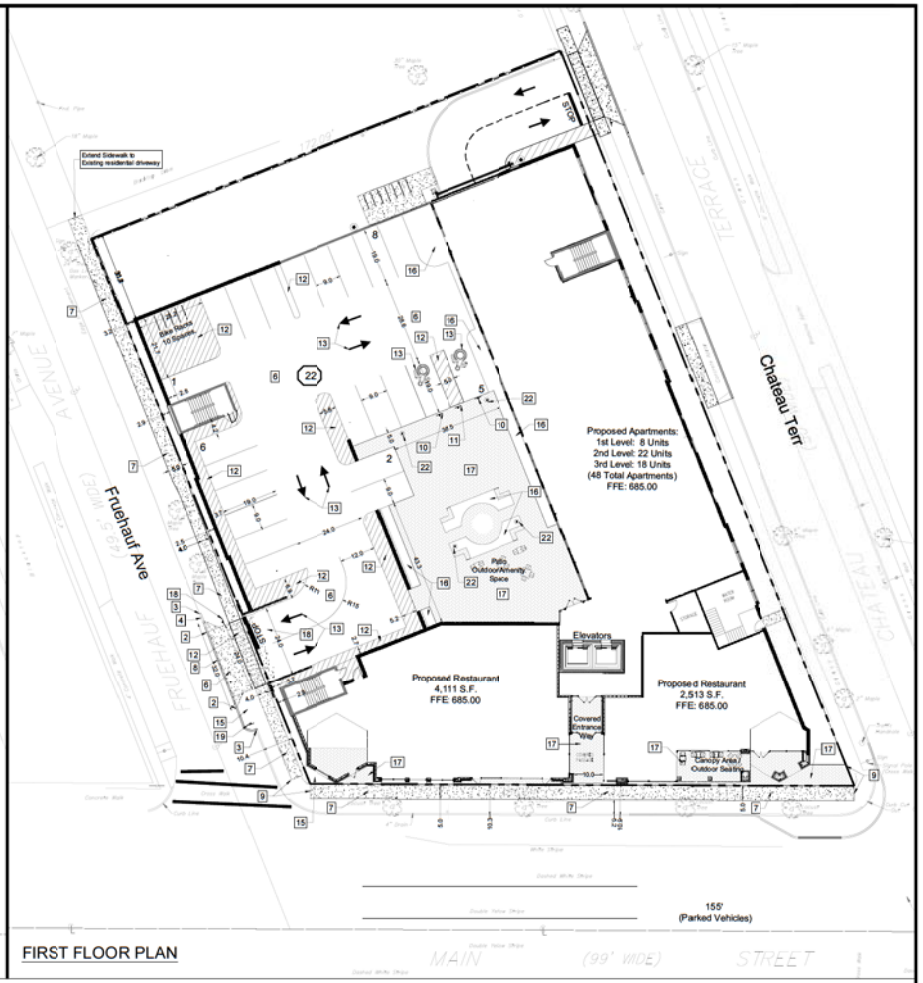

FIRST FLOOR PLAN

GENERAL NOTES:
1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS ANC BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
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13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:
- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed Concrete Pavement/Sidewalk (Concrete Floors/Deck not Hatched)
- Proposed HeavyDuty Pavement

* All curb radii are 3ft unless noted.
* Refer to General Notes, Construction Details and Architectural Plans for Concrete Sealer information.

SITE NOTES:
1. Proposed 6" concrete Curb.
2. Proposed Flush Concrete Curb.
3. Match into Existing Curb or runout over 2'.
4. Transitional curb.
5. Proposed Heavy Duty Pavement
6. Proposed Concrete Pavement.
7. Proposed Concrete Sidewalk.
8. Match into Existing Pavement.
9. Match into Existing Sidewalk
10. Proposed "Handicapped Parking Only" sign.
11. Proposed "No Parking" sign.
12. 4" white Pavement Stripe (at 2' c-c in no parking zones).
13. Proposed White Pavement symbol (stop bar, accessibility symbol, text).
14. Proposed "Stop" Sign.
15. Proposed Landscape Area.
16. Proposed Raised Landscape Area.
17. Proposed Pavers.
18. Proposed Overhead Enter/Exit Signs/Traffic Mirror. Refer to Architectural Plans.
19. Relocated Existing Signage.
20. Proposed 6ft High Solid Board Fence
21. Proposed Security Gate
22. Proposed Light Pole Base

* All curb Radii to be 3' unless otherwise noted.
* Refer to General Notes, Construction Details and Architectural Plans for Concrete Sealer information.

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SEAL

TITLE:
DETAILED SITE PLAN

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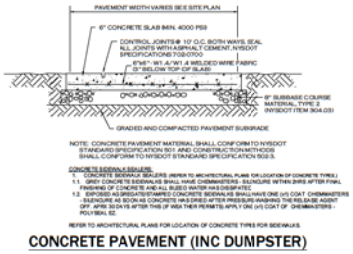
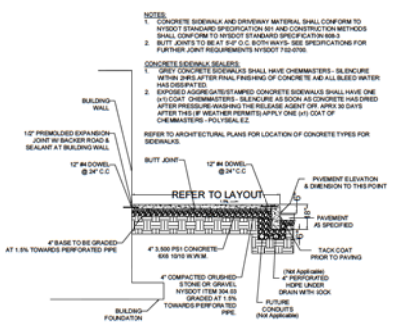
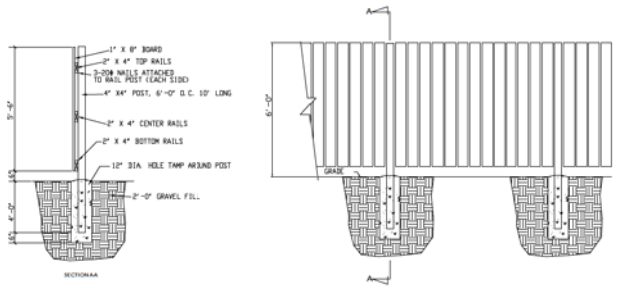


CONCRETE PAVEMENT (INC DUMPSTER)

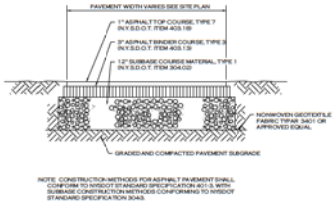


BUILDING SIDEWALK DETAIL

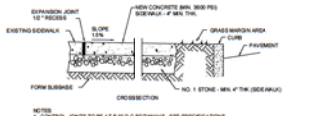
CONTRACTOR TO VERIFY WITH OWNER ON CURB DETAIL



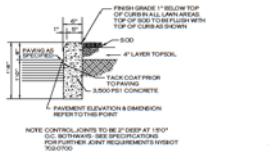
6FT SOLID BOARD FENCE DETAIL



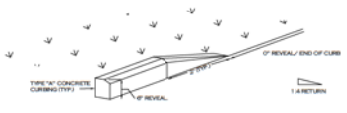
HEAVY DUTY ASPHALT SECTION



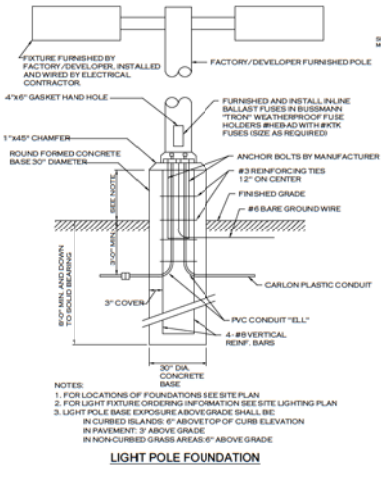
STANDARD CONCRETE SIDEWALK



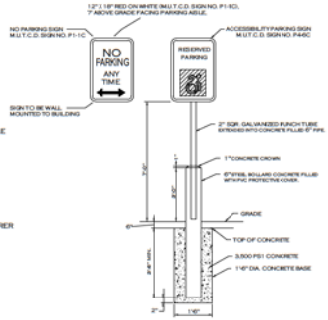
TYPE "A" CONCRETE CURB



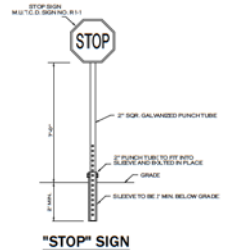
RUNOFF CURB



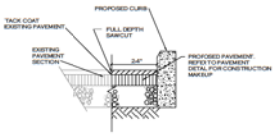
LIGHT POLE FOUNDATION



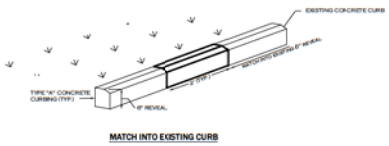
HANDICAP / NO PARKING SIGNS



"STOP" SIGN

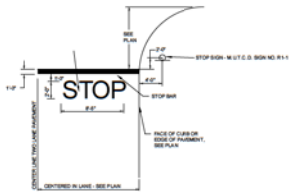


CURB AND PAVEMENT TRANISTION DETAIL

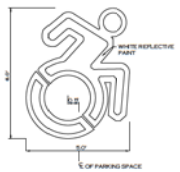


TRANSITIONAL CURBING

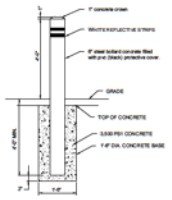
MATCH INTO EXISTING CURB



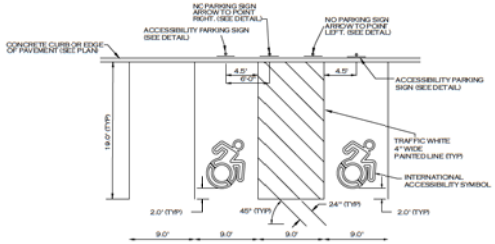
STOP BAR DETAIL



INTERNATIONAL ACCESSIBILITY SYMBOL



6" BOLLARD DETAIL



ACCESSIBILITY PAVEMENT MARKINGS & SIGNAGE

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No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT

PREPARED FOR

BENDERSON DEVELOPMENT

570 DELAWARE AVE., BUFFALO, NY 14202

(716) 886-0211

SEAL

TITLE: CONSTRUCTION DETAILS

SCALE: -

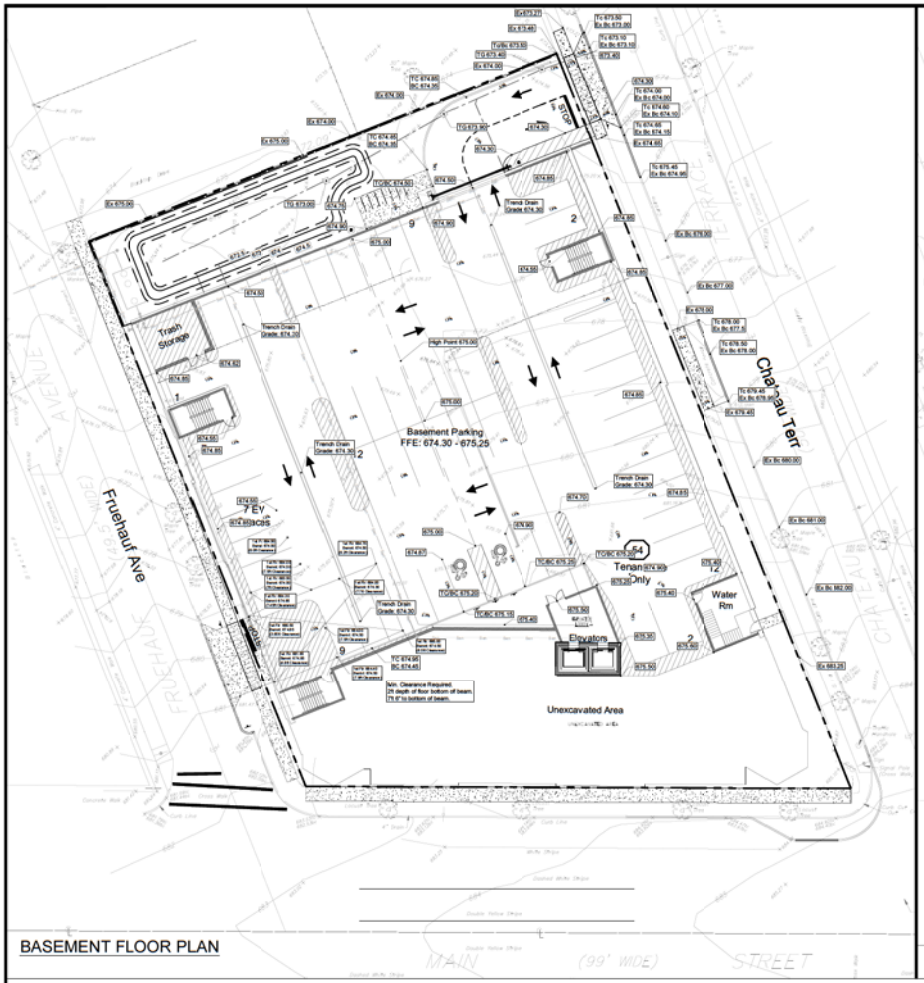
DRAWN BY: DMZ

CHECKED BY: JAR

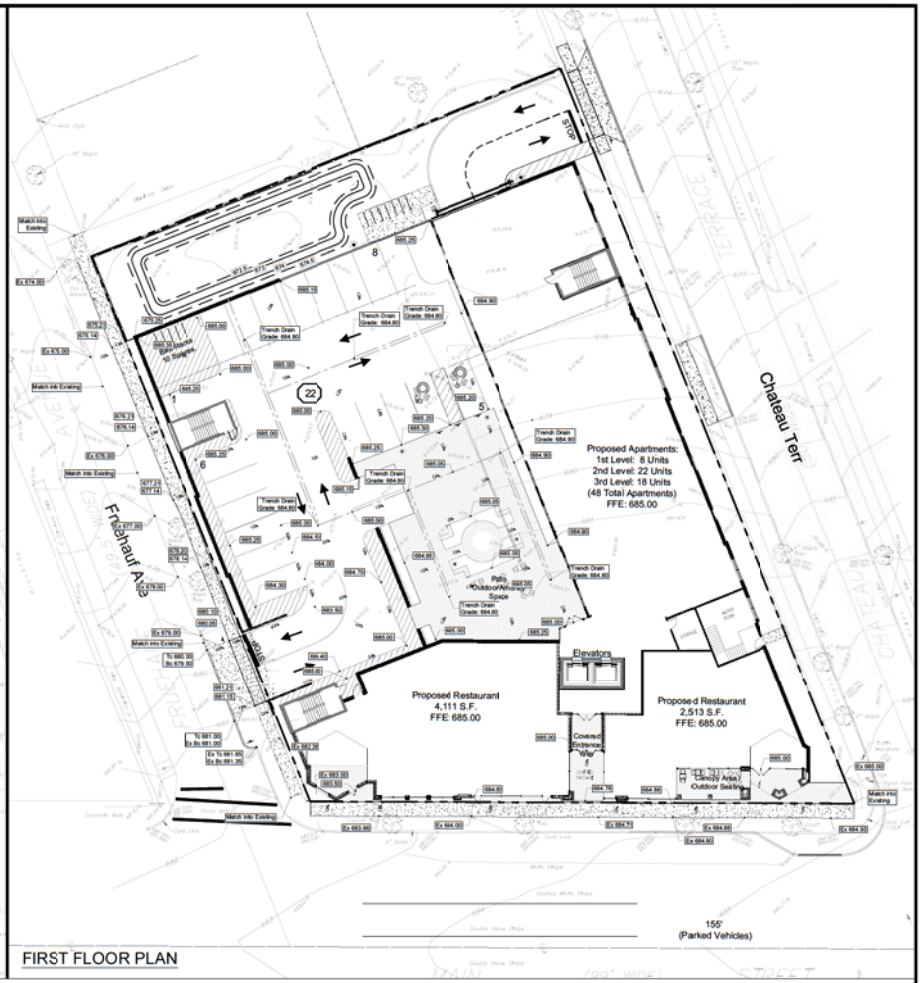
DATE: 05.05.2022

DRAWING NO.: C4.0

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS ANC BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TC CONSTRUCTION SO THAT THIS WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. MINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. TRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSRY TO PERFORM THE WORK.
9. LDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT ONS.
10. DEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK

CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
REY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL HING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT EMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE EASE AGENT OFF. APPX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF EMMASTERS - POLYSEAL EZ.
GHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THEFIXTURES ARE REQUIRED TO CE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE INT.
RB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

GRADING LEGEND:

- Property Line
- 6" Curb (typ).
- TG## — Catch Basin - Top of Grade
- ### — Proposed Contour Line
- ##% — Slope Direction

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PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT PREPARED FOR

BENDERSON DEVELOPMENT

570 DELAWARE AVE., BUFFALO, NY 14202 (716) 886-0211

SEAL

TITLE: GRADING PLAN

SCALE: 1:20

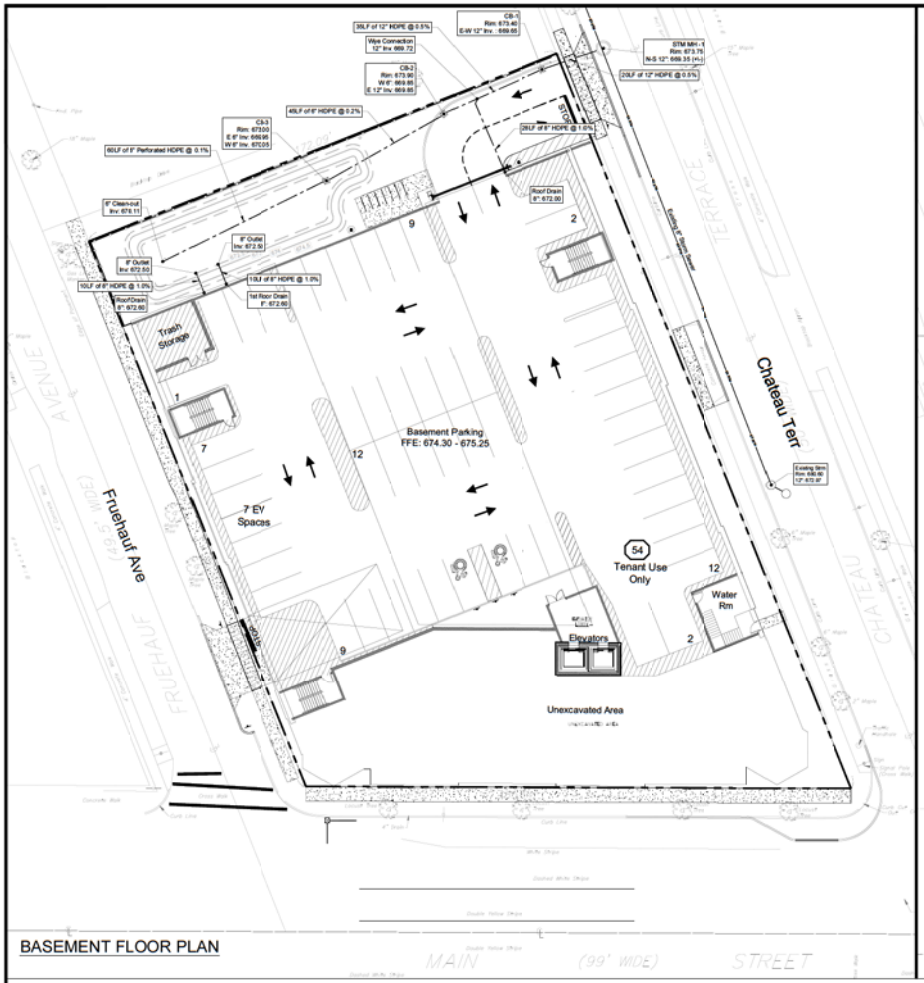
DRAWN BY: DMZ

CHECKED BY: JAR

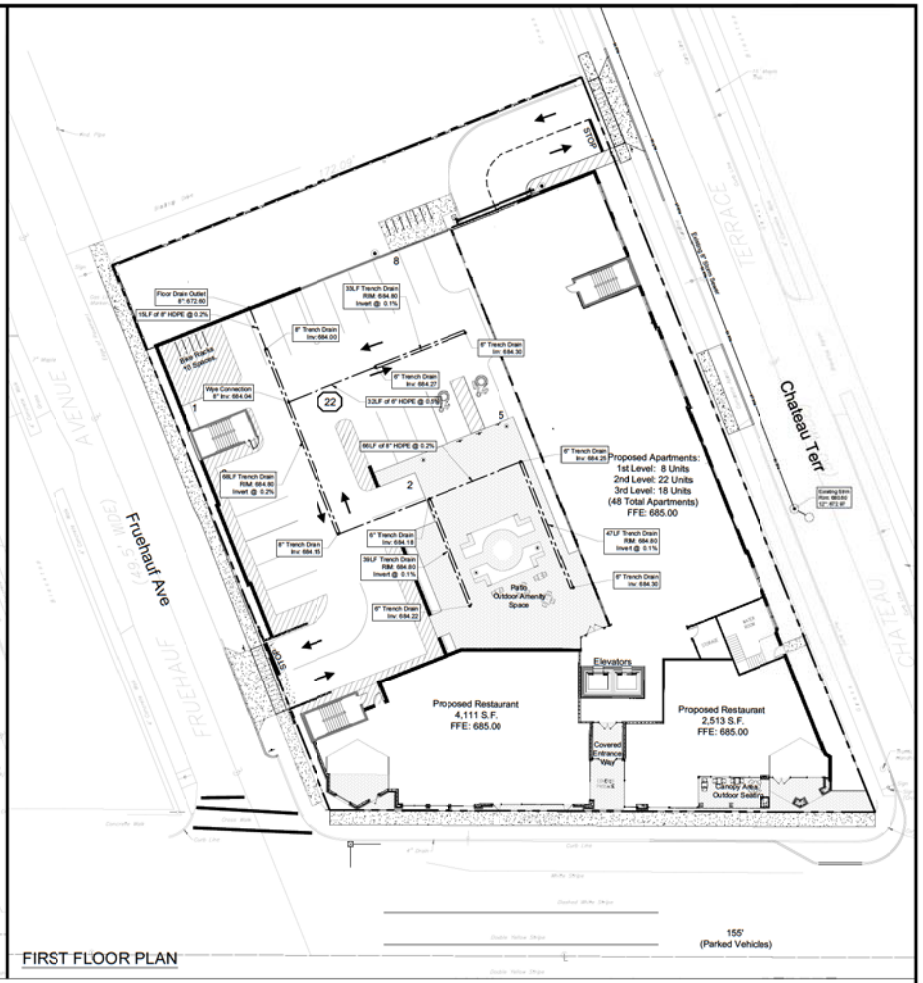
DATE: 05.05.2022

DRAWING NO.: C5.0

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

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2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
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4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. ...INATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
...TRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
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...IDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK ...
...ONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
...REY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL ...WING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
...XPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (±1) COAT ...MMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE ...LEASE AGENT OFF. APPX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (±1) COAT OF ...MMASTERS - POLYSEAL EZ.
...GHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO ...CE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE ...UNT.
...RB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DRAINAGE LEGEND:

- PROPERTY LINE
- PROPOSED STORMWATER
- 6" CURB TYP.
- CO / WC — PROPOSED STORM CLEAN OUT / WYE CONNECTION
- CB-# — PROPOSED CATCH BASIN

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CONSULTANT

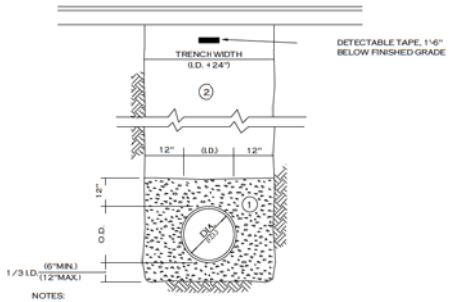
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE: DRAINAGE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C5.1
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

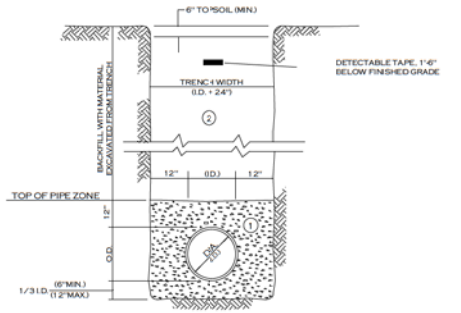
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

TRENCH SECTION IN PAVED AREAS



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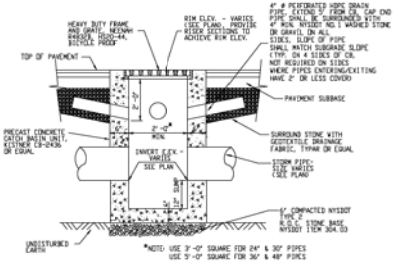
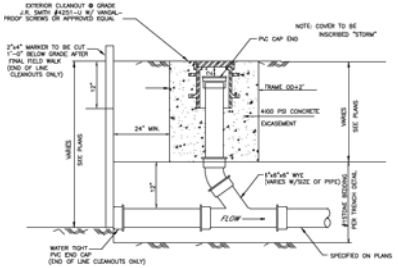
NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

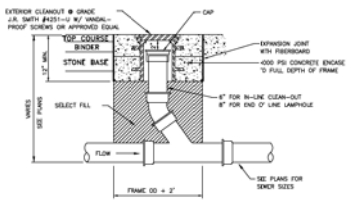
TRENCH SECTION IN UNPAVED AREAS



TYPICAL PRECAST CATCH BASIN

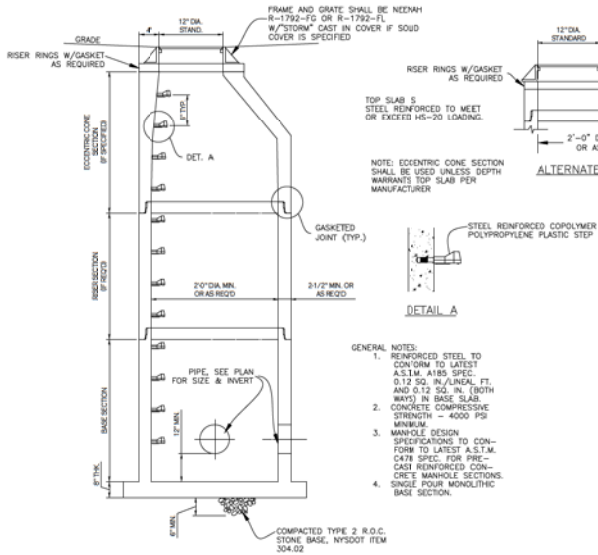


CLEANOUT IN LANDSCAPED AREAS
NOT TO SCALE



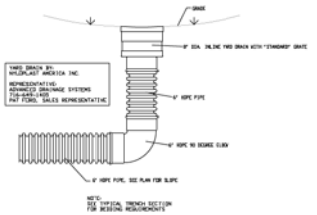
CLEANOUT IN PAVED AREAS
NOT TO SCALE

NOTE: WHERE FRAME & GRATE ARE INSTALLED IN NON-ASPHALT PAVED AREAS, A 4'X4'X6" THK CONCRETE APRON SHALL BE POURED AROUND THE RIM SLOPING TOWARDS THE GRATE



GENERAL NOTES:
1. REINFORCED STEEL TO CONFORM TO LATEST A.S.T.M. A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) IN BASE SLAB.
2. CONCRETE COMPRESSIVE STRENGTH – 4000 PSI MINIMUM.
3. MANHOLE DESIGN SPECIFICATIONS TO CONFORM TO LATEST A.S.T.M. C478 SPEC. FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
4. SINGLE POUR MONOLITHIC BASE SECTION.

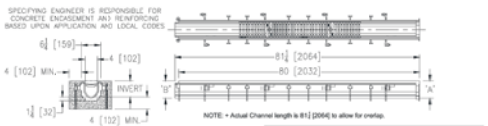
TYPICAL STORM MANHOLE DETAIL



TYPICAL YARD DRAIN DETAIL

ZURN Z886
6-1/4 [159] WIDE REVEAL TRENCH DRAIN SYSTEM
SPECIFICATION SHEET
TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



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SEAL

TITLE: DRAINAGE DETAILS

SCALE: -
DRAWN BY: DMZ
DRAWING NO.: C5.0
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

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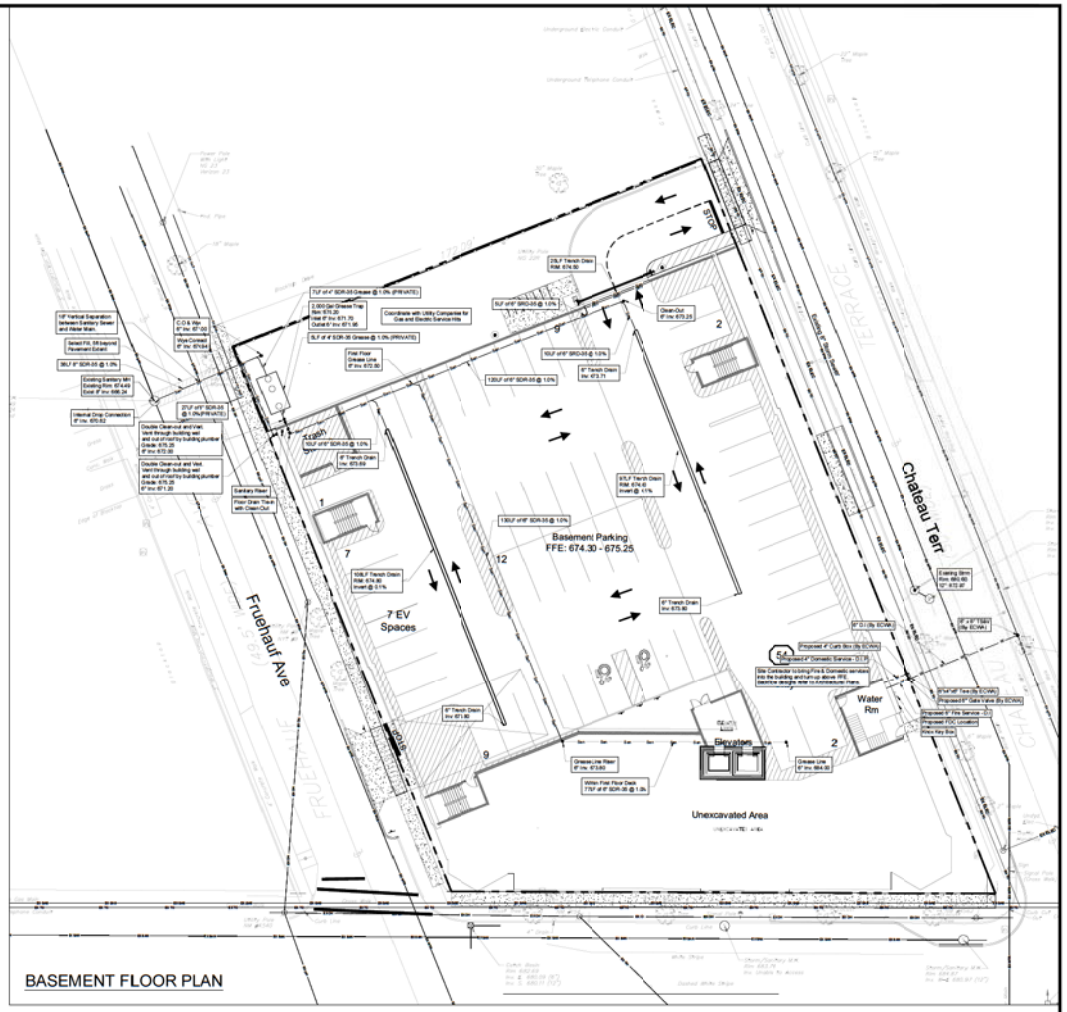
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2 HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APPX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SANITARY SEWER NOTES:
1. THE CONTRACTOR IS ADVISED THAT A TRENCH SHIELD AND/OR SHORING DESIGNED IN ACCORDANCE WITH OSHA STANDARDS SHALL BE USED IN ALL OPEN TRENCH EXCAVATIONS.
2. ANY CONTRACTOR AND/OR PLUMBER PERFORMING WORKING IN A CONFINED SPACE (ie MANHOLES, WETWELLS, CHAMBERS) OWNED BY THE TOWN MUST CERTIFY TO THE TOWN THAT THEY HAVE THEIR OWN CONFINED SPACE ENTRY PROGRAM THAT MEETS OR EXCEEDS OSHA'S REGULATIONS. CERTIFICATION MUST BE NOTARIZED BY A NOTARY PUBLIC.
3. CONSTRUCTION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE TOWN AND NEW YORK STATE CODES.
4. IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AREA AND HAS LESS THAN 4' COVER, CONCRETE ENCASEMENT IS REQUIRED. IF MORE THAN 4' COVER IS PROVIDED IN PAVED AREAS SELECT FILL IS REQUIRED.
5. THE CONTRACTOR MUST NOTIFY THE TOWN ENGINEER OFFICE AND THE PLUMBING INSPECTOR 24 HOURS IN ADVANCE OF CONSTRUCTION.
6. CLEANOUTS ARE REQUIRED EVERY 100' AND AT CHANGE IN DIRECTION.
7. ABANDONED SANITARY SEWER CONNECTIONS FROM THE SITE, IF ANY, REQUIRE PROOF OF A DISTRICT PERMIT FOR DISCONNECTION PRIOR TO THE NEW CONNECTION BEING MADE.

UTILITY NOTES:
1. PROVIDE FITTINGS AND BLOCKING AS NECESSARY AT ALL BENDS IN WATER LINES.
2. WHERE UTILITIES ARE INSTALLED IN EXISTING PAVEMENT, LANDSCAPED AREA ETC. ANY ITEMS REMOVED/DAMAGED SHALL BE REPLACED IN KIND.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS NECESSARY: STATE, COUNTY, AND TOWN.
4. WATER MAINS TO HAVE MINIMUM 5FT COVER.

UTILITY LEGEND:
- PROPERTY LINE
- G — PROPOSED GAS
- W — PROPOSED WATER
- E — PROPOSED ELECTRIC
- San — PROPOSED SANITARY
- TC — PROPOSED TELEPHONE
- EX ELEC — EXISTING ELECTRIC
- EX GAS — EXISTING GAS
- EX WTR — EXISTING WATER
- EX OH — EXISTING OVERHEAD UTILITY
- EX SAN — EXISTING SANITARY
- EX STM — EXISTING STORM
- EX TEL — EXISTING TELECOMS



BASEMENT FLOOR PLAN

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

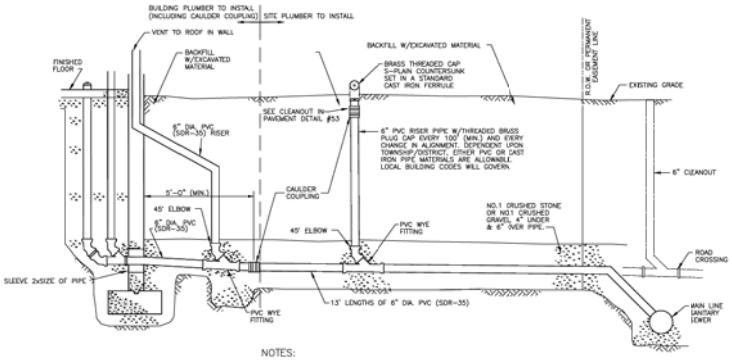
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE:
UTILITY PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C6.0

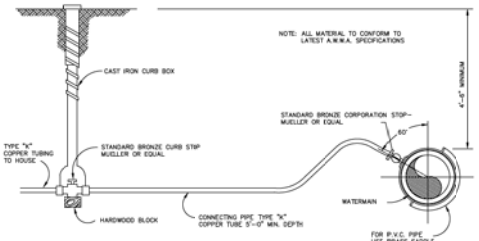
Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



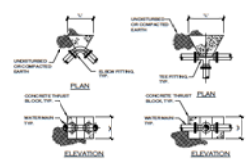
NOTES:

1. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D-3033/D-3034.
2. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
3. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS
4. MIN. DEPTH OF COVER 3'-0"
5. A GREASE SEPARATOR AND OIL SEPARATOR REQUIRED WHERE APPLICABLE.

TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (SANITARY)



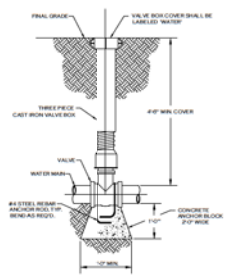
TYPICAL WATER SERVICE LINE INSTALLATION



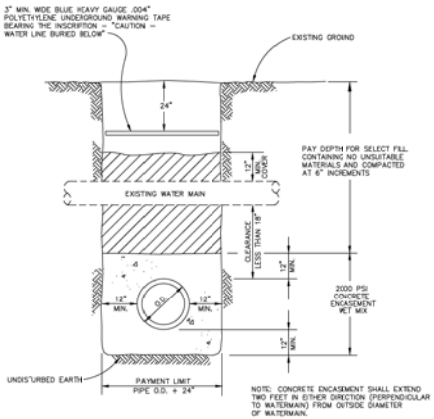
DIMENSION SCHEDULE					
PIPE SIZE	90° ELBOW	45° ELBOW	22.5° ELBOW	11.25° ELBOW	
	"A"	"A"	"A"	"A"	"A"
4"	1'-9"	1'-3"	1'-0"	1'-0"	1'-0"
6"	2'-3"	1'-7"	1'-3"	1'-0"	1'-0"
8"	2'-9"	1'-11"	1'-3"	1'-0"	1'-0"
10"	3'-3"	2'-3"	1'-6"	1'-0"	1'-0"
12"	3'-9"	2'-6"	1'-9"	1'-0"	1'-0"

DIMENSION SCHEDULE	
PIPE SIZE	TEE OR TAP SLEEVE
	"A"
4"	1'-0"
6"	1'-0"
8"	1'-0"
10"	1'-0"
12"	1'-0"

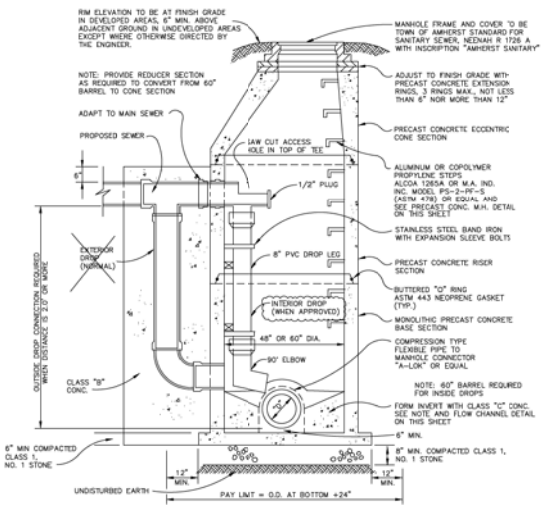
THRUST BLOCK SCHEDULE



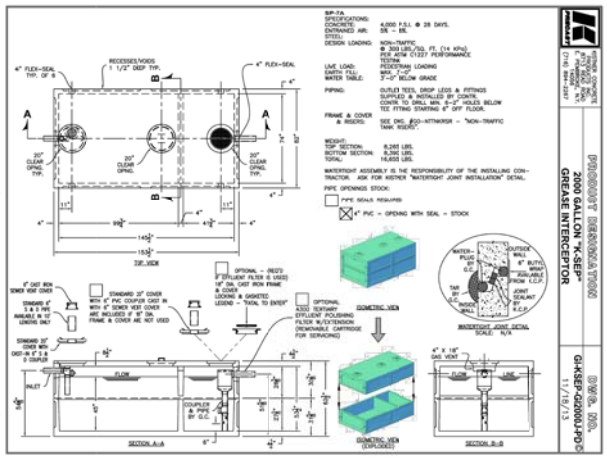
TYPICAL GATE VALVE DETAIL



WATER CROSSING DETAIL
CLEARANCE LESS THAN 18"



TOWN OF AMHERST TYPICAL PRECAST CONCRETE DROP MANHOLE (FOR DROP CONNECTION)



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CONSULTANT

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BENDERSON DEVELOPMENT

570 DELAWARE AVE., BUFFALO, NY 14202 (716) 886-0211

SEAL

TITLE: UTILITY DETAILS

SCALE: -

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO.: C6.1

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

GENERAL NOTES:

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3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
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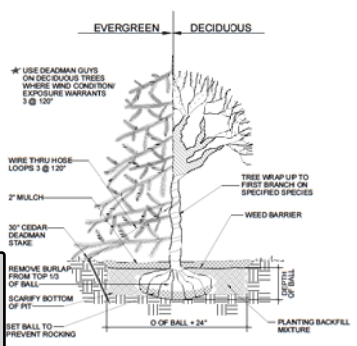
13. ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

LANDSCAPE NOTES:

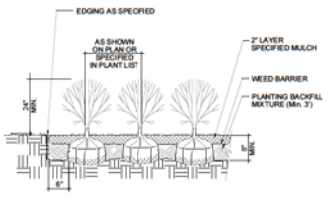
1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF. THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY. ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY. CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, ½ PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A MIN. 2" LAYER OF COCOA BROWN MULCH. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS (INCLUDING RIGHT-OF-WAYS) SHALL BE PROVIDED WITH SOD. SEED PERMITTED AT DETENTION POND IF PLANTED EARLY ENOUGH TO ESTABLISH.
10. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
11. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING.
    HYDROSEED SPEC: 20% RYE, 20% BLUE GRASS, 60% TURF TYPE FESCUE
    SOD MAY BE SUBSTITUTED FOR SEED DOWN IN ORDER TO ACHIEVE THE REQUIRED COVERAGE (REFER TO CONTRACTOR FOR SOD/SEED COVERAGE).
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR, AS REQUIRED BY WEATHER CONDITIONS, AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.
13. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING TREES ONSITE AND OFFSITE, WHICH ARE TO BE PRESERVED, FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE.

PLANT LIST

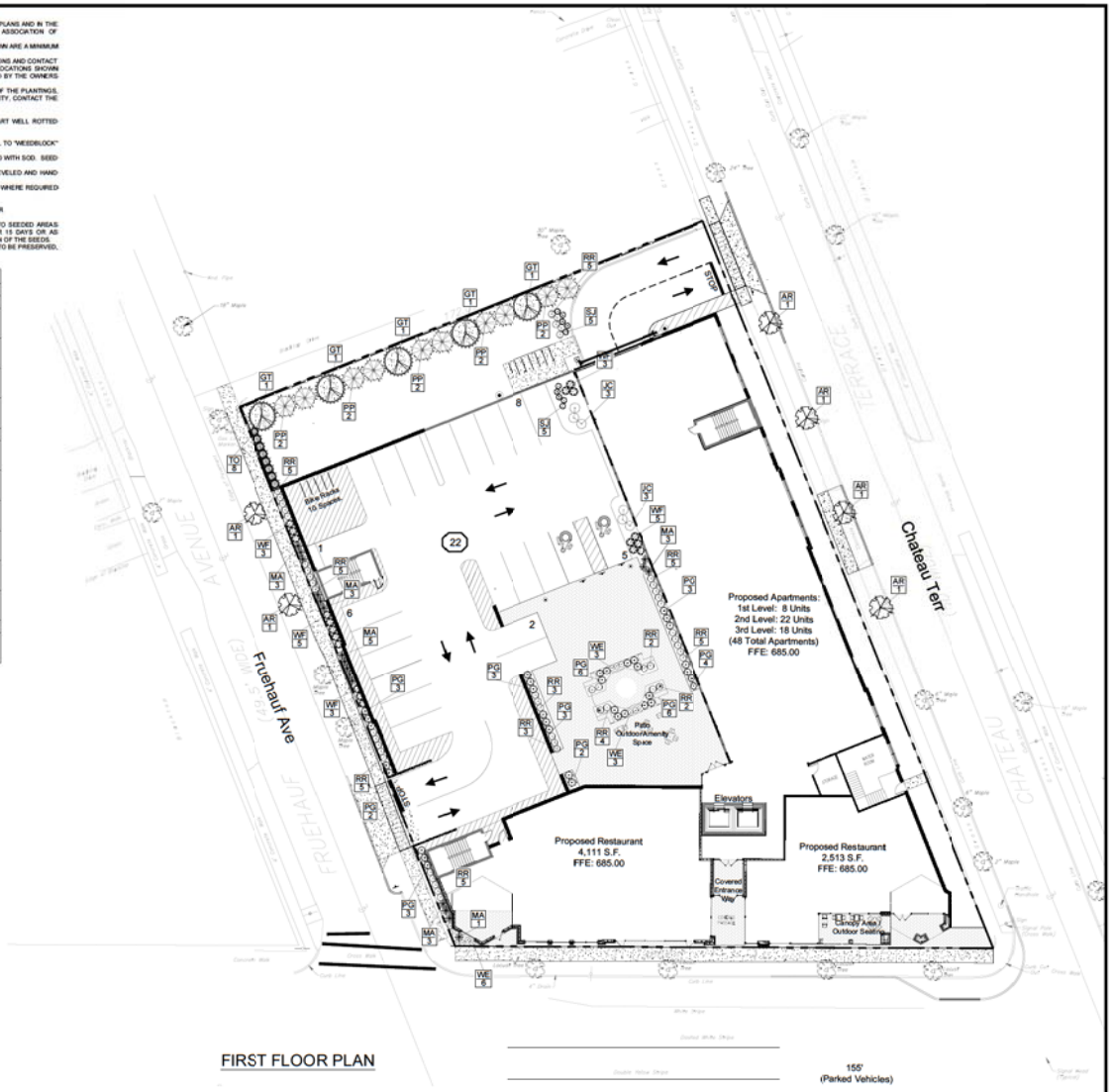
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	CAL.	SIZE	ROOT	QTY.
TREES							
	AR	Acer x freemanii 'Armstrong'	ARMSTRONG MAPLE	2½"		B&B	6
	TO	Thija occidentalis 'Emerald'	EMERALD GREEN ARBORVITAE		5'	B&B	8
	GT	Gleditsia Triacanthos	HONEY LOCUST	3"		B&B	5
	PP	Picea pungens	COLORADO SPRUCE		5'	B&B	10
SHRUBS							
	JC	Juniperus conferta 'Blue Pacific'	BLUE PACIFIC JUNIPER		24"	3 GAL.	6
	PG	Picea pungens 'Glauca Globosa'	LOW GRAFT GLOBE BLUE SPRUCE		24"	3 GAL.	35
	RR	Rosa 'Radrazz'	KNOCK OUT SHRUB ROSE		24"	3 GAL.	46
	SJ	Spiraea japonica 'Gold Mound'	GOLD MOUND SPIRAEA		24"	3 GAL.	10
	WE	Weigela florida 'Elvera'	MIDNIGHT WINE WEIGELA		24"	3 GAL.	12
	WF	Weigela florida 'Alexandra'	WINE & ROSES WEIGELA		24"	3 GAL.	19
GRASSES							
	MA	Miscanthus sinensis 'Adagio'	AD=300 MAIDEN GRASS		24"	3 GAL.	18



STD. TREE PLANTING



STD. SHRUB PLANTING



FIRST FLOOR PLAN

OFFICIAL TOWN USE ONLY

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PROPOSED SITE DEVELOPMENT

CONSULTANT

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

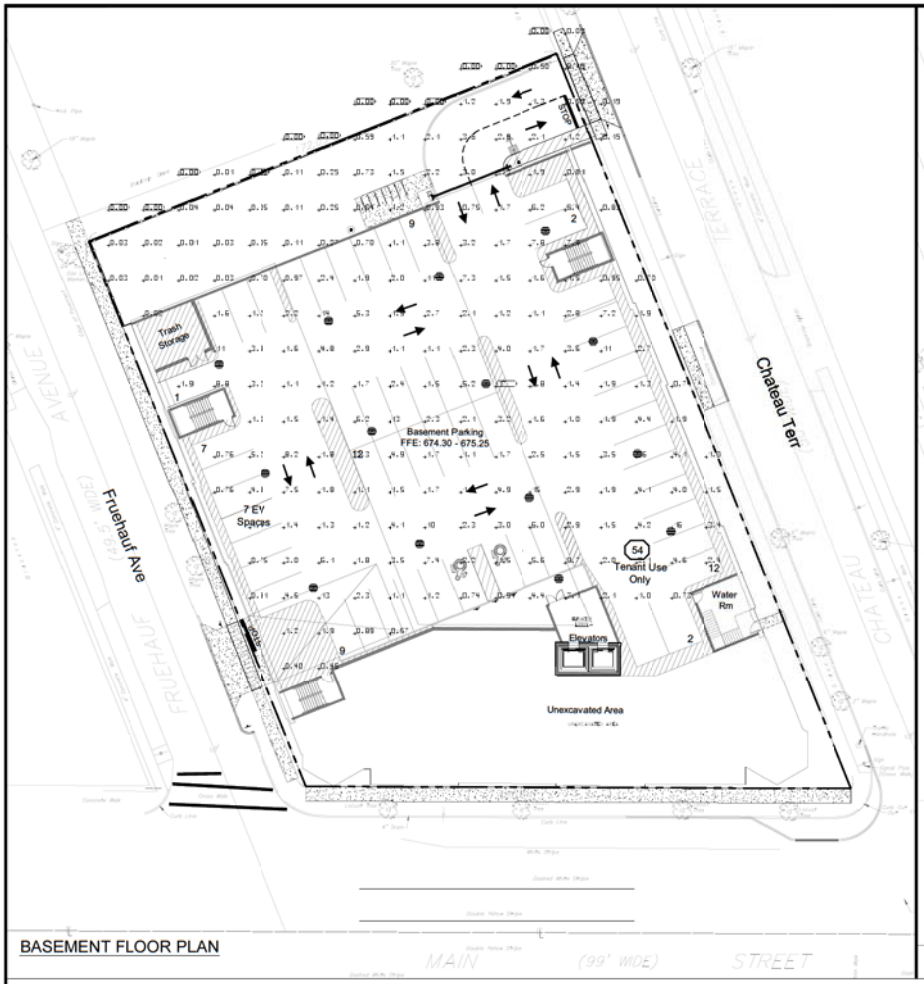
SEAL

ROBERT J. TRYBULSKI
LANDSCAPE ARCHITECT

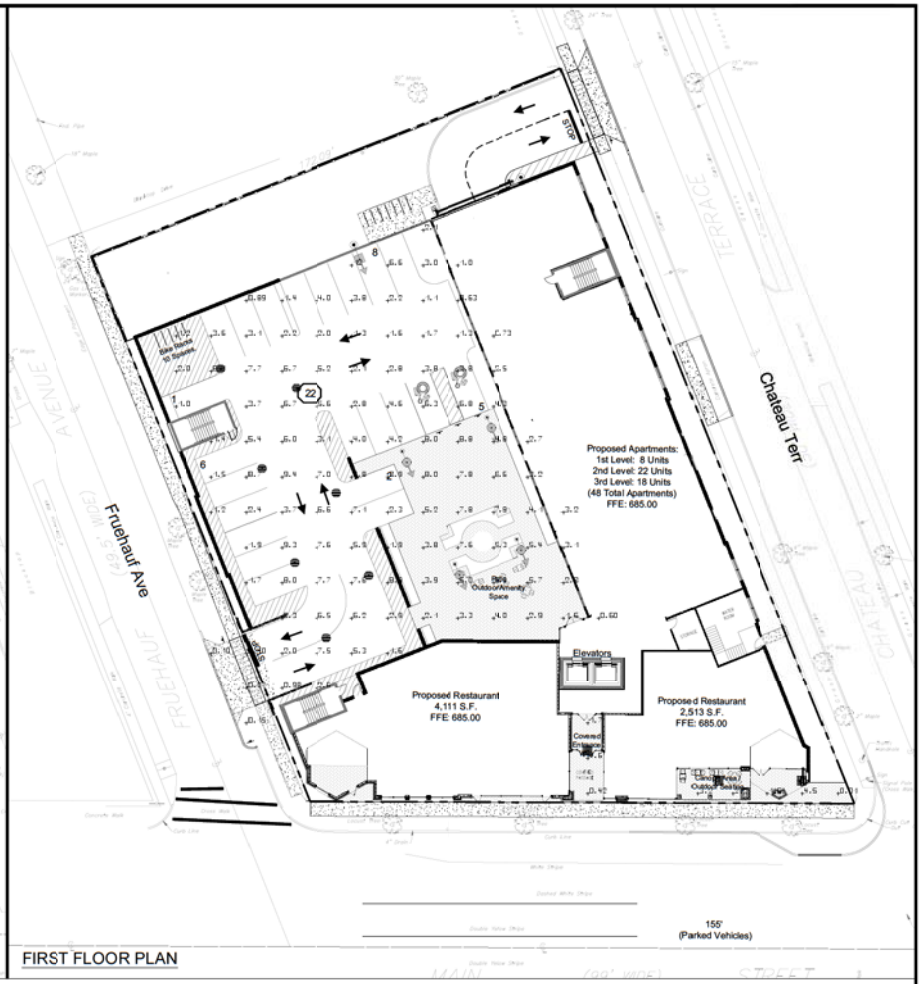
TITLE: LANDSCAPE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C7.0
CHECKED BY: RJT
DATE: 05.05.2022

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

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RB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

Luminaire Schedule

Index	Manufacturer	Luminaire type	Item number	Luminous flux	Mounting Height	Connected load	Quantity
1	Cree Inc	Cree OEG Series Area Luminaire, Type III Medium, 1 TL Input Power Designator, 4000K	OEGN4B-1-L-40K7-SM-U-SK w/OEG-BUS-F	8825 Lm	20 Ft	72 W	2
2	Cree Inc.	Cree IG Series Parking Garage Luminaire, Type V , TL Input Power Designator, 4000K	IG-B-MM-55-TL-40K6-UL	7550 Lm	10 Ft	60 W	21
3	Cree Inc	Cree THE EDGE Series Round Luminaire, 60x 0.05mA Power, 4000K	ARE-EDG-2M-RD-E-6-UL-6K-620	10527 Lm	15 Ft	101 W	4
4	Cree Inc	Cree CPY Series - Version C Canopy Luminaire, 2L Power, Flat Lens, 4000K	CPY-2ID-C-2L-40K-SF-UL-GM	1730 Lm	10 Ft	14 W	3

n.	Name	Parameter	Min	Max	Average
1	Pavement Parking Area	Site FC	0.10 fc	16.6 fc	2.91 fc

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SEAL

TITLE: LIGHTING PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C8.0
CHECKED BY: JAR
DATE: 05.05.2022

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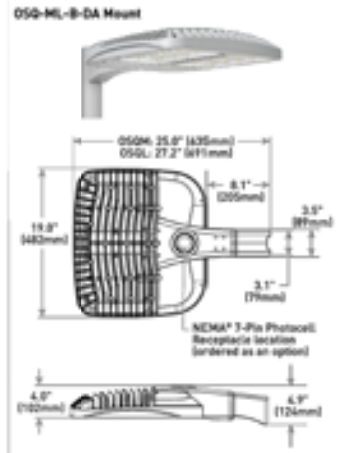
OSQ Series
OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Rev. Date: V5 09/14/2021

Product Description
The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 6L lumen package is a suitable upgrade for HID applications up to 250 Watt, and the 11L lumen package is a suitable upgrade for HID applications up to 400 Watt. The 22L lumen package is a suitable upgrade for HID applications up to 750 Watts, and the 30L lumen package is a suitable upgrade for HID applications up to 1000 Watts.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary
- Utilizes Cree TrueWhite® Technology on 5000K Luminaires
- NanoOptic® Precision Delivery Grid™ optic
- Assembled in the U.S.A. of U.S. and imported parts
- **Initial Delivered Lumens:** 4,000 – 30,000
- **Efficacy:** Up to 173 LPW
- **CRI:** Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)
- **CCT:** 3000K, 4000K, 5000K, 5700K
- **Limited Warranty**[*]: 10 years on luminaire; 10 years on Colorfast DeltaGuard® finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

OSQ-ML-B-DA Mount



Luminaire	Weight
OSQM	28.9 lbs. (13.1kg)
OSQL	32.4 lbs. (14.7kg)

Ordering Information
Fully assembled luminaire is composed of two components that must be ordered separately.
Example: **Mount:** OSQ-ML-B-AA-BK + **Luminaire:** OSQM-B-6L-30K7-2M-UL-NM-BK

Mount (Luminaire must be ordered separately)*		
OSQ-		
OSQ-ML-B-AA Adjustable Arm OSQ-ML-B-DA Direct Arm OSQ-ML-B-TSP Transportation Mount OSQ-ML-B-TM Trunnion Mount	Color Options	SV Silver, BK Black, BZ Bronze, WH White

Family	Size	Series	Lumen Package	CCT/CRI	Optic	Voltage	Mount	Color Options	Controls	Options
OSQ	M Medium, L Large	B	[illegible]	[illegible]	[illegible]	[illegible]	NM No Mount	BK Black, BZ Bronze, SV Silver, WH White	[illegible]	[illegible]

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

IG Series
LED Parking Garage Luminaire

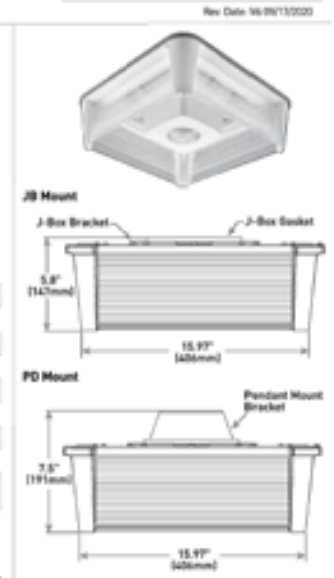
Rev. Date: V6 09/13/2020

Product Description
Cree Lighting innovates again to reset the performance benchmark in parking garage applications with the IG Series featuring WaveMax® Technology, our innovative optical waveguide platform. Available in 33 watt and 60 watt, two lumen packages are offered to satisfy IES RP-8-18 and IES Security Zone G-1-03 requirements for environments seeking higher light levels for improved safety and security. The streamlined design breaks away from dated traditional designs, blending form and function, to deliver superior low-glare illumination.

For enhanced performance and versatility, a range of optional integrated lighting controllers bring advanced capabilities and energy savings to the IG Series. From the stand-alone multi-level (PML) option to the full-featured Limelight by Lutron or Synapse® wireless control options, the IG Series provides the features and flexibility designed to meet the needs of today's most demanding parking garage applications.

Applications: Parking garages

Performance Summary
- Utilizes WaveMax® Technology
- **Initial Delivered Lumens:** 3,860 or 7,550 lumens
- **Input Power:** 33 or 60 watts
- **Efficacy:** Up to 126 LPW
- **Optic:** Type V Short Distribution
- Assembled in the USA of U.S. and imported parts
- **CCT:** 3000K, 3500K, 4000K, 5700K
- **CRI:** Minimum 80 CRI
- **Limited Warranty**[*]: 10 years on luminaire; 5 years on PML and Limelight options; up to 5 years for Synapse® accessories; 1 year on luminaire accessories



Weight
10 lbs. (4.5kg)

Ordering Information
Fully assembled luminaire is composed of two components that must be ordered separately.
Example: **Mount:** IG-JBWH + **Luminaire:** IG-B-NM-5S-4L-40K8-UL-WH

Mount (Luminaire must be ordered separately)	
IG-	WH
IG-JB Junction Box IG-PD Pendant	Color Options: WH White

Product	Version	Mounting	Optic	Lumen Package	CCT/CRI	Voltage	Color	Options
IG	B	NM No Mount	5S Type V Short	4L 4,300 Lumens; 7L 7,550 Lumens	30K8 3000K, 80 CRI; 35K8 3500K, 80 CRI; 40K8 4000K, 80 CRI; 57K8 5700K, 80 CRI	UL 120-277V; UH 347-480V	WH White	LRF Limelight by Lutron Radio Module; LPL; LPM; PML Programmable Multi-Level; SWC Synapse® Wireless Controller; SWS Synapse® Wireless Controller with Network Sensor

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

CPY Series - Version C
CPY250® LED Canopy/Soffit Luminaire

Rev. Date: V3 02/01/2022

Product Description
The CPY250® LED Canopy/Soffit Luminaire has an extremely thin profile constructed of rugged cast aluminum. It can be surface mounted easily from below the canopy deck and can be pendant mounted. Direct imaging of the LEDs is eliminated with a highly efficient patterned flat or 0.91" (23mm) drop glass lens.
Applications: Petroleum canopies, CNG fueling stations, soffits

Performance Summary
- Assembled in the USA by Cree Lighting from US and imported parts
- **Initial Delivered Lumens:** Up to 21,000
- **Efficacy:** Up to 165 LPW
- **CRI:** Minimum 70 CRI (40K, 50K, 57K); 80 CRI (30K); 90 CRI (40K, 50K)
- **CCT:** 3000K, 4000K, 5000K, 5700K
- **Limited Warranty**[*]: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/5 years on PML sensor/1 year on field-installed accessories
- IP66 Rated (select models only)
- Class I, Division 2 Hazardous Location for select models

DM Mount / DM Mount with HZ Option



Weight
12.5 lbs. (5.7kg)

Accessories
Field-Installed: Direct Mount Luminaires (Canopy Upgrade Kits, Direct Mount Junction Box/Stem Kit, Direct Mount Beauty Plates); Pendant Mount Luminaires (Pendant Mount Kits, Hand-Held Remote, Synapse® SimplySnap 10V Interface)

Ordering Information
Example: CPY250-C-13L-57K7-D-UL-DM-SV

Product	Version	Lumen Package*	CCT/CRI	Optic	Voltage	Mounting	Color Options	Controls	Options
CPY250	C	[illegible]	[illegible]	D 0.91" (23mm) Drop Lens; F Flat Lens	UL Universal 120-277V; UH Universal 347-480V	DM Direct; HC Hook & Cord; PD Pendant; CM Car Wash	BK Black; BZ Bronze; SV Silver; WH White	BLANK Non-Dimming; 10V 0-10V Dimming; PML Programmable Multi-Level	10KV 10kV/5kA Surge Suppression; HZ Class I, Div. 2 Hazardous Location Certification; K NSF 2 Certification

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

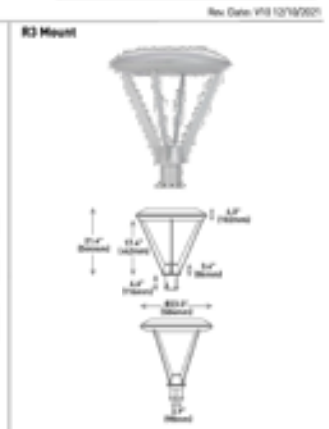
THE EDGE® Series
LED Area Luminaire - Round

Rev. Date: V10 12/10/2021

Product Description
THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment, spun vented cover, high performance aluminum heat sinks and leaf/debris guard.
Applications: Auto Dealerships, parking lots, campuses, facade lighting and general site lighting applications

Performance Summary
- Patented NanoOptic® Product Technology
- Assembled in the USA by Cree Lighting from US and imported parts
- **Initial Delivered Lumens:** Up to 25,065
- **CRI:** Minimum 70 CRI (4000K & 5700K); 80 CRI (3000K); 90 CRI (5000K)
- **CCT:** Turtle Friendly Amber, 3000K (+/- 300K), 4000K (+/- 300K), 5000K (+/- 500K), 5700K (+/- 500K) standard
- **Limited Warranty**[*]: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish /1 year on accessories

R3 Mount



LED Count (x10)	Weight
04	33.8 lbs. (15.3kg)
06	35.2 lbs. (15.9kg)
08	37.0 lbs. (16.8kg)
10	40.7 lbs. (18.5kg)
12	42.4 lbs. (19.3kg)

R4/R5 Mount – see page 14 for weight & dimensions

Accessories
Field-Installed: Bird Spikes XA-BRDSPK; Synapse® SimplySnap 10V Interface DIM10-220F; Backlight Control Shields XA-20BLS-4

Ordering Information
Example: ARE-EDR-2M-R3-12-E-UL-SV-350

Product	Optic	Mounting*	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
ARE-EDR	[illegible]	R3; R4; R5	04; 06; 08; 10; 12	E	UL Universal 120-277V; UH Universal 347-480V	BK Black; BZ Bronze; SV Silver; WH White	350; 525; 700	DIM 0-10V Dimming; F Fuse; HL; P Photocell; 30K; 40K; 50K; TRL Amber Turtle Friendly LEDs

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:
ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE
UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE: LIGHTING DETAILS

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C8.1

7.a

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

July 17, 2020 Job No: 20-533

Benderson Development Company, LLC
570 Delaware Avenue
Buffalo, New York 14202

ATTN: Mr. Matt A. Oates, P.E.

RE: Geotechnical Engineering Report
Proposed Two-Story Building with Underground Garage
4548 & 4564 Main Street, 22 Chateau Terrace, and 17 Fruehauf Avenue
Town of Amherst, Erie Co., New York 14226

Gentlemen:

This report presents the findings of the subsurface investigation program and geotechnical engineering recommendations for the above referenced project. The geographic orientation of the project site is illustrated on the U.S. Geologic Survey (USGS) site location map in Figure No. 1. The project site is illustrated in Figure No. 2, entitled "Test Boring Location Plan", which includes: the approximate location of six test borings that were drilled by Buffalo Drilling Company, Inc. (BDC); relative ground surface elevations; and additional site details.

EXPLORATION METHODS

Sampling Method: A truck-mounted Diedrich D-50 rotary drill rig was used to drill six borings each to auger refusal below ground surface by using 2-1/4 inch and 4-1/4 inch inside diameter (ID), continuous flight hollow stem augers. Samples were recovered by driving a standard split-spoon sampler (2-foot long by 1-3/8 inch inside diameter) 24 inches with a 140-pound hammer falling 30 inches per blow per the American Society of Testing and Materials (ASTM) Standard D1586. The number of blows from six to 18 inches of penetration is defined as the Standard Penetration Test (SPT) N-value. Auger refusal, which may infer the top of bedrock, was encountered at each boring location at depths ranging from about two to six feet. At borings B-1 and B-6, bedrock was confirmed by coring to a depth of five feet below auger refusal. Bedrock coring efforts were done with an Nx-sized (2-1/8 ± inch I.D.) core barrel and impregnated diamond bit in accordance with ASTM Method D2113.

Any encountered groundwater conditions are documented in the field on the driller's logs for each test boring. If indicators of groundwater are observed on the sampling equipment, the depth to groundwater is also checked and measured through the hollow stem augers at the completion of the sampling efforts.

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Classification: The retrieved soil and fill samples were initially logged in the field by the driller, and a portion of each sample was placed and sealed in a glass jar. The boring logs, which are included in Appendix A, were based upon the field logs and a second visual classification of recovered samples in the laboratory by a geologist. Classification/identification of samples, as noted on the boring logs, is based on the Unified Soil Classification System (USCS) in ASTM D2487/D2488. Refer to Appendix B entitled, "Geotechnical Reference Standards", for an explanation of the terminology that is used for soil and rock descriptions.

Each rock core was examined on a run-by-run basis to determine the percentage of core recovery and Rock Quality Designation (RQD). Core recovery percentage is the ratio of the sample length recovered divided by the length of the core run times 100 percent. RQD is defined as the total length of all pieces of core that are greater than four inches divided by the length of the core run times 100 percent. Core recovery and RQD percentages are noted on the boring logs.

Laboratory Testing: Laboratory soil testing was undertaken on several retrieved split spoon samples. The overall laboratory testing program consisted of the following test methods:

- Unconfined Compressive Strength of Intact Rock Core Specimens ASTM D2938

Table No. 1 presents the tabulated results of bedrock physical property data.

SITE AND SUBSURFACE CONDITIONS

General: The proposed site for development consists of four parcels addressed as 4548 & 4564 Main Street, 22 Chateau Terrace, and 17 Fruehauf Avenue in the Town of Amherst, Erie County, New York. The project will include a mixed-use, two-story building with both retail spaces and residential apartments. The majority of the structure will have a lower basement/underground parking garage beneath it. The site topography slopes to the northwest across the boring locations with ground surface elevations varying by approximately five feet.

Subsurface Soil Conditions: In general, subsurface conditions, underlying the topsoil at B-2 and the asphalt pavement with crushed limestone base layer at the remaining borings, consist of naturally deposited cohesive/fine-grained glacial till that extends to auger refusal.

Beneath the asphalt/gravel base or topsoil, a naturally deposited cohesive/fine-grained glacial till exists and extends to auger refusal. The unit ranges in thickness from two to five fee and consists of moderately plastic, silty clay with lesser amounts of sub-rounded fine-sized to coarse-sized sand and gravel. The consistency of this soil is primarily very stiff to hard with moisture contents of retrieved samples noted to be moist.

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Bedrock: Auger refusal, which is generally inferred to be the top of the apparent bedrock surface, was not encountered at each boring approximately two to six feet below ground surface, ranging in elevation from 675.00 to 671.20+/- feet. The proposed footing bearing grade for the building, approximate elevation 671.30 +/- feet, will be at or within the bedrock which will make it necessary to remove almost four feet of bedrock.

Rock coring efforts were undertaken at borings B-1 and B-6 to depths of five feet, below auger refusal. Based upon the regional geology and recovered core samples, the bedrock type is the Onondaga Limestone and is described as a hard and slightly weathered, medium dark gray, banded to thinly bedded, finely crystalline limestone that is porous and calcareous. The percent recoveries for the cores ranged from 33 percent to 83 percent with RQD values of 0 percent (very poor quality) to 29 percent (poor quality).

Table No. 1 provides the laboratory uniaxial compressive strength and density data for the intact limestone specimens near the bottom part of the B-1 cored interval C-1 and middle of B-6 cored interval C-2. The density data is characteristic of a limestone rock. The uniaxial compressive strengths ranged from approximately 4,000 to 7,500 pounds per square inch (psi); which is on the low to middle portion of the range for limestone. The intact bedrock uniaxial compressive strength and other rock properties (e.g., RQD) can be used in the estimation of the strength properties for the bedrock mass.

Groundwater: Groundwater was not encountered during subsurface exploration. Note that the groundwater readings were taken at the completion of drilling efforts and, therefore, an adequate amount of time for the groundwater level to recharge to static conditions was probably not allowed. Fluctuations in the groundwater level may occur due to other factors than those present during field operations.

EARTHQUAKE/SEISMIC CONSIDERATIONS

Site Class Definition: For the given site conditions, the most applicable site definition is Site Class B, as listed in Table 1613.5.2 of the Building Code of New York State, © 2010.

Liquefaction Potential: For the Site Class B, the design spectral response acceleration parameters S_{DS}, at 0.2 seconds, and S_{D1}, at one second, are 0.15g and 0.03g (g = 32.2 feet/sec^2), respectively, for this part of Erie County, New York (see Appendix C). These values have a two percent probability of being exceeded in 50 years. Based upon the above conditions and an approximate magnitude 6.0 earthquake on the Richter Scale, the potential for liquefaction or settlement of Site Class B rock is considered non-existent.

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FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS

General: This section will present and discuss recommendations on foundation design and construction and placement of controlled fills, and subgrade and base layer requirements for concrete floor slabs, paved parking and roadway areas.

As shown in Figure No. 2, the proposed development will include a two-story mixed-use building with underground parking garage. The existing ground surface slopes to the northwest across the proposed development areas with ground surface elevations varying by approximately five feet. As per drawings provided via email with client representatives, finish first floor elevation of the building is at elevation 683.80 ± feet and steps up to 685.00 ± feet. The basement level and underground parking garage will have a finish floor elevation that is 11.5 feet beneath the first floor at approximate elevation 672.3 ± feet. Final exterior grades are assumed to match existing, from about elevation 685.00 ± feet to 675.00 ± feet. The maximum design exterior bearing wall and column loads are not expected to exceed 10 kips per lineal foot and 100 kips, respectively. The maximum design interior bearing column load is not expected to exceed 120 kips.

Site Preparation and Earthwork: General site preparation will include the demolition and complete removal of any encountered foundations and floor slabs, and removing all unsuitable surficial material (i.e., asphalt pavement, concrete, brick, expansive slag, organic or topsoil layer, and construction and demolition-like fill) to a depth where firm, granular or cohesive fills or naturally occurring soils are encountered. It is recommended, particularly in the location of the proposed structure, that any slag and/or cinder/ash containing material, if encountered, should be tested to determine the expansion and corrosion characteristics (where applicable for direct or potential contact with foundation elements and buried utilities) of these materials prior to their use on-site. Any rubble-like and brick fill, boulders, or wood fill in particular, if encountered, will require undercutting. The proposed building and any paved areas are to be proof rolled with a fully loaded ten-wheel dump truck. All encountered soft and disturbed zones should be undercut and stabilized with granular fill that is placed in compacted lifts prior to placement of additional fill materials above. Refer to Appendix D entitled "General Earthwork Specification" for definition of the fill types and gradations, recommended minimum compaction requirements for various site developments, and placement and compaction methods. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components that are included in the select granular fill category as are as follows: Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred; or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size).

Other than the existing buildings along Main Street and the house and garage at 22 Chateau Terrace that will be demolished, it is unknown if any former residential/commercial structures, existed at the project site and if any former footings and foundation walls may be buried within the addition footprint. Septic tank and

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system locations and the abandonment conditions or practices are normally unknown. If encountered during site development, it is recommended that any tanks and systems should be properly removed/treated/remediated relative to the proposed development and under the applicable local and state regulations. The remaining cavities, from the aforementioned items, should be backfilled with select/approved granular fill that is placed in thin lifts and compacted to the minimum recommendation, as presented in this report, for the proposed development at that cavity location.

Shallow Foundation: The recommended foundation type is shallow footings. Continuous strip and spread exterior footings and interior spread footings would bear at an elevation of four feet or lower below final grade, at elevation 670.80 ± feet. The bearing elevation is also approximated based upon the basement/parking garage finish floor elevation of 672.30 ± feet. A four-foot minimum footing depth (as required by local or New York State code) is needed to provide adequate protection from frost for exterior footings.

Basement/parking garage will require the removal of up to four feet of limestone bedrock. If the approved bedrock depth is less than four feet below final exterior grade, hooked rebar dowels are recommended to be placed in grout filled holes at approximately a four-foot spacing and extending to a minimum total depth of four feet into approved bedrock. This precaution is needed to confirm adequate bedrock quality and to incorporate the rock mass into the perimeter footing system.

The exterior and interior footings are recommended to bear at the same relative elevation on stable, natural, approved limestone bedrock or on thin layers of thoroughly compacted (minimum of 95 percent of the maximum dry density by ASTM D 1557) select/approved granular fill that is placed on an approved subgrade. If needed, a geotextile strength and filter fabric (such as, Mirafi 600X) may be used to line the excavation bottom for the purpose of stabilizing the excavation and placement of the select/approved granular fill.

Undercut areas beneath proposed foundations must extend laterally beyond each vertically projected edge of the foundation by a minimum distance equal to one-half the total depth of the undercut or equating to a slope of two vertical to one horizontal from the bottom foundation corner. The undercuts and placement of compacted select/approved granular fill are required to ensure a suitable and more uniform bearing media for the footings, and to prevent unacceptable differential settlements.

Wall footings should have a minimum two-foot width and column footings should have a minimum three-foot width. Based on the above described conditions, the recommended maximum net allowable foundation bearing pressure is 5,000 pounds per square foot (psf) of bearing area. All footings for the proposed building are recommended to be designed near the same contact pressure. The recommended

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maximum net allowable foundation bearing pressure is based on generally accepted design methods for cohesive soil conditions. Based on the provisions of the above recommendations and estimated design requirements and utilization of proper construction procedures and experienced field supervision and testing personnel, total and differential settlements are estimated to be less than one inch and 3/4's inch, respectively. Refer to Appendix C for additional foundation design and construction details.

Additional Foundation Considerations: In addition to the above, the following recommendations will provide additional assurances with regard to proper foundation construction.

a) All fill placed beneath, adjacent, or above foundations must comply with the "General Earthwork Specification", included as Appendix D.

b) Backfill of foundations with approved select granular fill must be completed prior to placement of substantial superstructure loads, except for basement walls or substructure areas that may additionally require superstructure loads and possibly internal bracing.

c) The upper silty materials may rut and “pump” if exposed to excessive surface water and repeated construction traffic. Proper site management and fill placement operations are needed to minimize costly undercuts and subgrade repairs prior to placement of concrete slabs and asphalt pavement. It is noted that construction during wet/rainy and/or Fall and Spring conditions may require added precautions and possibly a thicker base layer to maintain a stable subgrade condition.

d) Step footings, if utilized, should have a rise to run ratio of 1:2, with a two-foot maximum rise and a four-foot minimum run between steps or as recommended by the design structural engineer.

e) The recommended at rest (rigid wall), active, and passive static earth pressure coefficients for unsaturated, select granular sandy gravel fill against an earth retaining structure/wall are 0.76, 0.24, and 2.8 (with an ultimate value of 4.2), respectively. The respective equivalent static lateral fluid pressures are recommended to be 90, 30 and 330 (with an ultimate value of 500) pounds per square foot (psf) per foot depth which are based upon a moist, compacted unit backfill weight of 120 pounds per cubic foot (pcf). The at rest value would account for the average expected compaction induced stresses and/or the potential influences of hydrostatic pressure. The static lateral fluid pressures can be directly proportioned for other unit weights.

Stabilization of Excavations/Underground Structures: The trench/excavation sidewall stability concerns can be addressed with the Occupational Safety and Health Act (OSHA) requirements as set forth in Subpart P of 29 CFR Part 1926, Sections 1926.650 to 1926.652. In lieu of a properly designed shoring system, side slopes of the trench excavation should be one on one (vertical to horizontal distance) or flatter in cohesive soils or one on one and one-half or flatter in the granular materials, as required by OSHA.

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In areas where sloped excavations are impractical, a land cofferdam (e.g., sheet piling or soldier piles with lagging and walers-struts/tiebacks, as needed) must be installed to effectuate the installation of the proposed underground parking structure. The aforementioned system(s) must be designed by a licensed New York State professional engineer with proven experience. These types of designs are outside the scope of this report.

Water must not be allowed to accumulate or pond on exposed foundation bearing grades. Surface water and groundwater from within the excavation must be either pumped, diverted or channelized by gravity flow to effectuate the construction of the proposed foundation. Pockets of localized perched groundwater may seasonally be expected to be encountered at footing and/or footing undercut bearing grades. At these locations, dewatering with surface sumps may be required to maintain stable side slopes and excavation bottom.

Substructures/Retaining Walls: While not a unique design concern, proposed basement/underground parking substructures must be adequately designed and constructed to support horizontal soil pressures and surface loads. Refer to Appendix C and the following recommendations that will provide additional assurances with regard to proper design and construction of free standing retaining walls and fixed/restrained walls.

a) At the location of the proposed structure(s), design the wall foundation based on the previously recommended maximum net allowable bearing capacity and bearing conditions.

b) Cantilever (such as, retaining) walls and fixed/restrained walls must be adequately designed and constructed to support horizontal soil pressures and surface loads.

c) Uniformly distributed surface surcharge loads should be applied at 100 percent of the load times the appropriate lateral earth pressure coefficient to the retaining wall. The lateral design stress on the wall is the sum of the equivalent lateral fluid pressure and other applied surface stresses and subsurface stresses (i.e., footings).

d) The recommended at rest (rigid wall), active, and passive static earth pressure coefficients for unsaturated, select granular sandy gravel fill against an earth retaining structure/wall are 0.76, 0.24, and 2.8 (with an ultimate value of 4.2), respectively. The respective equivalent static lateral fluid pressures are recommended to be 90, 30 and 330 (with an ultimate value of 500) pounds per square foot (psf) per foot depth, which are based upon a moist, compacted unit backfill weight of 120 pounds per cubic foot (pcf). The at rest value would account for the average expected compaction induced stresses and/or the potential influences of hydrostatic pressure. If a moist, compacted granular sandy silt or silty sand fill is used, the recommended active and passive static earth pressure coefficients are 0.33 and 2.0 (with an ultimate value of 3.0) and the equivalent static

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lateral fluid pressures are 45 and 270 (with an ultimate value of 405) psf per foot depth, which is based upon a unit backfill weight of 135 pcf. The static lateral fluid pressures can be directly proportioned for other unit weights.

e) For a soil/fill that is at or near a saturated/liquefied state, the equivalent static lateral fluid pressure on a wall from earthquake/seismic induced loading is recommended to be at least equal to the unit weight of the backfill. For unsaturated backfill conditions under earthquake/seismic induced loading, it is recommended that an additional (to the static) lateral load per foot of wall length (in pounds/foot) to a non-yielding wall will be located at 0.6 times the earth height behind the wall, as taken from the base of the wall, and will be equal to 6.8 times (for S_{ds} = 0.25g) to 13.5 times (for S_{ds} = 0.50g) the earth height squared behind the wall, in feet (for a soil backfill unit weight of 120 pcf and for Site Class C to E soils). As applied to yielding walls, these multiplying factors may be reduced by 33 percent. The earthquake/seismic lateral pressures or loads can be directly proportioned for other unit weights and S_{ds} values. Use a 1.75 multiplier to the earthquake/seismic lateral pressures or loads for walls bearing on Site Class B/A rock. Since non-yielding/rigid walls may move into the backfill, the equivalent lateral static fluid pressure for the static passive condition would also be a structural engineering design concern.

f) Lateral stresses from surface loading (such as, trucks) would not generally be a design concern if the load is transient and the loading is at a horizontal distance from the subsurface wall that is greater than the depth of the subsurface cavity. The geotechnical engineer should be consulted once the type and magnitude of the surface loading are identified.

g) The ultimate values of the friction factor or coefficient of sliding friction for the concrete footing of a retaining wall or foundation wall are recommended to be 0.35 on a silty sand/non-plastic sandy silt interface, 0.45 on non-plastic sand and gravel mixtures with less than five percent silt or on NYSDOT Item No. 304.12, Type 2 and Item No. 304.14, Type 4 gravel interfaces, and 0.60 if cast against a clean, sound and rough bedrock interface (which has a Factor of Safety = 1.0). Use a value of 0.5 for a smooth surface of either bedrock or if a dental concrete leveling course, without bonding reinforcing bars, is to be placed on the bedrock surface prior to casting the footing/foundation wall. For foundations on very stiff to hard natural cohesive soils, the cohesion/adhesion for sliding resistance is limited to 1,000 psf. The minimum recommended factor of safety against sliding is 1.5.

h) The minimum recommended factors of safety against overturning of a retaining wall are 1.5 for a clean/silt-free compacted granular backfill or for foundations on approved rock and 2.0 for a compacted cohesive backfill.

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i) Relieve any hydrostatic or water pressure that develops behind the walls from in-flowing groundwater as is normally provided in practice. The exterior and interior sides of walls are to have a properly designed and installed dewatering system or as determined by the design civil/structural engineer.

Concrete Interior Floor Slab(s)/Pad: For the most part and based on test results for similar soils/fills, moderately plastic cohesive natural soils/fills may be somewhat difficult to compact in a controlled manner considering the varying soil plasticity and natural moisture contents that are estimated to be at to wet of optimum, at the time of this investigation. Excavated and approvable cohesive soil/fill types are not expected to be available in any reasonable quantities. These soils/fills may be expected to be suitable for re-use as general fill with the implementation of uniformly applied soil conditioning (i.e., drying and blending) and compaction methods, if additional volume of soil for backfill is needed.

Excavated and approvable granular (i.e., sand or gravel and non-plastic silt and sand) soil/fill are expected to be available in very limited quantity and associated with the base layer beneath the existing asphalt pavement. For the most part, granular (i.e., sand or gravel) soil/fill is expected to be acceptable for on-site re-use, as general/ordinary fill without substantial reworking and/or modification, while silty fine-sized sand may first require drying and blending.

Dissimilar excavated materials should not be commingled prior to their use elsewhere on-site, unless designated for a green/vegetation area. General fill material is also recommended to be placed on prepared and approved subgrade and in accordance with previous recommendations.

A geotextile fabric (such as, Mirafi 600X or equal) that separates the subgrade and the approved/select granular base layer may be needed and is particularly recommended for sensitive cohesive/fine-grained/silty clay subgrade soil/fills. This approach will stabilize and provide a workable building pad condition with minimal required repairs.

The approved subgrades will consist of very stiff or better/thoroughly compacted (i.e., minimum 92 percent of the maximum dry density by ASTM D 1557) cohesive/fine-grained glacial till, stable approved limestone bedrock, or thoroughly compacted imported select/approved granular fill. Above the approved subgrades, a minimum 12-inch thick select granular fill (i.e., number two crusher run stone or equal) layer is recommended as the base course for the basement/parking garage concrete floor slab. The NYSDOT specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum). This select granular base layer would be compacted to a minimum 95 percent of the maximum dry density by ASTM D 1557. The basement/parking garage floor slab is recommended to be a six-inch minimum thickness or is as determined by the design structural engineer.

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The floor slab reinforcement should be provided through placement of wire mesh or plastic fibers and is also as determined by the design structural engineer.

At the discretion of the design architect, a vapor barrier may be considered for use in the proposed structure. The use of a thin gravel cushion, as a capillary break, or a thin sand cushion over a vapor barrier that is placed beneath the concrete slab(s) are at the discretion of the design architect/engineer or as required by local code. Gradations of gravels that are satisfactory capillary breaks include 1 ¼-inch or ¾-inch crushed stone or aggregate per the ASTM D2321 Types IA, IB and II with less than 5 % fines. A number two crusher run stone may also be applicable, but the gradation and material property specifications must qualify.

Exterior Concrete Slabs-On-Grade/Pad/Parking and Roadway Facilities: The characteristics of the natural soils and the known frost penetration in Western New York require that specific attention is provided to the design and construction of paved roadway and parking areas. For new pavement sections, isolated pockets of surficial silty/cohesive/fine-grained soil/fill may be encountered and may be too soft and wet in the proposed parking and roadway areas. These types of soil/fill may be adequately conditioned (i.e., dried and blended) and compacted (i.e., minimum 90 percent compaction) to support necessary construction equipment and normal pavement section. Otherwise, the removal/undercutting of the silty/cohesive/fine-grained soil/fill to a firm, approved subgrade and subsequent placement and compaction of select or approved granular fill will be required in order to accommodate the recommended pavement sections.

For new pavement sections, it is recommended that the subgrade surface is adequately graded and/or underdrains are installed to prevent water accumulation. Above the approved subgrade surface (i.e., minimum 90 percent compaction), a minimum eight-inch thick select granular layer is recommended as the base course for lightly traveled roadway and parking areas (standard duty section). A geotextile filter and strength fabric (such as, Mirafi 600X or equal) and minimum 12-inch thick base course are recommended for all truck routes and heavily traveled roadways (heavy duty section). If “pumping” of the silty/cohesive/fine-grained soil subgrade occurs or is difficult to stabilize during construction, an increase in the base thickness to that of the heavy-duty section and/or a geotextile filter and strength fabric is recommended to be placed on the prepared and approved subgrade for the standard duty section. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size). The granular aggregate base layer is recommended to be compacted to at least 95 percent of maximum dry density by ASTM D1557.

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The thickness of top and binder course layers should be determined in accordance with AASHTO methods. In summary, the minimum recommended asphalt thicknesses for the heavy-duty section and standard duty section are three and one-half inches and three inches, respectively. The top and binder course layers are recommended to be designed and constructed in accordance with New York State Department of Transportation Standard Specification.

Limitations, Field Inspections and Monitoring: This report is based on the preliminary information that is provided by project representatives and the subsurface conditions that were encountered at the test boring locations. Due to the nature of the investigation method, test pit excavation will provide a greater level of delineation of the subsurface soil/fill/rock conditions than can be defined by the test boring data alone. As detailed in Appendix E "Limitations", modification regarding proposed building/structure locations and other site developments can result in changes to provided recommendations. It is recommended that the geotechnical engineer be provided the opportunity to generally review the final detailed design and contract specifications. Required earthwork and foundation construction should be done under the supervision of experienced construction personnel and in a manner consistent with proven methods. All site work should be carefully monitored and tested by experienced geotechnical personnel to assure compliance with earthwork and foundation construction specifications.

Thank you for the opportunity to assist on this project. If questions should arise, please call the undersigned at your earliest convenience.

Very truly yours,
BARRON & ASSOCIATES, INC.
and
BUFFALO DRILLING COMPANY, INC.

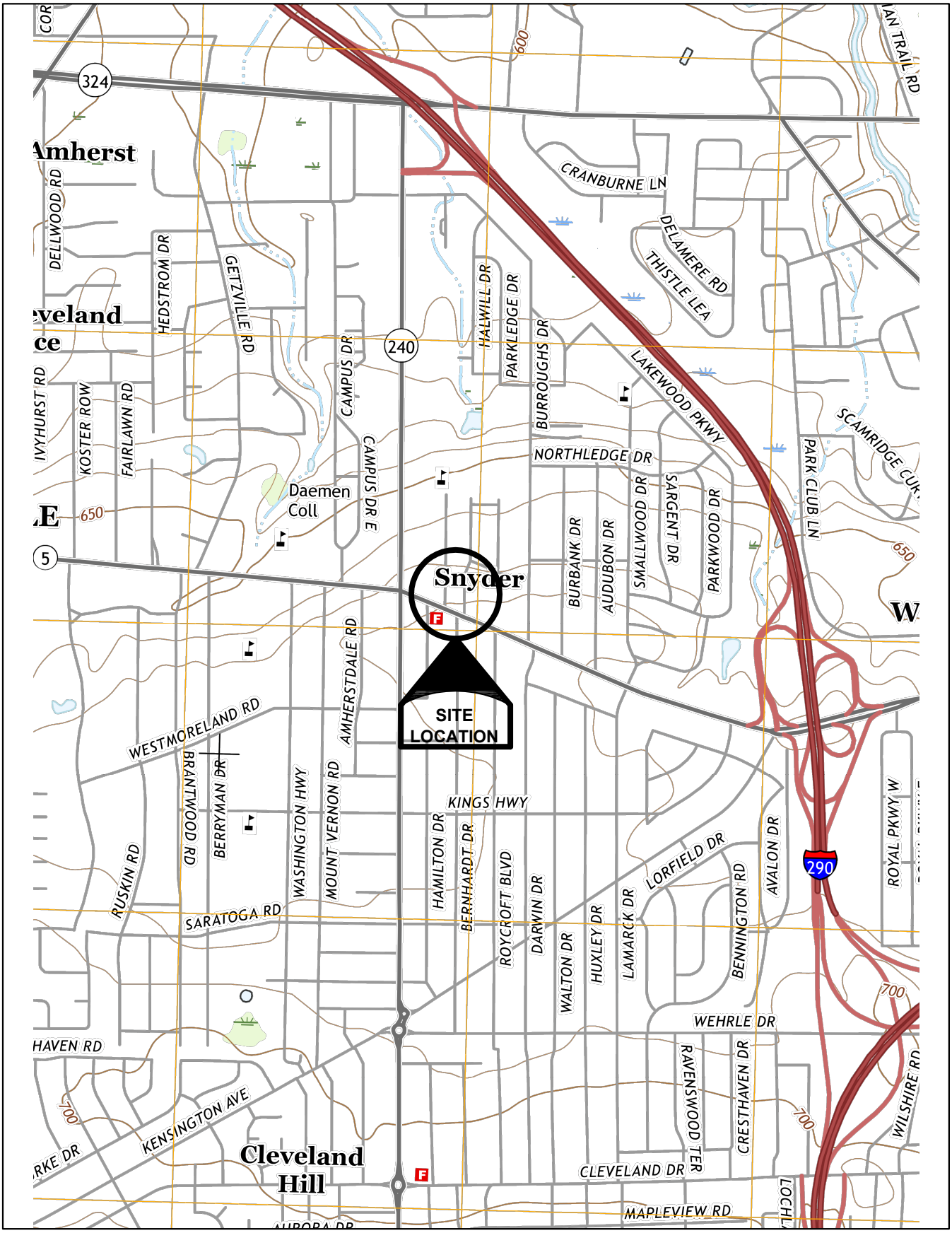
Andrew J. Camping, PG
Senior Geologist

James S. Barron, PE
President/Geotechnical Engineer



7.20.20

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

CLIENT: BENDERSON DEVELOPMENT COMPANY, LLC
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202

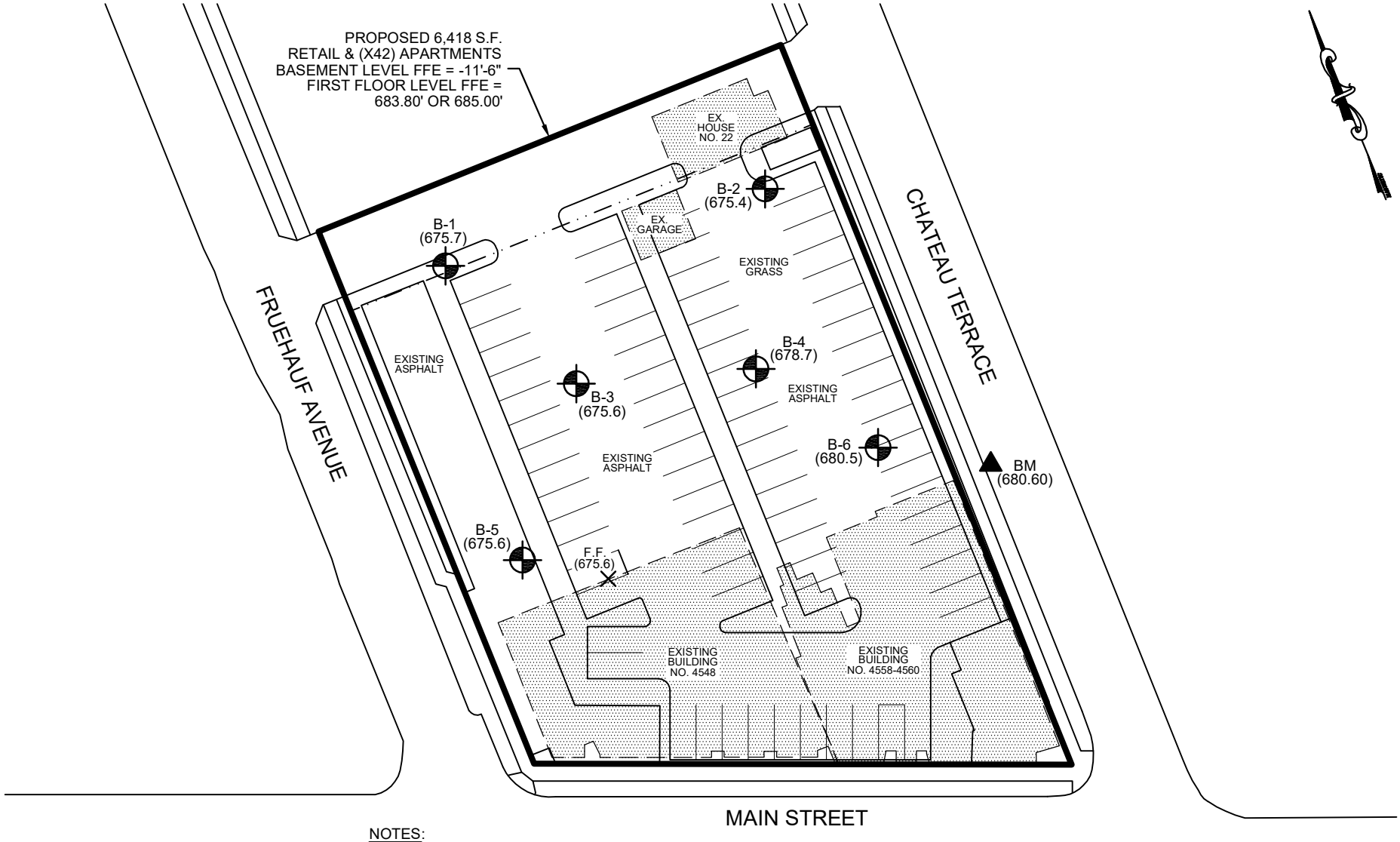
PROJECT: PROPOSED TWO-STORY BUILDING WITH UNDERGROUND GARAGE
4548 & 4564 MAIN STREET, 22 CHATEAU TERRACE, AND 17 FRUEHAUF AVENUE
TOWN OF AMHERST, ERIE CO., NEW YORK 14226

NEW YORK STATE SITE LOCATION

USGS SITE LOCATION PLAN
BUFFALO NE
2016

JOB NO.: 20-533 | SCALE: N.T.S.
DATE: 3/17/2020 | FIGURE NO. 1

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



NOTES:

1. BORINGS, BUILDINGS, SITE FEATURES, PROPERTY LINE LOCATIONS, AND SCALE OF DRAWING ARE APPROXIMATE.
2. BASE MAP REFERENCE PROVIDED BY BENDERSON DEVELOPMENT COMPANY, LLC, TITLED "SITE PLAN - MAIN STREET SNYDER", PROPERTY ID # 5202 CONCEPT PLAN, DATED 3/3/2020.
3. EXISTING FEATURES AND BENCH MARK ELEVATION PROVIDED BY MILLARD, MACKAY & DELLES LAND SURVEYORS, LLP, TITLED "ALTA/NSPS LAND TITLE SURVEY", SBL NO. 68.17-6-219,20,21&22, DATED 3/26/2018.
4. FINISH FLOOR ELEVATIONS PROVIDED BY A E-MAIL ATTACHMENT FROM MATT OATES OF BENDERSON TO ANDY CAMPING OF B&A ON 6/23/2020, TITLED "5202 - BASEMENT FLOOR GRADES 04.13.2020.PDF AND 5202 - FRIST FLOOE GRADES 04.21.2020.PDF, UNDATED.

LEGEND

B-2	= TEST BORING & NO.
(675.4)	= GROUND SURFACE ELEVATION (FT.)
×	= SPOT ELEVATION
▲ BM	= BENCH MARK (NORTH RIM OF MAN HOLE)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

CLIENT: BENDERSON DEVELOPMENT COMPANY, LLC
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202

PROJECT: PROPOSED TWO-STORY BUILDING WITH UNDERGROUND GARAGE
4548 & 4564 MAIN STREET, 22 CHATEAU TERRACE, AND 17 FRUEHAUF AVENUE
TOWN OF AMHERST, ERIE CO., NEW YORK 14226

TEST BORING LOCATION PLAN

0 25 50 100

JOB NO.: 20-533	SCALE: 1" = 50' ±
DATE: 6/25/2020	FIGURE NO.: 2

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

B&A JOB NO: 20-533
CLIENT: Benderson Development Company, LLC
PROJECT: Proposed Two-Story Building w/ Underground Garage
4548 & 4564 Main St., 22 Chateau Terrace, and
17 Fruehauf Avenue
Town of Amherst, Erie Co., New York 14226

TABLE NO. 1

SUMMARY TABLE OF BEDROCK UNIAXIAL COMPRESSIVE STRENGTH TESTS

Test Boring No.	Core Run No.	Sample Location		Moisture Content	Wet Density	Dry Density	Uncapped Length / Diameter	Failure Type	Maximum Compressive			Rock Identification
									ASTM D2938			ASTM C294
		Depth Interval	Elevation Interval	ASTM D2216	ASTM D2166	ASTM D2166	ASTM D2938		Load	Strength		
		(ft.)	(ft.)	(%)	(pcf)	(pcf)	(in. / in.)	(-)	(lbs.)	(tsf)	(psi)	
B-1	C-1	9.1 - 9.5	666.6 - 666.2	0.2	162.7	162.4	4.74 / 2.04	COLUMNAR	24,490 [1.]	538	7,478	ONONDAGA LIMESTONE [2.,]
B-6	C-2	8.3 - 8.8	672.2 - 671.7	0.2	153.4	153.1	4.38 / 2.03	COLUMNAR	13,070 [1.]	290	4,024	ONONDAGA LIMESTONE [2.,]

1. Ends of sample capped prior to testing.
2. Sample appeared absent of limiting structures (fracture planes, vugs, etc.).
3. Rock identification based on the local geology according to New York State Geologic Maps.

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Geotechnical Consulting and Special Inspections
10440 Main Street
Clarence, NY 14031
(716) 759-7821
www.barronandassociatespc.com

APPENDIX A

TEST BORING LOGS

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BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

7.a

JOB No.: 20-533 **BORING No.:** B-1

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.7
DATE COMPLETED:	5/18/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 / 0					Asphalt (6")
	5 9 9	S-1 : 0.5'- 2.0'	18	50	Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, little Clay, tr. Asphalt, moist (Crushed Limestone-Fill)
	12 7 7 7	S-2 : 2.0'- 4.0'	14	2	Brown, stiff CLAY, some Silt, little Gravel, little f/c Sand, mod. plastic, moist (CL-Till) *(Poor recovery due to large gravel caught in shoe.)*
670 / 5	50/3"	S-3 : 4.0'- 4.3'	50+	100	...grade: hard
		C-1 : 4.5'- 9.5'	-	83.3 (22.5)	ONONDAGA LIMESTONE: med. dark gray, finely crystalline, band to thin bedded, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE) # pieces > 1": 17 # pieces > 4": 3 longest piece: 4.75"
665 / 10					Depth to Bottom of Hole: 9.5 feet
660 / 15					
655 / 20					
650 / 25					
645 / 30					
640 / 35					

Logged by: B. Smith

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

7.a

JOB No.: 20-533 **BORING No.:** B-2

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.4
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 – 0	2 8 14 50/4" REFUSAL	S-1 : 0.0'- 2.0'	-	-	Topsoil (4")
					Dk. brown, m. dense f. SAND and SILT, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM-ML)
					(Driller hand excavated upper two feet.)
		S-2 : 2.0'- 3.8'	22	60	Brown, v. stiff CLAY, some Silt, little Gravel, little f/c Sand, mod. plasti moist (CL-Till)
670 – 5					...grade: and Gravel
					Depth to Bottom of Hole: 3.8 feet
665 – 10					
660 – 15					
655 – 20					
650 – 25					
645 – 30					
640 – 35					

Logged by: B. Smith

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

7.a

JOB No.: 20-533 **BORING No.:** B-3

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.6
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 0	34 50/5" REFUSAL	S-1 : 0.5'- 1.4'	50+	25	Asphalt (6") Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, t Asphalt, moist (Crushed Limestone-Fill)
670 5					Depth to Bottom of Hole: 1.4 feet
665 10					
660 15					
655 20					
650 25					
645 30					
640 35					

Logged by: B. Smith

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BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

7.a

JOB No.: 20-533 **BORING No.:** B-4

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	678.7
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
0 / 675	12 10 7				Asphalt (6")
		S-1 : 0.5'- 2.0'	17	30	Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, t Asphalt, moist (Crushed Limestone-Fill)
5	2 10 50/4"	S-2 : 2.0'- 3.3'	60+	60	Brown, hard CLAY, some Silt, little Gravel, little f/c Sand, mod. plastic, moist (CL-Till)
	REFUSAL				Depth to Bottom of Hole: 3.8 feet
670 / 10					
665 / 15					
660 / 20					
655 / 25					
650 / 30					
645 / 35					

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BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

7.a

JOB No.: 20-533 **BORING No.:** B-5

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.6
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 – 0	22 50/1" REFUSAL	S-1 : 0.5'- 1.0'	50+	30	Asphalt (6") Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, t Asphalt, moist (Crushed Limestone-Fill)
670 – 5					Depth to Bottom of Hole: 1.5 feet
665 – 10					
660 – 15					
655 – 20					
650 – 25					
645 – 30					
640 – 35					

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

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BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

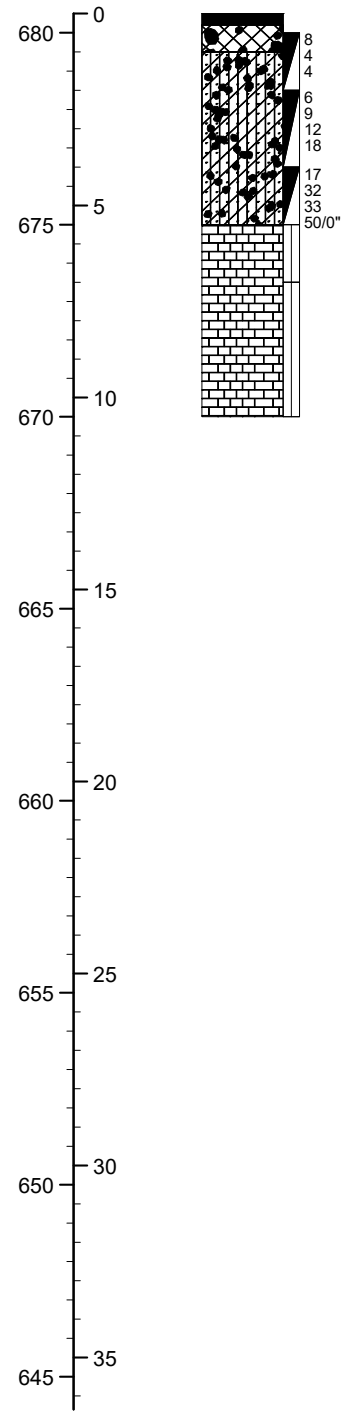
TEST BORING LOG

7.a

JOB No.: 20-533 **BORING No.:** B-6

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	680.5
DATE COMPLETED:	5/18/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None



Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
			Asphalt (4")
S-1 : 0.5'- 2.0'	8	75	Gray, loose f/c sand to gravel sized Crushed Limestone, little Silt, tr. Asphalt, moist (Crushed Limestone-Fill)
S-2 : 2.0'- 4.0'	21	50	Brown, stiff CLAY, some Silt, little f/c Sand, tr. Gravel, mod. plastic, moist (CL-Till) ...grade: v. stiff, little Gravel
S-3 : 4.0'- 5.5'	65	40	...grade: hard, some Gravel
C-1 : 5.5'- 7.0'	-	83.3 (0)	ONONDAGA LIMESTONE: med. dark gray, finely crystalline, band, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE)
C-2 : 7.0'- 10.5'	-	33.3 (28.8)	# pieces > 1": 5 # pieces > 4": 0 longest piece: 3.5" ...grade: band to thin bedded # pieces > 1": 9 # pieces > 4": 2 longest piece: 4.75"

Depth to Bottom of Hole: 10.5 feet

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

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BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street
Clarence, NY 14031
(716) 759-7821
www.barronandassociatespc.com

APPENDIX B

GEOTECHNICAL REFERENCE STANDARDS

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

Column Header Descriptions

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BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET
CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

JOB No.: BORING No.:

PROJECT:

EXAMPLE

DRILLER:
SAMPLING METHODS:
DATE STARTED:
DATE COMPLETED:

TYPE OF DRILL RIG:
SIZE AND TYPE OF BIT:
SURFACE ELEVATION (ft.):
GROUNDWATER DEPTH (ft.):
(measured at completion unless indicated below)

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0	1 1 1 2 / 6 8 11 14	S-1 : 0.0'- 2.0'	2	50	Dk. brown, soft, CLAY, some Silt, little f. Sand, tr. Gravel, tr. Roots, tr. Organic matter, mod. plastic, wet (CL)
		S-2 : 2.0'- 4.0'	19	50	Brown, m. dense f. SAND, some Silt, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM)

Elevation/Depth: The depth column provides the vertical scale of the boring log in feet below ground surface.

Sample No. : Range: Disturbed samples are identified with “S” preceding the sample number. Undisturbed (Shelby-tube) samples are identified with “U” preceding the sample number. Rock core samples identified with “C” preceding the core run. The range of elevation/depth where the sample was taken is identified in one-tenth foot increments.

N-value: The Standard Penetration Test N-value, as specified by ASTM D1586, is defined as the number of blows required by a 140-pound hammer falling 30 inches, each blow, to drive a 2-in outside diameter split-spoon sampler 12 inches.

% REC (RQD): “Percent Recovery” is the length of samples recovered divided by the total length sampled. The result is numerically expressed as a percent. The Rock Quality Designation (RQD) is the total length of places >4 inches divided by the total length of core run.

Soil and Rock Description / Remarks: This column denotes the exact depth of recovery and general documentation of drilling efforts. Description and classification are based on visual inspection of samples and boring operations. The stratum lines shown on the boring logs are based upon interpretation and may not represent precise subsurface conditions. Water-level readings have been made in the drill holes at time under conditions stated on the boring logs. Fluctuations in the water level may occur due to other factors than those present the time measurement was taken. See attached sheet.

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

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Soil and Rock Description / Remarks: Terminology Used for Soil Description

Density Description of Granular Soil

Number of Blows per ft., N	*Relative Density*
0 - 4	Very Loose
4 - 10	Loose
10 - 30	Medium
30 - 50	Dense
Over 50	Very Dense

Abbreviations Used in Soil Sample Classification

f - fine	v - very
m - medium	gr - gray
c - coarse	bn - brown
f/m - fine to medium	yel - yellow
f/c - fine to coarse	sl - slight
tr - trace	dk - dark

Consistency Description of Cohesive Soil

Number of Blows per ft., N	*Consistency*
Below 2	Very Soft
2 - 4	Soft
4 - 8	Medium
8 - 15	Stiff
15 - 30	Very Stiff
Over 30	Hard

Bedding

Parting	Less than 0.02 ft.
Band	0.02 - 0.2 ft.
Thin bed	0.2 - 0.5 ft.
Medium bed	0.5 - 1.0 ft.
Thick bed	1.0 - 2.0 ft.
Massive	Over 2.0 ft.

Grain Size

	Passing / Retained on
Boulder	LARGE / 12-in sieve
Cobble	12-in / 3-in sieve
Gravel	3-in sieve / No. 4 sieve
	No. 4 sieve / No. 10 sieve
Sand	No. 10 sieve / No. 40 sieve
	No. 40 sieve / No. 200 sieve
Silt	No. 200 sieve / 0.005 mm sieve
Clay	Smaller than 0.005 mm

Hardness

Very Soft or Plastic	Can be indented with thumb
Soft	Can be scratched with fingernail
Moderately Hard	Can be scratched with knife
Hard	Difficulty to scratch with knife
Very hard	Cannot be scratched with knife

Percentage Terminology Used in Soil Classification

Trace	0 - 10 %	Some	20 - 35 %
Little	10 - 20 %	And	35 - 50 %

Moisture

Dry	Absence of moisture, dusty, dry to the touch.
Moisture	Small quantity of moisture. Soil usually above groundwater level.
Wet	Moisture noticeable to the touch. Soil may be below groundwater level.
Saturated	Visible free water, usually soil is below groundwater level.

Plasticity

Non-plastic	An 1/8-in thread cannot be rolled at any water content.
Slight plasticity	Thread can be barley rolled.
Moderate plasticity	Thread is easy to roll and little time is required to reach the plastic limit (PL).
Plasticity	Considerable time is required to reach PL. Thread can be re-rolled several times after reaching the PL.

Crystallinity or Texture

Dense	Crystals are to small they cannot be distinguished with the naked eye.
Very Fine Crystalline	Crystals barely discernable with the naked eye.
Crystalline	Crystals are medium size, up to 1/8-in diameter.
Very Coarsely Crystalline	Crystals larger than 1/8-in diameter.

Voids

Porous	Smaller than pinhead. Their presence is indicated by the degree of absorbency.
Pitted	Pinhead size to 1/4 in. If thin walls separate the individuals pits, the core may be described as honeycomb.
Vug	1/4 inch to the diameter of the core. The upper limit will vary with core size.
Cavity	Larger than the diameter of the core.

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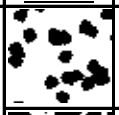
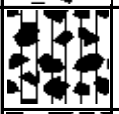
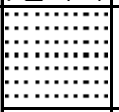
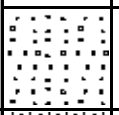
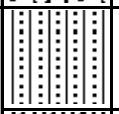
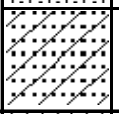
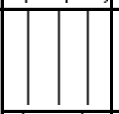
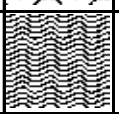
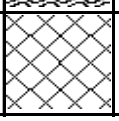
Soil Classification Chart: Unified Soil Classification System (USCS)

Major Divisions			Pattern	USCS ID	Typical Descriptions
Coarse-Grained Soils: More than 50% of material larger than No. 200 sieve	**Gravels**: More than 50% of coarse fraction larger than No. 4 sieve	Clean Gravels (little or no fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with appreciable amounts of fines		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-silt mixtures
	Sands: Less than 50% of coarse fraction larger than No. 4 sieve	Clean sands (little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sands, little or no fines
		Sand with appreciable amount of fines		SM	Silty sands, silt-sand mixtures
				SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils: Less than 50% of material larger than No. 200 sieve	**Silts and Clays, Low plasticity**: Liquid Limit < 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravely clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays, High plasticity: Liquid Limit > 50%			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils				Pt	Peat, humus, swamp soils with organic contents
Miscellaneous Fill				FILL	Miscellaneous fill may belong in any division but is identified as FILL

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APPENDIX C

ENGINEERING COMPUTATIONS AND SCHEMATICS

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

"PROFILE" OF BORINGS

ELEVATION (feet)

690
685
680
675
670
665
660
655
650

B-1
Asphalt (6")
18
Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, little Clay, tr. Asphalt, moist (Crushed Limestone-Fill)
14
Brown, stiff CLAY, some Silt, little Gravel, little f/c Sand, mod. plastic, moist (CL-Till)
50+
(Poor recovery due to large gravel caught in shoe.)
...grade: hard
-
ONONDAGA LIMESTONE: med. dark gray, finely crystalline, band to thin bedded, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE)
pieces > 1": 17
pieces > 4": 3
longest piece: 4.75"
Depth: 9.50'

B-2
Topsoil (4")
Dk. brown, m. dense f. SAND and SILT, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM-ML)
22
(Driller hand excavated upper two feet.)
Brown, v. stiff CLAY, some Silt, little Gravel, little f/c Sand, mod. plastic, moist (CL-Till)
...grade: and Gravel
REFUSAL
Depth: 3.80'

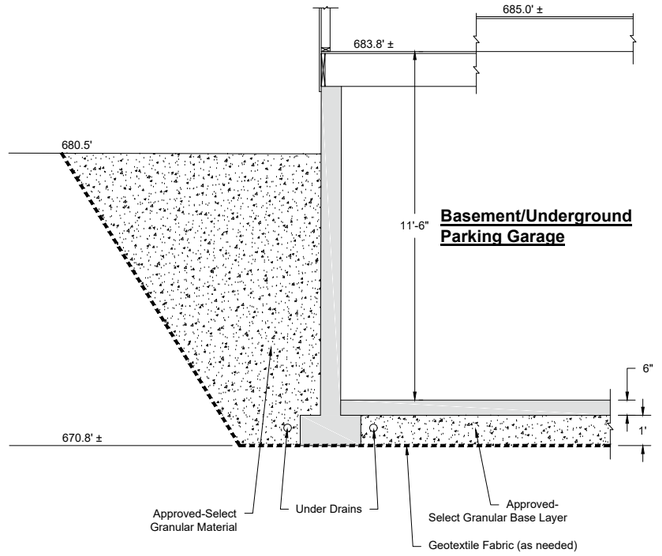
B-3
Asphalt (6")
50+
Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, tr. Asphalt, moist (Crushed Limestone-Fill)
REFUSAL
Depth: 1.40'

B-5
Asphalt (6")
50+
Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, tr. Asphalt, moist (Crushed Limestone-Fill)
REFUSAL
Depth: 1.50'

B-4
Asphalt (6")
17
Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, tr. Asphalt, moist (Crushed Limestone-Fill)
60+
Brown, hard CLAY, some Silt, little Gravel, little f/c Sand, mod. plastic, moist (CL-Till)
REFUSAL
Depth: 3.80'

B-6
Asphalt (4")
8
Gray, loose f/c sand to gravel sized Crushed Limestone, little Silt, tr. Asphalt, moist (Crushed Limestone-Fill)
21
Brown, stiff CLAY, some Silt, little f/c Sand, tr. Gravel, mod. plastic, moist (CL-Till)
65
...grade: v. stiff, little Gravel
...grade: hard, some Gravel
-
ONONDAGA LIMESTONE: med. dark gray, finely crystalline, band, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE)
-
pieces > 1": 5
pieces > 4": 0
longest piece: 3.5"
...grade: band to thin bedded
pieces > 1": 9
pieces > 4": 2
longest piece: 4.75"
Depth: 10.50'

Exterior Perimeter Footing Detail (Typical):



Note: Bear footings on stable, natural, approved limestone bedrock or on approved select granular fill section placed in loose lifts no greater than 12 inches thick and compacted to 95% of max. dry density as per ASTM D1557.

Basement/parking garage will require the removal of up to four feet of limestone bedrock. If the approved bedrock depth is less than four feet below final exterior grade, hooked rebar dowels (No. 4 or 5) are recommended to be placed in grout filled holes at approximately a four-foot spacing and extending to a minimum total depth of four feet into approved bedrock.

On above conditions: USE Q_{ALLOW} = 5,000 PSF

Paving
Gravel Fill
Cohesive Glacial till
Limestone
Topsoil
Poorly graded silty fine sand
Drill rejection

BARRON & ASSOCIATES, P.C. & BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET, CLARENCE, NEW YORK 14031

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

Plotted by: A. Camping
7/17/2020

Job No.: 20-533

Page No.: 1 0f 3

Scale: 1" = 5'

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Clarence, NY 14031 www.barronandassociatespc.com

DATA INPUT BY: Andrew J. Camping
B&A JOB NO.: 20-533
CLIENT: Benderson Development Company, LLC
PROJECT: Proposed Two-Story Building with Underground Garage
4548 & 4564 Main Street, 22 Chateau Terrace and
17 Fruehauf Avenue
Town of Amherst, Erie Co., New York 14226

BUILDING CODE OF NEW YORK STATE © - 2010: USGS 2008 ACCELERATIONS at 2% IN 50 YEARS CALCULATED BY LATITUDE AND LONGITUDE

Site Latitude (○) = +42.9632

Site Longitude (○) = -78.7817

Seismic Site Class = B

Building/Structure with Shallow Foundation

S_s = 0.2 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_s

LAT. = \ LONG. =	-78.8000	-78.7817	-78.7500
42.9500	0.21962		0.22027
+42.9632	0.21991	0.22012	0.22050
43.0000	0.22071		0.22114

S_1 = 1.0 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_1

LAT. = \ LONG. =	-78.8000	-78.7817	-78.7500
42.9500	0.05091		0.05109
+42.9632	0.05095	0.05101	0.05112
43.0000	0.05105		0.05122

SEISMIC SITE CLASS	Site Coefficient and Design Spectral Response Acceleration Values			
	0.2 Second		1.0 Second	
	F_a	$S_{ds} = 0.6667 * F_a * S_s$	F_v	$S_{d1} = 0.6667 * F_v * S_1$
A	0.8000	0.1174 g	0.8000	0.0272 g
B	1.0000	0.1468 g	1.0000	0.0340 g
C	1.2000	0.1761 g	1.7000	0.0578 g
D	1.6000	0.2348 g	2.4000	0.0816 g
E	2.5000	0.3669 g	3.5000	0.1190 g
F	2.5000	0.3669 g	3.5000	0.1190 g

<<------- USE THESE VALUES FOR SHALLOW FOUNDATIONS

Only residential buildings in Town of Amherst, Erie Co., N.Y.
Sds = 0.147 g Seismic Design Category = A

NOTE: F_a and F_v values are linearly interpolated, for the above S_s and S_s values, respectively, within the appropriate range of the mapped spectral response accelerations.
(Gridded data at 0.05 degree increments from: http://earthquake.usgs.gov/research/hazmaps/products_data/2012/data/)

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B&A JOB NO.: 20-533

DATE: 07/16/20

LATERAL EARTH PRESSURE ON GENERIC BLOCK FOUNDATIONS FOR SIGNS, FREE-STANDING RETAINING WALLS, OR BELOW GRADE/BASEMENT/TANK/POOL RETAINING WALLS (Less Than 20 Feet High)

a) Porous filter media, in contact with the basement/below grade foundation wall or retaining walls, protects and is in contact with a minimum 4 inch diameter perforated drainage pipes at the footing/base of the foundation/structural wall (exterior backfill side and interior basement side) and/or weep pipes through the wall, as needed and as applicable.

b) Where recommended, a geotextile filter fabric will protect the gravel filter media from the earth backfill. Overlap unsewn seams as per the manufacturer's recommendations.

c) Waterproof earth side of wall, as is customarily provided in practice.

d) Drainage pipes are connected to an appropriately designed collector pipe, conveyance, and/or sump pump system as is applicable for the intended purpose of the wall and as customarily provided/installed in practice.

e) For potential groundwater table conditions above the top of the basement slab-on-grade condition, install continuous waterstops (with no joints in stop) at wall and floor construction joints, as is customarily provided in practice. Interior intermediate drainage pipes beneath the slab, that are spaced on-center and in both directions, do appear to be needed.

f) Assume a uniformly graded, clean coarse sand or sandy gravel backfills:

* equivalent N-value in a dense state: $(N_1)_{60}$ = 40 blows/foot
* friction angle: ϕ' = 38 degrees {Teng, pg. 12}
* average in-place densities: moist - γ_m = 120 pcf
  saturated - γ_{sat} = 132 pcf submerged - $\gamma' = (\gamma_{sat} - \gamma_w)$ = 70 pcf

g) Assume at base of wall/footing, coefficient of friction against sliding (f_s) at base of wall (Refer to Teng, pg. 320-1):

f_s = tan (0.58 x ϕ') = 0.40 (AREA silty soil to silty coarse-grained soil)

h) Use equivalent fluid pressure design approach {Hough, pg. 249 and NAVFAC pg. 7-10-9}:

* at rest pressure coefficient - K_0 = 1 - sin (ϕ') = 0.38
* effective lateral pressure of soil - γ'_l = K_o x γ' = 26.6 pcf
* hydrostatic pressure - γ_w = 62.4 pcf
* equivalent fluid pressure with water level at the top of the grade at the wall - γ_{eo} = $\gamma'_l + \gamma_w$ = 89 pcf (say 90 pcf)
* equivalent fluid pressure with compaction induced lateral stress increase (W&F, pg 409) - γ_{eo} = 2 x K_o x γ_m = 91 pcf (say 90 pcf)
* active pressure case - K_a = [1 - sin (ϕ')] / [1 + sin (ϕ')] = 0.24
  γ_{ea} = K_a x γ_m = 29 pcf (say 30 pcf)
* passive pressure case - K_p = [1 + sin (ϕ')] / [1 - sin (ϕ')] = 4.2
  γ_{ep} = K_p x γ_m = 504 pcf (say 330 pcf with a F.S. = 1.5)

		Thoroughly Compacted ⇒⇒		Uniformly Graded & Clean Coarse Sand or Sandy Gravel Fill	Non-Plastic Silty Sand or Sandy Silt Fill	
USE:	Earth Pressure Coefficient	Static Active	=	0.24	0.33	
		Static At-Rest	=	0.76	1.00	
		Static Passive	=	2.80	2.00	(with F.S. = 1.5)
		Static Passive	=	4.20	3.00	(with F.S. = 1.0)
USE:	Equivalent Fluid Pressure	Static Active	=	30 pcf		
		Static At-Rest	=	90 pcf (for rigid walls)		
		Static Passive	=	330 pcf (with F.S. = 1.5)	[500 pcf with (with F.S. = 1.0)]	

[For earthquakes, structural engineer may elect to use the above Static Passive case instead of the below Earthquake Lateral Load for Non-Yielding Wall movement into the soil backfill.]

USE: Simplified Model for Earthquake Lateral Load/Ft. Wall Length @ 0.6 H_{bw} above base. Loads for Non-Yielding Wall.

H_{bw} = Earth Height Behind Wall (feet)

Reduce load by 33% for Yielding Wall (active case) = (6.8 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.25 g)

(γ_m = 120 pcf for S_{ds} value. Add to Static At Rest/ Active Pressure/Load for unsaturated backfill case) = (13.5 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.50 g)

= (17.5 psf / foot) x H_{bw}^2 (NEern NYS, $S_{ds} \leq 0.65$ g)

[Above for Site Class C to E soils. Interpolate for other S_{ds} values.
Use 1.75 x values for walls on Class B/A rock or on rigid foundation base. (FEMA NEHRP Guidelines)]

Saturated/Liquified Soil During Earthquake = 132 pcf
(Equivalent Fluid Pressure. Add to inertial hydrodynamic pressure, not presented here.)

{For looser/denser backfills, adjust above pressures by the ratio = new density / 120 pcf or / 132 pcf (for saturated case)}

USE:	Coefficient of Friction Against Sliding (f_s)	= 0.45	(on compacted NYSDOT Item #304.12 or #304.14 gravels)
	(use lowest f_s with no underlying weaker layers)	= 0.35	(on compacted granular soil & non-plastic silt)
		= 0.20	(slab-on-grade on polyethylene on granular fill)
	[with a F.S. = 1.0]	= 0.60/0.50	(on clean, rough, & sound bedrock/smooth bedrock)
	Min. Factor of Safety Against Sliding	= 1.5	*[Rev.9-30-09]*

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APPENDIX D

GENERAL EARTHWORK SPECIFICATION

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Barron & Associates, P.C.
GENERAL EARTHWORK SPECIFICATION

PART 1 GENERAL

1.1 SITE AND SUBSURFACE CONDITIONS

1.1.1 Overview

This specification is included as a courtesy to the clients of Barron & Associates, P.C, and addresses earthwork site preparation. Additions and modifications are necessary to create a job-specific specification. This specification may serve as a basis for the development for a technical specification under Division 2, *Site Work*.

1.1.2 Site Conditions

The site-specific conditions are described under separate cover or may be available from the OWNER.

1.1.3 Subsurface Conditions

The site-specific subsurface conditions are described under separate cover or may be available from the OWNER.

1.2 REFERENCES

American Standard for Testing and Measurement (ASTM):

ASTM C136	Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C2922	Density for Soil and Soil-Aggregate in Place by Nuclear Methods
ASTM D422	Test Method for Particle-Size Analysis of Soils
ASTM D1140	Amount of Material in Soils Finer Than the No. 200 Sieve
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft^3)
ASTM D2216	Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D2487	1990 Classification of Soils for Engineering Purposes
ASTM D4318	Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.3 DEFINITIONS

1.3.1 Unacceptable Material

Soil material containing debris, wood, scrap material, vegetation, refuse, soft unsound particles, and other organic, frozen, deleterious, or objectionable materials. Contaminated soils shall be properly documented and removed or remediated on site. If necessary, remediation procedure will be defined by the OWNER.

1.3.2 Unsuitable Material

Brown, organic topsoil and underlying soft pockets of organic silt or wet, reworked silty clay.

1.3.3 Ordinary Fill

Friable soil containing no stone greater than two-thirds loose lift thickness and no unacceptable or unsuitable materials. In general, existing random fill is expected to be acceptable for reuse as ordinary fill given proper sorting, blending, drying, and controlled placement methods.

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1.3.4 Granular Fill

Ordinary fill meeting the designation of ASTM D2487 classification of GW with a maximum of 10 percent by weight passing ASTM D1140, No. 200 sieve.

1.3.5 Select Granular Fill

Clean, uncoated soil which contains no unacceptable materials and conforms to the gradation requirements defined in Table A: Select Granular Fill.

Table A: Select Granular Fill	
Sieve Size	Percent Finer by Weight
2/3 of the loose lift thickness	100
No. 10	30 - 95
No. 40	10 - 70
No. 200	0 - 15

1.3.6 Sand and Gravel

Clean, hard, durable, uncoated particle of sand and gravel, free from lumps of clay, containing no unacceptable matter, and conforming to gradation requirements of *Table B : Sand and Gravel*

Table B: Sand and Gravel	
Sieve	Percent Finer by Weight
*	100
No. 4	50 - 85
No. 10	--
No. 40	10 - 35
No. 100	--
No. 200	0 - 8

* Job-Specific. To be determined by the ENGINEER

1.3.7 Crushed Stone

Clean, durable, sharp-angled fragments of rock or crushed gravel stone of uniform quality, containing no unacceptable matter, free from coatings, and conforming to gradation requirements of *Table C: Crushed Stone*

Table C: Crushed Stone		
	Percent Passing	
Sieve Size	¾-inch Stone	1 ¼-inch Stone
1 ½-inch	__	100
1 ¼-inch	__	85-100
1- inch	100	__
¾-inch	90-100	10-40
5/8-inch	__	__
½-inch	10-50	0-8
3/8-inch	0-20	__
#4	0-5	__

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1.3.8 Flowable Fill

Also known as Controlled Low Strength Material – Controlled Density Fill (CLSM-CDF), this material is available under a variety of producer names (e.g., K-Krete©, M-Crete, Flash Fill©, Flowable Mortar, Unshrinkable Fill, etc.). This non-settling backfill mixture is most commonly used for its flowable characteristics, its support strength under traffic loads, and its removability at a later date. The material may be produced on-site or off-site. In either case, the producer of such materials and the product must meet certain certification criteria. Such information is beyond the scope of this specification and will be considered on a site-specific basis.

Flowable fill may be acceptable for use as a backfill for utility trenches of other low-lying areas which require a compacted granular fill. Its use and warranty of performance is left to the CONTRACTOR in such applications.

The use of flowable fill under load-bearing structural components in place of properly placed and compacted granular fill is NOT common and is questionable. The localized use of such material may have profound affects on the performance of a foundation system. Site-specific conditions and the extent of anticipated use of flowable fill must be examined by geotechnical engineer. Cost of such consultation shall be borne by the CONTRACTOR unless specifically directed by the OWNER to seek such consultation. Without such consultation, warranty of performance for such use is left to the CONTRACTOR.

1.4 SUBMITTALS

The following submittals shall be provided in accordance with approved submittals procedures.

1. Fill Source: Provide name and source locations of fill material.

2. Field Test Reports: Field tests will be performed by OWNER's Representative as needed. CONTRACTOR may be required to perform such tests on proposed off-site fill materials.
a. Fill material grain size analyses per ASTM C136, D422, D1140, D2487
b. Moisture/Density test results per ASTM D2216
c. Liquid limit, plastic limit, and plasticity index per ASTM D4318
d. Compaction/Density test results per ASTM C2922 and D1557

3. Sample: Geotextile fabric

PART 2 PRODUCTS

Geotextile Fabric: Mirafi 600X or equal. (Also referred to as synthetic fabric).

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 General

Manner of excavation shall minimize disturbance of underlying natural ground. If deemed necessary by the Engineer, alter construction procedures to reduce subgrade disturbance. Excavate areas which have been excessively disturbed to firm ground and backfill with properly compacted granular fill.

3.1.2 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

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3.1.3 Trees, Shrubs, and Existing Facilities

Protect from any damage all vegetation and facilities identified to remain.

3.1.4 Utility Lines

Locate all utilities within the area of disturbance prior to the start of work. Show locations on initial plans. Protect utility lines from damage. Notify the ENGINEER immediately of damage to or an encounter with an unknown utility. Damage to utility lines are to be repaired by the CONTRACTOR at no additional cost. The CONTRACTOR shall have underground utility owners stake out utility locations prior to the start of clearing and excavation operations.

3.2 VERIFICATION OF CONDITIONS/PROOF-ROLLING

Prior to placement of the initial layer of fill over the natural ground, proof-roll the exposed natural ground above the groundwater table elevation by making two passes with a fully-loaded ten-wheel truck. Excavate unstable areas detected by this process and replace with compacted granular fill.

3.3 PREPARATION

3.3.1 Surface Preparation

Within the site limits indicated on the drawings, excavate all unsuitable material to firm natural ground in the manner specified herein. Follow a construction procedure which permits visual identification of firm natural ground. In the even that groundwater is encountered, the ENGINEER may require that the size of the open excavation be limited to that which can be handled by open pumping to allow visual inspection of the excavation bottom and the performance of backfill operations to be conducted in a dry state.

Excavation of unsuitable material shall be limited to the greater of the following:

- A distance of 5 feet beyond building lines or
- The area defined by a one-horizontal to one-vertical line sloping down from the outside bottom edge of exterior footings to firm natural ground.

3.4 PLACEMENT AND COMPACTION

3.4.1 General

Place fill in accordance with *Table D: Compaction Alternatives*. These alternatives are provided as minimum compaction
standards only and in no way relieve the CONTRACTOR of his obligation to achieve any specified degree of compaction by whatever means may be necessary.

Grade to provide positive drainage and a smooth surface which will readily shed water. To the extent practicable, compact each layer to the specified density on the same day placed. Place fill in horizontal layers. Where horizontal layers meet a natural slope, key layer into slope by cutting a bench.

Fill that is too wet for proper compaction: Disc, harrow, or otherwise dry to proper moisture content for compaction to the required density.

Fill that is too dry for proper compaction: Uniformly apply water over the surface of the loose layer in sufficient quantity to allow compaction to the required density.

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Table D: Compaction Alternatives					
Compaction Method	Max. Stone Size	Maximum Loose Lift Thickness (inches)		Maximum Number of Passes	
		Below Structure and Pavements	Less Critical Areas	Below Structure and Pavements	Less Critical Areas
Hand operated vibratory plate of light roller in confined areas	3	4	4	4	4
Hand operated vibratory drum rollers weighing at least 1,000 pounds in confined areas	4	6	8	4	4
Loaded 10-wheel truck or D-8 crawler	6	10	12	4	2
Light vibratory drum roller; Min. weight at drum 8,000lbs; Min. dynamic force 10,000lbs.	8	12	12	6	2
Minimum vibratory drum; Min. weight at drum 10,000lbs; Min. dynamic force 20,000lbs.	8	18	18	6	4

3.4.2 Dewatering

Provide adequate pumping and drainage facilities to keep excavated areas sufficiently dry of groundwater and surface run-off. Dewatering shall avoid adversely affection construction procedures or causing excessive disturbance of underlying natural ground. Drain all pumped water in such a manner as to avoid damage to adjacent property.

If requested by the ENGINEER, place a 6-inch to 12-inch layer of sand and gravel or crushed stone over the natural underlying soil to stabilize area which have been disturbed due to groundwater seepage pressures and to expedite dewatering operations. Particular attention shall be given areas under proposed foundations.

3.5 FIELD QUALITY CONTROL

3.5.1 Compaction Requirements

Allow the ENGINEER sufficient time to make necessary observations and tests. Base the degree of compaction on maximum dry density as determined by ASTM D1557. The minimum degree of compaction for placed fill shall be as indicated *in Table E: Compaction Requirements.*

Table E: Compaction Requirements	
Area	Minimum Degree of Compaction (%)
Below foundation	95
Pavement and building subbase and base courses	95
Below building slab base course and above bottom of foundation	92
Below pavement subbase and base courses	90
Trench backfill outside of building	90
Trench backfill inside of building	Refer to one of the above-listed categories
Ordinary fill within 5 feet of grade	90
Vegetated areas below 5 feet of grade	85

3.5.2 Testing

Site work should be monitored and tested by geotechnical ENGINEER or his representative and in accordance with requirements of the design team to assure compliance with earthwork and foundation construction specifications.

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The owner will retain a geotechnical ENGINEER or his representative to perform on-site observations and testing during this phase of construction operations. The geotechnical ENGINEER or his representative will:

- Observe excavation and dewatering of building and controlled fill areas;
- Observe backfill and compaction within building and controlled fill areas;
- Laboratory test and analyze fill material; and
- Observe construction – and performing water content, gradation, and compaction tests.

On a timely basis, the CONTRACTOR will receive copies of test results submitted to the OWNER. In addition, during construction the geotechnical ENGINEER will advise the OWNER and CONTRACTOR in writing of conditions which fail to conform to the Contract Documents. The CONTRACTOR shall take immediate action to remedy indicated deficiencies.

The geotechnical ENGINEER or his representative will not supervise or direct the actual work of the CONTRACTOR or employees and representatives of the CONTRACTOR. The presence of, observations by, and testing performed by the geotechnical ENGINEER or his representatives shall not excuse the CONTRACTOR from defects discovered in the work.

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BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

APPENDIX E

LIMITATIONS

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

LIMITATIONS

1. This report is based on the data that was obtained from the subsurface explorations and on the design of the proposed two-story building with underground garage as submitted to the geotechnical engineer. A geotechnical engineer, who is experienced in foundation construction and earthwork, should be engaged to review the final design and specifications in order to determine whether any change in concept may have any effect on the validity of the conclusions presented herein, and whether these conclusions have, in fact, been implemented in the design and specifications.

2. The subsurface conditions, including thickness, between the exploration locations are approximate and simplified representations of the strata and transitions. There is the possibility that variations in soil and rock conditions and boundaries will be encountered during construction. In order to permit correlation between the exploratory soil data and the actual soil conditions encountered during construction and so as to assess conformance with the plans and specifications as originally contemplated, it is recommended that a geotechnical engineer, who is experienced in foundation construction and earthwork monitoring, should be retained to perform continuous construction review during the site preparation and foundation construction operations.

3. The subsurface exploration logs and subsurface conditions may aid in estimating material quality and quantities, such as topsoil/organic matter, fills, natural soils, and rock, but are not to be relied upon as the exclusive means for bid preparation purposes. It is the responsibility of the contractor to perform any additional site examinations and explorations and to prepare an accurate bid.

4. Disclaimers:

   a. In the event that any changes in the nature, design or location of the structure are planned, the conclusions that are contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing.

   b. The geotechnical engineering report has been prepared for this project by Barron & Associates, P.C. This report is for assistance in design only and is not a sufficient basis on which to prepare an accurate bid.

   c. This report has been prepared for the exclusive use of Benderson Development Company, LLC of Buffalo, New York, their client(s) and their designated design representatives, for specific application to the construction of a two-story building with underground garage at 4548 & 4564 Main Street, 22 Chateau Terrace, and 17 Fruehauf Avenue in the Town of Amherst, Erie County, New York and in accordance with generally accepted geotechnical engineering practice. No other warranty, expressed or implied, is made.

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COMMONWEALTH
HERITAGE GROUP

NEW YORK OFFICE
2390 Clinton Street
Buffalo, NY 14227
(716) 821-1650

HEADQUARTERS
3215 Central Street
Dexter, MI 48130
(517) 788-3550

Other locations
Alexandria, VA
Columbus, OH
Gainesville, FL
Littleton, MA
Memphis, TN
Milwaukee, WI
Minneapolis, MN
Ogden, UT
Tarboro, NC
Traverse City, MI
Tempe, AZ
Tucson, AZ
West Chester, PA

DOCUMENTATION REPORT:

22 CHATEAU TERRACE,

TOWN OF AMHERST,

ERIE COUNTY, NEW YORK

Prepared for:

BENDERSON DEVELOPMENT COMPANY, LLC
570 Delaware Avenue
Buffalo, New York 14202

Prepared by:

COMMONWEALTH HERITAGE GROUP, INC.
New York Regional Office
2390 Clinton Street
Buffalo, New York 14227-1735
(716) 821-1650

June 2022

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

COMMONWEALTH HERITAGE GROUP

DOCUMENTATION REPORT: 22 CHATEAU TERRACE, TOWN OF AMHERST, ERIE COUNTY, NY

Prepared for:

BENDERSON DEVELOPMENT, LLC
570 Delaware Avenue
Buffalo, NY 14202

Prepared by:

Christine M. Longiaru, M.A., Senior Architectural Historian
Mark A. Steinback, M.A., Project Director

CHG# NY-0179

COMMONWEALTH HERITAGE GROUP, INC.
New York Regional Office
2390 Clinton Street
Buffalo, New York 14227-1735
(716) 821-1650

June 2022

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Management Summary

Involved Agencies: Town of Amherst, Historic Preservation Committee

Survey Type: Building documentation and S/NRHP eligibility assessment

Location Information:
Location: 22 Chateau Terrace, Snyder, Town of Amherst
County: Erie

Parcel: SBL: 68.7-6-19

USGS 7.5-Minute Quadrangle Maps: Buffalo NE, NY

Report Author(s): C. Longiaru, M. Steinback

Date of Report: June 2022

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Project Summary

Commonwealth Heritage Group, Inc. (Commonwealth) prepared this documentation report for the property at 22 Chateau Terrace in the Snyder area of the Town of Amherst, Erie County, New York, under contract to Benderson Development Company, LLC (Figures 1 and 2).[1] This documentation report includes a State and National Registers of Historic Places (S/NRHPs) eligibility assessment of the ca. 1920 residence at 22 Chateau Terrace. It was prepared for submittal to the Town of Amherst Historic Preservation Commission to comply with the "Historic Preservation Law of the Town of Amherst." The study included exterior and interior photographic documentation (see Appendix A), historical research, and an architectural investigation of the building. On-site field investigation was conducted in April 2022. Christine M. Longiaru, M.A., served as Principal Investigator and Senior Architectural Historian. Mr. Mark A. Steinback, M.A., New York Regional Director/ Senior Historian, was the Project Director. Ms. Longiaru and Mr. Steinback exceed the professional qualifications requirements (36 CFR 61) for their respective disciplines.



Figure 1. The property at 22 Chateau Terrace, Town of Amherst, Erie County, New York *(Commonwealth 2022).*

[1] Note, Commonwealth's New York Regional Office in Buffalo was formerly Panamerican Consultants, Inc. The Buffalo office has conducted 50 cultural resources investigations in the Town of Amherst.

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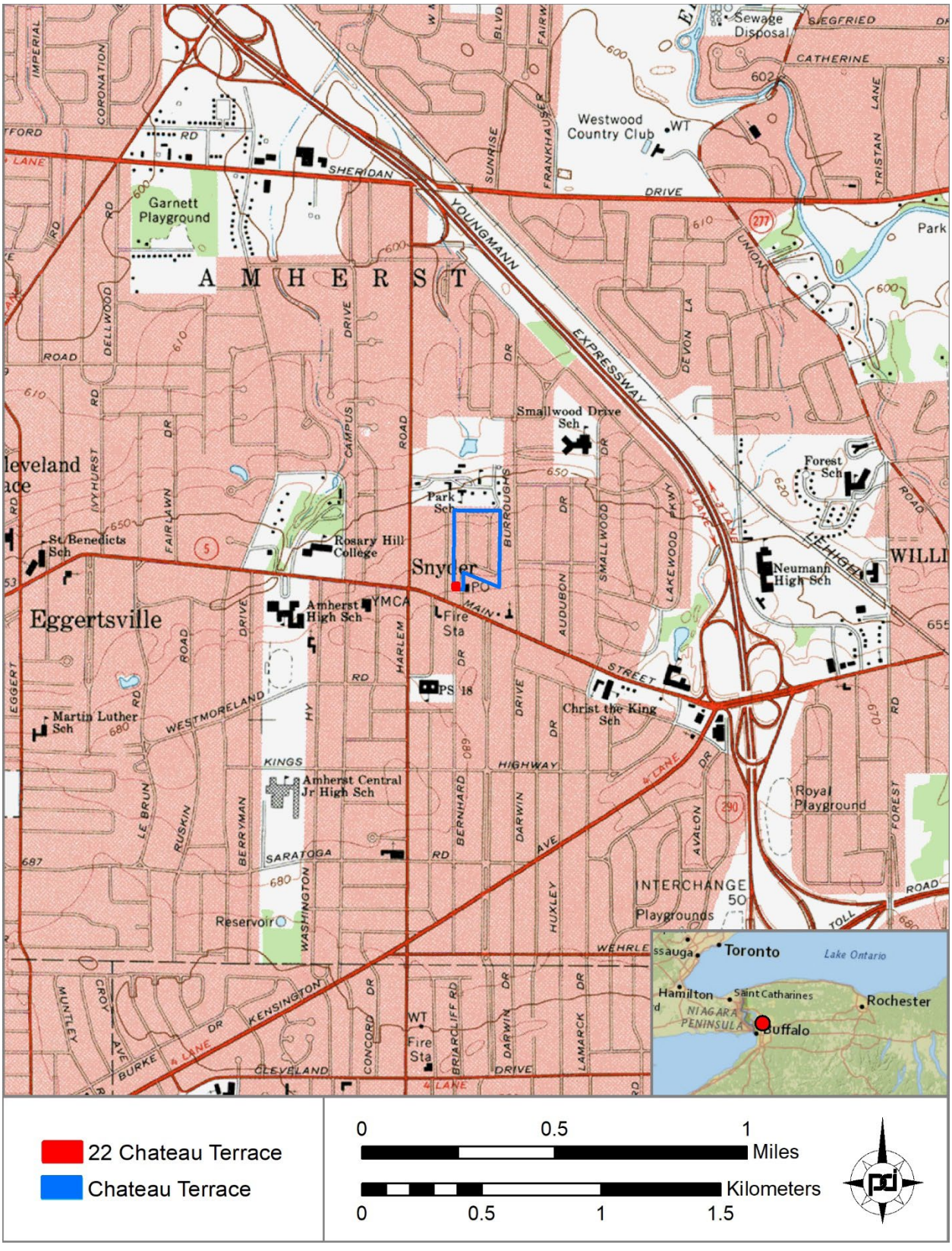

Figure 2 Location of the property at 22 Chateau Terrace, Town of Amherst, Erie County, New York *(USGS Buffalo Northeast, 1965).*

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Current State-level Inventory Status. The residence at 22 Chateau Terrace is in the Chateau Terrace Study Area (New York State Office of Parks, Recreation, and Historic Preservation [NYS OPRHP] Unique Site Number [USN] 02902.001453), which has not been formally evaluated for listing on the State and National Registers of Historic Places (New York State Cultural Resources Information System (CRIS 2022). A general boundary for the study area is delineated in CRIS, though individual residences in the Chateau Terrace Study Area have not been assigned USNs (Figure 3). Audubon Terrace Study Area adjacent to Chateau Terrace (USN 02902.001454) to the east is also a contemporary unevaluated subdivision.



Figure 3. Chateau Terrace Study Area at left as delineated by the NYS OPRHP. The general location of 22 Chateau Terrace is depicted by the red-shaded circle. Note, the adjacent Audubon Terrace Study Area boundary at right *(CRIS 2022).*

Previous Surveys

Local-level Historic Resources Survey Documentation. Chateau Terrace Study Area was first recommended as a potential historic district in the 1997 *Reconnaissance Level Survey of Historic Resources, Town of Amherst* (Bero 1997:Appendix F-6). The residence at 22 Chateau Terrace was identified as a contributing resource to a proposed historic district. In 1997, Chateau Terrace consisted of approximately 73 houses (52 contributing; 21 non-contributing). It included the following properties: 121 Chateau Terrace North; 7-65 and 10-42 Chateau Terrace South, 11-69 and 20-80 Chateau Terrace East 1-121 and 22-120 Chateau Terrace.

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As initially reported, Chateau Terrace Historic District was characterized as a cohesive early twentieth-century residential district consisting of modest scale houses. Chateau Terrace residences were primarily built during the 1920s and 1930s. A variety of popular residential architectural styles are represented in the neighborhood including Bungalow, Craftsman, American Foursquare, Colonial Revival, and Dutch Colonial Revival (Figure 4). Other features of Chateau Terrace include a winding street pattern with mature street trees. The 1997 survey also noted Chateau Terrace's significance at the local level for its association with Amherst's early twentieth-century suburban development.

The 1997 survey assigned a "yellow" color code for Chateau Terrace, which is the third level of color coding for properties in the reconnaissance survey's Annotated List (Bero 1997: Appendix F-6). A "yellow" designation for a property represents a property with moderate architectural and/or historical significance (Bero 1997: 101). Chateau Terrace was one of nine historic districts in Amherst recommended for the intensive level survey. However, the historic districts were not included in the 1998 intensive level survey (Bero 1998:2).



Figure 4. A representative view of 27, 23, and 19 Chateau Terrace in 1997 (*Reproduced from Bero 1997: Photo No. 52*).

In 2011, Chateau Terrace was reassessed in the *Updated Reconnaissance Level Survey of Historic Resources, Town of Amherst* (KTA 2011: Appendix 1-6). The 2011 survey determined Chateau Terrace Historic District met the criteria for a "blue rated" property. The definition of a "blue rated" property is presented below:

> **BLUE:** Extremely high architectural and/or historic significance. These properties would likely also meet the criteria for to be considered National Register eligible. A locally significant district. A resource that is rare and lacks individual distinction. All districts are considered Blue as are most farmsteads.

Seventy properties were identified in Chateau Terrace in 2011; 47 contributing and 23 noncontributing (KTA 2011:Appendix 1-6). The residence at 22 Chateau Terrace is included as a contributing resource (KTA 2011: Area 6-9). Chateau Terrace consists of the following properties: 11 to 77 Chateau Terrace East and 20 to 80 Chateau Terrace East; 7 to 47 Chateau Terrace South and 10 to 42 Chateau Terrace South; 22 to 120 Chateau Terrace and 65 to 121 Chateau Terrace (Figure 5).

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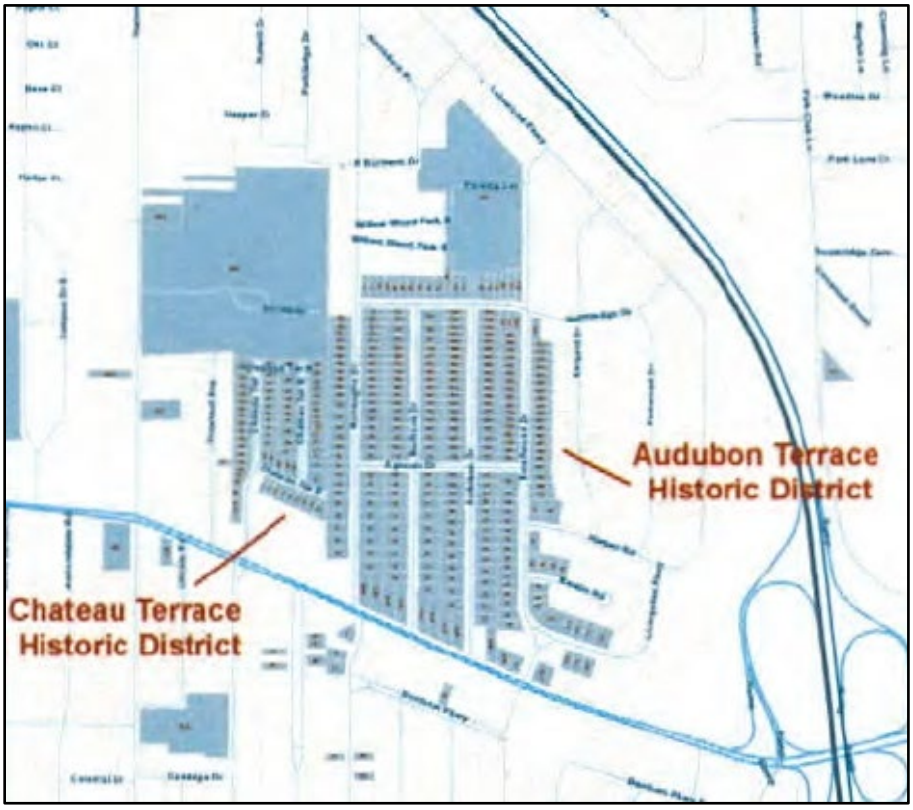

Figure 5. Chateau Terrace Historic District and the adjacent Audubon Terrace District in 2011 (*Reproduced from KTA 2011: Area 6*).

Methodology

Methodologies, historic overviews, and recommendations presented in previous historic resources surveys of the Town of Amherst informed this S/NRHP eligibility assessment for the individual subject property at 22 Chateau Terrace. To assess the historic significance of 22 Chateau Terrace further research was conducted on the development history of the Chateau Terrace Study Area and its surrounding area in the Snyder community. In April 2022, an online Freedom of Information Law (FOIL) request was made with the Town of Amherst Building Department and Planning Department for the following: 1) subdivision files for Chateau Terrace (Suor & Suor Building Company) and 2) building permit records for 22 Chateau Terrace (Online FOIL Request: 2134). The FOIL request did not yield any relevant historical information about the residence or the subdivision.[2]

A research inquiry for Chateau Terrace subdivision was also made with the The Niederlander Research Library of Buffalo Niagara Heritage Museum.[3] The library does not presently hold records specific to Chateau Terrace. Research was conducted at the Eggertsville-Snyder Branch Library and The Grosvenor Room-Special Collections department at the Central Library of the Buffalo & Erie County Public Library. Other research included online searches of relevant genealogical and newspaper web sites.

[2] Online FOIL Request #2134, Town of Amherst, NY (April 28, 2022). FOIL responses were received on May 4 and June 8, 2022.

[3] Rachel Ravago (Deputy Director for Collections and Interpretation, Buffalo Niagara Heritage Museum) in discussion with the author, May 2022.

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On-site documentation of the property was conducted on April 28, 2022. As noted above, the investigation included digital photography of the property's setting and the existing conditions of exterior and interior of the building (see Appendix A). Intact architectural details and the overall condition of the building were noted as were any changes to the building. A cursory drive through of the Chateau Terrace development was also carried out to support the S/NRHP eligibility assessment. The National Register Criteria for Evaluation was applied only to the individual property at 22 Chateau Terrace (National Park Service 2002).

> Criterion A: (Event) Properties that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> Criterion B: (Person) Properties that are associated with the lives of persons significant in our past; or
>
> Criterion C: (Design/Construction) Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> Criterion D: (Information Potential) Properties that have yielded, or may be likely to yield, information important in prehistory or history (*NPS Bulletin 15*, referencing 36 CFR 60).

A property is not eligible if it cannot be related to a particular time period or cultural group and thereby lacks any historic context with which to evaluate the importance of the cultural resource. The cultural property (e.g., historic structure or landscape) must also retain the historic integrity of those features necessary to convey its significance. Seven aspects or qualities of integrity recognized by the National Register are location, design, setting, materials, workmanship, feeling, and association. Actual determinations of eligibility for the S./NRHPs are made by the NYS OPRHP.

Historical Overview

Early Development of Town of Amherst. European-American settlement of the Niagara Frontier dates from the end of the American Revolution in 1783. During the next decade large grants of land in western New York would be sold to private investors who attempted to open the land to settlement. The land's initial purchasers, a syndicate of speculators headed by Oliver Phelps and Nathaniel Gorham, forfeited their obligations, and the rights to the unsurveyed portion of the area were sold to Robert Morris in 1791. Reserving a portion of the land for his own purposes, Morris sold the remainder, including all of present Erie County, to a consortium of Dutch investors, called the Holland Land Company, in 1792-1793 (Turner 1974 [1850]; Silsby 1961).

Joseph Ellicott was contracted in July 1797 to survey the company's land in western New York and divide it into townships. The process began in the spring of the following year. The current path of Main Street (NY Route 5), completed in 1803, was known as the Buffalo-Batavia Road to the early settlers. This road and the future City of Buffalo were laid out by Ellicott (White 1898). Once townships had been surveyed and roads in the area cut, settlement and growth followed quickly. The first land sales in Amherst were made in the autumn of 1803 to Samuel Kelsey, Henry Lake, Benjamin Gardner, and William Lewis, among others. The earliest settlers arrived the following year and included Timothy and Orlando Hopkins, John Hershey, Samuel McConnell, Alexander Logan, Caleb Rogers, Stephen Colvin, John King, and Joel Chamberlain. By 1808 Ellicott Creek (then known as Eleven Mile Creek) had been dammed and a grist mill was operating in what was then called Williams Mill. Erected by Jonas Williams, the mill was joined by a sawmill and later a tannery (Glover 1972:2). Niagara County (consisting of what are now Erie and Niagara counties) was formed from Genesee County in 1808.

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The War of 1812 stunted growth in Western New York which served as one of the primary theaters of that conflict, and areas near the border with Upper Canada (the current province of Ontario) were ravaged by attacks and counterattacks. After the war, Eleven Mile Creek (Ellicott Creek) offered a prime power source for nascent industrial growth, which in turn attracted settlers to the area. With increased population, new political divisions were made. The Town of Amherst was separated from the Town of Buffalo in April 1818 and named for Sir Jeffrey (or Geoffrey) Amherst, Commander of British forces in America in 1759 and 1760 and an early advocate of biological warfare (i.e., blankets infected with small-pox) against the Indians (White 1898:I:493-494; Fenn 2000:1573-1579). Erie County was created when all the land south of Tonawanda Creek was removed from Niagara County in 1821. The Town of Amherst achieved its present size in 1839 when the Town of Cheektowaga was created (White 1898:I:493-494).

The area received a tremendous economic boost when one terminus of the Erie Canal was located at the village of Buffalo. Begun in 1817, the Erie Canal linked Buffalo and Lake Erie with New York City when it opened on October 26, 1825. The completion of the canal attracted additional settlers to the region, including many German-speaking Alsatians, who began to populate the largely agricultural and unoccupied northern portions of the Town of Amherst in the early 1830s (Young 1965:260). Progress was slow since Ellicott Creek flooded regularly, and the nearby land had to be drained before it could be cultivated (Smith 1884:I:400). Despite these endeavors, the center of settlement in the Town of Amherst remained at Williamsville near the creek. Homesteaders focused on growing grain, notably wheat, and grazing cattle. The town's numerous creeks supported a variety of rural industries, including grist mills, a carding mill, sawmills, a tannery, a shoe-and-boot factory, a broom factory, a slaughterhouse, and two furnaces for processing iron needed by area blacksmiths (Glover 1972:2-3; League of Women Voters 1985:6; Amherst Museum 1997). The Fogelsonger limestone quarry was located between Snyder and Williamsville near what is now the entrance to the New York State Thruway. The population of the town increased during the middle decades of the nineteenth century from 4,153 in 1850 to 4,807 in 1875 (Beers 1880:18-19).

First completed to Buffalo in the 1840s, railroads played an important part in the development of western New York as an economic power during the nineteenth and twentieth centuries. As part of the effort "to connect the Hudson River and Lake Erie with a 'ribbon of rails'" the Batavia branch of the New York Central Railroad passed through the central part of the Town of Amherst (Eberle and Grande 1987:52; Stone and Stewart 1866; Beers 1880). This line was abandoned in the twentieth century, and the tracks were pulled up. The New York West Shore & Buffalo Railroad ran passenger service along this route, stopping at Transit Station and Getzville beginning in 1884 (White 1898:I:539; USGS 1905). By 1896, a branch of the Lehigh Valley Railroad ran diagonally through the town, west and south of the project area (Young 1965:264; USGS 1905, 1948).

During the late nineteenth century, the Town of Amherst underwent a period of infrastructure improvements, including the widening and paving of streets and roadways, and the erection of bridges. The first telephone was installed in 1879 (although dial service did not begin until 1949) and the first water system was created in 1895. After the turn of the nineteenth century, other public services began to improve living conditions in the town: water power generated by Niagara Falls was used to provide the town's electricity as electric lights were erected along Main Street in 1901; a natural-gas franchise was granted in 1902; the first water meters were installed in 1919 (League of Women Voters 1985:7; Young 1965:264-265).

Industry in the town at that time centered on processing grain. Large and active flour mills ground wheat grown in the town as well as grain brought to Williamsville from the docks of Buffalo. By the 1890s, however, "electric power from Niagara Falls became available in unlimited quantities. [As a result,] except for the Chalmers gelatine factory [in Williamsville], founded in the 1872, industry disappeared, and Amherst turned toward developing itself as a residential area" (Glover 1972:6-7; see also Young 1965:116-117). Improvements and developments in transportation networks during the 1890s into the twentieth

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century, as well as the prosperity of the cities of Buffalo and Tonawanda facilitated the trend toward creating residential communities. In 1892, an electric trolley system connected Williamsville to Buffalo, which operated until 1930, when gasoline buses and cars proved more popular with commuters (Glover 1972:6; Young 1965:263). These transportation improvements offered suburban living opportunities for urban workers.

Agriculture remained prominent in the town well into the twentieth century although the trend of subdividing former farms or unproductive areas into residential developments accelerated after World War I (Dunn 1972:212; Eberle and Grande 1987:202).

Synderville. To the west of William's Mill, a small community formed in the future Snyder area when in 1804 Timothy Hopkins purchased a large farm on Main Street which extended west from Washington Highway (approximately three blocks west of Harlem Road) to Amherstdale Road (Fiddler-Woite 1998:11). Settlement progressed slowly in the Snyder area during the early nineteenth century. The Schenck family moved to the area from Pennsylvania in 1821. Two years later, Abraham Snyder and his family also moved from Pennsylvania and settled near their cousins, the Schencks.

Other early families include Schenck, Freuhauf, Helfer, LeBrun, Miller, Fisher, Schuler, Cable, Witmer, Beck, Crout, Harrison, Kern, Frick, and Fogelsanger (Fiddler-Woite 2009:63,65). In 1830, the Hopkins sold their property to the Schenk family (Fiddler-Woite 2009:14). Abraham Snyder, his wife Veronica, and their two sons (Michael and Jacob) lived in a log cabin on Main Street near Harlem Road. In 1832, Mr. Snyder mysteriously disappeared leaving the burden of supporting the family on young Michael (Fiddler-Woite 2009:20). Within 5 years, Michael Snyder moved the family into a plank house on the northeast corner of Main Street and Harlem Road. He opened a mercantile with John Schenk in the front room of the house. He later expanded the house and opened Snyder's Inn to cater to travelers on the Buffalo Road. He established a U.S. Post Office, according to Snyder family records, as early as the late 1840s (Fiddler-Woite 2009:23). The first post office stood on the northwest corner of Main Street and Harlem Road. However, Michael Snyder was not formally listed as the postmaster of the Snyderville Post Office until 1882 (Fiddler-Woite 2009:24).

An unnamed crossroads community centered on Main Street and Harlem Road is depicted on the 1855 atlas map of Erie County (Geil 1855). The area near Chateau Terrace along Main Street was lined with structures, one of which was a school house. One map-documented structure was a property owned by Mrs. Snyder, which would later be adjacent to the side of Chateau Terrace. A log and brick school house (District #18) was also located near the future site of the Chateau Terrace development (Grande 2000:51). In 1860, Michael Snyder acquired additional property to the east on Main Street near present Chateau Terrace. Snyderville is first identified on the 1866 map of Erie County (Stone & Stewart 1866). M. Snyder's Store and Post Office are depicted on the northeast corner of the intersection on Lot 13.

Tobias Witmer, surveyor, carried out the original survey of Farm Lot 13, the future location of Chateau Terrace, in 1852 (Holland Company Land Title & Abstract Company 2017). Mid-to late nineteenth-century land owners of the Chateau Terrace section of Lot 3 (east section) included Michael Shenk, Michael Shenk Jr., and Philip J. Ferkel. By 1880, Lot 13 had been further subdivided, and G. Demerest owned the largest tract with 61 acres on the east side of Lot 13. (Beers 1880; Figure 6). John and Jacob Snyder owned adjacent parcels on Lot 12, to the east. In 1896, a branch of Lehigh Valley Railroad was constructed through Amherst (Young 1965:264) to the north and east of Snyder. An 1898 map depicts the Lehigh Valley Railroad and the Buffalo & Williamsville Electric Railroad on Main Street extending through Snyder (The Matthews-Northrup Co. 1898). Lot 13, the future location of 22 Chateau Terrace, remained undeveloped. The first residential development in the Snyder vicinity was laid out along Getzville Road and Main Street by this time.

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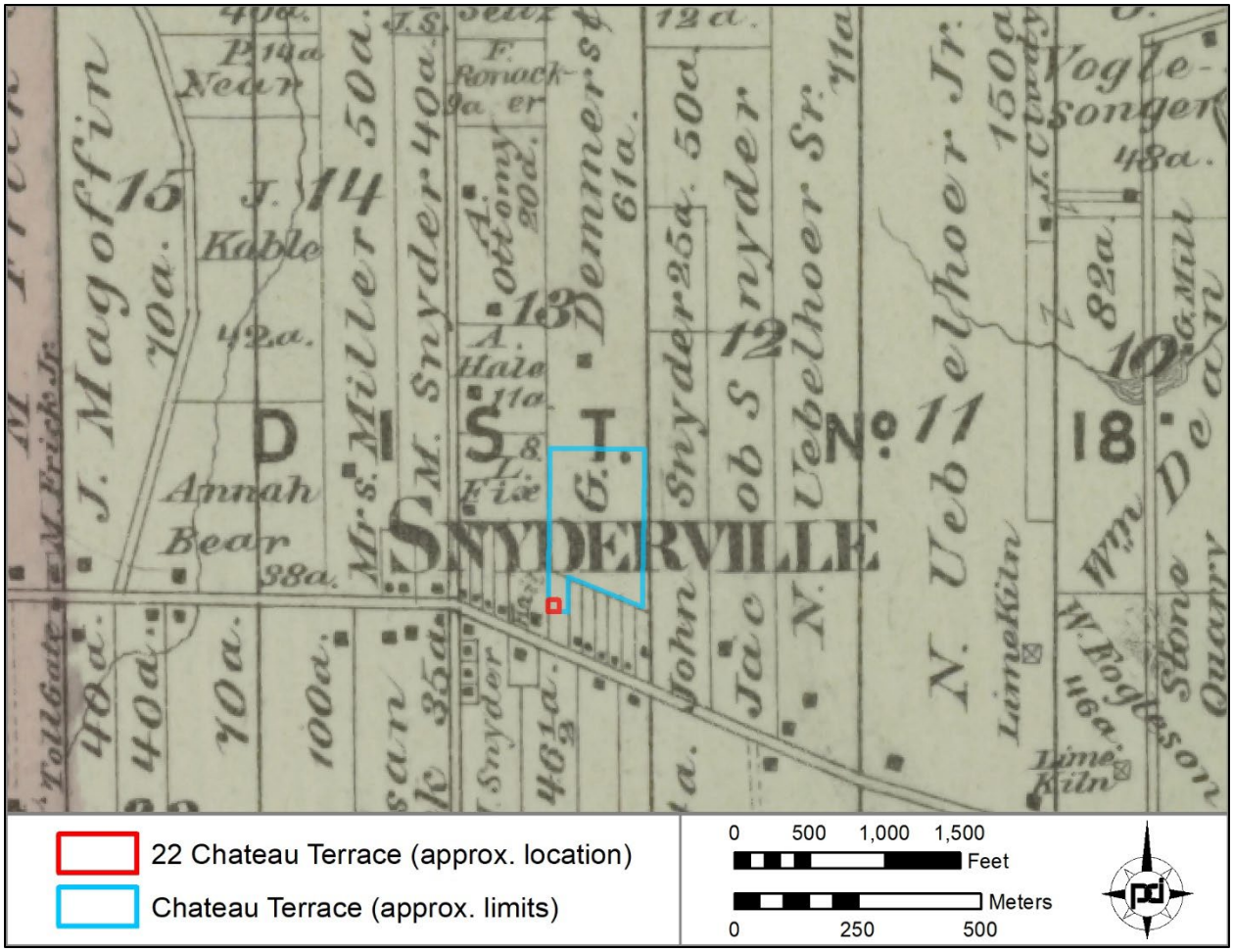

Figure 6. The general location of 22 Chateau Terrace on the 1880 map of the Town of Amherst (*Century Map Co. 1915).*

Twentieth-Century Development in Snyder. Early twentieth-century growth of the Snyder area has been attributed to the opening of Buffalo & Williamsville Electronic Railway (aka Toonerville Trolley in 1893 and the advent of the automobile (Grande 200:145; Fiddler-Woite 2009:38). Running along the north side of Main Street, the trolley line connected Buffalo and Williamsville. Efficient and dependable transportation attracted the interest of future homebuyers in new housing developments (Fiddler-Woite 2009:93). In operation until 1930, the trolley provided access for middle class families to purchase a home in Snyder.

In 1911, brothers William Charles Taylor Suor (1873-1959) and Arthur M. Suor (1874-1936) purchased 99 acres of the Kabel family's farm for the College Hill neighborhood development, which they first called "Amherst Heights" (Grande 2000:149). Formed in 1894, Suor & Suor were initially engaged in real estate business development projects near the Central Park and Parkside neighborhoods of Buffalo (White 1898:439). The brothers developed a few one-block streets near some of the main thoroughfares of Central Park, including Starin and Vorhees Avenues (Moriarty 2017). Their developments on Revere Place, Taft Place, and Sagamore Terrace were speculatively built homes erected on modest lots (Moriarty 2017). Suor & Suor offered affordable single-family homes with modern amenities which appealed to middle class consumers (Moriarty 2017).

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Suor & Suor had been previously involved in more traditional real estate interests of acquiring and selling farm houses (Grande 2000:149). Within a few years the firm would further expand development in Snyder with the College Hill - Chateau Terrace subdivision. A third brother, John Russell Suor (1882-1959), was also involved in the development of Snyder (Buffalo Evening News [BEN] 1953:25). He started his real estate career in Buffalo and later moved to Snyder. For roughly 25 years, John Suor was associated with the Erie County Real Estate Department and the county attorney's office as an appraiser (BEN 1953:25).

In Snyder, the Suors envisioned a new type of residential development on the south side of Main Street between Getzville and Harlem roads. Washington Highway formed the central point of what became known as the College Hill (Fiddler-Woite 2009:93). Suor & Suor's College Hill Office was erected on the southwest corner of Main Street (#4363) and Washington Highway (Fiddler-Woite 2009:94). The company built middle-class-sized homes which typically consisted of a two-story building with four bedrooms, a den, and a bathroom on each floor (Fiddler-Woite 2009:95). In February 1917, there were 40 homes in College Hill (BEN 1917). Suor & Suor advertised their new modern homes in local Buffalo newspapers to attract potential buyers to relocate to Snyder (Figures 7 and 8).

The brothers continued to acquire more tracts of land for their development in Snyder. Suor & Suor purchased an additional 65-acres of the Tobias Witmer farm south of College Hill by 1919 (Fiddler-Woite 2009:95). Named College Hill Terrace, the new 331-lot development extended toward Kensington Avenue. It was laid out with large lots for more upscale homes with landscaping and street furniture (Fiddler-Woite 2009:95). The Suors also endeavored in commercial development. In 1920, the Town of Amherst's population had increased by 36 percent from 4,629 in 1910 to 6,286 with much of the increase in the Snyder-Eggertsville area (Grande 2000:145). This rise in population included both new owners of large estates as well as an increased migration of middle-class commuters who purchased homes in the new subdivisions (Grande 2000:146).

By early 1920s, new residential neighborhoods were established west of Williamsville along Main Street which included the following: Rosedale Park, College Hill, Chateau Terrace, Audubon Terrace, and Amherst Estates. From 1923 to 1930, a town committee on building construction approved 73 major subdivisions (Grande 2000:189). The 1920s building boom in Amherst contributed to a 110 percent increase in population from 6,286 in 1920 to 13,181 in 1920 (Grande 2000:183). This growth is evident on a 1927 aerial photograph of the Snyder area (see Figure 14). The 1938 map of Snyder shows extensive residential subdivisions on the north and east sides of Main Street west of Harlem Road and on the south side of Main Street west of Harlem Road (Niagara Frontier Planning Board 1938a, 1938b).

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NEW HOMES OUT MAIN STREET.
College Hill and College Hill Terraces.
200 Washington Highway, large rooms, 4 bedrooms, 2d floor, one 3d floor; lot 50x155 ..... $12,500.00
30 Chateau Terrace, 4 bedrooms, wide lot 80 feet 9,000.00
65 Chateau Terrace, 3 bedrooms, lot 50x132 ..... 9,500.00
SUOR & SUOR, Main Street and Chateau Terrace. Call Crescent 1048. 31t10



Why Pay Rent?
Your rent money will buy a modern new home out North Main St., all improvements, high land, delightful surroundings.
Sign the Coupon below --mail it right now.
SUOR & SUOR
Main St., over Buffalo City Line—P. O., Snyder, N. Y.
COUPON.
Suor & Suor: Gentlemen, I would like to know more about your proposition of buying a modern home out North Main St. for the money I am paying for rent.
Name .....
Address .....

Figures 7 and 8. Suor & Suor real estate advertisements in 1921 (left) and 1923 (right) *(Reproduced from The Buffalo Times 1921 and Buffalo Courier 1923b).*

Chateau Terrace Area. In 1909, G. Demert is identified with the east portion of Lot 13, which would become the future site of Chateau Terrace subdivision (Century Map Co.1909 [Figures 9 and 10]). The southern portion of Lot 13 consisted of a residential-width parcel consistent with the other lots along Main Street. It would later become the entrance road to Chateau Terrace. J. Freuhaut [sic] owned the adjacent properties on the west side of the southern portion of Lot 13. The south end of the street that became Fruehauf Avenue is shown between the two Frauhaut parcels fronting Main Street in 1909. A parcel owned by A. Snyder is adjacent to the east side of the south section of Lot 13, which became the Chateau Terrace entrance. Five other parcels on Main Street bordered the south boundary of Lot 13, one of which included the 1900 two-story brick school house (District 18). The rectangular-shaped north section of Lot 13 was bound to the west by residences on Harlem Road.

The 1915 Century Atlas map contains a discrepancy in property ownership of Lot 13. Chauncey Hamlin was identified on the Snyder sub plan as the owner of the G. Demert property on Lot 13, while the 1915 map of the Town of Amherst documents G. Demert as the owner of the 61-acre parcel (Century Map Co. 1915a, 1915b [Figures 11 and 12]). Hamlin's country estate stood on a separate parcel that fronted Harlem Road. Adjacent to the west side of the property was "J.C. Fruehaups Sub Div.," which consisted of 23 home sites with eleven frame buildings. Other subdivisions documented in Snyder at this time included Meadow Crest on the west side of Harlem Avenue north of Main Street and College Hill south side of Main Street along Washington Highway. According to the results of the title search, Chauncey Hamlin had the parcel surveyed in November 1917 (Holland Company Land Title & Abstract Company 2017: Table 1).

In 1920, The Park School of Buffalo purchased 100 acres on the east side of Harlem Road from the Hamlin Estate for the location of their new school campus which bordered the north boundary of the new Chateau Terrace subdivision (The Park School of Buffalo 2022; Fiddler-Woite 2009:126). In 1922, the Burkhardt Company purchased the Tobias Witmer farm on the east side of Chateau Terrace for the Audubon Terrace subdivision (Fiddler-Woite 2009:148).

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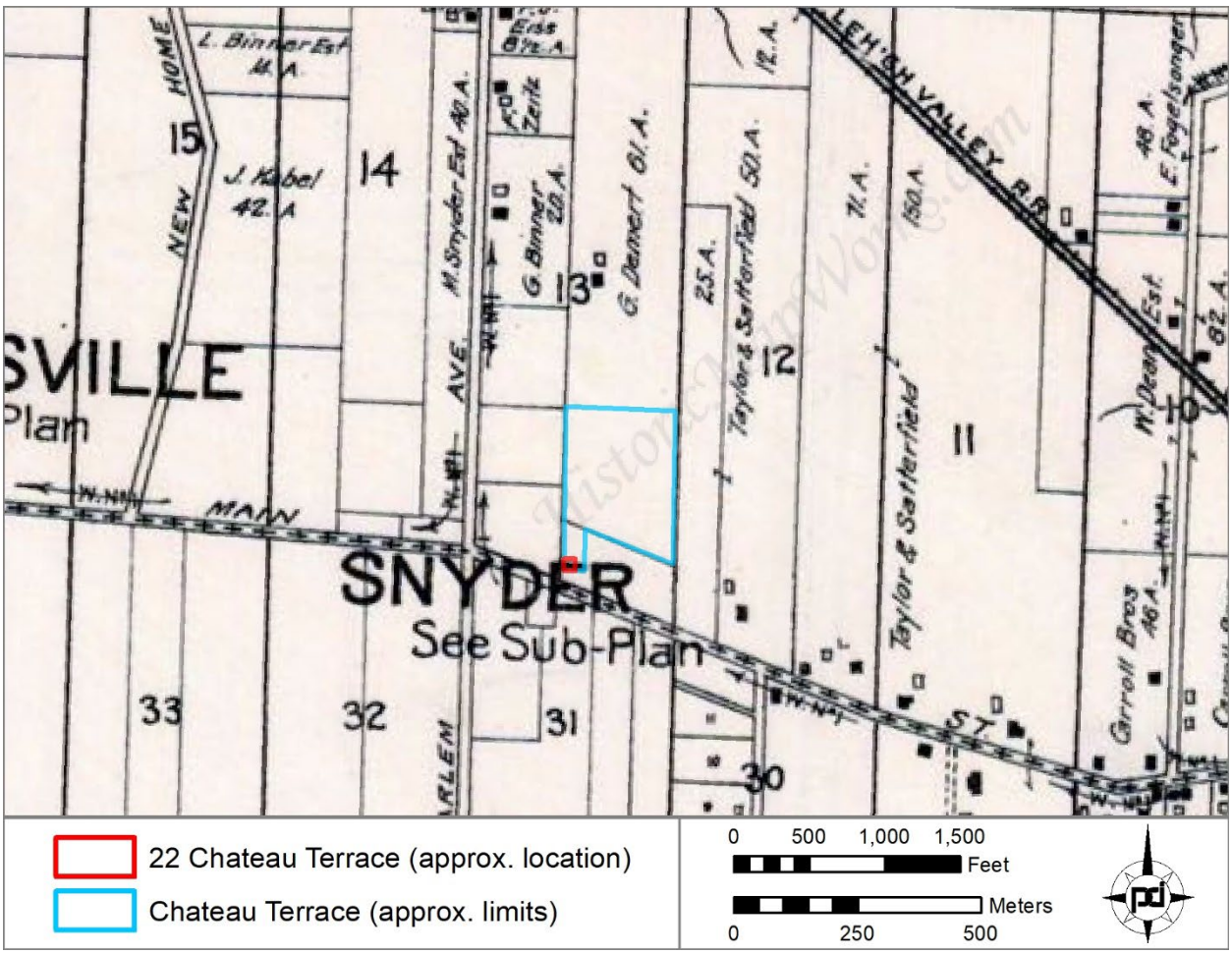

Figure 9. The general location of 22 Chateau Terrace on the 1909 map of the Town Amherst (*Century Map Co. 1909a).*

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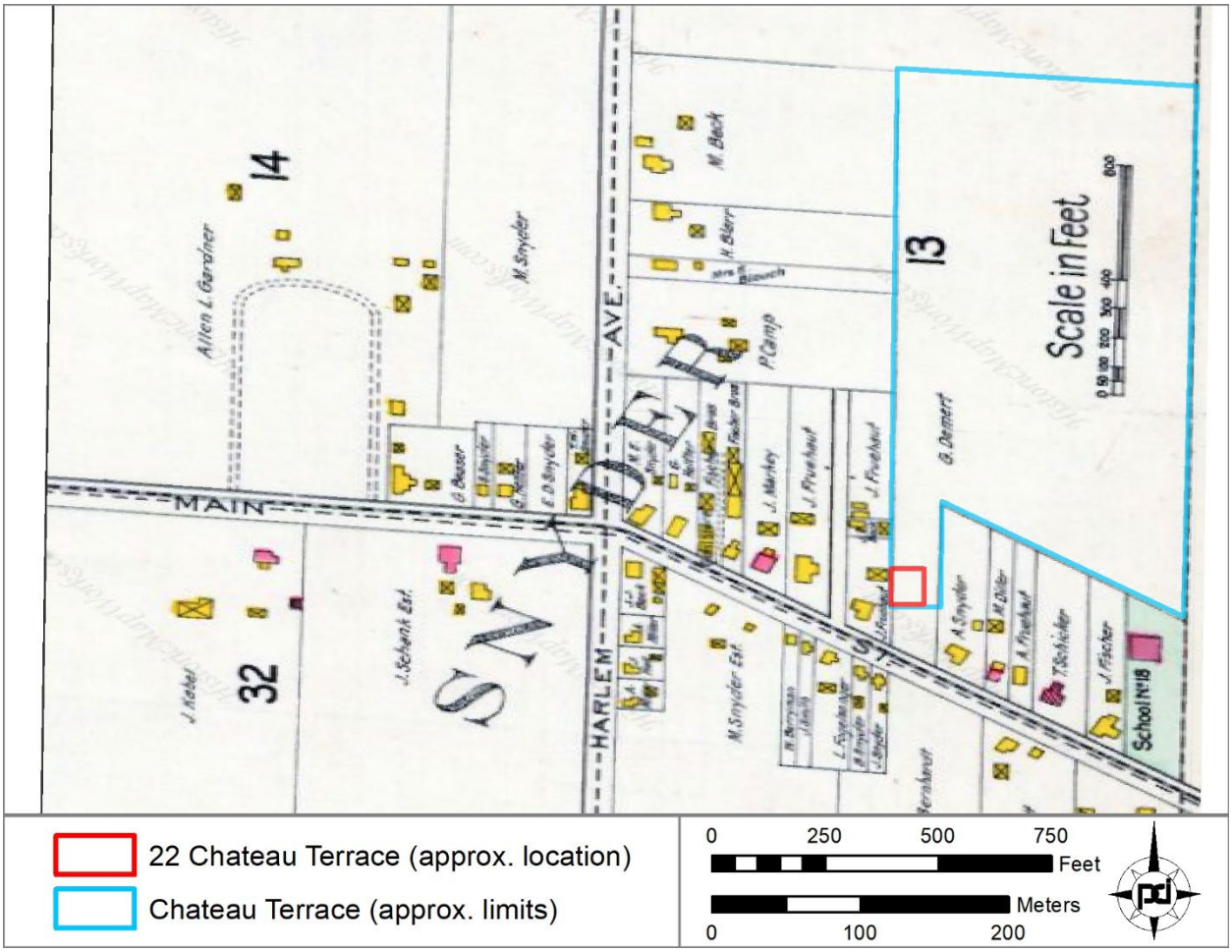

Figure 10. The general location of 22 Chateau Terrace on the 1909 sub-plan of Snyder *(Century Map Co. 1909b).*

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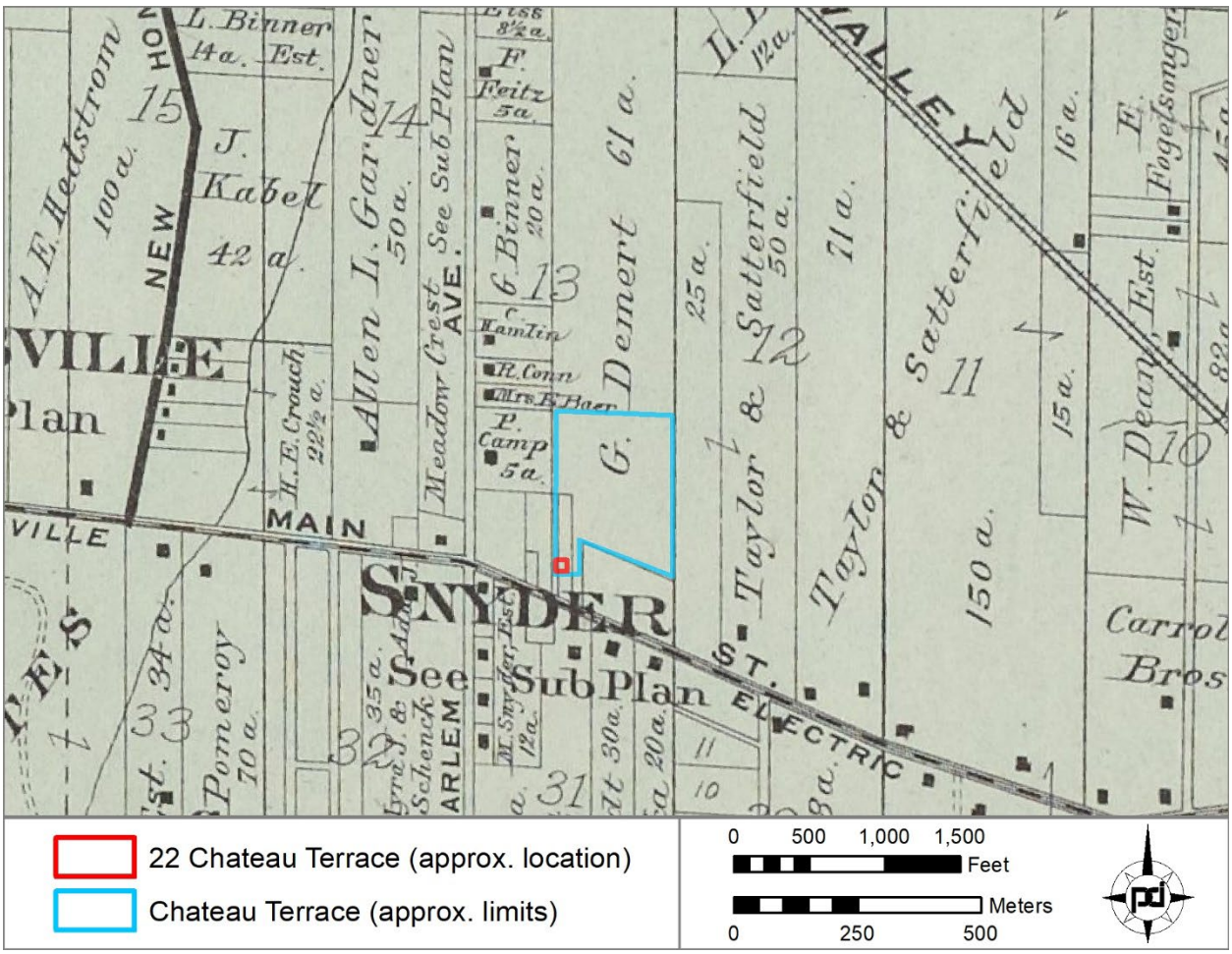

Figure 11. The general location of 22 Chateau Terrace on the 1915 Town of Amherst map *(Century 1915a).*

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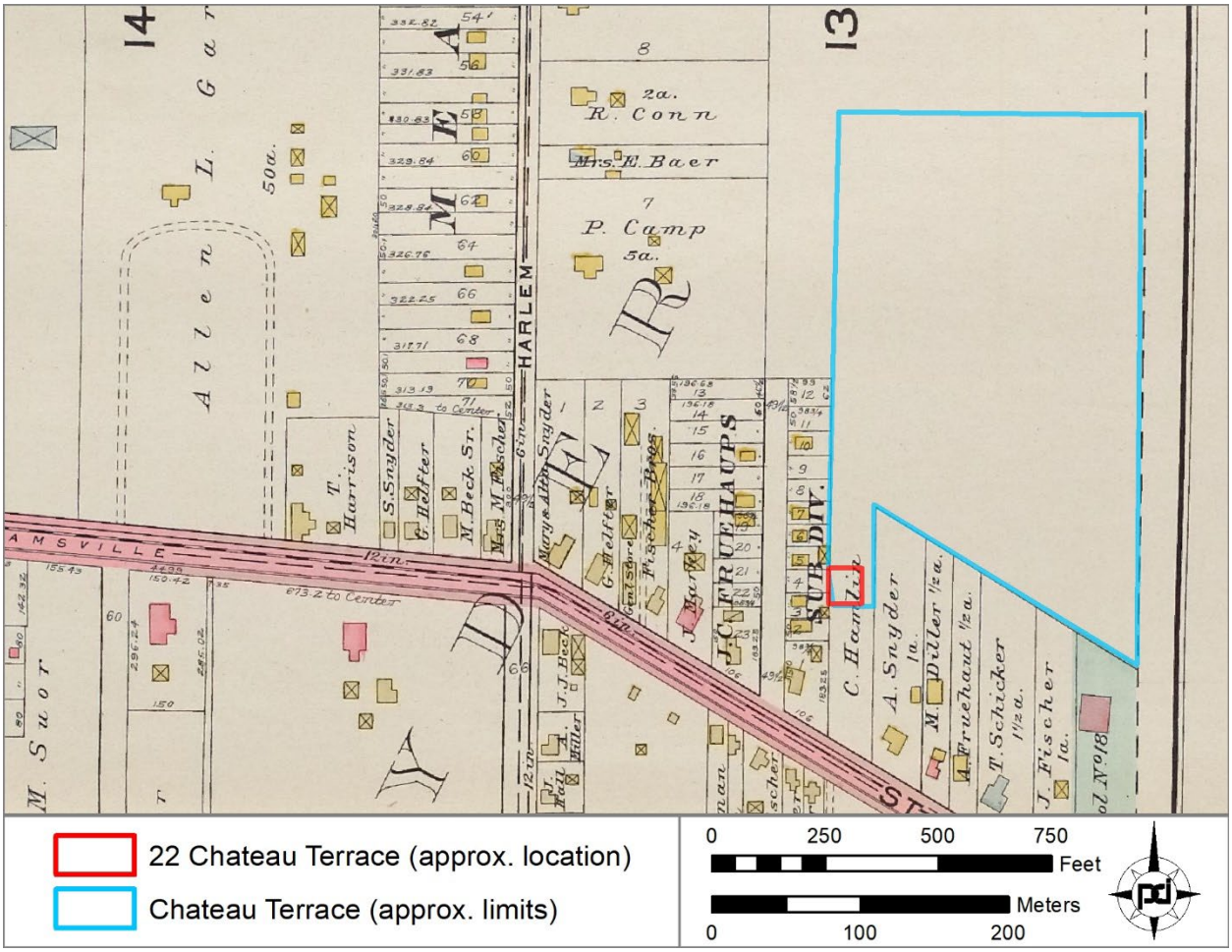

Figure 12. The general location of 22 Chateau Terrace on the 1915 sub-plan of Snyder *(Century 1915b).*

In July 1919, William C.T. Suor and Arthur M. Suor purchased land from Chauncey J. and Emily G. Hamlin for their new College Hill-Chateau Terrace development (Liber 1423 of Deeds, page 240). Louis W. & Josephine E. Ball purchased the parcel at 22 Chateau Terrace on September 1, 1920 (Liber 1555 of Deeds, page 138). The lot was subject to building restriction for a period of 25 years from July 1, 1919. By March 1921, Suor & Suor were listing new homes in the Chateau Terrace development (Buffalo Courier 1921). The house at 30 Chateau Terrace, on the adjacent lot to the north of 22 Chateau Terrace, was advertised with four bedrooms on an 80-foot-wide lot at a list price of $9,000. At 65 Chateau Terrace, the company built a three-bedroom house on a 50-ft by 132-ft lot which listed for $9,500.

By 1923, Chateau Terrace subdivision was platted and sparsely developed with only 13 residences, three of which were on the west side of Chateau Terrace just north of Main Street (Sanborn 1923 [Figure 13]). Individual lot numbers in Chateau Terrace do not appear on the 1923 map. Nos. 22, 30, and 38 Chateau Terrace along the south entrance to the subdivision had been constructed by this time. The Craftsman-style detached garage at 22 Chateau Terrace had yet to be constructed. Roads within the subdivision were 50 ft wide. The Park School campus is documented on the north side of Chateau Terrace for the first time in 1923. By this time, Freuhauf subdivision had acquired additional land extending north to the school property. The properties south of Chateau Terrace South included four dwellings with detached garages and School House No. 18. In 1924, District #18 School moved from the two-story brick schoolhouse to a new location on Harlem Road (Fiddler-Woite 2009:110).

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Charles S. Burkhardt Co., developer of the adjacent Audubon Subdivision, also built homes in Chateau Terrace. In April 1923, Burkhardt advertised two new homes in Chateau Terrace featuring all modern conveniences, garages, and large lots. Ranging in price between $14,000 and $14,500, each house included three bedrooms and tile baths (Buffalo Courier 1923a).

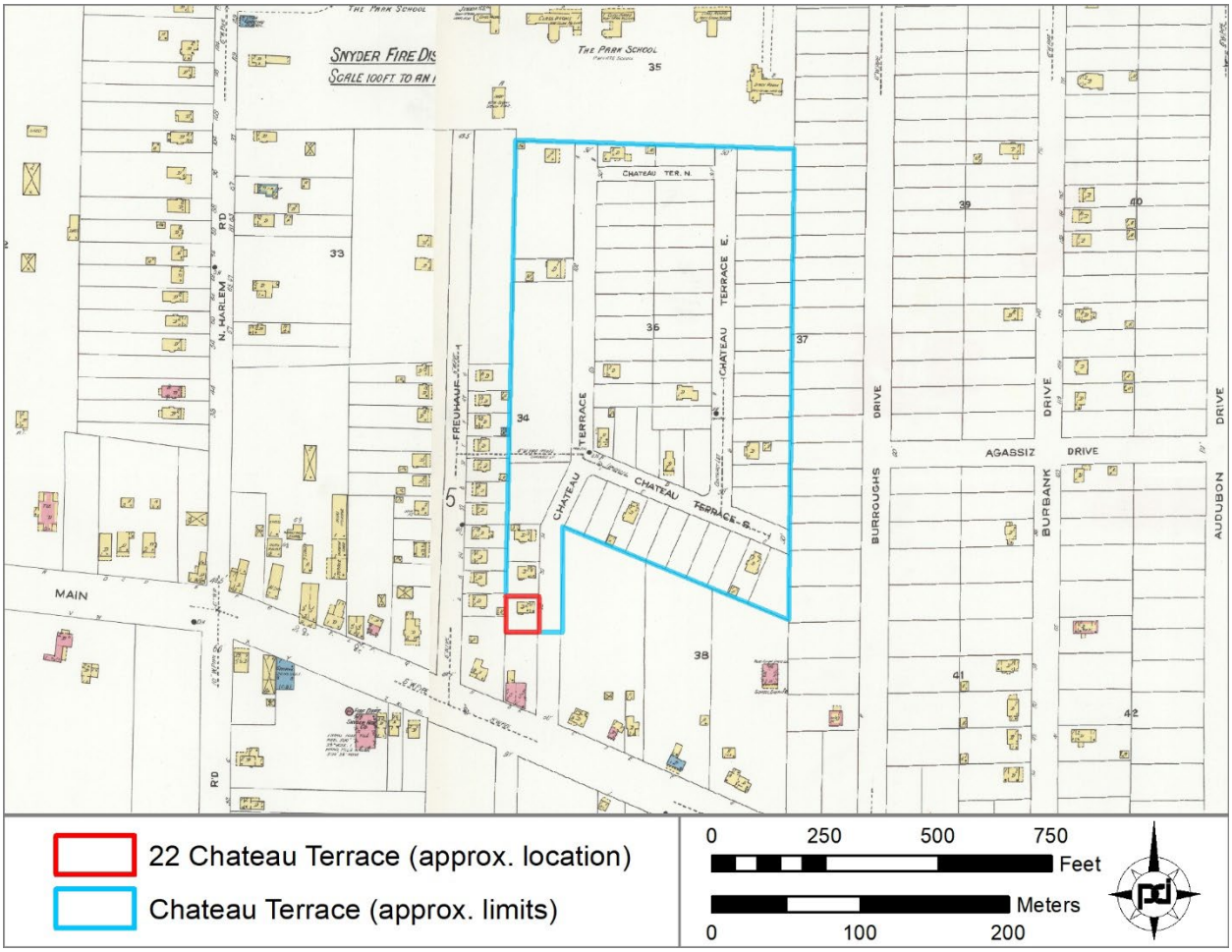

Figure 13. The location and footprint of the house at 22 Chateau Terrace as documented on the 1923 Sanborn Fire Insurance Map *(Sanborn 1923).*

Chateau Terrace was laid out off Main Street serving as the only entrance road to the subdivision. In 1927, Chateau Terrace remained a partially developed subdivision (ECDPW 1927 [Figure 14]). The three residences depicted on the 1923 map on west side of Chateau Terrace, south of the where the road bends, are visible in the aerial photograph. The southernmost of which is 22 Chateau Terrace. By 1932, homes were erected on Chateau Terrace South and Chateau Terrace East along with some construction on Chateau Terrace (KTA 2011: Area 6-9).

On the 1938 map of Snyder, Chateau Terrace consisted of 74 numbered lots. The west side of Chateau Terrace was divided into 20 lots with the lots 1 through 4 located between Main Street and the bend south of Chateau Terrace South (Figure 15). The residence at 22 Chateau Terrace was constructed on Lot #2. The three houses noted on the 1927 aerial had 80 frontages on Chateau Terrace. The other parcels were laid out with 50-ft frontages along Chateau Terrace to the north, the south side Chateau Terrace East, and the south side of Chateau Terrace South. A 1951 aerial view shows additional development in Snyder (Figure 16).

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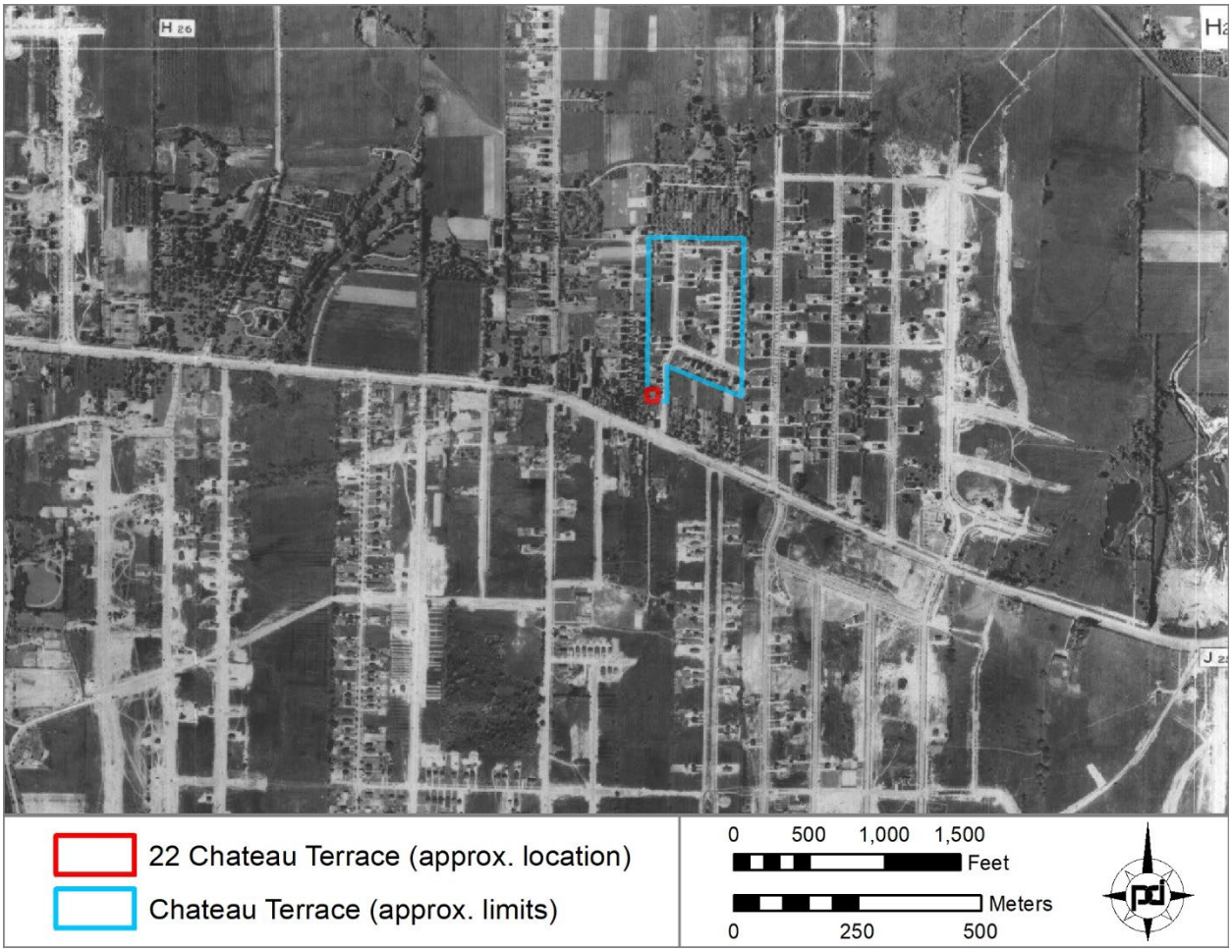

Figure 14. A 1927 aerial view of Chateau Terrace showing residential development in the subdivision and the surrounding area of Snyder *(Erie County Department of Public Works [ECDPW] 1927).*

The former Abram L. Snyder house on the northeast corner of Main Street and Chateau Terrace was demolished in 1957 (Fiddler-Woite 2009:148). A new U.S. Post Office branch (now occupied by the Bornhava school) was erected across the street from 22 Chateau Terrace on the site of the old homestead tract. Willliam C.T. Suor died at 85 years old in January 1959. An editorial on his passing credited the Suor brothers for beginning the trek to the North Buffalo suburbs with their Central Park development and continuing with the suburban development in Snyder (BEN 1959).

Lewis Ball died on August 20, 1968. His widow, Josephine E. Ball, sold the property in July 1971 to Edmund Karnofsky (Liber 7812 of Deeds, page 1). In 1975, the former school building on Main Street was demolished, and the adjacent property to the south of Chateau Terrace was subdivided into parcels (Snyder-Eggertsville Library and Ascension Lutheran Church [Fiddler-Woite 2009:110]). Karnofsky owned the property for 15 years, later selling it to E/K Realty Group LLC in September 2008. The subsequent owner 570 DAB 3 LLC purchased the property in March 2018. Table 1 presents a summary of deed information for Subdivision Lot 2 (22 Chateau Terrace/Parcel B).

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Figure 15. The property at 22 Chateau Terrace in 1938 *(Niagara Frontier Planning Board 1938)*.

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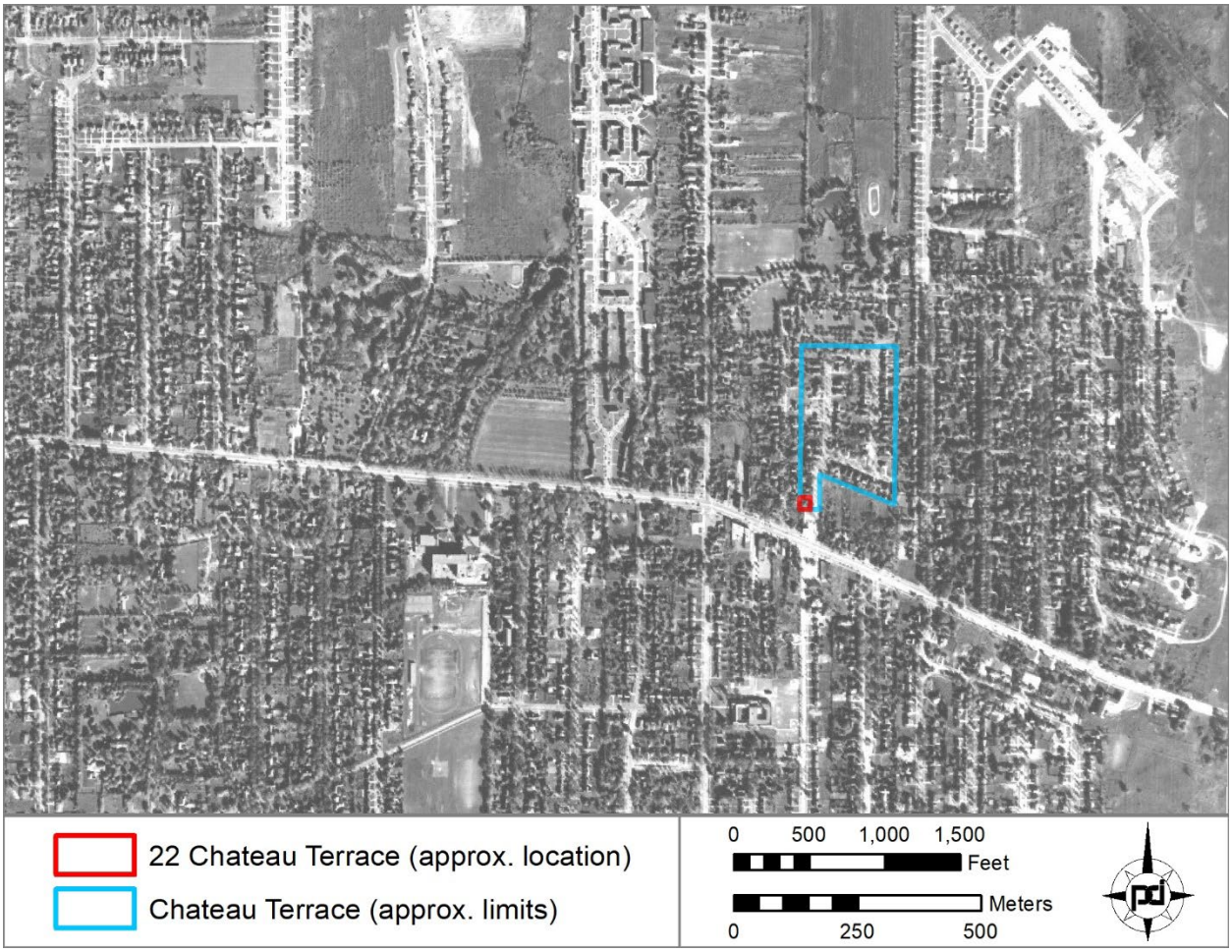

Figure 16. A 1951 aerial view of Chateau Terrace showing residential development in the subdivision and the surrounding area of Snyder *(ECDPW 1951).*

William Charles Taylor Suor and Arthur M. Suor. The Suor brothers were the sons of Charles and Anna (Taylor) Suor (White 1898:439). Their grandfather Joseph Suor was a native of Germany (White 1898:439). Charles Suor operated a wood turning establishment on the corner of Clinton and Oak streets in Buffalo and served as supervisor of the old Eleventh ward (White 1898:439). He died in 1887 when the boys were teenagers.

Arthur M. Suor was educated in public schools and the College of Commerce in Buffalo. He was first employed for three years with the T. C. Tanke's jewelry store and later in the Western Transit Company for a short time. In 1890, he accepted a position with the real estate firm of Thorne & Angell. He was associated with the firm until 1894, when he formed a partnership with his brother, William C. T. Suor (White 1898:439). In 1896, he married Ida Clare Heeb of Buffalo. They had one son, Arthur M., Jr. He was a member of Parish Lodge No. 292, F. & A. M., and of Trinity Lodge, I. O. O. F.

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Table 1. Summary of Deed information: Subdivision Lot 2 (22 Chateau Terrace/Parcel B).

Date	Grantor	Grantee	Notes
n/a	Holland Land Company (Part of Lot #13, Township 12, Range 7)	Michael Shenk	Liber 7 of Deeds, page 48. Conveyed into two parcels East Parcel to Michael Shenk, Jr., Liber 53 of Deeds, page 103. West parcel to John Shenk, Liber 48 of Deeds, page 144.
1852	n/a	n/a	Original survey of Farm Lot 13 by Tobias Witmer, surveyors.
n/a	Michael Shenk, Jr (?)	Philip J. Ferkel	East side of Farm Lot No. 13. According to affidavit by Jacob W. Snyder.
n/a	Philip J. Ferkel	George Demert & Heirs	East side of Farm Lot No. 13. According to affidavit by Jacob W. Snyder.
n/a	George Demert & Heirs	Chauncey J. & Emily G. Hamlin	East side of Farm Lot No. 13. According to affidavit by Jacob W. Snyder.
November 12, 1917	n/a	n/a	Chauncey Hamlin had land surveyed.
July 12, 1919 REC. July 15, 1919	Chauncey J. & Emily G. Hamlin	Wm. C.T. Suor & Arthur M. Suor	Liber 1423 of Deeds, page 240. Subject to easement for water & sewer drainage.
September 1, 1920 Rec. October 7, 1920	Wm. C.T. and Jessie M. Suor & Arthur M. and Ida H. Suor	Louis W. & Josephine E. Ball	Liber 1555 of Deeds, page 138. Subject to building restriction for a period of 25 years from July 1, 1919.
July 1, 1971	Josephine E. Ball as survivor of Lewis W. Ball	Edmund Karnofsky	Liber 7812 of Deeds, page 1 Lewis died August 20, 1968
July 23, 1923 Rec. August 23, 1993	Edmund Karnofsky	New York Telephone Company	Easement. Liber 10727 of Deeds, page 240
August 9, 2008 Rec. Sept. 8, 2008	Edmund Karnofsky	E/K Realty Group LLC	Liber 11149 of Deeds, page 6267
March 16, 2018	E/K Realty Group LLC	570 DAB 3 LLC	Liber 11326 of Deeds, page 9012

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Architectural Summary

Setting. Chateau Terrace on the north side of Main Street east of Harlem Road is nestled between two early-to-mid-twentieth-century residential subdivisions, Freuhauf to the west and Audubon Terrace to the east. Chateau Terrace was laid out to serve as the entrance road for the development. The subdivision was designed with four roads that form a near rectangular-shaped central plan. These include two north-south roads (Chateau Terrace & Chateau Terrace East), one northwest-southeast road (Chateau Terrace South), and one east-west road (Chateau Terrace North). The south end of Chateau Terrace has a bend to the northeast just south of Chateau Terrace South. Street trees were planted throughout Chateau Terrace. Trees lining the entrance road, and the road's winding alignment were designed to provide screening as well as privacy. Chateau Terrace was originally designed with three dead end roads. The north end of Chateau Terrace East is open for access to the Park School of Buffalo Campus. Commercial properties, a school, medical offices, and a public library border the south boundary of the subdivision.

Site. Located on the west side of the street, the single-family residence and detached garage at 22 Chateau Terrace is the first residential property in the subdivision north of Main Street. The parcel measures 80 ft wide by 73.34 ft deep. The house has a narrow 9.77-ft setback and a small, enclosed backyard measuring roughly 22 ft wide by 20 ft deep. A mature 24-inch green ash tree is centered in front of the house on the road verge. Other mature trees include are on the south side of the driveway and along west edge of the parcel. Concrete walkways (2.5 ft-2.6 ft) are on the north and west sides of the house. A low concrete retaining wall stretches across the south property line. Parking lots associated with commercial properties fronting Main Street (Nos. 4558-4560 & 4548) border the south, southwest, and west perimeters of the parcel. Residential properties are adjacent to the north (20 Chateau Terrace) and northwest (23 Fruehauf).

Description of Exterior. The residence at 22 Chateau Terrace is a frame, two-story Craftsman-style building with a front-gabled roof with asphalt shingles, stucco exterior, wood belt course, and stone foundation. It has a rectangular plan and measures approximately 24.20 ft wide by 40.66 ft deep. Window openings are single, paired, and triple groupings. These openings feature simple molded wood surrounds and wood double-hung sash (1/1 and 9/1). Original basement windows have two lights.

The east façade has an enclosed entry porch with a wood stoop in the north bay, a one-story sunroom with a low-pitched gabled roof, and a triple window grouping with bracketed pent. The entrance door features six lights over two lights and two panels. It is flanked by sidelights of four over one, a wood panel, and a single corner pilaster. Six lights over one light windows are on the north side of the entry porch. Stylistic details include wide overhanging eaves with single triangular knee brackets, beveled windows, and paneled and glazed doors.

Exterior alterations include a few replacement windows, a replacement wood rail on the front stoop, and asphalt roofing shingles.

Description of Interior. The open first-floor layout consists of a sunroom, dining room, living room, kitchen, and basement/side entrance hall. Three bedrooms, a bathroom, and a hall closet are on the second floor. It has an unfinished basement. The interior has painted plaster walls. Floor finishes include carpeting, hardwood, linoleum, and tile. Hardwood floors are covered on the first floor and primary bedroom. Interior windows are accented with simple wood trim. Extant interior doors are wood with six panels.

The living room has a central brick fireplace with a wood mantel supported by three brick corbels, built-in wood shelving, and Craftsman-style staircase (quarter turn stairs) with corner pier along the north wall. The Craftsman-type living room entrance door has a single panel and four lights. An original push button switch panel is on right side of front door. A Craftsman-type beveled glass window is in the north wall of the living room and west wall of the dining room. Original wooden baseboards and metal baseboard registers are

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intact. The kitchen has built-in cabinets. Original cabinet doors have been removed from the upper cabinet shelves on the west wall and a new sink with cabinets has been installed on the east wall. The side entrance/ basement hall is on the north side of the house.

The primary bedroom on the second floor is in the upper front (east) of the house. It features two closets and window seat. The other two bedrooms have a single window and closet. The bathroom retains its white hexagonal floor tile, built-in closet, and built-in medicine cabinet.

The basement retains its original door and wood stairs. It has exposed stone walls and a row of built-in cabinets along the west wall. The chimney has a basement clean.

Interior alterations include the following: removal of portions of built-in kitchen cabinets and sink; removal of original light fixtures; drop ceiling in the dining room; new kitchen flooring; removal of a few original doors; and removal of original bathroom sink and tub.

Garage. A detached, frame, two-bay Craftsman-style garage is on the southwest side of the house. The 3.66.5 sq ft garage (18.35 ft wide by 20.15 ft deep) has a hipped roof with overhanging eaves, and asphalt roof shingles, and wood exterior siding. Garage doors feature multiple pane fixed windows and wood panels. The garage is presently structurally unstable. A section of the roof has partially collapsed on the south slope (Photograph 14 in Appendix A).

Conclusions

The ca. 1920 residence with garage at 22 Chateau Terrace does not appear to meet the State/National Register of Historic Places (S/NRHP) criteria for individual eligibility. Though the building retains much of its original materials and stylistic elements, it is a representative example of a modest single-family home type constructed in the first quarter of the twentieth century in Buffalo and suburban neighborhoods. Previous historic resources surveys have also identified the building at 22 Chateau Terrace as not individually eligible for listing on the S/NRHP (Bero 1997; KTA 2011), but instead they recommended the property as a contributing resource to a Chateau Terrace Historic District (Chateau Terrace Study Area in CRIS). Note, Chateau Terrace was not included in the NRHP Multiple Documentation Form for Multiple Resources Associated with the Suburban Development of Buffalo.

As previously recognized in the historic resources survey, Chateau Terrace Study Area is historically significant at the local level for its association with the suburban development of the Town of Amherst during the early to mid-twentieth century. A S/NRHP eligibility assessment for the entire Chateau Terrace Study Area is beyond the scope of this documentation report. Further survey work and documentation of the neighborhood, as well as additional research, would be required to provide an informed S/NRHP recommendation for Chateau Terrace Study Area. The NRHP Multiple Documentation Form for *Multiple Resources Associated with the Suburban Development of Buffalo, New York* (2015) and guidance provided in *Historic Residential Suburbs Guidelines For Evaluation And Documentation For The National Register Of Historic Places* (Ames and Flint 2002) would also need to be applied for an NRHP eligibility recommendation.

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Appendix A

Photographs

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22 CHATEAU TERRACE: EXTERIOR VIEWS



1. **Setting view of 22 Chateau Terrace, facing northwest** *(Commonwealth 2022).*



2. **Setting view along Chateau Terrace (Nos. 22, 30, and 38) looking toward Main Street, facing southwest** *(Commonwealth 2022).*

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3. Oblique view of south and east elevations, facing west-northwest *(Commonwealth 2022).*



4. Direct view of east elevation, facing west *(Commonwealth 2022).*

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5. Oblique view of east and north elevations, facing southwest *(Commonwealth 2022).*

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6. Detail view of front entrance, facing west *(Commonwealth 2022).*

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7. Detail view of brackets and eaves, facing northwest *(Commonwealth 2022).*

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8. Detail view of entrance on north elevation, facing southeast *(Commonwealth 2022).*

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9. Direct view of west elevations of the house and garage, facing southeast *(Commonwealth 2022).*

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10. Oblique, partial view of the west elevation facing northeast *(Commonwealth 2022).*

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11. View of backyard and north elevation of the garage, facing south *(Commonwealth 2022).*



12. Direct view of south elevation, facing north *(Commonwealth 2022).*

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13. Direct view of north elevation of garage, facing west *(Commonwealth 2022).*



14. Direct view of south elevation of garage, facing west *(Commonwealth 2022).*

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22 CHATEAU TERRACE: INTERIOR VIEWS



15. Detail of vestibule showing original front door, facing northeast *(Commonwealth 2022).*

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16. View of first floor living room, facing southeast *(Commonwealth 2022).*



17. View of living room looking toward the dining room at left and kitchen at right, facing west *(Commonwealth 2022).*

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18. View of living room looking toward built-in shelves and stairs, facing northwest *(Commonwealth 2022).*



19. View of living room looking toward front entrance, sunroom, and metal baseboard register, facing northeast *(Commonwealth 2022).*

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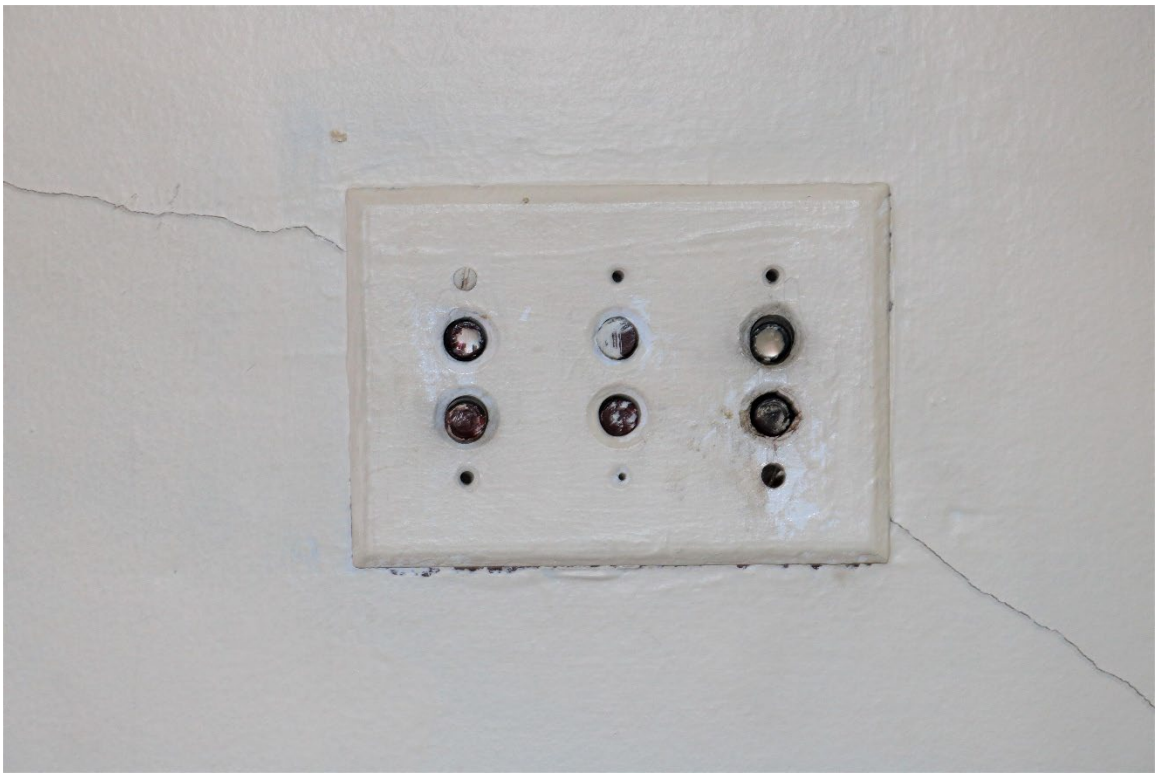

20. Detail of push button switches on right side of front door, facing east *(Commonwealth 2022).*



21. View of first floor sunroom, facing south *(Commonwealth 2022).*

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22. View of dining room, facing west *(Commonwealth 2022).*



23. View of dining room with living room and sunroom in background, facing east-northeast *(Commonwealth 2022).*

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24. View of east wall of first floor from dining room, facing southeast

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25. View of kitchen doorway from dining room, facing north *(Commonwealth 2022).*

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26. View of west wall in kitchen, facing northeast *(Commonwealth 2022).*

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27. View of built-in kitchen cabinets on west wall of kitchen, facing northeast *(Commonwealth 2022).*

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28. View of east wall in kitchen, facing east *(Commonwealth 2022).*

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29. **View of side entrance hall with basement door at right, facing north** *(Commonwealth 2022).*

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30. View of staircase to second floor, facing west *(Commonwealth 2022).*

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31. **View of 2nd floor hall from staircase landing with bathroom at left and closet at right, facing south** *(Commonwealth 2022).*

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32. View of master bedroom on second floor, facing southeast *(Commonwealth 2022).*



33. View of master bedroom on second floor, facing southwest *(Commonwealth 2022).*

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34. View of west wall in master bedroom on second floor, facing west *(Commonwealth 2022).*

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35. View of second floor bathroom, facing southeast *(Commonwealth 2022).*

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36. View of second floor bathroom, facing southwest *(Commonwealth 2022).*

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



37. View of southwest bedroom on second floor, facing west *(Commonwealth 2022).*



38.Detail of wood floor in southwest bedroom on second floor *(Commonwealth 2022).*

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39. View of northwest bedroom on second floor, facing northwest *(Commonwealth 2022).*

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



40. View of northwest bedroom on second floor, facing southeast *(Commonwealth 2022).*

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41. Detail of basement stairs, facing northwest *(Commonwealth 2022).*

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42. View of basement, facing south *(Commonwealth 2022).*



43. Detail of west basement wall, facing southwest *(Commonwealth 2022).*

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44. View of basement, facing north *(Commonwealth 2022).*

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45. View of basement, facing west-northwest *(Commonwealth 2022).*

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SRF ASSOCIATES
Transportation Planning / Engineering / Design

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

(585) 272-4660
www.srfa.net

Mr. Matt Oates, P.E.
Director, Engineering
Benderson Development
570 Delaware Avenue
Buffalo, New York 14202

July 30, 2021

RE: Proposed Mixed-Use Project, 4548-4564 Main Street, Town of Amherst, NY
Traffic Engineering Assessment Letter

Dear Mr. Oates:

The purpose of this technical letter is to provide a traffic engineering assessment related to the proposed mixed-use project located at 4548-4564 Main Street in the Town of Amherst, NY for informational purposes and to understand the possible traffic impacts resulting from the proposed project. The concept site plan, figures, and supporting data are included in the attachments. This letter evaluates:

- Projected trip generation estimates and discusses the thresholds for completing a Traffic Impact Study (TIS).
- Southbound queuing on Fruehauf Avenue during the AM and PM peak periods.
- Sight line evaluation at the Main Street/Fruehauf Avenue intersesction.

PROJECT DESCRIPTION

The proposed project consists of developing 57 units of one and two-bedroom apartment units, a ±3,628 square foot (SF) quality restaurant, and a ±3,137 SF fast casual restaurant in a three-story building. Access is provided via two full access driveways: one along Chateau Terrace which accesses a parking lot with 50 spaces and one along Fruehauf Avenue which accesses a parking lot with 20 spaces. Chateau Terrace is posted as a "No Outlet" street while Fruehauf Avenue is posted as a "Dead End" street. On-street parking is available along Main Street. Sidewalks are present throughout the adjacent neighborhood.

TRIP GENERATION

Data contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition) was used to project the volume of the traffic generated by the proposed project. Data published by the ITE is the nationally accepted standard for generating trips for new uses. Given the functional characteristics of the corridors and the land uses proposed for the site, the peak hours selected for analysis are the weekday morning (AM) and weekday evening (PM) peak periods. The combination of site traffic and adjacent street traffic produces the greatest demand during these peak periods.

The proposed project as depicted on the site plan consists of two different land uses (residential and restaurant) and is considered mixed-use (multi-use). According to the Institute of Transportation Engineers Trip Generation Handbook (3rd Edition), "…a multi-use development is typically a single real-estate project that consists of two or more ITE land use classifications between which trips can be made without using the off-site road system. Because of the nature of these land uses, the trip-making

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characteristics are interrelated, and some trips are made among the on-site uses. This capture of trips internal to the site has the net effect of reducing vehicle trip generation between the overall development site and the external street system (compared to the total number of trips generated by comparable, standalone sites)." "In some multi-use developments, these internal trips can be made by walking or by vehicles entirely on internal pathways or internal roadways without using streets external to the site."

The Handbook indicates internal capture rates for trips within a multi-use development to vary between residential, office, retail, restaurant, and entertainment and recreational uses during the AM and PM peak hours. Given the proposed land use components and interconnection between these components, multi-use total volume trips will likely occur.

Methodology contained in National Cooperative Highway Research Program (NCHRP) Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Development was consulted to perform the mixed-use adjustment. The NCHRP 684 model reported an internal baseline capture percentage of 0% during the AM peak hour and 10% during the PM peak hour.

These multi-use trip projection adjustments were applied to the respective site generated trips and subtracted from the traffic entering and exiting the site during the PM peak period. The internal capture calculation considers baseline mode shares and vehicle occupancy factors for the proposed land uses, as described in the Handbook.

For certain types of developments, the total number of trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Service/retail-oriented developments (i.e., shopping centers, gas stations, coffee/donut shops, and restaurants) often locate adjacent to busy streets to attract the motorists already passing the site on the adjacent street. These sites attract a portion of their trips from traffic passing the site. The "pass-by" traffic refers to the amount of existing traffic already on the roadway adjacent to the site that, as it "passes by" the site, will enter the site driveways to patronize the project site. The quantifying of "pass-by" trips has the net result of reducing the volume of new traffic that is added to the site driveways and/or adjacent roadways.

This site is likely to exhibit some level of pass-by traffic. The ITE Trip Generation Handbook (3rd Edition) was used as a reference to determine pass-by rates. For quality restaurants, the ITE data reports a range of rates during the PM peak period from 26% to 82% with an average pass-by rate of 44%. No data is available for the AM peak period. To remain conservative, this study used a 20% pass-by rate during the PM peak period.

The ITE does not have data for fast casual restaurants. Therefore, fast food restaurants with drive-thru was considered a comparable use. The ITE data reports a range of rates during the PM peak period from 25% to 71% with an average pass-by rate of 50%. To remain conservative, this study used a 20% pass-by rate during the PM peak period.

Table 1 shows the total site generated trips for the peak hours of study with the pass-by trip adjustment.

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TABLE 1: SITE GENERATED TRIPS AND ADJUSTMENTS

DESCRIPTION	ITE LUC	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Multi-family Residential	220	57 units	6	22	23	13
Quality Restaurant	931	±3,628 SF	1	1	19	9
Fast Casual Restaurant	930	±3,137 SF	4	2	24	20
Sub-Total Trips			**11**	**25**	**66**	**42**
Mixed-Use Adjustment			*0*	*0*	*-5*	*-5*
Sub-Total Driveway Trips			**11**	**25**	**61**	**37**
Pass-by Adjustment			*0*	*0*	*-9*	*-6*
Total Primary (New) Vehicle Trips			**11**	**25**	**52**	**31**

Note:
1. ITE LUC = ITE Land Use Code.

Prior to considering mixed-use and pass-by adjustments, the proposed project is expected to generate 11 entering/25 exiting vehicle trips during the AM peak hour and 66 entering/42 exiting vehicle trips during the PM peak hour. When considering ITE published mixed-use and pass-by trip rates and our professional judgement, the proposed project is expected to generate the following new vehicle trips: 11 entering/25 exiting vehicle trips during the AM peak hour and 52 entering/31 exiting vehicle trips during the PM peak hour.

TRIP DISTRIBUTION

The cumulative effect of site-generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the driveways serving the site. The proposed arrival/departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Commercial/employment and residential centers in the area using US Census Data (e.g., OnTheMap).
- Site access locations.
- Hourly traffic patterns using most recent available Annual Average Daily Traffic (AADT) data obtained from the New York State Department of Transportation (NYSDOT) along Main Street.
- Turning movement counts using the most recent available data obtained from the Greater Buffalo-Niagara Regional Transportation Council (GBNRTC) at the intersections of Main Street/Chateau Terrace/Bernhardt Drive and Main Street/Lamarck Drive/Livingston Parkway.
- Existing traffic controls.

Figure 1 shows the anticipated trip distribution pattern percentages for the traffic from the proposed project for the residential program while Figure 2 illustrates the trip distribution for the restaurant program. Figure 3 illustrates the residential peak hour site generated traffic based on the percentages in Figure 1. Figures 4-5 illustrate the restaurant peak hour site generated traffic based on the percentages in Figure 2 for the project's primary and pass-by trips, respectively. Figure 6 illustrates the total site generated trips. The roads anticipated to be used by the additional trips generated by the proposed project are listed in Table 2.

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To remain conservative, all site generated traffic was assumed to enter and exit the site via the proposed driveways along Fruehauf Avenue and Chateau Terrace. A portion of site visitors may use available on-street parking along Main Street (notably the restaurant patrons); thus, reducing the projected number of vehicle trips entering and exiting Fruehauf Avenue and Chateau Terrace.

TABLE 2: EXISTING HIGHWAY SYSTEM

ROADWAY[1]	CLASS[2]	AGENCY[3]	SPEED LIMIT[4]	# OF TRAVEL LANES[5]	TRAVEL PATTERN	EST. AADT[6] & SOURCE[7]
Main Street (NY-5)	14	NYSDOT	40	4	Two-way/ East-West	21,436 NYSDOT (2019)
Chateau Terrace	19	Town	30	2	Two-way/ North-South	No Data Available
Fruehauf Avenue	19	Town	30	2	Two-way/ North-South	No Data Available

Notes:
1. Route Name and Number.
2. State Functional Classification of Roadway: 14 = Urban Principal Arterial, 19 = Local.
3. Jurisdictional Agency of Roadway.
4. Posted or Statewide Limit in Miles per Hour (mph).
5. Excludes turning/auxiliary lanes developed at intersections.
6. Estimated AADT in Vehicles per Day (vpd).
7. AADT Source (Year).

THRESHOLDS FOR THE REQUIREMENT OF A TRAFFIC IMPACT STUDY

Many reviewing agencies, including the NYSDOT and Erie County Department of Public Works (ECDPW), use a guideline in determining whether a project warrants the preparation of a Traffic Impact Study (TIS). The applicable guideline is that if a proposed project is projected to add 100 or more site generated vehicles per hour (vph) to an adjacent intersection during either peak study period, then that intersection should be studied for potential traffic impacts.

Based upon the ITE trip generation projections and the resulting traffic assignment estimates shown in Figure 6, the projected new vehicle trips are added to the following intersections during the AM and PM peak hours:

- Main Street/Chateau Terrace/Bernhardt Drive: 29 (58)
- Main Street/Fruehauf Drive: 23 (83)
- Fruehauf Drive/Proposed Driveway: 14 (80)
- Chateau Terrace/Proposed Driveway: 22 (33)

Given that fewer than 85 peak hour trips are added to a single intersection during the peak hours studied, a TIS is not warranted.

PEAK HOUR QUEUING ASSESSMENT

A peak hour queuing assessment was performed along Fruehauf Avenue during the AM and PM peak hours to measure the frequency of southbound vehicles that block the proposed driveway. The centerline of the proposed driveway is located approximately 38 feet from the stop bar. Given this distance, the driveway is located approximately 1.7 vehicle lengths from the stop bar.

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Our firm documented southbound queues at the intersection of Main Street/Fruehauf Avenue on Thursday, July 22, 2021, from 7:00-9:00 AM and 4:00-6:00 PM. The peak hours generally occurred from 8:00-9:00 AM and 4:30-5:30 PM. Based on this field investigation during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

SIGHT LINE EVALUATION

Based upon a review of the attached site plan, the proposed building is projected to be built in approximately the same footprint as the existing structures fronting Main Street. There is a marked stop bar for traffic exiting Fruehauf Avenue.

In this case, the primary concern is with the proposed building at the existing Main Street/Fruehauf Avenue intersection. The attached figure illustrates the sight line evaluation performed at the intersection to the east of the intersection.

Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection. Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions.

A Policy on Geometric Design of Highways and Streets (2011) published by the American Association of State Highway and Transportation Officials (AASHTO), was used as a reference to establish the required Stopping Sight Distance (SSD) and desirable Intersection Sight Distance (ISD) for the adjacent driveway location. Table 3 depicts the results of the sight distance evaluation at the Main Street/Fruehauf Avenue intersection.

TABLE 3: SIGHT LINE EVALUATION

DESCRIPTION		VALUE
POSTED SPEED		40 MPH
DESIGN SPEED[1]		45 MPH
REQUIRED SSD		360 feet
DESIRABLE ISD		500 feet
AVAILABLE SIGHT DISTANCE TO THE EAST	*SSD*	>360 feet
	ISD	385 feet (no vehicles) 145 feet (parked vehicles)

Note:
1. Design speed equals posted speed plus 5 MPH.

The required SSD is satisfied to the east of the study intersection. However, the desirable ISD is not satisfied. The existing and proposed ISD sight distance will be the same and the proposed building will not impact the existing sight distance.

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It is noted that the intersection is in an urbanized area with numerous side roads where drivers expect traffic to be entering and exiting. Further, the intersection is located downstream of the signalized intersection of Main Street/Chateau Terrace/Bernhardt Drive and motorists turning out of Fruehauf Avenue will be afforded gap opportunities when the Main Street approaches are in the red phase. As this distance is not satisfied, potential relief consists of installing intersection warning signage for westbound traffic.

CONCLUSIONS AND RECOMMENDATIONS

The following sets forth the findings and recommendations of this assessment:

1. When considering ITE published mixed-use and pass-by trip rates and our professional judgement, the proposed project is expected to generate the following new vehicle trips: 11 entering/25 exiting vehicle trips during the AM peak hour and 52 entering/31 exiting vehicle trips during the PM peak hour.

2. Given the projected site traffic distribution, it is our firm's professional opinion that the adjacent intersections and surrounding roadway network will not experience significant adverse traffic impacts. Given these conditions, no further study is warranted nor recommended at this time.

3. Based upon documentation of southbound queues at the intersection of Main Street/Fruehauf Avenue during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

4. Based upon a sight line evaluation at the Main Street/Fruehauf Avenue intersection, the required SSD is satisfied to the east. However, the desirable ISD is not satisfied. The existing and proposed ISD sight distance will be the same and the proposed building will not impact the existing sight distance. As this distance is not satisfied, potential relief consists of installing intersection warning signage for westbound traffic.

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
SRF Associates, D.P.C.

David Kruse, AICP, PTP
Transportation Planner

Attachments

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

ATTACHMENT

July 30, 2021

Letter to
Mr. Matt Oates, P.E.
Benderson Development

Proposed Mixed-Use Project
4548-4564 Main Street

Traffic Engineering Assessment

Town of Amherst
Erie County, New York

SRF ASSOCIATES

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN .
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:

- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed landscape
- Proposed Concrete Pavement
- Proposed Heavy Duty Pavement

* All curb radii are 3ft unless noted.
* Refer to General Notes, Concstruction Details and Architectural Plans for Concrete Sealer information.

TOWN OF AMHERST, NY ZONING ANALYSIS

	REQUIRED	PROVIDED	REQUIRED	PROVIDED
ZONED	TI-2.5 (General Frontage)	TI-2.5 (General Frontage)	TI-4 (General Frontage)	TI-4 (General Frontage)
SITE ACREAGE	-	0.93 Acres	-	0.93 Acres
MAX. BUILDING HEIGHT	35' (2.5 STORY)	45' (3 Story, exc basement)	45' (4 STORY)	45' (3 Story, exc basement)
MAX. BUILDING LENGTH				
- PRIMARY STREET	200' max	185.64'	200' max	185.64'
- SIDE STREET	150' max	238.45' / 168.82'	150' max	238.45' / 168.82'
MIN. LOT AREA	0 sqft	40,409 sqft	0 sqft	40,409 sqft
MIN. LOT WIDTH	0'	185.64'	0'	185.64'
OUTDOOR AMENITY SPACE	10% min. (4,041 sqft)	10.3% (4,150 sqft)	10% min. (4,041 sqft)	10.3% (4,150 sqft)
- LANDSCAPING	25% min. (1,038 sqft)	31.9% (1,324.9 sqft)	25% min. (1,038 sqft)	31.9% (1,324.9 sqft)
- SEATING	1/500 sqft (9 seats)	9 Seats	1/500 sqft (9 seats)	9 Seats
ALLEY	5' min.	0'	5' min.	0'
LOT FRONTAGE:				
- PRIMARY STREET	75% min.	100%	75% min.	100%
- SIDE STREET (Frue / Chat)	40% min.	84.4% / 88.4%	40% min.	84.4% / 88.4%
STREET FACING ENTRANCES & DISTANCES BETWEEN	Side Street. (N/A)	-	Side Street. (N/A)	-
- PRIMARY STREET	50' max.	< 50'	50' max.	< 50'
- SIDE STREET	75' max.	N/A	75' max.	N/A
CLEAR PEDESTRIAN ZONE	6' min.	10.33' Total - Existing Condition	6' min.	10.33' Total - Existing Condition
CURB ZONE (Curb Face to Pedestrian Zone)	6' min.		6' min.	
BUILDING SETBACKS:				
FRONT STREET	0'min./10'max.	0.3'	0'min./10'max.	0.3'
ALLEY	5'	N/A	5'	N/A
COMMON LOT LINE	0'	31.2'	0'	31.2'
SIDE STREET	0'min./20'max.	2.5' / 0.0'	0'min./20'max.	2.5' / 0.0'
PARKING / ROAD SETBACKS:				
FRONT STREET	20' min.	N/A	20' min.	N/A
ALLEY	5'	N/A	5'	N/A
COMMON LOT LINE	0'	1.7'	0'	1.7'
SIDE STREET	10' min	N/A	10' min	N/A

PROPOSED PARKING ANAYLSIS TI-2.5

USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	6,765 sqft / 1000 x 4 = 28 SPACES	
RESIDENTIAL (Upper-story)	1.0 per 1&2 bed dwelling unit	1.0 x 57 (1&2 Bed) = 57 SPACES	
		Total: 85 SPACES	70 SPACES
STALL SIZE		9'x19'	9'x19'

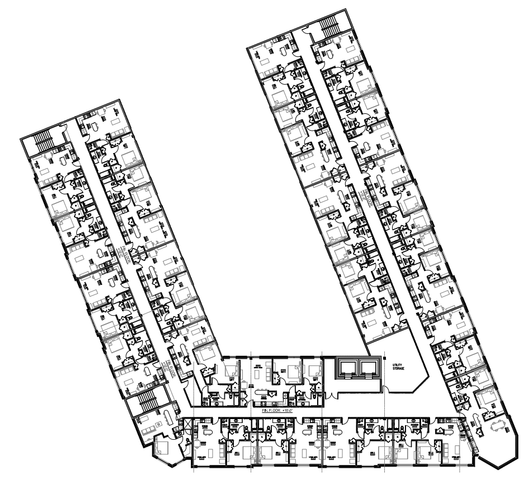
RESTAURANT: 3,628 S.F. + 3,137 S.F.

Note: Amherst Code §6-2-6 Residential Use Standards; allows for "Parking to be shared with ground floor uses, where appropriate."

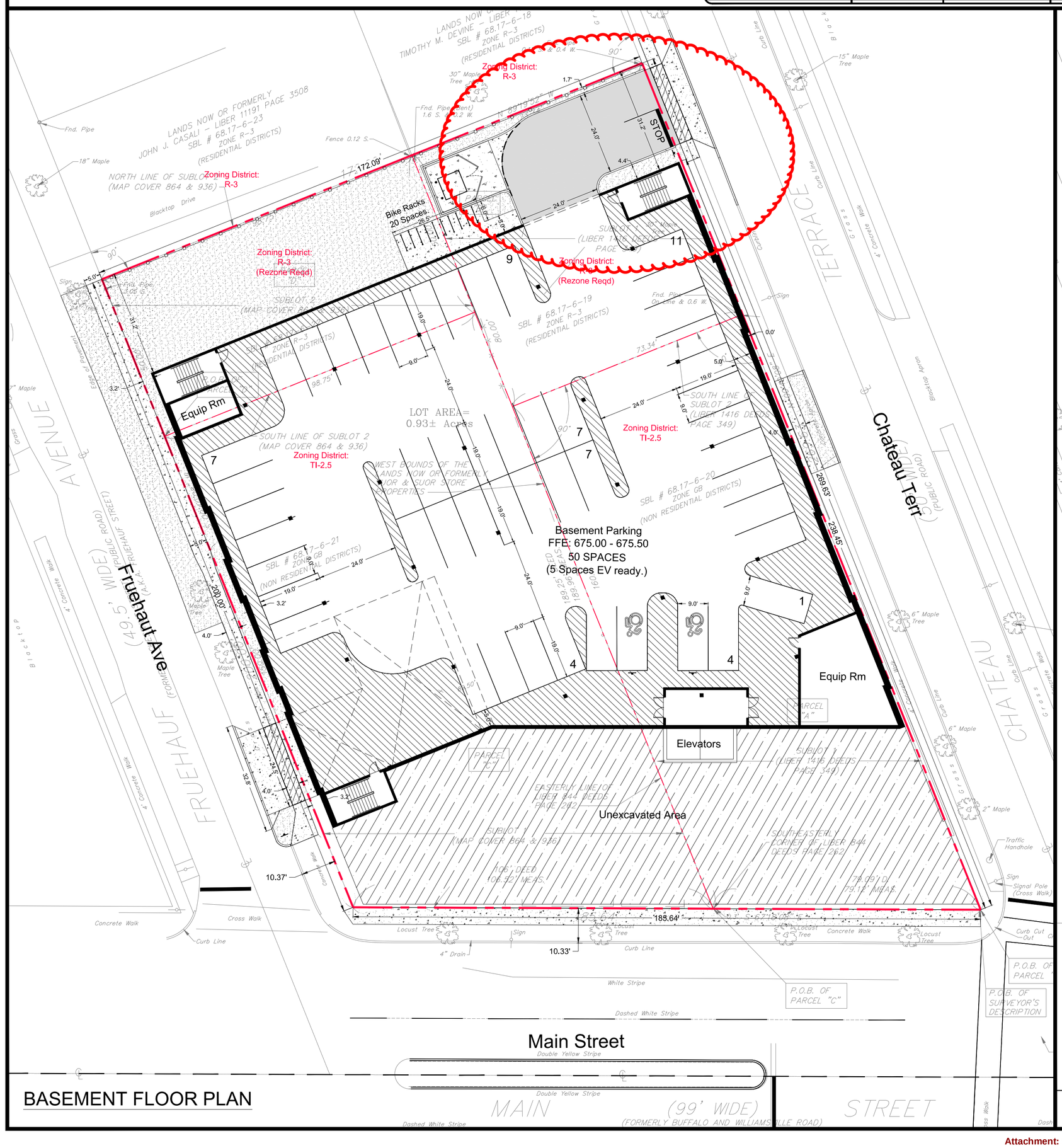
NB:
℄ = Measurement from a Center Line
Curb Island Dimensions are measured from the inside of curb.

MIXED USE DISTRICTS (TI-2.5/TI-4):

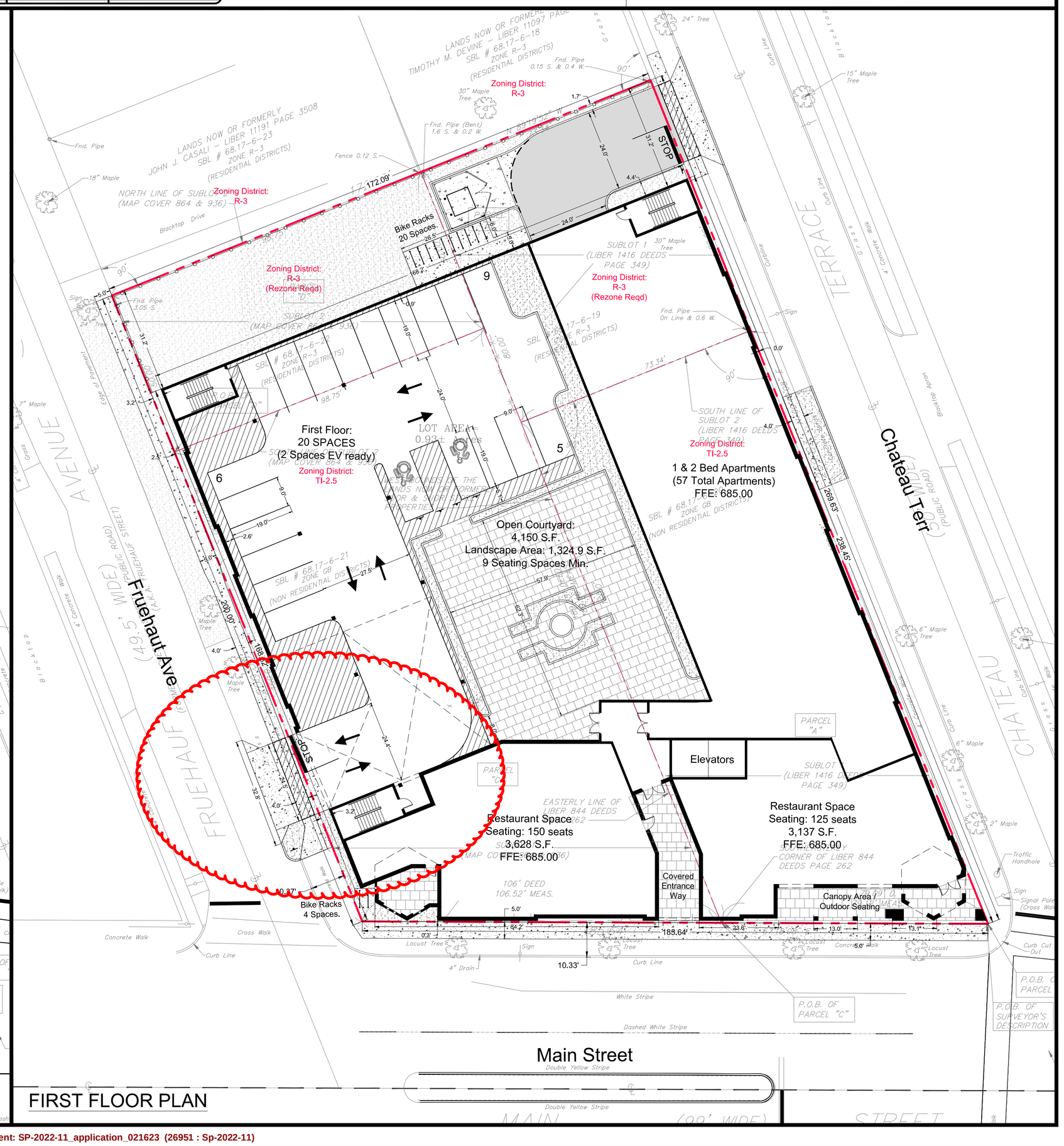
1) Need bicycle parking no more than 100 feet from primary entrance, visible, 0.5 spaces per unit (20max) and 1 per 3000sqft min of retail spaces (20 max). Required: 20 Bike Racks Apartments, 3 Bike Racks Restaurant, Proposed 24 Bike Rack Spaces.
2) Need 10% of parking spaces to be EV ready, with min. 2 EV ready spaces for all parking lots over 20 spaces. (Conduit to be laid ready to connect power in advance). 7 Total Spaces Required. Proposed 7 Spaces.
3) Story Height: Ground Floor Elevation: Residential 2' min./5' max.Non Resi - 0' min./2'max
   Ground Story Height: Resi: 9' Min. NonResi: 13' min, Upper Story: 9' min,
4) Transparency: Ground Story: 50% min (Primary) 30% (Side Street
   Upper Story: 20% min. (Primary and Side)
   Blank Wall Length: 20' max. (Primary) 30' max.(Side)
5) Street Facing Entrance: Required (Primary) N/A (Side).
6) Tree Spacing (Within Curb Zone) 35' on average.
7) 3 Story - exc. Basement Parking (44'-9 3/4") - (4 story at rear with basement lvl 52'-2")



2nd & 3rd FLOOR PLAN



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
-	-	-	-

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED
SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

Proj#: 5202.01
Date: 11/2/20
KKB

TITLE:

ZONING SITE PLAN

SCALE: 1:20
DRAWN BY: JJB
CHECKED BY: JAR
DATE: 10.19.2020
DRAWING NO.: C4.0

Scenario - 1

Scenario Name: AM Peak Hour
Dev. phase: 1
Analyst Note:
Warning:

User Group:
No. of Years to Project Traffic : 0

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
220 - Multifamily Housing (Low-Rise)	General	Dwelling Units	57	Weekday, Peak Hour of	Best Fit (LOG)	6	22	28
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	Ln(T) =0.95Ln(X) - 0.51	23%	77%	
931 - Quality Restaurant	General	1000 Sq. Ft. GFA	3.62	Weekday, Peak Hour of	Average	1	1	2
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	0.73	50%	50%	
930 - Fast Casual Restaurant	General	1000 Sq. Ft. GFA	3.13	Weekday, Peak Hour of	Average	4	2	6
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	2.07	67%	33%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100	100	1	1	23	77
931 - Quality Restaurant	100	100	1	1	50	50
930 - Fast Casual Restaurant	100	100	1	1	67	33

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0	0	6	22
	28		0		28	
931 - Quality Restaurant	1	1	0	0	1	1
	2		0		2	
930 - Fast Casual Restaurant	4	2	0	0	4	2
	6		0		6	

VEHICLE TRIPS AFTER MULTI-MODAL ADJUSTMENT

MODE SHARE:

Land Use	Personal Passenger Vehicle		Truck		Other Modes	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100%	100%	0%	0%	0%	0%
931 - Quality Restaurant	100%	100%	0%	0%	0%	0%
930 - Fast Casual Restaurant	100%	100%	0%	0%	0%	0%

OCCUPANCY:

Land Use	Vehicle	
	Entry	Exit
220 - Multifamily Housing (Low-Rise)	1.00	1.00
931 - Quality Restaurant	1.00	1.00
930 - Fast Casual Restaurant	1.00	1.00

ADJUSTED VEHICLE TRIPS:

Land Use	Entry				Exit			
	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips
220 - Multifamily Housing (Low-Rise)	6	100%	1.00	6	22	100%	1.00	22
931 - Quality Restaurant	1	100%	1.00	1	1	100%	1.00	1
930 - Fast Casual Restaurant	4	100%	1.00	4	2	100%	1.00	2

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INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
220 - Multifamily Housing (Low-Rise)	Residential
931 - Quality Restaurant	Resturant
930 - Fast Casual Restaurant	Resturant

BALANCED PERSON TRIPS:

220 - Multifamily Housing (Low-Rise) — 931 - Quality Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
22	1	10	2	**0**	0	10	1	1
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
6	1	2.5	0	**0**	0	2	1	1

220 - Multifamily Housing (Low-Rise) — 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
22	1	10	2	**0**	0	10	1	4
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
6	1	2.5	0	**0**	0	2	1	2

931 - Quality Restaurant — 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
1	1	0	0	**0**	0	0	1	4
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
1	1	0	0	**0**	0	0	1	2

INTERNAL PERSON TRIPS:

220 - Multifamily Housing (Low-Rise)

Internal Person Trips From	Entry	Exit	Total
931 - Quality Restaurant	0	0	0
930 - Fast Casual Restaurant	0	0	0
Total Internal Person Trips	**0**	**0**	**0**

931 - Quality Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
930 - Fast Casual Restaurant	0	0	0
Total Internal Person Trips	**0**	**0**	**0**

930 - Fast Casual Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
931 - Quality Restaurant	0	0	0
Total Internal Person Trips	**0**	**0**	**0**

INTERNAL VEHICLE TRIPS AND CAPTURE:

220 - Multifamily Housing (Low-Rise)

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**0**	**0**
Total External Vehicle Trips	6	22	28
Internal Vehicle Trip Capture	**0%**	**0%**	**0%**

931 - Quality Restaurant

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**0**	**0**
Total External Vehicle Trips	1	1	2
Internal Vehicle Trip Capture	**0%**	**0%**	**0%**

930 - Fast Casual Restaurant

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**0**	**0**
Total External Vehicle Trips	4	2	6
Internal Vehicle Trip Capture	**0%**	**0%**	**0%**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0.00%	0.00%	0	0
931 - Quality Restaurant	1	1	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	4	2	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0.00%	0.00%	0	0
931 - Quality Restaurant	1	1	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	4	2	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0.00%	0.00%	0	0
931 - Quality Restaurant	1	1	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	4	2	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	6	22	28
931 - Quality Restaurant	1	1	2
930 - Fast Casual Restaurant	4	2	6

Land Use	New Vehicle Trips (PPV)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	6	22	28
931 - Quality Restaurant	1	1	2
930 - Fast Casual Restaurant	4	2	6

Land Use	New Vehicle Trips (Truck)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
931 - Quality Restaurant	0	0	0
930 - Fast Casual Restaurant	0	0	0

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	11	25	36
Vehicle Trips After Multi-modal Adjustment	11	25	36
Internal Vehicle Trips	0	0	0
External Vehicle Trips	11	25	36
Internal Vehicle Trip Capture	0%	0%	0%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	11	25	36
PPV	11	25	36
Truck	0	0	0
Person Trips by Other Modes	0	0	0

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

Scenario - 2

Scenario Name: PM Peak Hour
Dev. phase: 1
Analyst Note:
Warning:
User Group:
No. of Years to Project Traffic : 0

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
220 - Multifamily Housing (Low-Rise)	General	Dwelling Units	57	Weekday, Peak Hour of	Best Fit (LOG)	23	13	36
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	Ln(T) =0.89Ln(X) - 0.02	63%	37%	
931 - Quality Restaurant	General	1000 Sq. Ft. GFA	3.62	Weekday, Peak Hour of	Average	19	9	28
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	7.80	67%	33%	
930 - Fast Casual Restaurant	General	1000 Sq. Ft. GFA	3.13	Weekday, Peak Hour of	Average	24	20	44
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	14.13	55%	45%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100	100	1	1	63	37
931 - Quality Restaurant	100	100	1	1	67	33
930 - Fast Casual Restaurant	100	100	1	1	55	45

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise)	23	13	0	0	23	13
	36		0		36	
931 - Quality Restaurant	19	9	0	0	19	9
	28		0		28	
930 - Fast Casual Restaurant	24	20	0	0	24	20
	44		0		44	

VEHICLE TRIPS AFTER MULTI-MODAL ADJUSTMENT

MODE SHARE:

Land Use	Personal Passenger Vehicle		Truck		Other Modes	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100%	100%	0%	0%	0%	0%
931 - Quality Restaurant	100%	100%	0%	0%	0%	0%
930 - Fast Casual Restaurant	100%	100%	0%	0%	0%	0%

OCCUPANCY:

Land Use	Vehicle	
	Entry	Exit
220 - Multifamily Housing (Low-Rise)	1.00	1.00
931 - Quality Restaurant	1.00	1.00
930 - Fast Casual Restaurant	1.00	1.00

ADJUSTED VEHICLE TRIPS:

Land Use	Entry				Exit			
	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips
220 - Multifamily Housing (Low-Rise)	23	100%	1.00	23	13	100%	1.00	13
931 - Quality Restaurant	19	100%	1.00	19	9	100%	1.00	9
930 - Fast Casual Restaurant	24	100%	1.00	24	20	100%	1.00	20

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
220 - Multifamily Housing (Low-Rise)	Residential
931 - Quality Restaurant	Resturant
930 - Fast Casual Restaurant	Resturant

BALANCED PERSON TRIPS:

220 - Multifamily Housing (Low-Rise) / 931 - Quality Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
13	1	10.5	1	**1**	1	7	1	19
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
23	1	8	2	**1**	1	9	1	9

220 - Multifamily Housing (Low-Rise) / 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
13	1	10.5	1	**1**	2	7	1	24
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
23	1	8	2	**2**	2	9	1	20

931 - Quality Restaurant / 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
9	1	0	0	**0**	0	0	1	24
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
19	1	0	0	**0**	0	0	1	20

INTERNAL PERSON TRIPS:

220 - Multifamily Housing (Low-Rise)

Internal Person Trips From	Entry	Exit	Total
931 - Quality Restaurant	1	1	2
930 - Fast Casual Restaurant	2	1	3
Total Internal Person Trips	**3**	**2**	**5**

931 - Quality Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	1	1	2
930 - Fast Casual Restaurant	0	0	0
Total Internal Person Trips	**1**	**1**	**2**

930 - Fast Casual Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	1	2	3
931 - Quality Restaurant	0	0	0
Total Internal Person Trips	**1**	**2**	**3**

INTERNAL VEHICLE TRIPS AND CAPTURE:

220 - Multifamily Housing (Low-Rise)

Total Internal Person Trips	3	2	5
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**3**	**2**	**5**
Total External Vehicle Trips	20	11	31
Internal Vehicle Trip Capture	**13%**	**15%**	**14%**

931 - Quality Restaurant

Total Internal Person Trips	1	1	2
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**1**	**1**	**2**
Total External Vehicle Trips	18	8	26
Internal Vehicle Trip Capture	**5%**	**11%**	**7%**

930 - Fast Casual Restaurant

Total Internal Person Trips	1	2	3
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**1**	**2**	**3**
Total External Vehicle Trips	23	18	41
Internal Vehicle Trip Capture	**4%**	**10%**	**7%**

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	20	11	0.00%	0.00%	0	0
931 - Quality Restaurant	18	8	20.00%	20.00%	4	2
930 - Fast Casual Restaurant	23	18	20.00%	20.00%	5	4

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	20	11	0.00%	0.00%	0	0
931 - Quality Restaurant	18	8	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	23	18	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	20	11	0.00%	0.00%	0	0
931 - Quality Restaurant	14	6	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	18	14	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	20	11	31
931 - Quality Restaurant	14	6	20
930 - Fast Casual Restaurant	18	14	32

Land Use	New Vehicle Trips (PPV)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	20	11	31
931 - Quality Restaurant	14	6	20
930 - Fast Casual Restaurant	18	14	32

Land Use	New Vehicle Trips (Truck)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
931 - Quality Restaurant	0	0	0
930 - Fast Casual Restaurant	0	0	0

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	66	42	108
Vehicle Trips After Multi-modal Adjustment	66	42	108
Internal Vehicle Trips	5	5	10
External Vehicle Trips	61	37	98
Internal Vehicle Trip Capture	8%	12%	10%
Pass-by Vehicle Trips	9	6	15
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	52	31	83
PPV	52	31	83
Truck	0	0	0
Person Trips by Other Modes	0	0	0

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Traffic Engieering Assessment
LOCATION: Town of Amherst, NY
PEAK HOUR: AM Peak Hour

Figure Number:

LOCATION NUMBER	INTERSECTION DESCRIPTION	Proposed Residential				Proposed Restaurants				Pass-by Trips	Total Site Trips
		Enter Dist. %	Exit Dist. %	Trips IN 6	Trips OUT 22	Enter Dist. %	Exit Dist. %	Trips IN 5	Trips OUT 3		
1	Main Street/ Chateau Terrace/Bernhardt Drive										
	SR		30%		7		5%		0		7
	ST										
	SL		45%		10		5%		0		10
	WR	45%		3		5%		0			3
	WT	15%		1		35%		2			3
	WL										
	NR										
	NT										
	NL										
	ER										
	ET		15%		3		35%		1		4
	EL	30%		2		5%		0			2
2	Main Street/ Fruehauf Avenue										
	SR		10%		2		50%		2		4
	ST										
	SL		15%		3		35%		1		4
	WR	15%		1		35%		2			3
	WT		30%		7		5%		0		7
	WL										
	NR										
	NT										
	NL										
	ER										
	ET	30%		2		5%		0			2
	EL	10%		1		50%		3			3
3	Fruehauf Avenue/ Proposed Driveway										
	SR										
	ST										
	SL					1%		0			0
	WR						1%		0		0
	WT										
	WL		25%		5		85%		3		8
	NR	25%		2		85%		5			7
	NT										
	NL										
	ER										
	ET										
	EL										
4	Chateau Terrace/Bernhardt Drive Proposed Driveway										
	SR					4%		0			0
	ST										
	SL										
	WR										
	WT										
	WL										
	NR										
	NT										
	NL	75%		5		10%					5
	ER		75%		17		10%		0		17
	ET										
	EL						4%		0		0

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Traffic Engieering Assessment
LOCATION: Town of Amherst, NY
PEAK HOUR: PM Peak Hour

Figure Number:

LOCATION NUMBER	INTERSECTION DESCRIPTION	Proposed Residential				Proposed Restaurants				Pass-by Trips	Total Site Trips
		Enter Dist. %	Exit Dist. %	Trips IN 20	Trips OUT 11	Enter Dist. %	Exit Dist. %	Trips IN 41	Trips OUT 26		
1	Main Street/ Chateau Terrace/Bernhardt Drive										
	SR		30%		3		5%		1		4
	ST										
	SL		45%		5		5%		2		7
	WR	45%		9		5%		2			11
	WT	15%		3		35%		14			17
	WL										
	NR										
	NT										
	NL										
	ER										
	ET		15%		2		35%		9	-2	9
	EL	30%		6		5%		2			8
2	Main Street/ Fruehauf Avenue										
	SR		10%		1		50%		13	3	17
	ST										
	SL		15%		2		35%		9	3	14
	WR	15%		3		35%		14		4	21
	WT		30%		3		5%		1	-4	1
	WL										
	NR										
	NT										
	NL										
	ER										
	ET	30%		6		5%		2		-5	3
	EL	10%		2		50%		21		5	28
3	Fruehauf Avenue/ Proposed Driveway										
	SR										
	ST										
	SL					1%		0			0
	WR						1%		0		0
	WT										
	WL		25%		3		85%		22	6	31
	NR	25%		5		85%		35		9	49
	NT										
	NL										
	ER										
	ET										
	EL										
4	Chateau Terrace/Bernhardt Drive Proposed Driveway										
	SR					4%		2			2
	ST										
	SL										
	WR										
	WT										
	WL										
	NR										
	NT										
	NL	75%		15		10%		4			19
	ER		75%		8		10%		3		11
	ET										
	EL						4%		1		1

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

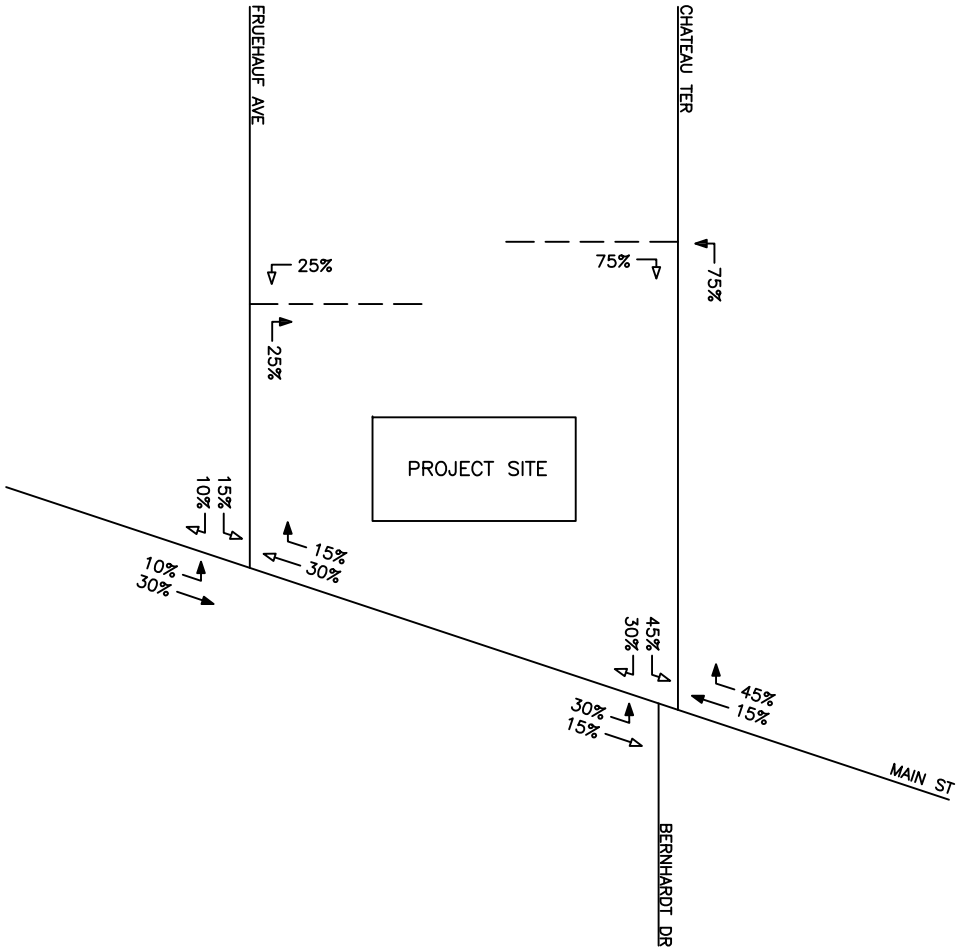


FIGURE 1

TRIP DISTRIBUTION - RESIDENTIAL

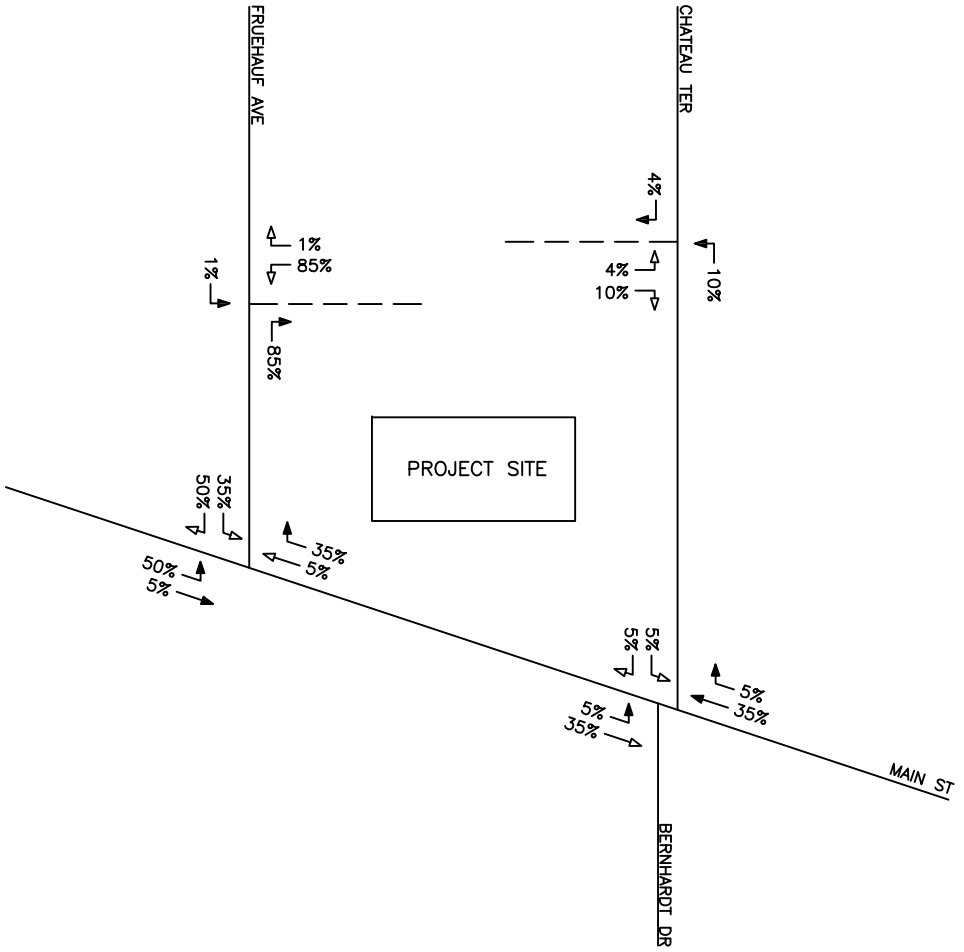


FIGURE 2

TRIP DISTRIBUTION - RESTAURANT

PROJECT NO: 41056

SRF ASSOCIATES
Transportation Planning / Engineering / Design

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)

ENTERING TRIP

EXITING TRIP

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

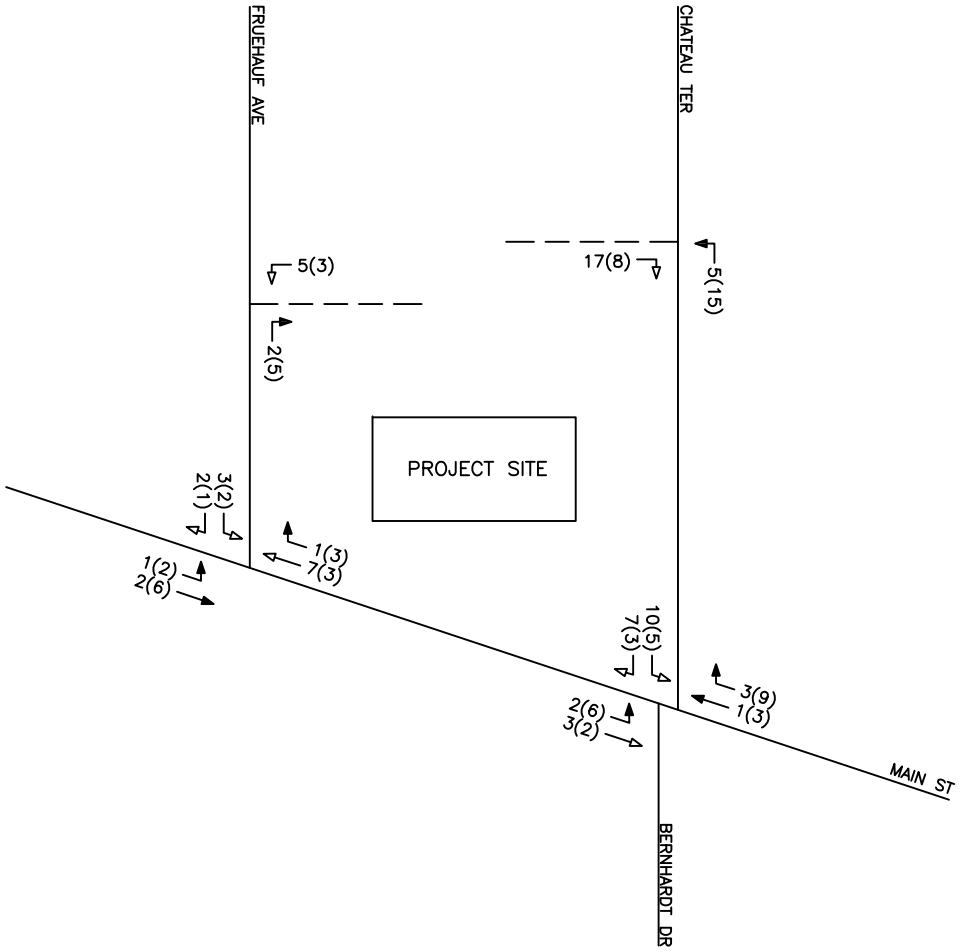


FIGURE 3

SITE GENERATED TRIPS - RESIDENTIAL

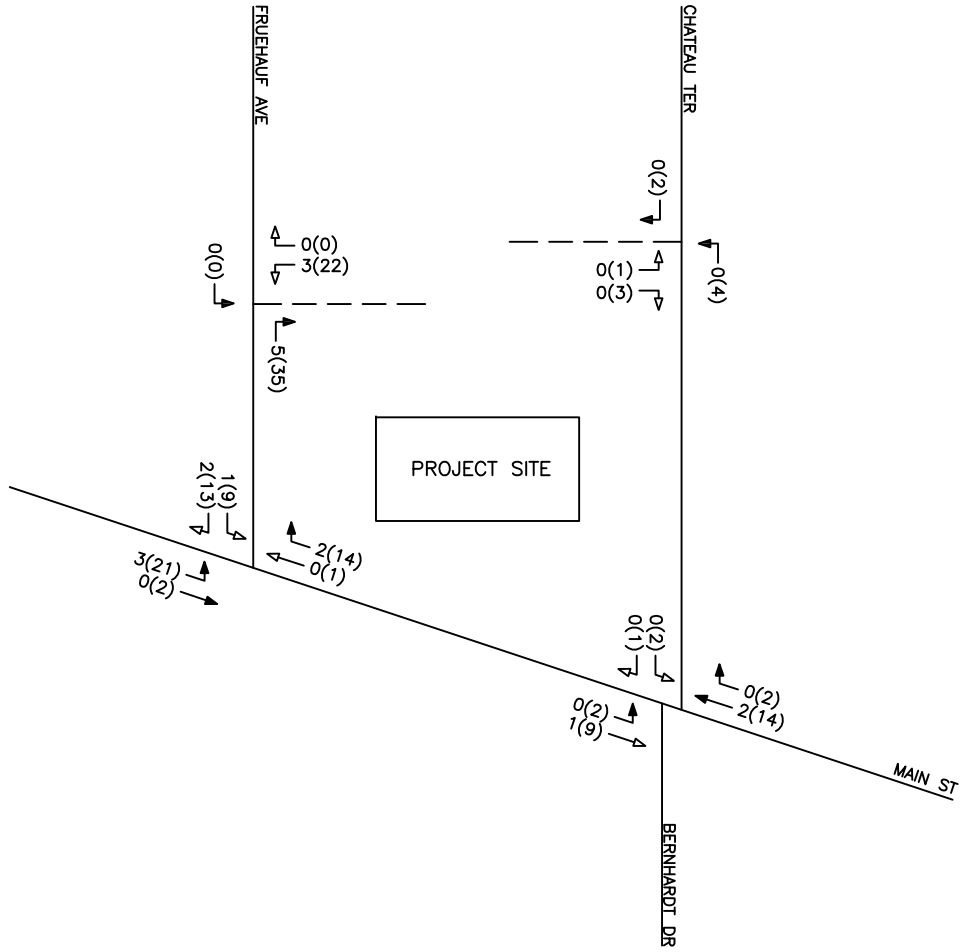


FIGURE 4

SITE GENERATED TRIPS - RESTAURANTS - PRIMARY TRIPS

PROJECT NO: 41056

SRF ASSOCIATES
Transportation Planning / Engineering / Design

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)

ENTERING TRIP

EXITING TRIP

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

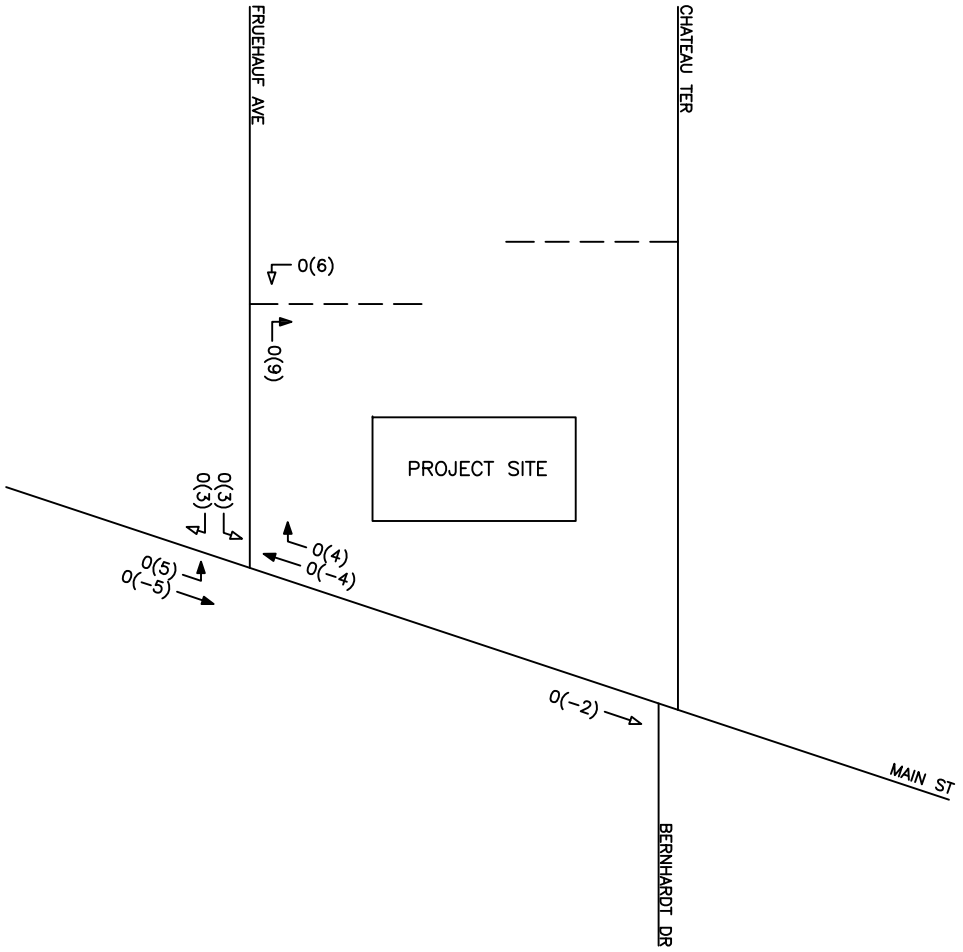


FIGURE 5

SITE GENERATED TRIPS - RESTAURANTS -
PASS-BY TRIPS

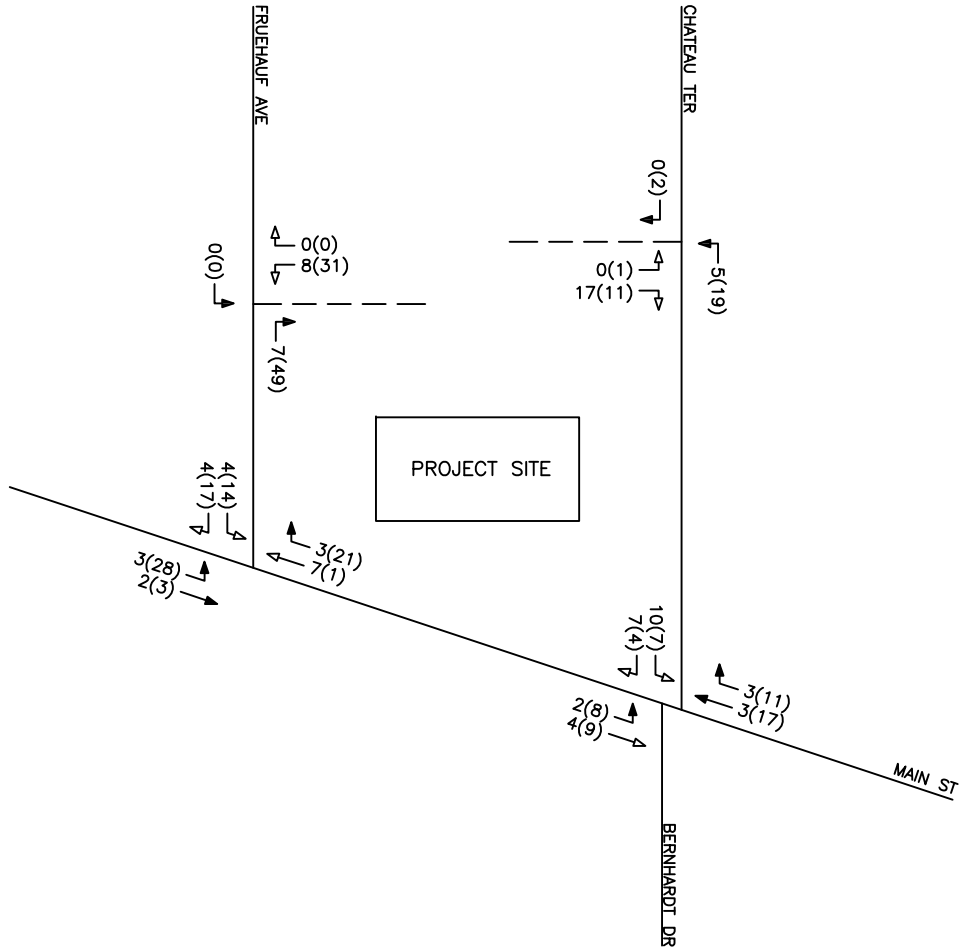


FIGURE 6

SITE GENERATED TRIPS
TOTAL SITE TRIPS

PROJECT NO: 41056

SRF ASSOCIATES
Transportation Planning / Engineering / Design

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

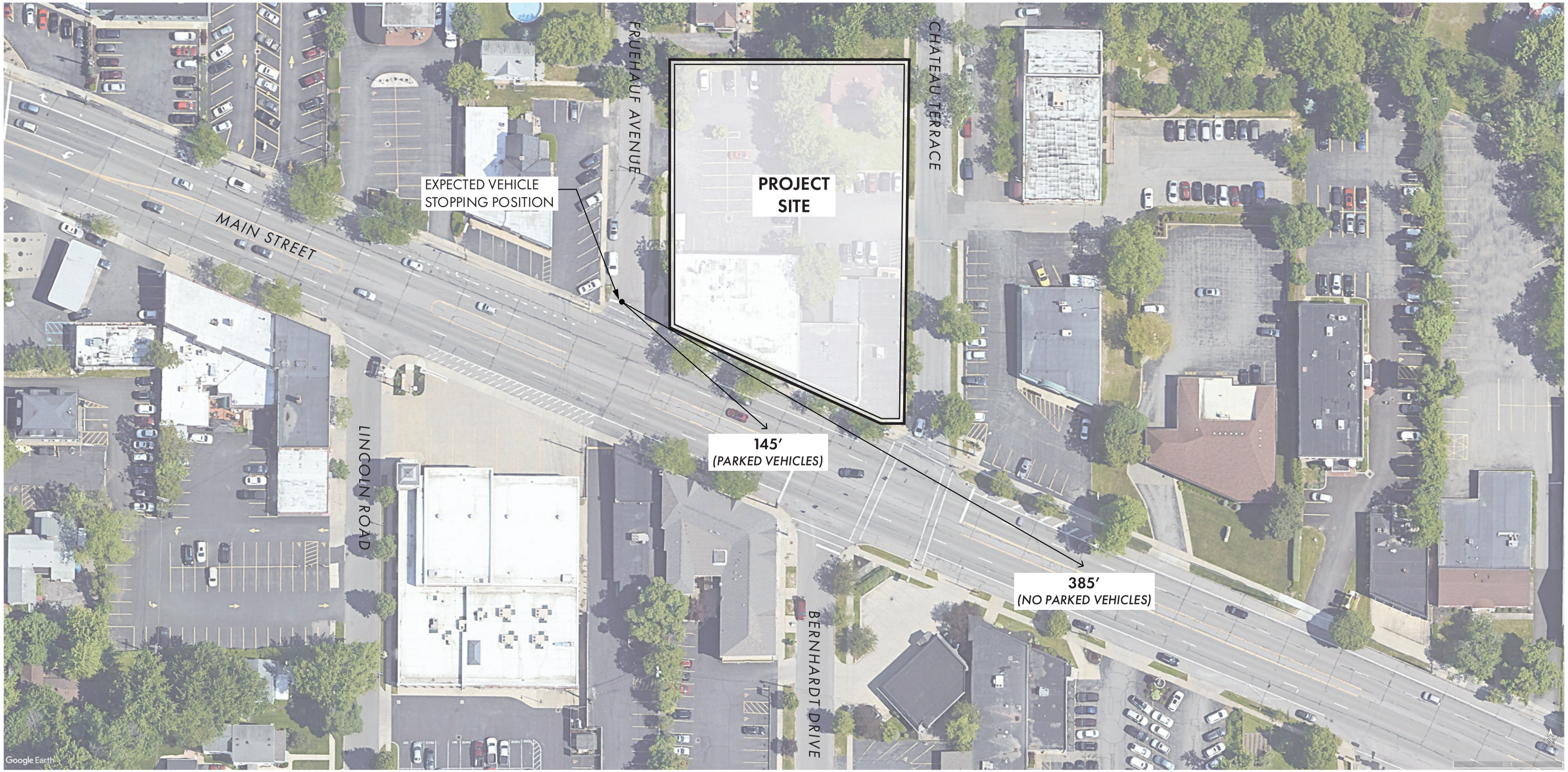
KEY

00(00) = AM(PM)

→ ENTERING TRIP

→ EXITING TRIP

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)



SIGHT LINE EVALUATION

4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

OV

Notes:
Main Street Speed Limit: **40 MPH**
Design Speed: **45 MPH (posted speed limit plus 5 MPH)**
Required Stopping Sight Distance: **360 feet**
Desirable Intersection Sight Distance: **500 feet**

0 80
FEET

SRF ASSOCIATES
Transportation Planning / Engineering / Design
3495 Winton Place, Building E, Suite 110

Attachment: SP-2022-11_application_021623 (26951 : Sp-2022-11)

PROPOSED SITE DEVELOPMENT

Main St. / Chateau Terrace / Fruehauf Ave.

4548 - 4564 Main St, Amherst, NY

BDC Property # 5202

SITE DEVELOPMENT DRAWINGS

INDEX OF DRAWINGS

DWG. #	DRAWING NAME	REVISION	DATE
C1.0	COVER SHEET	3	12.14.2022
C2.0	EXISTING SURVEY		
C3.0	DEMOLITION & EROSION CONTROL PLAN	3	12.14.2022
C3.1	BORING LOCATION PLAN	3	12.14.2022
C3.2	DEMOLITION & EROSION CONTROL DETAILS	3	12.14.2022
C4.0	OVERALL SITE PLAN	3	12.14.2022
C4.1	DETAILED SITE PLAN	3	12.14.2022
C4.2	CONSTRUCTION DETAILS	3	12.14.2022
C5.0	GRADING PLAN	3	12.14.2022
C5.1	DRAINAGE PLAN	3	12.14.2022
C5.2	DRAINAGE DETAILS	3	12.14.2022
C6.0	UTILITY PLAN	3	12.14.2022
C6.1	UTILITY DETAILS	3	12.14.2022
C7.0	LANDSCAPE PLAN	3	12.14.2022
C8.0	LIGHTING PLAN	3	12.14.2022
C8.1	LIGHTING DETAILS	3	12.14.2022

OWNER/DEVELOPER:

NAME: BENDERSON DEVELOPMENT COMPANY, LLC
ADDRESS: 570 DELAWARE AVENUE, BUFFALO, NY 14202
CONTACT: DAVID ZUPPELLI
PHONE: 716 - 878 - 9683

BENDERSON DEVELOPMENT COMPANY, LLC
570 Delaware Ave.
Buffalo, New York 14202

SURVEYOR

NAME: MILLARD, MACKAY & DELLES LAND SURVEYORS, LLP
ADDRESS: 150 AERO DRIVE, BUFFALO, NY 14225
CONTACT: FRANCIS C. DELLES
PHONE: 716-631-5140

UTILITIES:

WATER DEPARTMENT
NAME/TITLE: ADAM MASSARO
COMPANY/DEPT: ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION RD, CHEEKTOWAGA, NY
PHONE: 716 - 685-8207

DIG SAFELY NEW YORK
PHONE: 1 - 800 - 962 - 7962 OR (811)

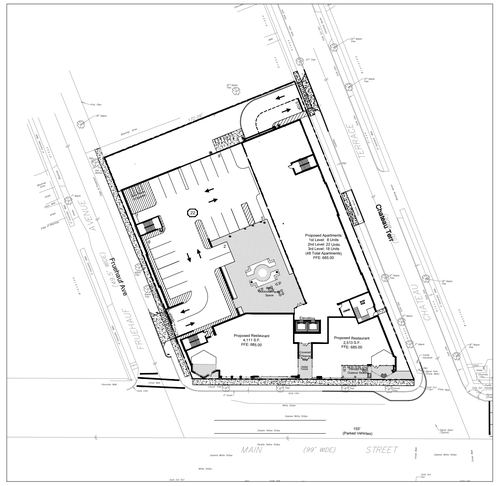
AGENCIES:

ENGINEERING DEPARTMENT
NAME/TITLE: JEFF BURROUGHS
COMPANY/DEPT: TOWN OF AMHERST, NY - ENGINEERING DPT
ADDRESS: 1100 NORTH FOREST RD, WILLIAMSVILLE, NY
PHONE: 716 - 631 - 7154 EX 7418

BUILDING & PLUMBING DEPARTMENT
NAME/TITLE: -
COMPANY/DEPT: TOWN OF AMHERST, NY - BUILDING DPT
ADDRESS: 5583 MAIN STREET, WILLIAMSVILLE, NY 14221
PHONE: 716 - 631 - 7080

NYSDOT - HIGHWAY & UTILITY PERMITS
NAME/TITLE: ALFRED I. OYOYO, ASSISTANT RESIDENT ENGINEER
COMPANY/DEPT: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NORTH ERIE RESIDENCY)
ADDRESS: 111 INDIAN ROAD. DEPEW, NEW YORK 14043
PHONE: 716 - 683 - 3476 (EXT - 27)

SITE LOCATION MAP 1"=60'



REGIONAL LOCATION MAP NTS



OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	05.23.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: - -

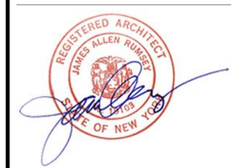
4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

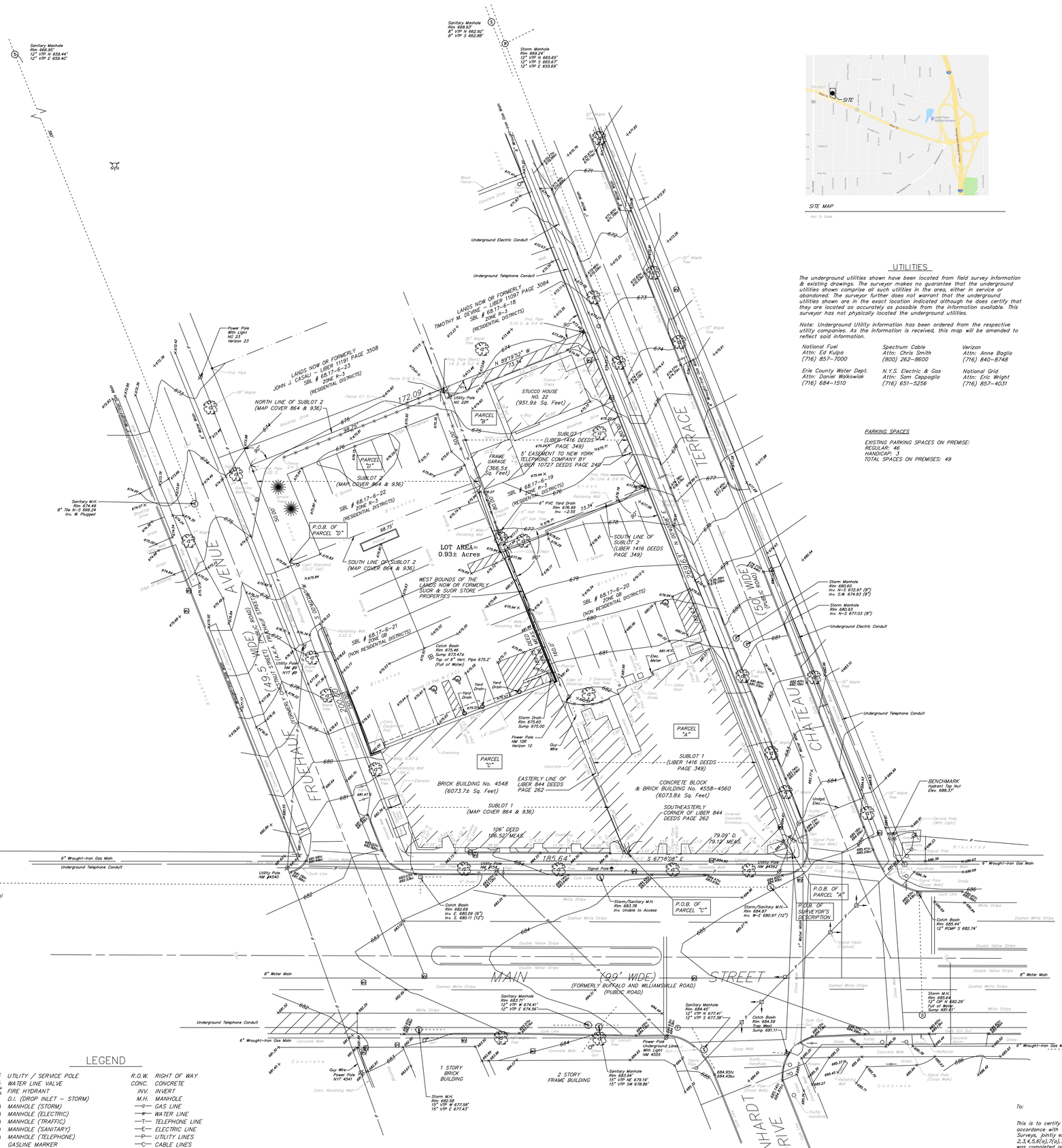
SEAL



TITLE: COVER SHEET

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C1.0

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



LEGEND

Ø	UTILITY / SERVICE POLE	R.O.W.	RIGHT OF WAY
WV	WATER LINE VALVE	CONC.	CONCRETE
FH	FIRE HYDRANT	INV.	INVERT
D.I.	D.I. (DROP INLET – STORM)	M.H.	MANHOLE
(D)	MANHOLE (STORM)	—G—	GAS LINE
(E)	MANHOLE (ELECTRIC)	—W—	WATER LINE
(TR)	MANHOLE (TRAFFIC)	—T—	TELEPHONE LINE
(S)	MANHOLE (SANITARY)	—E—	ELECTRIC LINE
(T)	MANHOLE (TELEPHONE)	—P—	UTILITY LINES
(G)	GASLINE MARKER	—C—	CABLE LINES
GV	GAS LINE VALVE	D.	DEED
☆	LIGHT STANDARD	M.	MEASURED
—o—	SIGN	L.	LIBER
H.C.	HANDICAP	P.	PAGE

GRAPHIC SCALE – FEET (20 0 20 40 60)

SITE MAP
Not To Scale

UTILITIES

The underground utilities shown have been located from field survey information & existing drawings. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from the information available. This surveyor has not physically located the underground utilities.

Note: Underground Utility information has been ordered from the respective utility companies. As the information is received, this map will be amended to reflect said information.

National Fuel Attn: Ed Kulpa (716) 857–7000	Spectrum Cable Attn: Chris Smith (800) 262–8600	Verizon Attn: Anne Baglio (716) 840–8748
Erie County Water Dept. Attn: Daniel Walkowiak (716) 684–1510	N.Y.S. Electric & Gas Attn: Sam Ceppaglia (716) 651–5256	National Grid Attn: Eric Wright (716) 857–4031

PARKING SPACES

EXISTING PARKING SPACES ON PREMISE:
REGULAR: 46
HANDICAP: 3
TOTAL SPACES ON PREMISES: 49

EASEMENT:

HOLLAND LAND TITLE & ABSTRACT COMPANY, INC.
SEARCH NO. 2010–54388
DATED: NOVEMBER 17, 2017

23.) EASEMENT TO NEW YORK TELEPHONE COMPANY BY LIBER 10727 DEEDS PAGE 240. (PLOTTED ON DRAWING)

SCHEDULE "A"

HOLLAND LAND TITLE & ABSTRACT COMPANY, INC.
SEARCH NO. 2010–54388
DATED: NOVEMBER 17, 2017

PARCEL A:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey, and being Subdivision Lot No. 1 as shown on a certain subdivision map made by Busch & Percival, Engineers, entitled "College Hill Terraces" and recorded in Erie County Clerk's Office in Liber 1416 of Deeds, page 349, and more particularly bounded and described as follows:

BEGINNING at the point of intersection of the northeasterly line of Main Street with the west line of Chateau Terrace; running thence northerly along the westerly line of Chateau Terrace; running thence northerly along the westerly line of Chateau Terrace, 189.63 feet to the southerly line of Subdivision Lot No. 2, as shown on said subdivision map; thence westerly at right angles with the westerly line of Chateau Terrace and along the southerly line of Subdivision Lot No. 2, 73.34 feet to the westerly bounds of the lands of Suor & Suor Store Properties, Inc.; thence southerly and at right angles with the said southerly line of Subdivision Lot No. 2, and along the westerly bounds of the lands of the Suor & Suor Store Properties, Inc., 160 feet to the northeasterly line of Main Street; thence southeasterly along the said line of Main Street, 79.09 feet to the point of beginning.

PARCEL B:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey and which up on a certain subdivision map of a part of said Farm Lot No. 13, made by Busch & Percival, Engineers, called a subdivision map of College Hill Terraces (which said map is recorded in Erie County Clerk's Office in Liber 1416 of Deeds, page 349) is known as Subdivision Lot No 2, being 80 feet front and rear by 73.34 feet deep situate on the west side of Chateau Terrace, beginning 189.63 feet north of the north line of Main Street.

PARCEL C:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey, and being designated as Subdivision Lot No. 1 as shown on subdivision map made for Jacob C. Fruehauf by C.F. Witmer, Surveyor, in 1898 of part of said Lot No. 18 filed in Erie County Clerk's Office under Map Cover 864 and also being designated as Subdivision Lot No. 1 on a map filed in Erie County Clerk's Office under Cover No. 936, and bounded and described as follow:

BEGINNING at the southeasterly corner of premises conveyed to said Jacob C. Fruehauf by Fanny Holl, by Committee, by deed dated February 7, 1898, recorded in Erie County Clerk's Office in Liber 844 of Deeds, page 262, February 7, 1898, being in the northerly line of Main Street (Buffalo and Williamsville Road); running thence northerly along the easterly line of the premises conveyed by said deed, 189.25 feet; thence westerly 98.75 feet to the easterly lien of Fruehauf Street (formerly known as Chestnut Street) as shown on said map; thence southerly along the easterly line of Fruehauf Street (formerly known as Chestnut Street) 150 feet to the said northerly line of Main Street (Buffalo and Williamsville Road); and thence easterly along said line of Main Street (Buffalo and Williamsville Road) 106 feet to the place of beginning.

PARCEL D:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey and being further known and distinguished as Subdivision Lot No. 2 as shown and laid down on map and survey made made by C.F. Witmer, Surveyor in 1898, which map is filed in Erie County Clerk's Office under Cover No. 864, said lot being bounded and described as follows:

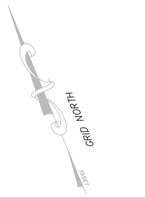
BEGINNING in the easterly line of Fruehauf Avenue at a point distant 150 feet from the point of intersection of said line of Fruehauf Avenue with the northerly line of Main Street; thence easterly along the southerly line of said Subdivision Lot No. 2, 98.75 feet to the east line of land conveyed to Jacob C Fruehauf by deed recorded in Erie County Clerk's Office in Liber 844 of Deeds, page 262; thence northerly along the said easterly lien of said land so conveyed, 50 feet; thence westerly along the northerly line of said Subdivision Lot No. 2, 98.75 feet; and thence southerly along the easterly line of Fruehauf Avenue 50 feet to the place of beginning.

SURVEYOR'S DESCRIPTION:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at the point of intersection of the northerly line of Main Street with the west line of Chateau Terrace; running thence northerly along the westerly line of Chateau Terrace; running thence northerly along the westerly line of Chateau Terrace, 269.63 feet to a point; thence westerly at right angles with the westerly line of Chateau Terrace, 172.09 feet to the easterly line of Fruehauf Avenue; thence southerly along the easterly line of Fruehauf Avenue, 200.00 feet to the said northerly line of Main Street; and thence easterly along said line of Main Street 185.64 feet to the place of beginning.

Parcel containing 0.93 acres of land, more or less.



NOTE:
ALL ELEVATIONS ON CURBLINE ARE TAKEN AT TOP OF CURB – 6" CURB IS ASSUMED

ELEVATIONS AND COORDINATES ESTABLISHED FROM TOWN OF AMHERST MONUMENTS No. 8 & No. 9, NAD 83/92 HARN DATUM NEW YORK WEST ZONE

FLOOD ZONE DATA

ENTIRE PREMISES LIES WITHIN ZONE "X" (AREA DETERMINED TO BE OUTSIDE 500–YEAR FLOODPLAN) PER F.E.M.A. FLOOD INSURANCE RATE MAP 3602226 0012 E, TOWN OF AMHERST MAP DATE: OCTOBER 16, 1992

ZONING

TOWN OF AMHERST
ONLINE – ECODE360
ADOPTED BY THE TOWN BARD OF THE TOWN OF AMHERST 5–1–2006

SBL NO. 68.17–6–19 AND 22 ARE IN ZONE R–3 (RESIDENTIAL DISTRICTS)

SBL NO. 68.17–6–20 AND 21 ARE IN ZONE GB (NON RESIDENTIAL DISTRICTS)

B. Dimensional Standards.

R-3 Principal Use Dimensional Standards	
Min. lot area (per dwelling)	
Interior	8,450 sf
Corner	9,700 sf
Min. lot width	
Interior	65 ft
Corner	75 ft
Min. yards	
Front yard	30 ft
Rear yard	30 ft
Combined side yards	10 ft
Each side yard	3 ft
Corner lot	See § 2-5.2A(5)
Through lot	See § 2-5.2A(3)
Max. height	2 stories (up to 35 ft)
Max. building coverage	30%
Min. floor area (dwelling only)	
Under 2 stories	1,000 sf
2 or more stories	1,200 sf

Note: For explanations of measurements, computations, and exceptions see § 2-5[1]

GB Principal & Accessory Use/Structure Dimensional Standards		Vehicle Use Area
Min. lot area	None	
Min. lot width	None	
Min. front yard		
Height of structure for first 35 ft	20 ft	10 ft*
Height of structure for any portion of building above 35 ft	30 ft	10 ft*
Min. rear yard (abutting residential ** /nonresidential)		
Height of structure up to 30 ft	See § 2-5.4B(3)/15 ft	15 ft* / 5 ft*
Height of structure 30 ft or more	See § 2-5.4B(3)/25 ft	15 ft* / 5 ft*
Min. side yard (abutting residential ** /nonresidential) **		
Height of structure up to 30 ft	See § 2-5.4B(3)/ None or 10 ft if not on lot line	15 ft* / 5 ft*
Height of structure 30 ft or more	See § 2-5.4B(3) / 25 ft	15 ft* / 5 ft*
Max. height	65 ft	
Max. building coverage	None	
Min. interior building separation	None required	

*	The entire area must be landscaped.
**	Accessory structures shall be setback a minimum of 10 feet
***	R-R, S-A, R-1, R-2, R-3, CR-1A, TR-3, R-4, MFR-1A, MFR-5, MFR-6, MFR-7, PRD, PDD, FRD, NCD[2]

SUBLOT 1 & 2 ~ MAP IN LIBER 1416 DEEDS PAGE 349 AND SUBLOT 1 & 2 ~ MAP IN MAP COVER 864 & 936

8/14/18: ADDED UNDERGROUND UTILITIES
10/27/20: LOCATED RETAINING WALL & GASLINE MARKER

INSTRUMENT(S) UTILIZED IN DETERMINING LOCATION OF BOUNDARY LINES: HEAD OF SCARCH
THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT ABSTRACT OF TITLE AND IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED IN SAID ABSTRACT.
NOTE: PROPERTY CORNER MONUMENTS WERE NOT PLACED AS PART OF THIS SURVEY.

CERTIFICATION

To:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 2,3,4,5,6(a),7(a),7(b),7(c),8,9,11,13, & 21(Per Email List) of Table A thereof. The field work was completed on 3–26–18.

Date of Plat or Map: 3–28–2018

Francis C. Delles Registration No. 050477

©COPYRIGHT 2018 BY:
Millard, MacKay & Delles
LAND SURVEYORS, LLP
150 AERO DRIVE
BUFFALO, NEW YORK 14225
PHONE (716) 631–5140 ~ FAX 631–3811

AMEND:
SURVEY DATE: 3–26–18
DRAWING DATE: 3–28–18
SCALE: 1" = 20'
"ALL RIGHTS RESERVED"
THIS MAP VOID UNLESS EMBOSSED
WITH NEW YORK STATE LICENSED LAND SURVEYOR'S SEAL, ALTERING ANY ITEM ON THIS MAP IN VIOLATION OF THE LAW EXCEPT AS PROVIDED BY SECTION 7209, PART 2, OF THE NEW YORK STATE EDUCATION LAW.

ALTA/NSPS LAND TITLE SURVEY

PART OF LOT 13 SECTION ____ TOWNSHIP 12 RANGE 7 OF THE: Holland Land Company's SURVEY – Erie COUNTY, N.Y.

SURVEY OF: 22 Chateau Terrace, 4564 & 4548 Main Street and 17 Fruehauf Avenue, Town of Amherst

SBL No. 68.17–6–21 & 22

Attachment: SP-2022-11 drawings 021623 (2695 : Sp-2022-11)



GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    - 11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    - 11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DEMOLITION & EROSION NOTES:

1. USE ENTRANCE FROM FRUEHAUF AVE. FOR CONSTRUCTION ENTRANCE
2. INSTALL TEMPORARY EROSION CONTROL DEVICES AS DIRECTED WITHIN THE WORKING AREA TO PREVENT SEDIMENT MIGRATION. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS PROVIDED.
3. ALL EROSION CONTROL DEVICES SHALL BE REPLACED WHEREVER THEY BECOME INOPERABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
5. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION, DURING EARTHWORK OPERATIONS, WATER-SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR, AND WATER SPREAD AS NECESSARY AND AS DIRECTED IN ORDER TO CONTROL DUST.
6. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED AND ROAD SURFACES CLEANED BY THE CONTRACTORS ON A DAILY BASIS, OR MORE FREQUENTLY IF DEEMED NECESSARY.
7. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM OF 4" DEPTH AND SEEDED IMMEDIATELY AFTER FINE GRADING TAKES PLACE AND AS SOON AS PHYSICALLY POSSIBLE.
8. THE CONTRACTOR IS RESPONSIBLY FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES AND CULVERTS. SILT BUILDUP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS, DETENTION PONDS, BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR CITY.
9. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE ALL GRADING WORKS ARE COMPLETE.

DEMOLITION LEGEND:

- Property Line
- EX ELEC — Existing Electric
- EX GAS — Existing Gas
- EX WTR — Existing Water
- EX OH — Existing Overhead Utility
- EX SAN — Existing Sanitary
- EX STM — Existing Storm
- EX TC — Existing Telecoms
- Saw Cut Line
- Silt Fence/Sock
- Inlet Protection "Sedi-Bag" or similar
- Existing Easement to be removed.
- Existing Building to be removed.

DEMOLITION NOTES: (#)

1. Existing Buildings to be removed.
2. Existing Pavement to be removed.
3. Existing R.O.W. Driveway, Curb and Sidewalk to be removed.
4. Existing Retaining Wall and Steps to be removed.
5. Existing Landscape Area to be removed.
6. Existing Fence to be removed.
7. Existing Utility to be removed.
8. Existing Storm Drainage/CB to be removed.
9. Existing Sign to be removed.
10. Existing Curb to remain.
11. Existing Pavement to remain.
12. Existing Landscape area to remain.
13. Existing Sidewalk to remain.
14. Existing Storm Drainage/CB to remain and be protected during Construction.
15. Existing Utility to remain and be protected during construction.
16. Existing Light Pole to remain and be protected during construction.
17. Existing Sign to be relocated.

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE:

DEMO & EROSION CONTROL PLAN

SCALE: 1:20

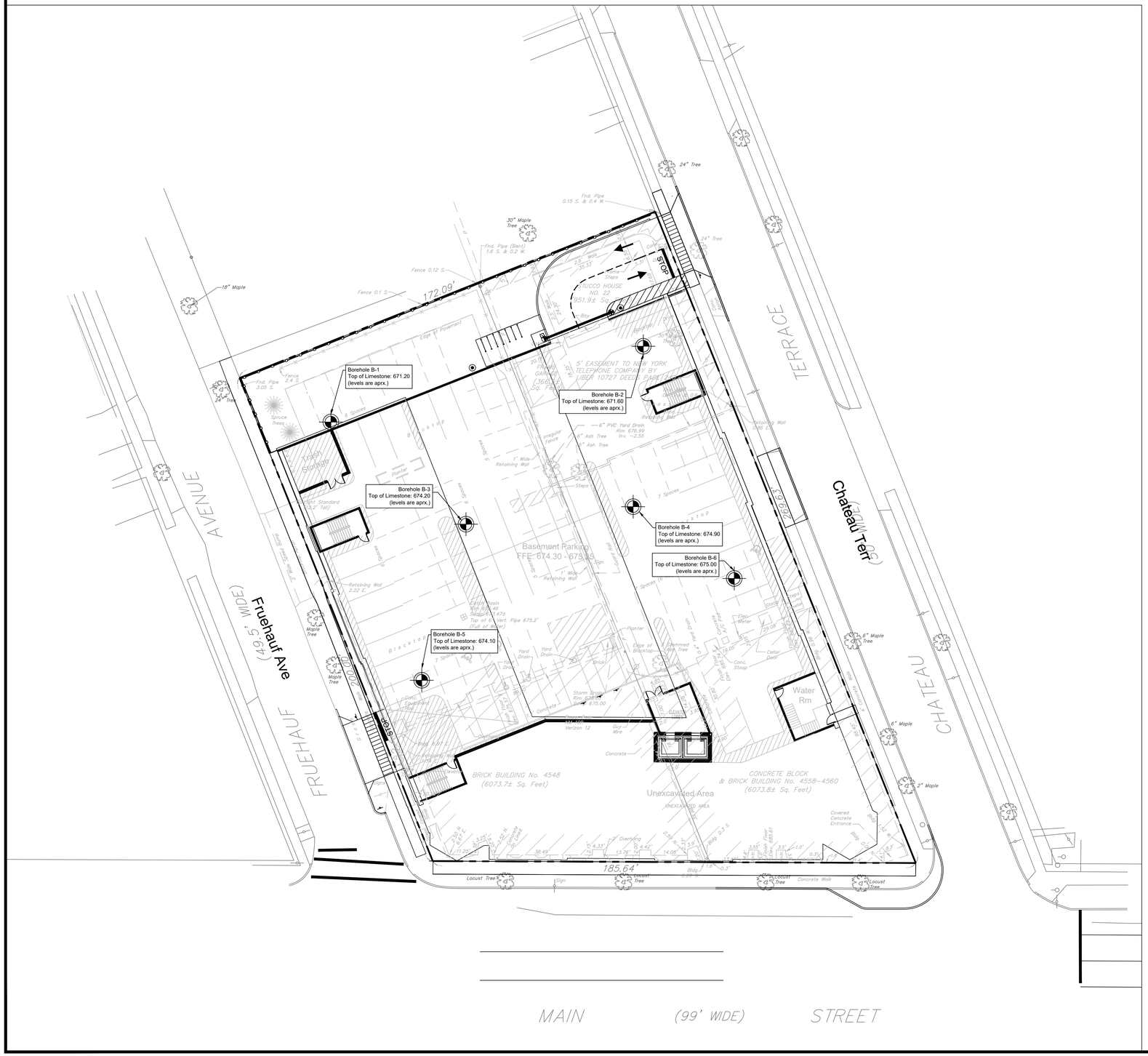
DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C3.0

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



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12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

BOREHOLE TEST NOTES:

BOREHOLE LOCATIONS ARE APPROXIMATE. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR LOCATIONS AND INFORMATION.

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE:

BORING LOCATION PLAN

SCALE: 1:20

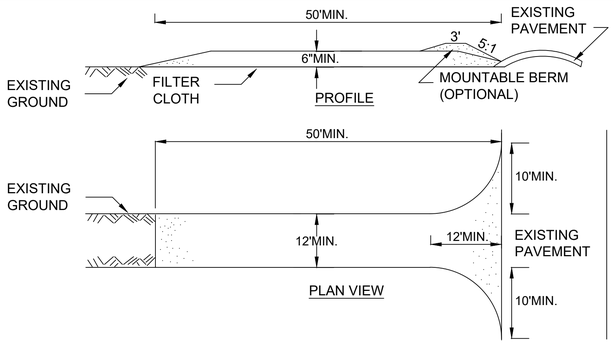
DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. **C3.1**

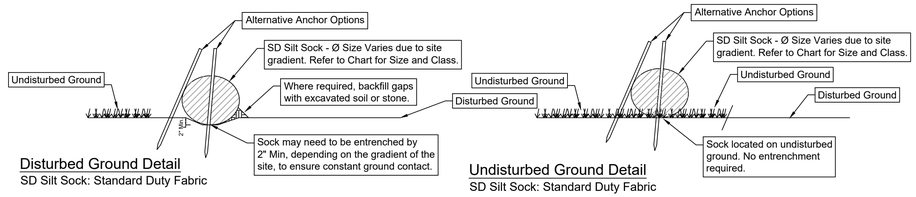
Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



STABILIZED CONSTRUCTION ENTRANCE DETAIL

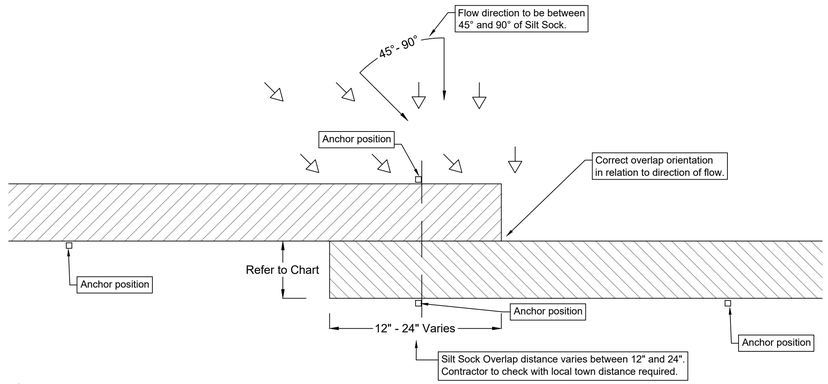
NOT TO SCALE

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



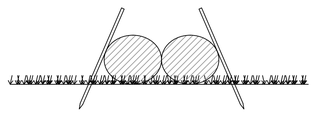
Disturbed Ground Detail
SD Silt Sock: Standard Duty Fabric

Undisturbed Ground Detail
SD Silt Sock: Standard Duty Fabric



Overlap Detail - PLAN

1) Anchors required at the overlap section are to stay outside the Silt Sock and not pierce through the material. See alternative anchor positons in details above.

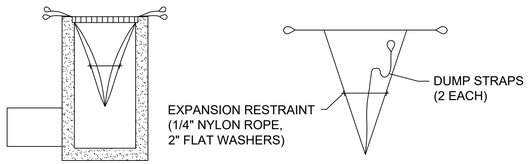


Anchor at Overlaped Ends - SECTION

Size & Class Chart			
	Diameter		
Gradient	8"	12"	18"
0 - 2%	30	55	75
2.1 - 5%	25	40	55
5.1 - 10%	15	30	40
10.1 - 33%	10	15	20
> 33%	5	10	15

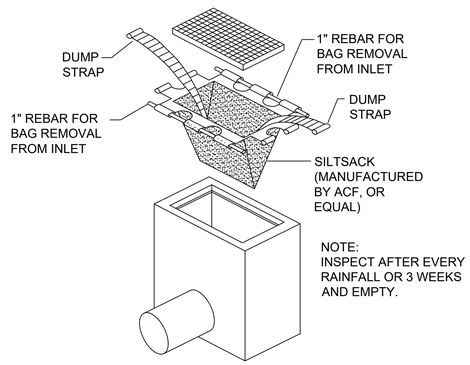
SD SILT SOCK DETAIL

SD Silt Sock: Standard Duty Fabric



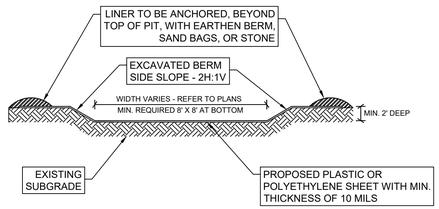
INSTALLATION DETAIL

BAG DETAIL



SILT SACK DETAIL

N.T.S.



TYPICAL CONCRETE WASH OUT DETAIL

NOTES:
1. CONSTRUCT TO 2016 NYSDEC BLUE BOOK DESIGN CRITERIA

Notes:

1 - Do not use sock below the normal watermark or perpendicular to flow in river and where the maximum incline is greater than 50%.
2 - Contractors should be aware of federal, state and local laws, rules regulations or permit requirements for the use of Silt Socks on site.
3 - Sock should be positioned on the outline of the area to be protected, but must be installed between 45° to 90° from directions of flow.
4 - Sock may be required to be entrenched a minimum of 2" on disturbed ground to ensure constant ground contact.
5 - All gaps and ruts must be backfilled with soil or sock material.
6 - Sock overlap should be in the direction of the flow. Overlap amount will be between 12" and 24". Contractor to check with local town for requirements.
7 - If sediment collects to 1/2 the height of the sock, then a second sock may be stacked immediately up slope of the original instead of removing the sediment.
8 - Sock joint is where two sock sections meet on a level grade, overlap and adjoining ends, tightening the ends together, and anchoring through each end. Where two sections meet on un-level ground, j-hook higher elevated end, anchor, and begin new section just below. Back fill any gaps.
9 - Sock should be inspected and repaired as needed.
10 - If ruts begin under the sock they should be backfilled with soil and compacted so that the ground and sock have continuous contact.
11 - If sock rolls out of place, the sock should be repositioned and secured with additional anchors.
12 - Tears in the Sock fabric may be repaired by wrapping a new piece of fabric over the sock and securing, or by place a second sock immediately up slope with the required overlap beyond deformation.
13 - A section of sock should be replaced whenever it has weakened to such an extent that the efficiency is reduced or diminished. Weakening can occur because the natural mesh fabric breaks down over time of from being moved/dragged on site.
14 - Sock should be replaced when sediment has built up and has been removed three times.
15 - All sediment in disturbed area next to sock must be removed and correctly disposed of before the sock can be removed.
16 - When removing, cut sock open and spread the filler material around. The netting should be removed from site.
17 - Sock should be installed before works commence on site.

OFFICIAL TOWN USE ONLY

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1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

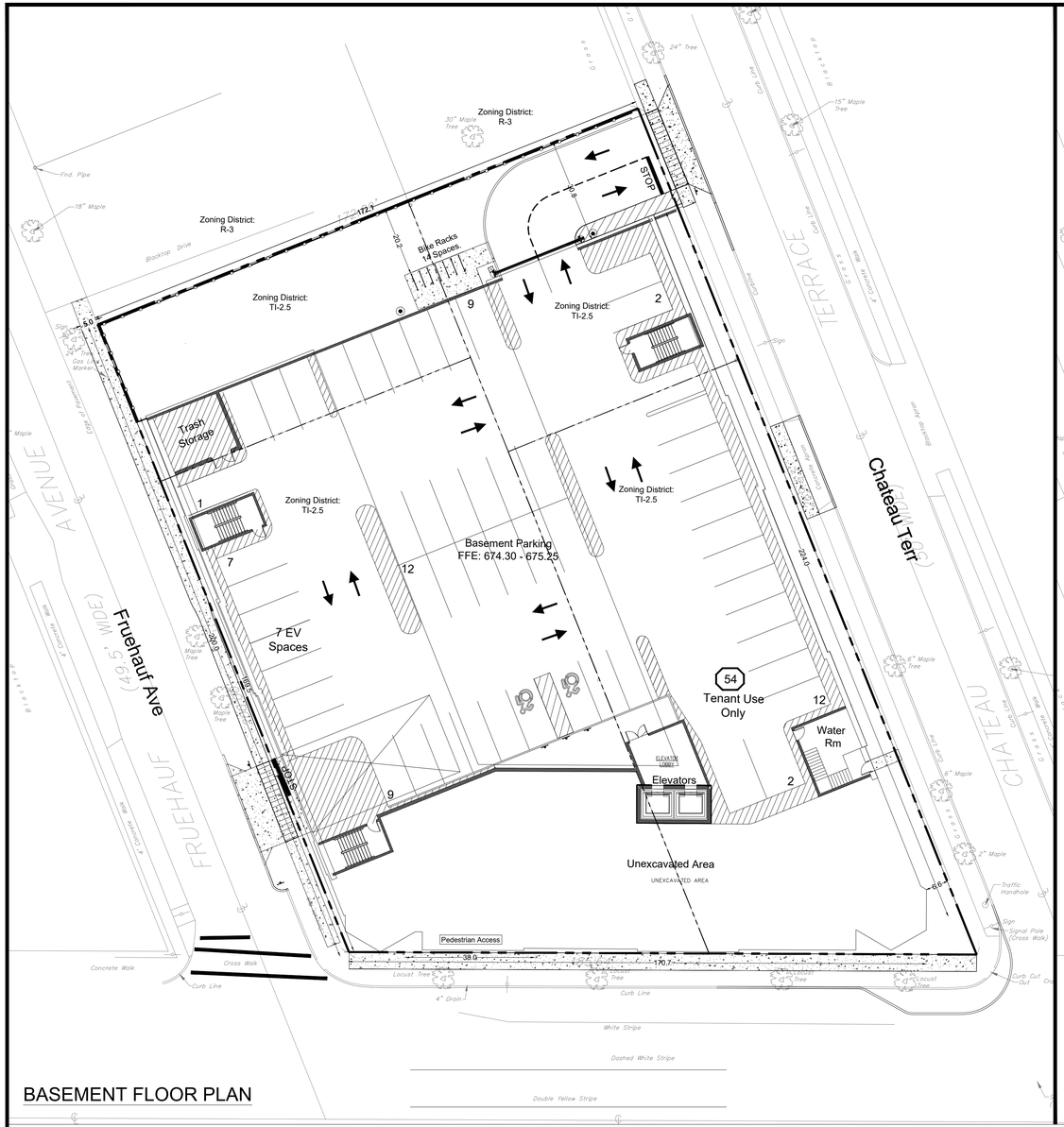
SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

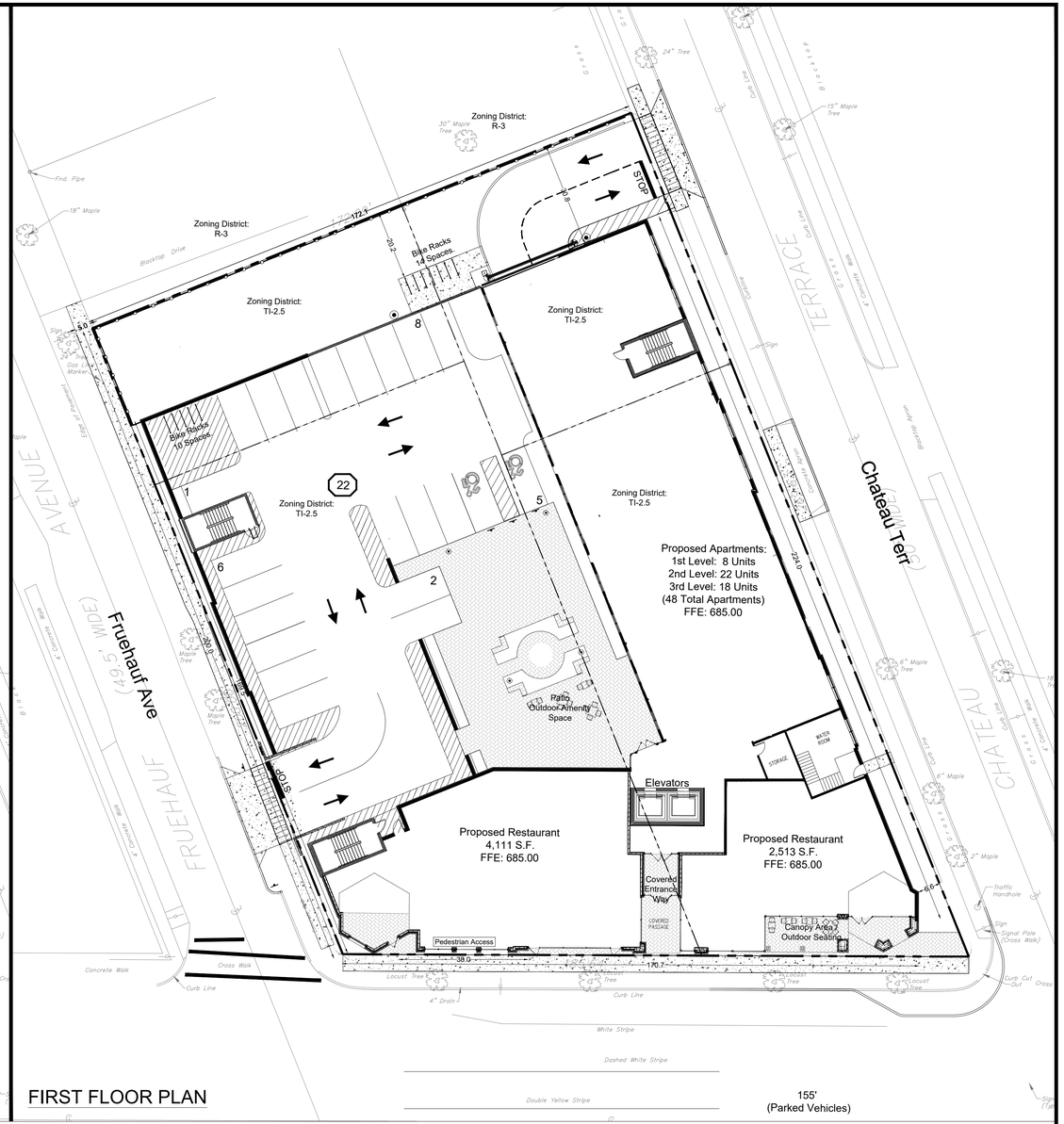
TITLE:
DEMOLITION & EROSION CONTROL DETAILS

SCALE: -
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C3.2

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

155'
(Parked Vehicles)

TOWN OF AMHERST, NY ZONING ANALYSIS		
	REQUIRED	PROVIDED
ZONED	TI-2.5 (Village Frontage)	TI-2.5 (Village Frontage)
5A-1-3: TI-2.5 Traditional Infill 2.5 Section		
LOT		
Area	0 S.F. min.	40,409 S.F.
Width	0' min.	170.7'
Outdoor Amenity Space	10% min.	11.3% (4,500 S.F.)
At grade level	50% min. *(See 5A-7-1 B(2)*	68.1% (2,825.1 S.F.)
Planted above ground level	25% min. *(See 5A-7-1 B(2)*	31.9% (1,324.9 S.F.)
Seating	1 per 500 S.F. (4,500 / 500 = 9 Seats min.)	10 Seats
BUILDING SETBACKS		
Building-to-zone	Refer to Section 5A-2 Infill Frontages	
Lot Frontage	Refer to Section 5A-2 Infill Frontages	
Common lot line	0' min.	30.8' (North Side)
Alley	0' min.	N/A
PARKING SETBACKS		
Primary and Side Street	Refer to Section 5A-2 Infill Frontages (below)	
Common lot line	0' min.	30.8' (North Side)
Alley	5' min.	N/A
BUILDING HEIGHT		
Top Plate Height	2 Stories / 24' max.	-
Building Height	2.5 Stories / 35' max.	-
Roof Pitch	18:12 max.	-
BUILDING LENGTH	Refer to Section 5A-2 Infill Frontages (below)	
STORY HEIGHT	Refer to Section 5A-2 Infill Frontages (below)	

5A-2-4: Village Frontage		
BUILDING SETBACKS		
Build-to zone	0' min./10' max.	0.0'
Street Frontage:		
Front: Main Street	90% min.	92.0% (170.7')
Side: Fruehaut Ave	-	169.5' - 24' (parking entrance) = 145.5' (72.6%)
Side: Chateau Terr	-	83.1% (224')
PARKING SETBACKS		
Street	20' min.	30.8' (North Side)
BUILDING MASS		
Street facing building length:		
Front: Main Street	200' max.	170.7'
Fruehaut Ave	200' max.	169.5'
Chateau Terr	200' max.	224.0' (Exception 203-5A-2-4 D)
STORY HEIGHT		
Ground floor elevation	0' min. / 2' max.	0.0'
Ground story height	13' min.	-
Upper story height	9' min.	-
TRANSPARENCY		
Ground story	70% min.	1,345S.F./1,890 S.F. = 71.2%
Upper story	20% min.	430 S.F. / 1890 S.F. = 22.7%
Blank wall length	15' max.	7'
PEDESTRIAN ACCESS		
Street facing entrance	Required	Complies
Entrance spacing	50' max.	38'
STREETSCAPE		
Clear pedestrian zone	10' min.	9.8' Total - Existing Condition
Curb zone	6' min.	
Tree planting type	Grates	Noted. Existing
Tree spacing	35' on-center avg.	Noted. Existing

PROPOSED PARKING & BIKE ANAYLSIS TI-2.5 (Section 5A-9-1.A.(1)

USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	6,624 sqft / 1000 x 4 = 27 SPACES	Basement Parking: 54 Spaces Ground Flr Parking: 22 Spaces
RESIDENTIAL (Upper-story)	1.0 per 1&2 bed dwelling unit 1.5 per 3 bed dwelling unit	1.0 x 46 (1&2 Bed) = 46 SPACES 1.5 x 2 (3 Bed) = 3 Spaces	
		Total: 76 SPACES	Total: 76 SPACES
STALL SIZE		9'x19'	9'x19'
ELECTRIC CHARGING STATIONS			
10% of parking spaces to be EV ready. Min. 2 EV ready spaces for parking lots over 20 spaces. EV Ready defined as power be available at spaces in advanced.		Basement Parking: 54 / 10 = 5 Spaces Ground Floor Parking: 22 / 10 = 2 Spaces Total: 7 Spaces	Basement Parking: 7 Spaces Total: 7 Spaces
BIKE PARKING			
Residential Use: Short Term 0.5 space per unit min. 20 max. Public Use: 1 per 3,000 S.F. min. 20 max.		0.5 x 48 = 24 24 > 20 max. 20 SPACES 6,624 S.F. / 3000 = 3 SPACES TOTAL: 23 SPACES	20 SPACES 4 SPACES TOTAL: 24 SPACES

RESTAURANT: 4,111 S.F. + 2,513 S.F.

1 BEDROOM APARTMENTS: 22 UNITS
2 BEDROOM APARTMENTS: 24 UNITS
3 BEDROOM APARTMENTS: 2 UNITS

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

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1	05.16.2022	DZ	Site Update
2	12.09.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE:

ZONING SITE PLAN

SCALE: 1:20

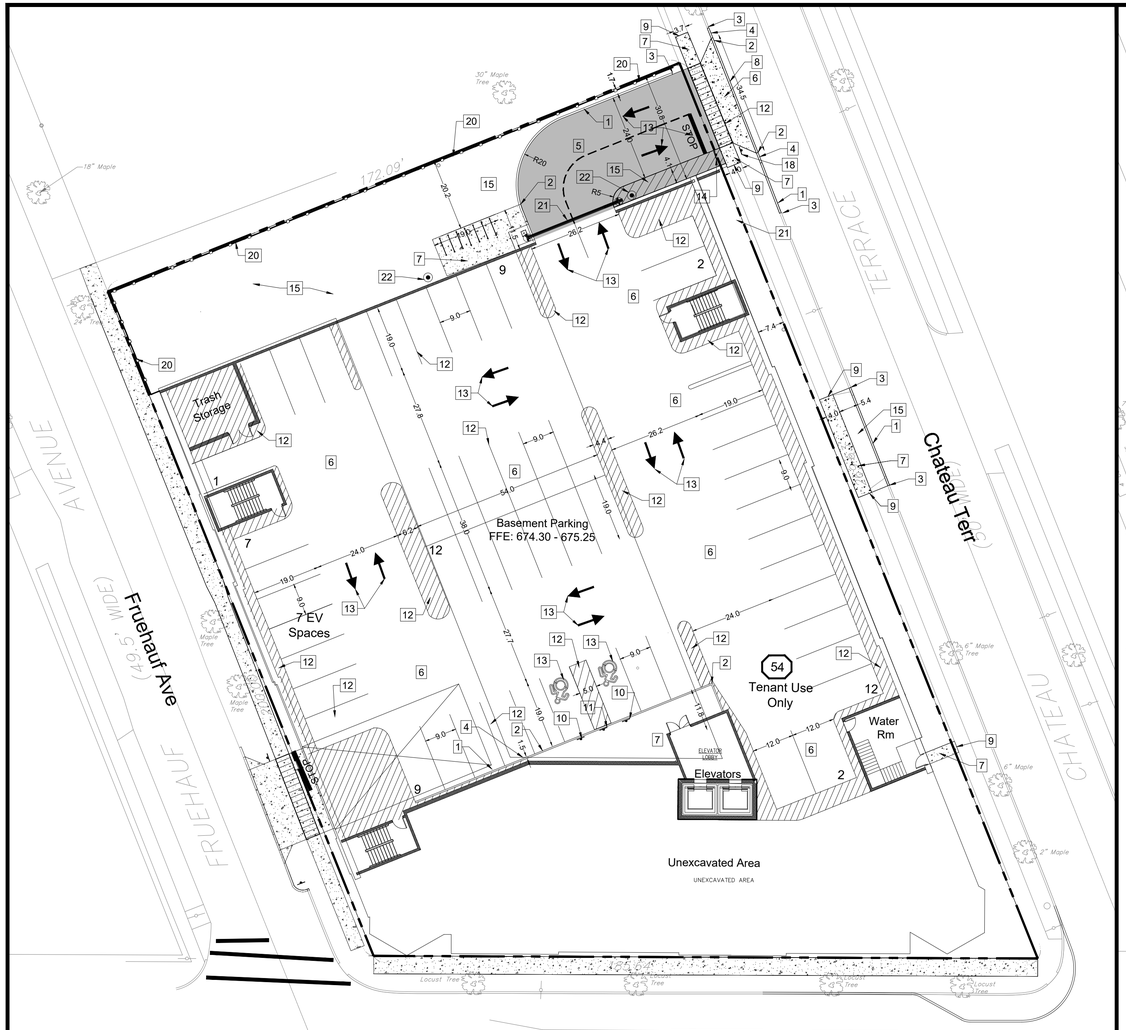
DRAWN BY: DMZ

CHECKED BY: JAR

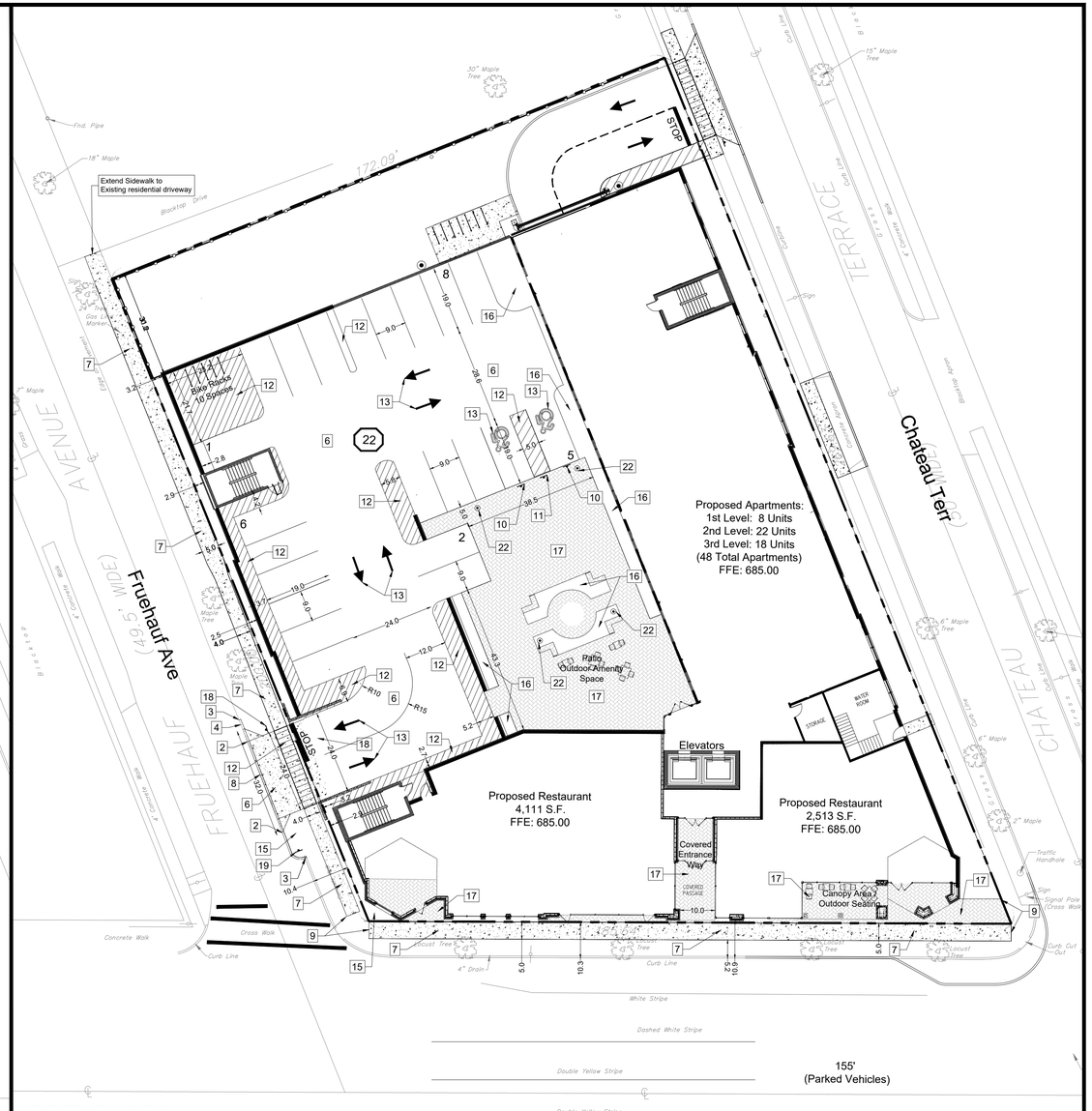
DATE: 05.05.2022

DRAWING NO. C4.0

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN .
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    - 11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    - 11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:

- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed Concrete Pavement/Sidewalk (Concrete Floors/Deck not Hatched)
- Proposed Heavy Duty Pavement

* All curb radii are 3ft unless noted.
* Refer to General Notes, Concstruction Details and Architectural Plans for Concrete Sealer information.

SITE NOTES: [#]

1. Proposed 6" concrete Curb.
2. Proposed Flush Concrete Curb.
3. Match into Existing Curb or runout over 2'.
4. Transitional Curb.
5. Proposed Heavy Duty Pavement
6. Proposed Concrete Pavement.
7. Proposed Concrete Sidewalk.
8. Match into Existing Pavement.
9. Match into Existing Sidewalk
10. Proposed "Handicapped Parking Only" sign.
11. Proposed "No Parking" sign.
12. 4" white Pavement Stripe (at 2' c-c in no parking zones).
13. Proposed White Pavement symbol (stop bar, accessibility symbol, text).
14. Proposed "Stop" Sign.
15. Proposed Landscape Area.
16. Proposed Raised Landscape Area.
17. Proposed Pavers.
18. Proposed Overhead Enter/Exit Signs/Traffic Mirror. Refer to Architectural Plans.
19. Relocated Existing Signage.
20. Proposed 6ft High Solid Board Fence
21. Proposed Security Gate
22. Proposed Light Pole Base

* All curb Radii to be 3' unless otherwise noted.
* Refer to General Notes, Construction Details and Architectural Plans for Concrete Sealer information.

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BENDERSON DEVELOPMENT
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(716) 886-0211

SEAL

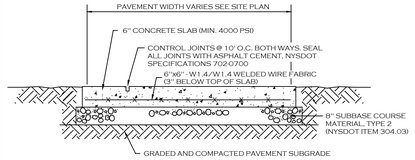


TITLE:

DETAILED SITE PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C4.1

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



NOTE: CONCRETE PAVEMENT MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 502-3.

CONCRETE SIDEWALK SEALERS:
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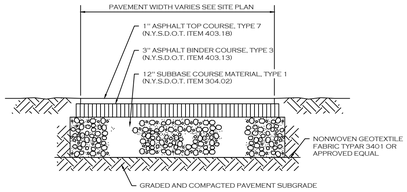
1.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
1.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.

REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES FOR SIDEWALKS.

CONCRETE PAVEMENT (INC DUMPSTER)

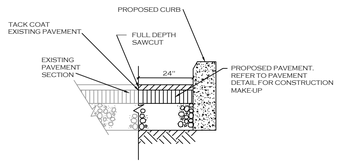


NOTE: CONSTRUCTION METHODS FOR ASPHALT PAVEMENT SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 401-3, WITH SUBBASE CONSTRUCTION METHODS CONFORMING TO NYSDOT STANDARD SPECIFICATION 304-3.

HEAVY DUTY ASPHALT SECTION

NOTE: CONTROL JOINTS TO BE 2" DEEP AT 15'-0" O.C. BOTHWAYS - SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700

TYPE "A" CONCRETE CURB



CURB AND PAVEMENT TRANISTION DETAIL

NOTES:
1. CONCRETE SIDEWALK AND DRIVEWAY MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 608-3
2. BUTT JOINTS TO BE AT 5'-0" O.C. BOTH WAYS- SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.

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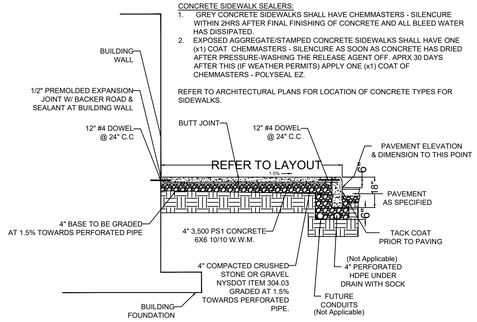
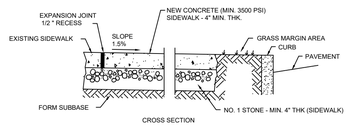
REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES FOR SIDEWALKS.



BUILDING SIDEWALK DETAIL

CONTRACTOR TO VERIFY WITH OWNER ON CURB DETAIL



CROSS SECTION

NOTES:
1. CONTROL JOINTS TO BE AT 5'-0" O.C. BOTHWAYS - SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.
2. CONCRETE SIDEWALK MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 608-3.

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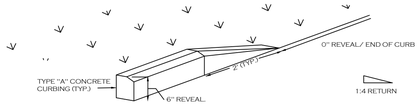
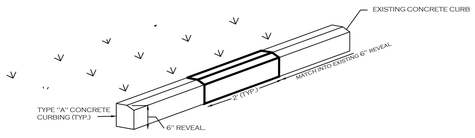
REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES FOR SIDEWALKS.

STANDARD CONCRETE SIDEWALK

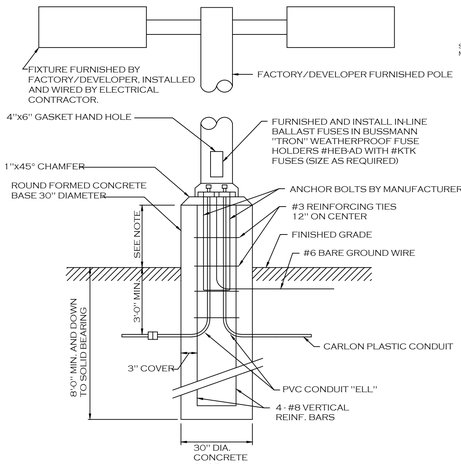


RUNOFF CURB



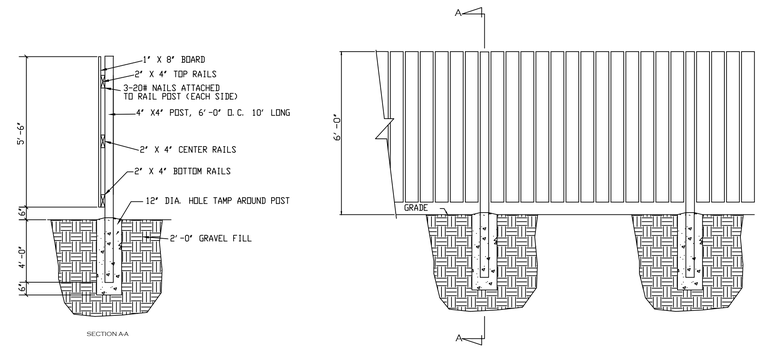
MATCH INTO EXISTING CURB

TRANSITIONAL CURBING

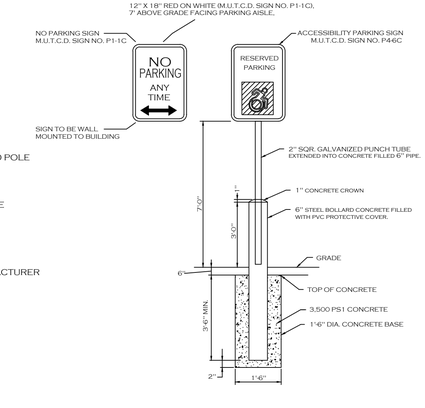


NOTES:
1. FOR LOCATIONS OF FOUNDATIONS SEE SITE PLAN
2. FOR LIGHT FIXTURE ORDERING INFORMATION SEE SITE LIGHTING PLAN
3. LIGHT POLE BASE EXPOSURE ABOVE GRADE SHALL BE:
IN CURBED ISLANDS: 6" ABOVE TOP OF CURB ELEVATION
IN PAVEMENT: 3' ABOVE GRADE
IN NON-CURBED GRASS AREAS: 6" ABOVE GRADE

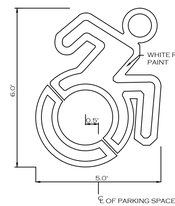
LIGHT POLE FOUNDATION



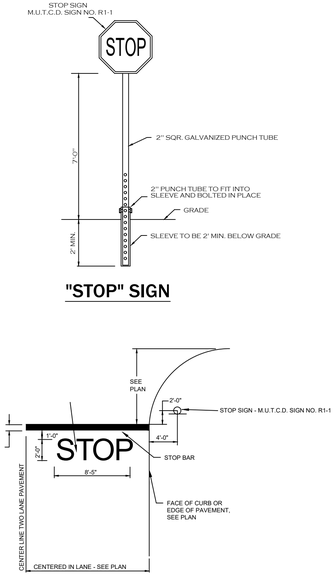
6FT SOLID BOARD FENCE DETAIL



HANDICAP / NO PARKING SIGNS

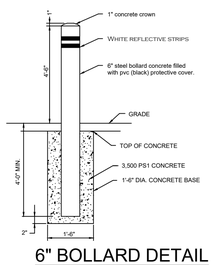


INTERNATIONAL ACCESSIBILITY SYMBOL



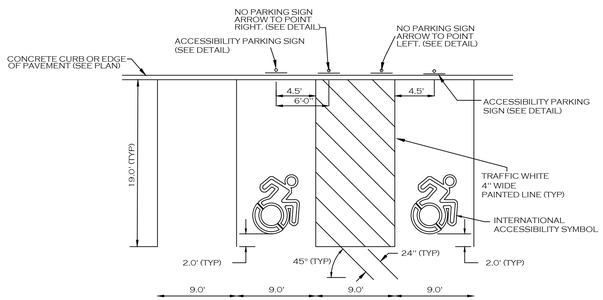
"STOP" SIGN

STOP BAR DETAIL



6" BOLLARD DETAIL

bollards typ. positioned at 6' O.C



ACCESSIBILITY PAVEMENT MARKINGS & SIGNAGE

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

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NOTICE

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811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE:

CONSTRUCTION DETAILS

SCALE: -

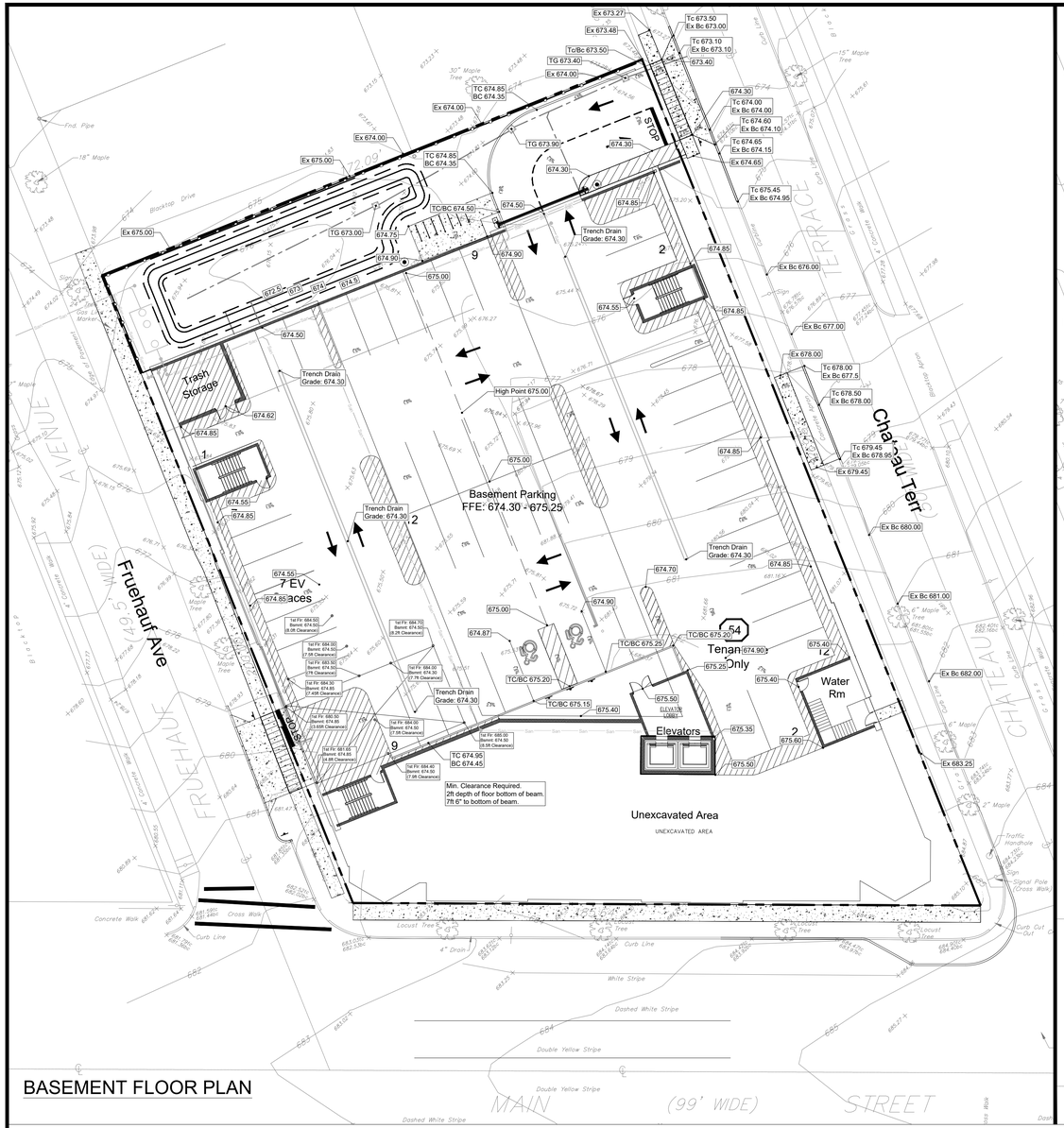
DRAWN BY: DMZ

CHECKED BY: JAR

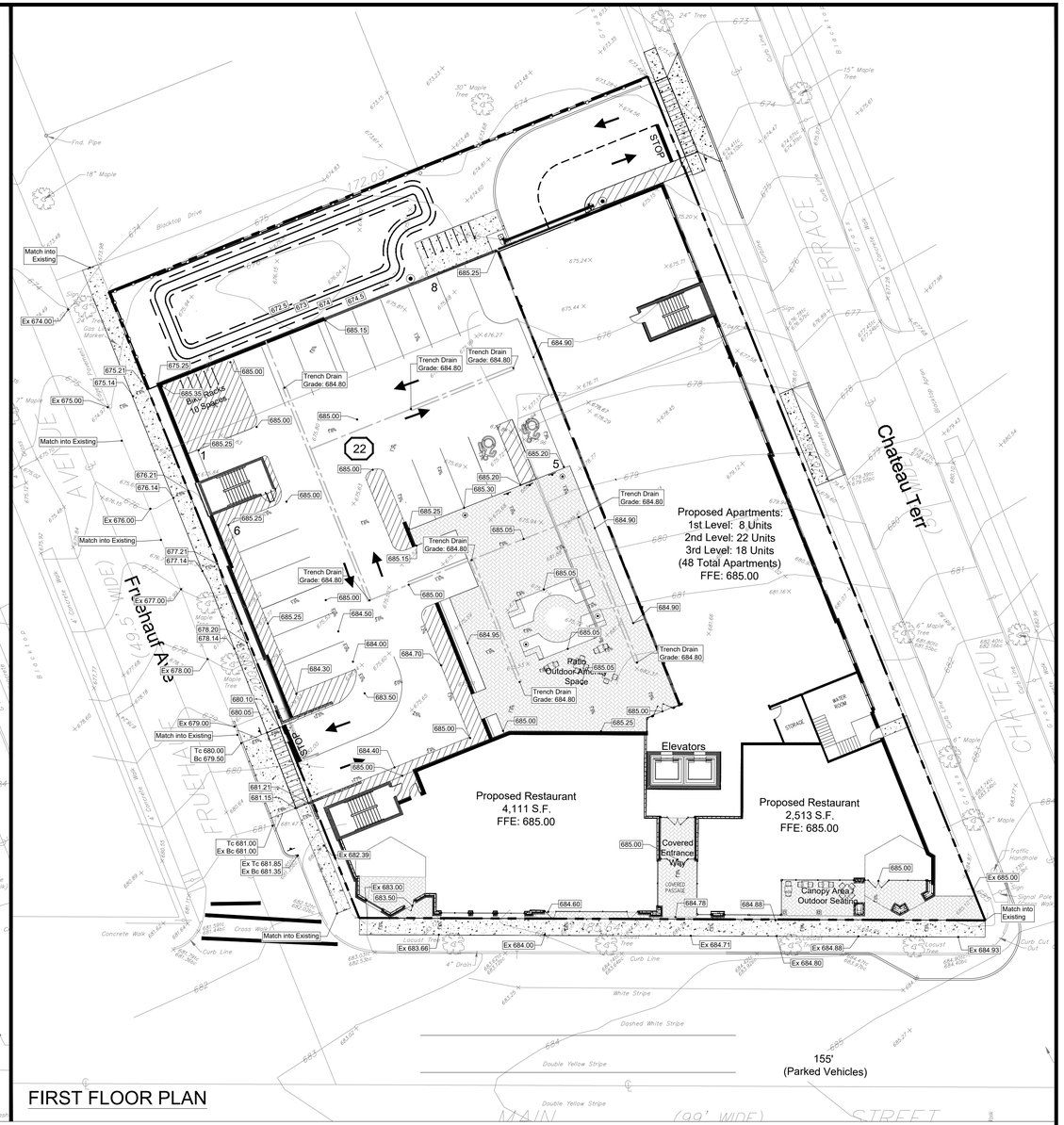
DATE: 05.05.2022

DRAWING NO. C4.2

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
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7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
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9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
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11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    - 11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
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12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

GRADING LEGEND:

- Property Line
- 6" Curb (typ).
- TG ## — Catch Basin - Top of Grade
- ### — Proposed Contour Line
- ##% — Slope Direction

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JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:

GRADING PLAN

SCALE: 1:20

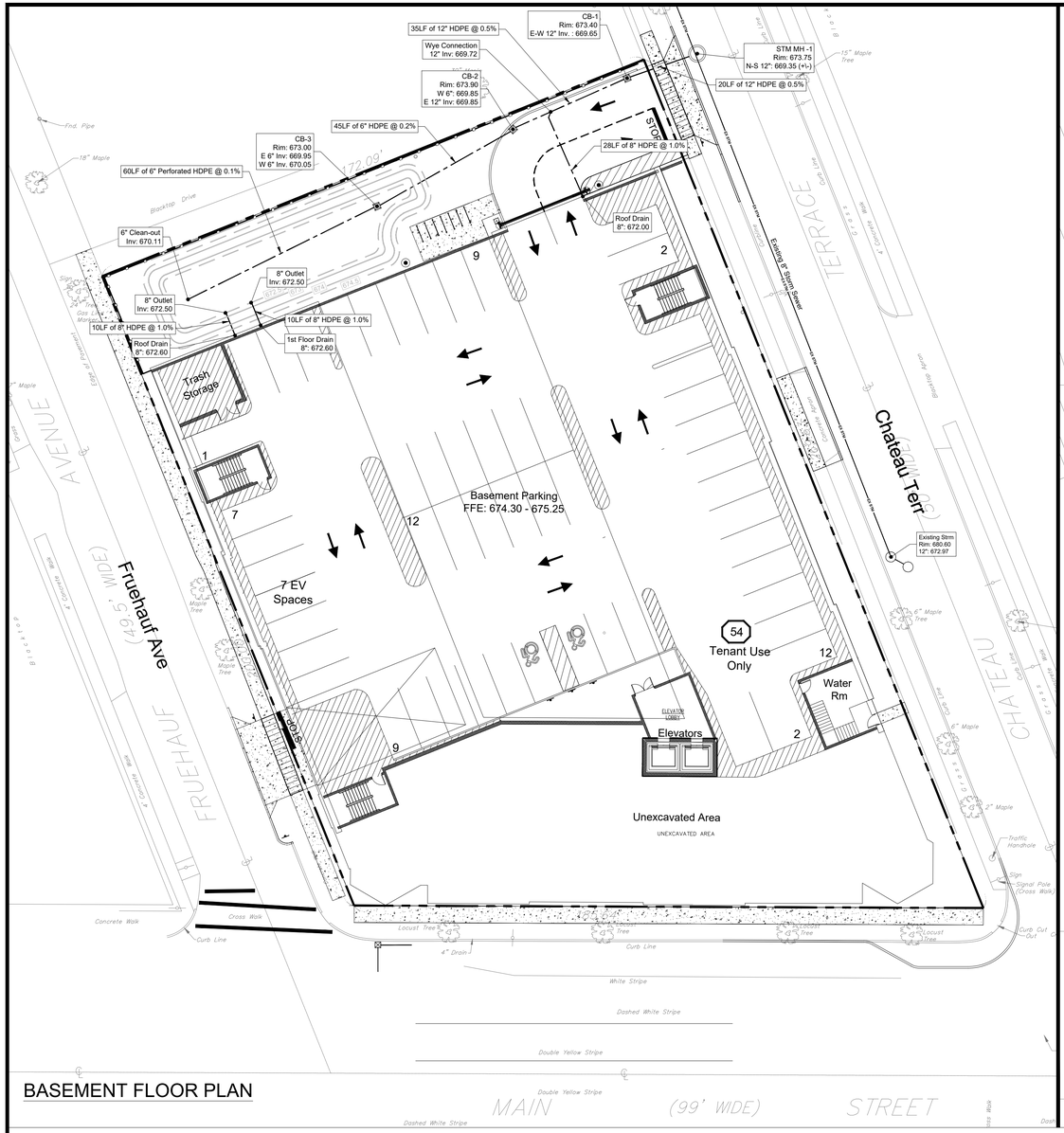
DRAWN BY: DMZ

CHECKED BY: JAR

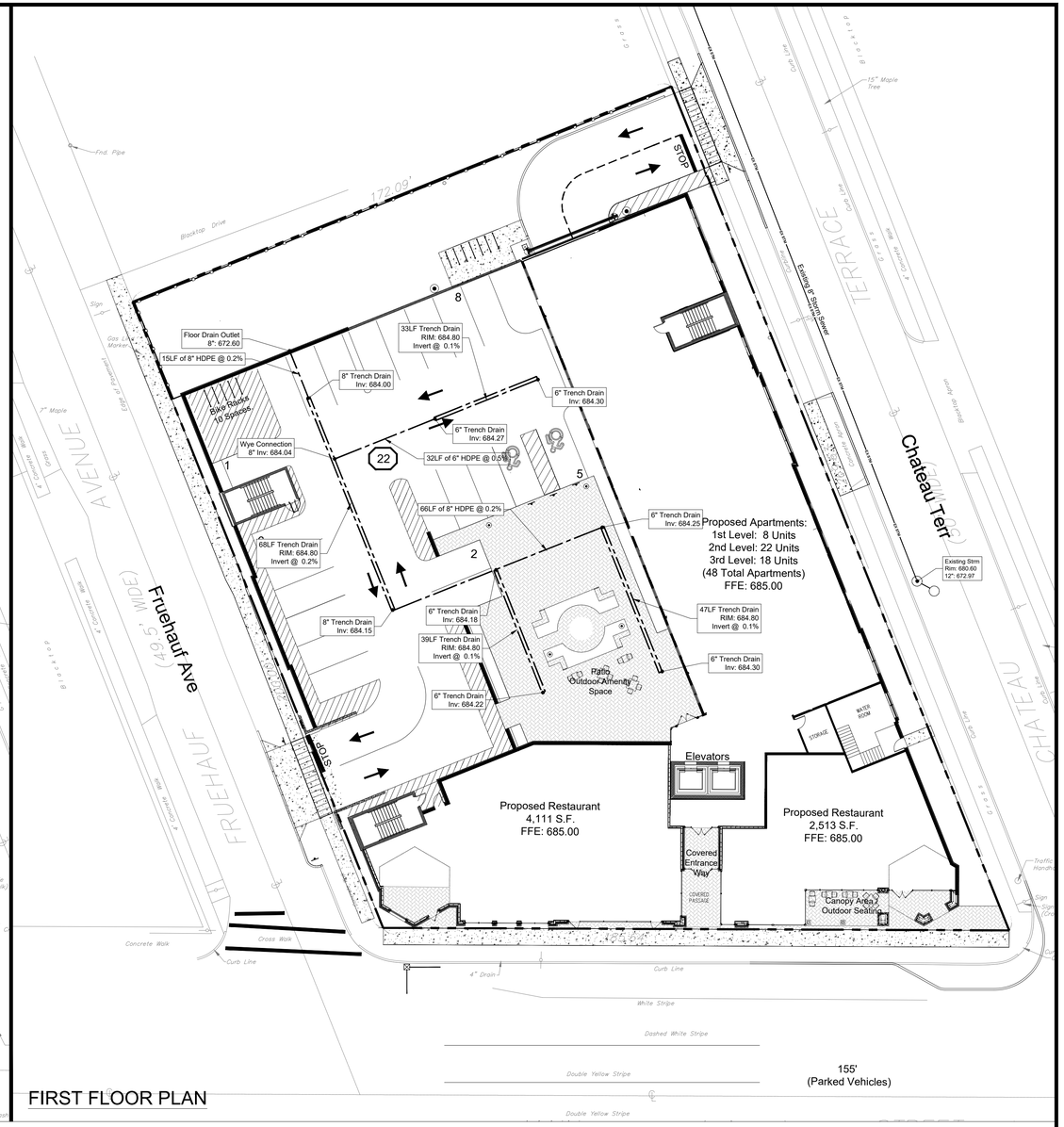
DATE: 05.05.2022

DRAWING NO. C5.0

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

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13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DRAINAGE LEGEND:

- PROPERTY LINE
- PROPOSED STORMWATER
- 6" CURB TYP.
- CO / WC — PROPOSED STORM CLEAN OUT / WYE CONNECTION
- CB - # — PROPOSED CATCH BASIN

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CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE:

DRAINAGE PLAN

SCALE: 1:20

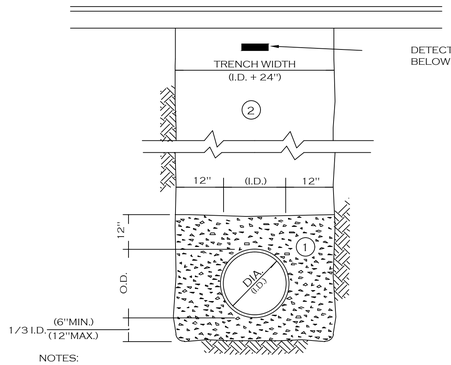
DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C5.1

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

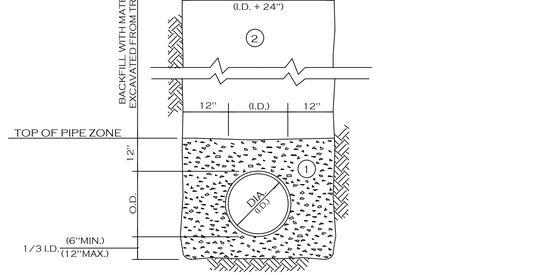
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERAIL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

TRENCH SECTION IN PAVED AREAS



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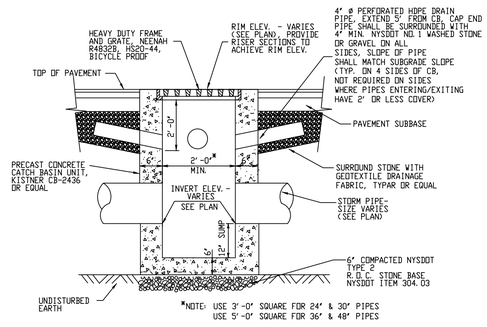
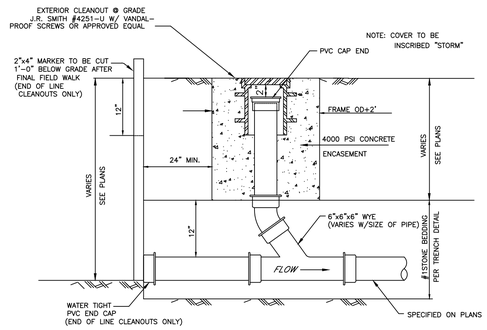
NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

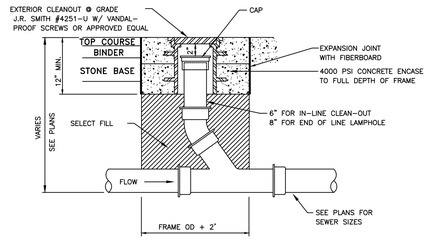
TRENCH SECTION IN UNPAVED AREAS



TYPICAL PRECAST CATCH BASIN

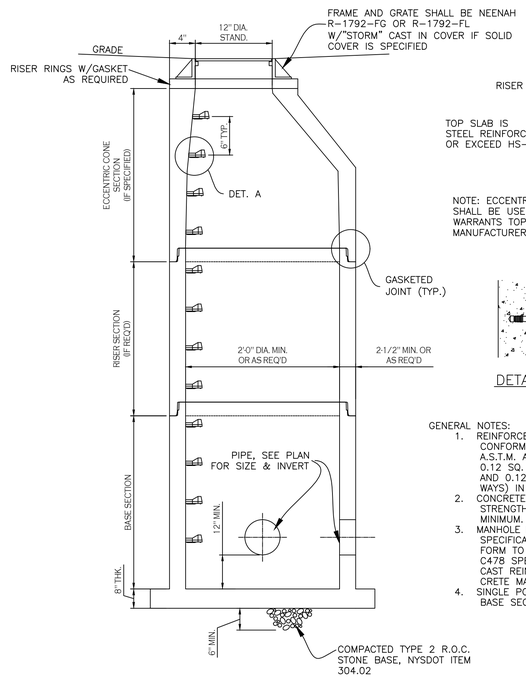


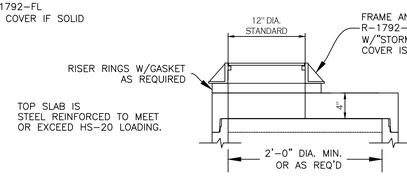
CLEANOUT IN LANDSCAPED AREAS
NOT TO SCALE



CLEANOUT IN PAVED AREAS
NOT TO SCALE

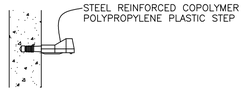
NOTE: WHERE FRAME & GRATE ARE INSTALLED IN NON-ASPHALT PAVED AREAS, A 4'X4'X6" THK CONCRETE APRON SHALL BE POURED AROUND THE RIM SLOPING TOWARDS THE GRATE





ALTERNATE TOP SLAB

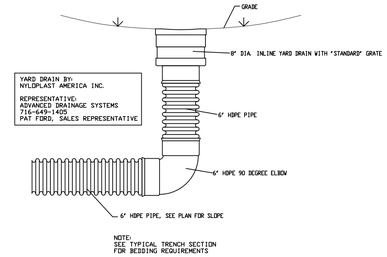
NOTE: ECCENTRIC CONE SECTION SHALL BE USED UNLESS DEPTH WARRANTS TOP SLAB PER MANUFACTURER



DETAIL A

GENERAL NOTES:
1. REINFORCED STEEL TO CONFORM TO LATEST A.S.T.M. A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) IN BASE SLAB.
2. CONCRETE COMPRESSIVE STRENGTH – 4000 PSI MINIMUM.
3. MANHOLE DESIGN SPECIFICATIONS TO CONFORM TO LATEST A.S.T.M. C478 SPEC. FOR PRE-CAST REINFORCED CONCRETE MANHOLE SECTIONS.
4. SINGLE POUR MONOLITHIC BASE SECTION.

TYPICAL STORM MANHOLE DETAIL

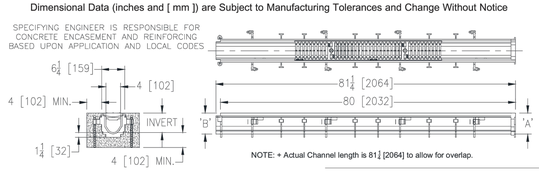


TYPICAL YARD DRAIN DETAIL

ZURN **Z886**
6-1/4 [159] WIDE REVEAL TRENCH DRAIN SYSTEM

SPECIFICATION SHEET
TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



NOTE: + Actual Channel length is 81¼ [2064] to allow for overlap.

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SEAL



TITLE:
DRAINAGE DETAILS

SCALE: -
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C5.2

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)

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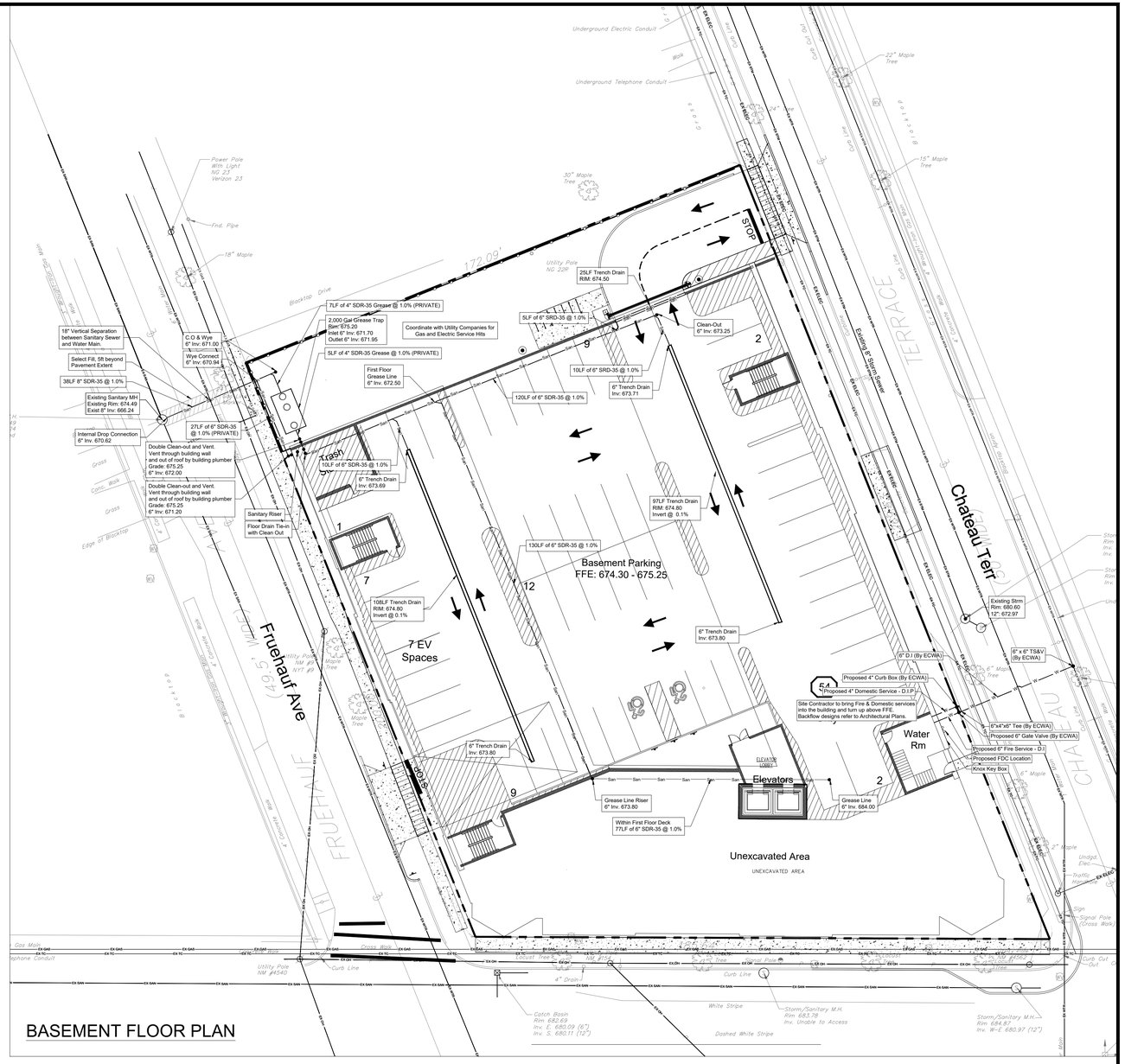
SANITARY SEWER NOTES:
1. THE CONTRACTOR IS ADVISED THAT A TRENCH SHIELD AND/OR SHORING DESIGNED IN ACCORDANCE WITH OSHA STANDARDS SHALL BE USED IN ALL OPEN TRENCH EXCAVATIONS.
2. ANY CONTRACTOR AND/OR PLUMBER PERFORMING WORKING IN A CONFINED SPACE (ie MANHOLES, WETWELLS, CHAMBERS) OWNED BY THE TOWN MUST CERTIFY TO THE TOWN THAT THEY HAVE THEIR OWN CONFINED SPACE ENTRY PROGRAM THAT MEETS OR EXCEEDS OSHA'S REGULATIONS. CERTIFICATION MUST BE NOTARIZED BY A NOTARY PUBLIC.
3. CONSTRUCTION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE TOWN AND NEW YORK STATE CODES.
4. IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AREA AND HAS LESS THAN 4' COVER, CONCRETE ENCASEMENT IS REQUIRED. IF MORE THAN 4' COVER IS PROVIDED IN PAVED AREAS SELECT FILL IS REQUIRED.
5. THE CONTRACTOR MUST NOTIFY THE TOWN ENGINEER OFFICE AND THE PLUMBING INSPECTOR 24 HOURS IN ADVANCE OF CONSTRUCTION.
6. CLEANOUTS ARE REQUIRED EVERY 100' AND AT CHANGE IN DIRECTION.
7. ABANDONED SANITARY SEWER CONNECTIONS FROM THE SITE, IF ANY, REQUIRE PROOF OF A DISTRICT PERMIT FOR DISCONNECTION PRIOR TO THE NEW CONNECTION BEING MADE.

UTILITY NOTES:
1. PROVIDE FITTINGS AND BLOCKING AS NECESSARY AT ALL BENDS IN WATER LINES.
2. WHERE UTILITIES ARE INSTALLED IN EXISTING PAVEMENT, LANDSCAPED AREA ETC. ANY ITEMS REMOVED/DAMAGED SHALL BE REPLACED IN KIND.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS NECESSARY: STATE, COUNTY, AND TOWN.
4. WATER MAINS TO HAVE MINIMUM 5FT COVER.

UTILITY LEGEND:

	PROPERTY LINE
G	PROPOSED GAS
W	PROPOSED WATER
E	PROPOSED ELECTRIC
San	PROPOSED SANITARY
TC	PROPOSED TELEPHONE
EX ELEC	EXISTING ELECTRIC
EX GAS	EXISTING GAS
EX WTR	EXISTING WATER
EX OH	EXISTING OVERHEAD UTILITY
EX SAN	EXISTING SANITARY
EX STM	EXISTING STORM
EX TC	EXISTING TELECOMS



BASEMENT FLOOR PLAN

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
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3	12.14.2022	DZ	Town Comments

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CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

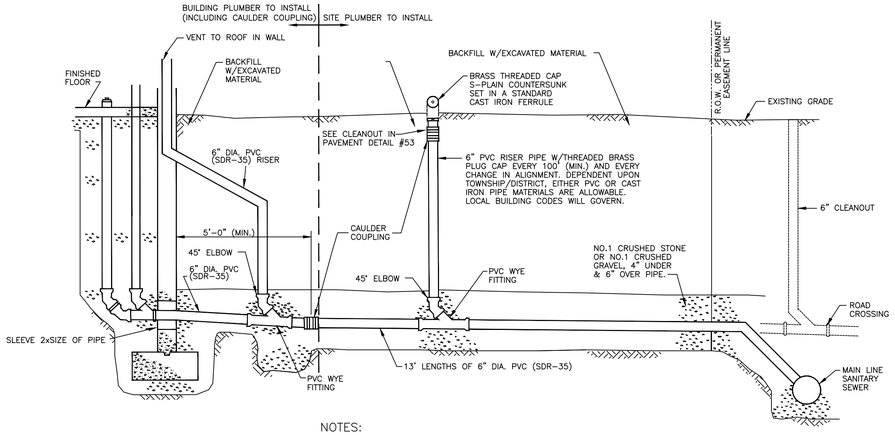
SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY 026018 STATE OF NEW YORK

TITLE:
UTILITY PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C6.0

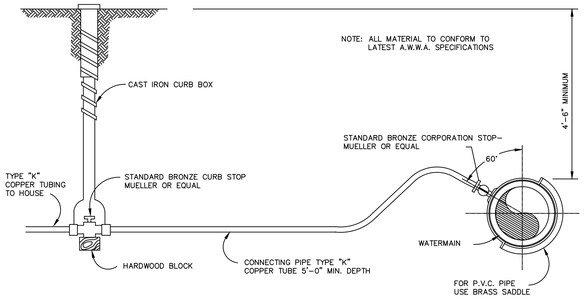
Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



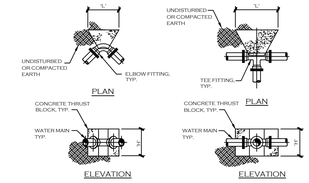
NOTES:

1. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D-3033/D-3034.
2. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
3. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS
4. MIN. DEPTH OF COVER 3'-0"
5. A GREASE SEPARATOR AND OIL SEPARATOR REQUIRED WHERE APPLICABLE.

TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (SANITARY)



TYPICAL WATER SERVICE LINE INSTALLATION

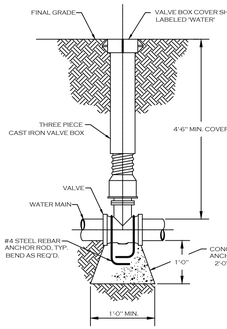


DIMENSION SCHEDULE								
PIPE SIZE	90° ELBOW		45° ELBOW		22.5° ELBOW		11.25° ELBOW	
	'H'	'L'	'H'	'L'	'H'	'L'	'H'	'L'
4"	1.5'	2.0'	1.0'	2.0'	1.0'	1.0'	1.0'	1.0'
6"	2.0'	2.5'	1.5'	2.0'	1.0'	1.5'	1.0'	1.5'
8"	2.5'	3.5'	2.0'	2.5'	1.5'	1.5'	1.0'	2.0'
10"	3.0'	4.5'	2.5'	3.0'	1.5'	3.0'	1.0'	2.5'
12"	3.5'	5.0'	3.0'	3.5'	2.5'	2.5'	1.5'	2.5'

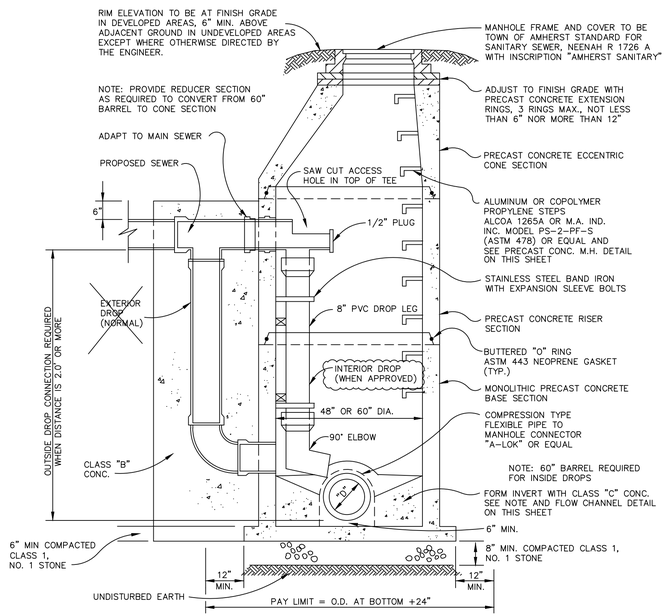
DIMENSION SCHEDULE		
PIPE SIZE	TEE OR TAP SLEEVE	
	'H'	'L'
4"	1.5'	1.0'
6"	1.5'	2.5'
8"	1.5'	3.5'
10"	2.5'	3.5'
12"	3.5'	3.5'

THRUST BLOCK SCHEDULE

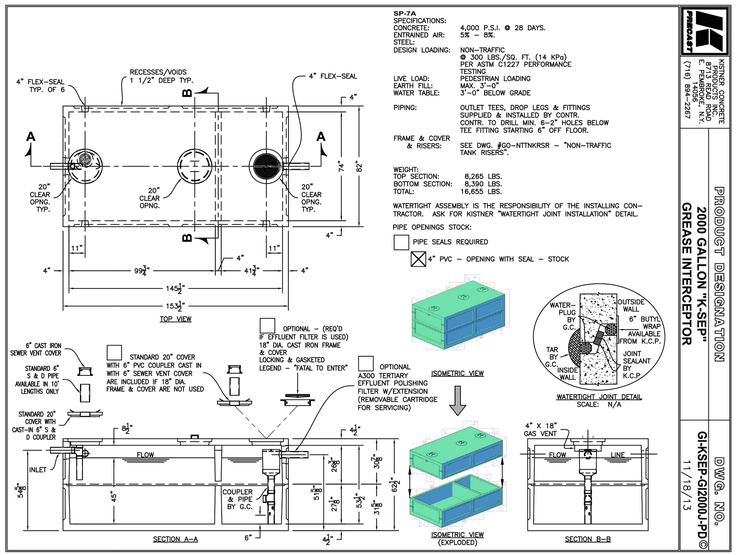
WATER MAIN



TYPICAL GATE VALVE DETAIL



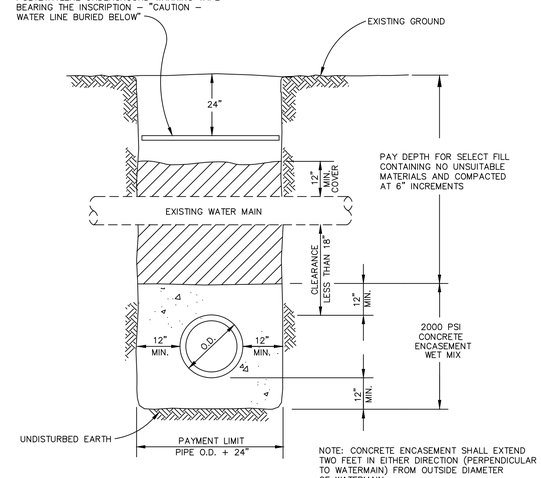
TOWN OF AMHERST TYPICAL PRECAST CONCRETE DROP MANHOLE (FOR DROP CONNECTION)



PRECAST KISTNER CONCRETE PRODUCTS, INC. 8 FLEETWOOD CT. ORCHARD PARK, NY 14127 (716) 662-2357

PRODUCT DESIGNATION
2000 GALLON "K-SEP" GREASE INTERCEPTOR

DWG. NO.
GI-KSEP-G12000J-PD©
11/18/13



NOTE: CONCRETE ENCASEMENT SHALL EXTEND TWO FEET IN EITHER DIRECTION (PERPENDICULAR TO WATERMAIN) FROM OUTSIDE DIAMETER OF WATERMAIN.

WATER CROSSING DETAIL CLEARANCE LESS THAN 18"

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SEAL



TITLE:

UTILITY DETAILS

SCALE: -

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO.

C6.1

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)

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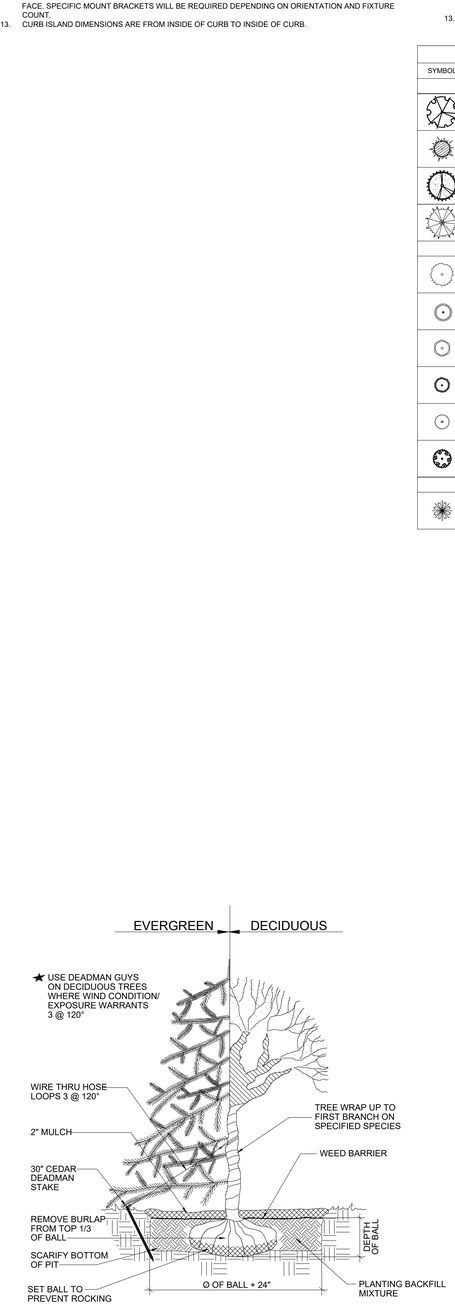
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

LANDSCAPE NOTES:

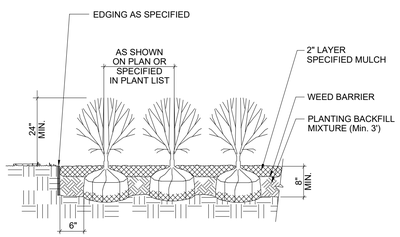
1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI 260.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF, THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY, ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY, CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, ½ PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A MAX. 2" LAYER OF COCOA BROWN MULCH. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS (INCLUDING RIGHT-OF-WAYS) SHALL BE PROVIDED WITH SOD. SEED PERMITTED AT DETENTION POND IF PLANTED EARLY ENOUGH TO ESTABLISH.
10. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
11. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING.
    HYDROSEED SPEC: 20% RYE, 20% BLUE GRASS, 60% TURF TYPE FESCUE.
    SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE (REFER TO CONTRACTOR FOR SOD/SEED COVERAGE).
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER, THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.
13. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING TREES ONSITE AND OFFSITE, WHICH ARE TO BE PRESERVED, FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE.

PLANT LIST

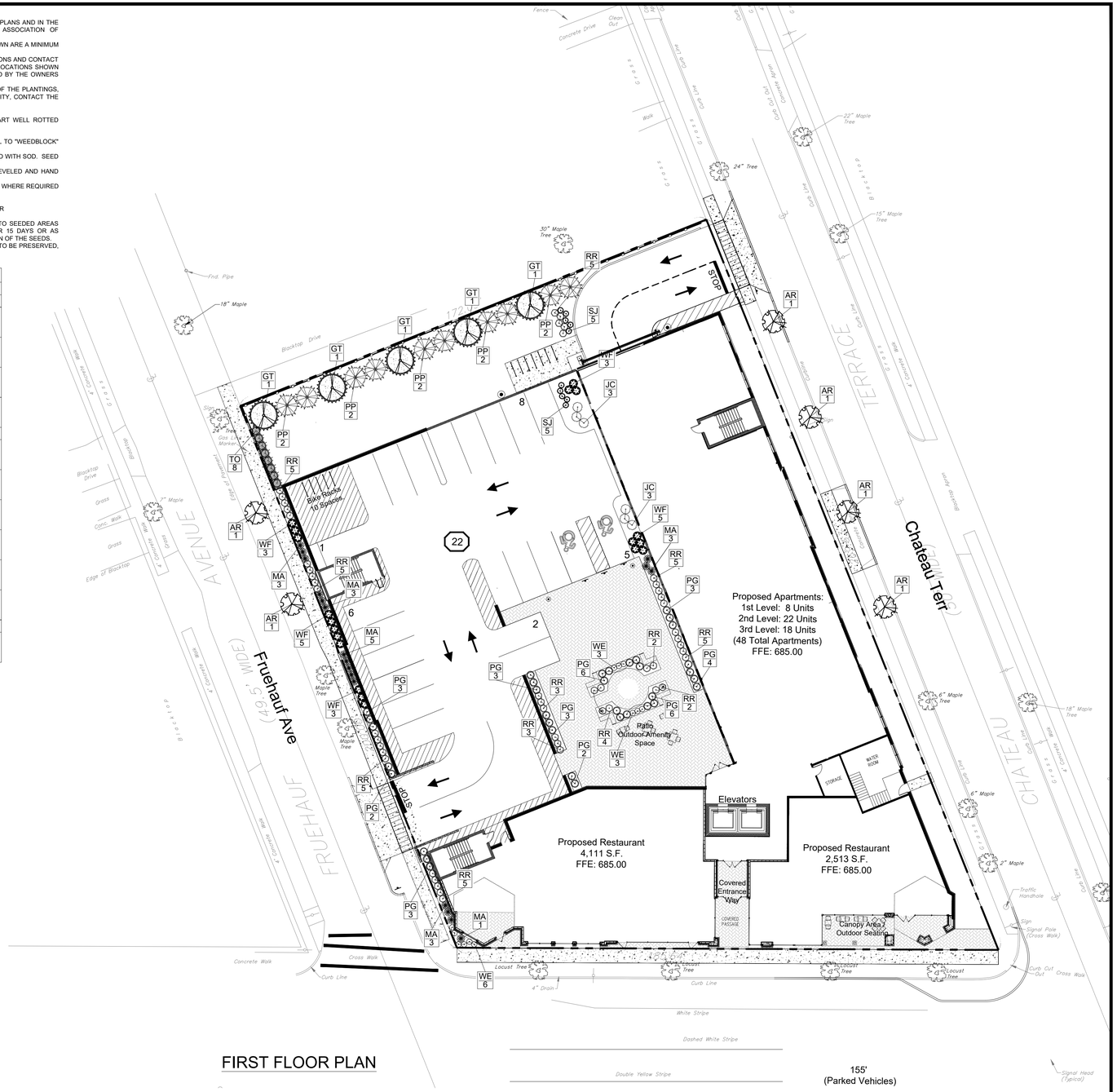
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	CAL.	SIZE	ROOT	QTY.
TREES							
	AR	Acer x freemanii 'Armstrong'	ARMSTRONG MAPLE	2½"		B&B	6
	TO	Thija occidentalis 'Emerald'	EMERALD GREEN ARBORVITAE		5'	B&B	8
	GT	Gleditsia Triacanthos	HONEY LOCUST	3"		B&B	5
	PP	Picea pungens	COLORADO SPRUCE		5'	B&B	10
SHRUBS							
	JC	Juniperus conferta 'Blue Pacific'	BLUE PACIFIC JUNIPER		24"	3 GAL.	6
	PG	Picea pungens 'Glauca Globosa'	LOW GRAFT GLOBE BLUE SPRUCE		24"	3 GAL.	35
	RR	Rosa 'Radrazz'	KNOCK OUT SHRUB ROSE		24"	3 GAL.	46
	SJ	Spiraea japonica 'Gold Mound'	GOLD MOUND SPIRAEA		24"	3 GAL.	10
	WE	Weigela florida 'Elvera'	MIDNIGHT WINE WEIGELA		24"	3 GAL.	12
	WF	Weigela florida 'Alexandra'	WINE & ROSES WEIGELA		24"	3 GAL.	19
GRASSES							
	MA	Miscanthus sinensis 'Adagio'	ADAGIO MAIDEN GRASS		24"	3 GAL.	18



STD. TREE PLANTING



STD. SHRUB PLANTING



FIRST FLOOR PLAN

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SEAL

REGISTERED LANDSCAPE ARCHITECT · ROBERT J. TRYBULSKI · 001233 · STATE OF NEW YORK

ROBERT J. TRYBULSKI
LANDSCAPE ARCHITECT

TITLE:

LANDSCAPE PLAN

SCALE: 1:20

DRAWN BY: DMZ

CHECKED BY: RJT

DATE: 05.05.2022

DRAWING NO. C7.0

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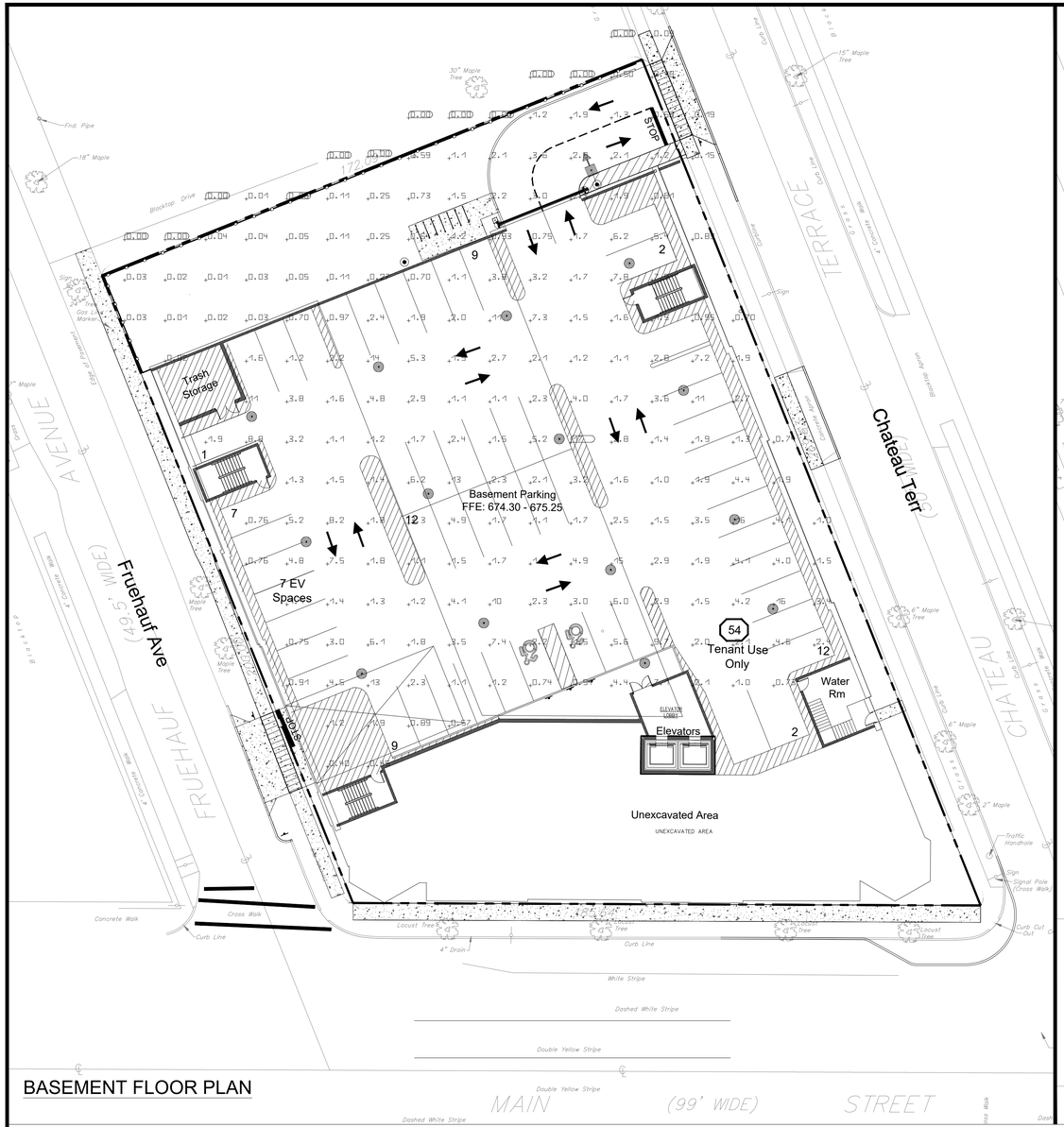

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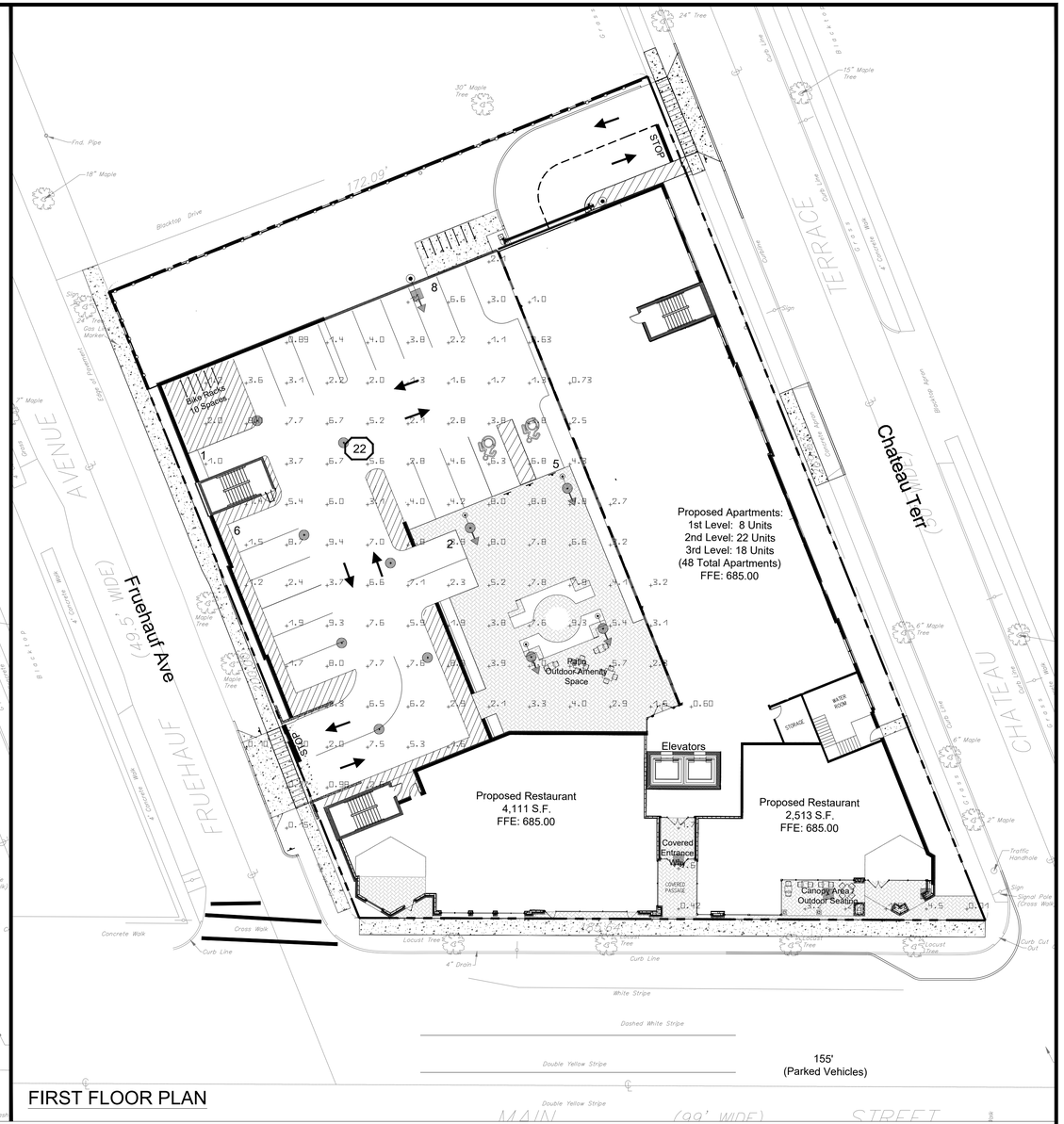

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Luminaire Schedule

Index	Manufacturer	Luminaire type	Item number	Luminous flux	Mounting Height	Connected load	Quantity
	Cree Inc	Cree OSQ Series Area Luminaire, Type III Medium, 11L Input Power Designator, 4000K	OSQM-B-11L-40K7 3M-UL-BK w/OSQ-BLSLF	8825 Lm	20 Ft	72 W	2
	Cree Inc.	Cree IG Series Parking Garage Luminaire, Type V , 7L Input Power Designator, 4000K	IG-B-NM-5S-7L-40K8-UL	7550 Lm	10 Ft	60 W	21
	Cree Inc	Cree THE EDGE Series Round Luminaire, 60x 525mA Power, 4000K	ARE-EDG-2M-R3-06-E-UL-BK-525	10527 Lm	15 Ft	101 W	4
	Cree Inc	Cree CPY Series - Version C Canopy Luminaire, 2L Power, Flat Lens, 4000K	CPY250-C-2L-40K9-F-UL-DM	1730 Lm	10 Ft	14 W	3

m	Name	Parameter	Min	Max	Average
1	Pavement Parking Area	Site FC	0.10 fc	16.6 fc	2.91 fc

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SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY 037103 STATE OF NEW YORK

TITLE:

LIGHTING PLAN

SCALE: 1:20

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C8.0

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OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Rev. Date: VS 09/14/2021

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 4L lumen package is a suitable upgrade for HID applications up to 250 Watt, and the 11L lumen package is a suitable upgrade for HID applications up to 400 Watt. The 22L lumen package is a suitable upgrade for HID applications up to 750 Watts, and the 30L lumen package is a suitable upgrade for HID applications up to 1000 Watts.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: 4,000 - 30,000

Efficacy: Up to 173 LPW

CRI: Minimum 70 CRI (300K, 400K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire; 13 years on Colorfast DeltaGuard® finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

*See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** OSQ-ML-B-AA-BK + **Luminaire:** OSQM-B-4L-30K7-2M-UL-NM-BK

Mount (Luminaire must be ordered separately)*	
OSQ-	
OSQ-ML-B-AA Adjustable Arm **OSQ-ML-B-DA** Direct Arm **OSQ-ML-B-TSP** Transportation Mount (stainless steel; do not specify color) **OSQ-ML-B-TM** Trunnion Mount	**Color Options:** **SV** Silver **BK** Black **BZ** Bronze **WH** White

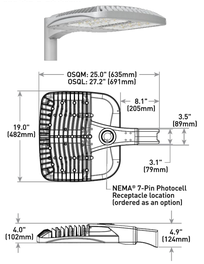
* Reference EPA and pole configuration suitability data beginning on page 10

Luminaire (Mount must be ordered separately)									
OSQ		B							
Family	Size	Series	Lumen Package*	CCT/CRI	Optic	Voltage	Mount	Color Options	Controls**	Options
OSQ	M Medium L Large	B	**Medium** **4L** 4,000 Lumens **6L** 6,000 Lumens **9L** 9,000 Lumens **11L** 11,000 Lumens **14L** 14,000 Lumens **Large** **22L** 22,000 Lumens **30L** 30,000 Lumens	**30K7** 3000K, 70 CRI **40K7** 4000K, 70 CRI **40K9** 4000K, 90 CRI **50K7** 5000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**Asymmetric** **2M*** Type II Medium **3M*** Type III Medium **4M*** Type IV Medium **Symmetric** **5M** Type V Medium **5N** Type V Narrow **5Q** Type V Square **N3** Narrow Flood **33** NEMA® 3x3 **44** NEMA® 4x4 **55** NEMA® 5x5 **66** NEMA® 6x6 **75** NEMA® 7x5	**UL** Universal 120-277V **UH** Universal 347-480V - Not available with 4L or 6L lumen packages	**NM** No Mount - Must specify mount from table above - Mount ships separately	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**PML Programmable Multi-Level, up to 40' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **PML2 Programmable Multi-Level, 10-30' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **Q1/Q2/Q3/Q4/Q5/Q6/Q7/Q8/Q9/Q10/Q11/Q12/Q1 Field Adjustable Output** - Must select Q9, Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range adjustability - Refer to pages 12-18 for power and lumen values - Not available with PML or PML2 options **X8/X7/X6/X5/X4/X3/X2/X1 Locked Lumen Output** - Must select and X8, X7, X6, X5, X4, X3, X2, or X1 - Not available with 22L or 30L lumen packages - Not available with PML or PML2 options - Lumen output is permanently locked to the setting selected - Refer to pages 12-18 for power and lumen values	**R** **NEMA® 7-Pin Photocell Receptacle** - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - 18" (457mm) seven-conductor cord exits luminaire - Requires photocell or shorting cap by others **RL Rotate Left** - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 19 for optic directionality - Not for use with symmetric optics **RR Rotate Right** - LED and optic are rotated to the right - Refer to RR/RL configuration diagram on page 19 for optic directionality - Not for use with symmetric optics	**20KV 20kV/10kA Surge Suppression** - Replaces standard 10kV surge protection **F Fuse** - Compatible with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - Refer to PML spec sheet for availability with PML options - When code dictates fusing, use time delay fuse

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values
* Available with Backlight Shield when ordered with field-installed accessory (see table above)
** Luminaire comes standard with 0-10V dimming

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

OSQ-ML-B-DA Mount



Luminaire	Weight
OSQM	28.9 lbs. [13.1kg]
OSQL	32.4 lbs. [14.7kg]

Note: Refer to page 11 for future mounting drill pattern. For additional mounts, refer to drawings beginning on page 19

CPY Series - Version C

CPY250® LED Canopy/Soffit Luminaire

Rev. Date: V3 02/01/2022

Product Description

The CPY250® LED Canopy/Soffit Luminaire has an extremely thin profile constructed of rugged cast aluminum. It can be surface mounted easily from below the canopy deck and can be pendant mounted. Direct imaging of the LEDs is eliminated with a highly efficient patterned flat or 0.91" (23mm) drop glass lens.
Applications: Petroleum canopies, CNG fueling stations, soffits

Performance Summary

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 21,000

Efficacy: Up to 165 LPW

CRI: Minimum 70 CRI (40K, 50K, 57K); 80 CRI (30K); 90 CRI (40K, 50K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/5 years on PML sensor/1 year on field-installed accessories

IP66 Rated (select models only)

Class I, Division 2 Hazardous Location for select models

*See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed

Direct Mount Luminaires
Canopy Upgrade Kits (18 ga. steel, except where noted)
CPY-AP06A* - for use with Cree Lighting CAN-304 luminaires, 16 ga. 5052 aluminum
XA-BXCCMW – for use with Jet-Philips, 21.40" (569mm) square, white
XA-BXCCNW – for use with Elsco Franciscan, 22.06" (560mm) square, white
XA-BXCCPW – for use with LSI Dakota or Masters, 22.50" (572mm) square, white
XA-BXCCQW – for use with Whiteway Riviera or Rig-A-Lite, 20.60" (523mm) square, white
XA-BXCCRW – for use with Elsco Merrit, 18.06" (459mm) square, white
XA-BXCCSW – for use with LSI Richmond or Whiteway Civic, 23.00" (584mm) L x 13.00" (330mm) W, white
Direct Mount Junction Box/Stem Kit
XA-BXCCJBOX – 6.0" (152mm) H x 3/4" (19mm) NPT Stem
- Watertight
- Rated for feed through 8 (4 in, 4 out) #12 AWG conductors
Direct Mount Beauty Plates
XA-BXCCBPW – 24.17" (665mm) Beauty Plate Only (18 ga. steel), white
XA-BXCCBPB13W – 24.17" (665mm) Beauty Plate (18 ga. steel) w/13" (305mm) Backer Plate (16 ga. steel), white
- For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 10.75" x 15" (183mm x 275mm)
XA-BXCCBPB16W – 24.17" (665mm) Beauty Plate (18 ga. steel) w/16" (406mm) Backer Plate (16 ga. steel), white
- For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 12" x 15" (305mm x 375mm)

Pendant Mount Luminaires
Pendant Mount Kits
XA-PS12KIT* – 5" (127mm) pendant
XA-PS18KIT* – 11" (279mm) pendant
XA-PS22KIT* – 15" (381mm) pendant
- Includes two conduit fittings and 3/4-14 NPT pipe threaded on two ends

Hand-Held Remote
XA-SENSREM
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

Synapse® SimplySnap 10V Interface
DIM10-220F
- 120V-277V
- Requires other Synapse components to complete system
- Refer to DIM10-220F spec sheet for details

* Must specify color: BK (Black), BZ (Bronze), SV (Silver) or WH (White)

Ordering Information

Example: CPY250-C-13L-57K7-D-UL-DM-SV

CPY250	C							
Product	Version	Lumen Package*	CCT/CRI	Optic	Voltage	Mounting	Color Options	Controls	Options
CPY250	C	**2L** 2,000 Lumens **4L** 4,000 Lumens **6L** 6,000 Lumens **13L** 13,000 Lumens **21L** 21,000 Lumens	**30K8** 3000K, 80 CRI **40K7** 4000K, 70 CRI **40K8** 4000K, 80 CRI **50K7** 5000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**D** 0.91" (23mm) Drop Lens **F** Flat Lens	**UL** Universal 120-277V **UH** Universal 347-480V - Available only in 4L-21L lumen packages	**DM** Direct Mount **HC** Hook & Cord **PD** Pendant **R6** Car Wash	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**BLANK** Non-Dimming **10V** 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details **PML** Programmable Multi-Level - Available with UL voltage only - Refer to PML spec sheet for details	**10KV 10kV/5kA Surge Suppression** - Replaces standard 4kV/3kA surge suppression - Not for use with PML, as PML option includes10kV surge as standard **HZ Class I, Div 2 Hazardous Location** - Available with DM and PD mounts only - Not available with PML control or K option **K NSF 2 Certification** - Luminaires include NSF certification mark - Suitable for DM mount only - Not available with PML control or HZ option

* Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

DM Mount / DM Mount with HZ Option



Weight
12.5 lbs. [5.7kg]

Refer to Page 4 for additional mounts.

IG Series

LED Parking Garage Luminaire

Rev. Date: V6 09/17/2020

Product Description

Cree Lighting innovates again to reset the performance benchmark in parking garage applications with the IG Series featuring WaveMax® Technology, our innovative optical waveguide platform. Available in 33 watt and 60 watt, two lumen packages are offered to satisfy IES RP-8-18 and IES Security Zone 0-1-03 requirements for environments seeking higher light levels for improved safety and security. The streamlined design breaks away from dated traditional designs, blending form and function, to deliver superior low-glare illumination.

For enhanced performance and versatility, a range of optional integrated lighting controllers bring advanced capabilities and energy savings to the IG Series. From the stand-alone multi-level (PML) option to the full-featured Limelight by Lutron or Synapse® wireless control options, the IG Series provides the features and flexibility designed to meet the needs of today's most demanding parking garage applications.

Applications: Parking garages

Performance Summary

Utilizes WaveMax® Technology

Initial Delivered Lumens: 3,860 or 7,550 lumens

Input Power: 33 or 60 watts

Efficacy: Up to 126 LPW

Optic: Type V Short Distribution

Assembled in the USA of U.S. and imported parts

CCT: 3000K, 3500K, 4000K, 5700K

CRI: Minimum 80 CRI

Limited Warranty*: 10 years on luminaire; 5 years on PML and Limelight options; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

*See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

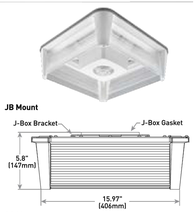
Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** IG-JBWH + **Luminaire:** IG-B-NM-5S-4L-42KB-UL-WH

Mount (Luminaire must be ordered separately)	
IG-	**WH**
IG-JB Junction Box **IG-PD** Pendant	**Color Options:** **WH** White

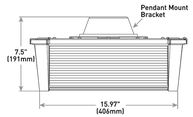
Luminaire (Mount must be ordered separately)								
IG	B	NM	5S				WH	
Product	Version	Mounting	Optic	Lumen Package	CCT/CRI	Voltage	Color	Options
IG	B	**NM** No Mount	**5S** Type V Short	**4L** 4,000 Lumens **7L** 7,000 Lumens	**30KB** 3000K, 80 CRI **35KB** 3500K, 80 CRI **40KB** 4000K, 80 CRI **57KB** 5700K, 80 CRI	**UL** Universal 120-277V **UH** Universal 347-480V	**WH** White	**L8F Limelight by Lutron Radio Module** - Not available with UH voltage or PML, SWC, SWS, LPL, or LPM options **LPL Limelight by Lutron Radio Module and PIR Sensor Assembly – Low Mounting Height (8-15' mounting height)** - Not available with UH voltage or PML, SWC, SWS, L8F, or LPM options **LPM Limelight by Lutron Radio Module and PIR Sensor Assembly – Medium Mounting Height (>15 to 30' mounting height)** - Not available with UH voltage or PML, SWC, SWS, LPL, or L8F options **PML Programmable Multi-Level** - Uses built-in occupancy sensing and field-adjustable ambient light sensitivity to independently control the light output of each luminaire - Refer to PML spec sheet for details - Not available with SWC, SWS, L8F, LPL or LPM options - XA-SENSREM hand-held remote required (see Accessory table on page 2) **SWC Synapse® Wireless Controller** - Provides real-time lighting control with utility-grade power monitoring (+/-2%) - Uses a highly reliable SimplySNAP mesh network - SimplySNAP Gateway is required (see Accessory table on page 2) -Not available with UH voltage or PML, SWS, L8F, LPL or LPM options **SWS Synapse® Wireless Controller with Network Sensor** - Adds customizable sensor for motion or ambient light detection with use of Daylight Harvesting Accessory (see Accessory table on page 2) - Sensor configured for motion sensing as factory default - SimplySNAP Gateway is required (see Accessory table on page 2) - Not available with UH voltage or PML, SWC, L8F, LPL or LPM options

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

JB Mount



PD Mount



Weight
10 lbs. [4.5kg]

THE EDGE® Series

LED Area Luminaire – Round

Rev. Date: V10 12/10/2021

Product Description

THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment, spun vented cover, high performance aluminum heat sinks and leaf/debris guard.
Applications: Auto Dealerships, parking lots, campuses, facade lighting and general site lighting applications

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 25,065

CRI: Minimum 70 CRI (4000K & 5700K); 80 CRI (3000K); 90 CRI (5000K)

CCT: Turtle Friendly Amber, 3000K (+/-300K), 4000K (+/-300K), 5000K (+/- 500K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish /1 year on accessories

*See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed

Bird Spikes
XA-BRDSPK
Synapse® SimplySnap 10V Interface
DIM10-220F
- 120V-277V
- Requires other Synapse components to complete system
- Refer to DIM10-220F spec sheet for details

Backlight Control Shields
XA-20BLS-4
- Four-pack
- Unpainted stainless steel
- For use with 3M and 55 optics
- Consult factory for shielding for use with 2M, 3M, and 4M optics

Ordering Information

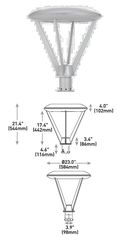
Example: ARE-EDR-2M-R3-12-E-UL-SV-350

ARE-EDR						E				
Product	Optic		Mounting*	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options	
ARE-EDR	**2M** Type II Medium **2MB** Type II Medium w/BLS **2MP** Type II Medium w/ Partial BLS **3M** Type III Medium **3MB** Type III Medium w/BLS	**3MP** Type III Medium w/Partial BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS **4MP** Type IV Medium w/Partial BLS **5M** Type V Medium **5S** Type V Short	**R3** Spider, Center Tenon, 2-3/8" to 3" OD **R4** Spider, Center Direct, 4" Square **RS** Spider, Center Direct, 5" Round	**04**** **06**** **08**** **10** **12**	**E**	**UL** Universal 120-277V **UH** Universal 347-480V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA **700** 700mA - Available with 40-60 LEDs	**DIM 0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current **F Fuse** - Compatible only with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - When code dictates fusing, use time delay fuse **HL HL/Low (Dual Circuit Input)** - Refer to HL spec sheet for details - Sensor not included **P Photocell** - Available with UL voltage only **30K 3000K Color Temperature** - Minimum 80 CRI - Color temperature per luminaire **40K 4000K Color Temperature** - Minimum 70 CRI - Color temperature per luminaire **50K 5000K Color Temperature** - Minimum 90 CRI - Color temperature per luminaire **TRL Amber Turtle Friendly LEDs** - Available only with 350mA - 600nm dominant wavelength - Additional shielding (by others) may be required for Florida Fish and Wildlife Conservation Commission compliance

* Reference EPA and pole configuration suitability data on page 14
** Consists of multiple 20 LED light bars. 40, 60, and 80 LED units use blanks as needed in place of populated light bars

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

R3 Mount



LED Count (x10)	Weight
04	33.8 lbs. [15.3kg]
06	35.2 lbs. [15.9kg]
08	37.0 lbs. [16.8kg]
10	40.7 lbs. [18.5kg]
12	42.4 lbs. [19.3kg]

R4/R5 Mount – see page 14 for weight & dimensions

DRAWING REVISIONS:			
No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



OFFICIAL TOWN USE ONLY

TITLE: LIGHTING DETAILS

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C8.1

Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



1 XXXX ELEVATION
SCALE: 3/32"=1'-0"



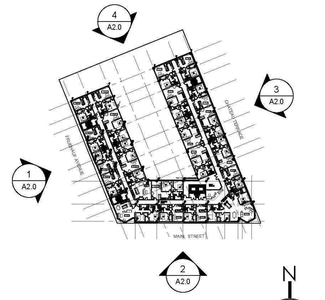
2 XXXX ELEVATION
SCALE: 3/32"=1'-0"



3 XXXX ELEVATION
SCALE: 3/32"=1'-0"



4 XXXX ELEVATION
SCALE: 1/8"=1'-0"



KEY PLAN
N.T.S.

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
-	-	-	-

SPECIAL INFORMATION:
THIS DRAWING PREPARED FOR TENANT IMPROVEMENTS TO AN EXISTING BUILDING OR BUILDING CONSTRUCTED BY OTHERS IT IS UNDERSTOOD THAT ANY WARRANTY INFORMATION CONCERNING EQUIPMENT INSTALLED MUST BE FORWARDED TO THE OWNER AND THAT ANY AND ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE
UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

JAMES ALLEN RUMSEY
ARCHITECT

PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE. BUFFALO, NY 14202
BUFFALO, NY 14202
(716) 886-0211

PROPERTY NUMBER:
5202

MAIN STREET
4548-4564 MAIN STREET
SNYDER, NY
2.5 STORY

SEAL:

TITLE
EXTERIOR ELEVATIONS

DRAWN BY: CAR
CHECKED BY: JAR
DATE: XXXXXXX
DRAWING NO. A2.0

Attachment: SP-2022-11 drawings. 021623 (26951 : Sp-2022-11)

M:\BENDERSON\5202 - MAIN ST., SNYDER\SHEETS\5202_3 STORY.DWG, LAYOUT: A2.0, 4/30/2021 9:46:50 AM



Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)



Attachment: SP-2022-11_drawings_021623 (26951 : Sp-2022-11)

DRAFT
(2/16/23)

SEQR
Negative Declaration

NOTICE OF DETERMINATION OF NON-SIGNIFICANCE

Lead Agency: Town of Amherst
Planning Board

Project: SP-2022-11

Address: 5583 Main Street
Williamsville, NY 14221
(716) 631-7051

Date:

This notice is issued pursuant to Part 617 and Local Law #3-82, as amended, of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law.

The Lead Agency has determined that the proposed action described below will not have a significant adverse effect on the environment.

Title of Action: Site Plan Review

SEQR Status: Unlisted Action

Description of Action: Demolish all existing structures located on the subject parcels and construct a proposed 2½ story mixed use building containing 48 apartment units (22 one bedroom, 24 two bedroom & 2 three bedroom) with 2 commercial (restaurant) tenant spaces totaling 6,624± sq. ft. Parking is provided for 76 vehicles which is internal to the building. Work will include the site improvements not specifically stated above, including, stormwater, utilities, grading, lighting, paving, and landscaping.

Location: 4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace, Amherst, Erie County

Petitioner: Benderson Development Company, LLC

Attachment: SP-2022-11_draft_neg_dec_021623 (26951 : Sp-2022-11)

Reasons Supporting This Determination

Based on information submitted by the applicant including a Full Environmental Assessment Form (EAF) - Part I, (as amended) and Part 2 and a complete site plan application, a preliminary staff analysis was undertaken. Compared to the criteria listed in Section 617.7, all indications are that this action will not have a significant impact on the environment, as follows:

1. The project is not expected to cause a substantial adverse change in existing air quality, ground or surface water quality or quantity, or noise levels; a substantial increase in solid waste production; or a substantial increase in the potential for erosion, flooding, leaching or drainage problems. The Engineering Department on **January 12, 2023** reviewed the Grading, Drainage and Utility Plans submitted on **January 9, 2023,** Engineer's Report submitted on September 30, 2022, Erosion Control Plan submitted on **January 9, 2023** and Geotechnical Report prepared by Barron & Associates, PC and submitted on **September 30, 2022**. The Stormwater Pollution Prevention Plan (SWPPP) submitted on **January 9, 2023** was also reviewed on **February 7, 2023**. Based on its review of these documents, the Department has determined that the project has or will have met all applicable requirements and has no objection to its approval.

2. The project will not result in the removal or destruction of large quantities of vegetation or fauna; or in significant adverse impacts to fish or wildlife species, habitats or other natural resources. The properties involved with this action are entirely developed for commercial and residential activities and are proposed for redevelopment. The Planning Department reviewed a Landscape Plan submitted on **January 9, 2023** and determined that it meets or exceeds Zoning Ordinance requirements for greenspace. The Landscape Plan has or will have met all Zoning Ordinance and Town requirements for landscaping.

3. The project is not expected to create any substantive conflict with the Town Comprehensive Plan. The Planning Department in their review of **January 20, 2023** and the Zoning Enforcement Officer in his/her review dated **January 20, 2023** has reviewed the application documents and Building Department in their review of **January 12, 2023** has reviewed the application documents along with the Geotechnical Report submitted on **September 30, 2022** and determined that the subject project has or will have met all International Building Code – 2015 and Zoning Ordinance regulations.

4. The project is within an area identified by the State as having potential archaeological or historical significance. The properties involved with this action have been previously disturbed in their entirety by the construction of the existing commercial and residential uses on the properties. A report prepared by Commonwealth Heritage Group, Inc. dated June 2022 and received on September 30, 2022 indicates the residence and garage located at 22 Chateau Terrace do not appear to meet the State/National Register of Historic Places criteria for individual eligibility. The property and residence located at 22 Chateau Terrace is located within a potential Town of Amherst Historic District and will require approval of a certificate of appropriateness to allow for the demolition of the residence and associates garage structure by the Town of Amherst Historic Preservation Commission. Therefore it is

Attachment: SP-2022-11_draft_neg_dec_021623 (26951 : Sp-2022-11)

anticipated that the development will not impair the character or quality of important historical resources.

5. The project will not impair the character or quality of important aesthetic resources or of existing community or neighborhood character. The project is located in the Traditional Infill 2.5 District (TI-2.5) zoning district; neighboring uses are commercial, educational and single family residential and zoned Traditional Infill 2.5 District (TI-2.5) and Residential District Three (R-3); therefore, the project is consistent with surrounding land use.

6. The proposed subject development will include a 2½ story mixed use building containing 48 apartment units with 6,624± sq. ft. of commercial space and 76 vehicle parking spaces that are internal to the building which will not cause a major change in the use of either the quantity or type of energy.

7. The project will not create any hazard to human health. The Fire Chief's Association on **_____,** has reviewed the project and has no objection to the approval of the site plan, as all requirements of this agency has or will have been met.

8. The project will not cause a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses. The 2½ story mixed commercial and residential building will be consistent with the scale of surrounding land uses.

9. The function of the proposed mixed use building containing commercial spaces and residential units will not significantly increase the number of people using the site over its historical previous level of use.

10. Review by the Town Traffic/Safety Board dated February 2, 2023 and NYSDOT dated January 11, 2023 **indicates** that significant negative traffic impacts are not expected to result from the proposed project. Review of the Traffic Impact Assessment prepared by Passero Associates submitted to the planning Department on **January 20, 2023** and reviewed by the Town Traffic/Safety Board on **February 2, 2023** and NYSDOT on **January 11, 2023** indicates that significant negative traffic impacts are not expected to result from the proposed project.

11. A coordinated review of the project has been undertaken by Town Departments, in addition to those mentioned above, Highway on **November 16, 2022,** Assessor on **January 18, 2023,** Plumbing Division on **January 13, 2023** and Right-of-Way Agent on **October 17, 2022** along with outside agencies including the Erie County Department of Environment and Planning on _____, New York State Department of Transportation on **January 11, 2023** and the New York State Office of Parks, Recreation and Historic Preservation on _____. These reviews have not identified any significant environmental issues and indicate that the proposal will not have a significant damaging impact on the environment.

Attachment: SP-2022-11_draft_neg_dec_021623 (26951 : Sp-2022-11)

12. Issues not specifically mentioned above and/or those not specifically reviewed were not raised by Town departments, outside agencies or the public and are not determined to cause significant negative environmental impacts.

Planning Board Approval
Moved by: ; Seconded by: Ayes; Noes Absent

_____ _____
signature & title of preparer Date

_____ _____
Robert J. Gilmour, Planning Board Chair Date

SM/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-11_(4548_4564_Main_St_17_Fruehauf_Ave_&_22_Chateau_Ter)_2022\SP-2022-11_draft_neg_dec_021623.doc
cc: Commissioner of Building
Town Engineer
Fire Chiefs'
Highway Superintendent
Traffic/Safety
ECDEP
NYSDOT
James Boglioli, Benderson Development, 570 Delaware Avenue, Buffalo, NY 14202

Attachment: SP-2022-11_draft_neg_dec_021623 (26951 : Sp-2022-11)

Attachment: SP-2022-11_draft_neg_dec_021623 (26951 : Sp-2022-11)

DRAFT (2/16/23)
TOWN OF AMHERST
PLANNING BOARD
DESIGN EXCEPTION RESOLUTION
SP-2022-11

PETITIONER

Benderson Development
570 Delaware Avenue
Buffalo, NY 14202

PROPERTY LOCATION

4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

WHEREAS, the Town of Amherst Planning Board on Thursday, February 16, 2023 held a public hearing on a Site Plan for which design exceptions to the design standards of the mixed use districts is being sought, and

WHEREAS, the Planning Board reviewed the design exception request and reasoning in the petitioners letter to the Planning Board dated January 27, 2023 and received on February 8, 2023 by the Planning Department for the subject site plan, and

WHEREAS, in accordance with Section 5A of the Zoning Ordinance, the following are the required design standards for which design exceptions are being sought

A. Section 5A-2-4 B requires the building face lengths along Chateau Terrace and Fruehauf Avenue to be 90% of the lot frontage. The required building face length along Chateau Terrace is 242.67 feet (269.63 ft. x 0.9) and along Fruehauf Avenue is 180.00 feet (200.00 ft. x 0.90).

B. Section 5A-2-4 D limits the building length along Chateau Terrace to be 200 feet.

C. Section 5A-5-4 requires a 30 foot minimum setback to the protected district (north property line) which limits the maximum allowed building length along Chateau Terrace to be 239.63 feet and along Fruehauf Avenue to be 170.00 feet.

D. Section 5A-2-4 K requires tree planting in grates along Chateau Terrace & Fruehauf Avenue.

WHEREAS, in accordance with Section 5A-7-19 of the Zoning Ordinance, the Planning Board finds that:

A. The alternative design approach satisfies the overall intent of the design standards for which the design exceptions are being sought.

B. The design exceptions meet the intent of the applicable standards in an alternative way.

C. The design exceptions are equivalent to or produce a better outcome than the applicable standards in Section 5A of the Zoning Ordinance.

Attachment: SP-2022-11_design exception draft_resolution_021623 (26951 : Sp-2022-11)

DRAFT (2/16/23)
TOWN OF AMHERST
PLANNING BOARD
DESIGN EXCEPTION RESOLUTION
SP-2022-11

PETITIONER	PROPERTY LOCATION
Benderson Development	4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

NOW THEREFORE BE IT RESOLVED that in accordance with 6 NYCRR, Part 617 and Local Law #3-82, as amended, the Planning Board has issued a Negative Declaration attached hereto, and

NOW THEREFORE BE IT FURTHER RESOLVED that the Planning Board, in accordance with Section 5A-7-19 of the Zoning Ordinance **approves** the following design exceptions to the standards of Section 5A:

1. Length of the building wall along Chateau Terrace to be 239.00± feet.

2. Length of the building wall along Fruehauf Avenue to be 170.00± feet.

3. That a grass panel be provided along Chateau Terrace and Fruehauf Avenue between the sidewalk and curb line of the streets.

The foregoing resolution was adopted by the Town of Amherst Planning Board, _____; moved by - _____; seconded by - _____; ayes _, noes _; absent - ____.

_____ _____
Robert J. Gilmour, Planning Board Chair Date

SM/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-11_(4548_4564_Main_St_17_Fruehauf_Ave_&_22_Chateau_Ter)_2022\SP-2022-11_design exception draft_resolution_021623.docx
cc: Commissioner of Building
Town Engineer
Fire Chiefs
Traffic/Safety
Highway Superintendent
ECDEP
NYSDOT
James Boglioli, Benderson Development, 570 Delaware Avenue, Buffalo, NY 14202

Attachment: SP-2022-11_design exception draft_resolution_021623 (26951 : Sp-2022-11)

DRAFT (2/16/23)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-11

PETITIONER

Benderson Development
570 Delaware Avenue
Buffalo, NY 14202

PROPERTY LOCATION

4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

WHEREAS, the Town of Amherst Planning Board on Thursday, February 16, 2023 held a public hearing on a Site Plan for a 2½ story mixed use building containing 48 apartment units 6,624± sq. ft. of commercial space and parking for 76 vehicles which is internal to the building, and

WHEREAS, the Planning Board reviewed the plans and specifications for the proposed project, and

WHEREAS, the Site Plan was referred to the Town's various review agencies, and

WHEREAS, the site and building plans were reviewed by the Town's Design Advisory Board and their recommendations were provided, and

WHEREAS, in accordance with Section 8-7-8 of the Zoning Ordinance, the Planning Board finds that:

A. The site plan includes usable space for active and passive recreation, including pedestrian connections.

B. The site plan does not include open space lands for public ownership and use offered for dedication or other disposition to the Town or other public entity.

C. School sites and facilities are adequate to accommodate the proposed site plan.

D. The site plan does not include the extension of roadways to adjacent property, and

WHEREAS, in accordance with Section 8-7-9 of the Zoning Ordinance, the Planning Board finds that:

A. The proposed site plan is consistent with the development plan if one is required.

B. The proposed site plan is consistent with the purpose and specific requirements of the Zoning Ordinance and generally consistent with the policies of the Comprehensive Plan.

C. Adequate services and utilities will be available prior to occupancy.

Attachment: SP-2022-11_site plan draft_resolution_021623 (26951 : Sp-2022-11)

DRAFT (2/16/23)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-11

PETITIONER	PROPERTY LOCATION
Benderson Development	4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

D. The site plan is consistent with all other applicable laws.

E. Pursuant to Local Law #3-82, as amended, the Planning Board has determined that the requirements of SEQR are complete and that the subject proposal is not expected to have a significant adverse effect on the environment.

F. Review by the US Army Corps of Engineers under Section 404 of the Clean Water Act may be waived because the parcel is developed, and

WHEREAS, in accordance with Section 5A-7-19 of the Zoning Ordinance, the Planning Board has approved design exceptions for the proposed site plan, and

WHEREAS, in accordance with Section B-7f of the Design Guidelines for Mixed-Use Districts, the Planning Board allows the use of Exterior Insulation Finish System as a decorative material on the upper stories of the building,

NOW THEREFORE BE IT RESOLVED that in accordance with 6 NYCRR, Part 617 and Local Law #3-82, as amended, the Planning Board has issued a Negative Declaration attached hereto, and

BE IT FURTHER RESOLVED that the Planning Board, in accordance with Section 8-7 of the Zoning Ordinance **approves/denies** said Site Plan subject to the following conditions:

1. That the consideration of signs is specifically excluded from this approval as they require a separate review and approval by the Town.

2. That all dumpsters/trash containers and all mechanical equipment, utility structures, multiple meter boards, generators, and similar appurtenances, including those which are mounted on any part of a primary structure shall be appropriately screened with a fence, wall, and/or landscaping. Provide gate on dumpster enclosure that shall be closed whenever dumpster is not being serviced, enclosure shall be high enough to screen the dumpster(s) within.

3. That as-built record drawings, including location of utilities, be provided to the Engineering Department prior to issuance of a Certificate of Occupancy by the Building Department.

Attachment: SP-2022-11_site plan draft_resolution_021623 (26951 : Sp-2022-11)

DRAFT (2/16/23)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-11

PETITIONER	PROPERTY LOCATION
Benderson Development	4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

4. That a certificate of appropriateness be issued by the Town of Amherst Historic Preservation Commission to demolish any structures on the property located at 22 Chateau Terrace, prior to issuance of final approved site plan drawings by the Planning Department.

The foregoing resolution was adopted by the Town of Amherst Planning Board, _____; moved by - _____; seconded by - _____; ayes _, noes _; absent - ____.

_____ _____
Robert J. Gilmour, Planning Board Chair Date

SM/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-11_(4548_4564_Main_St_17_Fruehauf_Ave_&_22_Chateau_Ter)_2022\SP-2022-11_site plan draft_resolution_021623.docx

cc: Commissioner of Building
Town Engineer
Fire Chiefs
Traffic/Safety
Highway Superintendent
ECDEP
NYSDOT
James Boglioli, Benderson Development, 570 Delaware Avenue, Buffalo, NY 14202

Approved Plan: _____
Received: _____

Attachment: SP-2022-11_site plan draft_resolution_021623 (26951 : Sp-2022-11)

Amherst

Town of Amherst Planning Department *Erie County, New York*

Brian J. Kulpa
Supervisor
Daniel C. Howard, AICP
Planning Director
Daniel J. Ulatowski, AICP
Assistant Planning Director

February 23, 2023

James A. Boglioli, Esq.
Benderson Development Company, LLC
570 Delaware Avenue
Buffalo, New York 14202

SUBJECT: MAJOR SITE PLAN REVIEW, **SP-2022-11**; PROPOSED SNYDER MIXED USE BUILDING; PROPERTY LOCATED AT **4548 & 4564 MAIN STREET, 17 FRUEHAUF AVENUE, AND 22 CHATEAU TERRACE.**

Dear Mr. Boglioli:

At its meeting of February 16, 2023 the Planning Board voted to **adjourn** the subject site plan to allow consideration of the petition and public presentations.

This request will be placed on the Planning Board agenda for the March 16, 2023 meeting. The public hearing for this item has been closed.

Please submit any revised plans or required materials by Monday, March 6, 2023 so they may be reviewed prior to the meeting.

Should you have any questions regarding the Planning Board's decision, please do not hesitate to call us.

Very truly yours,

Daniel C. Howard, AICP
Planning Director

DH/ac
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cc: James Allen Rumsey, Benderson Development Co., 570 Delaware Ave., Buffalo, NY 14202
Matthew J. Oates, Benderson Development Co., 570 Delaware Ave., Buffalo, NY 14202

Attachment: SP-2022-11_adjournment_022323 (26951 : Sp-2022-11)

TOWN OF AMHERST

APPLICATION & REVIEW PROCEDURE

MAJOR SITE PLAN

MATERIALS MUST BE PROVIDED IN AN ELECTRONIC FORMAT THAT CONTAINS PDF FILES OF THE APPLICATION, EAF, SITE PLAN DRAWING SET SURVEY, LANDSCAPE PLAN, PRELIMINARY BUILDING FLOO PLANS / ELEVATIONS & ANY OTHER SUPPORTING INFORMATION. THIS MUST BE SUBMITTED WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE TRANSMITTED WITHOUT THIS ELECTRONIC INFORMATION.

THIS ALSO APPLIES TO REVISED MATERIALS THAT AR SUBMITTED.

This application package includes the following:

- Application Procedures
- Application Form & Checklist
- Stormwater Pollution Prevention Plan Checklist
- Appendix A Town of Amherst EAF Addendum
- Appendix B Criteria for Required 8½" x 11" Sketches
- Appendix C Erie Sewer District No. 5 – Commercial / Industrial New & Existing Buildings Requirements

- IMPORTANT-

1. A pre-submittal consultation with Planning Department staff is *strongly recommended* prior to submitting an application. The pre-submittal meeting gives the applicant an opportunity to discuss with staff such items as:
   - classifying the action as a major site plan, minor site plan, or minor site plan adjustment;
   - determining what specific information will be required to be submitted with the application;
   - identifying and discussing issues that must be addressed as part of the SEQR review;
   - identifying any potential variances required to implement the project as proposed.

   An appointment is required for all meetings with Planning Department staff.

2. This site plan petition is subject to the requirements of 6 NYCRR Part 617, State Environmental Quality Review Act (SEQR), and Chapter 104 of the Town of Amherst Code, as amended. The Planning Board cannot make a SEQR determination unless a complete Environmental Assessment Form (EAF), including Town of Amherst EAF Addendum, and any required supplementary information such as traffic impact studies, archaeological reports, wetland delineations or geotechnical reports, are submitted. SEQR issues may be discussed with Planning Department staff at a recommended pre-submittal meeting. Unlisted Actions require a Short EAF; Type I Actions require a Full EAF. The following is a link to the NYSDEC website and fillable forms with instructions*:*
   http://www.dec.ny.gov/permits/6191.html.

3. **Review by the Town Design Advisory Board (DAB) is required for Major Site Plans located in the following Mixed-Use zoning districts:**

   Traditional Infill 2.5 (TI-2.5)
   Traditional Infill 4 (TI-4)
   Shallow Corridor 3 (SC-3)
   Deep Corridor 3 (DC-3)
   Deep Corridor 5 (DC-5)
   Center 2.5 (CTR-2.5)
   Center 5 (CTR-5)
   Center 8 (CTR-8)

   The application for DAB review is required to be filed in conjunction with the major site plan application.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

4. The application shall be executed or consented to in writing by the owner of the property.

5. **Any variances from the Zoning Board of Appeals, or any decision from the Town Board (e.g. removal of deed restrictions) must be obtained prior to action by the Planning Board on a Site Plan application.**

6. Submittal of an application grants permission to Town staff and Planning Board members to access the parcel(s) under consideration.

7. All site plan drawings must be prepared by a Registered Architect, Professional Engineer, Landscape Architect, or Land Surveyor (as applicable) licensed to practice in New York State.

8. If you wish to include a Coordinated Sign Plan application with the site plan petition, a separate application must be completed. Contact the Planning Department for a copy of a Coordinated Sign Plan application package.

9. All drawings should be no larger than 24 in. x 36 in. If site characteristics warrant larger plan sheets, they may be accepted subject to Planning Department concurrence. All drawings must also reserve a 4 in. x 6 in. area in the lower right hand corner for official Town use.

APPLICATION PROCEDURES

1. Applicant secures application package from the Planning Department, 5583 Main Street, Williamsville, NY 14221. (716) 631-7051. Forms are also available online at: www.amherst.ny.us, (keyword: Planning).

2. Applicant prepares information as required on the Site Plan Submittal Checklist, attached. NOTE: Some proposals may not require all items on the checklist; please verify with the Planning Department.

3. Applicant schedules an appointment with the Planning Department to review the following:
   - a complete set of site plan drawings, preliminary building elevations and floor plans (no larger than 24" x 36" in size)
   - Environmental Assessment Form (EAF) & Town EAF Addendum
   - any supporting reports and materials
   - verification from the Town Assessor that the address in the application is correct

4. Applicant schedules an application submittal appointment with the Planning Department. NO SITE PLAN WILL BE ACCEPTED FOR REVIEW WITHOUT A PRE-SET SUBMITTAL APPOINTMENT.

5. At the submittal appointment, applicant provides fourteen (14) complete and collated sets of drawings and application information to the Planning Department **(materials will not be accepted unless folded into 9" x 12" in size),** including**:**
   - application form
   - Environmental Assessment Form (EAF)
   - supporting reports / materials
   - complete set of site plan drawings, preliminary building elevations and floor plans (**at least one (1) set of drawings must bear a raised or wet seal and signature of the design professional** who prepared the plans; the remaining copies may be submitted with a facsimile of the seal and signature)
   - digital files of all materials in pdf format
   - an 8½" x 11" reduction of the sketch plan or plat drawing (see Appendix B)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

6. After approval for filing by the Planning Department, applicant submits all necessary fees to the Town Clerk. **(See Schedule of Fees on first page of application and make checks payable to: Town of Amherst.)**

7. The applicant returns a copy of the filing receipt to the Planning Department.

8. The Planning Department transmits remaining thirteen (13) copies of the application and supporting materials to:
   - Assessor
   - Commissioner of Building
   - Town Engineer
   - Superintendent of Highways
   - Traffic/Safety Board
   - Fire Chiefs' Association
   - Plumbing Division
   - Right-of-Way Agent
   - Police Department (if applicable)
   - Zoning Enforcement Officer
   - Other Town and outside agencies, as applicable

9. Within 30 days of its receipt of the complete application for Site Plan approval, each agency completes its review and notifies the Planning Department in writing of its comments or recommendations as required by Ordinance.

10. The applicant may be required to submit revised plans, reports, or materials to address review agency comments. The procedures for submittal of revised plans are as follows:

    - A cover letter addressing all comments received to date is required.
    - "Highlight" the area of change on the drawings and provide a notation describing the change.
    - Revised plans/materials are required. Planning staff should be contacted to determine the number of sets needed.
    - All revised plans and materials must also be provided in an electronic format that contains pdf files of the revised information.

11. The Planning Board reviews the EAF to determine whether a Draft Environmental Impact Statement (DEIS) is required. The petitioner will be advised in the event that a DEIS is required and afforded the opportunity to prepare it. If the petitioner declines, the Planning Board will prepare the DEIS at the petitioner's expense. The public hearing will be held on the DEIS concurrently with the Planning Board hearing on the application.

12. Planning Board Meeting Procedures:

    The applicant or representative presents the project at the public hearing before the Planning Board and is available to answer any questions. The Planning Board may take any of the following actions:

    - Adjourn the hearing to a future Planning Board meeting (hearing remains open).
    - Close the hearing and table action on the site plan to a future Planning Board meeting. (The Planning Board may remove the item from the agenda until such time as all required information is provided.)
    - Close the hearing and make a decision on the site plan.

    All determinations on matters before the Planning Board are made after all public hearings on that meeting's agenda are completed.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

13. A copy of the Planning Board's determination will be provided to the applicant, his / her representative, the Building Commissioner and the Town Clerk approximately 1 week following the Planning Board meeting at which it was heard.

14. If the Planning Board approves a Site Plan with conditions, the Planning Department will work with the applicant to ensure that all conditions of the approval are satisfactorily addressed. When all conditions are satisfied, the applicant submits **seven (7) final copies** of the complete set of all site plan drawings, folded into 9" x 12". For site plans in the Mixed-Use zoning districts, building elevations will also be required.

    All 7 sets must have original wet seals and include the required 4 in. x 6 in area in the lower right hand corner for official Town use. These drawings will be stamped and signed "Approved" by the Planning Director and transmitted to Town Departments for their files and use.

15. A building permit will not be issued by the Building Department until the stamped and signed Site Plan is issued by the Planning Director.

NOTE: Please check with the Planning Department to determine the deadline date for filing applications. Due to the public hearing notice requirements and department reviews, no site plan application will be placed on the Planning Board agenda after the deadline for filing has closed. Scheduling may be delayed if an application is incomplete.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Major Site Plan Review

For Official Use

File #: _____ **Acreage** _____ **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Received by Planning Department _____ RECEIVED BY DATE

Fee Paid to Town Clerk _____ RECEIVED BY DATE

Site Plan Review		**Fill In Applicable Fees**
1 acre or less	$1,250.00	_____
Each additional acre or fraction thereof	$ 650.00/acre	_____
Amendments to Site Plans	$1,200.00	_____
Request for Relief of / Change to Conditions of Site Plan Approval	$1,200.00	_____
Request for Extension of Site Plan Approval	$ 450.00	_____
Stormwater Pollution Prevention Plan		
1 - 4.99 Acres	$ 500.00	_____
5 - 10 Acres	$ 750.00	_____
>10 Acres	$1,000.00	_____
Affidavit Fee for Public Hearing	$ 15.00	_____
	TOTAL FEE:	**$**_____

To Be Completed By Applicant

Petitioner:

Name: Benderson Development Company, LLC

Address: 570 Delaware Avenue

Buffalo , New York 14202

city state zip code

Phone: 716-878-9626 Fax: _____

E Mail: jmb@benderson.com

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

MAJOR SITE PLAN APPLICATION (con't) ***Page 2***

Representative (Architect, Engineer, Landscape Architect, Surveyor, or Attorney)**:**

Name: James A. Boglioli

Address: 570 Delaware Avenue

Buffalo , New York 14202
city state zip code

Phone: 716-878-9626 Fax: _____

E Mail: jmb@benderson.com

Project Location (must be verified by Town Assessor's Office)**:**

Address: 4548 - 4564 Main Street

SBL No(s): 68.17-5-219.20, 68.17-5-219.21, 68.17-5-219.22

Project Name: _____

Project Description:

Property is currently occupied by a 2 story brick and wood retail/office building which faces Main Street. The rear and sides on Château and Freihauf contain split level areas. This will be demolished and removed. The new development will be a mixed uses, including approximately 7,000 square feet of commercial space on Main Street level with 45 to 50 apartments on upper levels. The area between the "U" shaped development will contain a terrace area and partial parking area at the Main Street level. Additional parking is accessible from Chateau Street at the rear of the site, Also, a 30' landscape buffer area will be constructed at the rear of the site. Building architecture will meet design guidelines.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

MAJOR SITE PLAN APPLICATION (con't) ***Page 3***

If this petition is an amendment to a previously approved site plan, please describe the proposed changes (include type and size of existing structures and number of existing parking spaces):

Please see the attached letter of intent

	existing	proposed	total
Gross Floor Area (non-residential):	12,146 sf	6,998 sf	-5,148 sf
Gross Floor Area Residential:	N/A	56,204 sf	56,204 sf
Number of Residential Units:	N/A	48 units	48 units
Number of Parking Spaces:	N/A	79	79

Acreage of Parcel: .93+/-

(list each parcel separately)

Frontage on Public Roads: Main Street – 185.64' Fruehauf – 200.0'

(list each road separately) Chateau – 269.63'

Existing Zoning District(s) TI-2.5

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Site Plan Submittal Requirements and Checklist

The following checklist outlines the information required by the Planning Department to accept a Site Plan application for review. ***It is strongly recommended that you make an appointment with Planning Staff to determine which items apply to your application***.

Item No.	Item	Submitted	Official use
I Basic Drawing Information			
1.0	**Drawing size not to exceed 24" x 36"**		
2.0	**Title of Drawing**		
3.0	**Name and address of Applicant**		
4.0	**Name of person preparing drawing**		
5.0	**Wet seal/raised seal and signature of NYS licensed architect, engineer, landscape architect, or surveyor (as applicable)**		
6.0	**Project address**		
7.0	**Zoning of subject property and adjacent parcels**		
8.0	**North point, scale, date, and revision date(s)**		
9.0	**4" x 6" reserved area in lower right hand corner for official Town use**		
II Structures, Paved Areas, & Open Space			
1.0	**Existing and Proposed Streets**		
1.1	Names of all existing and proposed streets		
1.2	Width and radii of proposed curb-cuts		
1.3	Existing curb-cuts on adjacent and opposite properties		
1.4	Show ROW width, pavement dimensions, lane widths, pavement markings, and proposed signage on proposed streets		
1.5	Show proposed ROW consistent with planned NYSDOT, Erie County, or Town road projects (if applicable)		
1.6	Show location of proposed cross access to adjacent parcels along with a draft easement		
1.7	Designation of Fire Lanes (if applicable)		
1.8	Fire apparatus access roads		
1.9	Label any proposed roads as public or private		
1.10	Location and dimensions of sidewalks		
1.11	Typical cross sections and profiles of proposed streets, pedestrian walkways, and bikeways		
2.0	**Proposed Structures**		
2.1	Location and complete dimensions of proposed structures		
2.2	Setback dimensions of structure(s) to all property lines		
2.3	Proposed use of structures		
2.4	Gross square feet area of each structure		
2.5	Location of all building entrances		
2.6	Indicate type of roof construction/materials		
2.7	Location, height, and design detail of existing and proposed fences and walls		
2.8	Location of light standards and building mounted lights		
2.9	Location of dumpster and detail of dumpster enclosure with gate		
2.10	Layout and dimensions of the lot(s) proposed for development		

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.	Item	Submitted	Official use
II Structures, Paved Areas, & Open Space (cont'd)			
3.0	**Floor Plans with individual rooms and spaces labeled** (fully dimensioned)		
4.0	**Building elevations with height dimensions from finished grade to the highest point of the roof and to midpoint of gable or hip of a pitched roof.** (fully dimensioned)		
4.1	Show screening of mechanical equipment		
5.0	**Parking/Loading/Stacking Areas**		
5.1	Location and complete dimensions of all paved areas		
5.2	Setback dimensions of all paved areas to property lines		
5.3	Dimension of typical parking space and drive aisles		
5.4	Location and layout of handicapped parking spaces & access aisles		
5.5	Detail of vertical signage for handicapped parking and access aisles		
5.6	Indicate minimum parking requirement & number of spaces provided		
5.7	Proposed signage for directing and guiding traffic		
5.8	Curb cut permits from NYS, Erie County, or Town (if applicable)		
5.9	Pedestrian connections (from proposed structures to public sidewalk network)		
6.0	**Location and proposed development of all open spaces, including parks, playgrounds, and open reservations**		
III Utilities and Drainage			
1.0	**Engineers Report** (bound separately from the Stormwater Pollution Prevention Plan [SWPPP])		
1.1	Stamped/sealed and signed by NYS licensed architect or professional engineer		
1.2	Proposed water service sizing, RPZ pressure and fire safety flow and pressure calculations		
1.3	Proposed sanitary sewer facility load calculations (avg. & peak flows) including calculation of the peaking factor		
1.4	Proposed storm drainage facility calculations (see information included with this application)		
2.0	**Grading Plan**		
2.1	Existing and proposed grades indicated (proposed grades may not exceed 1 on 3)		
3.0	**Water Service**		
3.1	Location, size and material of existing and proposed facilities		
3.2	Location of existing and proposed fire hydrant location(s)		
3.3	Indicate use of sprinklers, location of Fire Department connection, and proposed fire protection systems		
3.4	Existing and proposed meter/RPZ size and location		
3.5	Applicable construction details		
4.0	**Sanitary Sewers**		
4.1	Locations, sizes, slopes, inverts, and materials of all existing and proposed facilities		

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
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Item No.		Submitted	Official use
III Utilities and Drainage (cont'd)			
4.2	Applicable construction details		
4.3	Proposed water/oil/grease interceptor sizing calculations by a professional engineer (if applicable)		
5.0	**Storm Drainage**		
5.1	Locations, sizes, slopes, inverts, and materials of existing and proposed storm drainage facilities		
5.2	Connection of roof drains to proposed drainage system		
5.3	Applicable Town Standard construction details		
5.4	Existing and proposed swales and ditches		
5.5	Detention area cross-section and high-level elevations		
5.6	County and State approval for tie-in to existing sewers		
6.0	**Stormwater Pollution Prevention Plan (SWPPP) as applicable** (bound separately from the Engineer's Report) **See attached checklist.**		
7.0	**Natural Gas Service**		
8.0	**Location of transformers, generators and other mechanical equipment; include detail drawings (if applicable)**		
9.0	**Downstream Sanitary Capacity Analysis (DSCA) Report** (must be submitted if proposed average flows are greater than 2,500 gallons per day)		
9.1	The DSCA Report must include a detailed downstream sewer capacity analysis and the calculations of and commitment to (via Developer commitment letter) the required financial contribution to the Town's I/I mitigation fund based on peak flow conditions. The contribution must be based on $250 per gallon per minute of mitigated flow		
IV Lighting Plan			
1.0	**Photometric plan showing light spread in foot candles at property lines**		
1.1	Detail of all light standards, including dimension of height from finished grade		
1.2	Detail of all exterior lighting fixtures		
V Landscape Plan			
1.0	**Wet/raised seal and signature of a licensed Landscape Architect**		
2.0	**Provide a calculation of the total Parking area and a calculation of interior parking area in square feet and as a percentage**		
3.0	**Indicate location, size, number and type of proposed landscape materials**		
4.0	**Indicate location, type and size of <u>all</u> existing trees 4" caliper or larger and indicate which will be removed or retained**		
VI Other Required Information/General Requirements			
1.0	**Complete boundary survey that includes all existing structures, acreage, legal description with reference to a property line, street, or other known feature, and easements plotted to scale by a NYS licensed land surveyor**		

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.		Submitted	Official Use
VI Other Required Information/General Requirements (cont'd)			
1.1	Copies of all easements, reciprocal access agreement or similar leag documents		
2.0	**Topographic Survey with a 30 ft. buffer outside all property lines by a NYS licensed land surveyor**		
3.0	**Draft of any deed restrictions, covenants, provisions for home associations and common ownership, and reciprocal easement agreements (as applicable).**		
4.0	**For assessment purposes, state intent to apply for condominium status (if applicable).**		
5.0	**Completed and signed Environmental Assessment Form**		
5.1	Soil boring report and geotechnical report prepared by a qualified Professional Engineer (if applicable)		
5.2	Traffic Impact Study (if applicable)		
5.3	Archaeological survey (if applicable		
5.4	Wetland Delineation report (if applicable)		
6.0	**Show existing zoning(s) of both the subject property and adjacent parcels on the Site Plan and the Landscape Plan**		
7.0	**Location of NYSDEC wetlands (including buffer area) and/or federal wetlands; indicate jurisdictional status**		
8.0	**Location of Floodway and floodplain** (if applicable)		
9.0	**Documentation pertaining to any conditions of zonings, including copies of required deed restrictions; indicate date of rezoning and the parcel address under which it was rezoned (if applicable)**		
10.0	**Documentation related to any required variances granted by the ZBA**		
11.0	**For residential site plans, provide a statement from the appropriate school district that adequate school sites and facilities are available.**		
12.0	**8 1/2" X 11" reduction of primary site plan drawing (see appendix "B" of application package for specifications)**		
13.0	**A CD containing a PDF of all site plan drawings (Must also be provided with revised drawings)**		
VII Additional Required Information for Projects in the Mixed Use Districts			
1.0	**Design Advisory Board Application**		
1.1	Required for Major Site Plan		
1.2	Required at the Planning Directors Discretion for Minor Site Plans		
2.0	**Block & Street Network Plan**		
2.1	Designation of Core, Local & Alley streets		
2.2	Dimensions of Blocks		
3.0	**Block Usage Plan (as applicable)**		
3.1	Designation of site usage for each block including open space areas		
4.0	**Phasing Plan**		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
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For official use only:

_____
Approved/Date

X:\Current_Planning\Application Forms 2013 Working Doc\Major Site Plan\Site Plan Submittal Requirements and Checklist (3).doc

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed new structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   _____ Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes □ No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes □ No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes □ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   _____
   _____

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes □ No

   Describe_____
   _____

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project_____
   Source: _____

8. Will blasting occur during construction? □ Yes □ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? □ Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    _____ average flow _____ peak flow.

    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes □ No

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed new structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Ux-Urban Land Wassaic complex	Severe	Moderate	Severe	Severe	Severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   X Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? ☐ Yes ☒ No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? ☐ Yes ☒ No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? ☐ Yes ☒ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   4445 Main Street (1.02 Acres); 4925 Main Street (2.2 Acres);

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: ☐ Yes ☒ No

   Describe _____

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project 83 Trips
   Source: SRF & Associates Traffic Letter dated July 30, 2021

8. Will blasting occur during construction? ☒ Yes ☐ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ☒ Yes ☐ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    11,860 GPD average flow 33 GPM peak flow.

    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? ☒ Yes ☐ No

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Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Proposed Multi-Story Building		
Project Location (describe, and attach a general location map): 4548-4564 Main Street, 17 Freuhauf Ave, & 22 Chateau Terrace, Town of Amherst, NY 14226		
Brief Description of Proposed Action (include purpose or need): Proposed Action includes: Demolition of existing buildings along Main Street between, Fruehauf Ave and Chateau Terrace and residential property 22 Chateau Terrace and clearing of land; Proposed Multi-Story Building consisting of 48 apartments and 6,624 SF of restaurant space with associated parking garage, improved drainage and utility infrastructure, landscaping and site lighting. The total apartment units are as follows: 22 - 1 Bedroom units, 24 2 Bedroom Units and 2 - 3 Bedroom Units.		
Name of Applicant/Sponsor: Benderson Development Inc.	Telephone: 716-878-9626 E-Mail: jamesboglioli@benderson.com	
Address: 570 Delaware Ave		
City/PO: Buffalo	State: NY	Zip Code: 14202
Project Contact (if not same as sponsor; give name and title/role): James Boglioli, Esq	Telephone: 716-878-9626 E-Mail: jamesboglioli@benderson.com	
Address: 570 Delaware Ave		
City/PO: Buffalo	State: NY	Zip Code: 14202
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

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B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town of Amherst Planning Board	June 2022
c. City Council, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Town of Amherst Traffic Safety Board Town of Amherst Historic Preservation Commision	June 2022
e. County agencies ☑Yes ☐No	Erie County Water Authority	June 2022
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDOT; NYSDEC	June 2022
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

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C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Traditional Infill (TI-2.5)

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Amherst CSD

b. What police or other public protection forces serve the project site?
Amherst Police Department; Erie County Sheriff; NY State Troopers

c. Which fire protection and emergency medical services serve the project site?
Amherst Fire Department - Snyder District

d. What parks serve the project site?
None

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Residential and commercial

b. a. Total acreage of the site of the proposed action? 0.93 acres
b. Total acreage to be physically disturbed? 1.02 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.93 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Lot Combination
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 12 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

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7.g

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	0			
At completion of all phases	48			

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 1

ii. Dimensions (in feet) of largest proposed structure: 35 height; 172.1 width; and 238.8 length

iii. Approximate extent of building space to be heated or cooled: 65,000 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Bio-retention pond

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify: Non-permeable surface runoff

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: 0.006 million gallons; surface area: 0.03 acres

v. Dimensions of the proposed dam or impounding structure: 1.5' height; 58' length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): Earth Fill

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging?

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe.

v. What is the total area to be dredged or excavated? acres

vi. What is the maximum area to be worked at any one time? acres

vii. What would be the maximum depth of excavation or dredging? feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

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ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: 12,034 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Erie County Water Authority
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: 10,940 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary Wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Tonawanda Creek Plant #16
- Name of district: Amherst Sewer District #1
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

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- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: None

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.83 acres (impervious surface)

_____ Square feet or 0.93 acres (parcel size)

ii. Describe types of new point sources. Proposed 12" Storm connected to existing 12" Storm along Chateau Terrace

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Yes, through a series of trench drains, catch basins and bio-retention pond

- If to surface waters, identify receiving water bodies or wetlands: N/A
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☑ No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐ Yes ☑ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐ Yes ☑ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

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h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☑ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: 1

iii. Parking spaces: Existing 50 Proposed 76 Net increase/decrease 26

iv. Does the proposed action include any shared use parking? ☑Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:
New Curb cut access points along Fruehauf Ave and Chateau Terrace

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☑Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☑Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____
TBD

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
National Grid

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 AM -9 PM (as allowed per code)
- Saturday: 7 AM -9 PM (as allowed per code
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: 24 hours
- Saturday: 24 hours
- Sunday: 24 hours
- Holidays: 24 hours

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m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Construction Equipment Monday - Saturday, 7am to 9 pm

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Parking Garage - Overhead LED Fixtures; Outdoor Seating - Architectural Poles on 1st floor

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

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s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

Proposed Multi-Use Building with first floor retail and apartments

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.80	0.83	+ 0.03
• Forested	-	-	-
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	-	-	-
• Agricultural (includes active orchards, field, greenhouse etc.)	-	-	-
• Surface water features (lakes, ponds, streams, rivers, etc.)	-	0.01	+ 0.01
• Wetlands (freshwater or tidal)	-	-	-
• Non-vegetated (bare rock, earth or fill)	0.13	0.10	-0.03
• Other Describe: _____			

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c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No
If Yes,
i. Identify Facilities:
Elder Care Solutions of WNY, Daemen University, Garden Nursery School-Ahmerst, Bornhava School and The Park School of Buffalo

e. Does the project site contain an existing dam? ☐ Yes ☑ No
If Yes:
i. Dimensions of the dam and impoundment:
- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:
_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No
If Yes:
i. Has the facility been formally closed? ☐ Yes ☐ No
- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:
_____
iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:
_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No
☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____
☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____
_____
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☐ No
If yes, provide DEC ID number(s): _____
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):
_____

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v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? +/- 5 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: Ux 100 %
_____ %
_____ %

d. What is the average depth to the water table on the project site? Average: >10' feet

e. Drainage status of project site soils:
☑ Well Drained: 100 % of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☐ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100 year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500 year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

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m. Identify the predominant wildlife species that occupy or use the project site:
None

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation): _____
ii. Source(s) of description or evaluation: _____
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No
If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No
i. If Yes: acreage(s) on project site? _____
ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

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e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Glen Falls - Amherst State Park

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Scenic Park and waterfall

iii. Distance between project and resource: 1.8 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Matthew J. Oates, P.E. Date 12/14/2022

Signature _____ Title Director, Engineering

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PRINT FORM

BENDERSON DEVELOPMENT

570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

September 28, 2022

Robert J. Gilmour, Chairman
Members of the Planning Board
Town of Amherst
5583 Main Street
Williamsville, NY 14221

RE: Application for Site Plan Approval
Proposed Site Redevelopment
4548-4564 Main St, Amherst, NY (BDP # 5202)

Dear Chairman Gilmour and Members of the Planning Board:

Enclosed please find materials in connection with our application for site plan approval for the parcel located at 4548-4564 Main Street (the "Project Site").

The Project Site is approximately 0.93-Acres and consists for four parcels between Fruehauf Ave and Chateau Terrace on the Northside of Main Street. The two parcels along Main Street consist of two existing retail buildings with associated parking lot accessed at the northside of site. All four parcels are in the mixed-use district Traditional Infill 2.5 (TI-2.5). As part of this project, these four parcels shall be combined into a single tax lot.

The proposed project will consist of the following:

- The demolition of existing buildings located on the Project Site (13K removed) and to construct a multi-story mixed use 65,000 +/- square footage building;
- Provide 48 Apartments of various bedroom sizes and 6,995 square feet of restaurant space;
- Provide a two-level parking garage to provide 79 parking spaces and requires 77 parking spaces;
- Provide Outdoor Amenity Space in accordance with the Mixed-Use District Town code;
- Provide new curb cut access drives from Fruehauf Ave and Chateau Terrace;
- Provide new site drainage infrastructures and utilities.

The proposed site plan and building elevations have been designed to meet the intent of the requirements of the TI-2.5 zoning.

We believe the project will be an attractive improvement and look forward to reviewing this project with the Planning Board. Should you have any questions or require any additional information, please do not hesitate to contact me.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James A. Boglioli, Esq.
Director, Right to Build – Northeast US

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PASSERO ASSOCIATES
engineering architecture

January 18, 2023

Mr. Matt Oates, P.E.
Director, Engineering
Benderson Development Company, LLC
570 Delaware Avenue
Buffalo, New York 14202

RE: Proposed 4548-4564 Main Street Mixed-Use Project, Town of Amherst, NY
Traffic Impact Assessment

Dear Mr. Oates:

The purpose of this Traffic Impact Assessment (TIA) is to identify and evaluate the potential traffic impacts associated with the proposed mixed-use project to be located at 4548-4564 Main Street in the Town of Amherst, NY. This assessment identifies the operating characteristics of the proposed access drives and impacts to the adjacent roadway network and recommends mitigating measures (if needed) to minimize any operational concerns. To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project.

SITE LOCATION AND STUDY AREA

The project site is to be located at 4548-4564 Main Street in the Town of Amherst, Erie County, New York. The project site, currently consisting of one to two-story buildings, is bounded by residential to the north, Chateau Terrace to the east, Main Street to the south, and Fruehauf Avenue to the west. Land uses in the vicinity of the site include residential, office, service, and retail.

To ensure a comprehensive analysis of potential traffic impacts, the following existing intersections were included in the analysis:

- Main Street (NY-5)/Chateau Terrace/Bernhardt Drive (signalized)
- Main Street/Fruehauf Avenue (unsignalized)

The site location and study area are illustrated in **Figure 1** (all figures and supporting materials are included at the end of this letter).

EXISTING TRAFFIC CONDITIONS

A. Vehicular Network Description

The following information outlined in **Table 1** provides a description of the existing roadway network within the project study area. **Figure 2** illustrates the lane geometry at the study intersections and the Annual Average Daily Traffic (AADT) volumes on the study roadways. The AADTs reflect the most recently collected data obtained from the New York State Department of Transportation (NYSDOT). Functional classification of highways within the study area is determined by the NYSDOT and the Federal Highway Administration (FHWA). Where recent data is not available, traffic data is shown as an extrapolation of turning movement counts collected by Passero Associates in 2022.

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TABLE 1: EXISTING HIGHWAY SYSTEM

ROADWAY	CLASS[1]	AGENCY[2]	SPEED LIMIT[3]	TRAVEL LANES[4]	ORIENTATION OF TRAVEL	AADT[5]
Main Street (NY-5)	14	NYSDOT	40	4	Two-way/ Northwest-Southeast	21,436 NYSDOT (2019)
Chateau Terrace	19	Town	30	2	Two-way/ North-South	1,210 Passero (2022)
Bernhardt Drive	19	Town	30	2	Two-way/ North-South	400 Passero (2022)
Fruehauf Avenue	19	Town	30	2	Two-way/ North-South	900 Passero (2022)

Notes:
1. State Functional Classification of Roadway: 14 = Urban Principal Arterial, 19 = Urban Local
2. Jurisdictional Agency of Roadway.
3. Posted or Statewide Limit in Miles per Hour (mph).
4. Number of travel lanes. Excludes turning/auxiliary lanes developed at intersections.
5. Estimated AADT in Vehicles per Day (vpd). AADT Source (Year).

B. Multi-Modal Network Description

Sidewalks are present along all study corridors. The signalized intersection of Main Street/Chateau Terrace/Bernhardt Drive consists of actuated pedestrian countdown signals, a high visibility crosswalk across Main Street, and ADA compliant curb ramps. There are no dedicated bicycle lanes, although bicyclists are allowed to share the road with motorists. The Niagara Frontier Transportation Authority has bus stops nearby.

C. Peak Intervals for Analysis

Given the functional characteristics of the study corridors, adjacent land uses, and the proposed land uses (residential, restaurants) for the project site, the peak hours selected for analysis are the weekday commuter AM and PM peak periods. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

D. Existing Traffic Volume Data

Turning movement traffic counts were collected on Tuesday, December 13, 2022, by Passero Associates at the study intersections. Traffic counts were conducted between 7:00-9:00 AM for the weekday AM peak period and 4:00-6:00 PM for the weekday PM peak period. The peak hour traffic periods generally occurred from 7:30-8:30 AM and 4:00-5:00 PM.

All turning movement count data was collected on a typical weekday while local schools were in session. No adverse weather conditions impacted the traffic counts. The traffic volumes were reviewed to confirm the accuracy and relative balance of the collective traffic counts. The actual differences in traffic volumes can be attributed to temporal variations in traffic volumes as well as activity related to parking in the segments between the study intersections. **Figure 3** illustrates the peak hour volumes used for analysis purposes in this study.

E. Field Observations

The study intersections were observed for the project during all peak intervals to assess current traffic operations. Signal timing and phasing information for the signalized intersection was obtained from the NYSDOT to determine peak hour phasing plans and phase durations during each interval. This information was used to support and/or calibrate capacity analysis models described in detail later in this report.

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F. Existing Peak Hour Queuing Assessment

A peak hour queuing assessment was performed along Fruehauf Avenue during the AM and PM peak hours to measure the frequency of southbound vehicles that block the proposed driveway. The centerline of the proposed driveway is located approximately 38 feet from the stop bar. Given this distance, the driveway is located approximately 1.7 vehicle lengths from the stop bar.

Our firm documented southbound queues at the intersection of Main Street/Fruehauf Avenue on Thursday, July 22, 2021, from 7:00-9:00 AM and 4:00-6:00 PM. The peak hours generally occurred from 8:00-9:00 AM and 4:30-5:30 PM. Based on this field investigation during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

G. Existing Crash Analysis

The purpose of this crash analysis is to identify inherent safety issues by studying and quantifying historical crashes at the study intersections and identifying potential crash patterns and clusters.

A crash cluster is defined as an abnormal occurrence of similar crash types occurring at approximately the same location or involving the same geometric features. The severity of the crashes should also be considered. A history of crashes is an indication that further analysis is required to determine the cause(s) of the crash(es) and to identify what actions, if any, could be taken to mitigate the crashes.

A crash investigation within the study area was conducted to assess the safety history from July 31, 2017, through July 31, 2021. The data was provided by the New York State Department of Motor Vehicles through a Freedom of Information (FOIL) request.

Despite the COVID-19 pandemic influencing daily travel in 2020 and 2021, only one crash was reported during this period, and it occurred in 2021. This crash was included in the analysis.

Reportable (non-injury, injury, and fatal injury) type crashes are defined as damage to one person's property in the amount of $1,001 or more. The Non-Reportable type crashes result in property damage of $1,000 or less. Crash rates were computed for the study intersections and compared with NYSDOT average crash rates for similar intersections, as summarized in **Table 2**. Intersection rates are listed as crashes per million entering vehicle (CR/MEV). Pertinent crash data is provided in the Appendices.

TABLE 2: EXISTING CRASH RATES

INTERSECTION	NUMBER OF CRASHES	NUMBER OF ENTERING VEHICLES	ACTUAL CRASH RATE	STATEWIDE AVERAGE CRASH RATE
Main Street/Chateau Terrace/Bernhardt Drive	9	19,800 vpd	0.25	0.26
Main Street/Fruehauf Avenue	0	18,958 vpd	0.00	0.26

Notes:
1. vpd = vehicles per day.
2. **Bold** text denotes crash rate above statewide average

Main Street/Chateau Terrace/Bernhardt Drive

Five of the nine (56%) reported crashes were attributed to rear end collisions. This is characteristic of heavily trafficked signalized intersections. Three of the crashes occurred in the westbound direction. The causes of the rear end crashes were generally due to driver error (e.g., following too closely, driver inattention). The remaining crashes were sideswipe (2), left turn (1), and a crash into a parked vehicle. No geometric improvements are recommended.

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FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed project is anticipated to reach full build-out within approximately two years. Widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis. Local municipal personnel were contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. No projects were identified.

A review of historical NYSDOT traffic volume data in the vicinity of the site indicates that traffic has decreased slightly between 2015 and 2019. To account for normal increases in background traffic growth, including any unforeseen developments in the project study area, a growth rate of 1.0% was applied to the existing traffic volumes. The background traffic volumes are depicted in **Figure 4**.

PROPOSED PROJECT

A. Project Description

The proposed project consists of constructing 48 apartment units, a ±2,513 square foot (SF) fast casual restaurant, and a ±4,111 SF fine dining restaurant. Access will be provided via two full access driveways: one along Chateau Terrace which accesses a parking lot with 54 spaces and one along Fruehauf Avenue which accesses a parking lot with 22 spaces. Chateau Terrace is posted as a "No Outlet" street while Fruehauf Avenue is posted as a "Dead End" street. On-street parking is available along Main Street. Sidewalks are present throughout the adjacent neighborhood. **Figure 5** illustrates the proposed concept plan.

B. Site Traffic Generation

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. Trip Generation Manual (11th Edition) published by the Institute of Transportation Engineers (ITE) is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of the adjacent street traffic and proposed land use, in this case, the weekday commuter AM and PM peaks, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis.

For certain types of developments, the total number of trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Service/retail-oriented developments (i.e., shopping centers, gas stations, coffee/donut shops, and restaurants) often locate adjacent to busy streets to attract the motorists already passing the site on the adjacent street. These sites attract a portion of their trips from traffic passing the site. The "pass-by" traffic refers to the amount of existing traffic already on the roadway adjacent to the site that, as it "passes by" the site, will enter the site driveways to patronize the project site. The quantifying of "pass-by" trips has the net result of reducing the volume of new traffic that is added to the site driveways and/or adjacent roadways. This site is likely to exhibit some level of pass-by traffic. However, no adjustment was made to remain conservative.

Table 3 shows the site generated trips for the proposed project.

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TABLE 3: SITE GENERATED TRIPS

DESCRIPTION	ITE LUC	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Multi-family Residential	220	48 units	5	14	15	9
Fast Casual Restaurant	930	±2,513 SF	2	2	17	15
Quality Restaurant	931	±4,111 SF	2	1	21	11
Total Site Generated Trips			**9**	**17**	**53**	**35**

Note:
1. ITE LUC = ITE Land Use Code.

The proposed project is expected to generate approximately nine entering/17 exiting vehicle trips during the AM peak hour and 53 entering/35 exiting vehicle trips during the PM peak hour.

C. Site Traffic Distribution

The cumulative effect of site generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site. The proposed arrival/departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Residential and employment centers using U.S. Census Data
- Site access locations
- Existing traffic patterns
- Existing traffic conditions and controls

Based on these parameters, **Figure 6A** illustrates the anticipated trip distribution pattern percentages for the residential traffic and **Figure 6B** illustrates the anticipated trip distribution for the restaurant traffic from the proposed project. **Figure 7** illustrates the peak hour project site generated traffic based on those percentages.

D. Full Development Volumes

Proposed design hour traffic volumes were developed for the AM and PM peak hours by combining the background traffic conditions (**Figure 4**) and the total site generated traffic volumes (**Figure 7**) to yield the traffic volumes under full build conditions. The resulting design hour volumes for the proposed project are illustrated in **Figure 8** under full build-out conditions.

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CAPACITY ANALYSIS

A. Description of Capacity Analysis

A capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis typically focuses on intersections, as opposed to highway segments.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing conditions with little to no delay, and LOS "F" with very long and significant delays to motorists. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Attachments. LOS “C” or better is generally desirable, but LOS “D” for signalized locations and LOS “E” for unsignalized are generally acceptable during peak periods so long as the volume to capacity ratio (v/c) is below 1.0.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the Highway Capacity Manual (HCM 2016) published by the Transportation Research Board (TRB). Traffic analysis software, Synchro 11, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service based on the HCM as an indicator of how well intersections operate. This study used HCM 2000 methodology for determining operations at the unsignalized intersections in accordance with local NYSDOT Region 5 guidelines.

B. Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the proposed project were analyzed to assess the operation of the study area intersections. Capacity results for existing, background, and full development conditions are listed in **Table 4**. The discussion following the table summarizes capacity conditions.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

TABLE 4: CAPACITY ANALYSIS RESULTS

INTERSECTION	2022 EXISTING CONDITIONS				2024 BACKGROUND CONDITIONS				2024 FULL DEVELOPMENT CONDITIONS			
	AM		PM		AM		PM		AM		PM	
1. Main Street/Chateau Terrace/Bernhardt Drive (S)												
EB Left - Main Street	A	8.3	A	7.6	A	8.5	A	7.7	A	8.9	A	8.2
EB Thru/Right - Main Street	A	7.9	A	7.9	A	8.0	A	8.0	A	8.4	A	8.4
WB Left - Main Street	A	8.1	A	7.6	A	8.2	A	7.7	A	8.6	A	7.9
WB Thru/Right - Main Street	A	7.8	A	7.6	A	7.9	A	7.7	A	8.3	A	8.0
NB - Bernhardt Drive	C	30.3	D	36.3	C	30.3	D	36.3	C	30.3	D	36.3
SB - Chateau Terrace	D	37.4	D	37.8	D	37.4	D	38.3	D	38.9	D	39.8
Overall LOS	**A**	**9.3**	**A**	**9.5**	**A**	**9.4**	**A**	**9.7**	**A**	**10.0**	**B**	**10.1**
Volume-to-Capacity (v/c) Ratio	**0.43**		**0.44**		**0.44**		**0.45**		**0.48**		**0.48**	
2. Main Street/Fruehauf Avenue (U)												
EB Left - Main Street	A	9.5	A	9.3	A	9.5	A	9.4	A	9.5	A	9.6
SB - Fruehauf Avenue	B	12.5	B	12.5	B	12.6	B	12.6	B	12.8	B	12.8
3. Fruehauf Avenue/Proposed Driveway (U)												
WB - Proposed Driveway	NA		NA		NA		NA		A	8.7	A	8.9
SB - Fruehauf Avenue									A	0.0	A	0.0
4. Chateau Terrace/Proposed Driveway (U)												
EB - Proposed Driveway	NA		NA		NA		NA		A	8.7	A	8.7
NB - Chateau Terrace									A	0.5	A	1.9

Notes:

1. A(2.8) = Level of Service (Delay in seconds per vehicle)
2. EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound
3. (S) = Signalized; (U) = Unsignalized
4. N/A = Approach does not exist and/or was not analyzed during this condition
5. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.
6. The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available and vehicles are not expected to experience significant queues and delays. A v/c ratio between 0.85 and 0.95 generally indicates an intersection is nearing capacity. Intersections with a v/c ratio of 1.0 or greater generally indicate conditions at or above capacity.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

1. Main Street/Chateau Terrace/Bernhardt Drive (Signalized)
All movements generally operate at LOS "D" or better under existing and projected background conditions with moderate delays for the northbound and southbound movements. The overall LOS is projected to change from "A" to "B" during the PM peak hour between background and full development conditions. However, this is a borderline condition as the threshold is 10.0 seconds of delay per vehicle. There are no other projected changes in LOS because of the proposed project. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

2. Main Street/Fruehauf Avenue (Unsignalized)
All movements operate at LOS "B" or better under existing, background, and full development conditions during both peak hours. There are no projected changes in LOS between background and full development conditions. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

3. Fruehauf Avenue/Proposed Driveway (Unsignalized)
All movements are projected to operate at LOS "A" under full development conditions. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

4. Chateau Terrace/Proposed Driveway (Unsignalized)
All movements are projected to operate at LOS "A" under full development conditions. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

SIGHT LINE EVALUATION

Based upon a review of the attached site plan, the proposed building is projected to be built in approximately the same footprint as the existing structures fronting Main Street. There is a marked stop bar for traffic exiting Fruehauf Avenue.

In this case, the primary concern is with the proposed building at the existing Main Street/Fruehauf Avenue intersection. The attached **Figure 9** illustrates the sight line evaluation performed at the intersection to the east of the intersection.

Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection. Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions.

A Policy on Geometric Design of Highways and Streets (2011) published by the American Association of State Highway and Transportation Officials (AASHTO), was used as a reference to establish the required Stopping Sight Distance (SSD) and desirable Intersection Sight Distance (ISD) for the adjacent driveway location. **Table 5** depicts the results of the sight distance evaluation at the Main Street/Fruehauf Avenue intersection.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

TABLE 5: SIGHT LINE EVALUATION

DESCRIPTION		VALUE
POSTED SPEED		40 MPH
DESIGN SPEED[1]		45 MPH
REQUIRED SSD		360 feet
DESIRABLE ISD		500 feet
AVAILABLE SIGHT DISTANCE TO THE EAST	*SSD*	>360 feet
	ISD	505 feet (no vehicles) 155 feet (parked vehicles)

Note:
1. Design speed equals posted speed plus 5 MPH.

The required SSD is satisfied to the east of the study intersection. When cars are parked in the spaces in front of the building, the ISD is not satisfied. However, with no vehicles parked, the ISD is satisfied.

It is understood that urbanized environments consist of on-street parking, limited to zero building setback lines, and other fixed objects (e.g., signs, trees, street furniture). By regulation, on-street parking is restricted within 20 feet of a crosswalk at an intersection and within 30 feet of a traffic signal or stop sign. In this case, parking is restricted for more than 60 feet along the northern side of Main Street from Fruehauf Avenue. Legally parked vehicles may be considered as allowable objects in this case. It is noted that on-street parking can be beneficial in these settings to reduce vehicle speeds and provide a buffer to pedestrians on the sidewalk. This condition is not unique to this study location and can be found in other areas along Main Street in Amherst and Williamsville.

Parking within the sight triangle may occur throughout the day and limit the sight lines, as noted on **Figure 9**. However, given the existing condition of the intersection and intermittent nature of the sight line being impacted, intersection warning signage may be considered as relief.

CONCLUSIONS & RECOMMENDATIONS

This Traffic Impact Assessment identified and evaluated the potential traffic impacts that can be expected from the proposed mixed-use project to be located at 4548-4564 Main Street in the Town of Amherst, NY. The results of this study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting impacts to study area intersections. The following sets forth the conclusions based on the results of the analyses:

1. The proposed project is expected to generate approximately nine entering/17 exiting vehicle trips during the AM peak hour and 53 entering/35 exiting vehicle trips during the PM peak hour.

2. All movements generally operate at LOS “D” or better under existing, projected background, and full development conditions during both peak hours studied at all study intersections. Minimal impacts are projected because of the proposed project. No capacity improvements are recommended at the study intersections.

3. Based upon documentation of southbound queues at the intersection of Main Street/Fruehauf Avenue during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

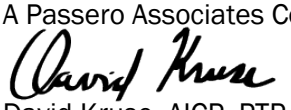
4. Based upon a sight line evaluation at the Main Street/Fruehauf Avenue intersection, the required SSD is satisfied to the east. However, the desirable ISD is not satisfied if/when on-street parking is present. When parked vehicles are not present, the ISD is fully satisfied. The existing and proposed ISD sight distance will be the same and the proposed building will not impact the existing sight distance.

5. For purposes of the environmental review of the proposed project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the proposed project will not result in any potentially significant adverse traffic impacts to the study area.

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,

SRF Associates
A Passero Associates Company



David Kruse, AICP, PTP
Senior Transportation Planner

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

ATTACHMENT

January 18, 2023

Letter to
Mr. Matt Oates, P.E.
Benderson Development

Proposed Mixed-Use Development
4548-4564 Main Street

Traffic Impact Assessment

Town of Amherst
Erie County, New York

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

SRF ASSOCIATES
Transportation Planning / Engineering / Design

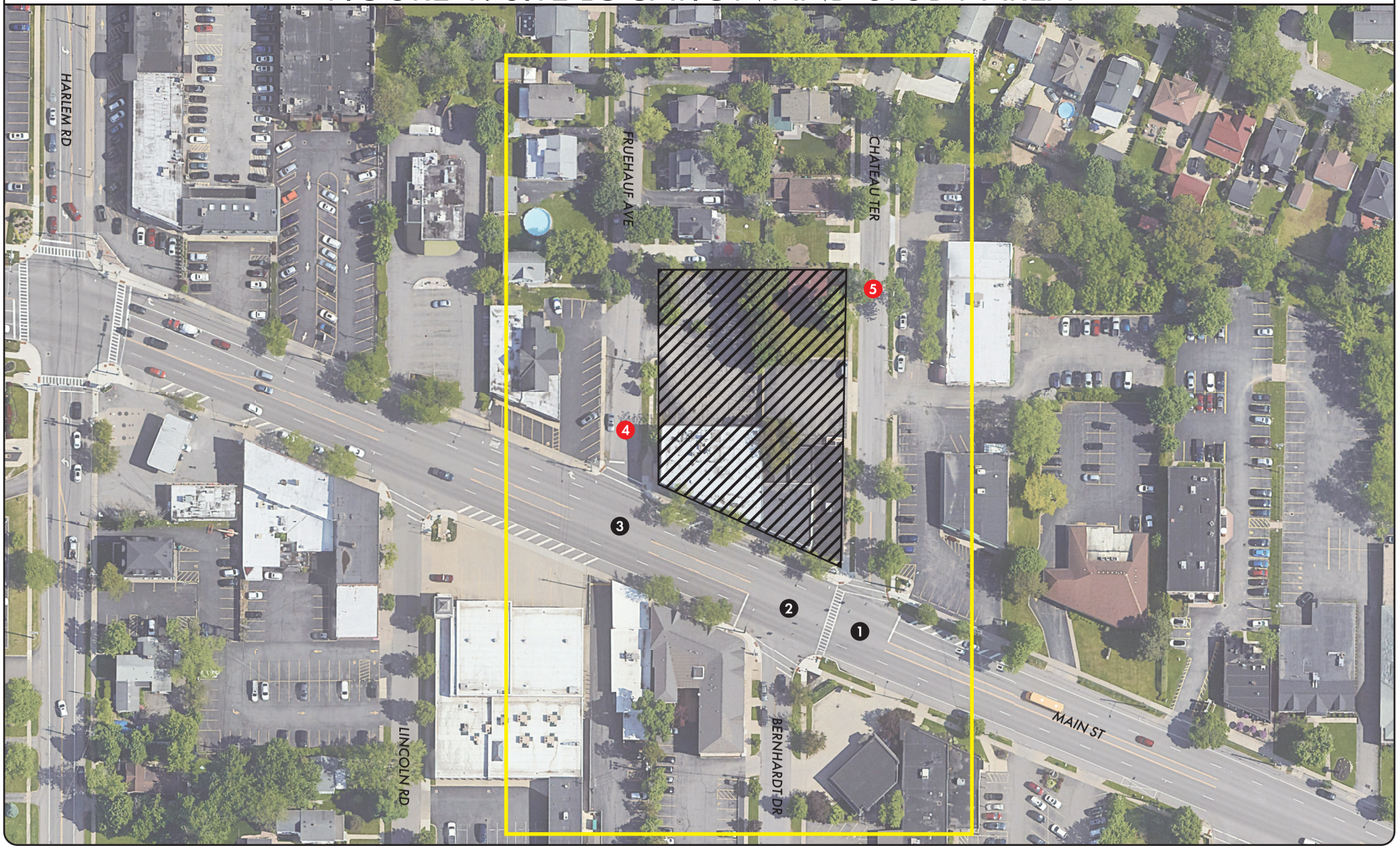
PASSERO ASSOCIATES
engineering architecture

242 West Main Street, Suite 100 Rochester, NY 14614
T 585.325.1000 | www.srfa.net | www.passero.com

FIGURES

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

FIGURE 1: SITE LOCATION AND STUDY AREA



Key

- Study Intersection
- Proposed Intersection
- Site Location
- Study Area

PROPOSED 4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

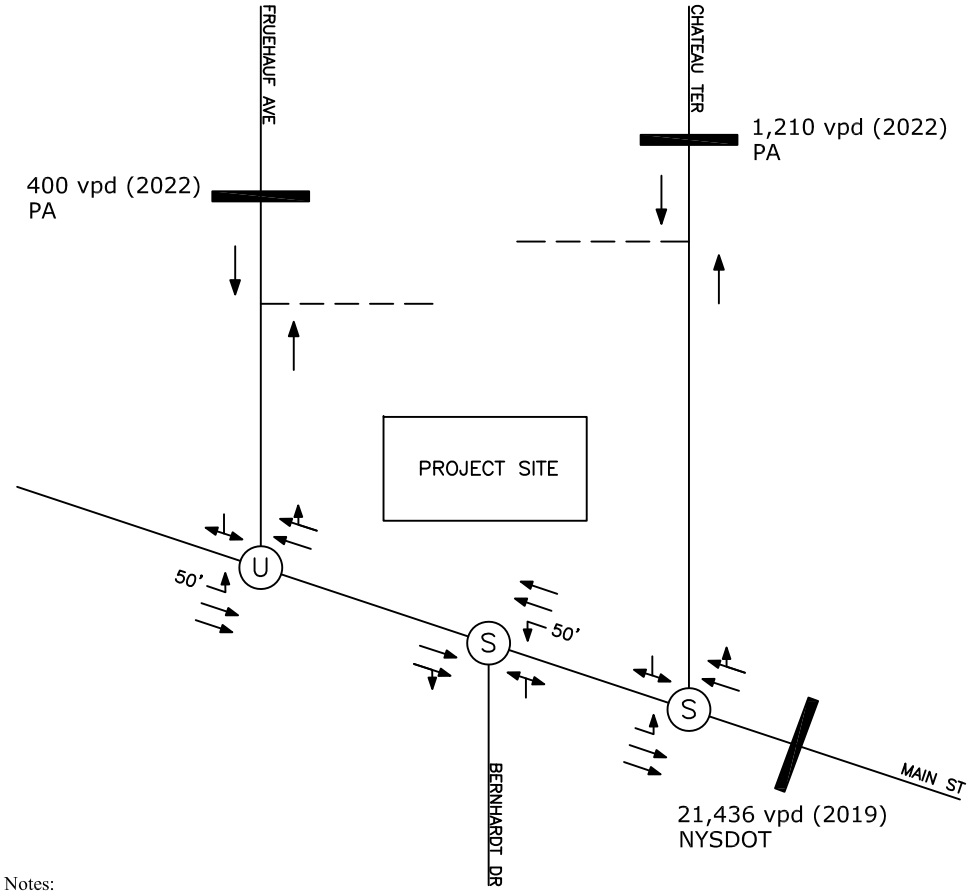
N

0 120
FEET

SRF

PA

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



Notes:
1. All AADT volumes by those noted:
   1.1. NYSDOT = New York State Department of Transportation
   1.2. PA = Passero Associates
2. vpd = Vehicles per Day
3. Turn lane lengths shown

FIGURE 2

LANE GEOMETRY &
AVERAGE DAILY TRAFFIC

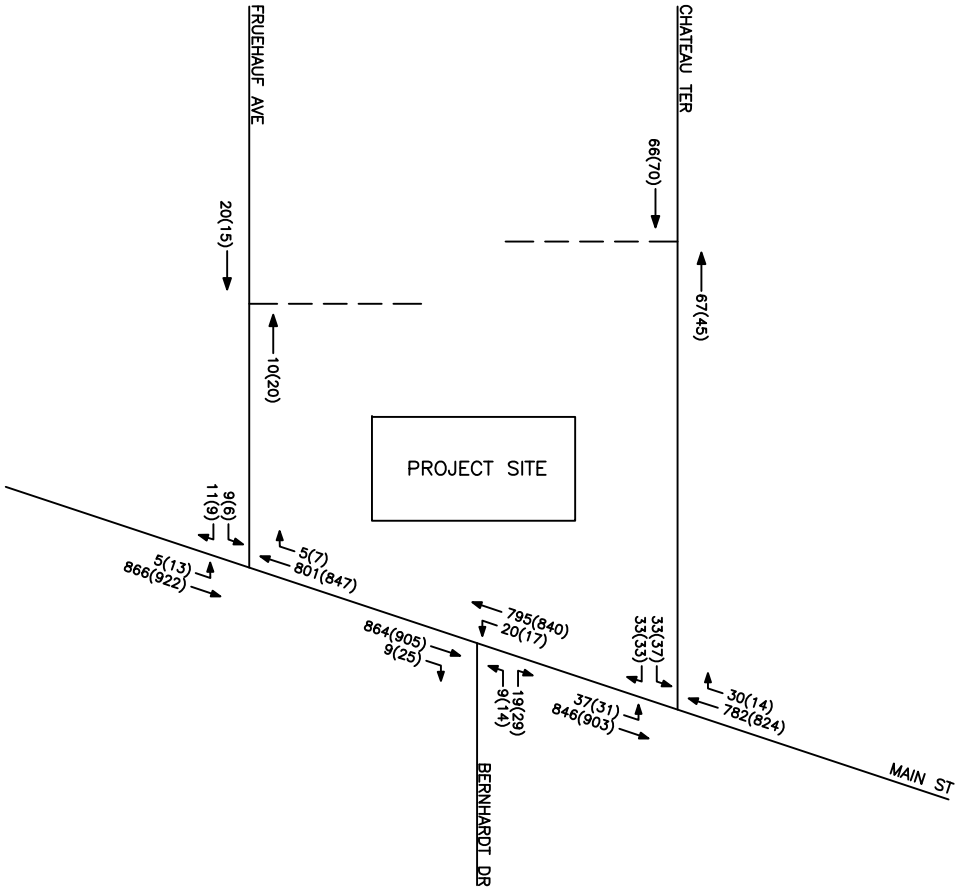


FIGURE 3

PEAK HOUR VOLUMES
2022 EXISTING CONDITIONS

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)
--- PROPOSED DRIVEWAY

TRAFFIC CONTROL
U = Unsignalized
S = Signalized

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

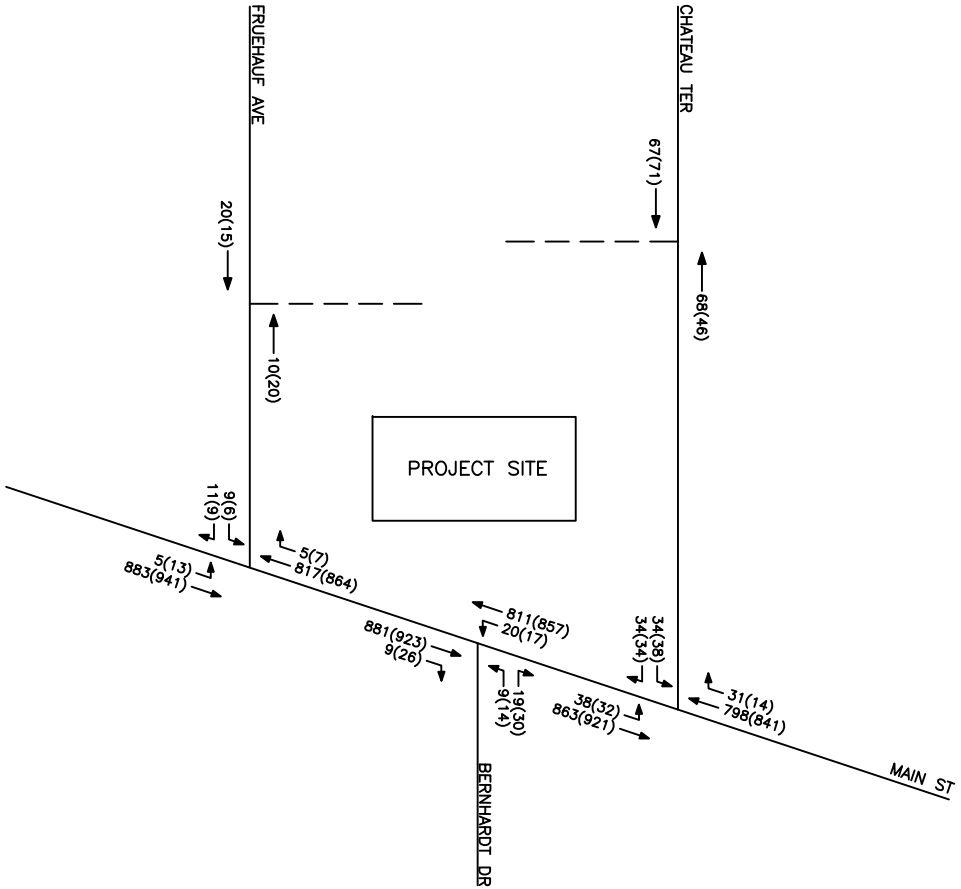


FIGURE 4

PEAK HOUR VOLUMES
2024 BACKGROUND CONDITIONS

SEE SEPARATE SHEET

FIGURE 5

CONCEPT SITE PLAN

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

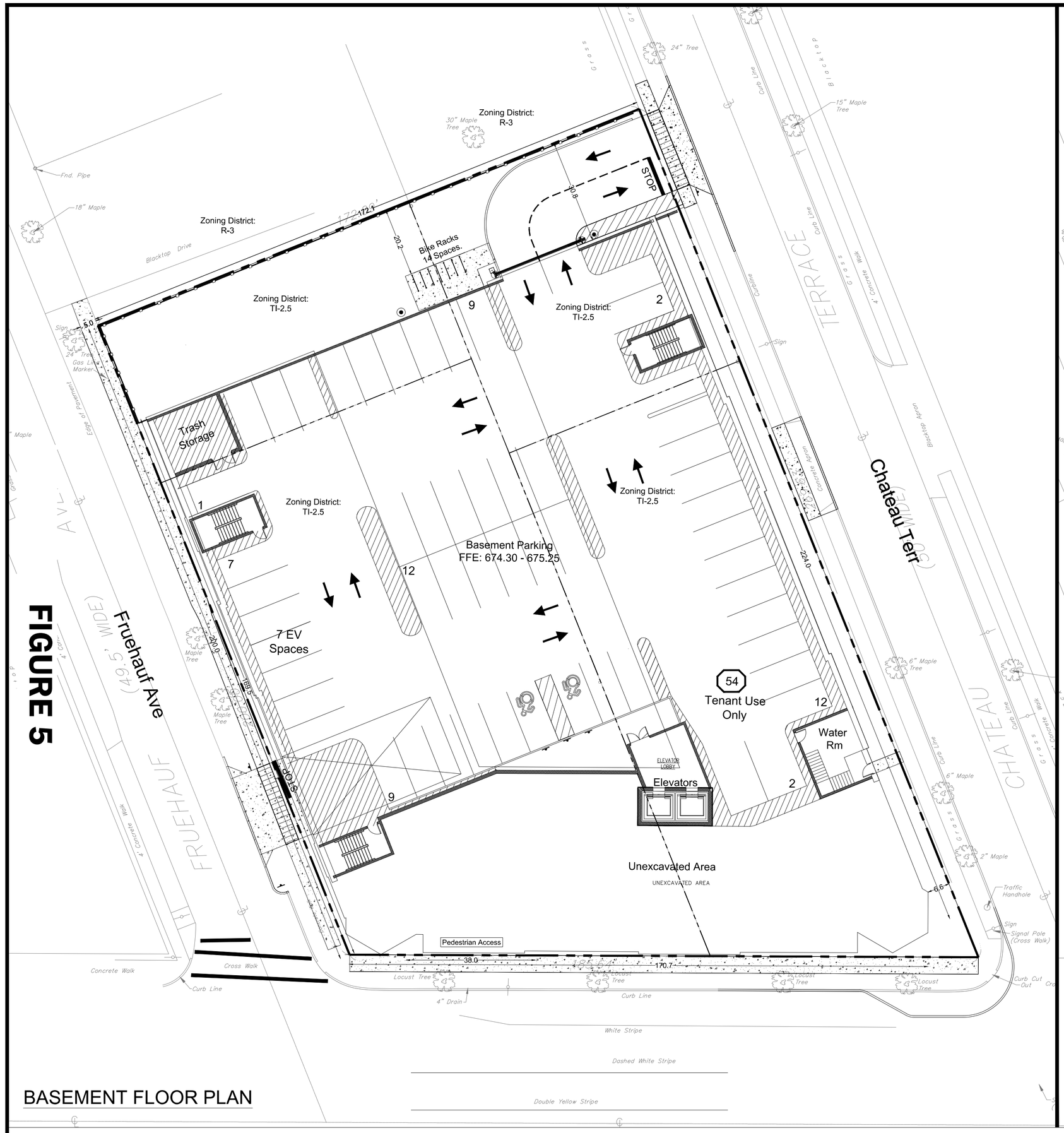
TOWN OF AMHERST, NY

KEY

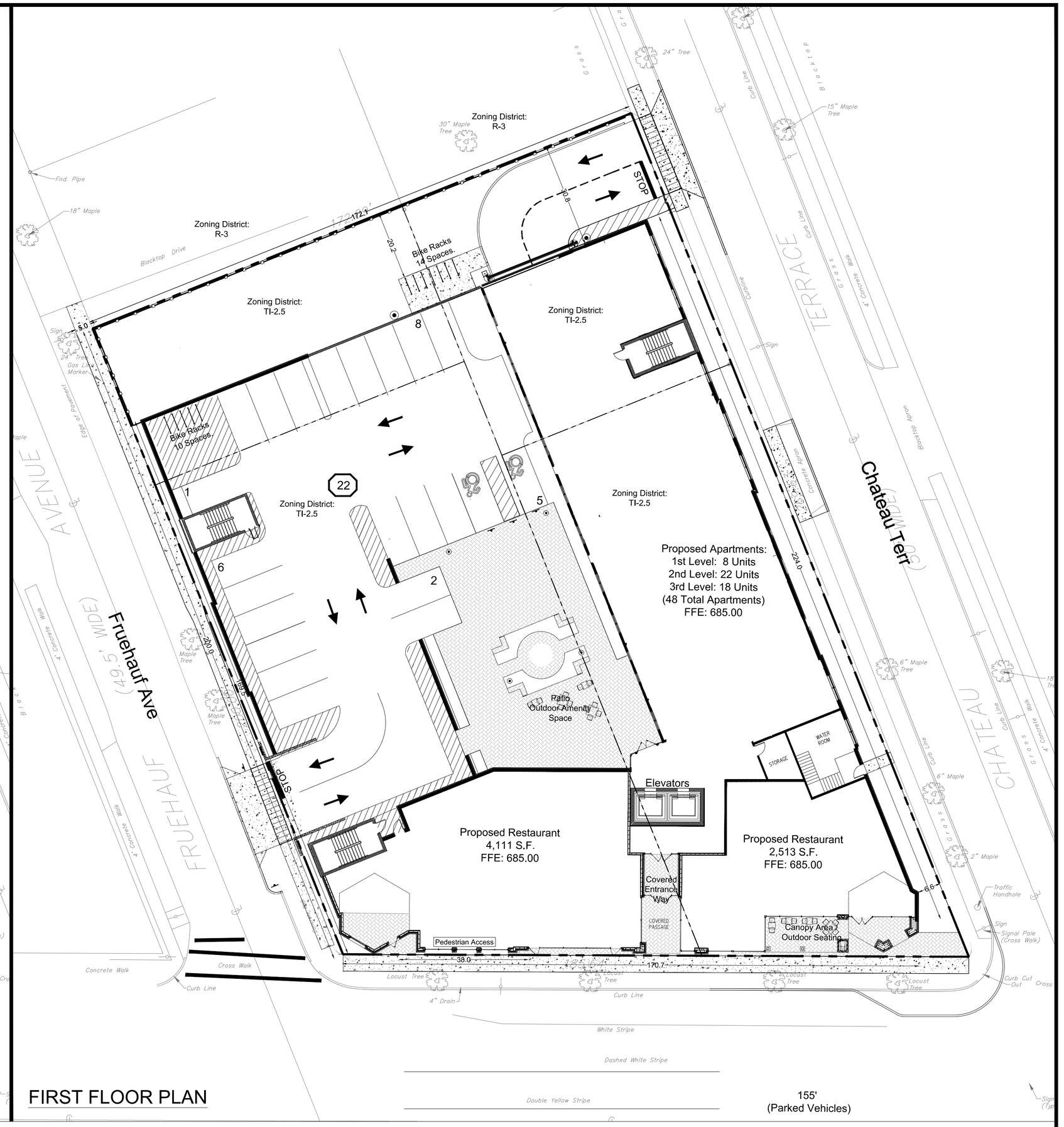
00(00) = AM(PM)
--- PROPOSED DRIVEWAY

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

FIGURE 5



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

TOWN OF AMHERST, NY ZONING ANALYSIS		
	REQUIRED	PROVIDED
ZONED	TI-2.5 (Village Frontage)	TI-2.5 (Village Frontage)
5A-1-3: TI-2.5 Traditional Infill 2.5 Section		
LOT		
Area	0 S.F. min.	40,409 S.F.
Width	0' min.	170.7'
Outdoor Amenity Space	10% min.	11.3% (4,500 S.F.)
At grade level	50% min. *(See 5A-7-1 B(2)*	68.1% (2,825.1 S.F.)
Planted above ground level	25% min. *(See 5A-7-1 B(2)*	31.9% (1,324.9 S.F.)
Seating	1 per 500 S.F. (4,500 / 500 = 9 Seats min.)	10 Seats
BUILDING SETBACKS		
Building-to-zone	Refer to Section 5A-2 Infill Frontages	
Lot Frontage	Refer to Section 5A-2 Infill Frontages	
Common lot line	0' min.	30.8' (North Side)
Alley	0' min.	N/A
PARKING SETBACKS		
Primary and Side Street	Refer to Section 5A-2 Infill Frontages (below)	
Common lot line	0' min.	30.8' (North Side)
Alley	5' min.	N/A
BUILDING HEIGHT		
Top Plate Height	2 Stories / 24' max.	-
Building Height	2.5 Stories / 35' max.	-
Roof Pitch	18:12 max.	-
BUILDING LENGTH	Refer to Section 5A-2 Infill Frontages (below)	
STORY HEIGHT	Refer to Section 5A-2 Infill Frontages (below)	

5A-2-4: Village Frontage		
BUILDING SETBACKS		
Build-to zone	0' min./10' max.	0.0'
Street Frontage:		
Front: Main Street	90% min.	92.0% (170.7')
Side: Fruehaut Ave	-	169.5' - 24' (parking entrance) = 145.5' (72.6%)
Side: Chateau Terr	-	83.1% (224')
PARKING SETBACKS		
Street	20' min.	30.8' (North Side)
BUILDING MASS		
Street facing building length:		
Front: Main Street	200' max.	170.7'
Fruehaut Ave	200' max.	169.5'
Chateau Terr	200' max.	224.0' (Exception 203-5A-2-4 D)
STORY HEIGHT		
Ground floor elevation	0' min. / 2' max.	0.0'
Ground story height	13' min.	-
Upper story height	9' min.	-
TRANSPARENCY		
Ground story	70% min.	1,345S.F./1,890 S.F. = 71.2%
Upper story	20% min.	430 S.F. / 1890 S.F. = 22.7%
Blank wall length	15' max.	7'
PEDESTRIAN ACCESS		
Street facing entrance	Required	Complies
Entrance spacing	50' max.	38'
STREETSCAPE		
Clear pedestrian zone	10' min.	9.8' Total - Existing Condition
Curb zone	6' min.	
Tree planting type	Grates	Noted, Existing
Tree spacing	35' on-center avg.	Noted, Existing

PROPOSED PARKING & BIKE ANAYLSIS TI-2.5 (Section 5A-9-1.A.(1)

USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	6,624 sqft / 1000 x 4 = 27 SPACES	Basement Parking: 54 Spaces Ground Flr Parking: 22 Spaces
RESIDENTIAL (Upper-story)	1.0 per 1&2 bed dwelling unit 1.5 per 3 bed dwelling unit	1.0 x 46 (1&2 Bed) = 46 SPACES 1.5 x 2 (3 Bed) = 3 Spaces	
		Total: 76 SPACES	Total: 76 SPACES
STALL SIZE		9'x19'	9'x19'
ELECTRIC CHARGING STATIONS			
10% of parking spaces to be EV ready. Min. 2 EV ready spaces for parking lots over 20 spaces. EV Ready defined as power be available at spaces in advanced.		Basement Parking: 54 / 10 = 5 Spaces Ground Floor Parking: 22 / 10 = 2 Spaces Total: 7 Spaces	Basement Parking: 7 Spaces Total: 7 Spaces
BIKE PARKING			
Residential Use: Short Term 0.5 space per unit min. 20 max.		0.5 x 48 = 24 24 > 20 max. 20 SPACES	20 SPACES
Public Use: 1 per 3,000 S.F. min. 20 max.		6,624 S.F. / 3000 = 3 SPACES	4 SPACES
		TOTAL: 23 SPACES	TOTAL: 24 SPACES

RESTAURANT: 4,111 S.F. + 2,513 S.F.

1 BEDROOM APARTMENTS: 22 UNITS
2 BEDROOM APARTMENTS: 24 UNITS
3 BEDROOM APARTMENTS: 2 UNITS

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	12.09.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:

ZONING SITE PLAN

SCALE: 1:20

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C4.0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

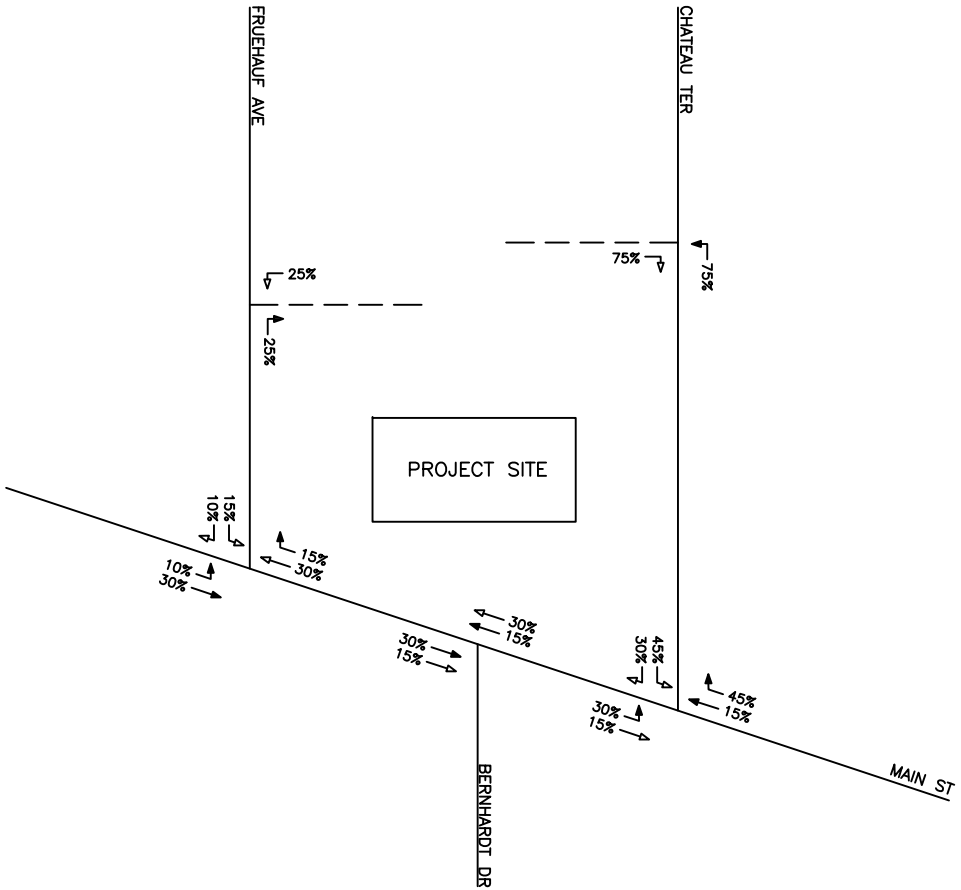


FIGURE 6A

TRIP DISTRIBUTION
RESIDENTIAL

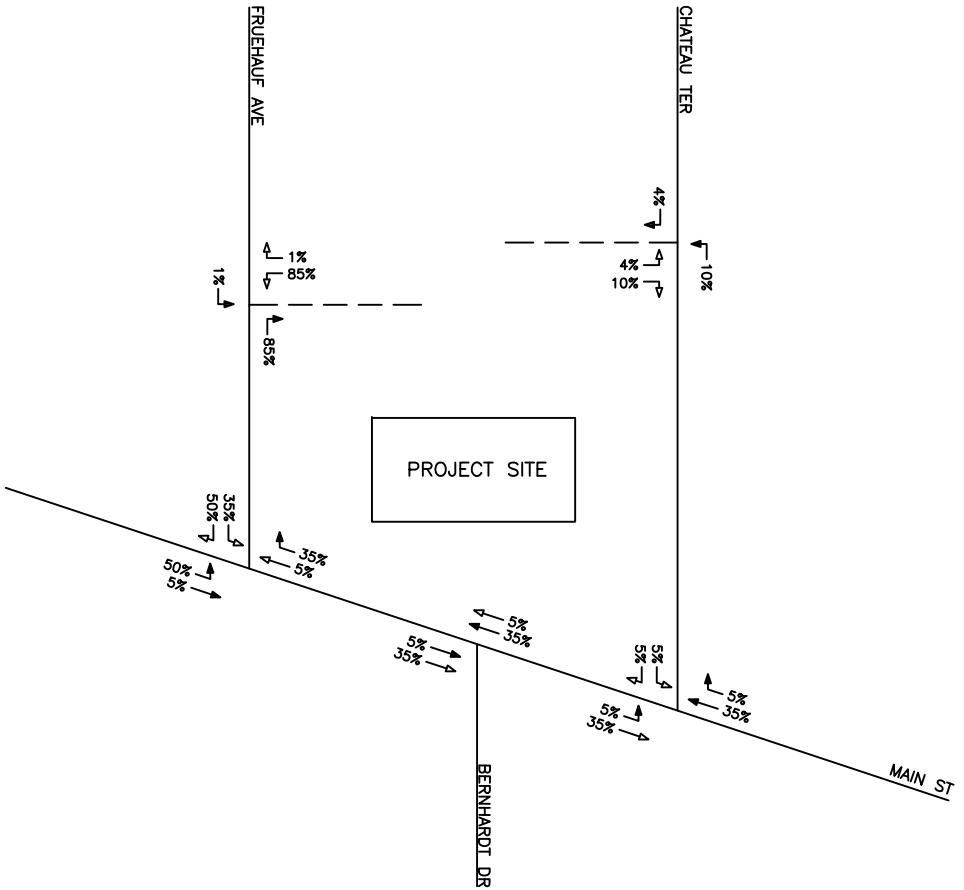


FIGURE 6B

TRIP DISTRIBUTION
RESTAURANTS

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

N

NOT TO SCALE

KEY

00(00) = AM(PM)
--- PROPOSED DRIVEWAY
→ ENTERING TRIP
→ EXITING TRIP

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

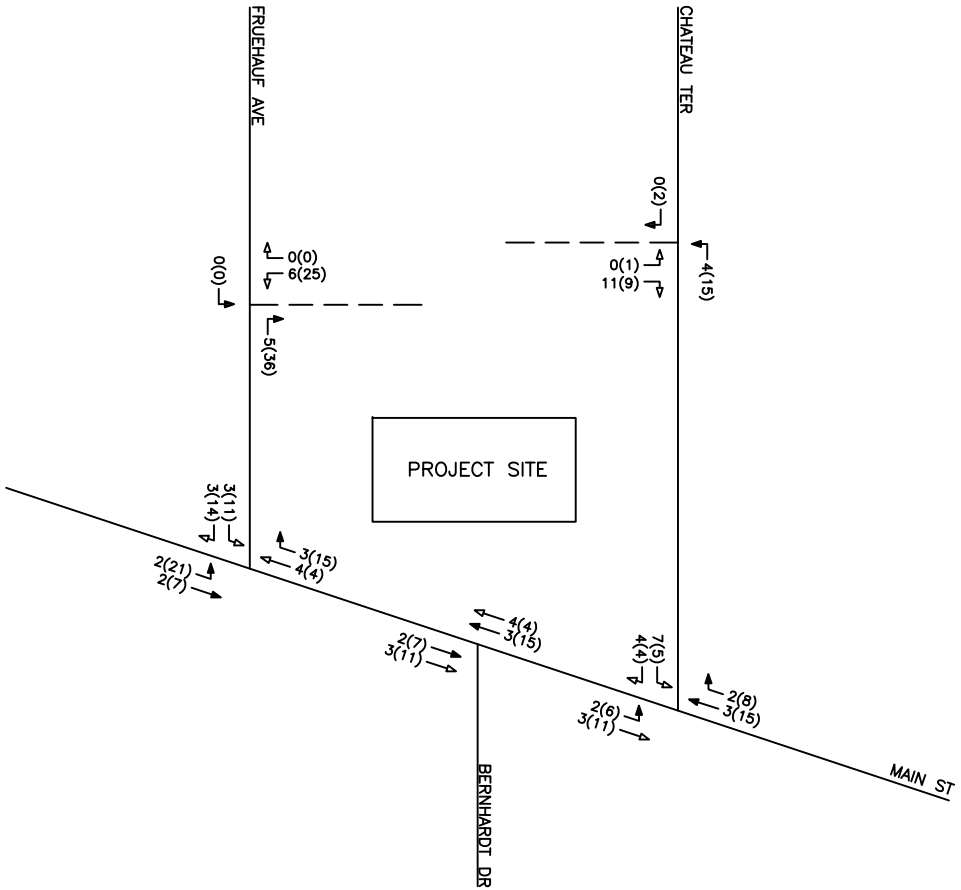


FIGURE 7

SITE GENERATED TRIPS

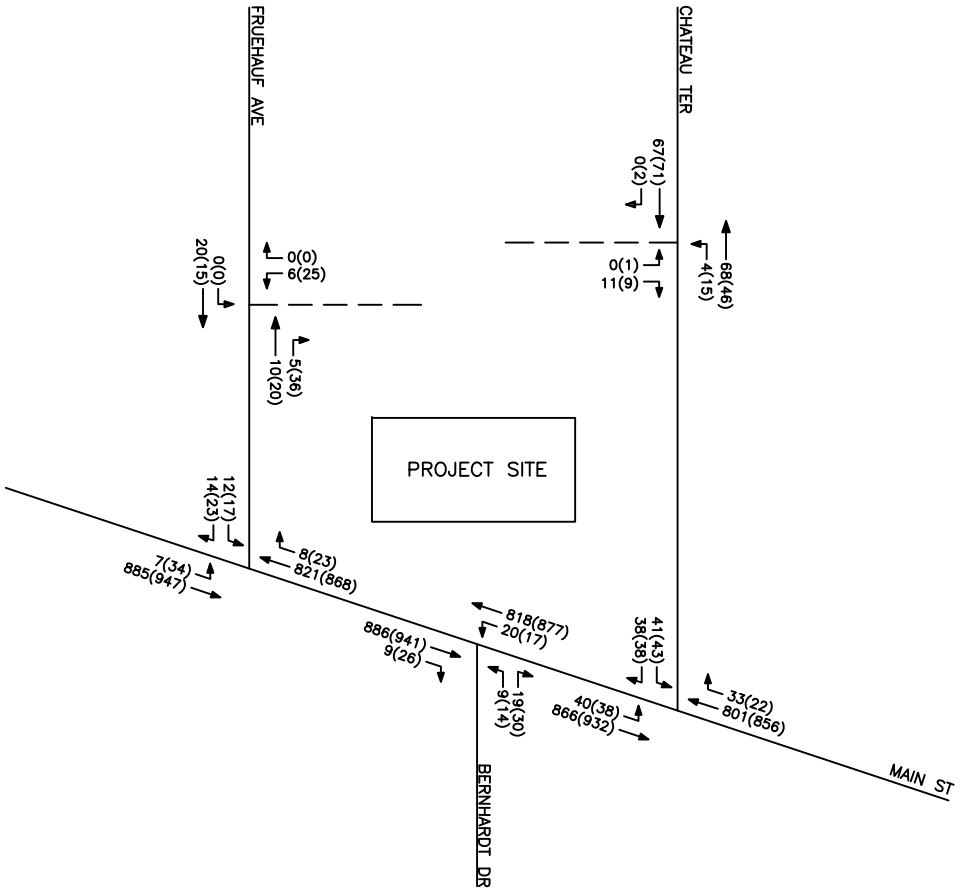


FIGURE 8

PEAK HOUR VOLUMES
FULL DEVELOPMENT CONDITIONS

PA

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

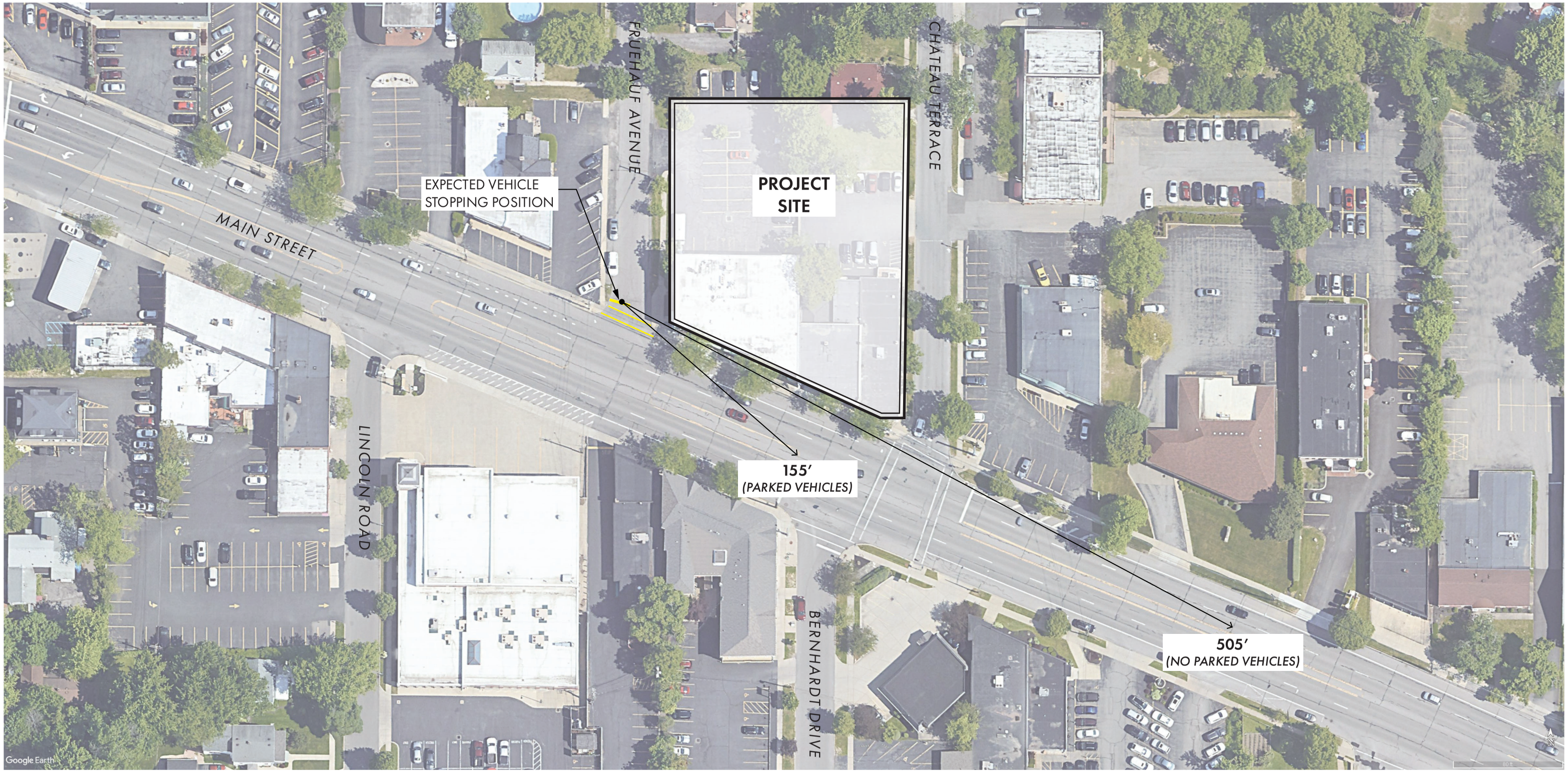
TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)
--- PROPOSED DRIVEWAY
→ ENTERING TRIP
→ EXITING TRIP

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

FIGURE 9



SIGHT LINE EVALUATION

4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

OV

Notes:
Main Street Speed Limit: **40 MPH**
Design Speed: **45 MPH (posted speed limit plus 5 MPH)**
Required Stopping Sight Distance: **360 feet**
Desirable Intersection Sight Distance: **500 feet**

0 80
FEET

SRF ASSOCIATES
242 West Main Street, Suite 100

Packet Pg. 1424

7.g

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

TRAFFIC VOLUME DATA

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

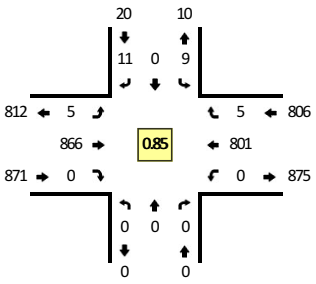
Type of peak hour being reported: Intersection Peak

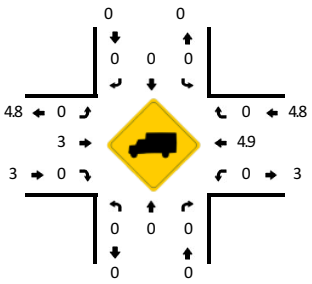
Method for determining peak hour: Total Entering Volume

LOCATION: Fruehauf Ave -- Main St
CITY/STATE: Amherst, NY

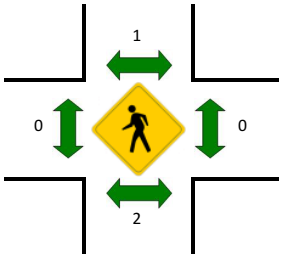
QC JOB #: 16040101
DATE: Tue, Dec 13 2022

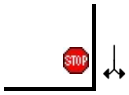
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

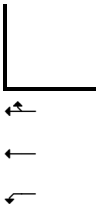


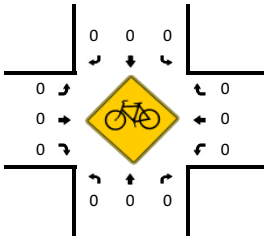


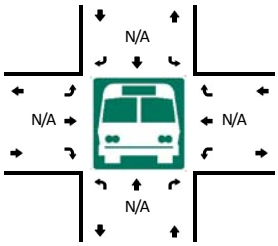
Quality Counts
DATA THAT DRIVES COMMUNITIES

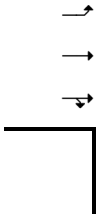


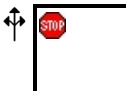


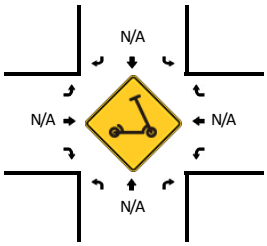












15-Min Count Period Beginning At	Fruehauf Ave (Northbound)				Fruehauf Ave (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	2	0	1	116	0	2	0	130	1	0	253	
7:15 AM	0	0	0	0	4	0	1	0	2	170	0	0	0	159	1	0	337	
7:30 AM	0	0	0	0	2	0	4	0	1	212	0	0	0	201	1	0	421	
7:45 AM	0	0	0	0	4	0	2	0	1	260	0	0	0	230	0	0	497	1508
8:00 AM	0	0	0	0	1	0	4	0	2	186	0	0	0	183	2	0	378	1633
8:15 AM	0	0	0	0	2	0	1	0	1	208	0	0	0	187	2	0	401	1697
8:30 AM	0	0	0	0	0	0	4	0	1	185	0	0	0	142	0	0	332	1608
8:45 AM	0	0	0	0	0	0	2	0	0	191	0	0	0	153	0	0	346	1457

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	8	0	4	1040	0	0	0	920	0	0	1988
Heavy Trucks	0	0	0		0	0	0		0	44	0		0	44	0		88
Buses																	
Pedestrians		4				4				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

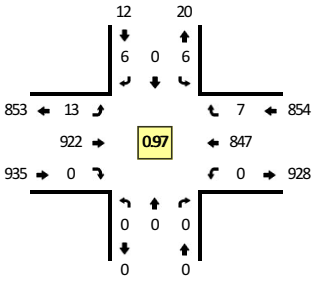
Type of peak hour being reported: Intersection Peak

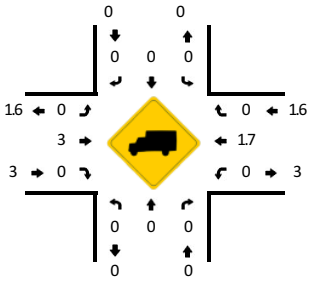
Method for determining peak hour: Total Entering Volume

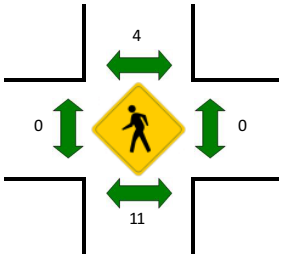
LOCATION: Fruehauf Ave -- Main St
CITY/STATE: Amherst, NY

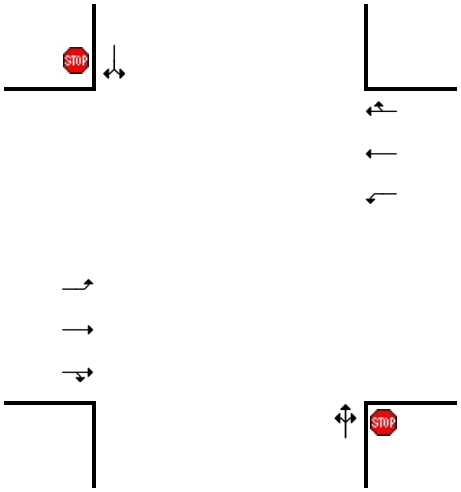
QC JOB #: 16040102
DATE: Tue, Dec 13 2022

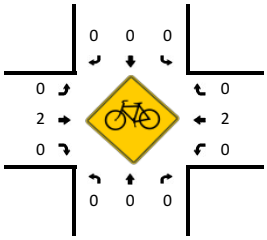
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

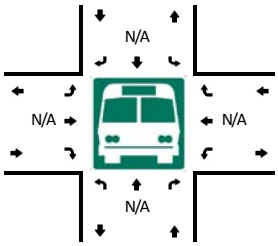


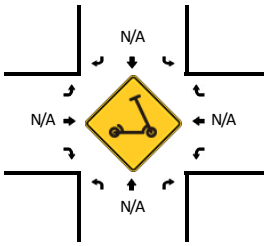












15-Min Count Period Beginning At	Fruehauf Ave (Northbound)				Fruehauf Ave (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	2	0	4	0	5	237	0	0	0	201	1	0	450	
4:15 PM	0	0	0	0	4	0	2	0	3	229	0	0	0	226	1	0	465	
4:30 PM	0	0	0	0	0	0	0	0	3	227	0	0	0	210	4	0	444	
4:45 PM	0	0	0	0	0	0	0	0	2	229	0	0	0	210	1	0	442	1801
5:00 PM	0	0	0	0	0	0	3	0	4	210	0	0	0	173	1	0	391	1742
5:15 PM	0	0	0	0	3	0	0	0	0	217	0	0	0	218	2	0	440	1717
5:30 PM	0	0	0	0	1	0	5	0	3	194	0	0	0	201	2	0	406	1679
5:45 PM	0	0	0	0	1	0	3	0	2	180	0	0	0	208	2	0	396	1633

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	8	0	12	916	0	0	0	904	4	0	1860
Heavy Trucks	0	0	0		0	0	0		0	36	0		0	16	0		52
Buses																	
Pedestrians		0				12				0				0			12
Bicycles	0	0	0		0	0	0		0	8	0		0	8	0		16
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

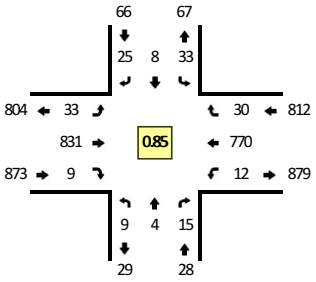
Type of peak hour being reported: Intersection Peak

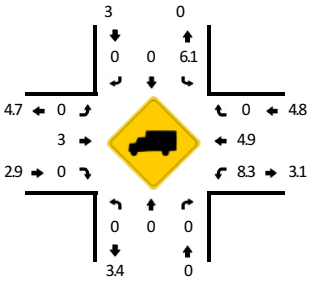
Method for determining peak hour: Total Entering Volume

LOCATION: Chateau Terr/Bernhardt Dr -- Main St
CITY/STATE: Amherst, NY

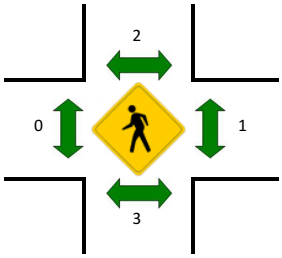
QC JOB #: 16040103
DATE: Tue, Dec 13 2022

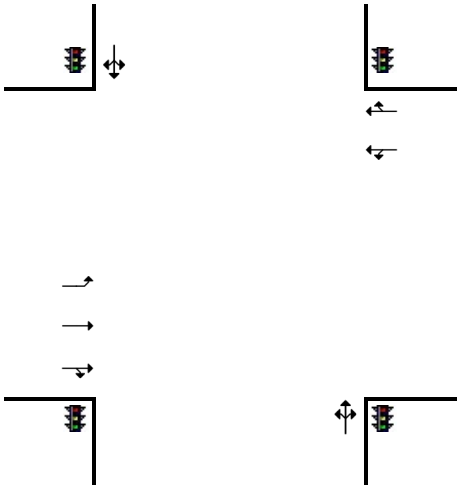
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

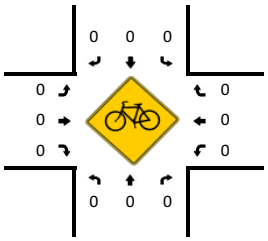


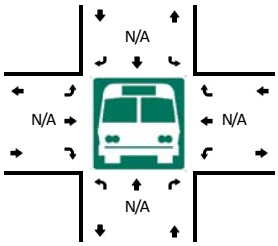


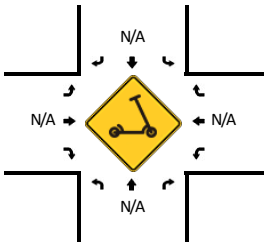
Quality Counts
DATA THAT DRIVES COMMUNITIES











15-Min Count Period Beginning At	Chateau Terr/Bernhardt Dr (Northbound)				Chateau Terr/Bernhardt Dr (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	0	2	0	1	0	1	0	1	116	0	0	3	126	1	0	253	
7:15 AM	2	3	2	0	3	0	3	0	1	170	1	0	1	156	3	0	345	
7:30 AM	2	1	6	0	6	1	2	0	5	207	1	0	2	195	7	0	435	
7:45 AM	3	2	2	0	9	0	5	0	15	248	4	0	4	219	12	0	523	1556
8:00 AM	1	1	4	0	10	4	12	0	11	176	3	0	4	173	10	0	409	1712
8:15 AM	3	0	3	0	8	3	6	0	2	200	1	0	2	183	1	0	412	1779
8:30 AM	2	3	0	0	1	1	3	0	9	175	6	0	2	134	3	0	339	1683
8:45 AM	5	1	4	0	7	1	12	0	7	179	4	0	5	133	5	0	363	1523

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	8	8	0	36	0	20	0	60	992	16	0	16	876	48	0	2092
Heavy Trucks	0	0	0		8	0	0		0	36	0		0	44	0		88
Buses																	
Pedestrians		4				4				0				4			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

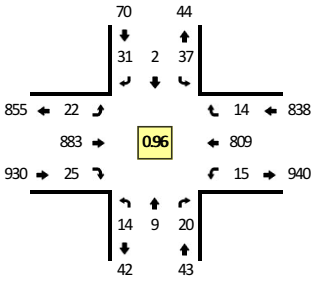
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

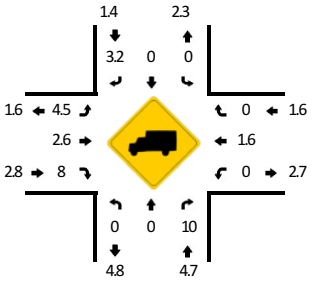
LOCATION: Chateau Terr/Bernhardt Dr -- Main St
CITY/STATE: Amherst, NY

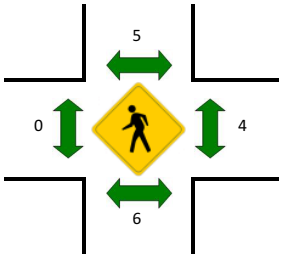
QC JOB #: 16040104
DATE: Tue, Dec 13 2022

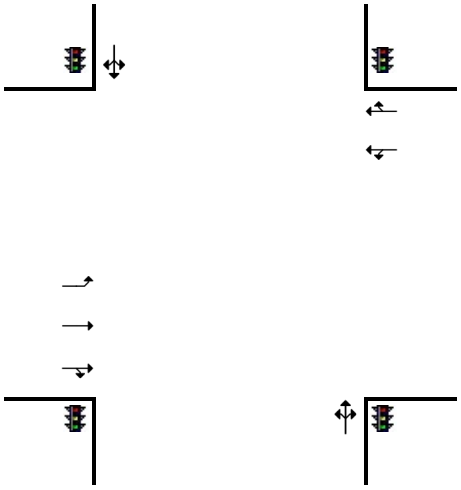
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

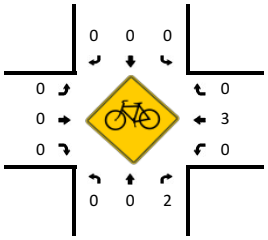


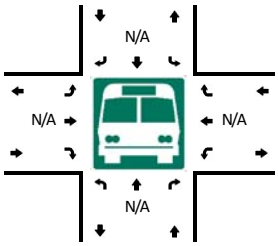


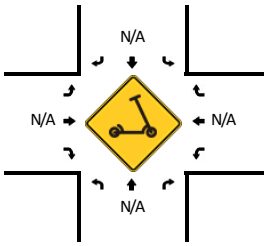












15-Min Count Period Beginning At	Chateau Terr/Bernhardt Dr (Northbound)				Chateau Terr/Bernhardt Dr (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	3	10	0	7	0	6	0	1	227	5	0	2	195	2	0	460	
4:15 PM	4	2	4	0	9	1	10	0	9	224	9	0	4	215	1	0	492	
4:30 PM	4	1	4	0	11	0	8	0	7	217	4	0	5	199	5	0	465	
4:45 PM	4	3	2	0	10	1	7	0	4	215	7	1	4	200	6	0	464	1881
5:00 PM	5	0	2	0	2	1	4	0	4	200	8	0	2	163	5	0	396	1817
5:15 PM	5	1	2	0	1	2	5	0	3	201	7	0	3	202	2	0	434	1759
5:30 PM	2	2	4	0	1	3	3	0	2	192	2	0	3	196	1	0	411	1705
5:45 PM	2	0	2	0	1	0	4	0	2	172	8	0	1	204	1	0	397	1638

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	8	16	0	36	4	40	0	36	896	36	0	16	860	4	0	1968
Heavy Trucks	0	0	0		0	0	0		4	28	4		0	20	0		56
Buses																	
Pedestrians		0				12				0				4			16
Bicycles	0	0	8		0	0	0		0	0	0		0	12	0		20
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

MISCELLANEOUS TRAFFIC DATA AND CALCULATIONS

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Proposed 4548-4564 Main Street Mixed-Use Development, Town of Amherst, Erie County, NY

Documentation of Ambient Traffic Volume Growth

Roadway	Segment starts at	Segment end at	2015	2016	2017	2018	2019	Annual Growth
Main Street (NY-5)	NY-240 Harlem Road	ACC RT 290I	22,313	22,014	22,120	20,853	21,436	-1.00%
Harlem Road (NY-240)	Main Street	NY-324		11,976			11,530	-1.26%
Harlem Road (NY-240)	Main Street	CR-290		13,038			12,973	-0.17%
							AVERAGE	**-0.81%**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

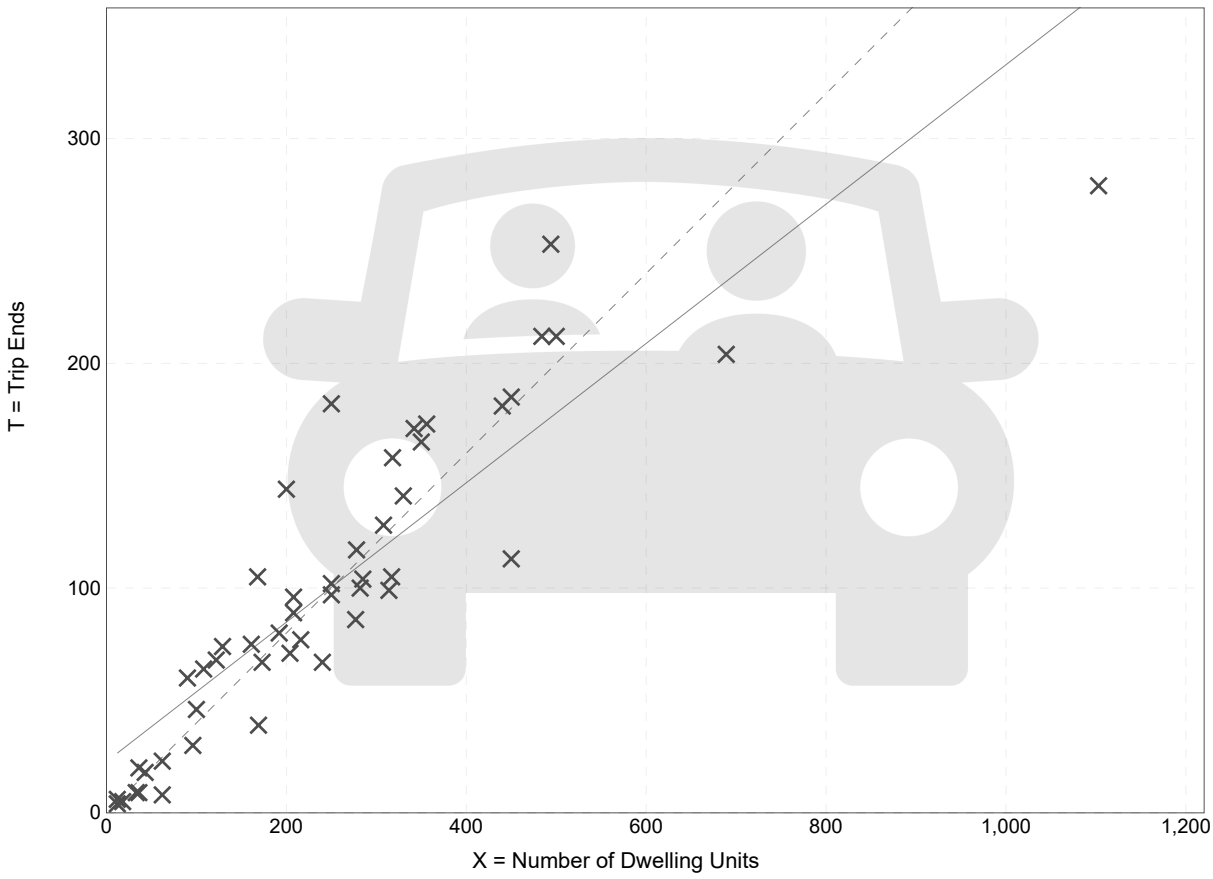
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Fitted Curve Equation: T = 0.31(X) + 22.85

R^2= 0.79

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

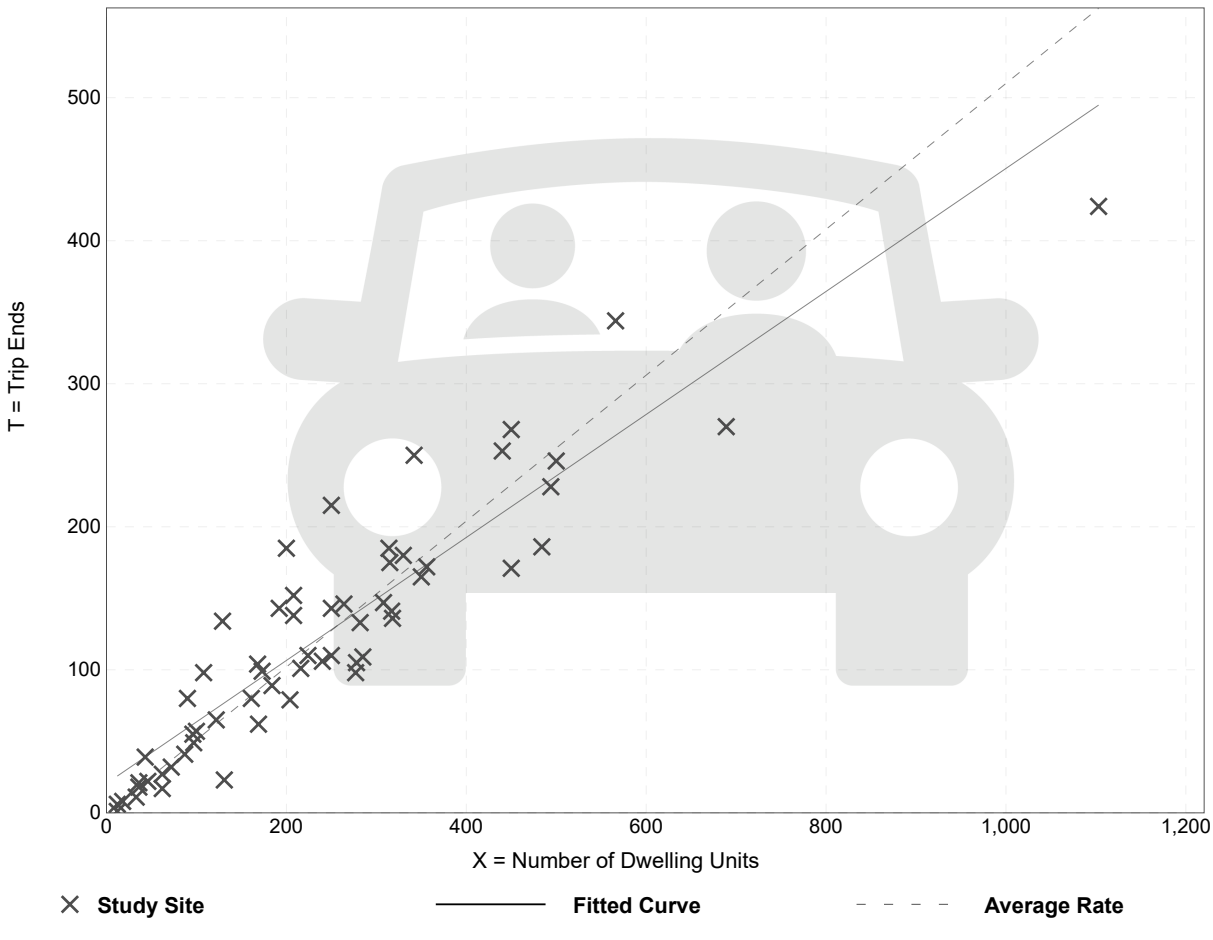
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Fitted Curve Equation: T = 0.43(X) + 20.55

R^2= 0.84

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Fast Casual Restaurant
(930)

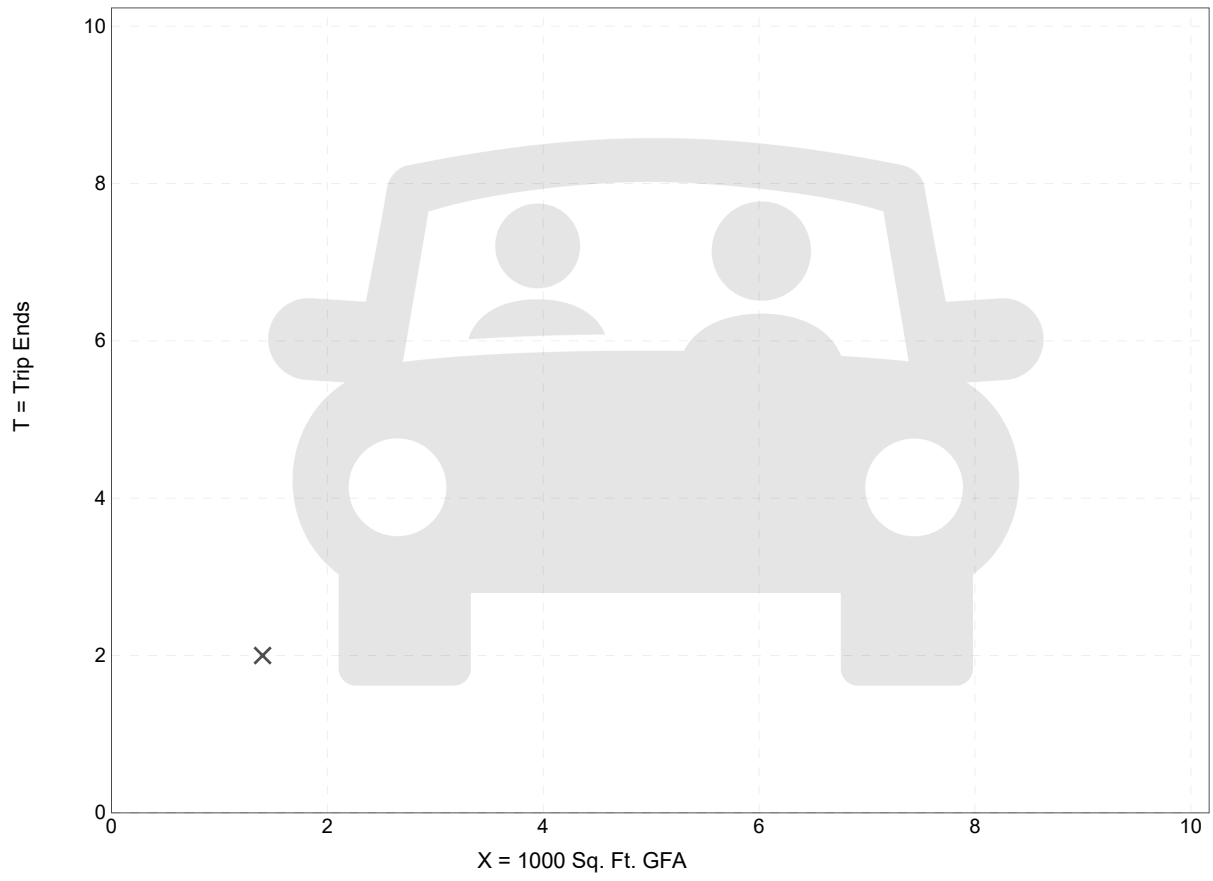
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 1
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.43	1.43 - 1.43	*

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

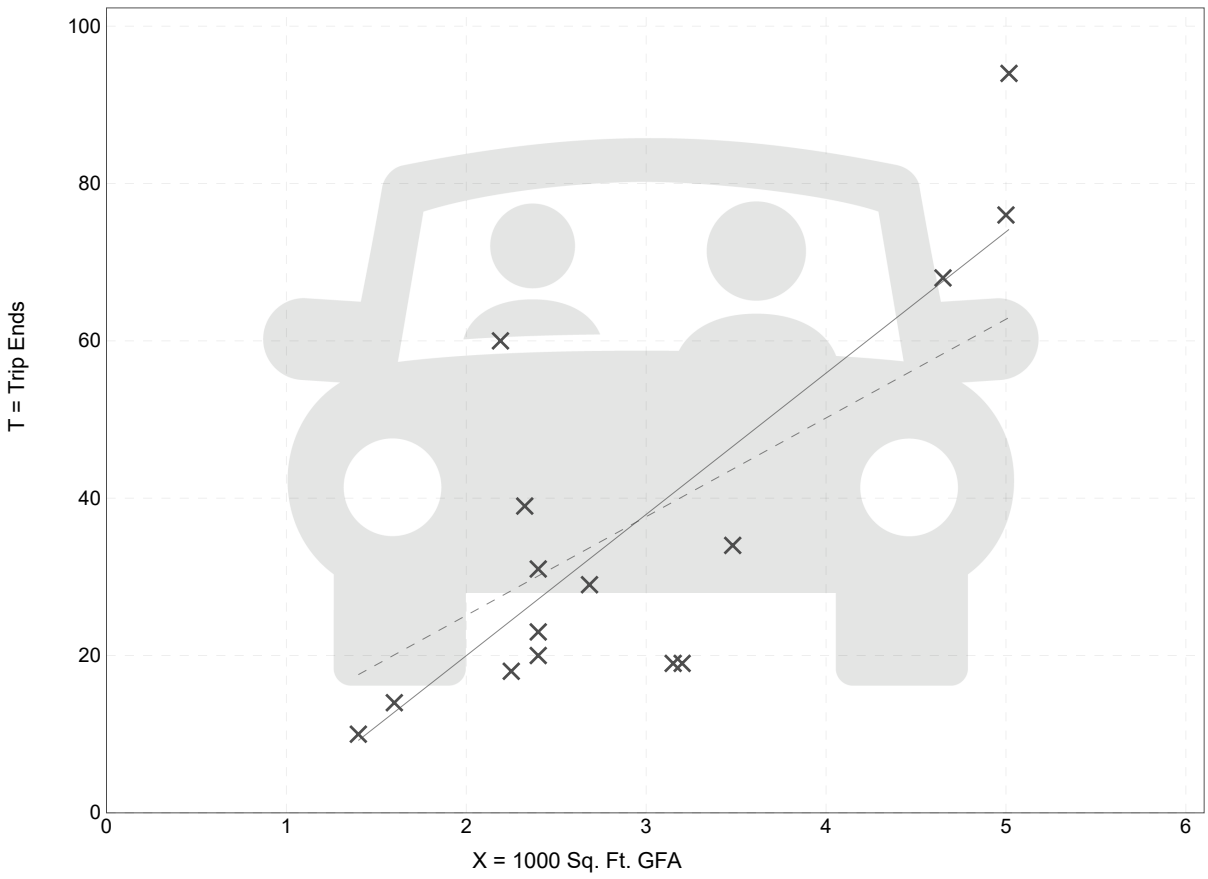
Fast Casual Restaurant
(930)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 15
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
12.55	5.94 - 27.40	5.52

Data Plot and Equation



Fitted Curve Equation: T = 17.96(X) - 15.94

R^2= 0.65

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

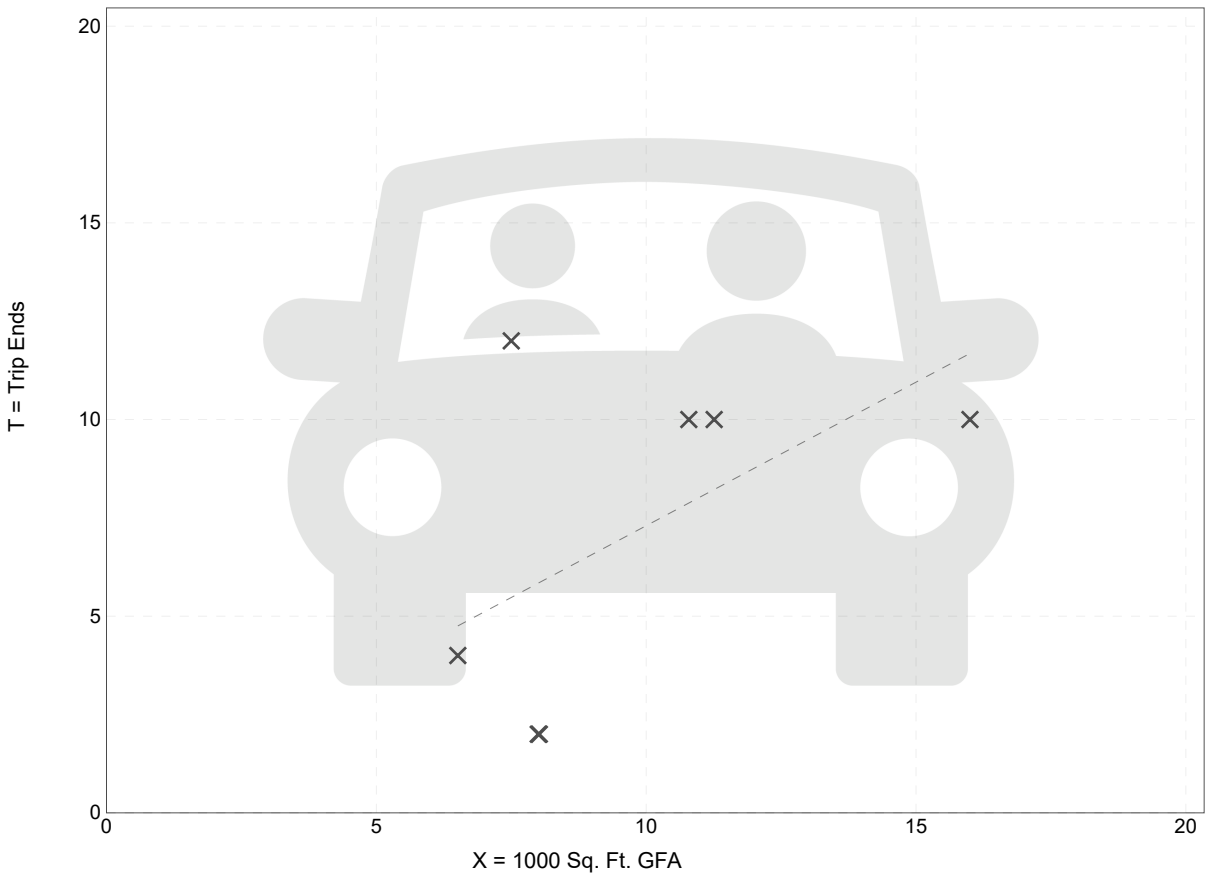
Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. 1000 Sq. Ft. GFA: 10
Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.73	0.25 - 1.60	0.42

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

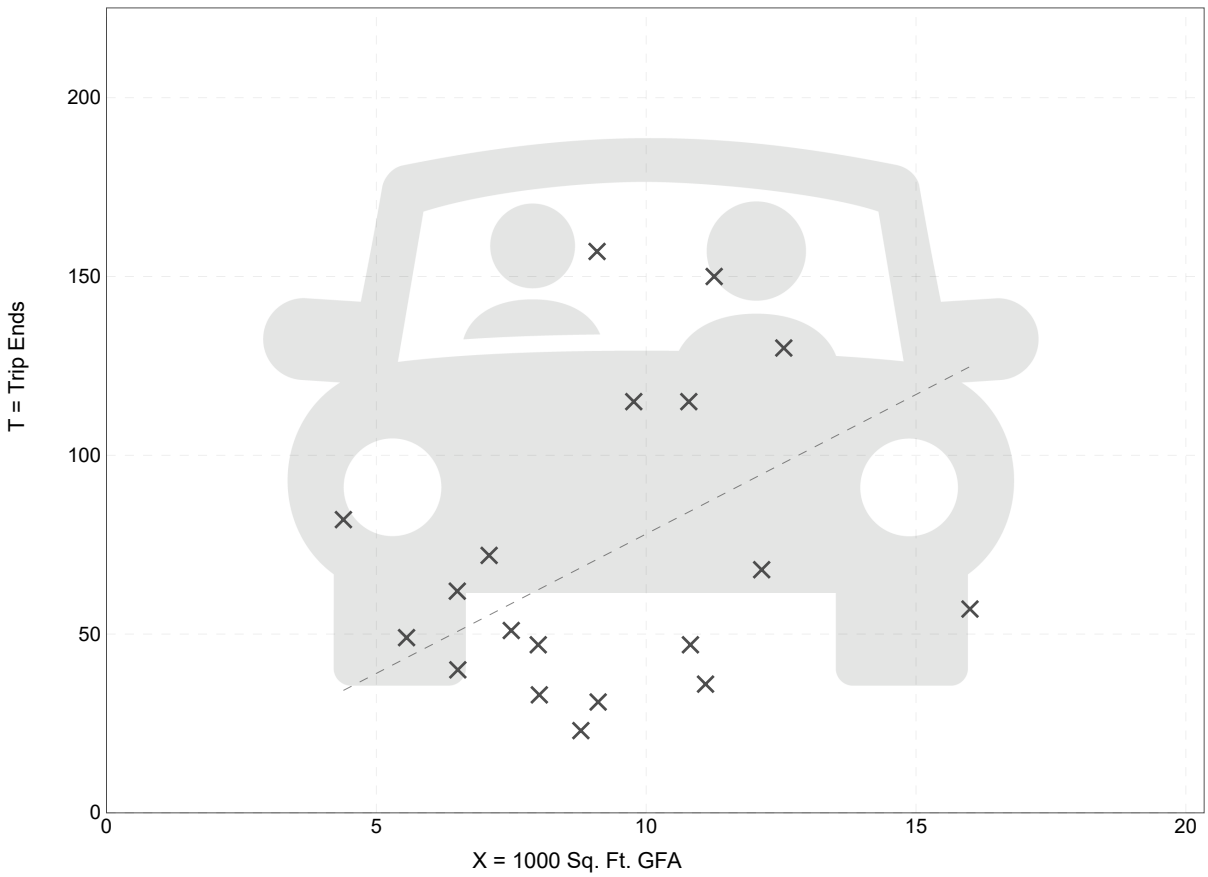
Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 67% entering, 33% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

4548-4564 Main Street Trip Generation Estimates

DESCRIPTION	ITE LUC	SIZE	AM PEAK		PM PEAK	
			ENTER	EXIT	ENTER	EXIT
Residential	822	48 units	5	14	15	9
Fast Casual Restaurant	930	2,513 SF	2	2	17	15
Fine Dining Restaurant	931	4,111 SF	2	1	21	11
Total Vehicle Trips			**9**	**17**	**53**	**35**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Mixed-Use Development
LOCATION: Town of Amherst, NY
PEAK HOUR: AM Peak

Figure Number: 3 | 4 | 6A | 6B | 7 | 8

Num of yrs: 2

LOCATION NUMBER	INTERSECTION DESCRIPTION	2022 Volumes	2024 Bkgd Vol 1.00%	Proposed Residential				Proposed Restaurants				Total Site Trips	Full Build Volumes
				Enter Dist. %	Exit Dist. %	Trips IN 5	Trips OUT 14	Enter Dist. %	Exit Dist. %	Trips IN 4	Trips OUT 3		
1	Main Street/ Chateau Terrace/Bernhardt Drive												
	SR	25	26		30%		4		5%		0	4	30
	ST - Chateau Terrace	8	8										8
	SL	33	34		45%		7		5%		0	7	41
	WR	30	31	45%		2		5%		0		2	33
	WT - Main Street	770	785	15%		1		35%		2		3	788
	WL	12	12										12
	NR	15	15										15
	NT	4	4										4
	NL	9	9										9
	ER	9	9										9
	ET - Main Street	831	848		15%		2		35%		1	3	851
	EL	33	34	30%		2		5%		0		2	36
2	Main Street/ Fruehauf Avenue												
	SR	11	11		10%		1		50%		2	3	14
	ST - Fruehauf Avenue												
	SL	9	9		15%		2		35%		1	3	12
	WR	5	5	15%		1		35%		2		3	8
	WT - Main Street	801	817		30%		4		5%		0	4	821
	WL												
	NR												
	NT												
	NL												
	ER												
	ET - Main Street	866	883	30%		2		5%		0		2	885
	EL	5	5	10%				50%		2		2	7
3	Fruehauf Avenue/ Proposed Driveway												
	SR												
	ST - Fruehauf Avenue	20	20										20
	SL							1%		0		0	0
	WR								1%		0	0	0
	WT - Proposed Driveway												
	WL				25%		3		85%		3	6	6
	NR			25%		1		85%		4		5	5
	NT - Fruehauf Avenue	10	10										10
	NL												
	ER												
	ET												
	EL												
4	Chateau Terrace/ Proposed Driveway												
	SR							4%		0		0	0
	ST - Chateau Terrace	66	67										67
	SL												
	WR												
	WT												
	WL												
	NR												
	NT - Chateau Terrace	67	68										68
	NL			75%		4		10%		0		4	4
	ER				75%		11		10%		0	11	11
	ET - Proposed Driveway												
	EL								4%		0	0	0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Mixed-Use Development
LOCATION: Town of Amherst, NY
PEAK HOUR: PM Peak

Figure Number: 3 | 4 | 6A | 6B | 7 | 8

Num of yrs: 2

LOCATION NUMBER	INTERSECTION DESCRIPTION	2022 Volumes	2024 Bkgd Vol 1.00%	Proposed Residential				Proposed Restaurants				Total Site Trips	Full Build Volumes
				Enter Dist. %	Exit Dist. %	Trips IN 15	Trips OUT 9	Enter Dist. %	Exit Dist. %	Trips IN 38	Trips OUT 26		
1	Main Street/ Chateau Terrace/Bernhardt Drive												
	SR	31	32		30%		3		5%		1	4	36
	ST - Chateau Terrace	2	2										2
	SL	37	38		45%		4		5%		1	5	43
	WR	14	14	45%		6		5%		2		8	22
	WT - Main Street	809	825	15%		2		35%		13		15	840
	WL	15	15										15
	NR	20	20										20
	NT	9	9										9
	NL	14	14										14
	ER	25	26										26
	ET - Main Street	883	901		15%		1		35%		10	11	912
	EL	22	22	30%		5		5%		2		6	28
2	Main Street/ Fruehauf Avenue												
	SR	9	9		10%		1		50%		13	14	23
	ST - Fruehauf Avenue												
	SL	6	6		15%		1		35%		10	11	17
	WR	7	7	15%		2		35%		13		16	23
	WT - Main Street	847	864		30%		3		5%		1	4	868
	WL												
	NR												
	NT												
	NL												
	ER												
	ET - Main Street	922	941	30%		5		5%		2		6	947
	EL	13	13	10%		2		50%		19		21	34
3	Fruehauf Avenue/ Proposed Driveway												
	SR												
	ST - Fruehauf Avenue	15	15										15
	SL							1%		0		0	0
	WR								1%		0	0	0
	WT - Proposed Driveway												
	WL				25%		2		85%		23	25	25
	NR			25%		4		85%		32		36	36
	NT - Fruehauf Avenue	20	20										20
	NL												
	ER												
	ET												
	EL												
4	Chateau Terrace/ Proposed Driveway												
	SR							4%		2		2	2
	ST - Chateau Terrace	70	71										71
	SL												
	WR												
	WT												
	WL												
	NR												
	NT - Chateau Terrace	45	46										46
	NL			75%		11		10%		4		15	15
	ER				75%		7		10%		2	9	9
	ET - Proposed Driveway												
	EL								4%		1	1	1

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Intersection Crash Rate Calculations

4548-4564 Main Street

Intersection #1: Main Street at Bernhardt Drive/Chateau Terrace
Date of Count: Tuesday, December 13, 2022

Number of Crashes: 9
Number of Injuries: 2
Number of Fatalities: 0
Entering Vehicles (PM): 1881
ADT: 19800
Start Date: July 31, 2017
End Date: July 31, 2022
Number of Years: 5

Intersection Type: 4 Legged
Area Type: Urban
Control Type: Signal w/ Left Turn 5 or More Lanes

crash rate = Number of Crashes x 1 Million / ADT x 365 Days per Year x Number of Years

crash rate = 9 x 1,000,000 / 19800 x 365 x 5

	Crash Rate		Fatality Rate	Injury Rate
Study Intersection	**0.25**	**cr/mve**	**0%**	**22%**
Statewide Average*	**0.26**	**cr/mve**		

ADT = Average Daily Total vehicles entering intersection
cr/mve = crashes per million entering vehicles
* Most recent available 2019 Average Crash Rates for State Highways by Facility Type

	Direction					
Type	Northbound - 1	Southbound - 5	Eastbound - 3	Westbound - 7	Unknown	Totals
Left turn				1		1
Rear-end		1	1	3		5
Overtaking						0
Right Angle						0
Right Turn						0
Head On						0
Side-swipe			2			2
Fixed Object			1			1
Backing						0
Other						0
Bike/Ped						0
Animal						0
Totals	0	1	4	4	0	9

PDO	7
Injury	
Injury + PDO	2
Fatal	
NR	
Total	9

Intersection Crash Rate Calculations

4548-4564 Main Street

Intersection #2: Main Street at Fruehauf Avenue
Date of Count: Tuesday, December 13, 2022

Number of Crashes: 0
Number of Injuries: 0
Number of Fatalities: 0
Entering Vehicles (PM): 1801
ADT: 18958
Start Date: July 31, 2017
End Date: July 31, 2022
Number of Years: 5

Intersection Type: 3 Legged
Area Type: Urban
Control Type: Sign 5 or More Lanes

crash rate = Number of Crashes x 1 Million / ADT x 365 Days per Year x Number of Years

crash rate = 0 x 1,000,000 / 18958 x 365 x 5

	Crash Rate		Fatality Rate	Injury Rate
Study Intersection	**0.00**	**cr/mve**	**#DIV/0!**	**#DIV/0!**
Statewide Average*	**0.07**	**cr/mve**		

ADT = Average Daily Total vehicles entering intersection
cr/mve = crashes per million entering vehicles
* Most recent available 2019 Average Crash Rates for State Highways by Facility Type

	Direction					
Type	Northbound - 1	Southbound - 5	Eastbound - 3	Westbound - 7	Unknown	Totals
Left turn						0
Rear-end						0
Overtaking						0
Right Angle						0
Right Turn						0
Head On						0
Side-swipe						0
Fixed Object						0
Backing						0
Other						0
Bike/Ped						0
Animal						0
Totals	0	0	0	0	0	0

PDO	
Injury	
Injury + PDO	
Fatal	
NR	
Total	0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

LEVEL OF SERVICE: CRITERIA/DEFINITIONS

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Level of Service Criteria

Highway Capacity Manual 2016

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15-minute analysis period. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 20
C	20 – 35
D	35 – 55
E	55 – 80
F	>80

UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 - 50
F	>50

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

LEVEL OF SERVICE CALCULATIONS: EXISTING CONDITIONS

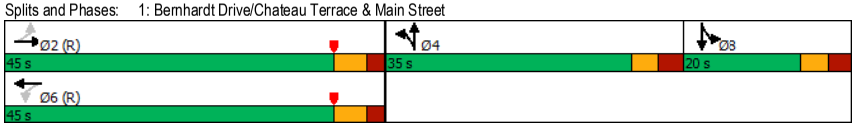
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	831	9	12	770	30	9	4	15	33	8	25
Future Volume (vph)	33	831	9	12	770	30	9	4	15	33	8	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.998			0.994			0.929			0.949	
Flt Protected	0.950			0.950				0.984			0.975	
Satd. Flow (prot)	1805	3498	0	1671	3420	0	0	1725	0	0	1697	0
Flt Permitted	0.279			0.263				0.984			0.975	
Satd. Flow (perm)	530	3498	0	462	3420	0	0	1725	0	0	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4			18			25	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	2		3	3		2			1			1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	0%	8%	5%	0%	0%	0%	0%	6%	0%	0%
Adj. Flow (vph)	39	978	11	14	906	35	11	5	18	39	9	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	989	0	14	941	0	0	34	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		34.1	34.1		32.2	32.2	
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		20.0	20.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		35.0%	35.0%		20.0%	20.0%	
Maximum Green (s)	38.8	38.8		38.8	38.8		28.9	28.9		13.9	13.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

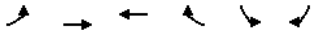
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	73.7	73.7		73.7	73.7			7.2			9.1	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.07			0.09	
v/c Ratio	0.10	0.38		0.04	0.37			0.24			0.43	
Control Delay	8.3	7.9		8.1	7.8			30.3			37.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.3	7.9		8.1	7.8			30.3			37.4	
LOS	A	A		A	A			C			D	
Approach Delay		7.9			7.8			30.3			37.4	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	8	142		3	133			10			32	
Queue Length 95th (ft)	25	204		11	192			37			69	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	390	2579		340	2522			511			257	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.10	0.38		0.04	0.37			0.07			0.30	

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.43		
Intersection Signal Delay: 9.3	Intersection LOS: A	
Intersection Capacity Utilization 43.8%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street

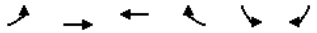


Packet Pg. 1445
7.g
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	866	801	5	9	11
Future Volume (vph)	5	866	801	5	9	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.927	
Flt Protected	0.950				0.978	
Satd. Flow (prot)	1805	3505	3436	0	1723	0
Flt Permitted	0.950				0.978	
Satd. Flow (perm)	1805	3505	3436	0	1723	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	5%	0%	0%	0%
Adj. Flow (vph)	6	1019	942	6	11	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	1019	948	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	866	801	5	9	11
Future Volume (Veh/h)	5	866	801	5	9	11
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1019	942	6	11	13
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	949				1468	475
vC1, stage 1 conf vol					946	
vC2, stage 2 conf vol					522	
vCu, unblocked vol	679				1266	143
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				97	98
cM capacity (veh/h)	815				352	782

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	6	510	510	628	320	24
Volume Left	6	0	0	0	0	11
Volume Right	0	0	0	0	6	13
cSH	815	1700	1700	1700	1700	502
Volume to Capacity	0.01	0.30	0.30	0.37	0.19	0.05
Queue Length 95th (ft)	1	0	0	0	0	4
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	12.5
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.5
Approach LOS						B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		33.9%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	883	25	15	809	14	14	9	20	37	2	31
Future Volume (vph)	22	883	25	15	809	14	14	9	20	37	2	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.996			0.997			0.937			0.941	
Flt Protected	0.950			0.950				0.984			0.974	
Satd. Flow (prot)	1719	3483	0	1805	3528	0	0	1661	0	0	1705	0
Flt Permitted	0.310			0.278				0.984			0.974	
Satd. Flow (perm)	560	3483	0	527	3528	0	0	1661	0	0	1705	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2			21			31	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	5		6	6		5			4			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	8%	0%	2%	0%	0%	0%	10%	0%	0%	3%
Adj. Flow (vph)	23	920	26	16	843	15	15	9	21	39	2	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	946	0	16	858	0	0	45	0	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		35.2	35.2		32.2	32.2	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		25.0	25.0	
Total Split (%)	45.5%	45.5%		45.5%	45.5%		31.8%	31.8%		22.7%	22.7%	
Maximum Green (s)	43.8	43.8		43.8	43.8		28.9	28.9		18.9	18.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	80.9	80.9		80.9	80.9			7.8			8.9	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.07			0.08	
v/c Ratio	0.06	0.37		0.04	0.33			0.33			0.44	
Control Delay	7.6	7.9		7.6	7.6			36.3			37.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	7.6	7.9		7.6	7.6			36.3			37.8	
LOS	A	A		A	A			D			D	
Approach Delay		7.9			7.6			36.3			37.8	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	5	135		3	117			16			29	
Queue Length 95th (ft)	17	213		13	187			52			73	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	412	2563		387	2596			451			318	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.06	0.37		0.04	0.33			0.10			0.23	

Intersection Summary		
Area Type:	Other	
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 25 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.44		
Intersection Signal Delay: 9.5	Intersection LOS: A	
Intersection Capacity Utilization 42.8%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	922	847	7	6	6
Future Volume (vph)	13	922	847	7	6	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.932	
Flt Protected	0.950				0.976	
Satd. Flow (prot)	1805	3505	3536	0	1728	0
Flt Permitted	0.950				0.976	
Satd. Flow (perm)	1805	3505	3536	0	1728	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%
Adj. Flow (vph)	13	951	873	7	6	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	951	880	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	922	847	7	6	6
Future Volume (Veh/h)	13	922	847	7	6	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	13	951	873	7	6	6
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.91				0.91	0.91
vC, conflicting volume	884				1382	444
vC1, stage 1 conf vol					880	
vC2, stage 2 conf vol					502	
vCu, unblocked vol	662				1213	176
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				98	99
cM capacity (veh/h)	844				367	760

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	13	476	476	582	298	12
Volume Left	13	0	0	0	0	6
Volume Right	0	0	0	0	7	6
cSH	844	1700	1700	1700	1700	495
Volume to Capacity	0.02	0.28	0.28	0.34	0.18	0.02
Queue Length 95th (ft)	1	0	0	0	0	2
Control Delay (s)	9.3	0.0	0.0	0.0	0.0	12.5
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.5
Approach LOS						B

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization		35.5%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

LEVEL OF SERVICE CALCULATIONS: BACKGROUND CONDITIONS

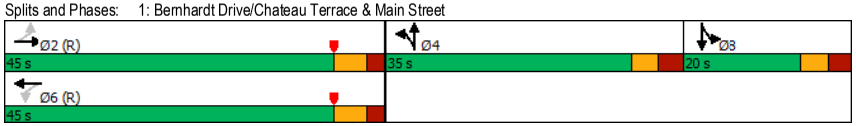
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	848	9	12	785	31	9	4	15	34	8	26
Future Volume (vph)	34	848	9	12	785	31	9	4	15	34	8	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.998			0.994			0.929			0.948	
Flt Protected	0.950			0.950				0.984			0.976	
Satd. Flow (prot)	1805	3498	0	1671	3420	0	0	1725	0	0	1697	0
Flt Permitted	0.272			0.256				0.984			0.976	
Satd. Flow (perm)	516	3498	0	450	3420	0	0	1725	0	0	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			18			26	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	2		3	3		2			1			1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	0%	8%	5%	0%	0%	0%	0%	6%	0%	0%
Adj. Flow (vph)	40	998	11	14	924	36	11	5	18	40	9	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1009	0	14	960	0	0	34	0	0	80	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		34.1	34.1		32.2	32.2	
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		20.0	20.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		35.0%	35.0%		20.0%	20.0%	
Maximum Green (s)	38.8	38.8		38.8	38.8		28.9	28.9		13.9	13.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

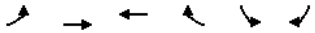
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	73.6	73.6		73.6	73.6			7.2			9.3	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.07			0.09	
v/c Ratio	0.11	0.39		0.04	0.38			0.24			0.44	
Control Delay	8.5	8.0		8.2	7.9			30.3			37.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.5	8.0		8.2	7.9			30.3			37.4	
LOS	A	A		A	A			C			D	
Approach Delay		8.0			7.9			30.3			37.4	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	9	147		3	137			10			33	
Queue Length 95th (ft)	25	211		12	199			37			71	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	379	2574		331	2517			511			258	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.11	0.39		0.04	0.38			0.07			0.31	

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.44		
Intersection Signal Delay: 9.4	Intersection LOS: A	
Intersection Capacity Utilization 44.8%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street

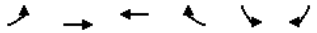


Packet Pg. 1450
7.g
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	883	817	5	9	11
Future Volume (vph)	5	883	817	5	9	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.927	
Flt Protected	0.950				0.978	
Satd. Flow (prot)	1805	3505	3436	0	1723	0
Flt Permitted	0.950				0.978	
Satd. Flow (perm)	1805	3505	3436	0	1723	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	5%	0%	0%	0%
Adj. Flow (vph)	6	1039	961	6	11	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	1039	967	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	883	817	5	9	11
Future Volume (Veh/h)	5	883	817	5	9	11
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1039	961	6	11	13
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	968				1496	484
vC1, stage 1 conf vol					965	
vC2, stage 2 conf vol					532	
vCu, unblocked vol	690				1290	140
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				97	98
cM capacity (veh/h)	803				346	781

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	6	520	520	641	326	24
Volume Left	6	0	0	0	0	11
Volume Right	0	0	0	0	6	13
cSH	803	1700	1700	1700	1700	495
Volume to Capacity	0.01	0.31	0.31	0.38	0.19	0.05
Queue Length 95th (ft)	1	0	0	0	0	4
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	12.6
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.6
Approach LOS						B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		34.4%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	901	26	15	825	14	14	9	20	38	2	32
Future Volume (vph)	22	901	26	15	825	14	14	9	20	38	2	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.996			0.997			0.937			0.941	
Flt Protected	0.950			0.950				0.984			0.974	
Satd. Flow (prot)	1719	3483	0	1805	3528	0	0	1661	0	0	1704	0
Flt Permitted	0.303			0.271				0.984			0.974	
Satd. Flow (perm)	547	3483	0	514	3528	0	0	1661	0	0	1704	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2			21			31	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	5		6	6		5			4			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	8%	0%	2%	0%	0%	0%	10%	0%	0%	3%
Adj. Flow (vph)	23	939	27	16	859	15	15	9	21	40	2	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	966	0	16	874	0	0	45	0	0	75	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		35.2	35.2		32.2	32.2	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		25.0	25.0	
Total Split (%)	45.5%	45.5%		45.5%	45.5%		31.8%	31.8%		22.7%	22.7%	
Maximum Green (s)	43.8	43.8		43.8	43.8		28.9	28.9		18.9	18.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	80.8	80.8		80.8	80.8			7.8			9.0	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.07			0.08	
v/c Ratio	0.06	0.38		0.04	0.34			0.33			0.45	
Control Delay	7.7	8.0		7.7	7.7			36.3			38.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	7.7	8.0		7.7	7.7			36.3			38.3	
LOS	A	A		A	A			D			D	
Approach Delay		8.0			7.7			36.3			38.3	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	5	139		3	121			16			30	
Queue Length 95th (ft)	17	220		14	192			52			74	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	402	2559		377	2591			451			318	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.06	0.38		0.04	0.34			0.10			0.24	

Intersection Summary		
Area Type:	Other	
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 25 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.45		
Intersection Signal Delay: 9.7	Intersection LOS: A	
Intersection Capacity Utilization 43.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 1452
7.g
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	941	864	7	6	6
Future Volume (vph)	13	941	864	7	6	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.932	
Flt Protected	0.950				0.976	
Satd. Flow (prot)	1805	3505	3536	0	1728	0
Flt Permitted	0.950				0.976	
Satd. Flow (perm)	1805	3505	3536	0	1728	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%
Adj. Flow (vph)	13	970	891	7	6	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	970	898	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	941	864	7	6	6
Future Volume (Veh/h)	13	941	864	7	6	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	13	970	891	7	6	6
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	902				1410	453
vC1, stage 1 conf vol					898	
vC2, stage 2 conf vol					511	
vCu, unblocked vol	675				1238	178
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				98	99
cM capacity (veh/h)	832				360	756

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	13	485	485	594	304	12
Volume Left	13	0	0	0	0	6
Volume Right	0	0	0	0	7	6
cSH	832	1700	1700	1700	1700	488
Volume to Capacity	0.02	0.29	0.29	0.35	0.18	0.02
Queue Length 95th (ft)	1	0	0	0	0	2
Control Delay (s)	9.4	0.0	0.0	0.0	0.0	12.6
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.6
Approach LOS						B

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization		36.0%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

LEVEL OF SERVICE CALCULATIONS: FULL DEVELOPMENT CONDITIONS

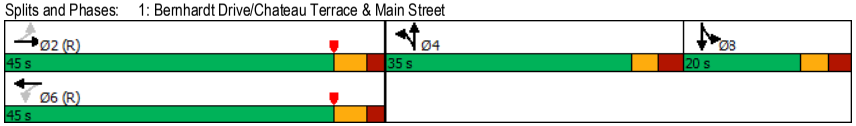
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	851	9	12	788	33	9	4	15	41	8	30
Future Volume (vph)	36	851	9	12	788	33	9	4	15	41	8	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.998			0.994			0.929			0.949	
Flt Protected	0.950			0.950				0.984			0.975	
Satd. Flow (prot)	1805	3498	0	1671	3421	0	0	1725	0	0	1696	0
Flt Permitted	0.269			0.253				0.984			0.975	
Satd. Flow (perm)	511	3498	0	445	3421	0	0	1725	0	0	1696	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			18			26	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			270	
Travel Time (s)		2.6			12.0			16.2			6.1	
Confl. Peds. (#/hr)	2		3	3		2			1			1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	0%	8%	5%	0%	0%	0%	0%	6%	0%	0%
Adj. Flow (vph)	42	1001	11	14	927	39	11	5	18	48	9	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	1012	0	14	966	0	0	34	0	0	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		34.1	34.1		32.2	32.2	
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		20.0	20.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		35.0%	35.0%		20.0%	20.0%	
Maximum Green (s)	38.8	38.8		38.8	38.8		28.9	28.9		13.9	13.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	73.0	73.0		73.0	73.0			7.2			9.9	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.07			0.10	
v/c Ratio	0.11	0.40		0.04	0.39			0.24			0.48	
Control Delay	8.9	8.4		8.6	8.3			30.3			38.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.9	8.4		8.6	8.3			30.3			38.9	
LOS	A	A		A	A			C			D	
Approach Delay		8.4			8.3			30.3			38.9	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	9	151		3	142			10			40	
Queue Length 95th (ft)	27	217		12	206			37			80	
Internal Link Dist (ft)		72			625			632			190	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	373	2554		324	2498			511			258	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.11	0.40		0.04	0.39			0.07			0.36	

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.48		
Intersection Signal Delay: 10.0	Intersection LOS: A	
Intersection Capacity Utilization 47.7%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 1455
7.g
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	885	821	8	12	14
Future Volume (vph)	7	885	821	8	12	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.928	
Flt Protected	0.950				0.977	
Satd. Flow (prot)	1805	3505	3436	0	1723	0
Flt Permitted	0.950				0.977	
Satd. Flow (perm)	1805	3505	3436	0	1723	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		110	
Travel Time (s)		8.0	2.6		2.5	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	5%	0%	0%	0%
Adj. Flow (vph)	8	1041	966	9	14	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	1041	975	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	885	821	8	12	14
Future Volume (Veh/h)	7	885	821	8	12	14
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	8	1041	966	9	14	16
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	976				1508	488
vC1, stage 1 conf vol					972	
vC2, stage 2 conf vol					536	
vCu, unblocked vol	690				1297	134
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				96	98
cM capacity (veh/h)	800				344	785

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	8	520	520	644	331	30
Volume Left	8	0	0	0	0	14
Volume Right	0	0	0	0	9	16
cSH	800	1700	1700	1700	1700	491
Volume to Capacity	0.01	0.31	0.31	0.38	0.19	0.06
Queue Length 95th (ft)	1	0	0	0	0	5
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	12.8
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.8
Approach LOS						B

Intersection Summary					
Average Delay		0.2			
Intersection Capacity Utilization		34.5%	ICU Level of Service		A
Analysis Period (min)		15			

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	10	5	0	20
Future Volume (vph)	6	0	10	5	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.955			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1814	0	0	1900
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1814	0	0	1900
Link Speed (mph)	30		30			30
Link Distance (ft)	145		110			611
Travel Time (s)	3.3		2.5			13.9
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	7	0	12	6	0	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	18	0	0	24
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	0	10	5	0	20
Future Volume (Veh/h)	6	0	10	5	0	20
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	7	0	12	6	0	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	39	15			18	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	39	15			18	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	978	1070			1612	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	7	18	24
Volume Left	7	0	0
Volume Right	0	6	0
cSH	978	1700	1612
Volume to Capacity	0.01	0.01	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	11	4	68	67	0
Future Volume (vph)	0	11	4	68	67	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected				0.997		
Satd. Flow (prot)	1644	0	0	1809	1900	0
Flt Permitted				0.997		
Satd. Flow (perm)	1644	0	0	1809	1900	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	124			270	178	
Travel Time (s)	2.8			6.1	4.0	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	5%	0%	0%
Adj. Flow (vph)	0	13	5	80	79	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	0	85	79	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	11	4	68	67	0
Future Volume (Veh/h)	0	11	4	68	67	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	13	5	80	79	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				270		
pX, platoon unblocked						
vC, conflicting volume	169	79	79			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	169	79	79			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	823	987	1532			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	13	85	79
Volume Left	0	5	0
Volume Right	13	0	0
cSH	987	1532	1700
Volume to Capacity	0.01	0.00	0.05
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.5	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	0.5	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

Packet Pg. 1458
7.g
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	912	26	15	840	22	14	9	20	43	2	36
Future Volume (vph)	28	912	26	15	840	22	14	9	20	43	2	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00			1.00			0.99			0.99	
Frt		0.996			0.996			0.937			0.940	
Flt Protected	0.950			0.950				0.984			0.974	
Satd. Flow (prot)	1719	3483	0	1805	3524	0	0	1661	0	0	1702	0
Flt Permitted	0.294			0.266				0.984			0.974	
Satd. Flow (perm)	531	3483	0	505	3524	0	0	1661	0	0	1702	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			3			21			32	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			270	
Travel Time (s)		2.6			12.0			16.2			6.1	
Confl. Peds. (#/hr)	5		6	6		5			4			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	8%	0%	2%	0%	0%	0%	10%	0%	0%	3%
Adj. Flow (vph)	29	950	27	16	875	23	15	9	21	45	2	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	977	0	16	898	0	0	45	0	0	85	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		35.2	35.2		32.2	32.2	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		25.0	25.0	
Total Split (%)	45.5%	45.5%		45.5%	45.5%		31.8%	31.8%		22.7%	22.7%	
Maximum Green (s)	43.8	43.8		43.8	43.8		28.9	28.9		18.9	18.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

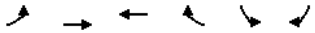
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	80.3	80.3		80.3	80.3			7.8			9.5	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.07			0.09	
v/c Ratio	0.07	0.38		0.04	0.35			0.33			0.48	
Control Delay	8.2	8.4		7.9	8.0			36.3			39.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.2	8.4		7.9	8.0			36.3			39.8	
LOS	A	A		A	A			D			D	
Approach Delay		8.4			8.0			36.3			39.8	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	6	144		3	127			16			36	
Queue Length 95th (ft)	21	228		14	203			52			83	
Internal Link Dist (ft)		72			625			632			190	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	388	2544		368	2574			451			318	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.07	0.38		0.04	0.35			0.10			0.27	

Intersection Summary		
Area Type:	Other	
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 25 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.48		
Intersection Signal Delay: 10.1	Intersection LOS: B	
Intersection Capacity Utilization 44.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street

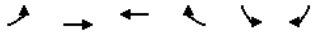


Packet Pg. 1459
7.g
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	34	947	868	23	17	23
Future Volume (vph)	34	947	868	23	17	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.996		0.923	
Flt Protected	0.950				0.979	
Satd. Flow (prot)	1805	3505	3527	0	1717	0
Flt Permitted	0.950				0.979	
Satd. Flow (perm)	1805	3505	3527	0	1717	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		110	
Travel Time (s)		8.0	2.6		2.5	
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%
Adj. Flow (vph)	35	976	895	24	18	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	976	919	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	34	947	868	23	17	23
Future Volume (Veh/h)	34	947	868	23	17	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	35	976	895	24	18	24
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	923				1469	464
vC1, stage 1 conf vol					911	
vC2, stage 2 conf vol					558	
vCu, unblocked vol	685				1294	173
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	96				95	97
cM capacity (veh/h)	820				345	757

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	35	488	488	597	322	42
Volume Left	35	0	0	0	0	18
Volume Right	0	0	0	0	24	24
cSH	820	1700	1700	1700	1700	501
Volume to Capacity	0.04	0.29	0.29	0.35	0.19	0.08
Queue Length 95th (ft)	3	0	0	0	0	7
Control Delay (s)	9.6	0.0	0.0	0.0	0.0	12.8
Lane LOS	A					B
Approach Delay (s)	0.3			0.0		12.8
Approach LOS						B

Intersection Summary					
Average Delay		0.4			
Intersection Capacity Utilization		38.3%	ICU Level of Service		A
Analysis Period (min)		15			

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	0	20	36	0	15
Future Volume (vph)	25	0	20	36	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.914			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1737	0	0	1900
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1737	0	0	1900
Link Speed (mph)	30		30			30
Link Distance (ft)	145		110			611
Travel Time (s)	3.3		2.5			13.9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	26	0	21	37	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	0	58	0	0	15
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	0	20	36	0	15
Future Volume (Veh/h)	25	0	20	36	0	15
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	26	0	21	37	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	54	40			58	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	54	40			58	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	100			100	
cM capacity (veh/h)	959	1038			1559	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	26	58	15
Volume Left	26	0	0
Volume Right	0	37	0
cSH	959	1700	1559
Volume to Capacity	0.03	0.03	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	8.9	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.9	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	9	15	46	71	2
Future Volume (vph)	1	9	15	46	71	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878				0.996	
Flt Protected	0.995			0.988		
Satd. Flow (prot)	1660	0	0	1809	1839	0
Flt Permitted	0.995			0.988		
Satd. Flow (perm)	1660	0	0	1809	1839	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	124			270	178	
Travel Time (s)	2.8			6.1	4.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	5%	3%	0%
Adj. Flow (vph)	1	9	16	48	74	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	0	64	76	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	9	15	46	71	2
Future Volume (Veh/h)	1	9	15	46	71	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1	9	16	48	74	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				270		
pX, platoon unblocked						
vC, conflicting volume	155	75	76			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	155	75	76			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	99			
cM capacity (veh/h)	832	992	1536			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	10	64	76
Volume Left	1	16	0
Volume Right	9	0	2
cSH	973	1536	1700
Volume to Capacity	0.01	0.01	0.04
Queue Length 95th (ft)	1	1	0
Control Delay (s)	8.7	1.9	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	1.9	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CARMINAWOOD
DESIGN

RECEIVED
JAN 18 2023
TOWN OF AMHERST
PLANNING DEPT.

DOWNSTREAM SANITARY SEWER CAPACITY ANALYSIS REPORT

for

Proposed Site Redevelopment

4548-4564 Main Street
Town of Amherst, Erie County, New York

Prepared for

Benderson Development Co., LLC

570 Delaware Avenue
Buffalo, New York 14202

Prepared by

Carmina Wood Design

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

December 2022
Rev. January 2023



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Project Description

This project is a redevelopment of four parcels with a total of 0.93-acres currently occupied with two (2) multi-tenant buildings and one (1) 950 sf residential house that are all to be demolished. The project is located along Main Street in the Town of Amherst. Proposed construction will include a 34,121 sf multi-story building with associated parking garage, utility, drainage and site improvements.

The proposed sanitary demand for the proposed building will be served by a private 6" SDR-35 PVC lateral that will connect to a private 8" SDR-35 PVC sanitary sewer. The private 8" sanitary sewer will discharge to an existing Town of Amherst sewer manhole within the Fruehaut Avenue R.O.W. Flows then travel north and are ultimately conveyed to the Town of Amherst Wastewater Treatment Facility. Refer to the sewer node maps located at the end of this downstream sewer capacity analysis report.

Node 1 - Harlem Road (12"):

Existing Peak Flow measured (wet weather event)	= 3.379 cfs (2.184 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 3.453 cfs

Theoretical capacity of existing 12" VTP @ 0.44% = 2.193 cfs

Conclusion: The maximum monitored wet weather flow exceeds the capacity of the existing 8" sewer pipe. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 1 following a 1.56" rainfall event, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. I/I mitigation shall be required for the contribution proposed for this project.

Node 2 - Park School (10"):

Existing Peak Flow measured (wet weather event)	= 1.145 cfs (0.740 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 1.219 cfs

Theoretical capacity of existing 10" VTP @ 1.19% = 7.012 cfs

Conclusion: The proposed total peak flow is less than the capacity of the 10" VTP pipe, therefore there is sufficient capacity.

Node 3 - West Side Interceptor (60"):

Existing Peak Flow measured (wet weather event)	= 116.831 cfs (75.510 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 116.904 cfs
Existing Peak Flow (per (T) Amherst)	= 83.705 cfs (54.100 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 83.779 cfs

Capacity of existing 60" West Side Interceptor = 75.969 cfs (49.1 mgd)

Conclusion: The maximum monitored wet weather flow exceeds the capacity of the existing 60" sewer pipe. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 3 following a 1.56" rainfall event, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. I/I mitigation shall be required for the contribution proposed for this project.

Foot Notes:

Downstream capacity node information provided by Town of Amherst

*Converted from measurements in TECSmith report dated 11/30/22

** See Sanitary Sewage Demand Calculations

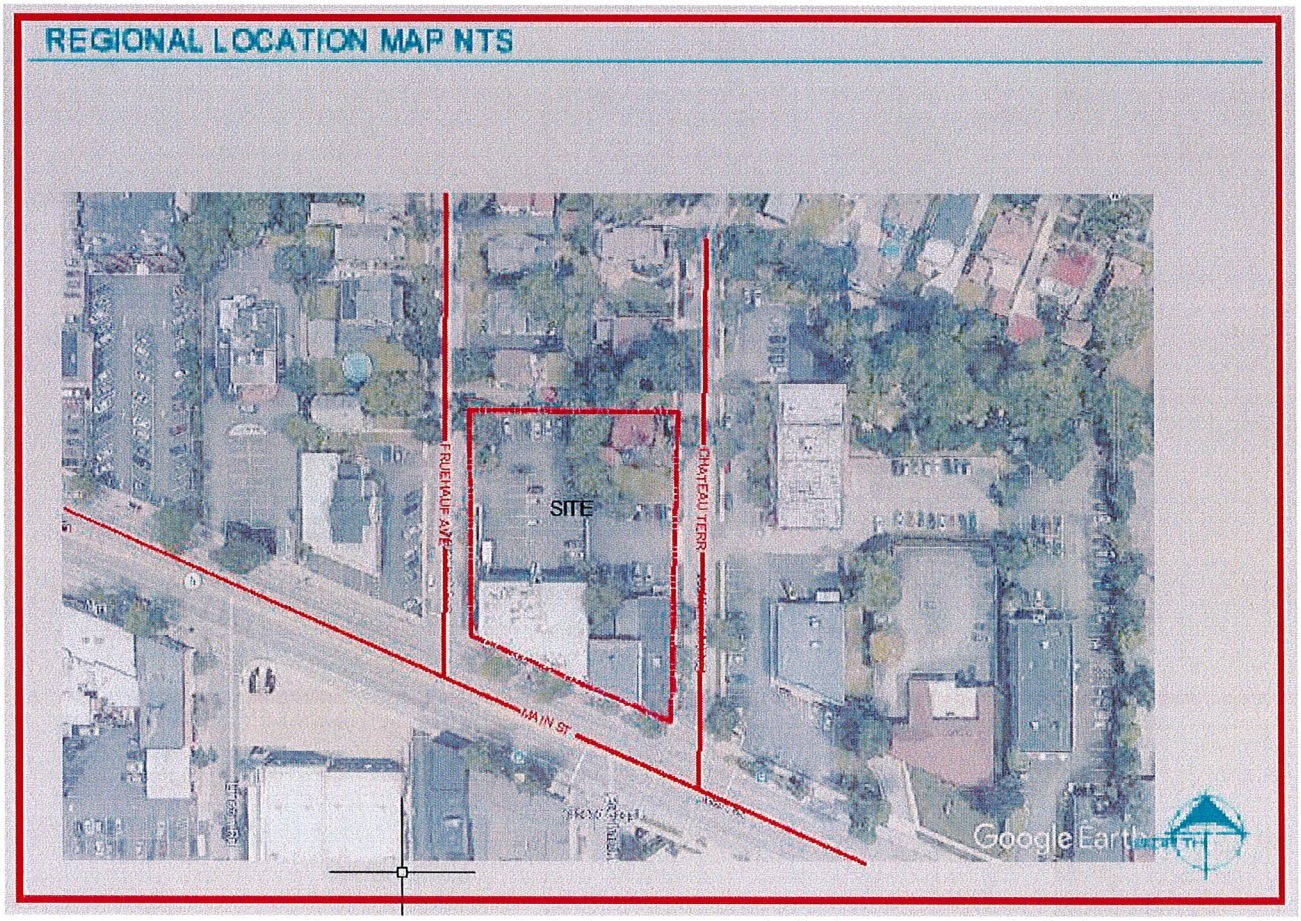
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Location Map

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

FIGURE 1

SITE LOCATION PLAN
ENGINEERING PLANS



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Sanitary Demand Calculations

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

JOB NAME: MAIN ST MULTI-STORY BUILDING
DESCRIPTION: SANITARY & WATER CALCULATIONS
PROPERTY # 5202 DATE: 01.06.2023
CALCULATED BY: DMZ SHEET: 1 OF 2

SANITARY SEWER CALCULATIONS:

Existing Buildings Removed: 13,100 S.F.

Design GPD: Restaurant = 35 GPD / Seat *NYSDEC Design standard for WWTS
Residential = 110 GPD / Bedroom in Apartment (150 GPD per Bed for pre-1980)
Retail = 0.1 GPD/ S.F. + 15gpd/Employee

Existing = 1,950 GPD (Residential) + 1,215 GPD (Retail) = 3,165 GPD
(150GPD/Bed * 13 Beds) + [(0.1GPD/S.F. * 11250 S.F. + 15gpd/employee * 6 Employees)]

Proposed = 2,800 GPD (Restaurant) + 8,140 GPD (Residential) = 10,940 GPD
(35 GPD/Seat*80 Seats) + (110GPD/bed* 74 Beds)

INCREASED SANITARY FLOW = **7,775 GPD**

PEAK SANITARY DEMAND

Total Demand = 10940 GPD
Per Population = 30 Per Capita

Peak Factor: $(18+\sqrt{P}) / (4+\sqrt{P})$ P in Thousands

Peak Factor = 4.37

Peak Sanitary Demand = 10940 x 4.37 = 47,808 gpd = 33.20gpm

WATER CALCULATIONS:

= 1.1 Usage Factor * (GPD)

= GPD / 9hr / 60min
ASSUMED 9HR SHIFT = 12034 / 9 / 60
= **22.29 GPM**

PEAK FACTOR: = GPM X 1.8
= 22.29 X 1.8
Q = **40.11 GPM PEAK**

HEADLOSS FRICTION:

$$= \frac{(10.44) \times (L) \times (Q)^{1.85}}{(C)^{1.85} \times (D)^{4.866}}$$

Q = GPMin
L = LENGTH OF PIPE
C = DESIGN COEF OF PIPE
D = PIPE DIAMETER

$$= \frac{(10.44) \times (18) \times (40.11)^{1.85}}{(140)^{1.85} \times (6)^{4.866}}$$

= **0 PSI**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CARMINA WOOD DESIGN
487 MAIN STREET, SUITE 500
BUFFALO, NEW YORK, 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 22.323 Date: 12/13/2022
Project Name: Proposed Site Redevelopment
Project Address: 4548-4654 Main St Amherst NY
Subject: Sanitary Sewer
Sheet: 1 of 1

Peak Sanitary Demand = 10,940 x 4.37 = 47,808 gpd
= 0.048 mgd

Required Infiltration and Inflow Mitigation:

Peak Sanitary Flow	=	47,808 gpd	=	33.20 gpm
4:1 offset flow per NYSDEC requirements	=	33.20 x 4	=	132.80 gpm req'd
Mitigation Credit	=	$250 / gpm		
Mitigation Agreement Amount	=	**$33,199.86**		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

TECSmith Monitoring Report

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Attachment: SP-2022-11_application_031623 (26951 : SP-2022-11)

Date	Node 1			Node 2			Node 3			Rain₂	New Snow
	Harlem Rd 12" (12")			Park School 10" (10")			N. Ellicott Crk (59.75")				
	FLOW (GAL x 1,000)	PEAK FLOW (MGD)	PEAK LEVEL (IN)	FLOW (GAL x 1,000)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	FLOW (GAL x 1)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	(inches)	(inches)
11/1/2022	32.000	0.098	2.776	8.902	0.046	1.246	7291659	8.715	16.390	*0.01*	*0*
11/2/2022	70.803	0.108	2.865	18.060	0.063	1.304	6810050	10.005	21.170	*0*	*0*
11/3/2022	66.020	0.091	2.609	18.404	0.057	1.200	6637462	8.338	16.030	*0*	*0*
11/4/2022	64.412	0.133	2.967	15.541	0.063	1.223	6525357	8.162	15.910	*0*	*0*
11/5/2022	65.137	0.098	2.722	17.017	0.087	1.509	6719078	8.583	16.530	*0*	*0*
11/6/2022	131.572	0.318	4.692	69.033	0.262	2.005	14823754	31.217	31.550	*0.38*	*0*
11/7/2022	74.975	0.104	2.914	22.355	0.084	1.501	7733200	9.381	17.230	*0*	*0*
11/8/2022	71.236	0.102	2.829	20.885	0.074	1.426	6894542	8.762	16.450	*0*	*0*
11/9/2022	64.667	0.101	2.832	15.643	0.060	1.295	6842863	8.395	16.120	*0*	*0*
11/10/2022	59.590	0.099	2.776	15.304	0.054	1.182	6537961	8.110	15.880	*0*	*0*
11/11/2022	556.390	2.184	25.869	253.555	0.740	3.082	25848659	75.510	130.100	*1.56*	*0*
11/12/2022	558.945	1.073	7.108	287.113	0.591	2.782	36117004	51.270	125.250	*0.13*	*0*
11/13/2022	202.623	0.285	4.088	103.330	0.194	1.839	16960287	21.024	25.270	*0.04*	*0.2*
11/14/2022	162.921	0.223	3.561	54.369	0.099	1.612	13036958	15.259	21.510	*0*	*0*
11/15/2022	137.224	0.502	3.633	43.356	0.066	1.274	10903734	12.485	19.370	*0.02*	*0*
11/16/2022	196.709	0.413	4.705	80.183	0.308	2.122	14895375	31.949	32.450	*0.08*	*0.1*
11/17/2022	150.339	0.183	3.320	48.841	0.099	1.388	10747286	12.763	19.860	*0.9*	*9.4*
11/18/2022	180.306	0.236	3.782	63.191	0.134	1.645	14101924	19.608	24.380	*0.59*	*5.7*
11/19/2022	185.973	0.237	3.737	65.623	0.131	1.709	13710779	16.597	22.270	*1.49*	*21.5*
11/20/2022	190.214	0.244	3.736	79.001	0.124	1.656	14859457	18.113	23.260	*0*	*0*
11/21/2022	192.331	0.287	3.931	89.392	0.149	1.916	15856032	20.287	25.010	*0*	*0*
11/22/2022	216.776	0.341	4.202	122.753	0.203	2.055	18716668	24.031	27.270	*0*	*0*
11/23/2022	244.754	0.390	4.493	162.150	0.228	2.135	20747374	26.747	29.250	*0*	*0*
11/24/2022	277.595	0.347	4.442	146.598	0.213	2.067	19858616	25.038	27.850	*0*	*0*
11/25/2022	557.277	0.791	6.250	319.304	0.509	3.024	38098700	52.355	43.240	*0.16*	*0*
11/26/2022	364.345	0.495	4.994	188.463	0.250	2.053	24687291	30.556	31.860	*0*	*0*
11/27/2022	366.032	0.607	5.481	170.936	0.288	2.128	25437145	45.700	39.780	*0.26*	*0*
11/28/2022	303.846	0.393	4.550	130.328	0.224	1.986	21449454	27.026	29.540	*0.01*	*0*
11/29/2022	150.565	0.279	3.925	48.933	0.129	1.708	17202810	19.160	24.220	*0*	*0*
---	---	---	---	---	---	---	---	---	---	*5.63*	*36.9*

	MGD	CFS
Wet	2.184	3.379

	MGD	CFS
Wet	0.740	1.145

	MGD	CFS
Wet	75.510	116.831

TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
716-462-0382

Date: November 30, 2022

SANITARY SEWER FLOW CAPACITY STUDY – Summary Review

Prepared For: 4558-4564 Main Capacity Analysis

Christopher Wood, PE Partner
487 Main Street, Suite 500
Buffalo, New York 14203

Project Name: 4558-4564 Main Capacity Analysis

Flow Monitoring Period: November 1, 2022 to November 29, 2022

Rain Events (> 0.5-inches) Monitored: November 11 (1.59"), November 17 (0.90"), November 18 (0.59"), and November 19 (1.49")

Number of Monitoring Nodes: Three (3) downstream manholes

Node Locations and Descriptions:

- Node 1 Harlem Rd 12" (12")
- Node 2 Park School 10" (10")
- Node 3 N. Ellicott Crk (59.75")

Summary Conclusion:

Based on the data presented in this report, specifically the flow depth measurements recorded (see graphs below)

- One time did the flow depth exceed pipe diameter at Node 1 and None 3 of the downstream monitoring points during the wet weather events monitored.
- At no time did the flow depth exceed pipe diameter at Node 2 of the downstream monitoring points during the wet weather events monitored.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

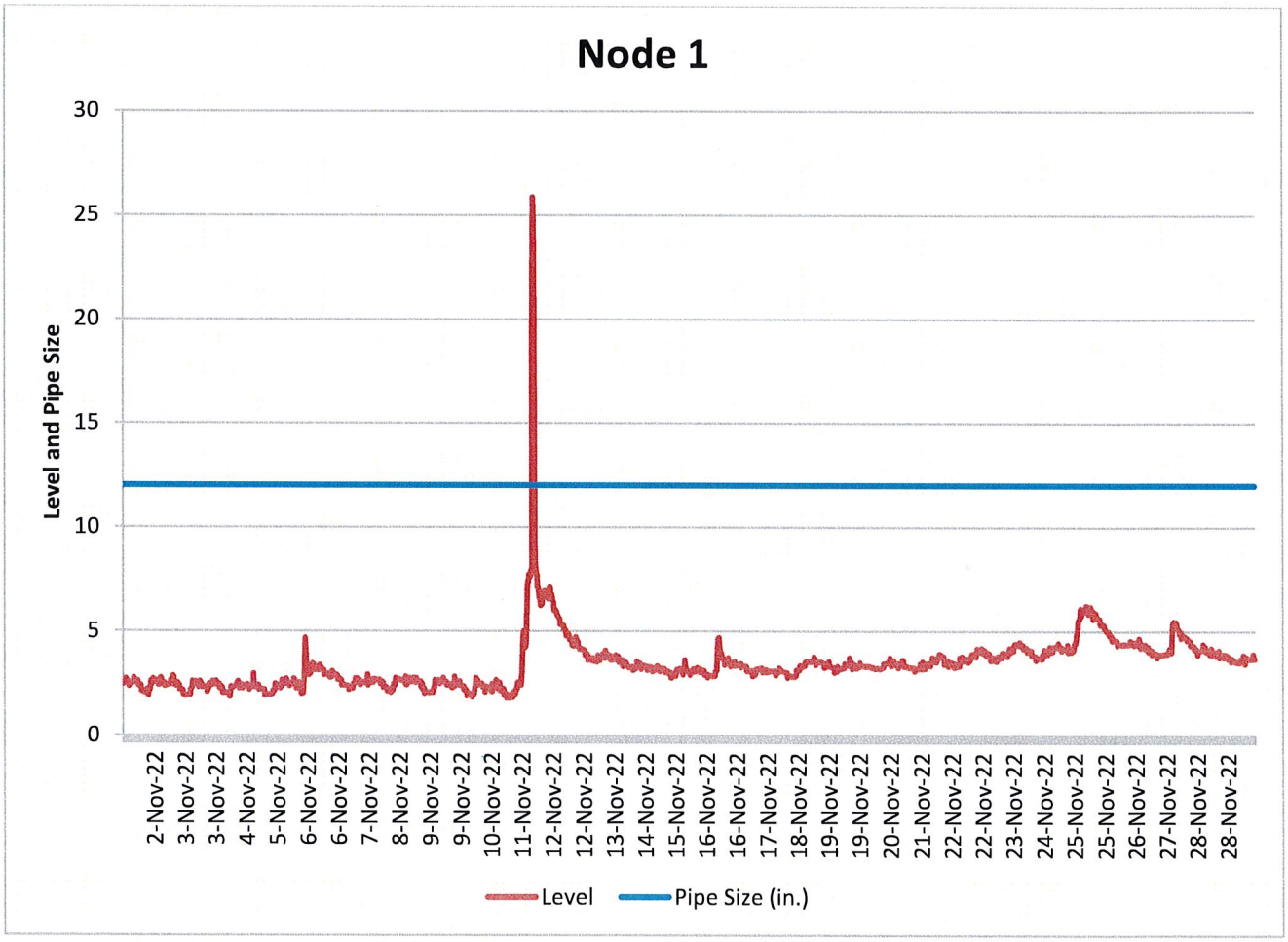
TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
716-462-0382

Depth of Flow Capacity Summary:

Depth of flow capacity is based on diameter of pipe. See graphs below.

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 1.



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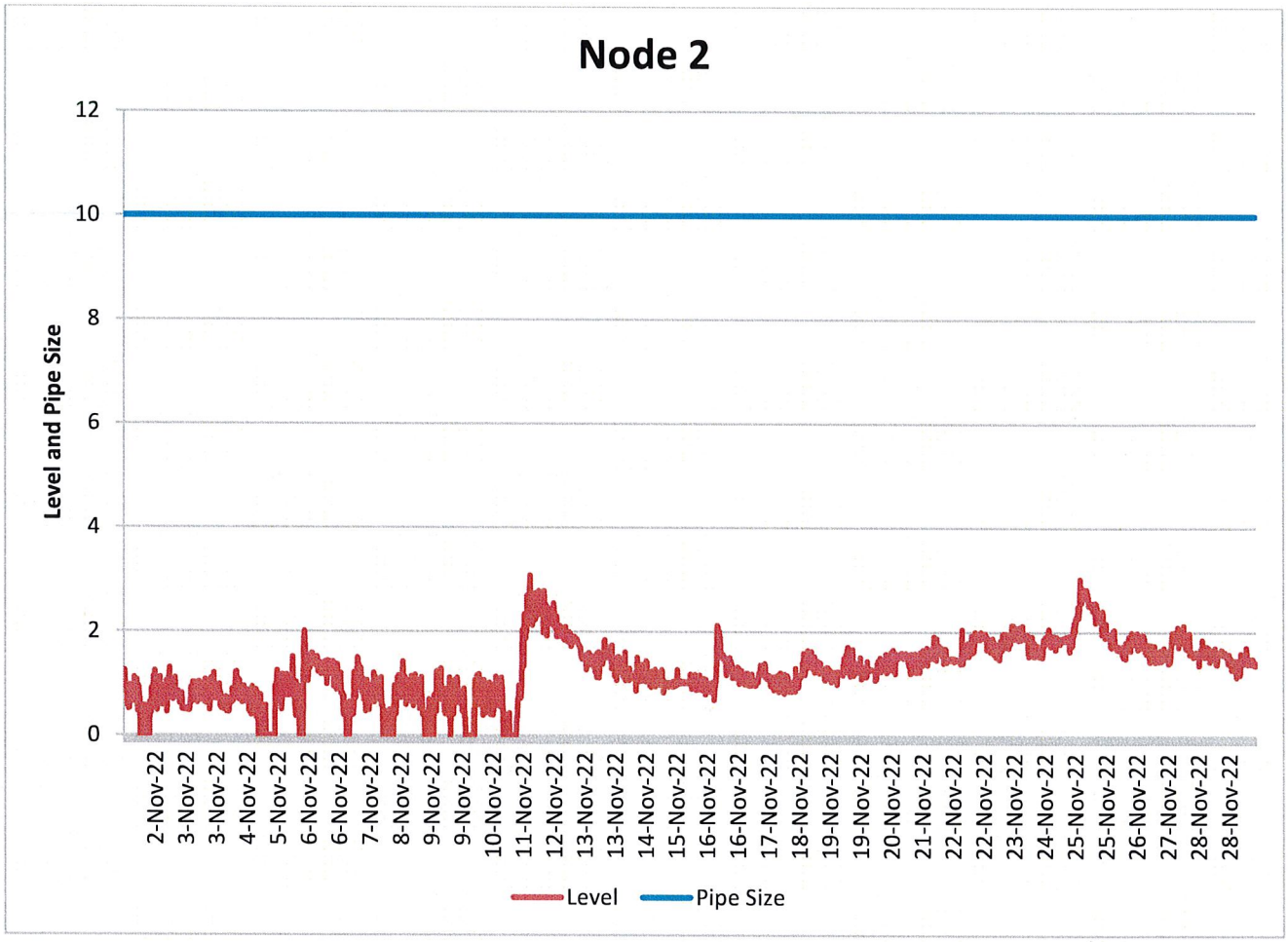
TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
716-462-0382

- At no time during the monitoring period did depth of flow exceed pipe diameter at Node 2.



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TECsmith

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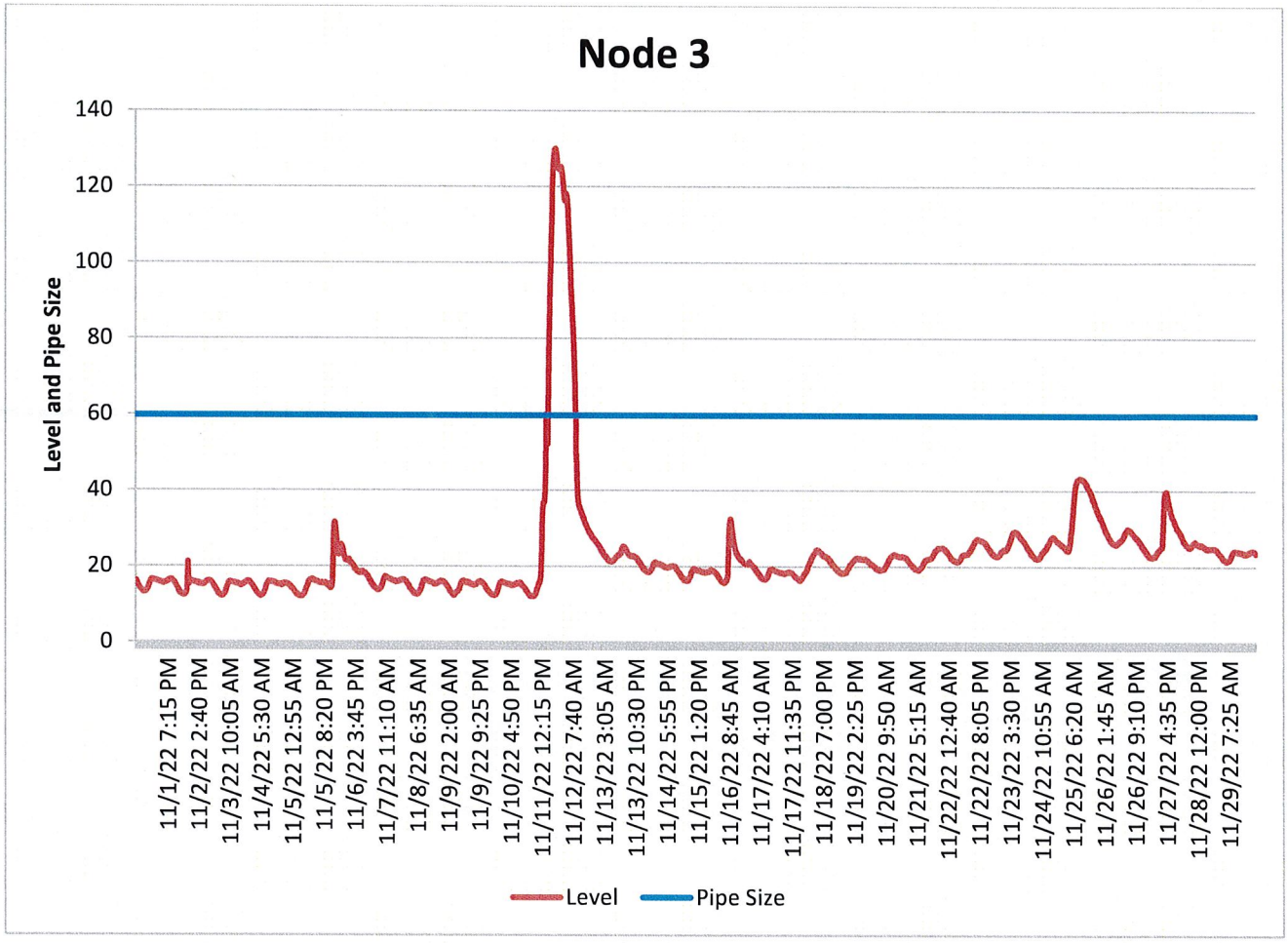
PO Box 95
Clarence, NY 14031
716-462-0382

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 3.



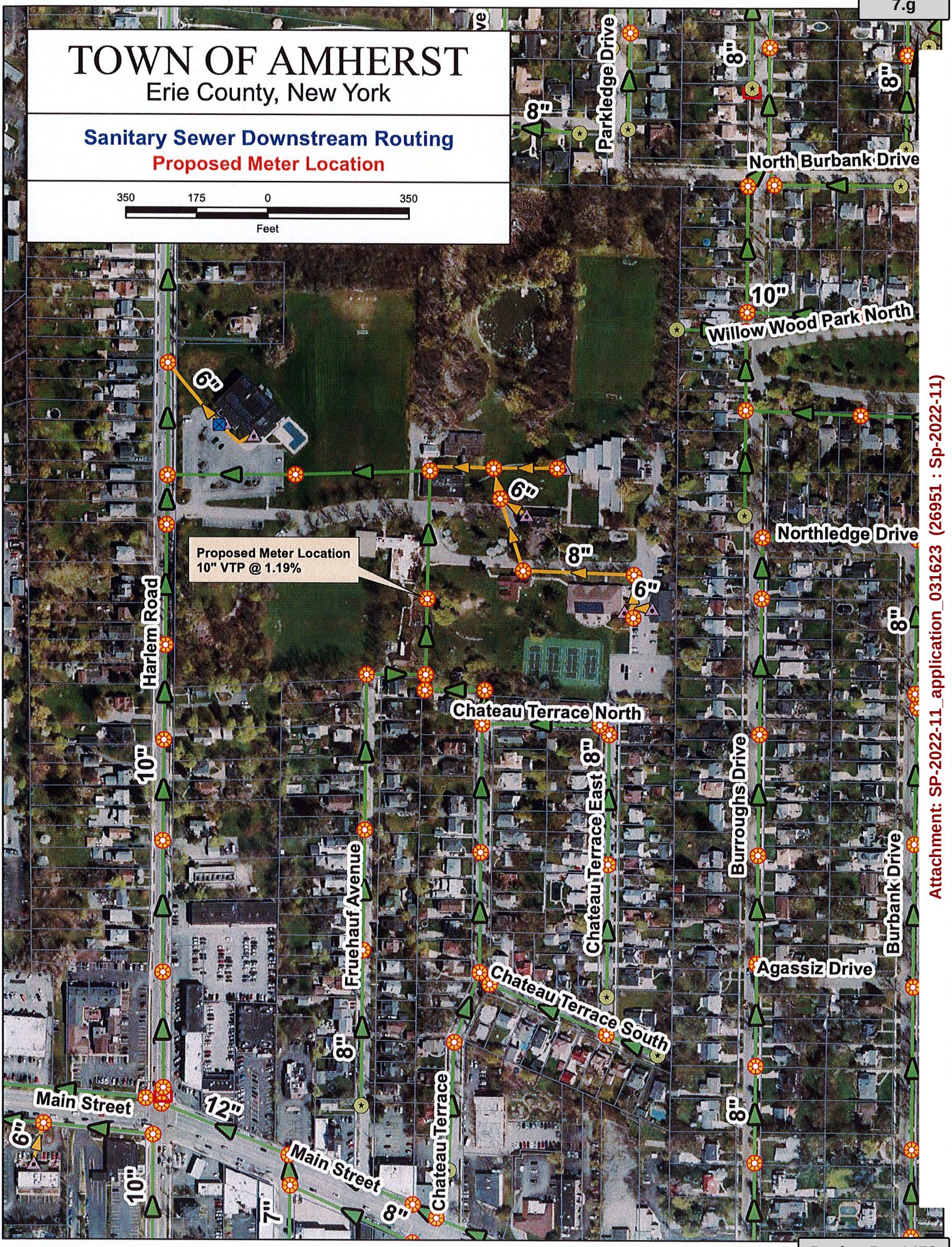
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

(T) Amherst Sanitary Sewer Routing & Node Maps

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

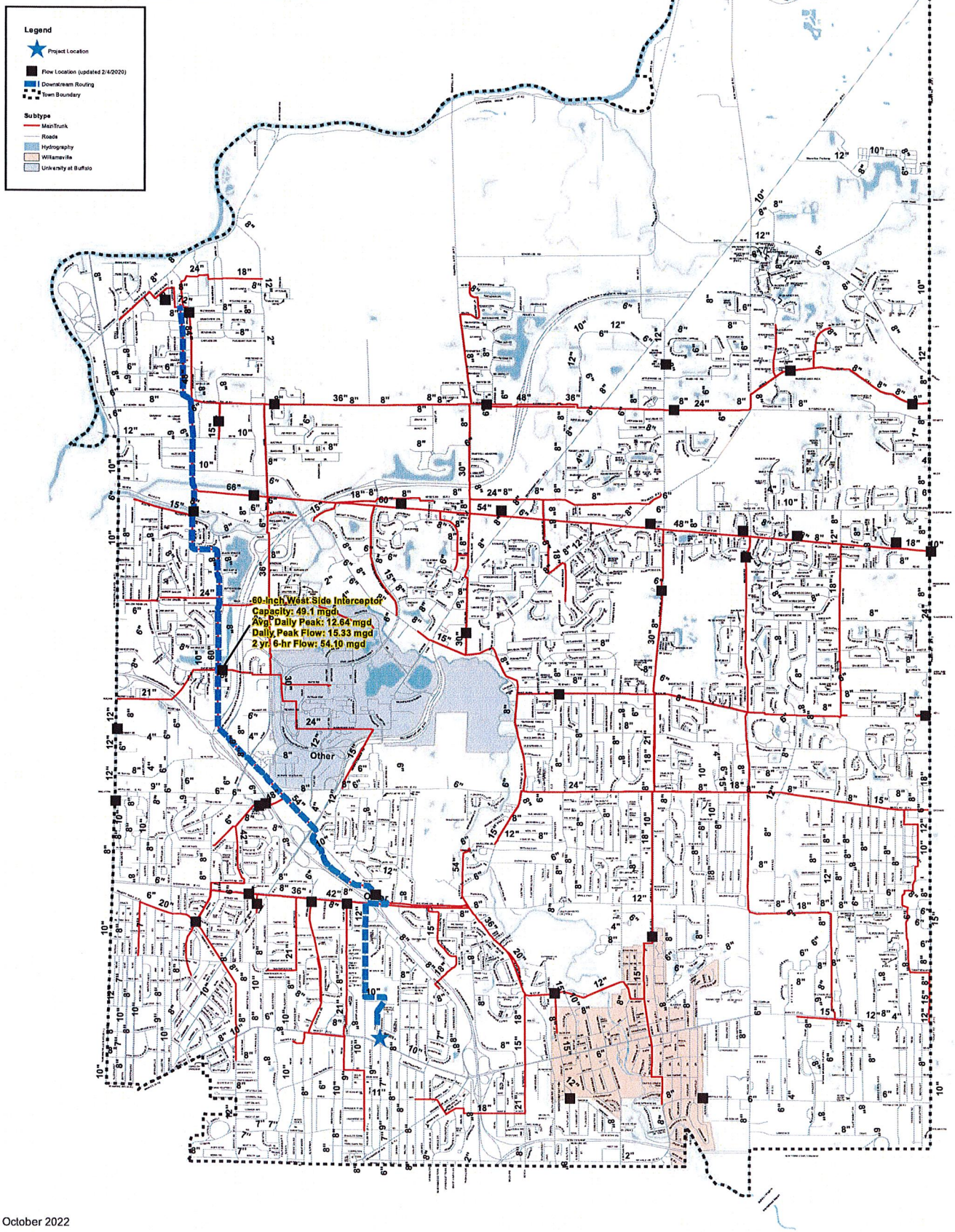


Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

TOWN OF AMHERST
Erie County, New York

Downstream Sewer Routing
Proposed Site: 4548 - 4564 Main Street

1 0.5 0 1
Miles



October 2022

A. Pontikos

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



ENGINEER'S REPORT
FOR
PROPOSED SITE REDEVELOPMENT
4548-4564 MAIN STREET
TOWN OF AMHERST, NEW YORK
PROP # 5202

May 18, 2022
Updated December 13, 2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

GENERAL

This project is a redevelopment of four parcels with a total of 0.93-acres currently occupied with two multi-tenant buildings totaling 12,150 S.F. with an associated parking lot, utility and drainage infrastructure and a 950 S.F. residential house with associated driveway and garage. The project is located along Rt. 5 Main Street between Fruehauf Ave and Chateau Terrace in the Town of Amherst. The property abuts general commercial properties along Main Street property and abuts residential properties along the North property line. The existing multi-tenant buildings and residential house will be demolished for the construction of this project.

Existing Conditions:

The site is currently occupied by a multi-tenant building with associated parking lot and a residential house. The site currently is sheet draining any runoff from pavement surface existing on-site drainage structures.

The site contains three existing domestic water services. A ¾" domestic service is located along Main St. that are tapped off the existing 8" water main along the Southside of Main St. A 2" domestic service is tapped off the 6" water main along Fruehauf Ave. A ¾" domestic service, for the residential home, is tapped off the Existing 1" service main along Chateau Terrace. The existing water services will be abandoned as part of this project.

Existing Sanitary Sewers are located along Main Street that discharges into the existing Town of Amherst sewer district #1.

PROJECT OVERVIEW

The proposed project *(Figure 1)* consists of; demolition of the existing 12,150 S.F. multi-tenant buildings, residential house and garage, pavement areas and the clearing of land; construction of a proposed 34,121 S.F. multi-story building with associated parking garage, drainage infrastructure and site improvements to the sites existing grading and utilities.

PROPOSED FACILITIES

Storm Water

SWPPP Engineer's Report prepared by Carmina, Wood, Morris DPC dated May, 2022

Water System

The existing water services to the site are to be abandoned for this proposed project. The proposed development will provide a new water service tap to the 6" main along Chateau Terrace. The proposed domestic and fire services will be backflowed within the proposed building.

Disinfection of the water services following installation will be continuous feed, according to AWWA C-651, latest revision.

Summary: *(Refer to Figure 2)*

Proposed Building:	34,121 S.F.
Operating Demand Increase:	22.29 gpm
Peak Demand Increase:	40.11 gpm
Water Main:	6" main along Chateau Terrace
Static Pressure:	64 PSI
Head Loss Friction:	0.0 psi
Loss through meter/RPZ:	13.0 psi
Elevation Loss:	0.8 psi
Bends Loss:	0 psi
Required Pressure after RPZ:	20 psi
Proposed Pressure after RPZ:	**50.8 PSI**

Sanitary Sewer:

Sanitary services will provide a new sanitary lateral connection to an existing manhole along Fruehauf Ave. The proposed building will be provided a 2,000 Gal grease trap with new 6" SDR-35 PVC lateral sanitary connection.

Summary:

Existing Flow:		3,165 GPD
Proposed New Building S.F.:		34,121 S.F.
Proposed Flow:	Restaurant	35 GPD * 80 Seats = 2,800 GPD
	Residential	110 GPD * 74 Bedrooms = 8,140 GPD
GPD Total =		10,940 GPD
Total Increased Sanitary Flow:		**7,775 GPD**

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FIGURES:

1 Site Location Plan & Engineering Plan

2 Sanitary & Water Calculations

3 SWPPP Report

4 Flow Test performed by ECWA

APPENDICES:

A FEMA Flood Areas

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FIGURE 1

SITE LOCATION PLAN
ENGINEERING PLANS



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FIGURE 2

SANITARY & WATER CALCULATIONS

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

JOB NAME: MAIN ST MULTI-STORY BUILDING
DESCRIPTION: SANITARY & WATER CALCULATIONS
PROPERTY # 5202 DATE: 01.06.2023
CALCULATED BY: DMZ SHEET: 1 OF 2

SANITARY SEWER CALCULATIONS:

Existing Buildings Removed:			13,100 S.F.	
Design GPD:	Restaurant	=	35 GPD / Seat	*NYSDEC Design standard for WWTS
	Residential	=	110 GPD / Bedroom in Apartment (150 GPD per Bed for pre-1980)	
	Retail	=	0.1 GPD/ S.F. + 15gpd/Employee	
Existing		=	1,950 GPD (Residential) + 1,215 GPD (Retail)	= 3,165 GPD
			(150GPD/Bed * 13 Beds) + [(0.1GPD/S.F. * 1125 S.F. + 15gpd/employee * 6 Employees)]	
Proposed		=	2,800 GPD (Restaurant) + 8,140 GPD (Residential)	= 10,940 GPD
			(35 GPD/Seat*80 Seats) + (110GPD/bed* 74 Beds)	

INCREASED SANITARY FLOW = **7,775 GPD**

PEAK SANITARY DEMAND

Total Demand = 10940 GPD
Per Population = 30 Per Capita

Peak Factor: $(18+\sqrt{P}) / (4+\sqrt{P})$ P in Thousands

Peak Factor = 4.37

Peak Sanitary Demand = 10940 x 4.37 = 47,808 gpd = 33.20gpm

WATER CALCULATIONS: = 1.1 Usage Factor * (GPD)

= GPD / 9hr / 60min
ASSUMED 9HR SHIFT = 12034 / 9 / 60
= **22.29 GPM**

PEAK FACTOR: = GPM X 1.8
= 22.29 X 1.8
Q = **40.11 GPM PEAK**

HEADLOSS FRICTION:

$$= \frac{(10.44) \times (L) \times (Q)^{1.85}}{(C)^{1.85} \times (D)^{4.866}}$$

Q = GPMin
L = LENGTH OF PIPE
C = DESIGN COEF OF PIPE
D = PIPE DIAMETER

$$= \frac{(10.44) \times (18) \times (40.11)^{1.85}}{(140)^{1.85} \times (6)^{4.866}}$$

= **0 PSI**

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BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

JOB NAME: MAIN ST MULTI-STORY BUILDING
DESCRIPTION: SANITARY & WATER CALCULATIONS
PROPERTY # 5202 DATE: 12.13.22
CALCULATED BY: DMZ SHEET: 2 OF 2

ELEVATION LOSS: = (BUILDING INTAKE - HYDRANT HEIGHT) X 0.433
= (671.0 - 669.0) X 0.433
= **0.8 PSI (+)**

LOSS THROUGH RPZ & METER:

RPZ = 12 PSI (STANDARD)
METER = 1 (STANDARD)
= **13 PSI**

LOSS DUE TO BENDS:
RESISTANCE EQUIVALENT LENGTH METHOD)

TOTAL = **0 FT ADDITIONAL PIPE**

STATIC PRESSURE @ HYDRANT:
= **64 PSI**

PRESSURE AFTER RPZ / METER / BENDS / ELEVATION / HEADLOSS:

= 64 PSI - 13 PSI + 0.8 PSI
(HYD) (RPZ) (ELEVATION)
= **50.8 PSI**

REQUIRED RESIDUAL PRESSURE = 20 PSI

PROPOSED RESIDUAL PRESSURE = 50.8 psi

THEREFORE PROPOSED > REQUIRED
50.8 PSI (GREATER) 20 PSI

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FIGURE 3

SWPPP Report

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FIGURE 4

Flow Test by ECWA

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Hydrant FLow Test

Print Date: **4/1**

Residual Hydrant: J07E24 **Test Date/Time:** 11/21/2019 13:15

Location.....: **4301 MAIN ST** **1ST HYD E/O GETZVILLE RD**
TOWN OF AMHERST AMHERST CENTRAL H.S.

Size of Main/Branch: **8"/6"** Fire District: **22021 SNYDER FD 7** Water District: **184 ECWA AREA-TOWN OF AMHE**

Performed By: **DWP/CDB** Comments: **HYDRANT FLOW TEST REQUESTED BY DAVID SCHLANT M/E ENGINEERING**
PHONE: 716-845-5092; EMAIL: DMSCHLANT2@MEENGINEERING.COM

CW #43608

Dischrge Coef: **090** Elvtn Usgs(ft): Static(psi): **64** Residual(psi): **54** Required Residual Pressure(psi): **20**
Gallons Used..: **4,500** Total Flow(gpm): **1,500** Flow at Reqd Resid Pressure: **3,339**

Flow Hydrants:

Flow Hyd	Location	Main/Brnch	Nzle	Size	Pitot	Flow	Comments
J07 E21	**2 BRANTWOOD RD**	**6"/6"**	1:	**2.50**	**20.0**	**750**	
	1ST HYD S/O MAIN ST		2:	**2.50**	**20.0**	**750**	
	C/O MAIN ST		3:			Total Flow: **1,500**	

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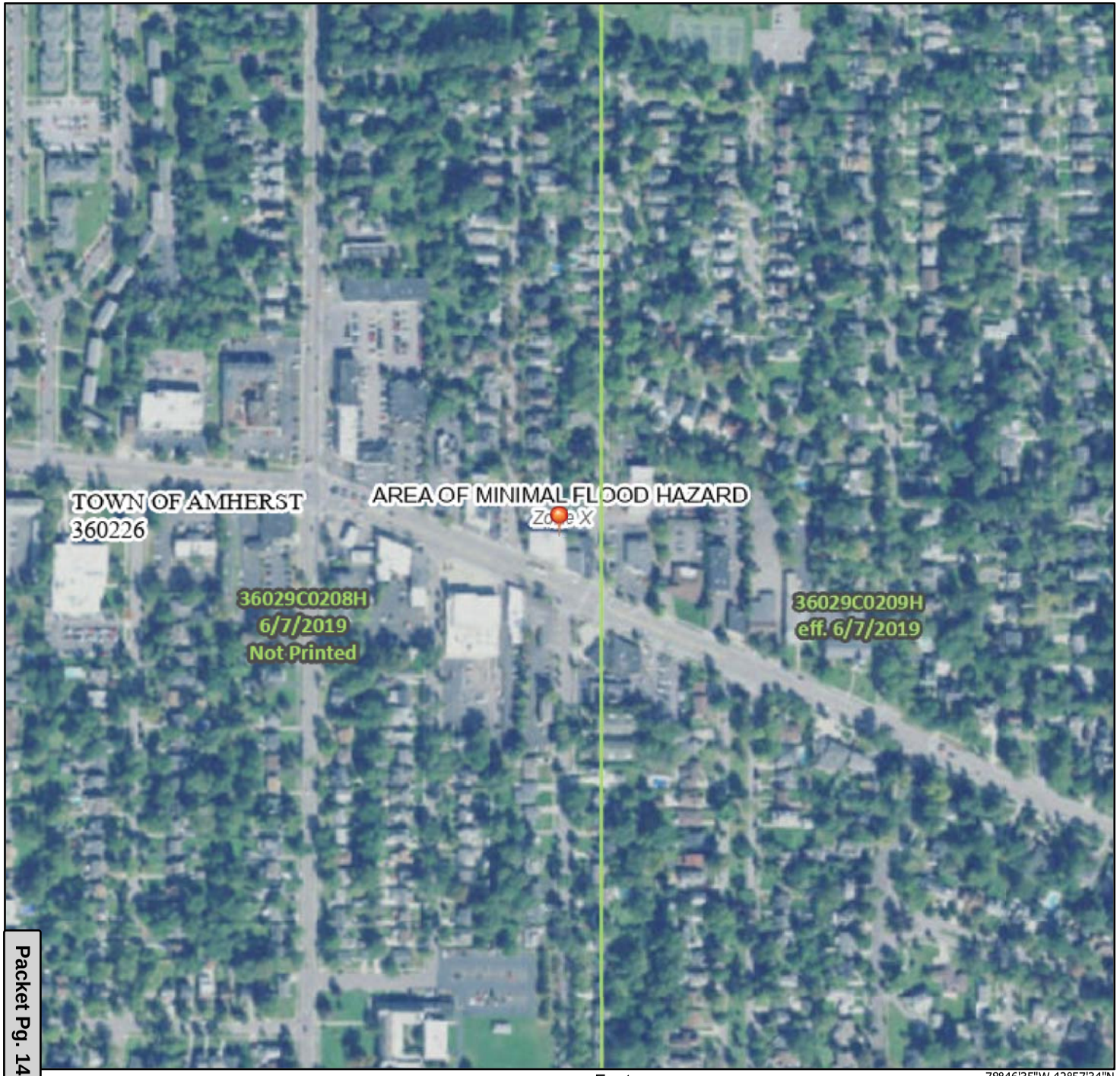
APPENDIX A

FEMA Flood Areas

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

National Flood Hazard Layer FIRMette

78°47'13"W 42°58'N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/11/2021 at 10:16 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following r elements do not appear: basemap imagery, flood zone labe legend, scale bar, map creation date, community identifiers FIRM panel number, and FIRM effective date. Map images for

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Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Carmina · Wood · Morris DPC

487 Main Street Suite 600 Buffalo, New York 14203 P: 716.842.3165 F: 716.842.0263 W: cwm-ae.com

Architecture Engineering Interior Design

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORMWATER POLLUTION PREVENTION PLAN
for
CONSTRUCTION ACTIVITIES
At

Proposed Site Redevelopment
4548-4564 Main Street
Town of Amherst, Erie County, New York

Prepared for

Benderson Development Company, LLC

570 Delaware Ave
Buffalo, NY 14202

Prepared by

Carmina Wood Morris, D.P.C.

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

August 2021
(Revised 12/19/2022)



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Written Storm Water Pollution Prevention Plan

Section 801 - Scope

Section 802 - Project Name and Location

Section 803 - Operator's Name and Address

Section 804 - Project Description

Section 805 - Runoff Coefficient, Soils and Rainfall Information

Section 806 - Name of Receiving Waters

Section 807 - Indian Country Lands

Section 808 - Endangered or Threatened Species

Section 809 - Critical Habitat

Section 810 - Historic Places

Section 811 - Wetlands and/or Other Surface Waters

Section 812 - Erosion and Sediment Controls

- Section 812.1 - Stabilization Practices
- Section 812.2 - Structural Practices
- Section 812.3 - Sequence of Major Activities
- Section 812.4 - Storm Water Management

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Section 816 - Inspection and Maintenance Report Forms

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Section 818 - Spill Prevention Control and Countermeasures (SPCC) Plan

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Section 819 - Control of Non-Storm Water Discharges

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Appendix A Site Location Maps

Appendix B NYSDEC Notice of Intent (NOI)

Appendix C MS4 SWPPP Acceptance Form

Appendix D Engineer's Report

Appendix E NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001

Appendix F Forms

Form SWPPP-1	Contractor's Certification Log
Form SWPPP-2	Contractor's Certification Statement
Form SWPPP-3	Inspection Report
Form SWPPP-4	Stabilization Schedule
Form SWPPP-5	Final Stabilization/Termination Checklist
Form SWPPP-6	Project Rainfall Log
Form SWPPP-7	Requested Changes to the SWPPP
Form SWPPP-8	Monthly Training Log
Form SWPPP-9	Reportable Quantity Release Form
Form SWPPP-10	Implementation Schedule
Form SWPPP-11	Signatory Authorization Designation
Form NYSDEC	SWPPP Preparer Certification
Form NYSDEC	Owner/Operator Certification

Appendix G NYSDEC Notice of Termination (NOT)

Appendix H Stormwater Management Pond and Bioretention Construction and Maintenance Checklist

Appendix I Construction Documents

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PROGRAM

801 SCOPE

A. **PURPOSE: Benderson Development LLC** has placed an emphasis on following **the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity** governing storm water discharges during construction, and in accordance with erosion control practices. The Contractor's participation in this program is mandatory and its non-compliance is subject to various remedies, including without limitation, monetary set-offs, withholding payments; reimbursement for costs, expenses (including reasonable attorney's fees), fines and civil penalties incurred by **Benderson Development LLC*;*** and/or liquidated damages. This section provides a descriptive explanation of **Benderson Development LLC's** Storm Water Pollution Prevention Program and required Contractor participation.

The Engineer of record for this project certifies that this SWPPP meets the requirements and is in compliance with the New York State Stormwater Management Design Manual and latest NYSDEC Phase II stormwater regulation requirements.

B. **SPDES General Permit for Stormwater Discharges from Construction Activity:** Regulations promulgated by the NYSDEC to regulate the discharge of storm water from construction activities on sites where more than **one (1)** acre of soil is disturbed. One of the ways to comply with these regulations for affected sites is to request coverage under the General Permit for Construction Activities for New York State. In order to use the General Permit, a Notice of Intent (NOI) form must be completed and mailed to the **NYSDEC** at least ***5 business days*** prior to any earth-disturbing activities (this time frame may increase to 60 business days if a full review of the SWPPP is determined necessary by the NYSDEC) and a Storm Water Pollution Prevention Plan (SWPPP) for the site must be prepared and followed during the construction activities.

Approval from a regulated, traditional land use control MS4:

1. An *owner or operator* of a *construction activity* that is <u>not</u> subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the NYSDEC.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the *MS4* prior to submitting the NOI to the NYSDEC. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under "Notice of Intent (NOI) Submittal".

C. **RESPONSIBILITIES OF THE CONTRACTOR:** The Contractor shall manage the discharge of storm water from the site in accordance with the **NYSDEC** General Permit for Construction Activities conditions and the following provisions of this section. The Operator shall be responsible for conducting the storm water management practices in accordance with the permit. The Contractor shall be responsible for providing qualified inspectors to conduct the inspections required by the SWPPP. The Contractor shall be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the Contractor's failure to comply with the permit provisions. **It shall be the responsibility of the Contractor to make any changes to the SWPPP necessary when the Contractor or any of his subcontractors elects to use borrow or fill or material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites which are used for multiple construction projects are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The Contractor should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage**

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site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.

D. **NOTICE OF INTENT:** The Operator has petitioned the **NYSDEC** for coverage under the storm water discharges during construction at this site to be covered by the **SPDES** General Permit for Construction Activity for the State of **New York.** A Notice of Intent (NOI) for coverage under this permit has been filed by the Operator. The SWPPP must be prepared prior to submittal of the NOI form. The Operator will require the Contractor to be a co-permittee with the Operator. The Contractor will be required to post the NOI at the construction site along with any building permits.

E. **CONTRACTOR CERTIFICATION & TRAINING**: Certification and Training of the Contractor's Project Manager and Superintendent will be performed at the Pre-Construction Meeting and administered by the **Operator's Project Manager** and/or **Operator's Engineer**. This Certification and Training Program has been developed to stress the importance of the following topics:

- Erosion and sediment control for water quality protection
- Implementation of erosion and sediment control plans
- The importance to proper installation of erosion and sediment control measures
- Regular inspection by the **owner/operator** and a **Qualified Professional** of erosion and sediment control measures
- Diligent maintenance of erosion and sediment control measures
- Expedient preparation of accurate and complete records regarding inspection and maintenance of erosion and sediment control measures
- Record-keeping for inspections and maintenance activities

Upon completion of the certification and training program, the project will receive a *SWPPP Ledger* for use by the Contractor's Project Manager and Superintendent with all required certifications and record keeping forms involved with the installation and/or maintenance of erosion and sediment control measures. The Operator's certification and training shall be in addition to any federal, state or local certifications or training required or available to comply with SPDES stormwater permit requirements by the Contractor.

F. **REQUIREMENTS FOR THE GENERAL CONTRACTOR AND SUBCONTRACTOR(S):** The *SWPPP Ledger* shall provide a **"Contractor's Certification Log" (Form SWPPP-1)** for both the General Contractor and Subcontractor(s) identifying the Company Name, Business Address and Telephone Number along with the Responsible Person for the Contractor and all subcontractors' who will implement the measures identified in the SWPPP. **The General Contractor and Subcontractor(s) shall also sign the "Contractor's Certification Statement" (Form SWPPP-2)** verifying they have been instructed on how to comply with and fully understand the requirements of the **SPDES** General Permit for Construction Activity for the State of **New York** and the SWPPP. These certifications must be signed, by a responsible corporate officer or other party meeting the "Signatory Requirements" of the SPDES General Permit, on behalf of each entity, prior to the beginning of any construction activities and shall be filed in the project's *SWPPP Ledger*. A Signatory Authorization Designation **(Form SWPPP-11)** must be filled out by each entity giving the authorization for the individual to sign on behalf of the entity.

G. **STORM WATER POLLUTION PREVENTION PROGRAM LOCATION REQUIREMENTS:** The *SWPPP Ledger* is meant to be a working document that shall be maintained at the site of the Construction Activities at all times throughout the project, shall be readily available upon request by the Operator's personnel or **NYSDEC** or any other agency with regulatory authority over storm water issues, and shall be kept on-site until the site complies with the Final Stabilization section of this document. **A sign or other notice must be posted near the main entrance of the construction site which contains a completed NOI, the location of the SWPPP and the name and phone number of a contact person responsible for scheduling SWPPP viewing times, and any other state specific requirements.**

H. **SWPPP LEDGER:** The SWPPP Ledger shall be a three (3) ring binder, the Ledger shall be tabbed and indexed for the following sections:

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- **Table of Contents**
- **Written SWPPP**
- **Site Map**
- **Erosion and Sedimentation Control Plan(s)**
- **Signed NYSDEC Notice of Intent (NOI)**
- **Copy of Notice of Permit Coverage**
- **Copy of the NYSDEC SPDES General Permit for Construction Activity for the State of New York**
- **Blank Copy of NOI and Notice of Termination (NOT)**
- **Contractor's Certification Log (Form SWPPP-1)**
- **Contractor's Certification Statement (Form SWPPP-2)**
- **Inspection Report(s) (Form SWPPP-3)**
- **Stabilization Schedule (Form SWPPP-4)**
- **Final Stabilization/Termination Checklist (Form SWPPP-5)**
- **Project Rainfall Log (Form SWPPP-6)**
- **Requested Changes to the SWPPP (Form SWPPP-7)**
- **Monthly Training Log (Form SWPPP-8)**
- **Reportable Quantity Release Form (Form SWPPP-9)**
- **Implementation Schedule (Form SWPPP-10)**
- **Signatory Authorization Designation (SWPPP-11)**
- **Owner's Certification (SWPPP-12)**
- **Engineer's Certification (SWPPP-13)**
- **Sample Forms**

The Operator's Project Manager must review and evaluate for compliance the *SWPPP Ledger* at each Project Review. All Inspection and Maintenance Forms must be **signed** by the Operator's Project Manager **(or other duly authorized representative)** at this review and be submitted with the Contractor's Monthly Application for Payment. The approval of the Contractor's Application for Payment will be withheld until the *SWPPP Ledger* is deemed in compliance and all SWPPP Inspection and Maintenance Forms and have been submitted to the satisfaction of the Operator.

I. INSPECTIONS AND RECORD-KEEPING:

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. Owner or Operator Maintenance Inspection Requirements

1. The *owner or operator* shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *owner or operator* can stop conducting the maintenance inspections. The *owner or operator* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of the General Permit as soon as soil

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disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *owner or operator* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. **Qualified Inspector Inspection Requirements**

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

Note: The *trained contractor* identified in Part III.A.6 of the General Permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A of the General Permit. In order to perform these inspections, the *trained contractor* would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity.

1. A *qualified inspector* shall conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B of the General Permit, with the exception of:

   a. The construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C of the General Permit and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

   b. The construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

   c. Construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

   d. Construction activities located in the watersheds identified in Appendix D of the General Permit that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

   a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

   b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

   c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter

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shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F of the General Permit) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the MS4 (provided the MS4 is not the *owner or operator* of the construction activity) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the Regional Office stormwater contact person or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the MS4 (provided the MS4 is not the *owner or operator* of the construction activity). in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.A.1 of the General Permit.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

   a. Date and time of inspection;

   b. Name and title of person(s) performing inspection;

   c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

   d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any *discharges* of sediment from the construction site. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

   e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

   f. Identification of all erosion and sediment control practices that need repair or maintenance;

   g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

   h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

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i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and

k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.C.2 of the General Permit, the inspection reports shall be maintained on site with the SWPPP.

Record Retention - The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves *final stabilization*. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

- **Form SWPPP-3** **Inspection Report**
- **Form SWPPP-4** **Stabilization Schedule**
- **Form SWPPP-5** **Final Stabilization/Termination Checklist**
- **Form SWPPP-6** **Project Rainfall Log**
- **Form SWPPP-7** **Requested Changes to the SWPPP**
- **Form SWPPP-8** **Monthly Training Log**
- **Form SWPPP-9** **Reportable Quantity Release Form**
- **Form SWPPP-10** **Implementation Schedule**
- **Form SWPPP-11** **Signatory Authorization Designation**
- **Form SWPPP-12** **Owner's Certification**
- **Form SWPPP-13** **Engineer's Certification**

J. **SWPPP MODIFICATIONS:** The inspection report should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP is meant to be a dynamic working guide that is to be kept current and amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants or when the plan proves to be ineffective in eliminating or significantly minimizing pollutant discharges. Any such changes to the SWPPP must be made in writing on the "**Requested Changes to the SWPPP" (Form SWPPP-7)** within 7 days of the date of such modification or amendment is made. The Contractor's failure to modify or report deficiencies to the Operator will result in the Contractor being liable for fines and construction delays resulting from any federal, state, or local agency enforcement action.

K. **CONTRACTOR'S MONTHLY TRAINING:** The Contractor shall provide monthly training sessions for all entities and subcontractors involved with installing, applying, performing, maintaining and inspection of the SWPPP. Logs of each monthly training shall be kept by the Contractor on the "Monthly Training Log" **(Form SWPPP-8)**, in the *SWPPP Ledger*. Training shall educate the attendees on the topics of:

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- The Location and Type of Control Measures
- The Construction Requirements for the Control Measures
- Maintenance Procedures for each of the Control Measures
- Spill Prevention and Cleanup Measures
- Inspection and Maintenance Record Keeping Requirements

L. **FINAL STABILIZATION AND TERMINATION OF PERMIT COVERAGE:** A site can be considered finally stabilized when all soil disturbing activities have been completed and a uniform perennial vegetative cover with a density of **85%** for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the facility no longer discharges storm water associated with construction activities and a Notice of Termination (NOT) form filed by the Operator(s) with the NYSDEC. The Operator's Project Manager must complete the NOT. The NOT must be signed by the signatory (or equivalent position) on the NOI and subsequently submitted to the appropriate agency. The Operator's Project Manager must provide a completed copy of the NOT to the Contractor for inclusion in the SWPPP, which will then be optically scanned into the final SWPPP document as required. This filing terminates coverage under the General Permit and terminates the Contractor's responsibility to implement the SWPPP, but the requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed. The owner or operator shall also have the qualified inspector perform a final site inspection prior to submitting the NOT to the Department. In addition, the qualified inspector must verify during the final inspection that all Town of Amherst requirements for Final Stabilization have been satisfied prior to Town of Amherst signature of the NOT. Upon achieving this milestone, the Contractor shall also submit "Final Stabilization Certification/Termination Checklist" **(Form SWPPP-5)**. Final payment and/or the release of retainage will be withheld until all provisions of the SWPPP have been submitted, completed and accepted by the Operator.

802 PROJECT NAME AND LOCATION

Proposed Site Redevelopment
4548-4564 Main Street
Town of Amherst, NY 14226
42.963°N, 78.782°W
Estimated Area of Site ≈ 1.02+/- acres
Estimated Area to be Disturbed by Construction Activities ≈ 1.02+/- acres

A general location map is included as Appendix A.

803 OPERATOR'S NAME AND ADDRESS

Benderson Development LLC
570 Delaware Ave
Buffalo, NY 14202
Contact Person: Matt Oates
Telephone: 716-878-9397

804 PROJECT DESCRIPTION

This redevelopment project will consist of the construction of a 3-story mixed-use building that will include apartments, restaurant space and multi-level parking. The site is located on the north side of Main Street (NY-5), between Fruehauf Ave and Chateau Terrace in the Town of Amherst. The existing site is currently occupied by a 3-story vacant building located along the Main Street frontage. Existing surface parking is located north behind the existing building. Both the existing building and parking areas will be removed as part of this project. The overall site area is approximately 0.93+/- acres, however, construction activities will result in approximately 1.02+/- acres of disturbance area.

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Soil disturbing activities will include:

A. Construction of temporary construction exit point
B. Clearing & grubbing of the site within disturbance limits
C. Construction of detention basin & bioretention area
D. Installation of storm sewer pipes and inlets
E. Construction of utilities
F. Construction of driveways and parking lot
G. Final grading & landscaping
H. Construction of building

This project is owned by **Benderson Development LLC** and will be developed by **Benderson Development LLC**. The work area consists of approximately 1.02+/- acres for which erosion and sediment controls have been developed and fully addressed in this written plan and the Erosion and Sediment Control Plans. See the construction documents for additional details

805 RUNOFF COEFFICIENT, SOILS, AND RAINFALL INFORMATION

The initial runoff curve number for the pre-construction site is "CN" = 95. The post-construction runoff curve number for the site will be "CN" = 95. Approximately 1.02+/- acres will be disturbed by construction activities.

See soils information located in Appendix D

The site is in Erie County, which receives an average of approximately 35 inches rainfall annually with the highest amounts of rainfall received in the months of May thru September. Annual snow for this area is approximately 100 inches.

806 WATERS

The runoff generated from this site will discharge to the existing closed Town of Amherst storm sewer that is ultimately tributary to Ellicott Creek and the Niagara River.

807 INDIAN COUNTRY LANDS

This project is not located on Indian Lands.

808 ENDANGERED AND THREATENED SPECIES

No endangered/threatened species have been determined to be on the site.

809 CRITICAL HABITAT

No critical habitats have been determined to be on the site.

810 HISTORIC PLACES

The assessed property is not listed in the National Register of Historical Places.

811 WETLANDS AND/OR OTHER SURFACE WATERS

No wetlands are located on the site.

812 EROSION AND SEDIMENT CONTROLS

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812.1 STABILIZATION PRACTICES

Stabilization practices for this site include:

A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
B. Use of stabilization method for all slopes having a slope greater than 1V:3H.
C. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
D. Mulching exposed areas.
E. Vegetation preservation in undisturbed areas.
F. Frequent watering to minimize wind erosion during construction.

a. For sites where **5 acres or more** are disturbed at any one time: In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the *New York Standards and Specifications for Erosion and Sediment Control.*
b. The owner or operator shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
c. The owner or operator shall install any additional measures needed to protect water quality.

812.2 STRUCTURAL PRACTICES

Structural practices for this site include:

A. Inlet protection using a method detailed in the Construction Documents.
B. Perimeter protection using temporary silt fence.
C. Outlet protection using rip-rap stone and end sections.
D. Stabilized Construction Entrance.
E. Temporary stone wash off areas.
F. Storm sewer, curb/gutter.
G. Sediment traps and basins.

812.3 SEQUENCE OF MAJOR ACTIVITIES

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

A. Construct temporary construction exits at locations shown on the Demolition & Erosion Control Plan Sheet.
B. Install perimeter silt fences in the locations shown on the Demolition & Erosion Control Plan Sheet.
C. Clear & Grub site.
D. Construction of detention basin & bioretention area.
E. Commence site grading.
F. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
G. Installation of proposed utilities.
H. Finalize pavement subgrade preparation.
I. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all inlets.
J. Dust control.

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K. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
L. Install base material as required for pavement.
M. Carry out final grading and seeding and planting.
N. Clean storm system following construction.
O. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.
P. Remove temporary construction exits only prior to pavement construction in these areas.

A schedule for implementation for the activities identified above is included as Form SWPPP-4 of the SWPPP.

Note: Sediment control storage during construction (traps & basins) during construction shall be 134cy per acre of disturbance per NYSDEC requirements.

812.4 STORM WATER MANAGEMENT: See Appendix D, Engineer's Report

813 OTHER CONTROLS

813.1 OFF-SITE VEHICLE TRACKING

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments. Existing paved areas will remain as long as possible and will be used for vehicle wash areas and to further aid in the reduction of vehicle tracking of sediments. The paved streets adjacent to the site entrance shall be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material to/from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

813.2 EXCAVATION SPOIL MATERIALS

Excavation spoil materials are generated during the excavation of the development's building and utilities installation. These materials must be properly managed to prevent them from contributing to storm water discharges. The materials generated from the development of this project will be hauled off-site or stockpiled for re-use in designated areas which will have temporary erosion & sediment control measures installed. Any removal from site will be done under the necessary permits required by the local governing agencies.

813.3 DUST CONTROL

Minimizing wind erosion and controlling dust will be accomplished by one or more of the following methods:
A. Frequent watering of excavation and fill areas.
B. Providing gravel or paving at entrance/exit drives, parking areas and transit paths.

813.4 WASTE DISPOSAL

If needed, all waste materials will be collected and stored in securely lidded metal dumpsters rented from an approved waste management company. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpsters. The dumpsters will be emptied when full and then hauled to a NYSDEC approved landfill for proper disposal. No construction waste will be buried on-site. All personnel will be instructed regarding the correct procedures for waste disposal.

813.5 SANITARY WASTE

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If needed, portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

813.6 CONCRETE WASTE FROM CONCRETE TRUCKS

A. Emptying of excess unhardened concrete and/or washout from concrete delivery trucks will be allowed on the job site, but in either (1) specifically designated diked areas which have been prepared to prevent contact between concrete and/or washout and storm water which will be discharged from the site or (2) in locations where waste concrete will be poured into forms to make rip-rap or other useful concrete products.

B. Hardened waste concrete from the designated diked areas described above will be disposed of in accordance with applicable local and state regulations with regards to disposal of construction debris.

813.7 HAZARDOUS SUBSTANCES & HAVARDOUS WASTE

A. All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job superintendent, who will also be responsible for seeing these practices are followed. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such products are stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

B. The contractor will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this SWPPP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials of hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge shall be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job superintendent to properly train all personnel in the use of the SPCC plan.

C. Any spills of hazardous materials which are in excess of the Reportable Quantities as defined by the EPA regulations shall be immediately reported to the EPA National Response Center at 1-800-424-8802. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

D. In order to minimize the potential for a spill of hazardous materials to come in contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, under cover, when not in use.
2. The minimum practical quantity of all such materials will be kept on the job site.
3. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
4. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these

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containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.
5. All products will be stored in and used from the original container with the original product label.
6. All products will be used in strict compliance with instructions on the product label.
7. The disposal of excess or used products will be in strict compliance with instructions on the product label.

813.8 CONTAMINATED SOILS

A. Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations.

B. The job site superintendent will be responsible for seeing that these procedures are followed.

814 COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

The Contractor will obtain copies of any and all local and state regulations which are applicable to storm water management, erosion control, and pollution minimization at this job site and will comply fully with such regulations. The Contractor will submit written evidence of such compliance if requested by the Operator or any agent of a regulatory body. The Contractor will comply with all conditions of the **SPDES** General Permit for Construction Activity for the State of **New York**, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

815 INSPECTION AND MAINTENANCE PROCEDURES

The following inspection and maintenance practices will be used to maintain erosion and sediment controls and stabilization measures.

1. All control measures will be inspected by the **owner/operator** at least weekly and shall continue until the site complies with the Final Stabilization section of this document (See Section 816)

2. All control measures will be inspected by a **Qualified Professional** twice a week separated by at least two (2) full calendar days and shall continue until the site complies with the Final Stabilization section of this document (See Section 816)

3. All measures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be initiated within 24 hours of report.

4. Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.

5. Silt fences will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.

6. Inlet protection and the stabilized construction entrance shall be inspected to see if these measures are functioning properly or if maintenance is required.

7. Temporary and permanent seeding and all other stabilization measures will be inspected for bare spots, washouts, and healthy growth.

8. A maintenance inspection report will be made after each inspection. Copies of the report forms to be completed by the inspector are included in this SWPPP.

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9. The job site superintendent will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.

10. Personnel selected for the inspection and maintenance responsibilities will receive training from the job site superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms. Documentation of this personnel training will be kept on site with the SWPPP.

11. Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.

12. Report to the NYSDEC within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event. The following events require 24 hour reporting: a) any unanticipated bypass which exceeds any effluent limitation in the permit, b) any upset which exceeds any effluent limitation in the permit, and c) a violation of a maximum daily discharge limitation for any of the pollutants listed by the NYSDEC in the permit to be reported within 24 hours. The written submission must contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.

13. Releases of hazardous substances or oil in excess of reportable quantities (as established under 40 CFR 110, 40 CFR 117 or 40 CFR 302) must be reported.

Upon completion of construction, the property owner is responsible for ensuring that the stormwater facilities are regularly inspected and maintained. Maintenance and inspection procedures are as follows.

1. On a quarterly basis and following significant rainfall events or snow-melts, perform the following:
   - Inspect catch basins, storm manholes, treatment structures, storm piping and stormwater ponds for debris and accumulation of sediment.
   - Remove and properly dispose of any collected debris and sediment in accordance with applicable state, federal and local regulations.
   - Flush piping with water if necessary to remove accumulated sediment.
   - Clean treatment structures per manufacturer's recommendations
   - Check all stone outfall structures for erosion and re-stone if necessary to prevent further erosion.
   - Inspect grassed/landscaped areas for un-vegetated areas or areas with less than 80% healthy stand of grass and reseed and mulch as necessary. Water daily if reseeded in July and August.
   - A record of all inspections should be kept.
2. Maintain all lawn areas by regular mowing, including the grassed slopes of the stormwater ponds and any grass swales. Any eroded areas shall be regarded, seeded and mulched immediately.

816 INSPECTION AND MAINTENANCE REPORT FORMS

Once installation of any required or optional erosion control device or measure has been implemented, inspections shall be performed by a Qualified Professional at least once every seven (7) calendar days. For construction sites where soil disturbance activities are on-going and the owner or operator has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. The owner and contractor shall obtain from the MS4 an approval for disturbing more than five-acres at any given time. For construction sites where active construction has been suspended, inspection frequency under the general permit can be reduced to once every 30 days, provided temporary stabilization measures have been applied to all disturbed areas. The forms found in this SWPPP shall be used by the inspectors to inventory and report the

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condition of each measure to assist in maintaining the erosion and sediment control measures in good working order.

These report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the Operator's Engineer, and the Operator for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these persons, upon request, via mail or facsimile transmission. Inspection and maintenance report forms are to be maintained by the permittee for five years following the final stabilization of the site.

THE TOWN OF AMHERST IS TO BE PROVIDED WITH A COPY OF ALL SWPPP INSPECTIONS WITHIN ONE WORKING DAY OF PERFORMING THE INSPECTION.

817 OTHER RECORD-KEEPING REQUIREMENTS

The Contractor shall keep the following records related to construction activities at the site:

- Dates when major grading activities occur and the areas which were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when an areas is stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

818 SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN

818.1 MATERIALS COVERED

The following materials or substances are expected to be present onsite during construction:

Concrete/Additives/Wastes	Cleaning solvents
Detergents	Petroleum based products
Paints/Solvents	Pesticides
Acids	Fertilizers
Solid and construction wastes	Sanitary wastes
Soil stabilization additives	

818.2 MATERIAL MANAGEMENT PRACTICES

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff. The job site superintendent will be responsible for ensuring that these procedures are followed.

A. Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project.

1. An effort will be made to store only enough products required to do the job.
2. All materials stored onsite will be stored in a neat, orderly manner and, if possible, under a roof or in a containment area. At a minimum, all containers will be stored with their lids on when not in use. Drip pans shall be provided under all dispensers.
3. Products will be kept in their original containers with the original manufacturer's label in legible condition.
4. Substances will not be mixed with one another unless recommended by the manufacturer.
5. Whenever possible, all of a product will be used up before disposing of the container.

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6. Manufacturer's recommendations for proper use and disposal will be followed.
7. The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

B. Hazardous Products

These practices will be used to reduce the risks associated with hazardous materials. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

1. Products will be kept in original containers with the original labels in legible condition.
2. Original labels and material safety data sheets (MSDS's) will be procured and used for each material.
3. If surplus product must be disposed of, manufacturer's or local/state/federal recommended methods for proper disposal will be followed.
4. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
5. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

C. Hazardous Waste

All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job site superintendent, who will also be responsible for seeing that these practices are followed.

D. Product Specific Practices

The following product specific practices will be followed on the job site.

1. Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. **Any petroleum storage tanks stored onsite will be located within a containment area that is designed with an impervious surface between the tank and the ground. The secondary containment must be designed to provide a containment volume that is equal to 110% of the volume of the largest tank.** Drip pans shall be provided for all dispensers. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations. The location of any fuel tanks and/or equipment storage areas must be identified on a plan by the contractor once the locations have been determined.

2. Fertilizers

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Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked in the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

3. Paints, Paint Solvents, and Cleaning Solvents

All containers will be tightly sealed and stored when not in use. Excess paint and solvents will not be discharged to the storm sewer system but will be properly disposed of according to manufacturer's instructions or state and federal regulations.

4. Concrete Wastes

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or wash out and storm water which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

The hardened residue from the concrete wash out diked areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the Contractor. The job site superintendent will be responsible for seeing that these procedures are followed.

All concrete wash out areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges. The location of concrete wash out area(s) must be identified on a plan by the contractor once the locations have been determined. In addition, a standard detail on the construction of the concrete wash out shall be included on this plan.

E. Solid and Construction Wastes

All waste materials will be collected and stored in an appropriately covered container and/or securely lidded metal dumpster rented from a local waste management company which must be a solid waste management company licensed to do business in New York and the Town of Amherst. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of twice per week or more often if necessary, and the trash will be hauled to a landfill approved by the NYSDEC. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedures for waste disposal.

All waste dumpsters and roll-off containers will be located in an area where the likelihood of the containers contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of waste dumpsters and roll-off containers must be identified on a plan by the contractor once the locations have been determined.

F. Sanitary Wastes

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

All sanitary waste units will be located in an area where the likelihood of the unit contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of sanitary waste units must be identified on a plan by the contractor once the locations have been determined.

G. Contaminated Soils

Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Materials Management Plan and in accordance with applicable state and federal regulations.

818.3 SPILL PREVENTION AND RESPONSE PROCEDURES

The Contractor will train all personnel in the proper handling and cleanup of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job site superintendent to properly train all personnel in spill prevention and clean up procedures.

A. In order to minimize the potential for a spill of hazardous materials to come into contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, with their lids on, preferably under cover, when not in use.

2. The minimum practical quantity of all such materials will be kept on the job site.

3. A spill control and containment kit (containing, for example, absorbent materials, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

4. Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.

B. In the event of a spill, the following procedures should be followed

1. All spills will be cleaned up immediately after discovery.

2. The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substances.

3. The project manager and the Engineer of Record will be notified immediately.

Spills of toxic or hazardous materials will be reported to the appropriate federal, state, and/or local government agency, regardless of the size of the spill. Spills of amounts that exceed

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Reportable Quantities of certain substances specifically mentioned in federal regulations (40 CFR 110, 40 CFR 117, and 40 CFR 302) must be immediately reported to the EPA National Response Center, telephone 1-800-424-8802. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

4. If the spill exceeds a Reportable Quantity, the SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The plans must identify measures to prevent the recurrence of such releases and to respond to such releases.

C. The job site superintendent will be the spill prevention and response coordinator. He will designate the individuals who will receive spill prevention and response training. These individuals will each become responsible for a particular phase of prevention and response. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

819 CONTROL OF NON-STORM WATER DISCHARGES

Certain types of discharges are allowable under the **NYSDEC SPDES** General Permit for Construction Activity for the State of **New York**, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures which have been outlined previously in this SWPPP will be strictly followed to ensure that no contamination of these non-storm water discharges takes place. The following allowable non-storm water discharges which may occur at the job site include:

A. Discharges from fire fighting activities.
B. Fire hydrant flushings (see note below)
C. Waters used to wash vehicles or control dust in order to minimize offsite sediment tracking.
D. Routine external building washdown which does not use detergents.
E. Pavement washwaters where spills or leaks of hazardous materials have not occurred or detergents have not been used.
F. Air conditioning condensate.
G. Springs or other uncontaminated groundwater, including dewatering ground water infiltration.
H. Foundation or footing drains where no contamination with process materials such as solvents is present.

Note: The Contractor shall discharge any super-chlorinated water from water distribution pipe disinfection activities into sanitary sewer system

820 STORM WATER CONTROL FACILITY MAINTENANCE

The proposed stormwater drainage system area shall be inspected 2 times per year (spring and fall) for removal of silt and debris. See Appendix H: Stormwater Management Pond and Bioretention Construction and Maintenance Checklist.

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Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Appendix A

Site Location Maps:

ERIE COUNTY GIS

GOOGLE AERIAL

SHPO

FEMA

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Erie County On-Line Mapping Application





Legend

- Parcels
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road

0 0.02 0.0 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
THIS MAP IS NOT TO BE USED FOR NAVIGATION

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

1: 1,128

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Erie County On-Line Mapping Application





Legend

- Parcels
- Streets and Highways
  - Interstate
  - Primary State Road
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0 0.02 0.0 Miles

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ERIE COUNTY
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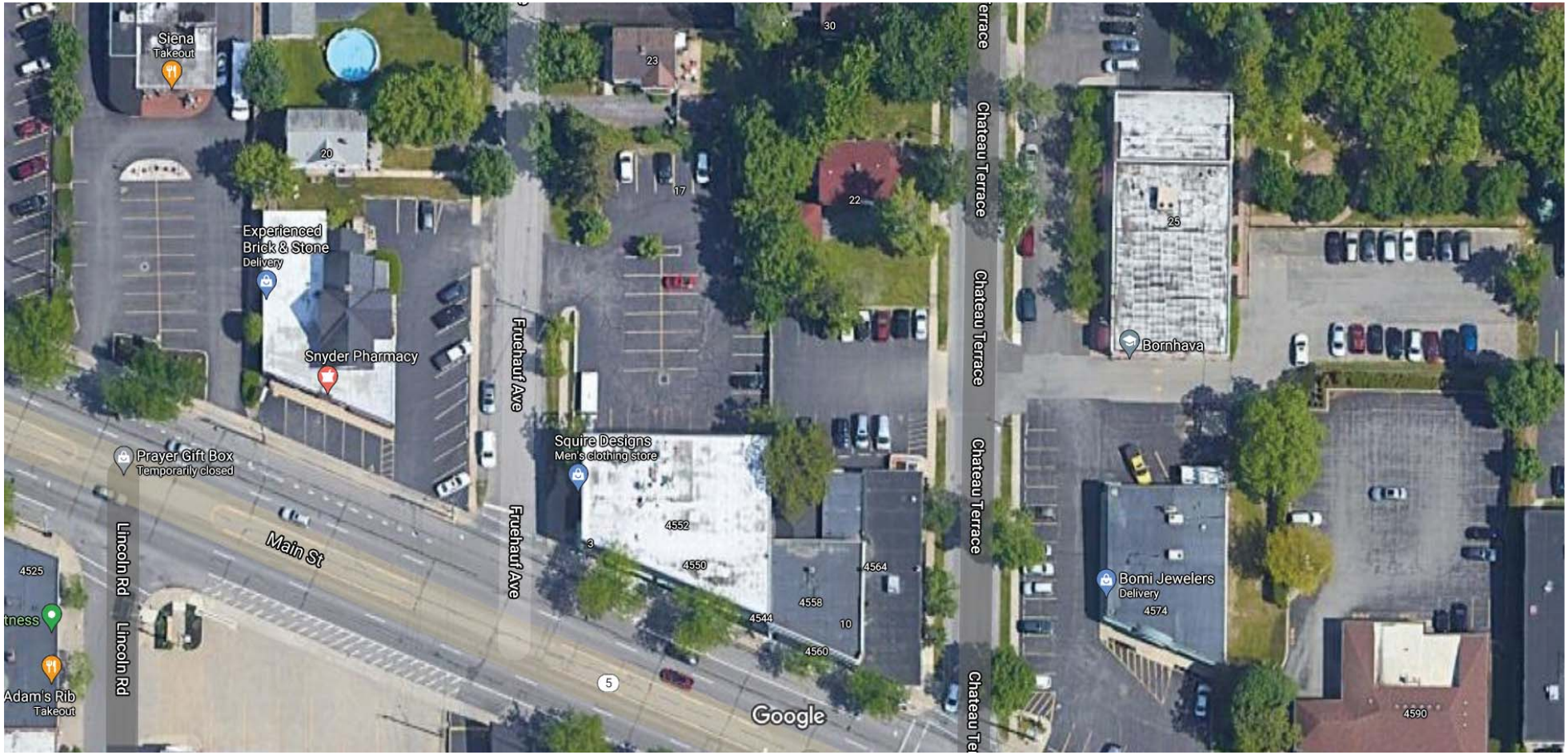
1: 1,128

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Google Maps

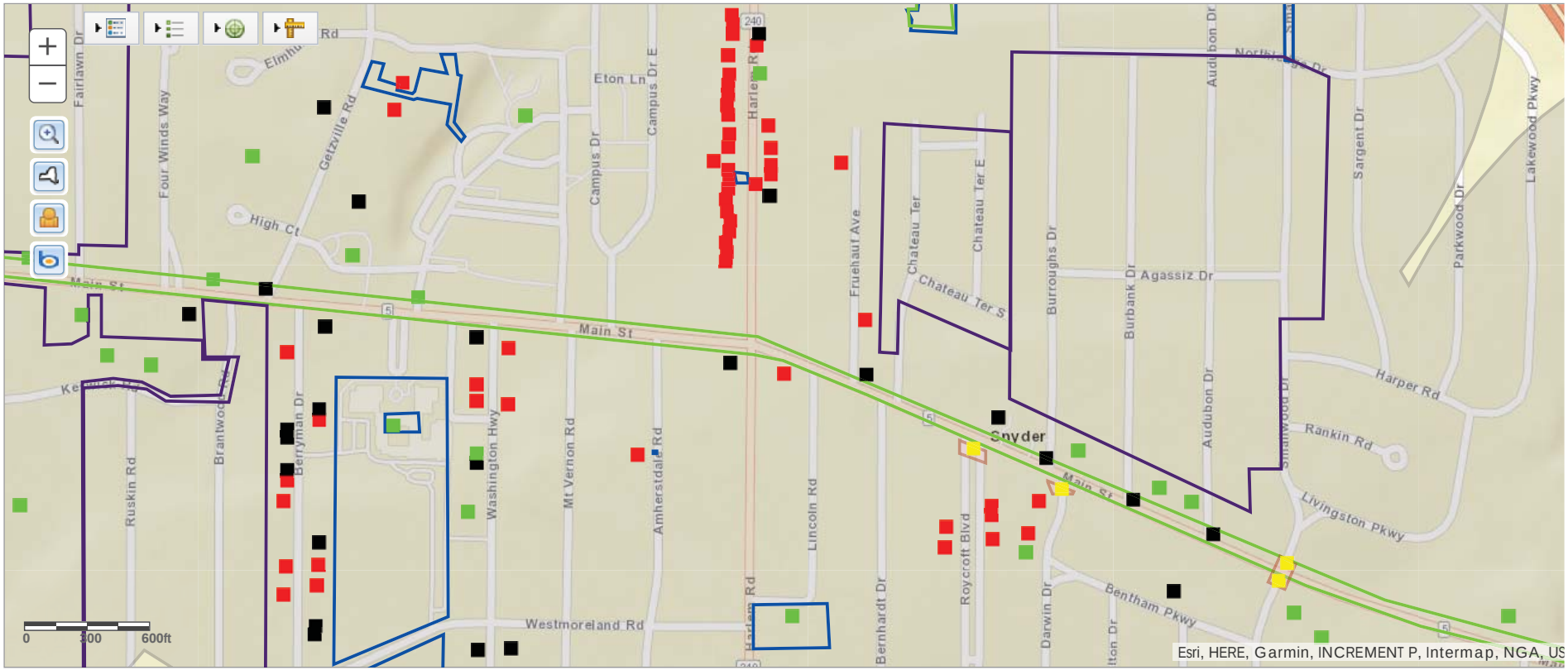


Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CRIS NYS Cultural Resource Information System

HOME SUBMIT SEARCH COMMUNICATE

Welcome Guest User | Contact U



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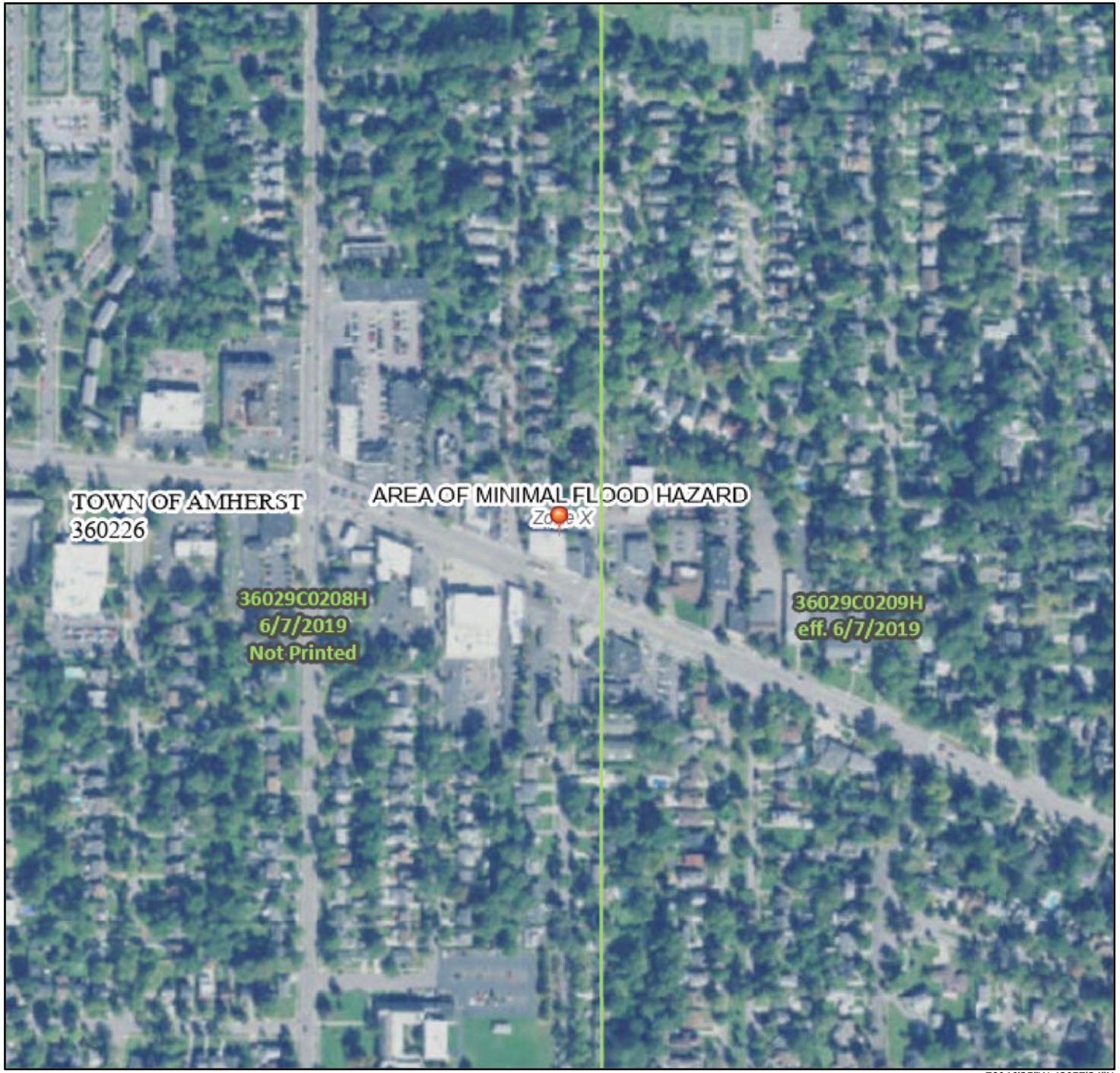
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

National Flood Hazard Layer FIRMette

FEMA

78°47'13"W 42°58'N



78°46'35"W 42°57'34"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BF Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, V
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazar of 1% annual chance flood with a depth less than one foot or with d areas of less than one square mil
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk du Levee. See Notes. Zone X
- Area with Flood Risk due to Levee

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zo
- Effective LOMRs
- Area of Undetermined Flood Haza

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Ch
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an appro point selected by the user and does not r an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This ma was exported on 8/11/2021 at 10:16 AM and does not reflect changes or amendments subsequent to this date an time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following n elements do not appear: basemap imagery, flood zone labe legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized area regulatory purposes.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Appendix B

NYSDEC Notice of Intent (NOI)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____
(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-
RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
Benderson Development Company

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Oates

Owner/Operator Contact Person First Name
Matt

Owner/Operator Mailing Address
570 Delaware Ave

City
Buffalo

State
NY

Zip
14202-____

Phone (Owner/Operator)
716-878-9397

Fax (Owner/Operator)
___-___-____

Email (Owner/Operator)
MattOates@benderson.com

FED TAX ID
__-_____ (not required for individuals)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Project Site Information

Project/Site Name

Proposed Site Redevelopment

Street Address (NOT P.O. BOX)

4548-4564 Main Street

Side of Street

● **North** ○ **South** ○ **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)

Town of Amherst

State: NY

Zip: 14226 -

County: Erie

DEC Region: 9

Name of Nearest Cross Street

Chateau Terrace

Distance to Nearest Cross Street (Feet)

0

Project In Relation to Cross Street

○ **North** ○ **South** ○ **East** ● **West**

Tax Map Numbers
Section-Block-Parcel

68.17-6-20

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site. To do this, go to the NYSDEC Stormwater Interactive Map on the DEC website at:

https://gisservices.dec.ny.gov/gis/stormwater/

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located the centroid of your project site, go to the bottom right hand corner of the map for the X, Y coordinates. Enter the coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)

-7 8782

Ex. -73.749

Y Coordinates (Northing)

42963

Ex. 42.652

2. What is the nature of this construction project?

○ **New Construction**

● **Redevelopment with increase in impervious area**

○ **Redevelopment with no increase in impervious area**

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3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use

- ○ FOREST
- ○ PASTURE/OPEN LAND
- ○ CULTIVATED LAND
- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ● COMMERCIAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY
- ○ PARKING LOT
- ○ OTHER

Post-Development Future Land Use

- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION — Number of Lots
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ● COMMERCIAL
- ○ MUNICIPAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY (water, sewer, gas, etc.)
- ○ PARKING LOT
- ○ CLEARING/GRADING ONLY
- ○ DEMOLITION, NO REDEVELOPMENT
- ○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
- ○ OTHER

***Note**: for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
1.0	1.0	0.8	0.9

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ● **No**

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
0 %	0 %	0 %	100 %

7. Is this a phased project? ○ **Yes** ● **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date	End Date
01/01/2022	01/01/2023

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9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name: Ellicott Creek

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ● Stream / Creek Off Site
- ○ River On Site
- ○ River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ○ Regulatory Map
- ○ Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001? ● Yes ○ No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? ○ Yes ● No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ Yes ● No
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ Yes ● No
If Yes, what is the acreage to be disturbed?

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ Yes ● No

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15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ◉ Yes ○ No ○ Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

Town of Amherst closed storm water drainage system

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ Yes ◉ No ○ Unknown

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ○ Yes ◉ No

19. Is this property owned by a state authority, state agency, federal government or local government? ○ Yes ◉ No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ Yes ◉ No

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ◉ Yes ○ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ◉ Yes ○ No
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ◉ Yes ○ No

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24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer
Carmina Wood Morris, DPC

Contact Name (Last, Space, First)
Wood, Christopher

Mailing Address
487 Main Street Suite 600

City
Buffalo

State Zip
NY 14203-

Phone
716-842-3165

Fax
716-842-0263

Email
cwood@carminawooddesign.com

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name
Christopher

MI

Last Name
Wood

Signature



Date
05 / 20 / 2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

25. Has a construction sequence schedule for the planned management practices been prepared? ● Yes ○ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ● Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ○ Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ● Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ● Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ○ Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ○ Retaining Wall
- ○ Riprap Slope Protection
- ● Rock Outlet Protection
- ○ Streambank Protection

Other

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ○ **Preservation of Undisturbed Areas**
- ○ **Preservation of Buffers**
- ○ **Reduction of Clearing and Grading**
- ● **Locating Development in Less Sensitive Areas**
- ○ **Roadway Reduction**
- ○ **Sidewalk Reduction**
- ○ **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ○ **Building Footprint Reduction**
- ○ **Parking Reduction**

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ● All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

		0	.	0	2	3	**acre-feet**

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

7738089822

Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area(acres)	
RR Techniques (Area Reduction)				
○ Conservation of Natural Areas (RR-1)		and/or		
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or		
○ Tree Planting/Tree Pit (RR-3)		and/or		
○ Disconnection of Rooftop Runoff (RR-4)		and/or		
RR Techniques (Volume Reduction)				
○ Vegetated Swale (RR-5)				
○ Rain Garden (RR-6)				
○ Stormwater Planter (RR-7)				
○ Rain Barrel/Cistern (RR-8)				
○ Porous Pavement (RR-9)				
○ Green Roof (RR-10)				
Standard SMPs with RRv Capacity				
○ Infiltration Trench (I-1)				
○ Infiltration Basin (I-2)				
○ Dry Well (I-3)				
○ Underground Infiltration System (I-4)				
○ Bioretention (F-5)			0.288	
○ Dry Swale (O-1)				
Standard SMPs				
○ Micropool Extended Detention (P-1)				
○ Wet Pond (P-2)				
○ Wet Extended Detention (P-3)				
○ Multiple Pond System (P-4)				
○ Pocket Pond (P-5)				
○ Surface Sand Filter (F-1)				
○ Underground Sand Filter (F-2)				
○ Perimeter Sand Filter (F-3)				
○ Organic Filter (F-4)				
○ Shallow Wetland (W-1)				
○ Extended Detention Wetland (W-2)				
○ Pond/Wetland System (W-3)				
○ Pocket Wetland (W-4)				
○ Wet Swale (O-2)				

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Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area(acres)
○ Hydrodynamic	
○ Wet Vault	
○ Media Filter	
○ Other	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

0.012 **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

○ **Yes** ● **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

0.004 **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

● **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

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33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

0.018 **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

0.030

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ● **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

0.019 **acre-feet**

CPv Provided

0.019 **acre-feet**

36a. The need to provide channel protection has been waived because:

○ Site discharges directly to tidal waters or a fifth order or larger stream.

○ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

4.29 **CFS**

Post-development

3.62 **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

7.37 **CFS**

Post-development

5.59 **CFS**

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37a. The need to meet the Qp and Qf criteria has been waived because:

- ○ Site discharges directly to tidal waters or a fifth order or larger stream.
- ○ Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● Yes ○ No

If Yes, Identify the entity responsible for the long term Operation and Maintenance

Benderson Development Company

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

RRv criteria is not required for redevelopment activities & onsite soils with slow infiltration rates

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40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ○ Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP [N][Y][R][ ][ ][ ][ ][ ][ ]
- ○ Other [ ]
- ● None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ **Yes** ● **No**
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][ ][ ].[ ]

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ● **Yes** ○ **No**
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ● **Yes** ○ **No**

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

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Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name: Matt

MI:

Print Last Name: Oates

Owner/Operator Signature:

Date: / /

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Appendix C

MS4 SWPPP Acceptance Form

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information	
1. Owner/Operator Name:	Benderson Development Company
2. Contact Person:	Matt Oates
3. Street Address:	570 Delaware Ave
4. City/State/Zip:	Buffalo, NY 14202
II. Project Site Information	
5. Project/Site Name:	Proposed Site Redevelopment
6. Street Address:	4548-4564 Main Street
7. City/State/Zip:	Amherst, NY 14226
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information	
8. SWPPP Reviewed by:	
9. Title/Position:	
10. Date Final SWPPP Reviewed and Accepted:	
IV. Regulated MS4 Information	
11. Name of MS4:	Town of Amherst
12. MS4 SPDES Permit Identification Number: NYR20A	
13. Contact Person:	
14. Street Address:	
15. City/State/Zip:	
16. Telephone Number:	

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MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

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Appendix D

Engineer's Report

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Carmina · Wood · Morris DPC

487 Main Street Suite 600 Buffalo, New York 14203 P: 716.842.3165 F: 716.842.0263 W: cwm-ae.com

Architecture Engineering Interior Design

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ENGINEER'S REPORT
for

Proposed Site Redevelopment
4548-4564 Main Street
Town of Amherst, Erie County, New York

Prepared for

Benderson Development Company, LLC

570 Delaware Ave
Buffalo, NY 14202

Prepared by

Carmina Wood Morris, D.P.C.

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

August 2021



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Proposed Site Redevelopment
4548-4564 Main Street
Amherst, NY 14226

8/18/2021

Section 1 – Location & Description

This redevelopment project will consist of the construction of a 3-story mixed-use building that will include apartments, restaurant space and multi-level parking. The site is located on the north side of Main Street (NY-5), between Fruehauf Ave and Chateau Terrace in the Town of Amherst. The existing site is currently occupied by a 3-story vacant building located along the Main Street frontage. Existing surface parking is located north behind the existing building. Both the existing building and parking areas will be removed as part of this project. The overall site area is approximately 0.93+/- acres, however, construction activities will result in approximately 1.02+/- acres of disturbance area.

Section 2 – Stormwater Drainage System

The existing side streets, Fruehauf Ave and Chateau Terrace, slope from south to north. Existing closed stormwater drainage systems are located along Main Street (NYSDOT) and Chateau Terrace (Town of Amherst). The existing northeast parking lot area sheet drains to the north and northeast to Chateau Terrace. The existing northwest parking lot is generally flat and drains to an existing closed stormwater drainage system with unknown outlet. Existing stormwater runoff collected and conveyed from the site is ultimately tributary to Ellicott Creek and the Niagara River.

For purposes of the runoff analysis and the stormwater drainage system design, portions of the project site were classified as “Redevelopment” per NYSDEC Stormwater Management Design Manual Chapter 9 requirements. The nature of this construction project will be a “Redevelopment” with an increase in impervious area. The proposed hydrology of the site development will remain similar to existing hydrologic conditions. The proposed parking and patio areas will consist of a combination of overland sheet flow and pipe channel flow connected by a series of trench drains located throughout the runoff areas. Stormwater runoff from these areas will be conveyed to a proposed onsite stormwater management area located on the north side of the site consisting of a dry detention basin with a bioretention planting area located in the bottom of the basin. Runoff routed through the proposed basin will be discharged via a 6” HDPE outlet control pipe to the existing closed stormwater drainage system along Chateau Terrace. Proposed rooftop runoff will be discharged directly to the existing closed stormwater drainage system along Chateau Terrace.

The dry detention basin volume was designed with an outlet control pipe to attenuate proposed runoff to existing conditions prior to discharge. The bioretention area will provide Runoff Reduction and Water Quality volume requirements. The filter area planting soil depth varies throughout the bioretention

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area but maintains a minimum of at least 18 inches of soil. The 18 inches of soil is an acceptable deviation per the NYSDEC where existing grades prevent the full 2.5'-4' foot soil depth. 6" underdrain below the planting soil will be located throughout the bioretention area connected by an overflow catch basin to convey runoff to the outlet control pipe.

The NYSDEC Stormwater Management Design Manual requires a five-step process for Stormwater Management Planning as outlined in Chapter 3. The five steps include:

1. *Site planning to preserve natural features and reduce impervious cover.*
   - Minimal natural existing features are located onsite and the site is located in a less sensitive area.
2. *Calculation of Water Quality Volume (WQv) for site.*
   - See "Stormwater Drainage Analysis".
3. *Incorporation of Green Infrastructure techniques and standard SMPs with Runoff Reduction Volume (RRv) capacity.*
   - A bioretention area was incorporated into the site design to provide required RRv. See "Stormwater Drainage Analysis".
4. *Use of standard SMPs where applicable, to treat the portion of water quality volume not addressed by green infrastructure techniques and standard SMPs with RRv capacity.*
   - 100% of required Water Quality was addressed by the bioretention area. See "Stormwater Drainage Analysis".
5. *Design of volume and peak rate control practices where required.*
   - See "Stormwater Drainage Analysis".

The NYSDEC Stormwater Management Design Manual requires (5) five different criteria be considered when designing a stormwater management system. Those criteria are Water Quality, Runoff Reduction Volume, Channel Protection, Overbank Flooding and Extreme Storm Protection. Below is a summary of each item and how it is incorporated into this project.

Water Quality:
The NYSDEC requires water quality treatment prior to discharge. This will be achieved by the application of a bioretention area. The total WQv provided was 1,301 cf and greater than the required WQv of 1,002 cf.

Runoff Reduction Volume:
The NYSDEC requires reduction of the total water quality volume by green infrastructure techniques and SMPs to replicate pre-development hydrology. A bioretention area was incorporated into the site layout to provide the required RRv for contributing runoff areas in the WQv. The RRv provided was 520 cf and greater than the required RRv min. of 172 cf.

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100% of the required WQv was not reduced due to the followings site specific limitations: *RRv criteria is not required for redevelopment activities & onsite soils with slow infiltration rates.* In addition, below is a summary of how each green infrastructure technique was evaluated and determined to be feasible or infeasible:

1) Conservation of natural areas: the site development is located in a less sensitive area.
2) Sheetflow to riparian buffers or filter strips: no riparian buffers possible on the site; filter strips not feasible given the limited area for development.
3) Vegetated Open Swales: swales are not feasible given the limited area for development.
4) Tree Plantings: new trees to be planted throughout the site.
5) Disconnection of Roof Top Runoff: roof top runoff will be connected to closed stormwater drainage system.
6) Stream Daylighting: is not feasible given the limited area for development.
7) Rain Garden: this method is not recommended for these types of projects.
8) Green Roof: the proposed use of the building makes this an unfeasible practice.
9) Stormwater Planter: this method is not recommended for these types of projects.
10) Rain Barrels & Cisterns: collected water would not be used for irrigation.
11) Porous Pavement: porous pavement is not recommended for areas with impermeable soils (Type D) and areas with sediment laden runoff (salting in winter months).

Channel Protection:
The NYSDEC requires that 24-Hour extended detention be provided for the proposed 1-year storm event. A volume of 842 cf (0.019 ac-ft) will be accommodated in the detention basin onsite.

Overbank Flooding:
The NYSDEC requires that the 10-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. Storage of this storm will be provided within the detention basin onsite. At this storm event the stormwater drainage system will allow discharge of 3.62 cfs, which is below the existing peak 10-year runoff of 4.29 cfs.

Extreme Storm Protection:
The NYSDEC requires that the 100-year proposed storm event be attenuated with detention and that the outlet be restricted to the 100-year existing storm event. Storage of this storm will be provided within the detention basin onsite. At this

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storm event the stormwater drainage system will allow discharge of 5.59 cfs, which is below the existing peak 100-year runoff of 7.37 cfs.

Town of Amherst:
The Town of Amherst requires that the 25-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. Storage will be provided within the detention basin onsite. At the 25-year storm event the stormwater drainage system will allow discharge of 4.28 cfs, which is below the existing peak 10-year runoff of 4.29 cfs.

Design Criteria:
Storm pipes: 10-year storm
Detention:

- Comparison of the existing 1-year vs. the proposed 1-year runoff
- Comparison of the existing 10-year vs. the proposed 10-year runoff
- Comparison of the existing 100-year vs. the proposed 100-year runoff
- Comparison of the existing 10-year vs. the proposed 25-year runoff

Bioretention: RRv = 100% of post-development water quality volumes

RUNOFF ANALYSIS OF PROPOSED DEVELOPMENT AREA:

STORM EVENT	EXISTING RUNOFF	PROPOSED RUNOFF
1 YEAR	2.28 CFS	1.61 CFS
10 YEAR	4.29 CFS	3.62 CFS
25 YEAR	5.33 CFS	4.28 CFS
100 YEAR	7.37 CFS	5.59 CFS

WATER QUALITY SUMMARY:
WQv REQUIRED = 1,002 CF (0.023 AC-FT)
RRv MIN. REQUIRED = 172 CF (0.004 AC-FT)
RRv PROVIDED WITHIN BIORETENTION AREA = 520 CF (0.012 AC-FT)
WQv PROVIDED WITHIN BIORETENTION AREA = 1,301 CF (0.030 AC-FT)

BIORETENTION FILTER AREA & ELEVATION SUMMARY:
FILTER AREA = 1,115 SF @ 672.50

See attached “Stormwater Drainage Analysis” for additional information.

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Appendix A

STORMWATER DRAINAGE ANALYSIS

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WATER QUALITY REQUIRED FOR PROPOSED DEVELOPMENT AREA Area, Acres = 1.02

(Note: Reference Chap. 9 NYSDEC Stormwater Design Manual)

"Redevelopment Activity", Acres = 0.835 "New development", Acres = 0.185
(existing, disturbed impervious area)

Total proposed impervious, Acres = 0.873 Adjusted impervious, Acres = 0.25
"New" impervious, Acres = 0.04 (25% redevelopment, 100% new development)

Water Quality Volume (WQv) WQv=P*R*A/12

Where:	P=90% Rainfall Event Number	P= 1
	Rv= 0.05+0.009*(I)	Rv= 0.27
	IC=Impervious Cover, Acres	IC= 0.25
	I=Impervious Cover (%)	I= 24
	A=Runoff Area, Acres	A= 1.02

WQv (ac-ft)= 0.023
WQv (cf)= 991

Note: Runoff Reduction Volume (RRv) sizing criteria not required for "Redevelopment Activity" portion of project.
See attached Green Infrastructure Worksheets for RRv sizing for "New Development" portion of project.

RRv PROVIDED FOR PROPOSED DEVELOPMENT AREA (See NYSDEC worksheets)

		WQv, cf	RRv, cf
Min. RRv Req'd, cf = 172	RRv, Green Infrastructure (Bioretention)	1,301	520
Min. RRv Req'd, ac-ft = 0.004			
	TOTAL, cf	1301	520
	TOTAL, ac-ft	0.030	0.012

WQ & RR SUMMARY (ac-ft):

TOTAL WATER QUALITY PROVIDED FOR PROPOSED DEVELOPMENT AREA 0.030

IS WATER QUALITY VOLUME REQUIREMENT MET? Yes
(WQv provided equal to or greater than WQv required)

IS RUNOFF REDUCTION VOLUME REQUIREMENT MET? Yes
(RRv provided equal to or greater than Min. RRv required)

Revised _/_/____

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Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?.....	No

Design Point:		
P=	1.00	*inch*

Manually enter P, Total Area and Impervious Cover.

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description
1	1.02	0.25	25%	0.27	1,002	
2						
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	1.02	0.25	25%	0.27	**1,002**	**Subtotal 1**
Total	1.02	0.25	25%	0.27	**1,002**	**Initial WQv**

Identify Runoff Reduction Techniques By Area

Technique	Total Contributing Area *(Acre)*	Contributing Impervious Area *(Acre)*	Notes
Conservation of Natural Areas	0.00	0.00	*minimum 10,000 sf*
Riparian Buffers	0.00	0.00	*maximum contributing length 75 feet to 150 feet*
Filter Strips	0.00	0.00	
Tree Planting	1.02	0.25	*Up to 100 sf directly connected impervious area may be subtracted per tree*
Total	**1.02**	**0.25**	

Recalculate WQv after application of Area Reduction Techniques

	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Runoff Coefficient Rv	WQv *(ft^3)*
"<<Initial WQv"	1.02	0.25	25%	0.27	1,002
Subtract Area	-1.02	-0.25			
WQv adjusted after Area Reductions	**0.00**	**0.00**	0%	0.05	0
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.00	0.00	0%	0.05	**0**

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Minimum RRv

Enter the Soils Data for the site		
Soil Group	Acres	S
A		55%
B		40%
C		30%
D	**1.02**	20%
Total Area	1.02	
Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	0.25	*acre*
Precipitation	1	*in*
Rv	0.95	
Minimum RRv	**172**	***ft3***
	0.00	af

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Bioretention Worksheet

(For use on HSG C or D Soils with underdrains)

Af=WQv*(df)/[k*(hf+df)(tf)]

Af	Required Surface Area (ft2)
WQv	Water Quality Volume (ft3)
df	Depth of the Soil Medium (feet)
hf	Average height of water above the planter bed
tf	Volume Through the Filter Media (days)

k — The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor &

Design Point:	

Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	**Total Area** *(Acres)*	**Impervious Area** *(Acres)*	**Percent Impervious** *%*	**Rv**	**WQv** *(ft^3)*	**Precipitation** *(in)*	**Description**
1	1.02	0.25	0.25	0.27	1001.88	1.00	
Enter Impervious Area Reduced by Disconnection of Rooftops			25%	0.27	1,002	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.						*ft^3*	

Soil Information			
Soil Group	D		
Soil Infiltration Rate		*in/hour*	
Using Underdrains?	Yes	*Okay*	

Calculate the Minimum Filter Area				
		Value	Units	Notes
WQv		1,002	*ft^3*	
Enter Depth of Soil Media	*df*	1.5	*ft*	*2.5-4 ft*
Enter Hydraulic Conductivity	*k*	0.5	*ft/day*	
Enter Average Height of Ponding	*hf*	0.25	*ft*	*6 inches max.*
Enter Filter Time	*tf*	2	*days*	
Required Filter Area	***Af***	**859**	***ft^2***	

Determine Actual Bio-Retention Area			
Filter Width	33.39	*ft*	
Filter Length	33.39	*ft*	
Filter Area	1114.8921	*ft^2*	
Actual Volume Provided	1301	*ft^3*	

Determine Runoff Reduction				
Is the Bioretention contributing flow to another practice?			Select Practice	N/A
RRv	520			
RRv applied	**520**	***ft^3***	***This is 40% of the storage provided or WQv whichever is less.***	
Volume Treated	482	*ft^3*	*This is the portion of the WQv that is not reduced in the practice.*	
Volume Directed	0	*ft^3*	This volume is directed another practice	

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Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	78.782 degrees West
Latitude	42.963 degrees North
Elevation	0 feet
Date/Time	Wed, 11 Aug 2021 14:14:36 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.27	0.41	0.50	0.66	0.83	1.01	**1yr**	0.71	0.94	1.14	1.34	1.57	1.81	2.12	**1yr**	1.61	2.03	2.45	2.94	3.43	**1yr**
2yr	0.31	0.47	0.59	0.78	0.98	1.20	**2yr**	0.84	1.10	1.35	1.61	1.89	2.19	2.48	**2yr**	1.94	2.38	2.81	3.34	3.84	**2yr**
5yr	0.36	0.56	0.71	0.95	1.21	1.50	**5yr**	1.05	1.37	1.69	2.00	2.33	2.67	3.03	**5yr**	2.37	2.91	3.41	4.01	4.59	**5yr**
10yr	0.41	0.64	0.81	1.10	1.43	1.78	**10yr**	1.24	1.63	2.01	2.37	2.73	3.11	3.53	**10yr**	2.75	3.39	3.95	4.61	5.26	**10yr**
25yr	0.48	0.77	0.98	1.35	1.79	2.23	**25yr**	1.55	2.05	2.51	2.94	3.37	3.79	4.32	**25yr**	3.36	4.15	4.80	5.55	6.30	**25yr**
50yr	0.55	0.88	1.13	1.58	2.12	2.64	**50yr**	1.83	2.43	2.98	3.48	3.95	4.41	5.03	**50yr**	3.91	4.84	5.56	6.38	7.22	**50yr**
100yr	0.62	1.01	1.30	1.84	2.52	3.15	**100yr**	2.17	2.89	3.55	4.12	4.65	5.14	5.87	**100yr**	4.55	5.64	6.45	7.34	8.29	**100yr**
200yr	0.72	1.17	1.51	2.17	2.99	3.74	**200yr**	2.58	3.44	4.21	4.86	5.45	5.99	6.84	**200yr**	5.30	6.58	7.48	8.45	9.51	**200yr**
500yr	0.86	1.41	1.84	2.68	3.75	4.70	**500yr**	3.24	4.34	5.28	6.06	6.74	7.34	8.39	**500yr**	6.49	8.07	9.11	10.18	11.41	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.35	0.43	0.58	0.71	0.89	**1yr**	0.61	0.87	0.85	1.16	1.46	1.65	1.95	**1yr**	1.46	1.87	2.12	2.54	3.11	**1yr**
2yr	0.30	0.46	0.56	0.76	0.94	1.08	**2yr**	0.81	1.05	1.18	1.44	1.73	2.12	2.40	**2yr**	1.87	2.31	2.72	3.24	3.72	**2yr**
5yr	0.33	0.51	0.64	0.88	1.11	1.28	**5yr**	0.96	1.25	1.41	1.69	2.03	2.46	2.80	**5yr**	2.18	2.70	3.15	3.73	4.22	**5yr**
10yr	0.36	0.56	0.70	0.97	1.26	1.45	**10yr**	1.08	1.42	1.58	1.90	2.30	2.75	3.15	**10yr**	2.43	3.03	3.52	4.14	4.59	**10yr**
25yr	0.42	0.64	0.79	1.13	1.49	1.71	**25yr**	1.28	1.68	1.84	2.22	2.69	3.18	3.67	**25yr**	2.81	3.53	4.05	4.75	5.05	**25yr**
50yr	0.46	0.70	0.87	1.25	1.68	1.94	**50yr**	1.45	1.90	2.06	2.48	3.02	3.55	4.14	**50yr**	3.14	3.98	4.50	5.28	5.43	**50yr**
100yr	0.50	0.76	0.95	1.37	1.88	2.19	**100yr**	1.63	2.14	2.30	2.76	3.40	3.97	4.65	**100yr**	3.51	4.47	5.00	5.87	5.78	**100yr**
200yr	0.55	0.83	1.06	1.53	2.13	2.49	**200yr**	1.84	2.43	2.55	3.07	3.80	4.44	5.23	**200yr**	3.93	5.03	5.55	6.51	6.13	**200yr**
500yr	0.63	0.94	1.21	1.75	2.49	2.93	**500yr**	2.15	2.86	2.92	3.51	4.39	5.15	6.13	**500yr**	4.56	5.89	6.34	7.46	6.56	**500yr**

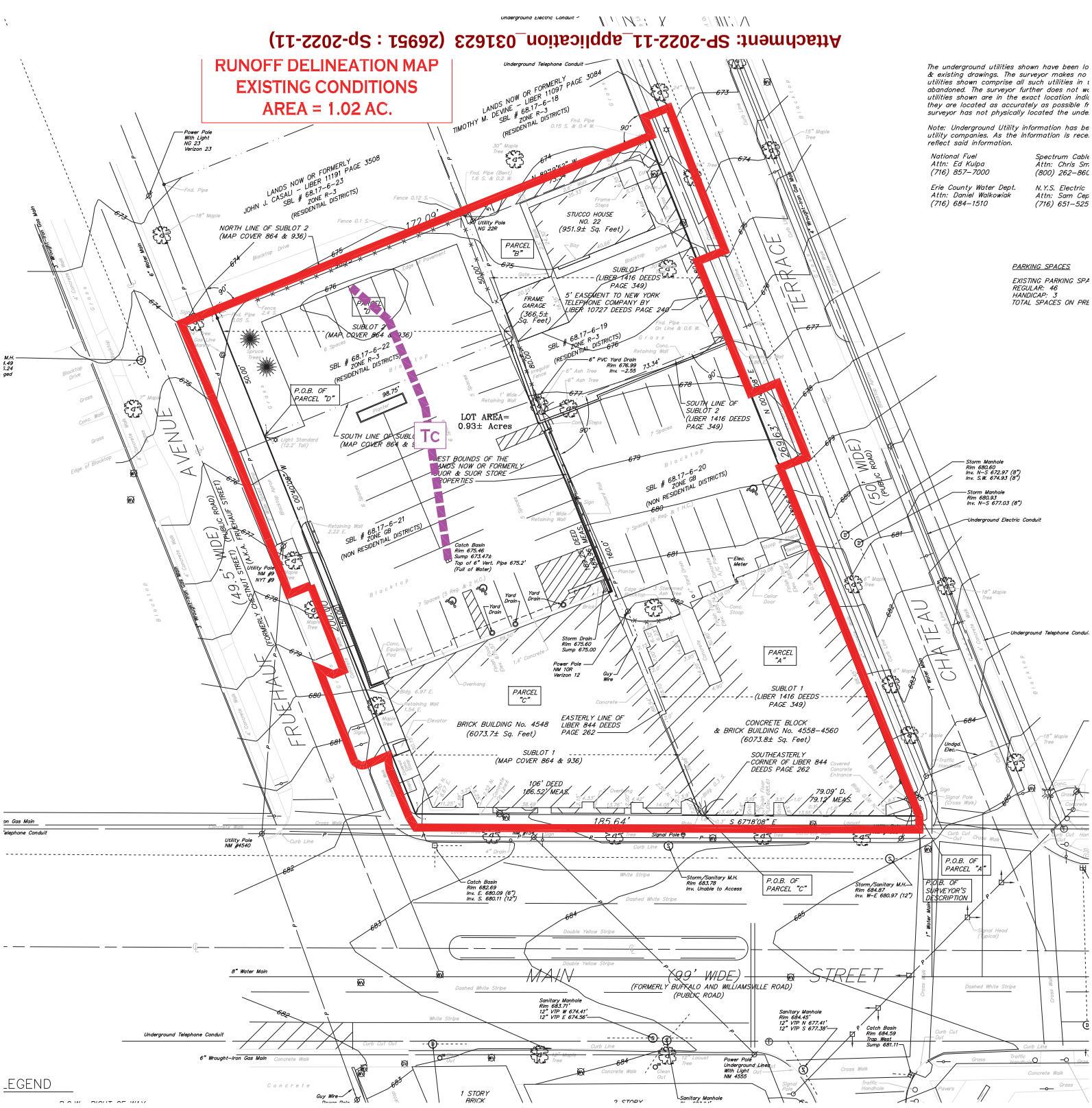
Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.30	0.46	0.56	0.75	0.92	1.07	**1yr**	0.80	1.05	1.21	1.41	1.69	1.93	2.30	**1yr**	1.71	2.21	2.62	3.12	3.66	**1yr**
2yr	0.32	0.49	0.61	0.82	1.01	1.17	**2yr**	0.87	1.15	1.30	1.58	1.87	2.28	2.58	**2yr**	2.02	2.48	2.95	3.46	4.06	**2yr**
5yr	0.39	0.60	0.75	1.03	1.31	1.55	**5yr**	1.13	1.52	1.71	2.09	2.46	2.91	3.28	**5yr**	2.57	3.15	3.69	4.32	4.94	**5yr**
10yr	0.46	0.71	0.88	1.23	1.59	1.91	**10yr**	1.38	1.87	2.12	2.59	3.05	3.50	3.94	**10yr**	3.10	3.79	4.41	5.12	5.84	**10yr**
25yr	0.59	0.89	1.11	1.58	2.09	2.54	**25yr**	1.80	2.48	2.83	3.44	4.03	4.49	5.01	**25yr**	3.97	4.82	5.60	6.42	7.30	**25yr**
50yr	0.69	1.05	1.31	1.89	2.54	3.16	**50yr**	2.19	3.09	3.52	4.29	4.97	5.42	6.03	**50yr**	4.80	5.80	6.73	7.63	8.68	**50yr**
100yr	0.83	1.25	1.57	2.26	3.11	3.91	**100yr**	2.68	3.82	4.41	5.34	6.15	6.54	7.24	**100yr**	5.79	6.97	8.07	9.07	10.29	**100yr**
200yr	0.99	1.48	1.88	2.72	3.80	4.86	**200yr**	3.28	4.75	5.53	6.68	7.61	7.90	8.69	**200yr**	6.99	8.36	9.69	10.80	12.24	**200yr**
500yr	1.25	1.86	2.40	3.48	4.96	6.47	**500yr**	4.28	6.33	7.46	8.97	10.12	10.16	11.08	**500yr**	8.99	10.66	12.35	13.59	15.38	**500yr**

Powered by ACIS Northeast Regional Climate Center

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

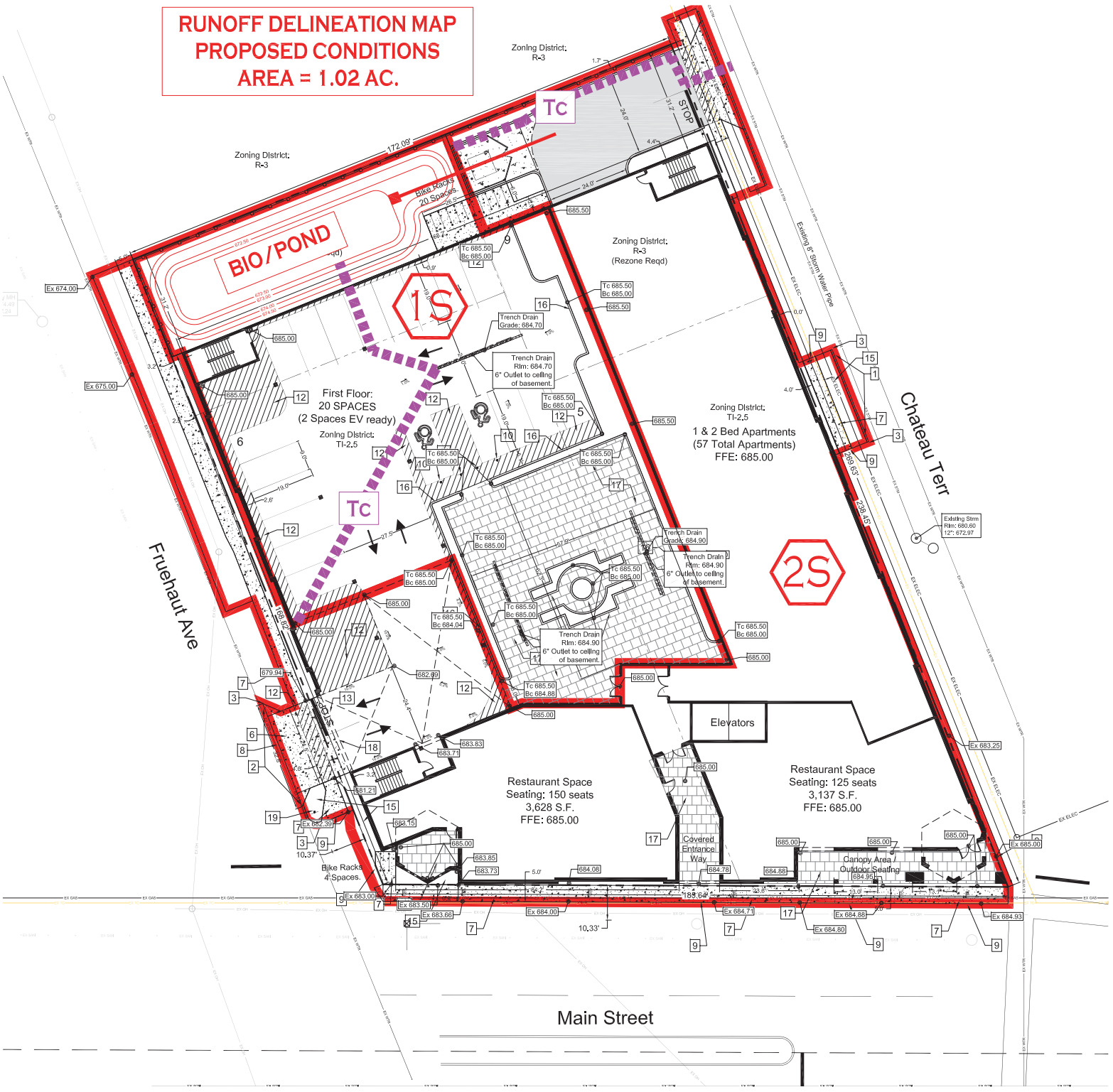
Attachment: SP-2022-11_application_031623 (26951 : SP-2022-11)



Events for Subcatchment 1S: Existing Site

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	2.28	0.111	1.30
2-Year	2.87	0.141	1.66
5-Year	3.61	0.181	2.13
10-Year	4.29	0.217	2.56
25-Year	5.33	0.274	3.22
50-Year	6.27	0.326	3.84
100-Year	**7.37**	**0.387**	**4.56**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)


RUNOFF DELINEATION MAP
PROPOSED CONDITIONS
AREA = 1.02 AC.
Tc
1S
2S
BIO / POND
Zoning District:
R-3
Zoning District:
R-3
(Rezone Reqd)
Zoning District:
TI-2.5
1 & 2 Bed Apartments
(57 Total Apartments)
FFE: 685.00
First Floor:
20 SPACES
(2 Spaces EV ready)
Zoning District:
TI-2.5
Restaurant Space
Seating: 150 seats
3,628 S.F.
FFE: 685.00
Restaurant Space
Seating: 125 seats
3,137 S.F.
FFE: 685.00
Elevators
Covered
Entrance
Way
Canopy Area /
Outdoor Seating
Bike Racks
20 Spaces.
Bike Racks
4 Spaces.
Trench Drain
Grade: 684.70
Trench Drain
Rim: 684.70
6" Outlet to ceiling
of basement.
Trench Drain
Grade: 684.90
Trench Drain
Rim: 684.90
6" Outlet to ceiling
of basement.
Existing 8" Storm Water Pipe
Existing Strm
Rim: 680.60
12": 672.97
Fruehaut Ave
Chateau Terr
Main Street
STOP

Events for Pond 1P: Proposed Stormwater Storage & Outlet

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-Year	0.84	0.28	673.12	842
2-Year	1.06	0.61	673.21	976
5-Year	1.35	0.78	673.30	1,134
10-Year	1.61	0.79	673.41	1,313
25-Year	2.01	0.82	673.57	1,597
50-Year	2.38	0.84	673.70	1,859
100-Year	**2.80**	**0.86**	**673.87**	**2,185**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 4.45" for 100-Year event
Inflow = 2.80 cfs @ 11.96 hrs, Volume= 0.142 af
Outflow = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af, Atten= 69%, Lag= 6.8 min
Primary = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.87' @ 12.07 hrs Surf.Area= 2,037 sf Storage= 2,185 cf

Plug-Flow detention time= 107.0 min calculated for 0.127 af (89% of inflow)
Center-of-Mass det. time= 53.3 min (821.6 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.86 cfs @ 12.07 hrs HW=673.87' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.86 cfs @ 4.37 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.86 cfs of 5.20 cfs potential flow)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Events for Link 1L: Proposed Runoff

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-Year	1.61	1.61	**0.00**
2-Year	2.35	2.35	0.00
5-Year	3.19	3.19	0.00
10-Year	3.62	3.62	0.00
25-Year	4.28	4.28	0.00
50-Year	4.89	4.89	0.00
100-Year	**5.59**	**5.59**	0.00

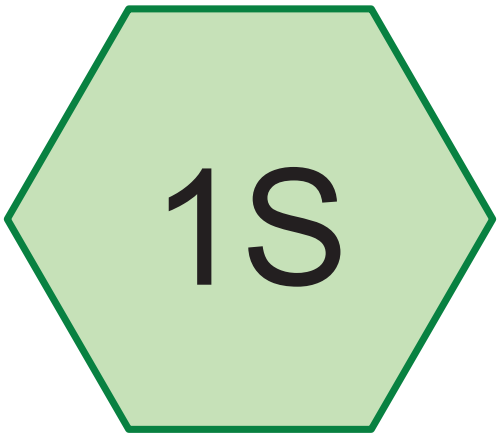
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Appendix B

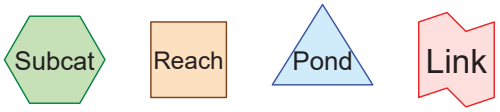
STORMWATER DRAINAGE ANALYSIS

HydroCAD

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



Existing Site



Routing Diagram for 21.152 Existing
Prepared by HP Inc., Printed 8/12/2021
HydroCAD® 10.00-18 s/n 05021 © 2016 HydroCAD Software Solutions LLC

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.185	84	50-75% Grass cover, Fair, HSG D (1S)
0.835	98	Impervious (1S)
1.020	**95**	**TOTAL AREA**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.185	HSG D	1S
0.835	Other	1S
1.020		**TOTAL AREA**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.185	0.000	0.185	50-75% Grass cover, Fair	1S
0.000	0.000	0.000	0.000	0.835	0.835	Impervious	1S
0.000	**0.000**	**0.000**	**0.185**	**0.835**	**1.020**	**TOTAL AREA**	

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=1.30"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=2.28 cfs 0.111 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.111 af Average Runoff Depth = 1.30"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

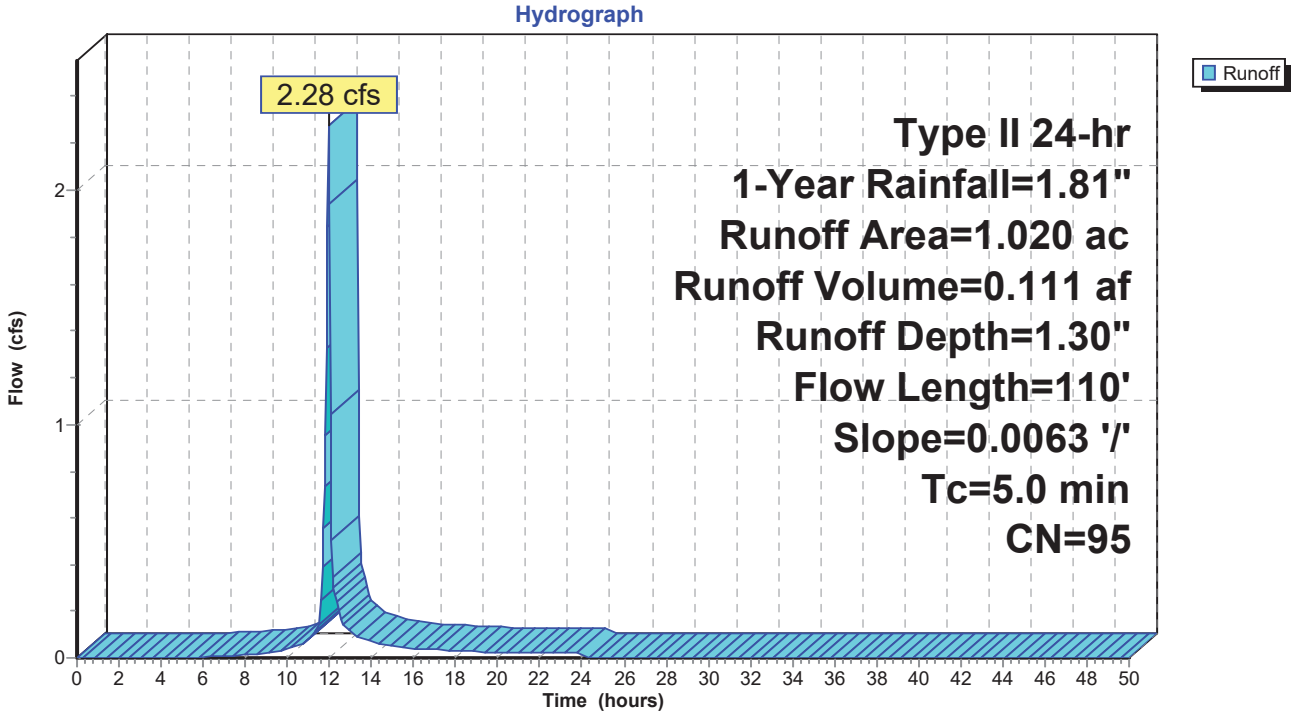
Runoff = 2.28 cfs @ 11.95 hrs, Volume= 0.111 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=1.81"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=2.56"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=4.29 cfs 0.217 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.217 af Average Runoff Depth = 2.56"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

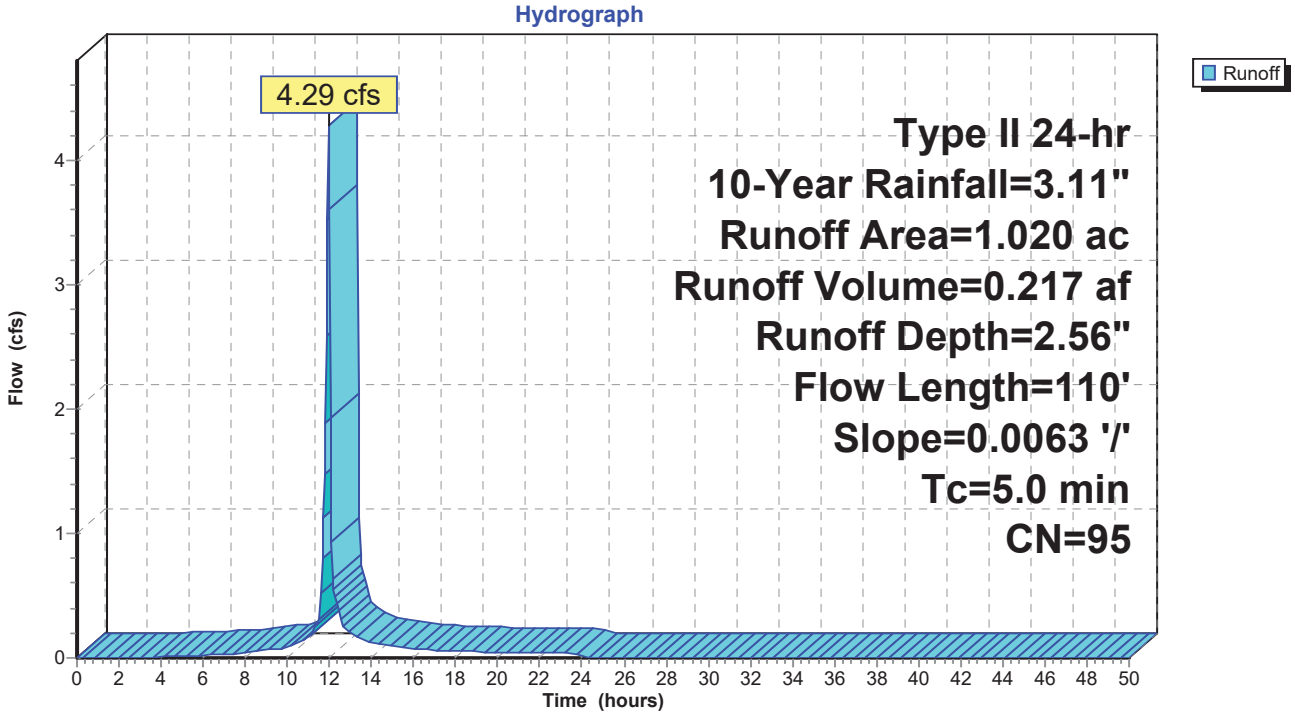
Runoff = 4.29 cfs @ 11.95 hrs, Volume= 0.217 af, Depth= 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.11"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=3.22"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=5.33 cfs 0.274 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.274 af Average Runoff Depth = 3.22"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

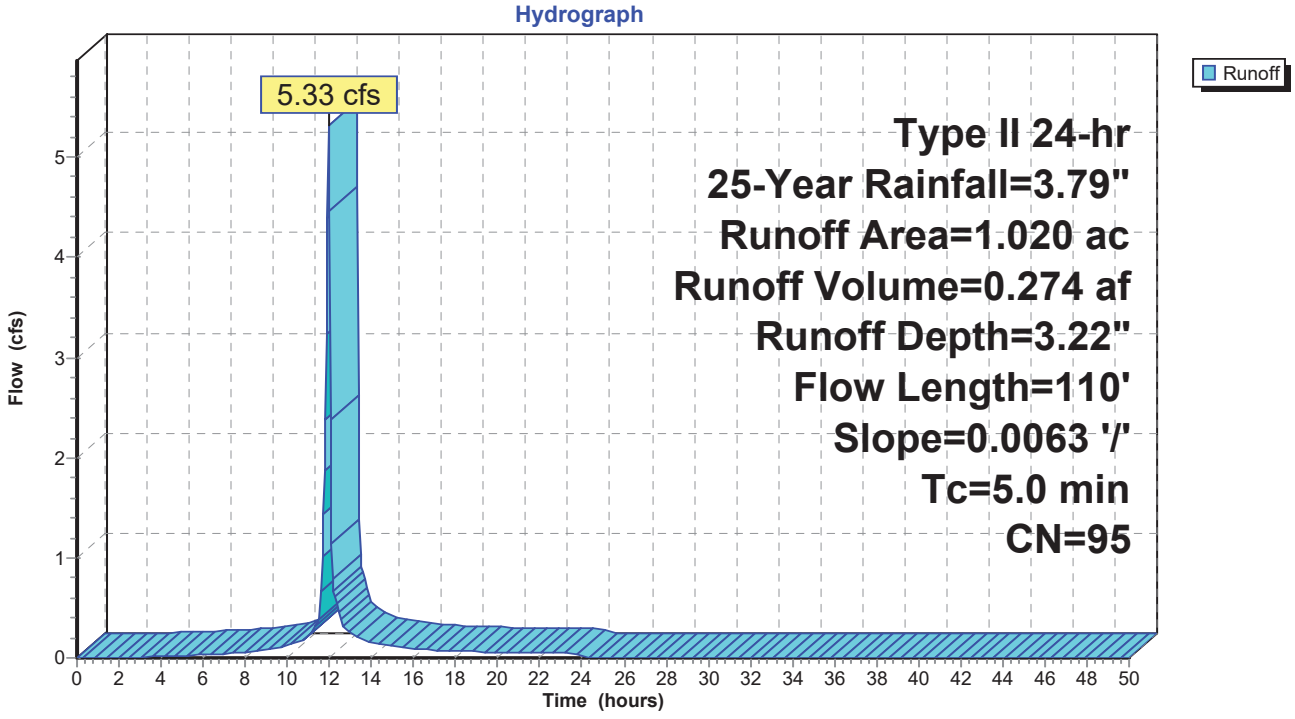
Runoff = 5.33 cfs @ 11.95 hrs, Volume= 0.274 af, Depth= 3.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=3.79"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=4.56"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=7.37 cfs 0.387 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.387 af Average Runoff Depth = 4.56"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

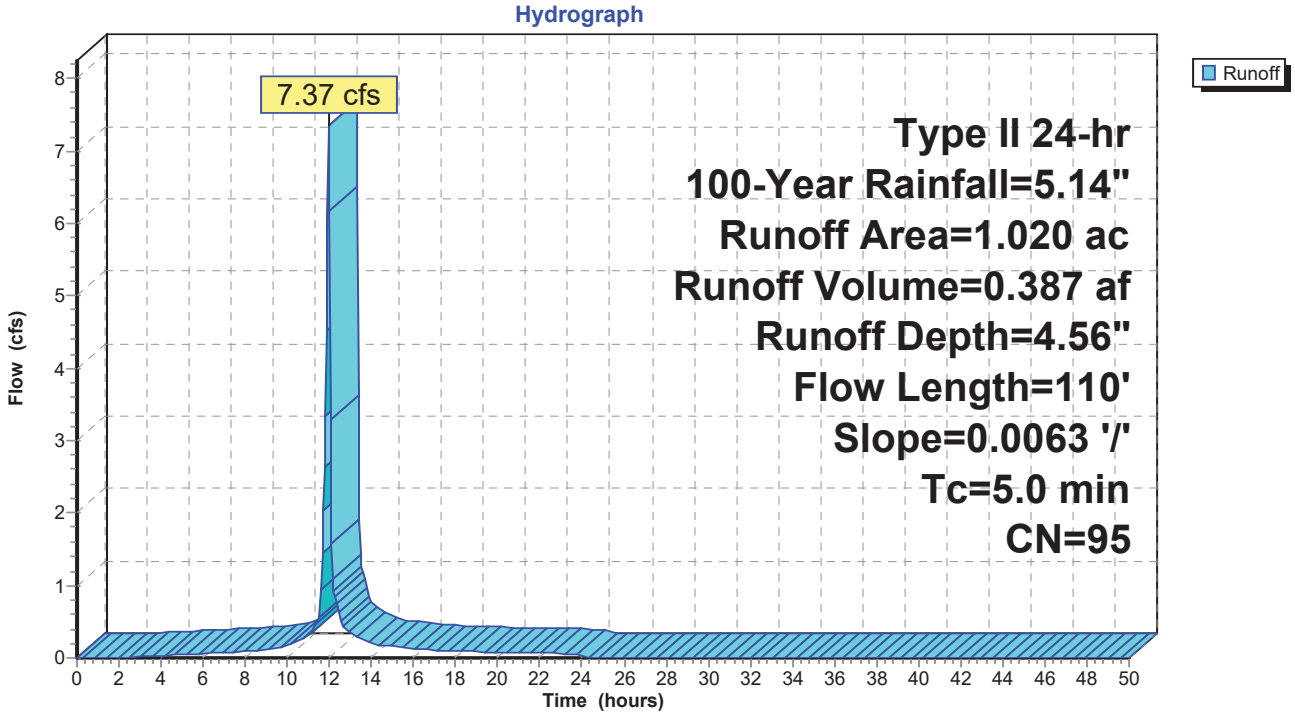
Runoff = 7.37 cfs @ 11.95 hrs, Volume= 0.387 af, Depth= 4.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.14"

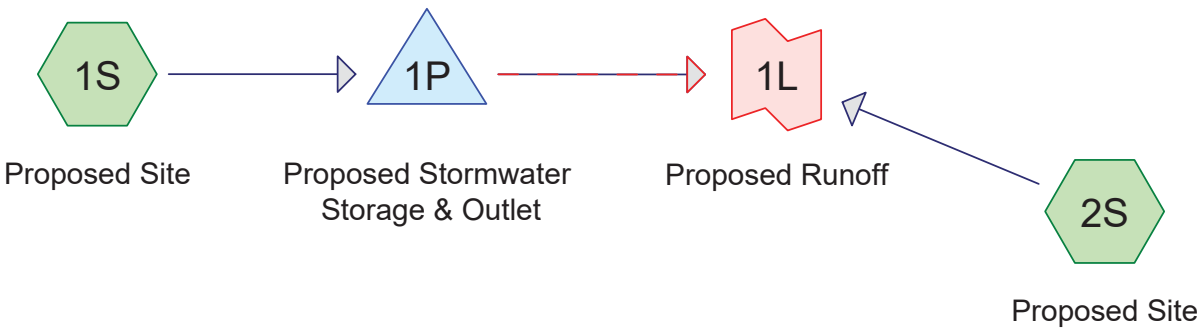
	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

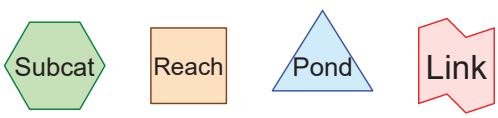
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)





Routing Diagram for 21.152 Proposed
Prepared by HP Inc., Printed 8/12/2021
HydroCAD® 10.00-18 s/n 05021 © 2016 HydroCAD Software Solutions LLC

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.147	80	>75% Grass cover, Good, HSG D (1S, 2S)
0.872	98	Impervious, HSG D (1S, 2S)
1.019	**95**	**TOTAL AREA**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
1.019	HSG D	1S, 2S
0.000	Other	
1.019		**TOTAL AREA**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.147	0.000	0.147	>75% Grass cover, Good	1S, 2S
0.000	0.000	0.000	0.872	0.000	0.872	Impervious	1S, 2S
0.000	**0.000**	**0.000**	**1.019**	**0.000**	**1.019**	**TOTAL AREA**	

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	670.25	670.15	50.0	0.0020	0.020	6.0	0.0	0.0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=1.22"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=0.84 cfs 0.039 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=1.49"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=1.59 cfs 0.079 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.12' Storage=842 cf Inflow=0.84 cfs 0.039 af
Outflow=0.28 cfs 0.024 af

Link 1L: Proposed Runoff Inflow=1.61 cfs 0.103 af
Primary=1.61 cfs 0.103 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.118 af Average Runoff Depth = 1.39"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

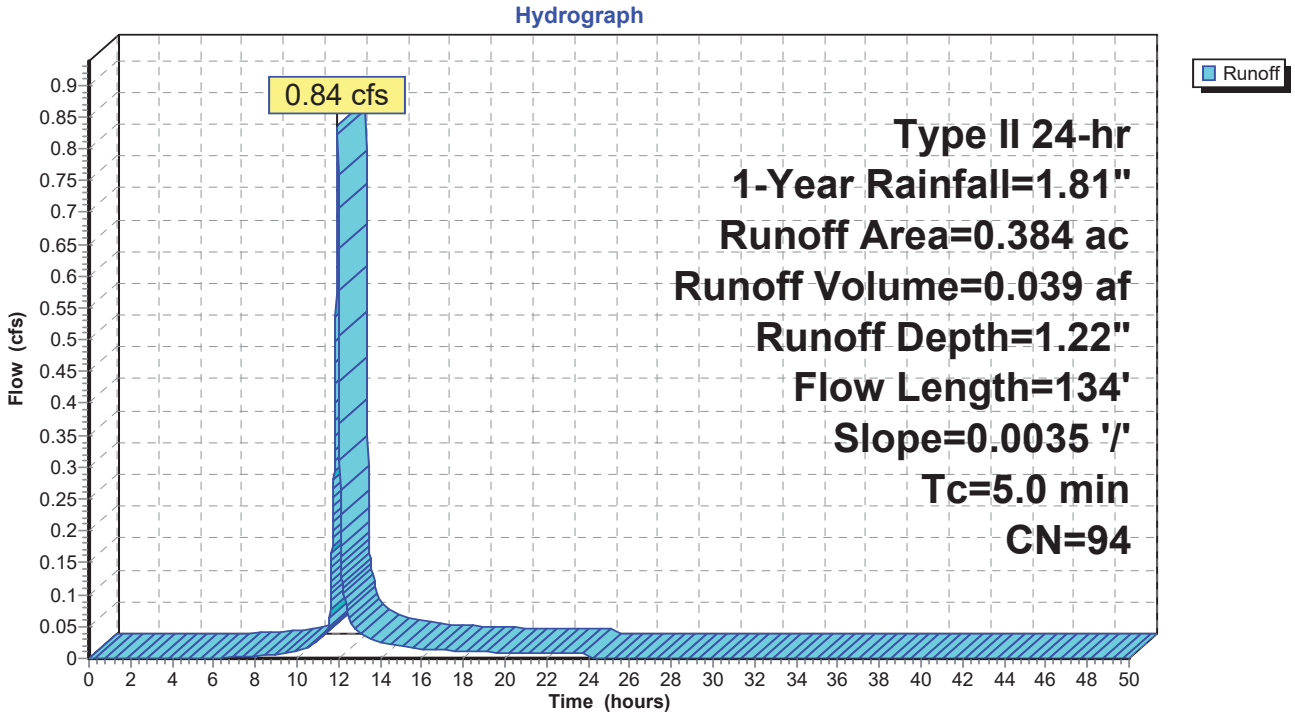
Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.039 af, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=1.81"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

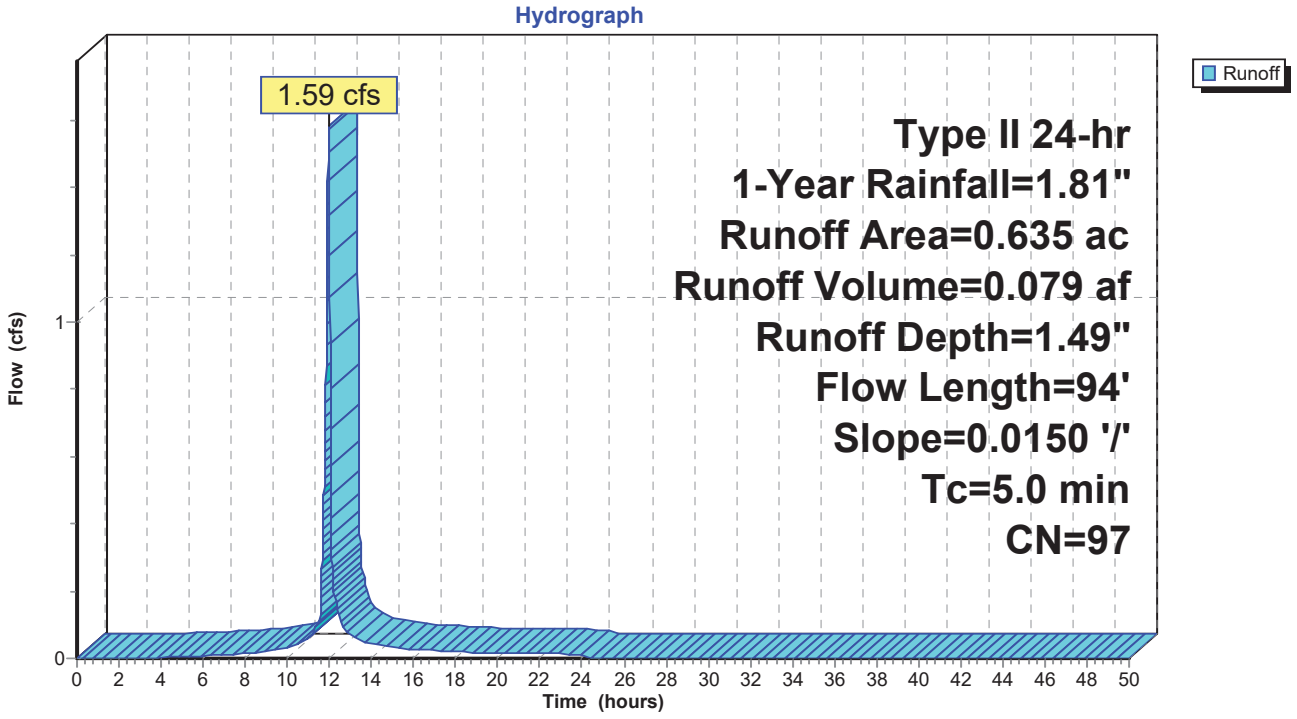
Runoff = 1.59 cfs @ 11.96 hrs, Volume= 0.079 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=1.81"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 1.22" for 1-Year event
Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.039 af
Outflow = 0.28 cfs @ 12.07 hrs, Volume= 0.024 af, Atten= 67%, Lag= 6.5 min
Primary = 0.28 cfs @ 12.07 hrs, Volume= 0.024 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.12' @ 12.07 hrs Surf.Area= 1,571 sf Storage= 842 cf

Plug-Flow detention time= 205.5 min calculated for 0.024 af (62% of inflow)
Center-of-Mass det. time= 99.2 min (902.7 - 803.5)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

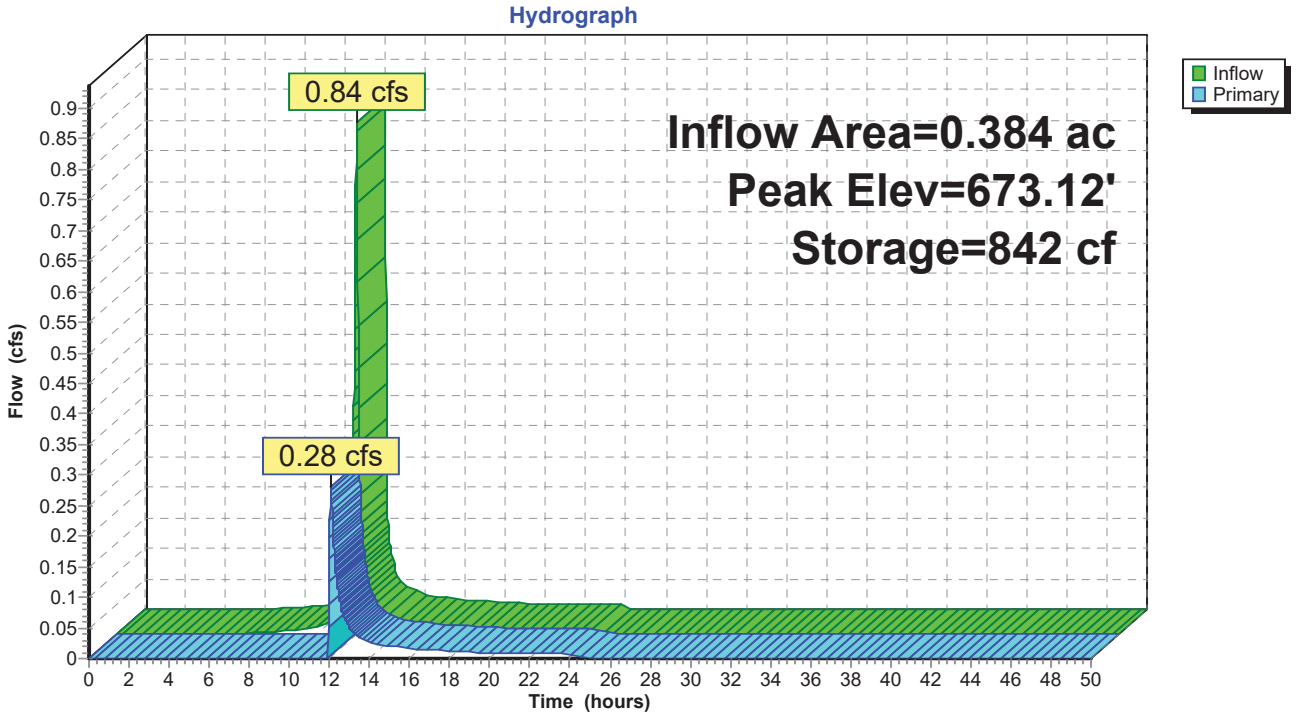
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.28 cfs @ 12.07 hrs HW=673.12' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Passes 0.28 cfs of 0.75 cfs potential flow)
↑—**2=Grate - Outlet Structure** (Orifice Controls 0.28 cfs @ 1.13 fps)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



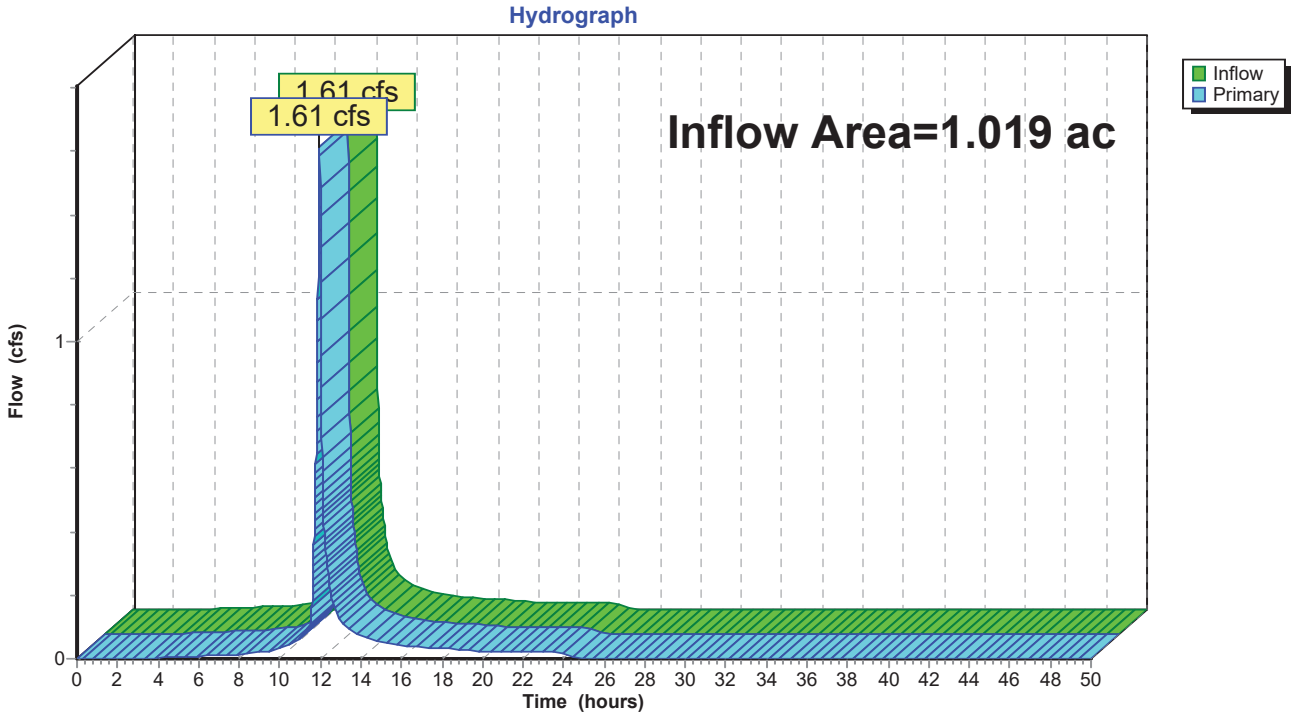
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 1.21" for 1-Year event
Inflow = 1.61 cfs @ 11.97 hrs, Volume= 0.103 af
Primary = 1.61 cfs @ 11.97 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=2.46"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=1.61 cfs 0.079 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=2.77"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=2.84 cfs 0.146 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.41' Storage=1,313 cf Inflow=1.61 cfs 0.079 af
Outflow=0.79 cfs 0.064 af

Link 1L: Proposed Runoff Inflow=3.62 cfs 0.210 af
Primary=3.62 cfs 0.210 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.225 af Average Runoff Depth = 2.65"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

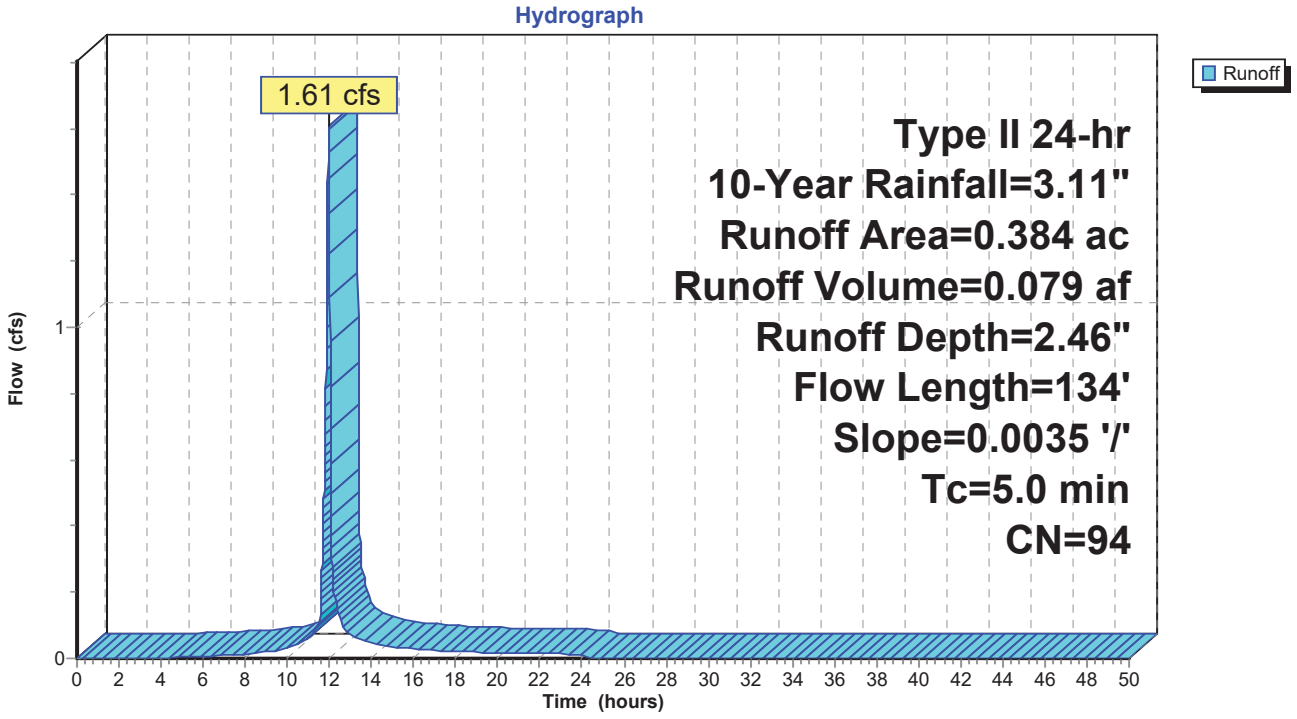
Runoff = 1.61 cfs @ 11.96 hrs, Volume= 0.079 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.11"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

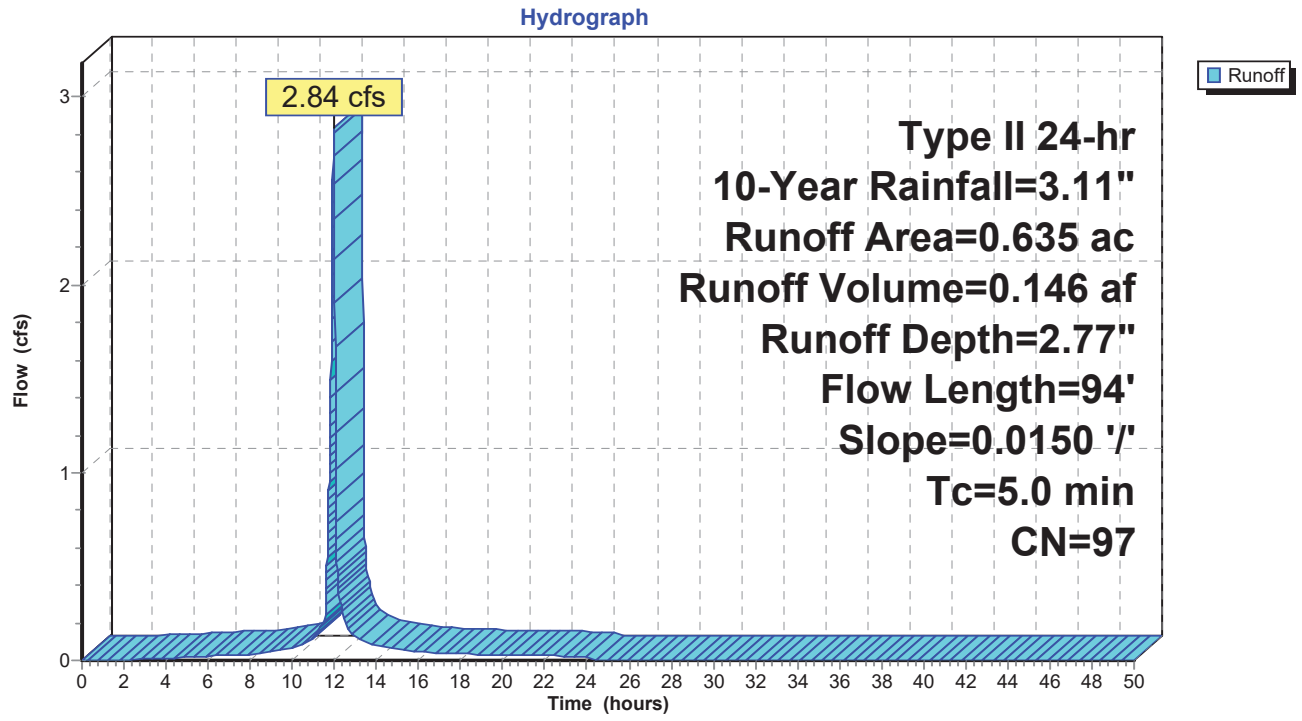
Runoff = 2.84 cfs @ 11.96 hrs, Volume= 0.146 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.11"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 2.46" for 10-Year event
Inflow = 1.61 cfs @ 11.96 hrs, Volume= 0.079 af
Outflow = 0.79 cfs @ 12.04 hrs, Volume= 0.064 af, Atten= 51%, Lag= 5.1 min
Primary = 0.79 cfs @ 12.04 hrs, Volume= 0.064 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.41' @ 12.04 hrs Surf.Area= 1,748 sf Storage= 1,313 cf

Plug-Flow detention time= 137.3 min calculated for 0.064 af (81% of inflow)
Center-of-Mass det. time= 59.3 min (843.2 - 783.9)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

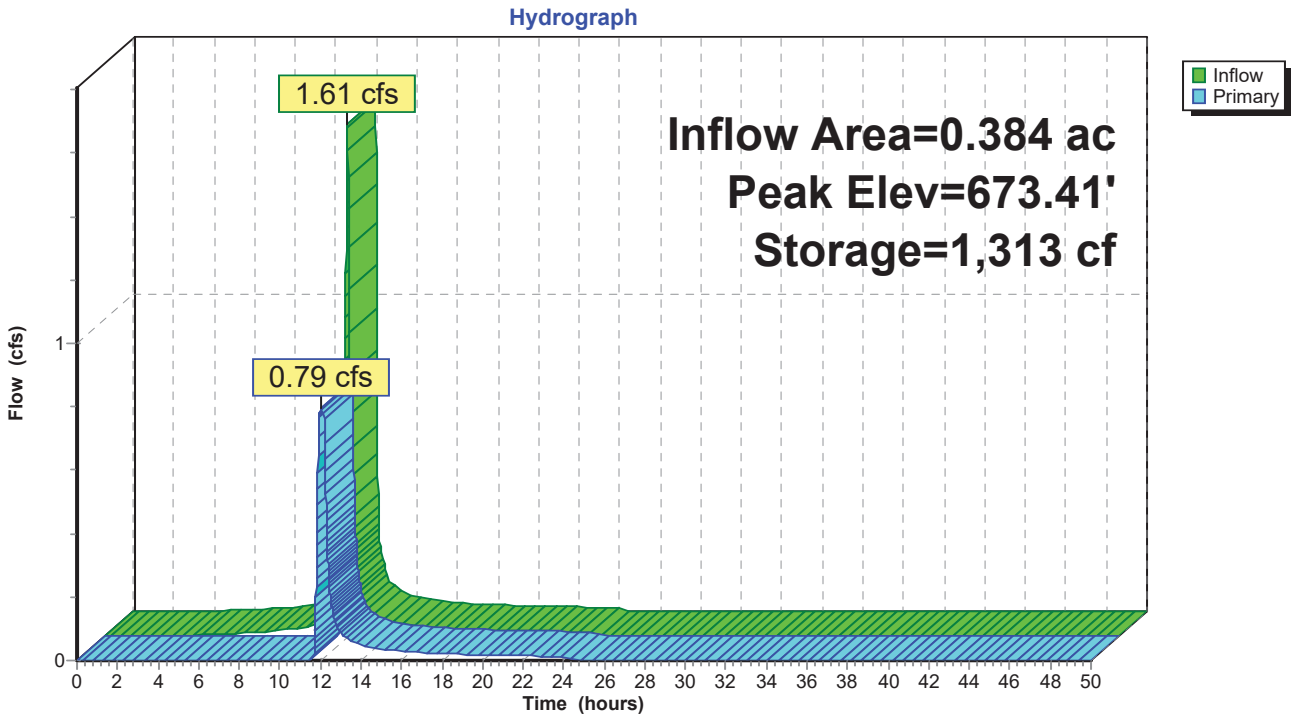
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.79 cfs @ 12.04 hrs HW=673.41' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.79 cfs @ 4.04 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.79 cfs of 1.67 cfs potential flow)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



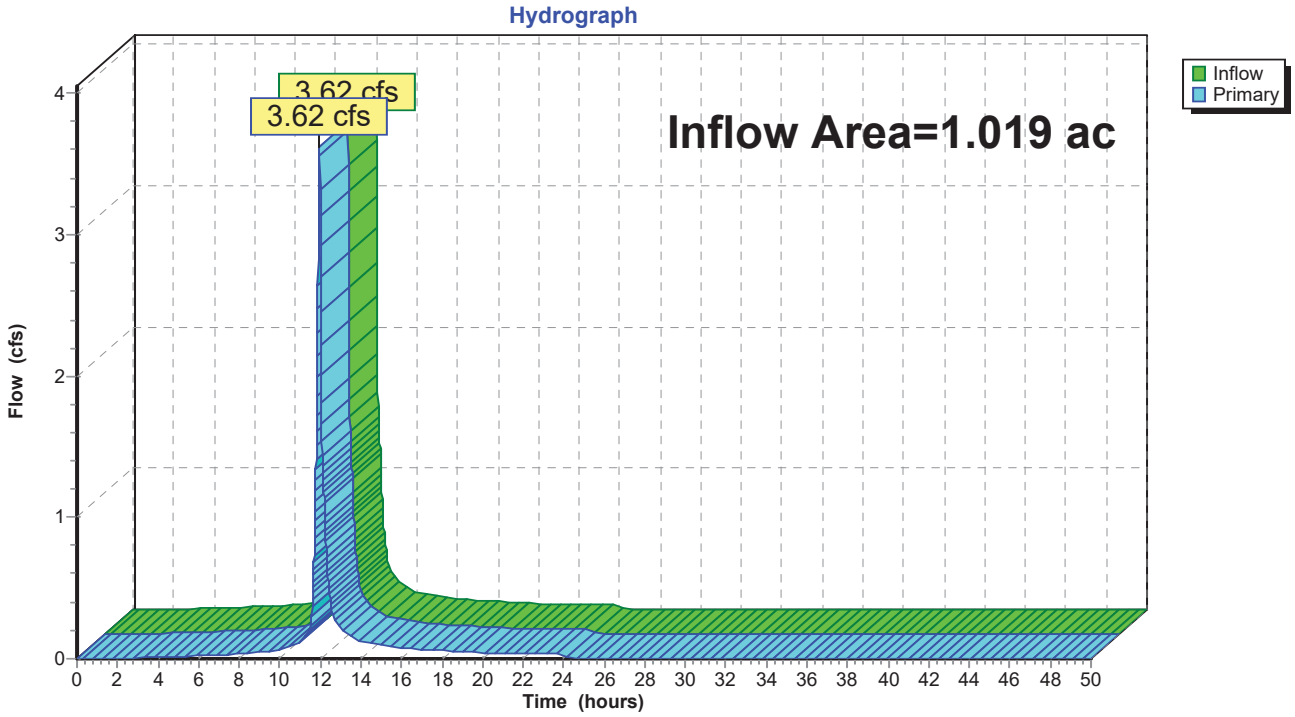
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 2.47" for 10-Year event
Inflow = 3.62 cfs @ 11.96 hrs, Volume= 0.210 af
Primary = 3.62 cfs @ 11.96 hrs, Volume= 0.210 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=3.12"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=2.01 cfs 0.100 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=3.44"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=3.49 cfs 0.182 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.57' Storage=1,597 cf Inflow=2.01 cfs 0.100 af
Outflow=0.82 cfs 0.085 af

Link 1L: Proposed Runoff Inflow=4.28 cfs 0.267 af
Primary=4.28 cfs 0.267 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.282 af Average Runoff Depth = 3.32"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

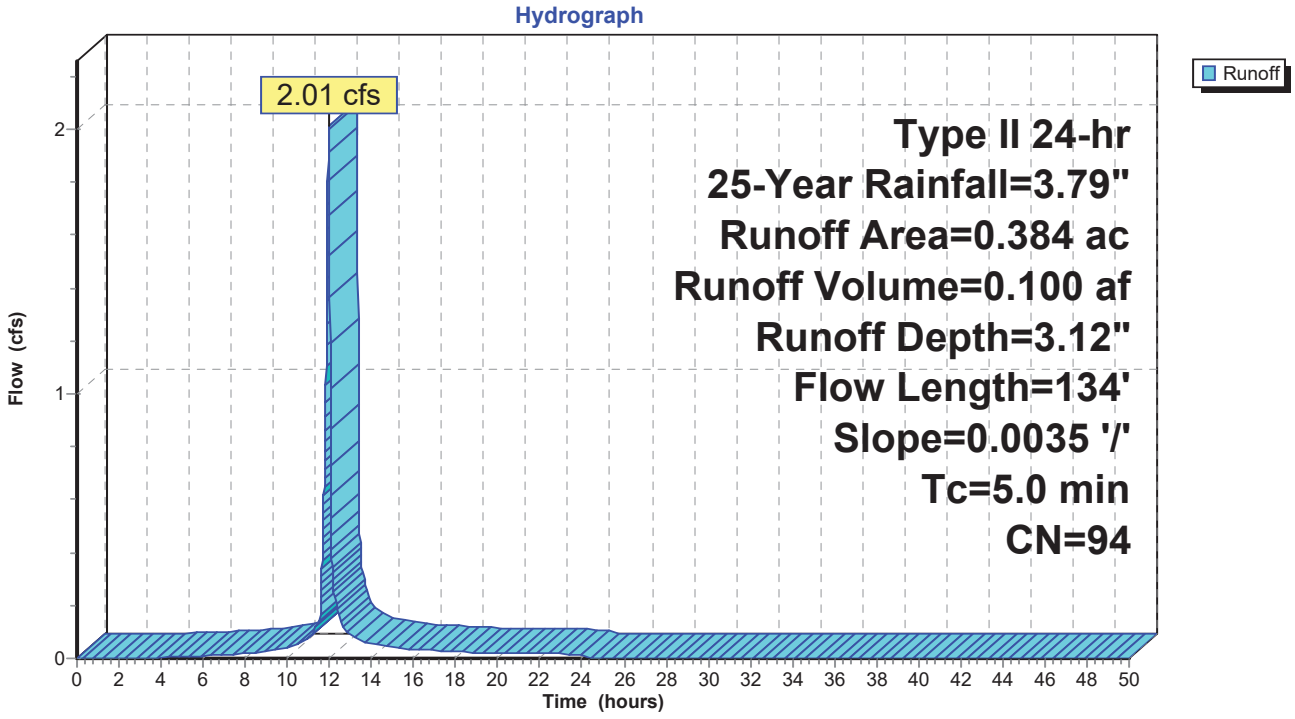
Runoff = 2.01 cfs @ 11.96 hrs, Volume= 0.100 af, Depth= 3.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=3.79"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

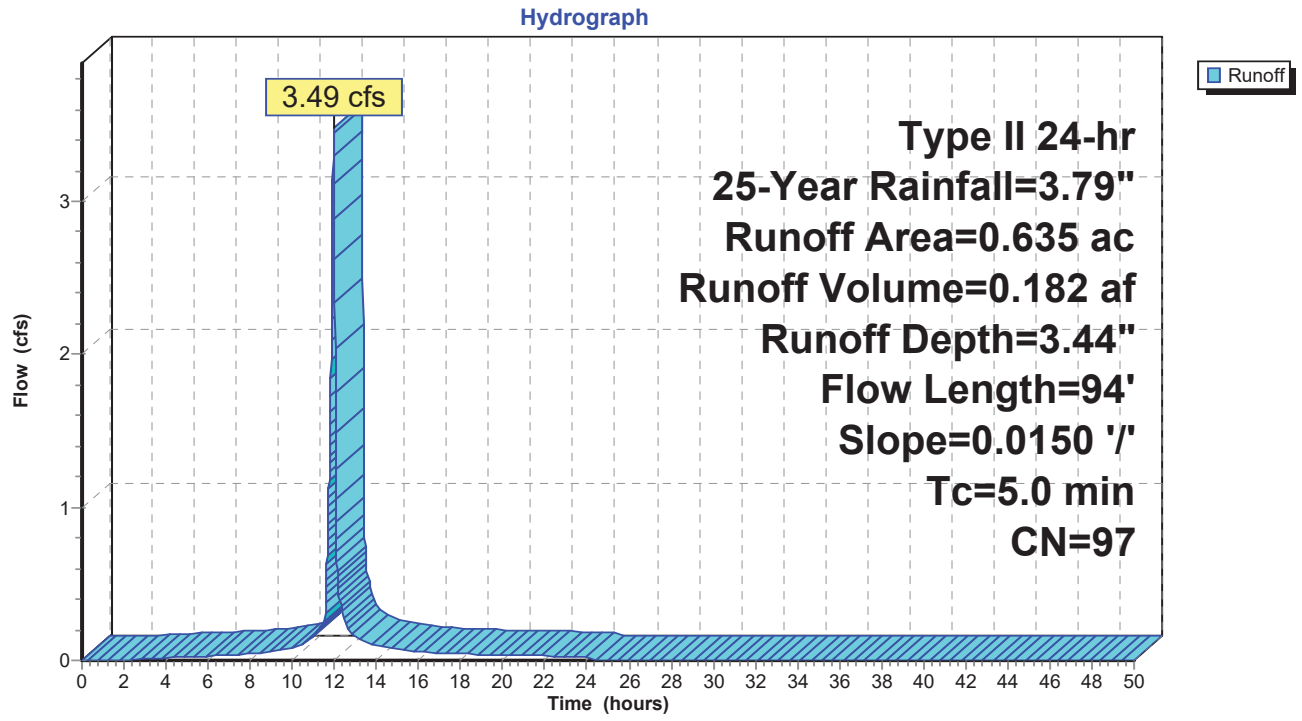
Runoff = 3.49 cfs @ 11.96 hrs, Volume= 0.182 af, Depth= 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=3.79"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 3.12" for 25-Year event
Inflow = 2.01 cfs @ 11.96 hrs, Volume= 0.100 af
Outflow = 0.82 cfs @ 12.05 hrs, Volume= 0.085 af, Atten= 59%, Lag= 5.8 min
Primary = 0.82 cfs @ 12.05 hrs, Volume= 0.085 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.57' @ 12.05 hrs Surf.Area= 1,847 sf Storage= 1,597 cf

Plug-Flow detention time= 123.7 min calculated for 0.085 af (85% of inflow)
Center-of-Mass det. time= 55.9 min (833.3 - 777.4)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

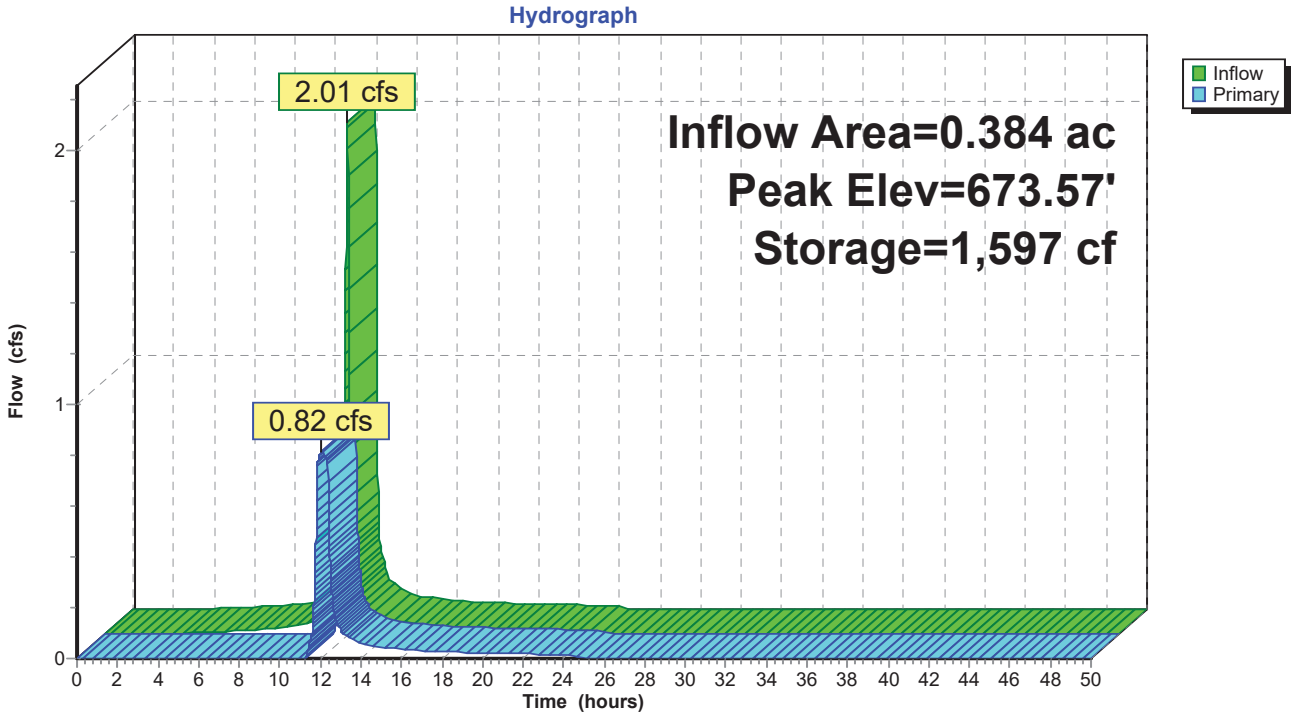
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.82 cfs @ 12.05 hrs HW=673.57' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.82 cfs @ 4.16 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.82 cfs of 2.73 cfs potential flow)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



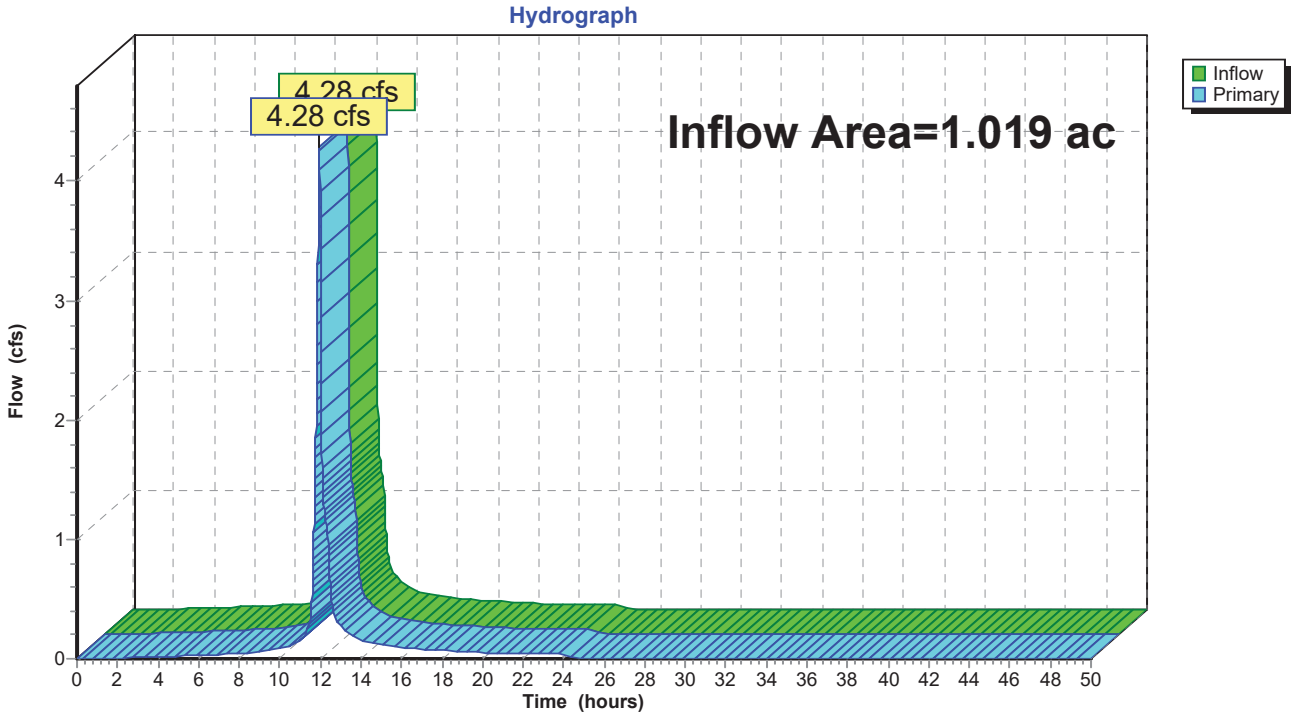
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 3.14" for 25-Year event
Inflow = 4.28 cfs @ 11.96 hrs, Volume= 0.267 af
Primary = 4.28 cfs @ 11.96 hrs, Volume= 0.267 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=4.45"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=2.80 cfs 0.142 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=4.79"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=4.77 cfs 0.253 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.87' Storage=2,185 cf Inflow=2.80 cfs 0.142 af
Outflow=0.86 cfs 0.127 af

Link 1L: Proposed Runoff Inflow=5.59 cfs 0.381 af
Primary=5.59 cfs 0.381 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.396 af Average Runoff Depth = 4.66"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

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Summary for Subcatchment 1S: Proposed Site

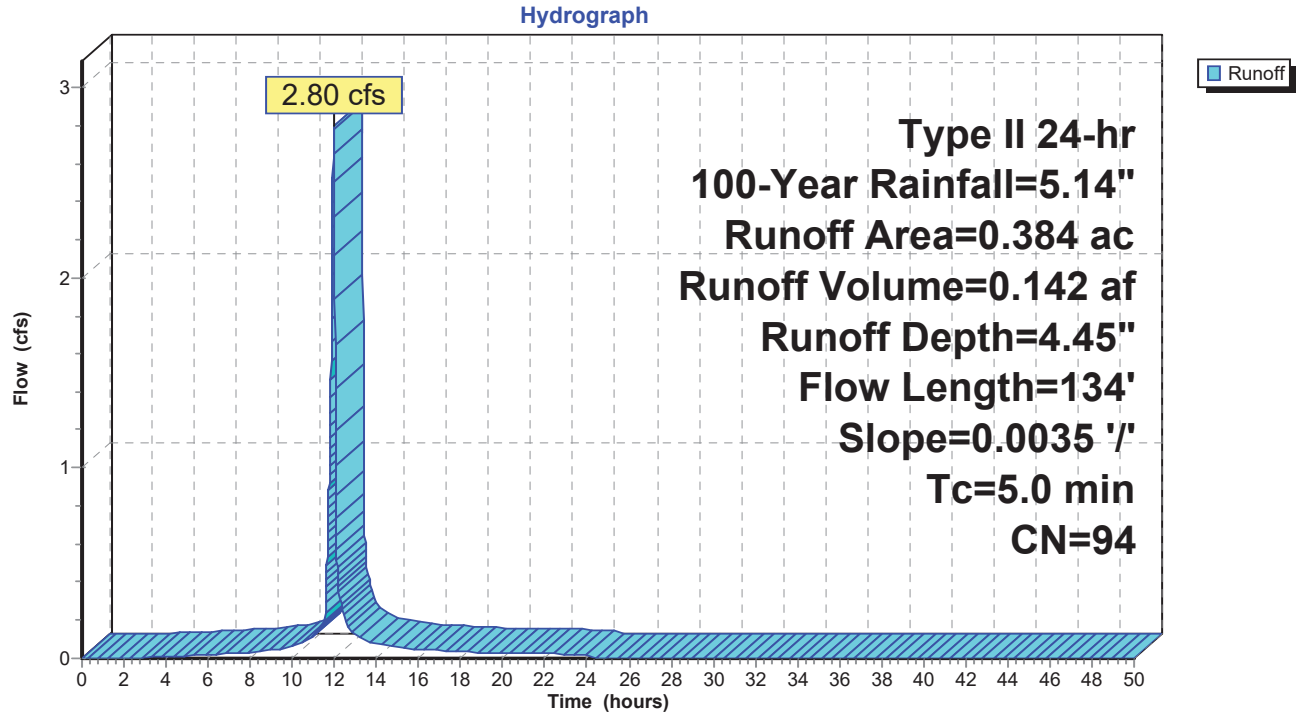
Runoff = 2.80 cfs @ 11.96 hrs, Volume= 0.142 af, Depth= 4.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.14"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

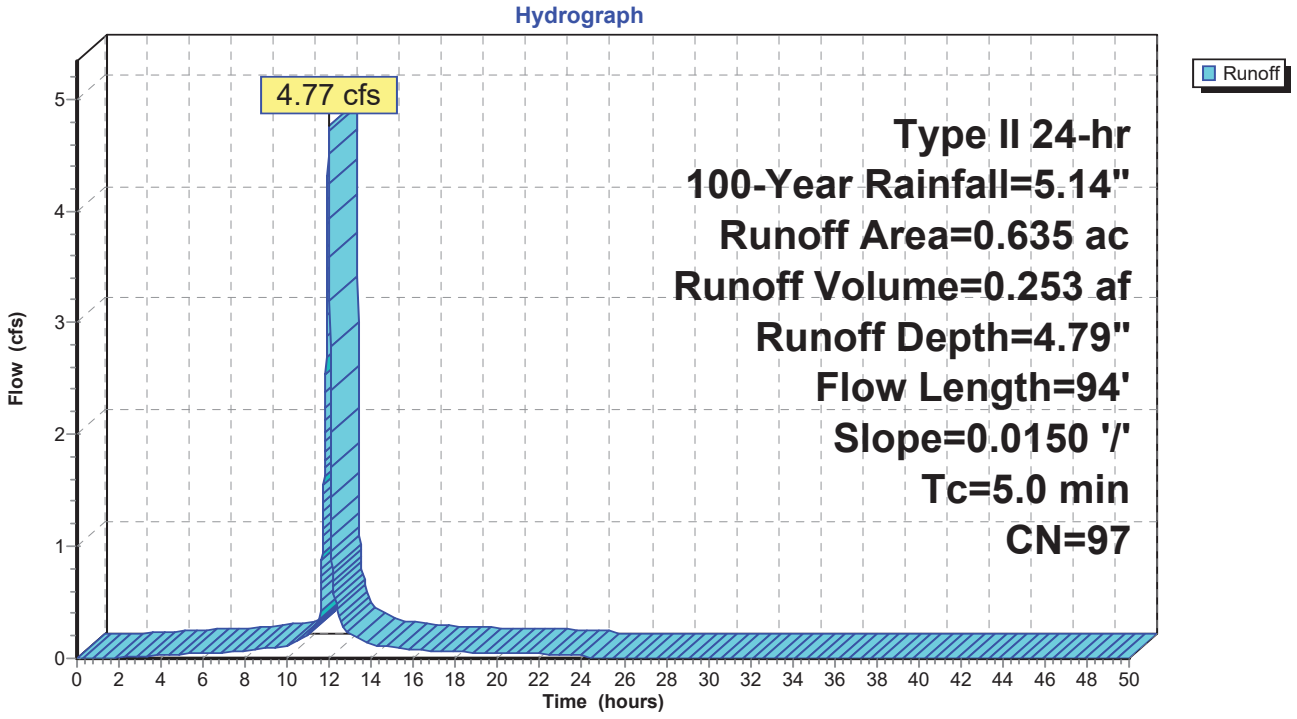
Runoff = 4.77 cfs @ 11.96 hrs, Volume= 0.253 af, Depth= 4.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.14"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 4.45" for 100-Year event
Inflow = 2.80 cfs @ 11.96 hrs, Volume= 0.142 af
Outflow = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af, Atten= 69%, Lag= 6.8 min
Primary = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.87' @ 12.07 hrs Surf.Area= 2,037 sf Storage= 2,185 cf

Plug-Flow detention time= 107.0 min calculated for 0.127 af (89% of inflow)
Center-of-Mass det. time= 53.3 min (821.6 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

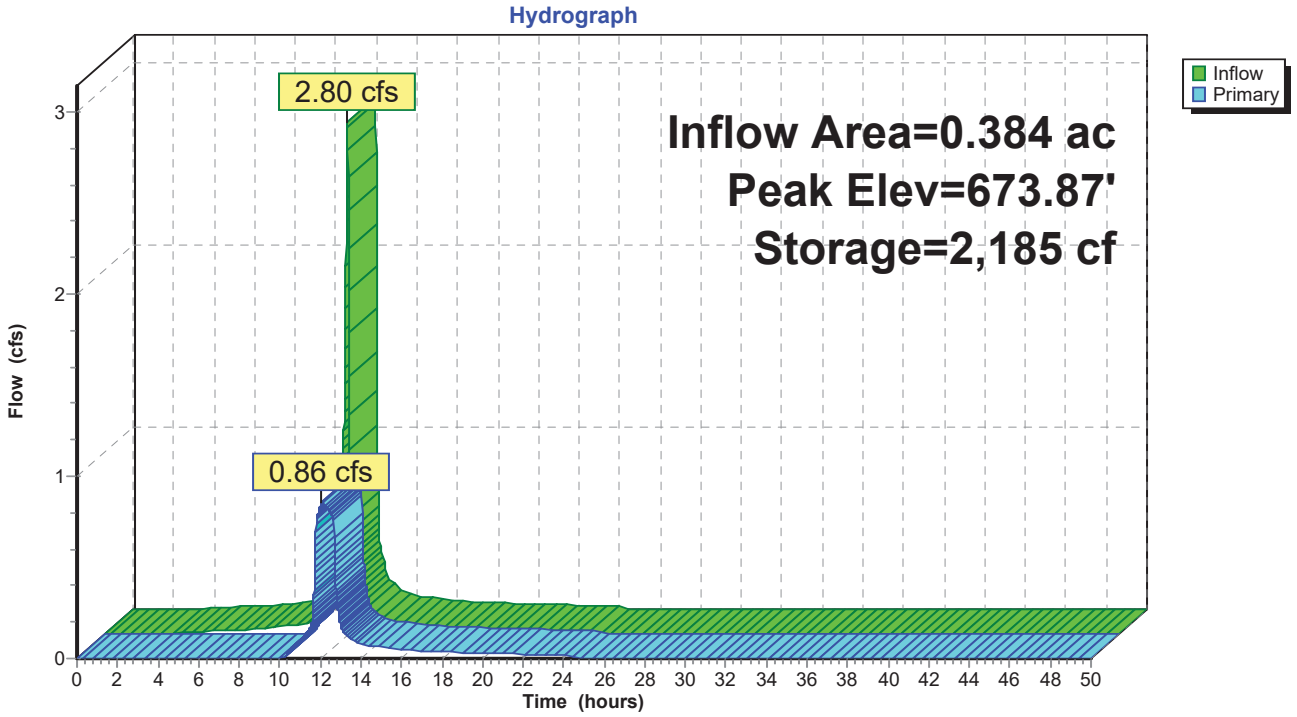
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.86 cfs @ 12.07 hrs HW=673.87' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.86 cfs @ 4.37 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.86 cfs of 5.20 cfs potential flow)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



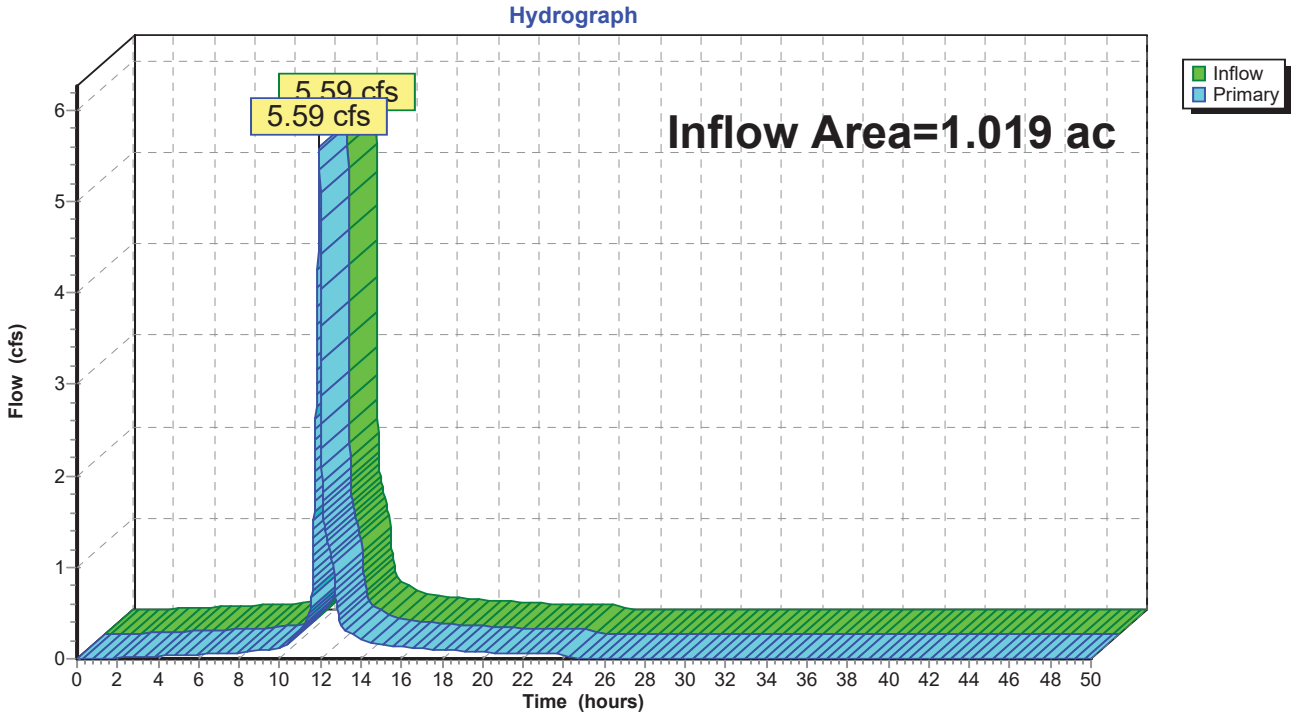
Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 4.48" for 100-Year event
Inflow = 5.59 cfs @ 11.96 hrs, Volume= 0.381 af
Primary = 5.59 cfs @ 11.96 hrs, Volume= 0.381 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



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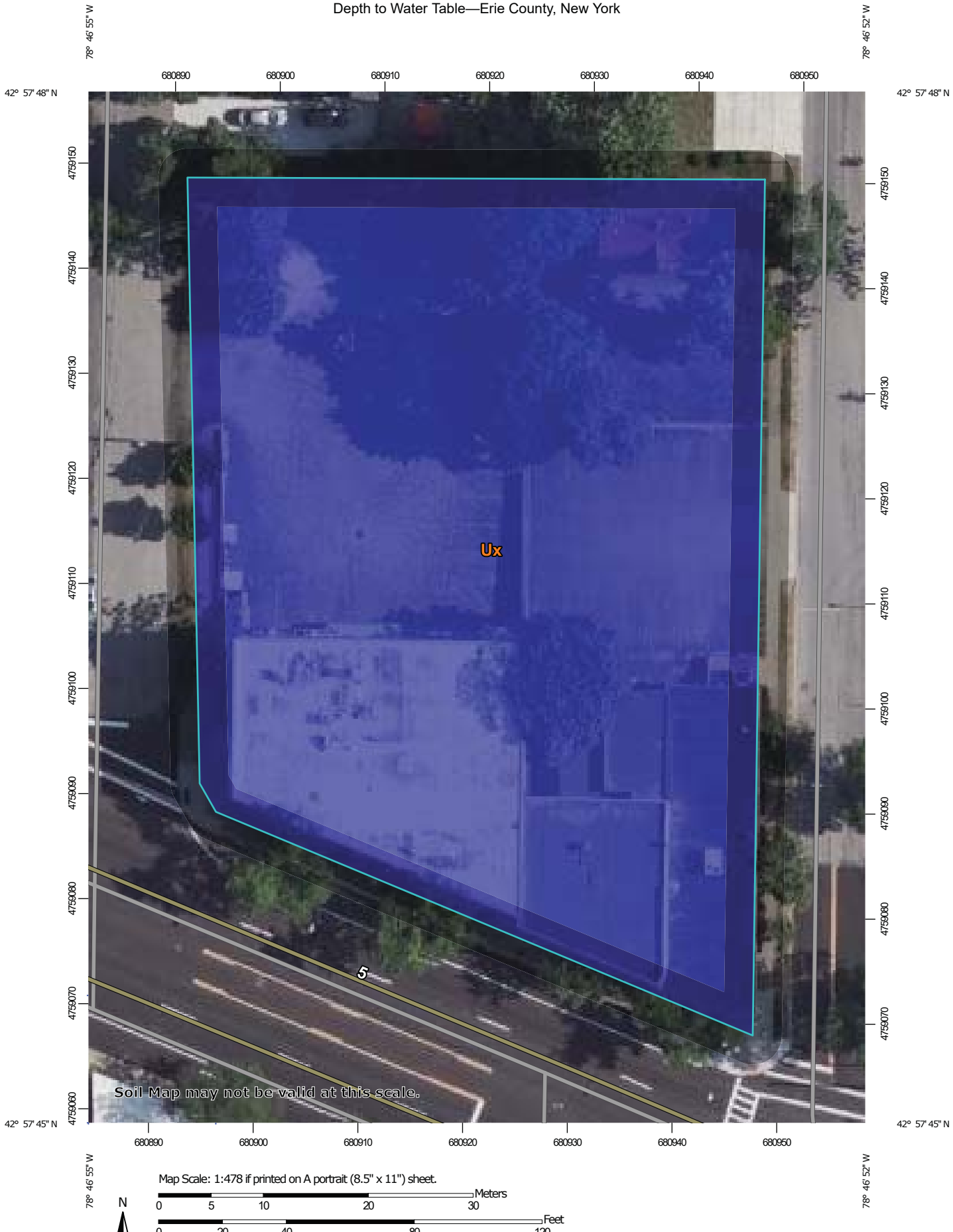
Appendix C

SOILS INFORMATION

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Depth to Water Table—Erie County, New York



Map Scale: 1:478 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 20 40 80 120

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

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MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Lines
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Points
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
Ux	Urban land-Wassaic complex	>200	0.9	100.0%
Totals for Area of Interest			**0.9**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Appendix E

NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature

Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System ("NPDES")* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* ("SWPPP") the reason(s) for the

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deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

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listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharges*.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

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(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

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For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

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calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

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c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

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d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

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E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

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operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

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8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

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(i) No Affect
(ii) No Adverse Affect
(iii) Executed Memorandum of Agreement, or

d. Documentation that:

(i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharge*s from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

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B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

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must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

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b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

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use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

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regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

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operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

   a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

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b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

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the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

    a. Background information about the scope of the project, including the location, type and size of project

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b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

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schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

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b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

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3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

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begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

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in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

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d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

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(Part IV.C.4.a)

a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

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l. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

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b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

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b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

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Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

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E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

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(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

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superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

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include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner’s or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

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3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

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(Part VII.R)

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

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APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

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Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "*Construction Activity(ies)*" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for "*Commence (Commencement of) Construction Activities"* and "*Larger Common Plan of Development or Sale" also.*

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

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and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

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Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term "plan" in "larger common plan of development or sale" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

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New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

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Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

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SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

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Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

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training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

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APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

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Table 1 (Continued) Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

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Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

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Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

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APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

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Figure 1 - New York City Watershed East of the Hudson

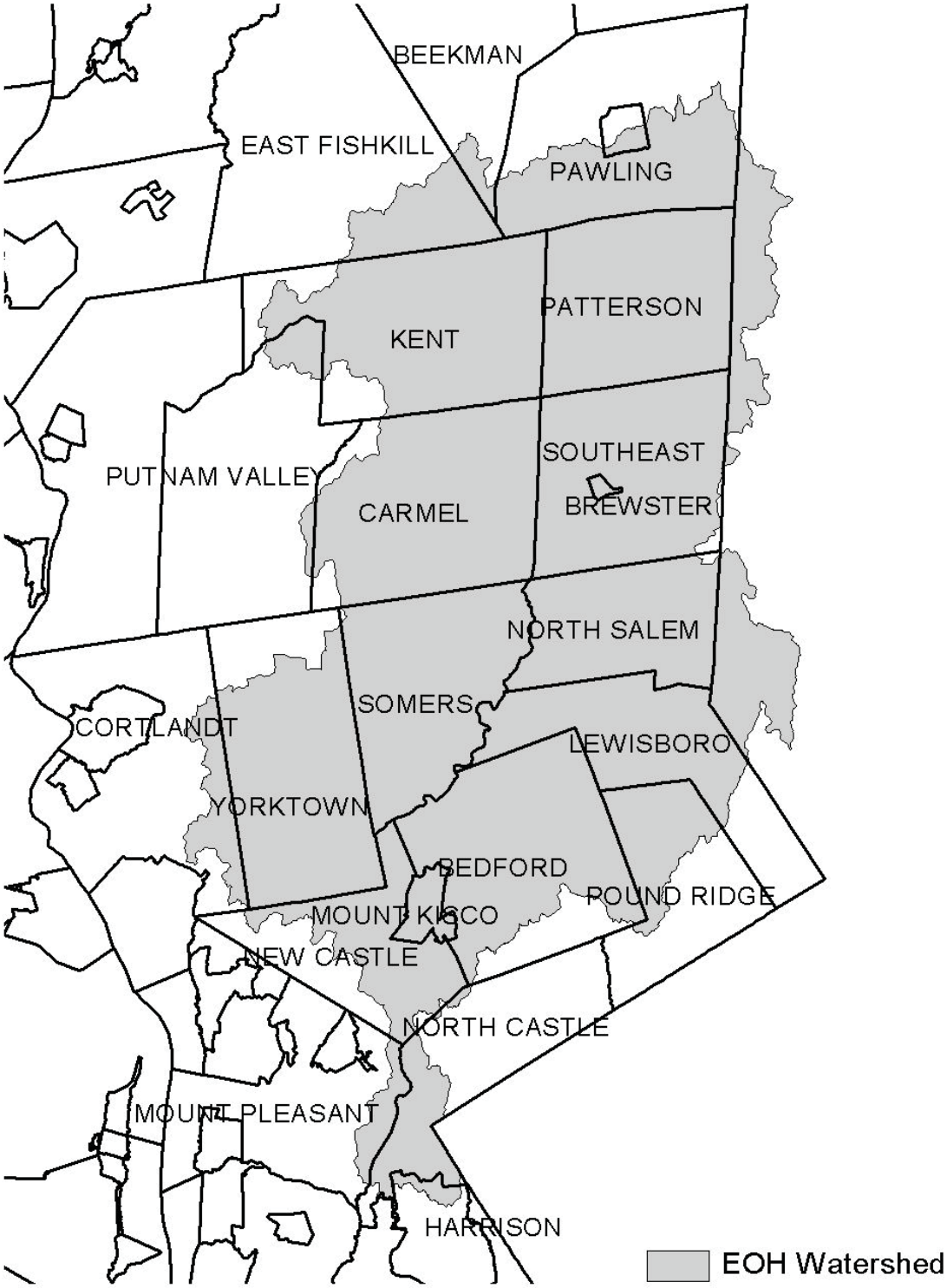

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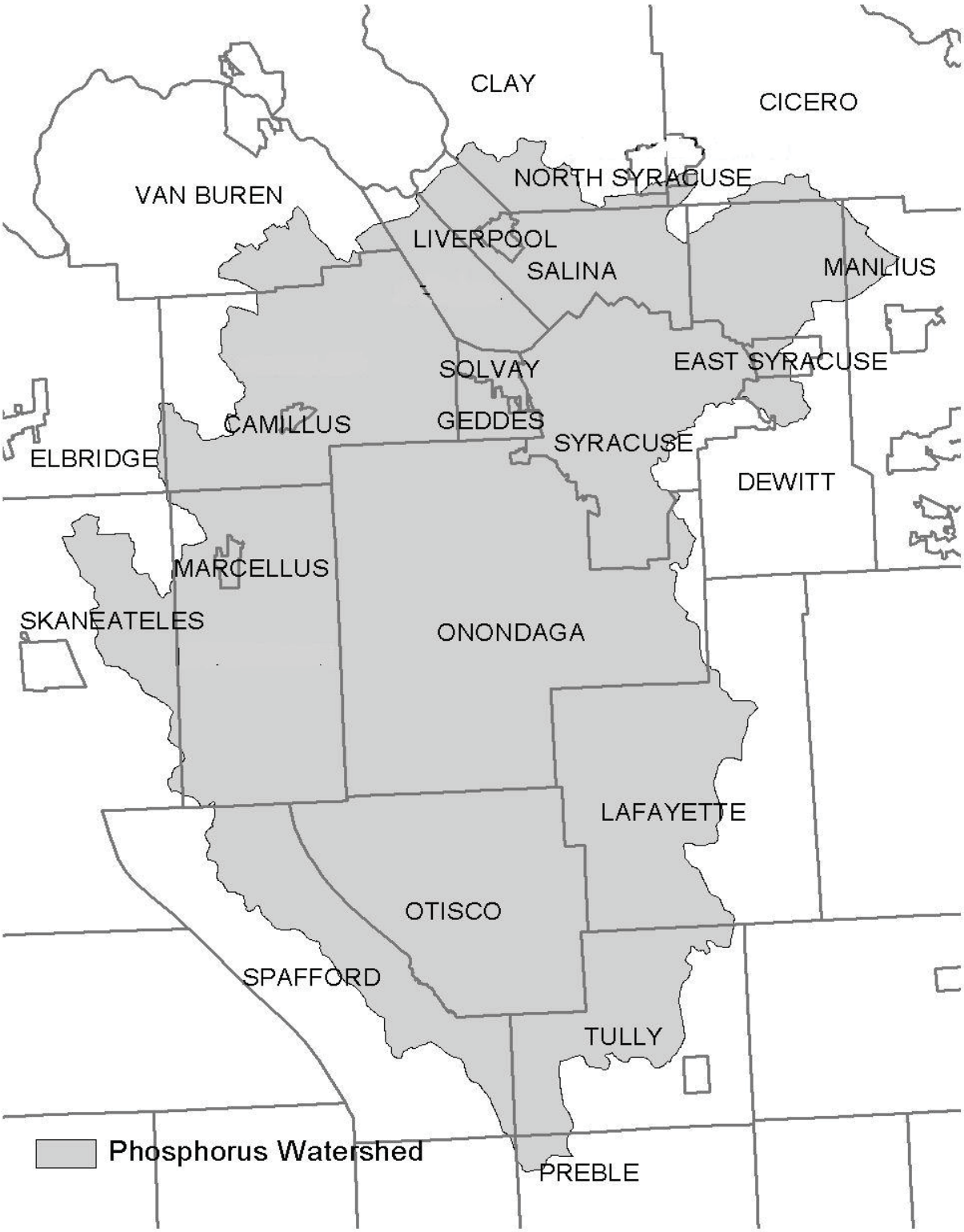
Figure 2 - Onondaga Lake Watershed



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Appendix C

Figure 3 - Greenwood Lake Watershed



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Figure 4 - Oscawana Lake Watershed

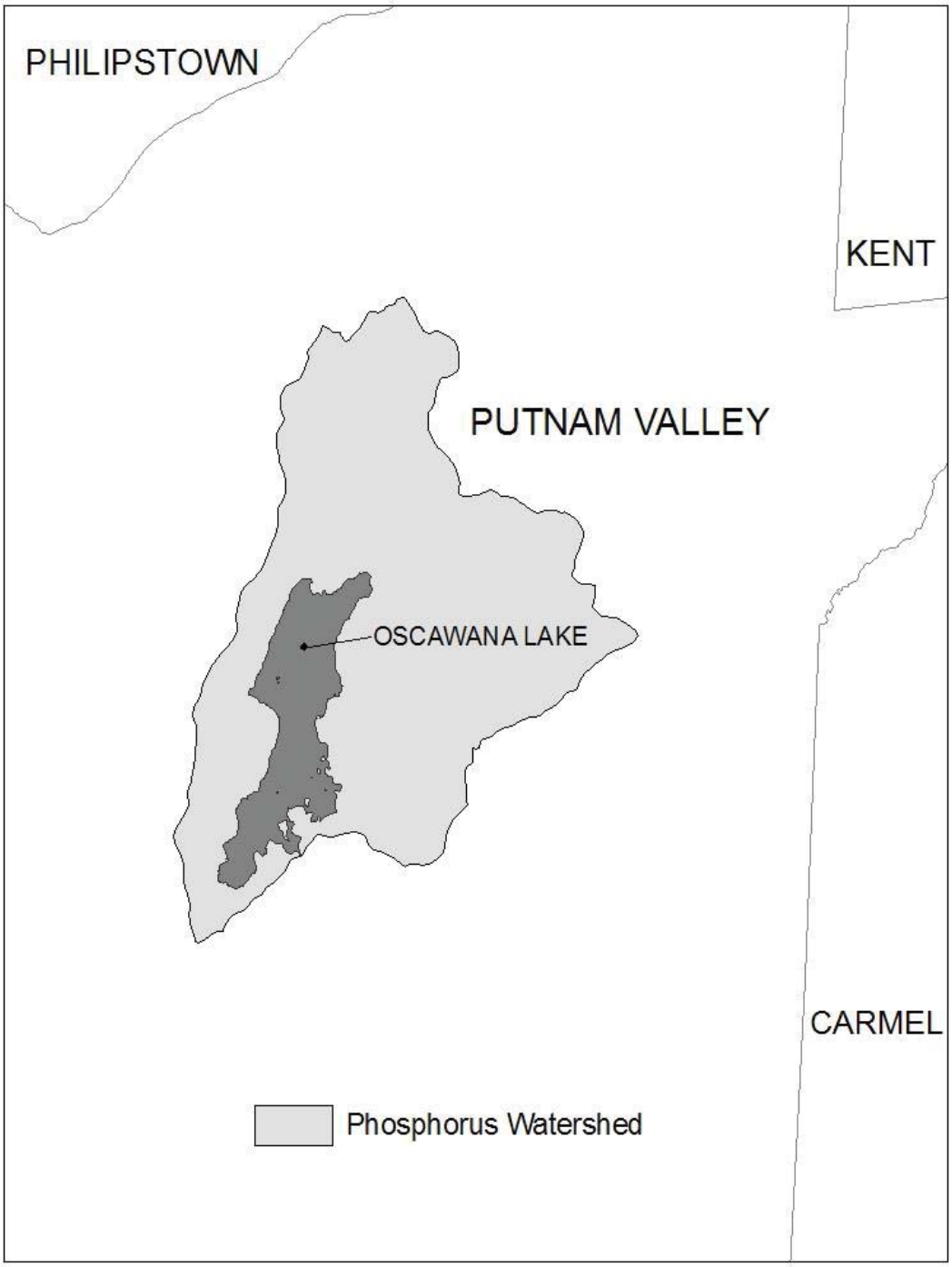

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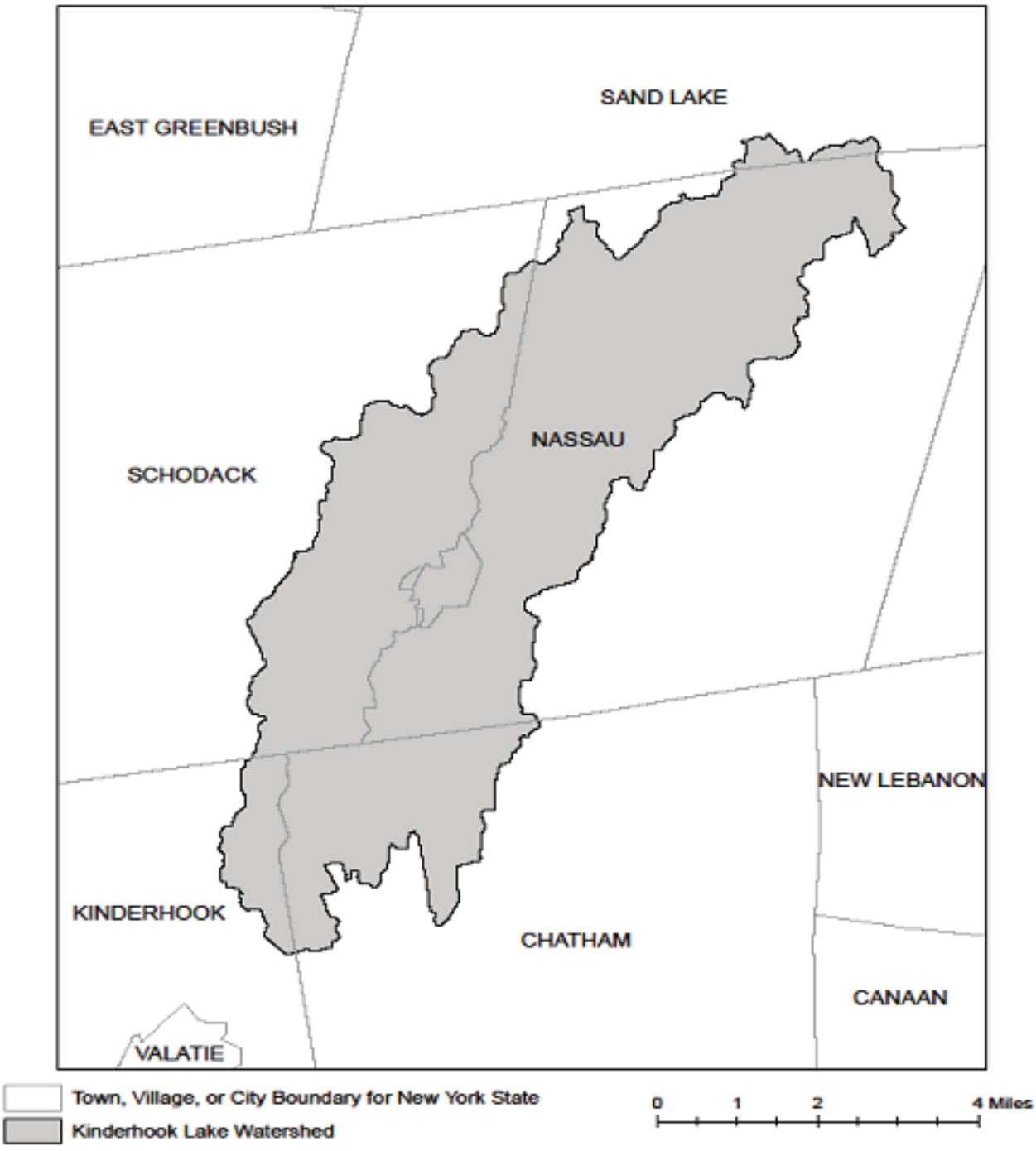
Figure 5 - Kinderhook Lake Watershed



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APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

APPENDIX F – List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	100 Hillside Avenue, Suite 1W White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Appendix F

Forms

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN

CONTRACTOR'S CERTIFICATION LOG

FORM SWPPP-1

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Company Name _____
Address

Contact Name _____
Telephone Number
Cell Phone/Pager

Scope of Services _____

Certification Date _____

Company Name _____
Address

Contact Name _____
Telephone Number
Cell Phone/Pager

Scope of Services _____

Certification Date _____

Company Name _____
Address

Contact Name _____
Telephone Number
Cell Phone/Pager

Scope of Services _____

Certification Date _____

Contractor's Project Manager_____

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
CONTRACTOR'S CERTIFICATION STATEMENT

FORM SWPPP-2

Construction Site

STORM WATER POLLUTION PREVENTION PROGRAM

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

SUBCONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Note: The contractor shall have at least one NYSDEC trained individual onsite at all times when earthwork and other SWPPP associated work is being performed from each contractor(s) and subcontractor(s). Each contractor(s) and subcontractor(s) shall provide copies of these individuals' certifications to the Town of Orchard Park.

Name: _____
(Print)

Signature: _____

Title: _____

Company Name: _____

Address: _____

Telephone Number: _____

Date: _____

Scope of Services: _____

Contractor's Project Manager_____

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" of the NYSDEC SPDES General Permit

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION REPORT (Page 1 of 2)

FORM SWPPP-3

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Inspections/reports are required at least once every seven (7) calendar days.

Inspection Type: ☐ **Routine (every 7 calendar days)** ☐ **Routine (every 30 calendar days)** ☐ **Storm**

Date: _____ Week Ending: _____

Weather/Storm Event Information:

Storm Start Time: _____ Storm Duration: _____

Time Elapsed Since Last Storm: _____ Approximate Amount of Rainfall (inches): _____

Based on the results of the inspection, necessary control modifications shall be implemented within seven (7) calendar days. These reports shall be kept on file as part of the Storm Water Pollution Prevention Plan for at least five (5) years from the date of completion and submission of the Final Stabilization Certification/Termination Checklist and Notice of Termination. A copy of the SWPPP shall be kept at the site at all times during construction.

Certification Statement:
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name of Inspector: _____ Title of Inspector: _____

Qualifications of Inspector: _____

_____

Inspector's Signature: _____

Construction phasing/sequencing is consistent with the SWPPP and Erosion Control Plans: ☐ **Yes** ☐ **No**

Compliance Certification
I certify that, based on no incidents of non-compliance identified during the inspection, the site is in compliance with the SWPPP and the Construction General Permit.

Name of Operator's Duly Authorized Representative (Printed): _____

Signature of Operator's Duly Authorized Representative: _____

Date: _____

*Note: This Compliance Certification is only to be signed by the Operator's Duly Authorized Representative (Project Manager) when there are no **"unsatisfactory" conditions and the construction phasing/sequencing is consistent with the SWPPP, rendering the site in full compliance with** the SWPPP and the Construction General Permit.

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Form SWPPP-3 Continued

Inspection Areas (Structural)	Satisfactory	Unsatisfactory (provide location or numeric identification per plan sheet)	N/A	Corrective Action Required	Implementation Date of Corrective Action
Construction Entrance/Exit					
Perimeter Silt Fence					

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Contractor's Project Manager_____

STORM WATER POLLUTION PREVENTION PLAN

Stabilization Schedule for Major Grading Activities

FORM SWPPP-4

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

*This form should be updated as necessary

Major Grading Activity/Area to be Stabilized	Begin Date	Date Activity Temporarily Ceased / Date Activity Resumed	Date Temporary Stabilization Measures Initiated and Method of Stabilization (if activities cease for more than 14 days, this column must be completed)	Date Activity Permanently Ceased	Date Permanent Stabilization Measures Initiated	Permanent Stabilization Measure(s) Used (i.e., stone, seeded, rolled, tracked)	Name of Contractor Responsible for Implementing Stabilization Measures
Construction Entrance(s)/Exit(s)							
Seeded, Landscaped Areas							

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Major Grading Activity/Area to be Stabilized	Begin Date	Date Activity Temporarily Ceased / Date Activity Resumed	Date Temporary Stabilization Measures Initiated and Method of Stabilization (if activities cease for more than 14 days, this column must be completed)	Date Activity Permanently Ceased	Date Permanent Stabilization Measures Initiated	Permanent Stabilization Measure(s) Used (i.e., stone, seeded, rolled, tracked)	Name of Contractor Responsible for Implementing Stabilization Measures

FORM SWPPP-4 CONTINUED

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN

FINAL STABILIZATION CERTIFICATION /NOTICE OF TERMINATION CHECKLIST

FORM SWPPP-5

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

1. ☐ **All soil disturbing activities are complete.**

2. ☐ **Temporary Erosion and Sediment Control Measures have been removed or will be removed at the appropriate time.**

3. ☐ **All areas of the Construction Site not otherwise covered by a permanent pavement or structure have been stabilized with a uniform perennial vegetative cover with a density of 85% or equivalent measures have been employed.**

CONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Company Name _____

Name (Print) _____

Signature _____

Title _____

Date _____

Contractor's Project Manager _____

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

YEAR 20___

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226
STORM WATER POLLUTION PREVENTION PLAN
PROJECT RAINFALL LOG

FORM SWPPP-6

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Day												
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PM Initials												

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
MODIFICATION REPORT

FORM SWPPP-7

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

CHANGES REQUIRED FOR STORM WATER POLLUTION PREVENTION PLAN

The SWPPP must be amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has a significant effect on the discharge of pollutants to the waters of the United States that has not been previously addressed in the SWPPP, if inspections or investigations by site staff, local, state or federal officials determine that discharges are causing water quality exceedances or the SWPPP is ineffective in eliminating or significantly minimizing pollutants in storm water discharges from the construction site, or based on the results of an inspection, the SWPPP must be modified to include additional or modified BMPs designed to correct identified problems. Revisions must be completed within seven (7) calendar days following the inspection.

To:	**Project Manager**	**Date:**	
Address:			
Telephone:			
Facsimile:			
Sent Via:	☐ **Facsimile**	☐ **Courier**	☐ **US Mail**

INSPECTOR: _____ DATE: _____
(Print)

_____
(Signature)

QUALIFICATIONS OF INSPECTOR: _____

CHANGES REQUIRED TO THE STORMWATER POLLUTION PREVENTION PLAN: _____

_____

_____

REASONS FOR CHANGES: _____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

Contractor's Project Manager: _____

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
MONTHLY TRAINING LOG

FORM SWPPP-8

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Storm Water Pollution Prevention Plan Topic: (Check as appropriate)

☐ **Temporary Soil Stabilization**
☐ **Temporary Sediment Control**
☐ **Wind Erosion Control**
☐ **Tracking Control**
☐ **Non-Storm Water Management**
☐ **Waste Management and Materials Pollution Control**
☐ **Erosion & Sediment Control Plan**

Specific Training Objective: _____

Date: _____

Instructor: _____
Location: _____
Telephone: _____

Attendance Roster

Name	Company	Telephone Number	Signature

Contractor's Project Manager _____

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
REPORTABLE QUANTITY RELEASE FORM

FORM SWPPP-9

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

The discharges of hazardous substances or oil in storm water discharges from construction sites must be prevented or minimized in accordance with the SWPPP. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under 40CFR110, 40CFR117 and 40CFR302 occurs, the following steps must be taken:

1. All measures must be taken to contain and abate the spill and to prevent the discharge of the pollutant(s) to storm water or off-site.

2. Notice must be provided to the National Response Center (NRC) at 1-800-424-8802 and the NYSDEC in accordance with regulations referenced above as soon as site staff has knowledge of the discharge.

3. Contact the Project Manager or Engineer of Record immediately upon knowledge of release.

4. The SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The plans must identify measures to prevent the recurrence of such releases and to respond to such releases.

Date of Spill	Material Spilled	Approximate Quantity of Spill (in gallons)	Agency(s) Notified	Date of Notification	SWPPP Revision Date

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
IMPLEMENTATION SCHEDULE

FORM SWPPP-10

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

*To be completed prior to initiation of construction by the contractor.

The Contractor will be responsible for implementing all erosion control and storm water management control structures. The Contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor.

Refer to Section 812.3 for Sequence of Activities

Construction Activity	Proposed Initiation Date	Proposed Completion Date	Contractor Responsible for Implementation

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
SIGNATORY AUTHORIZATION DESIGNATION

FORM SWPPP-11

Construction Site

STORMWATER POLLUTION PREVENTION PLAN

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

"In accordance with the **NYSDEC SPDES General Permit for Storm Water Discharges from Construction Activities, Part V, paragraph H, Signatory Requirements**, _____is hereby duly authorized to sign on my behalf, all reports and certifications that are required under the Permit and as part of this Storm Water Pollution Prevention Plan."

Signed: _____

Printed Name: _____

Title: _____

Company Name: _____

Address: _____

Telephone Number: _____

Date: _____

Note: Multiple designation forms may be required
(i.e., one from the Operator and one from the General Contractor).

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges From Construction Activity (GP-0-20-001)

Project Site Information

Project/Site Name

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Owner/Operator Information

Owner/Operator (Company Name/Private Owner/Municipality Name)

Benderson Development Company, LLC - 570 Delaware Ave - Buffalo, NY 14202

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Christopher		Wood
First name	MI	Last Name

Signature 

5/20/22
Date

Revised: January 2020

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

eNOI Submission Number: _____

eNOI Submitted by: ☐ **Owner/Operator** ☑ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Owner/Operator First Name M.I. Last Name

_____

Signature

_____

Date

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Appendix G

NYSDEC Notice of Termination (NOT)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:	
Title/Position:	
Signature:	Date:

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Appendix H

Stormwater Management Pond and Bioretention Construction and Maintenance Checklist

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Stormwater/Wetland Pond Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
Pre-Construction/Materials and Equipment		
Pre-construction meeting		
Pipe and appurtenances on-site prior to construction and dimensions checked		
1. Material (including protective coating, if specified)		
2. Diameter		
3. Dimensions of metal riser or pre-cast concrete outlet structure		
4. Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans		
5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope		
6. Number and dimensions of prefabricated anti-seep collars		
7. Watertight connectors and gaskets		
8. Outlet drain valve		
Project benchmark near pond site		
Equipment for temporary de-watering		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
2. Subgrade Preparation		
Area beneath embankment stripped of all vegetation, topsoil, and organic matter		
3. Pipe Spillway Installation		
Method of installation detailed on plans		
A. Bed preparation		
Installation trench excavated with specified side slopes		
Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation)		
Invert at proper elevation and grade		
B. Pipe placement		
Metal / plastic pipe		
1. Watertight connectors and gaskets properly installed		
2. Anti-seep collars properly spaced and having watertight connections to pipe		
3. Backfill placed and tamped by hand under “haunches” of pipe		
4. Remaining backfill placed in max. 8 inch lifts using small power tamping equipment until 2 feet cover over pipe is reached		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
3. Pipe Spillway Installation		
Concrete pipe		
1. Pipe set on blocks or concrete slab for pouring of low cradle		
2. Pipe installed with rubber gasket joints with no spalling in gasket interface area		
3. Excavation for lower half of anti-seep collar(s) with reinforcing steel set		
4. Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant		
5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix		
6. Upper half of anti-seep collar(s) formed with reinforcing steel set		
7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary.		
C. Backfilling		
Fill placed in maximum 8 inch lifts		
Backfill taken minimum 2 feet above top of anti-seep collar elevation before traversing with heavy equipment		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
4. Riser / Outlet Structure Installation		
Riser located within embankment		
A. Metal riser		
Riser base excavated or formed on stable subgrade to design dimensions		
Set on blocks to design elevations and plumbed		
Reinforcing bars placed at right angles and projecting into sides of riser		
Concrete poured so as to fill inside of riser to invert of barrel		
B. Pre-cast concrete structure		
Dry and stable subgrade		
Riser base set to design elevation		
If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely		
Watertight and structurally sound collar or gasket joint where structure connects to pipe spillway		
C. Poured concrete structure		
Footing excavated or formed on stable subgrade, to design dimensions with reinforcing steel set		
Structure formed to design dimensions, with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
Forms stripped & inspected for “honeycomb” prior to backfilling; parge if necessary		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Embankment Construction		
Fill material		
Compaction		
Embankment		
1. Fill placed in specified lifts and compacted with appropriate equipment		
2. Constructed to design cross-section, side slopes and top width		
3. Constructed to design elevation plus allowance for settlement		
6. Impounded Area Construction		
Excavated / graded to design contours and side slopes		
Inlet pipes have adequate outfall protection		
Forebay(s)		
Pond benches		
7. Earth Emergency Spillway Construction		
Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc.		
Excavated to proper cross-section, side slopes and bottom width		
Entrance channel, crest, and exit channel constructed to design grades and elevations		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
8. Outlet Protection		
A. End section		
Securely in place and properly backfilled		
B. Endwall		
Footing excavated or formed on stable subgrade, to design dimensions and reinforcing steel set, if specified		
Endwall formed to design dimensions with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing, if necessary)		
Forms stripped and structure inspected for "honeycomb" prior to backfilling; parge if necessary		
C. Riprap apron / channel		
Apron / channel excavated to design cross-section with proper transition to existing ground		
Filter fabric in place		
Stone sized as per plan and uniformly place at the thickness specified		
9. Vegetative Stabilization		
Approved seed mixture or sod		
Proper surface preparation and required soil amendments		
Excelsior mat or other stabilization, as per plan		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
10. Miscellaneous		
Drain for ponds having a permanent pool		
Trash rack / anti-vortex device secured to outlet structure		
Trash protection for low flow pipes, orifices, etc.		
Fencing (when required)		
Access road		
Set aside for clean-out maintenance		
11. Stormwater Wetlands		
Adequate water balance		
Variety of depth zones present		
Approved pondscaping plan in place Reinforcement budget for additional plantings		
Plants and materials ordered 6 months prior to construction		
Construction planned to allow for adequate planting and establishment of plant community (April-June planting window)		
Wetland buffer area preserved to maximum extent possible		

Comments:

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Actions to be Taken:

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Bioretention Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
If designed as exfilter, soil testing for permeability		
Facility location staked out		
2. Excavation		
Size and location		
Lateral slopes completely level		
If designed as exfilter, ensure that excavation does not compact susoils.		
Longitudinal slopes within design range		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
3. Structural Components		
Stone diaphragm installed correctly		
Outlets installed correctly		
Underdrain		
Pretreatment devices installed		
Soil bed composition and texture		
4. Vegetation		
Complies with planting specs		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
5. Final Inspection		
Dimensions		
Proper stone diaphragm		
Proper outlet		
Soil/ filter bed permeability testing		
Effective stand of vegetation and stabilization		
Construction generated sediments removed		
Contributing watershed stabilized before flow is diverted to the practice		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Comments:

Actions to be Taken:

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Project _____
Location: _____
Site Status: _____

Date: _____
Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After Major Storms)		
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam “As-Built”		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)		
Type: Reinforced concrete _____ Corrugated pipe _____ Masonry _____ 1. Low flow orifice obstructed		
2. Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
3. Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
5. Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
8. Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (monthly)		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual , After Major Storms)		
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
1. Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
2. Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
4. Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants “choked” with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		

Comments:

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Actions to be Taken:

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Bioretention Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Bioretention and contributing areas clean of debris		
No dumping of yard wastes into practice		
Litter (branches, etc.) have been removed		
2. Vegetation (Monthly)		
Plant height not less than design water depth		
Fertilized per specifications		
Plant composition according to approved plans		
No placement of inappropriate plants		
Grass height not greater than 6 inches		
No evidence of erosion		
3. Check Dams/Energy Dissipaters/Sumps (Annual, After Major Storms)		
No evidence of sediment buildup		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Sumps should not be more than 50% full of sediment		
No evidence of erosion at downstream toe of drop structure		
4. Dewatering (Monthly)		
Dewaters between storms		
No evidence of standing water		
5. Sediment Deposition (Annual)		
Swale clean of sediments		
Sediments should not be > 20% of swale design depth		
6. Outlet/Overflow Spillway (Annual, After Major Storms)		
Good condition, no need for repair		
No evidence of erosion		
No evidence of any blockages		
7. Integrity of Filter Bed (Annual)		
Filter bed has not been blocked or filled inappropriately		

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Comments:

Actions to be Taken:

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Appendix I

Construction Documents

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

PROPOSED SITE DEVELOPMENT

Main St. / Chateau Terrace / Fruehauf Ave.

4548 - 4564 Main St, Amherst, NY

BDC Property # 5202

SITE DEVELOPMENT DRAWINGS

INDEX OF DRAWINGS

DWG. #	DRAWING NAME	REVISION	DATE
C1.0	COVER SHEET	3	12.14.2022
C2.0	EXISTING SURVEY		
C3.0	DEMOLITION & EROSION CONTROL PLAN	3	12.14.2022
C3.1	BORING LOCATION PLAN	3	12.14.2022
C3.2	DEMOLITION & EROSION CONTROL DETAILS	3	12.14.2022
C4.0	OVERALL SITE PLAN	3	12.14.2022
C4.1	DETAILED SITE PLAN	3	12.14.2022
C4.2	CONSTRUCTION DETAILS	3	12.14.2022
C5.0	GRADING PLAN	3	12.14.2022
C5.1	DRAINAGE PLAN	3	12.14.2022
C5.2	DRAINAGE DETAILS	3	12.14.2022
C6.0	UTILITY PLAN	3	12.14.2022
C6.1	UTILITY DETAILS	3	12.14.2022
C7.0	LANDSCAPE PLAN	3	12.14.2022
C8.0	LIGHTING PLAN	3	12.14.2022
C8.1	LIGHTING DETAILS	3	12.14.2022

OWNER/DEVELOPER:

NAME: BENDERSON DEVELOPMENT COMPANY, LLC
ADDRESS: 570 DELAWARE AVENUE, BUFFALO, NY 14202
CONTACT: DAVID ZUPPELLI
PHONE: 716 - 878 - 9683

BENDERSON DEVELOPMENT COMPANY, LLC
570 Delaware Ave.
Buffalo, New York 14202

SURVEYOR

NAME: MILLARD, MACKAY & DELLES LAND SURVEYORS, LLP
ADDRESS: 150 AERO DRIVE BUFFALO, NY 14225
CONTACT: FRANCIS C. DELLES
PHONE: 716-631-5140

UTILITIES:

WATER DEPARTMENT
NAME/TITLE: ADAM MASSARO
COMPANY/DEPT: ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION RD, CHEEKTOWAGA, NY
PHONE: 716 - 685-8207

DIG SAFELY NEW YORK
PHONE: 1 - 800 - 962 - 7962 OR (811)

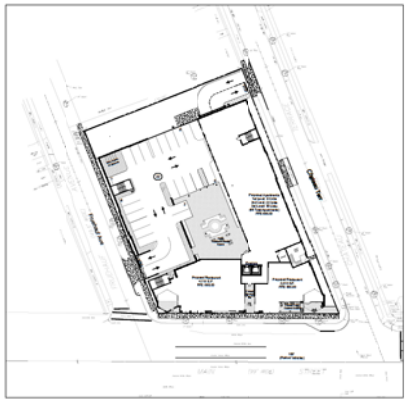
AGENCIES:

ENGINEERING DEPARTMENT
NAME/TITLE: JEFF BURROUGHS
COMPANY/DEPT: TOWN OF AMHERST, NY - ENGINEERING DPT
ADDRESS: 1100 NORTH FOREST RD, WILLIAMSVILLE, NY
PHONE: 716 - 631 - 7154 EX 7418

BUILDING & PLUMBING DEPARTMENT
NAME/TITLE: -
COMPANY/DEPT: TOWN OF AMHERST, NY - BUILDING DPT
ADDRESS: 5583 MAIN STREET, WILLIAMSVILLE, NY 14221
PHONE: 716 - 631 - 7080

NYSDOT - HIGHWAY & UTILITY PERMITS
NAME/TITLE: ALFRED I. OYOYO, ASSISTANT RESIDENT ENGINEER
COMPANY/DEPT: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NORTH ERIE RESIDENCY)
ADDRESS: 111 INDIAN ROAD, DEPEW, NEW YORK 14043
PHONE: 716 - 683 - 3476 (EXT - 27)

SITE LOCATION MAP 1"=60'



REGIONAL LOCATION MAP NTS



OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	05.23.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: --

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

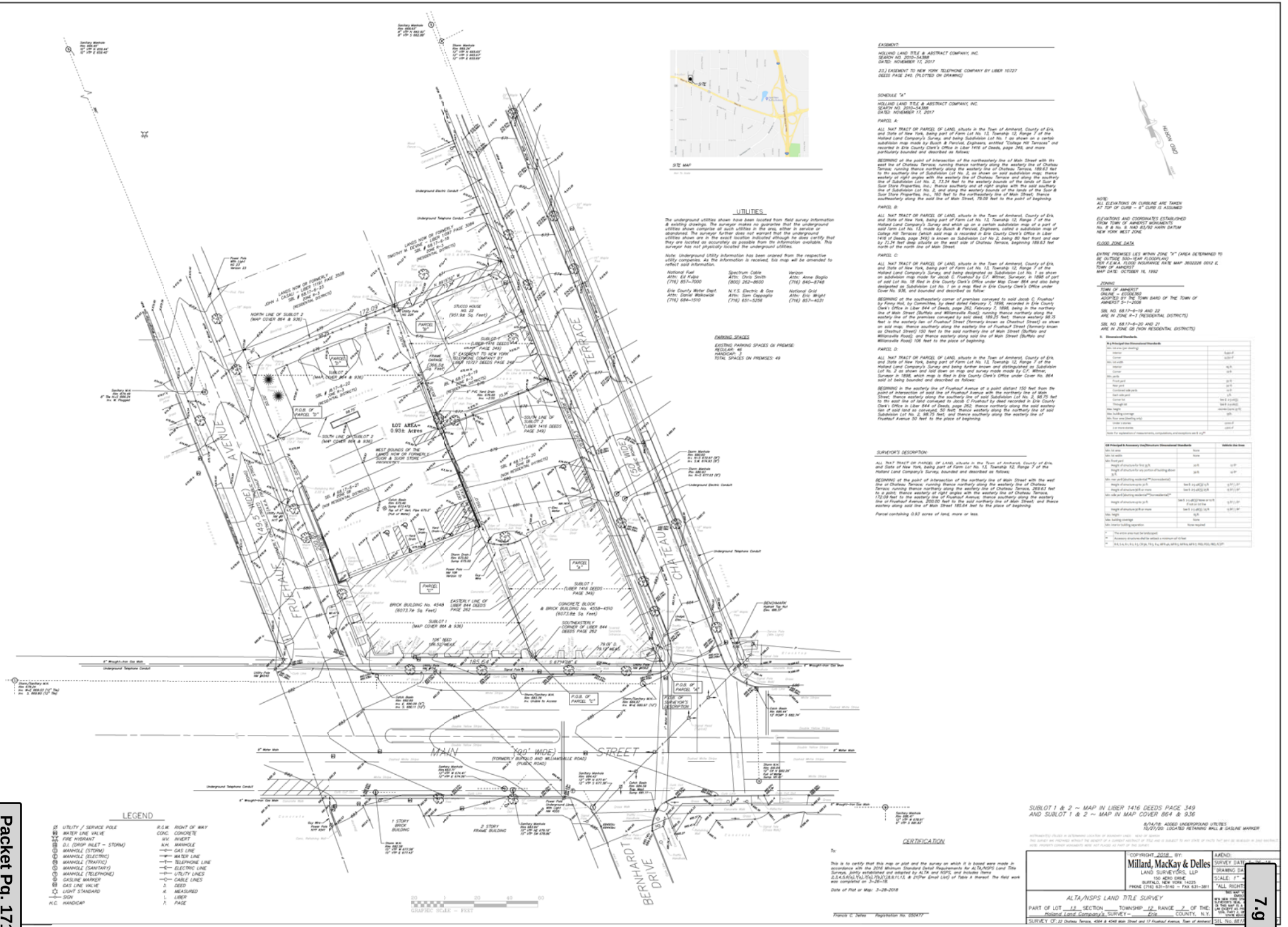
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE: COVER SHEET

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C1.0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



Packet Pg. 1715

7.g

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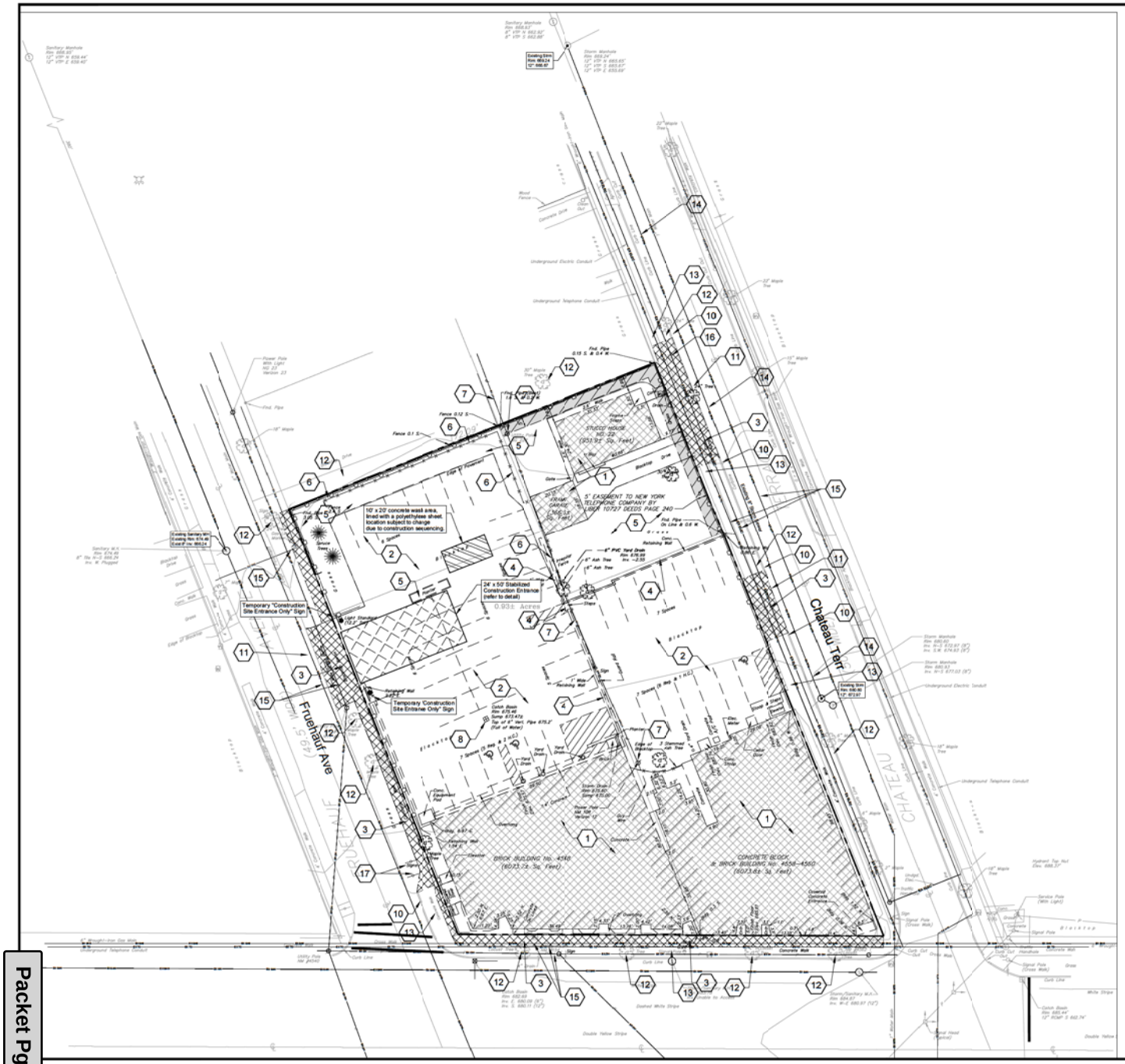

GENERAL NOTES:
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2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (#1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (#1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DEMOLITION & EROSION NOTES:
1. USE ENTRANCE FROM FRUEHAUF AVE. FOR CONSTRUCTION ENTRANCE
2. INSTALL TEMPORARY EROSION CONTROL DEVICES AS DIRECTED WITHIN THE WORKING AREA TO PREVENT SEDIMENT MIGRATION. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS PROVIDED.
3. ALL EROSION CONTROL DEVICES SHALL BE REPLACED WHEREVER THEY BECOME INOPERABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
5. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION, DURING EARTHWORK OPERATIONS, WATER-SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR, AND WATER SPREAD AS NECESSARY AND AS DIRECTED IN ORDER TO CONTROL DUST.
6. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED AND ROAD SURFACES CLEANED BY THE CONTRACTORS ON A DAILY BASIS, OR MORE FREQUENTLY IF DEEMED NECESSARY.
7. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM OF 4" DEPTH AND SEEDED IMMEDIATELY AFTER FINE GRADING TAKES PLACE AND AS SOON AS PHYSICALLY POSSIBLE.
8. THE CONTRACTOR IS RESPONSIBLY FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES AND CULVERTS. SILT &/OR FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS, DETENTION PONDS, BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR CITY.
9. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE ALL GRADING WORKS ARE COMPLETE.

DEMOLITION LEGEND:
- Property Line
- Existing Electric
- Existing Gas
- Existing Water
- Existing Overhead Utility
- Existing Sanitary
- Existing Storm
- Existing Telecoms
- Saw Cut Line
- Silt Fence/Sock
- Inlet Protection "Sedi-Bag" or similar
- Existing Easement to be removed.
- Existing Building to be removed.

DEMOLITION NOTES:
1. Existing Buildings to be removed.
2. Existing Pavement to be removed.
3. Existing R.O.W. Driveway, Curb and Sidewalk to be removed.
4. Existing Retaining Wall and Steps to be removed.
5. Existing Landscape Area to be removed.
6. Existing Fence to be removed.
7. Existing Utility to be removed.
8. Existing Storm Drainage/CB to be removed.
9. Existing Sign to be removed.
10. Existing Curb to remain.
11. Existing Pavement to remain.
12. Existing Landscape area to remain.
13. Eising Sidewalk to remain.
14. Existing Storm Drainage/CB to remain and be protected during Construction.
15. Existing Utility to remain and be protected dering construction.
16. Existing Light Pole to remain and be poteded during construction.
17. Existing Sign to be relocated.

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CONSULTANT

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PREPARED FOR
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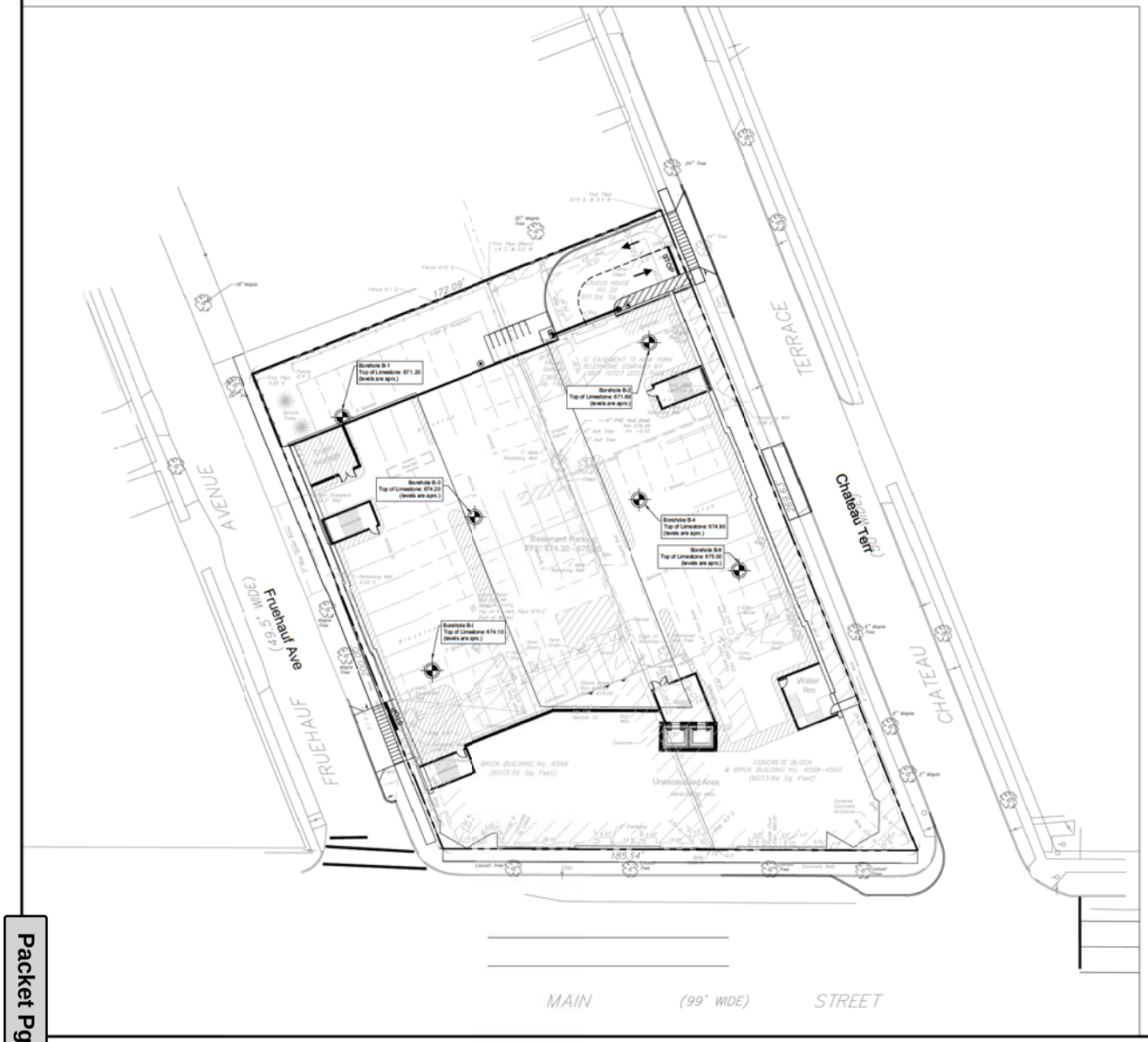
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE:
DEMO & EROSION CONTROL PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C3.0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



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BOREHOLE TEST NOTES:

BOREHOLE LOCATIONS ARE APPROXIMATE. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR LOCATIONS AND INFORMATION.

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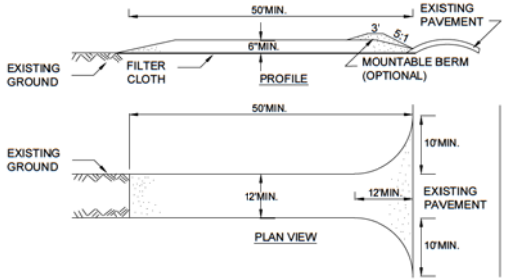
(716) 886-0211

SEAL

TITLE:
BORING LOCATION PLAN

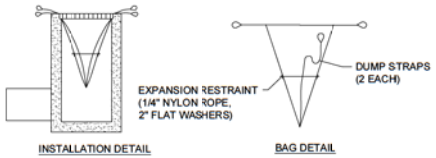
SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C3.1

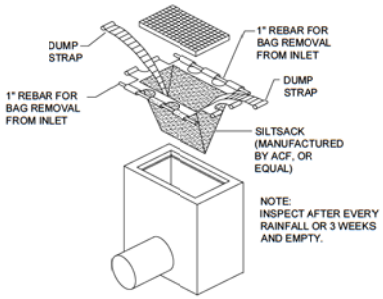


STABILIZED CONSTRUCTION ENTRANCE DETAIL

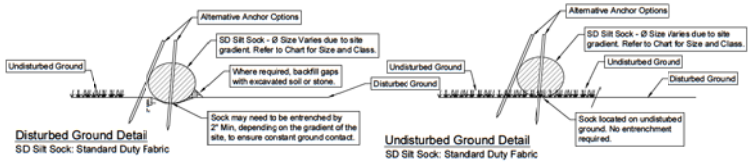
NOT TO SCALE

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



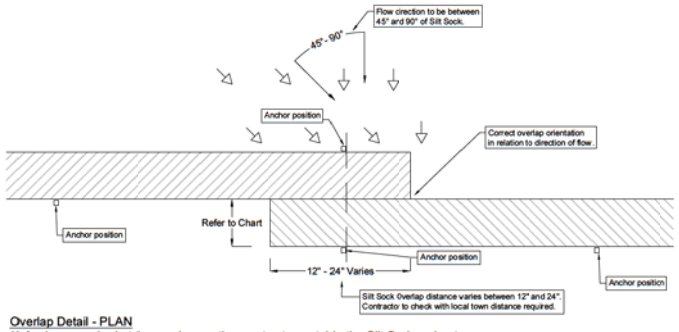


SILT SACK DETAIL
N.T.S.

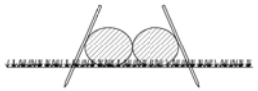


Disturbed Ground Detail
SD Silt Sock: Standard Duty Fabric

Undisturbed Ground Detail
SD Silt Sock: Standard Duty Fabric



Overlap Detail - PLAN
1) Anchors required at the overlap section are to stay outside the Silt Sock and not pierce through the material. See alternative anchor positons in details above.

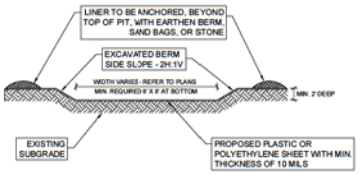


Anchor at Overlaped Ends - SECTION

Size & Class Chart			
	Diameter		
Gradient	8"	12"	18"
0 - 2%	30	55	75
2.1 - 5%	25	40	55
5.1 - 10%	15	30	40
10.1 - 33%	10	15	20
> 33%	5	10	15

SD SILT SOCK DETAIL

SD Silt Sock: Standard Duty Fabric



TYPICAL CONCRETE WASH OUT DETAIL

NOTES:
1. CONSTRUCT TO 2016 NYSDEC BLUE BOOK DESIGN CRITERIA

Notes:

1 - Do not use sock below the normal watermark or perpendicular to flow in river and where the maximum incline is greater than 50%.
2 - Contractors shoud be aware of federal, state and local laws, rules regulations or permit requirements for the use of Silt Socks on site.
3 - Sock should be positioned on the outline of the area to be protected, but must be installed between 45° to 90° from directions of flow.
4 - Sock may be required to be entrenched a minimum of 2" on disturbed ground to ensure constant ground contact.
5 - All gaps and ruts must be backfilled with soil or sock material.
6 - Sock overlap should be in the direction of the flow. Overlap amount will be between 12" and 24". Contractor to check with local town for requirements.
7 - If sediment collects to 1/2 the height of the sock, then a second sock may be stacked immediately up slope of the original instead of removing the sediment.
8 - Sock joint is where two sock sections meet on a level grade, overlap and adjoining ends, tightening the ends together, and anchoring through each end. Where two sections meet on un-level ground, j-hook higher elevated end, anchor, and begin new section just below. Back fill any gaps.
9 - Sock should be inspected and repaired as neeced.
10 - If ruts begin under the sock they should be backfilled with soil and compacted so that the ground and sock have continuous contact.
11 - If sock rolls out of place, the sock should be repositioned and secured with additional anchors.
12 - Tears in the Sock fabric may be repaired by wrapping a new piece of fabric over the sock and securing, or by place a second sock immediately up slope with the required overlap beyond deformation.
13 - A section of sock should be replaced whenever it has weakened to such an extent that the efficiency is reduced or diminished. Weakening can occur because the natural mesh fabric breaks down over time of from being moved/dragged on site.
14 - Sock should be replaced when sediment has built up and has been removed three times.
15 - All sediment in disturbed area next to sock must be removed and correctly disposed of before the sock can be removed.
16 - When removing, cut sock open and spread the filler material around. The neting should be removed from site.
17 - Sock should be installed before works commence on site.

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SEAL

TITLE:
DEMOLITION & EROSION CONTROL DETAILS

SCALE: -
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C3.0

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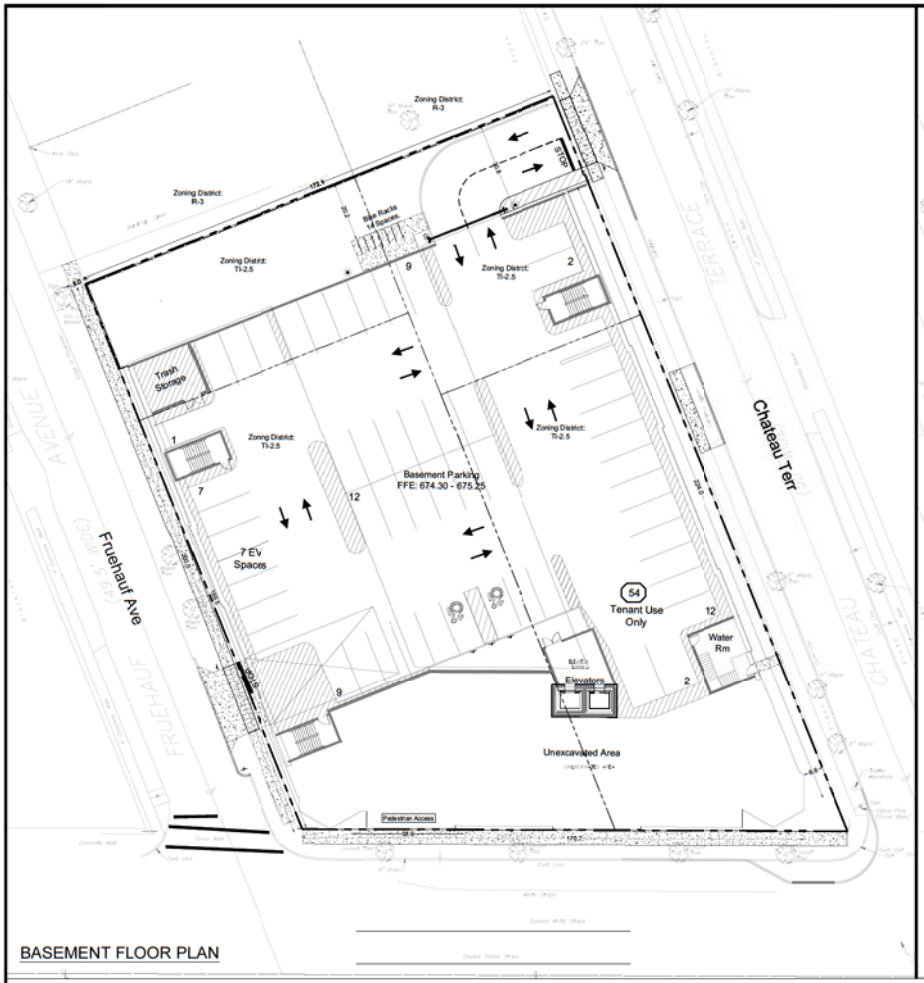
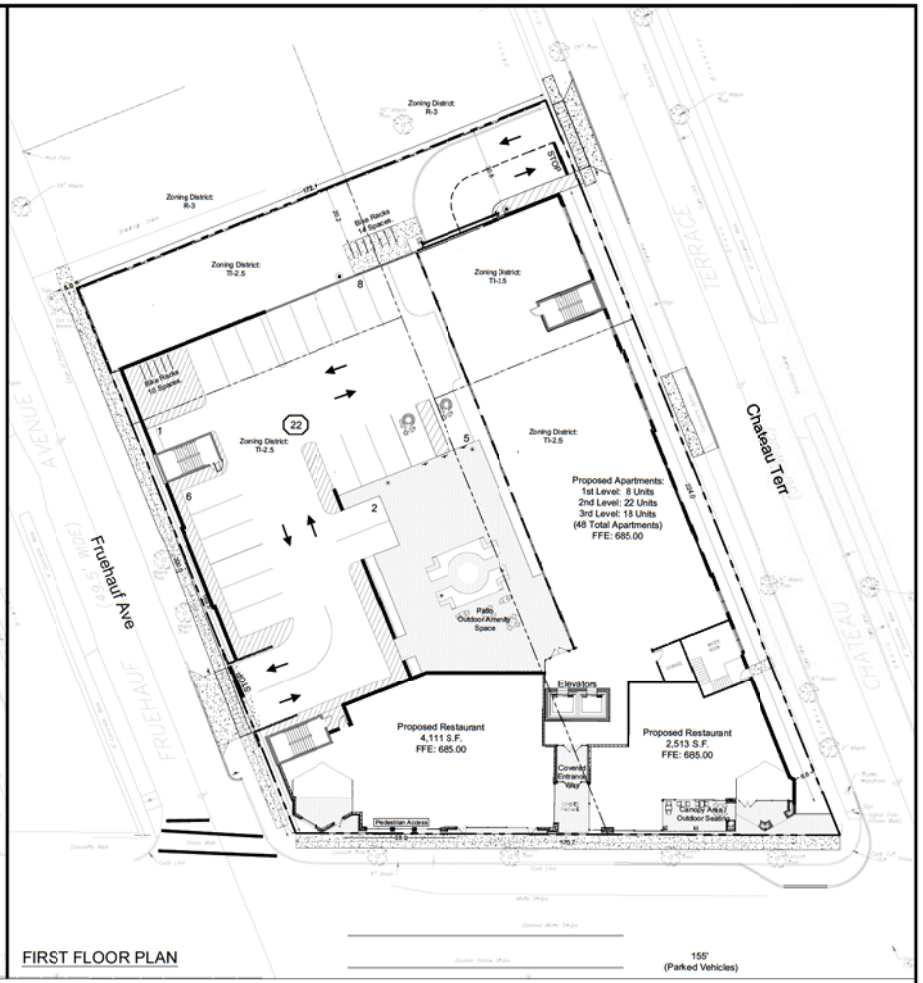


BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

155'
(Parked Vehicles)

TOWN OF AMHERST, NY ZONING ANALYSIS		
	REQUIRED	PROVIDED
ZONED	TI-2.5 (Village Frontage)	TI-2.5 (Village Frontage)
SA-1.3: TI-2.5 Traditional Infill 2.5 Section		
LOT		
Area	0 S.F. min.	40,409 S.F.
Width	0' min.	170.7'
Outdoor Amenity Space	10% min.	11.3% (4,500 S.F.)
At grade level	50% min. (See SA-7.1 B(2)	68.1% (2,825.1 S.F.)
Planted above ground level	25% min. (See SA-7.1 B(2)	31.9% (1,324.9 S.F.)
Seating	1 per 500 S.F. (4,500 / 500 = 9 Seats min.)	10 Seats
BUILDING SETBACKS		
Building-to-zone	Refer to Section 5A-2 Infill Frontages	
Lot Frontage	Refer to Section 5A-2 Infill Frontages	
Common lot line	0' min.	30.8' (North Side)
Alley	0' min.	N/A
PARKING SETBACKS		
Primary and Side Street	Refer to Section 5A-2 Infill Frontages (below)	
Common lot line	0' min.	30.8' (North Side)
Alley	5' min.	N/A
BUILDING HEIGHT		
Top Plate Height	2 Stories / 24' max.	-
Building Height	2.5 Stories / 35' max.	-
Roof Pitch	18:12 max.	-
BUILDING LENGTH	Refer to Section 5A-2 Infill Frontages (below)	
STORY HEIGHT	Refer to Section 5A-2 Infill Frontages (below)	

5A-2.4: Village Frontage		
BUILDING SETBACKS		
Build-to zone	0' min./10' max.	0.0'
Street Frontage:		
Front: Main Street	90% min.	92.0% (170.7')
Side: Fruehauf Ave	-	169.5' - 24' (parking entrance) = 145.5' (72.6%)
Side: Chateau Terr	-	83.1% (224')
PARKING SETBACKS		
Street	20' min.	30.8' (North Side)
BUILDING MASS		
Street facing building length:		
Front: Main Street	200' max.	170.7'
Fruehauf Ave	200' max.	169.5'
Chateau Terr	200' max.	224.0' (Exception 203-5A-2.4 E)
STORY HEIGHT		
Ground floor elevation	0' min. / 2' max.	0.0'
Ground story height	10' min.	-
Upper story height	9' min.	-
TRANSPARENCY		
Ground story	70% min.	1,345S.F./1,890 S.F. = 71.2%
Upper story	20% min.	430 S.F. / 1890 S.F. = 22.7%
Blank wall length	15' max.	7'
PEDESTRIAN ACCESS		
Street facing entrance	Required	Complies
Entrance spacing	50' max.	38'
STREETSCAPE		
Clear pedestrian zone	10' min.	9.8' Total - Existing Condition
Curb zone	6' min.	
Tree planting type	Grates	Noted: Existing
Tree spacing	38' on-center avg.	Noted: Existing

PROPOSED PARKING & BIKE ANAYLSIS TI-2.5 (Section 5A-9.1.A.(1))			
USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	4,624 sq ft / 1000 x 4 = 19 SPACES	Basement Parking: 54 Spaces Ground Flr Parking: 22 Spaces
RESIDENTIAL (Upper stories)	1.0 x 48 Unit Beds = 48 SPACES 1.5 x 2.0 Bed = 3 Spaces	Total: 70 SPACES	Total: 76 SPACES
STALL SIZE		9'x19'	9'x19'
ELECTRIC CHARGING STATION			
10% of parking spaces to be EV ready. Min. 2 EV ready spaces to parking lots over 20 spaces. EV Ready defined as power be available at spaces in advanced		Basement Parking: 54 / 10 = 5 Spaces Ground Floor Parking: 22 / 10 = 2 Spaces Total: 7 Spaces	Basement Parking: 7 Spaces Total: 7 Spaces
BIKE PARKING			
Residential Use: Short Term 0.5 space per unit min. 20 max. Public Use: 1 per 3,000 S.F. min. 20 max.	0.5 x 48 = 24 24 + 20 min. 20 SPACES 4,624 S.F. / 3000 = 1.54 SPACES	TOTAL: 20 SPACES	20 SPACES 4 SPACES TOTAL: 24 SPACES

RESTAURANT: 4,111 S.F. +2,513 S.F.

1 BEDROOM APARTMENTS: 21 UNITS
2 BEDROOM APARTMENTS: 24 UNITS
3 BEDROOM APARTMENTS: 3 UNITS

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	12.09.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

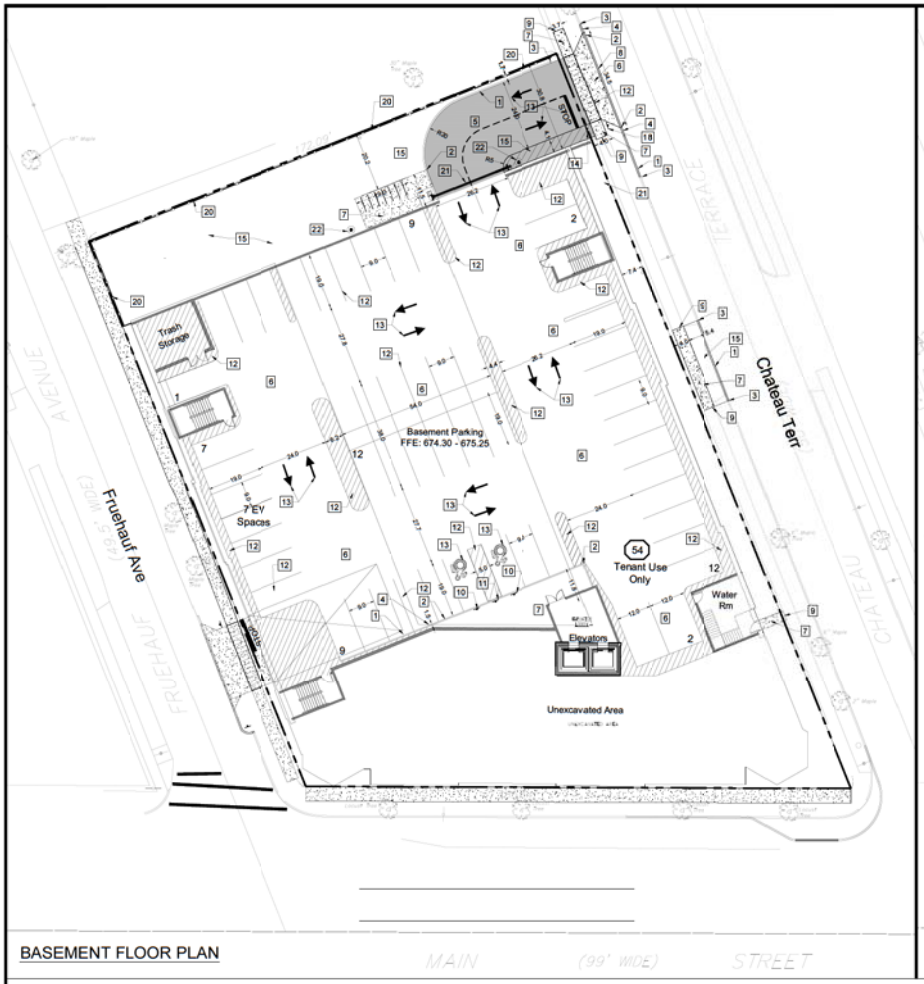
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

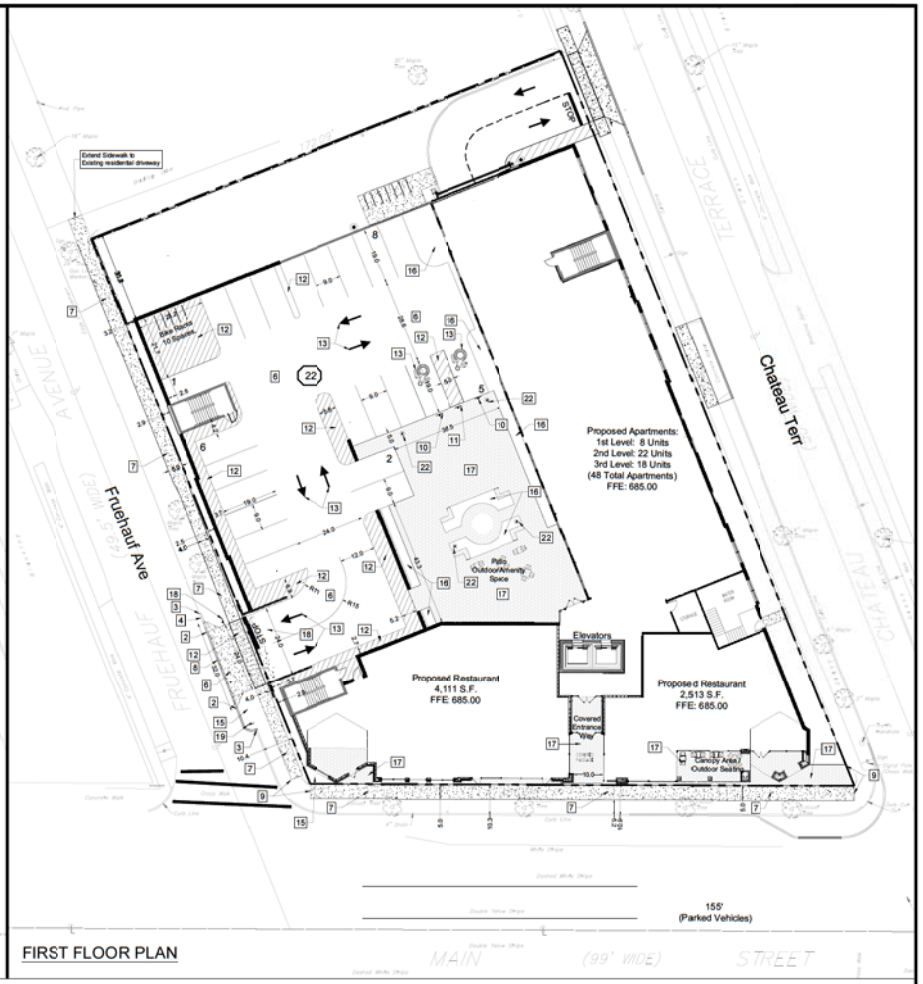
TITLE:
ZONING SITE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C4.0
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:
1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS ANC BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE MOUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:
- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed Concrete Pavement/Sidewalk (Concrete Floors/Deck not Hatched)
- Proposed HeavyDuty Pavement

* All curb radii are 3ft unless noted.
* Refer to General Notes, Construction Details and Architectural Plans for Concrete Sealer information.

SITE NOTES:
1. Proposed 6" concrete Curb.
2. Proposed Flush Concrete Curb.
3. Match into Existing Curb or runout over 2'.
4. Transitional curb.
5. Proposed Heavy Duty Pavement
6. Proposed Concrete Pavement.
7. Proposed Concrete Sidewalk.
8. Match into Existing Pavement.
9. Match into Existing Sidewalk
10. Proposed "Handicapped Parking Only" sign.
11. Proposed "No Parking" sign.
12. 4" white Pavement Stripe (at 2' c-c in no parking zones).
13. Proposed White Pavement symbol (stop bar, accessibility symbol, text).
14. Proposed "Stop" Sign.
15. Proposed Landscape Area.
16. Proposed Raised Landscape Area.
17. Proposed Pavers.
18. Proposed Overhead Enter/Exit Signs/Traffic Mirror. Refer to Architectural Plans.
19. Relocated Existing Signage.
20. Proposed 6ft High Solid Board Fence
21. Proposed Security Gate
22. Proposed Light Pole Base

* All curb Radii to be 3' unless otherwise noted.
* Refer to General Notes, Construction Details and Architectural Plans for Concrete Sealer information.

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CONSULTANT

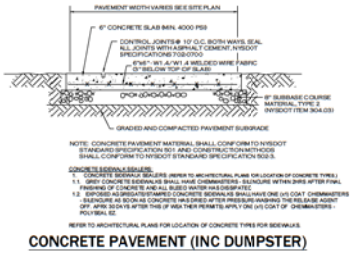
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

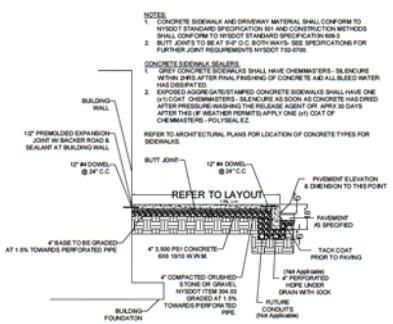
TITLE:
DETAILED SITE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C4.1
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

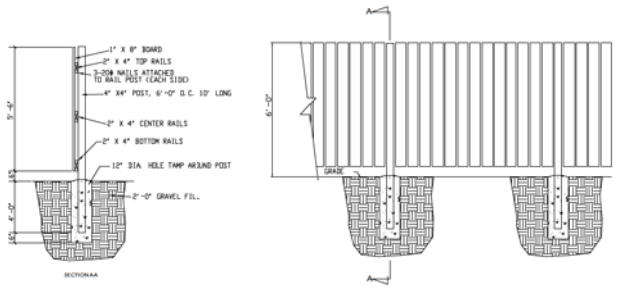


CONCRETE PAVEMENT (INC DUMPSTER)

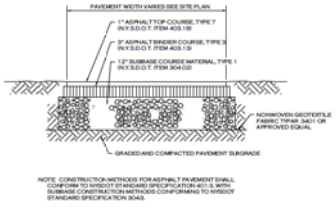


BUILDING SIDEWALK DETAIL

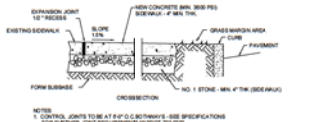
CONTRACTOR TO VERIFY WITH OWNER ON CURB DETAIL



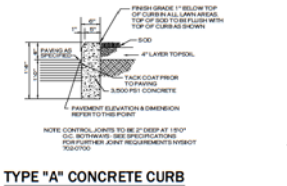
6FT SOLID BOARD FENCE DETAIL



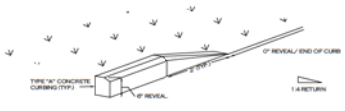
HEAVY DUTY ASPHALT SECTION



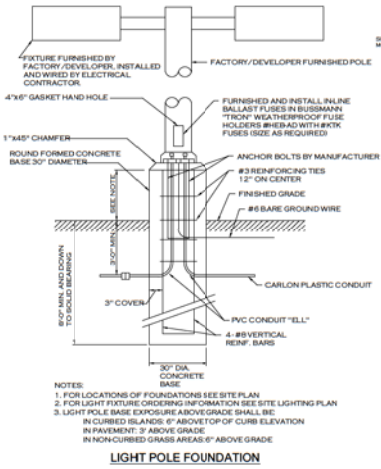
STANDARD CONCRETE SIDEWALK



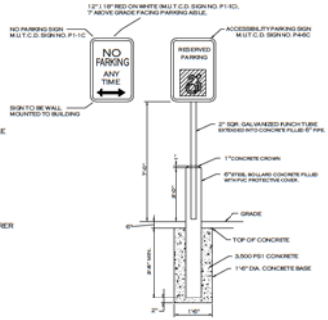
TYPE "A" CONCRETE CURB



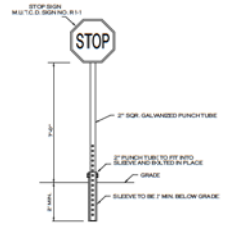
RUNOFF CURB



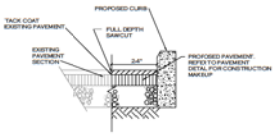
LIGHT POLE FOUNDATION



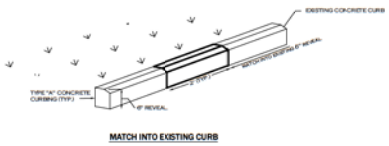
HANDICAP / NO PARKING SIGNS



"STOP" SIGN

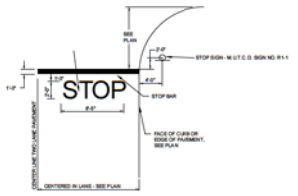


CURB AND PAVEMENT TRANISTION DETAIL

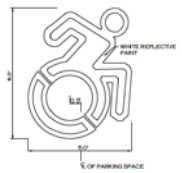


TRANSITIONAL CURBING

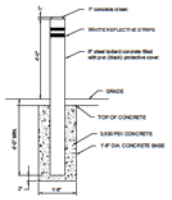
MATCH INTO EXISTING CURB



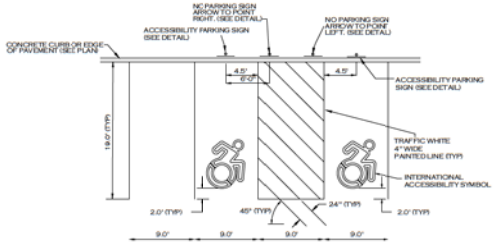
STOP BAR DETAIL



INTERNATIONAL ACCESSIBILITY SYMBOL



6" BOLLARD DETAIL



ACCESSIBILITY PAVEMENT MARKINGS & SIGNAGE

OFFICIAL TOWN USE ONLY

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No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
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PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT

PREPARED FOR

BENDERSON DEVELOPMENT

570 DELAWARE AVE., BUFFALO, NY 14202

(716) 886-0211

SEAL

TITLE:

CONSTRUCTION DETAILS

SCALE: -

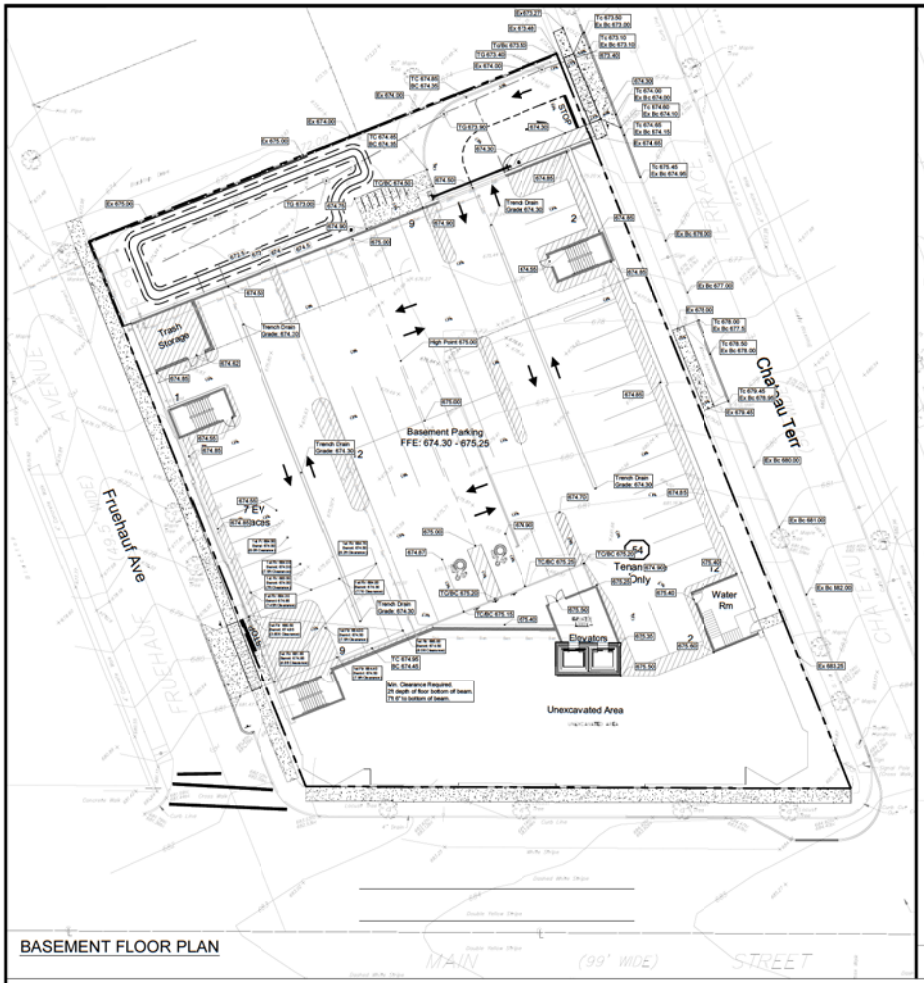
DRAWN BY: DMZ

CHECKED BY: JAR

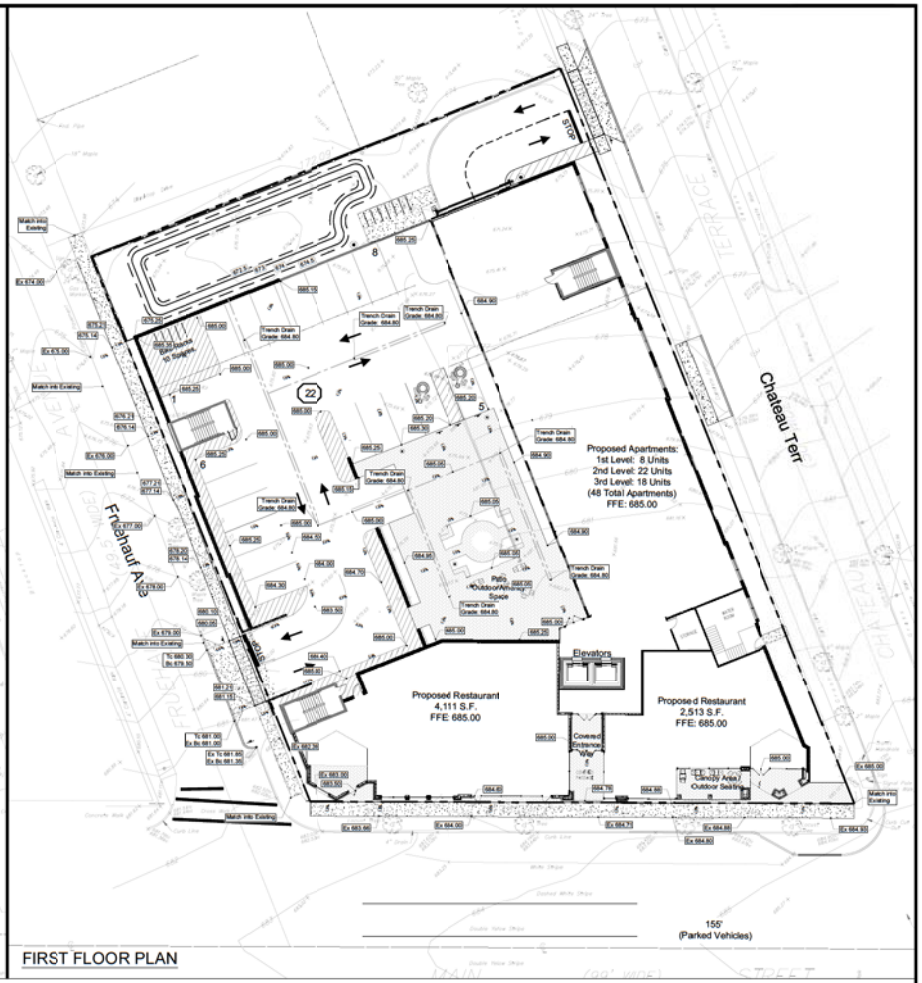
DATE: 05.05.2022

DRAWING NO.: C4.9

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:
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7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TC CONSTRUCTION SO THAT THIS WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. MINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
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LDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT ONS.
DEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK

ONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
REY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL HING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
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GHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THEFIXTURES ARE REQUIRED TO CE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE INT.
RB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

GRADING LEGEND:
- Property Line
- 6" Curb (typ).
- TG## Catch Basin - Top of Grade
- ### Proposed Contour Line
- ##% Slope Direction

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DRAWING REVISIONS:

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PROPOSED SITE DEVELOPMENT

CONSULTANT

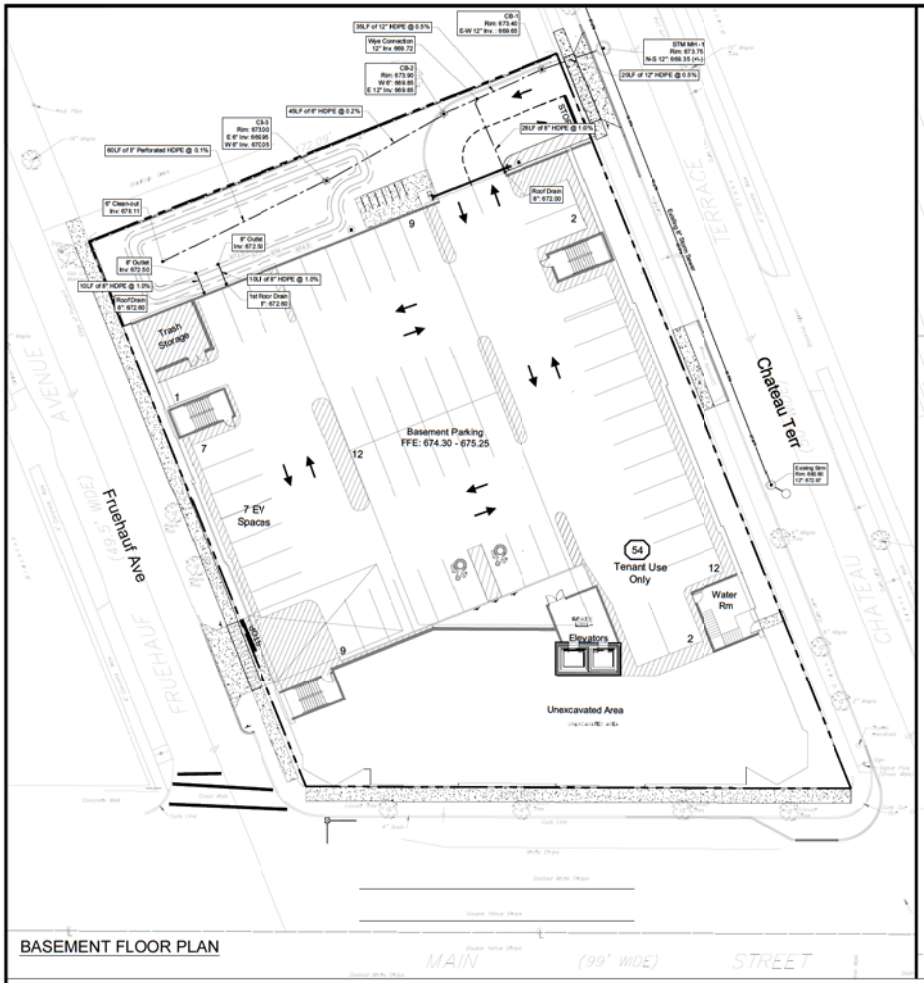
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

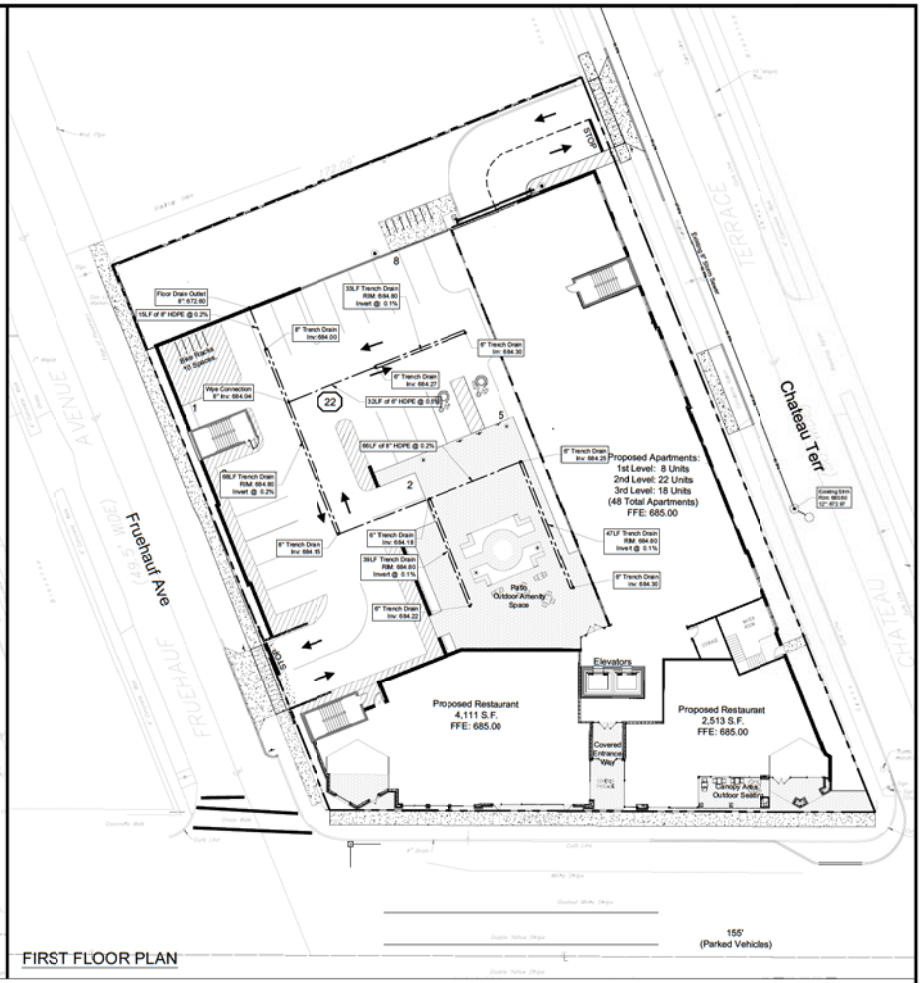
TITLE: GRADING PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C5.0
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

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URB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DRAINAGE LEGEND:

- PROPERTY LINE
- PROPOSED STORMWATER
- 6" CURB TYP.
- CO / WC — PROPOSED STORM CLEAN OUT / WYE CONNECTION
- CB-# — PROPOSED CATCH BASIN

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

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PROPOSED SITE DEVELOPMENT

CONSULTANT

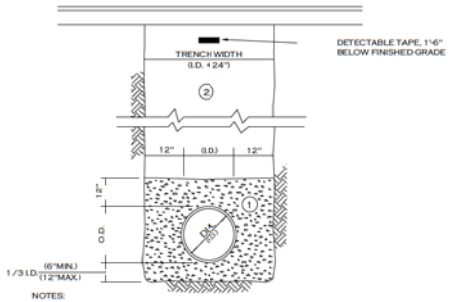
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE: DRAINAGE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C5.1
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

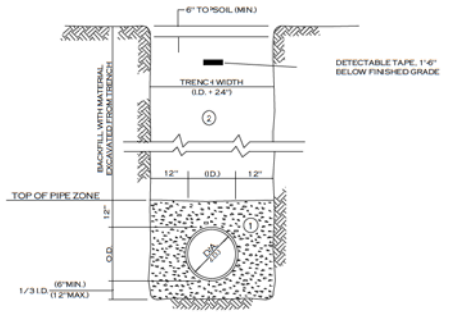
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

TRENCH SECTION IN PAVED AREAS



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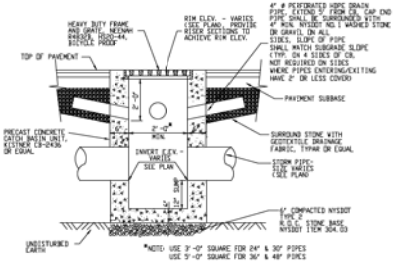
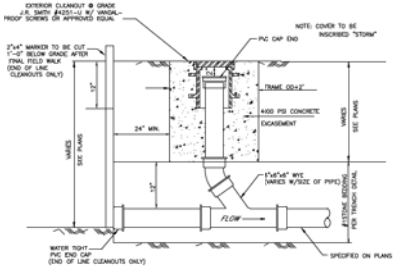
(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

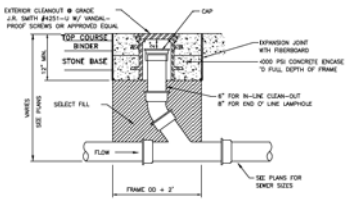
TRENCH SECTION IN UNPAVED AREAS



TYPICAL PRECAST CATCH BASIN

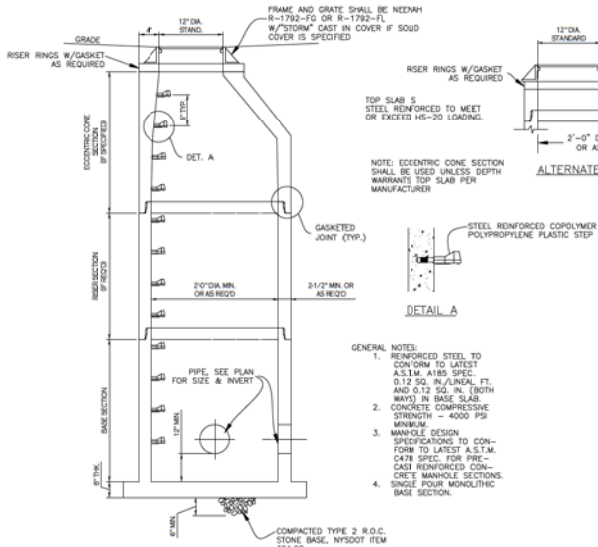


CLEANOUT IN LANDSCAPED AREAS
NOT TO SCALE



CLEANOUT IN PAVED AREAS
NOT TO SCALE

NOTE: WHERE FRAME & GRATE ARE INSTALLED IN NON-ASPHALT PAVED AREAS, A 4'X4'X6" THK CONCRETE APRON SHALL BE POURED AROUND THE RIM SLOPING TOWARDS THE GRATE

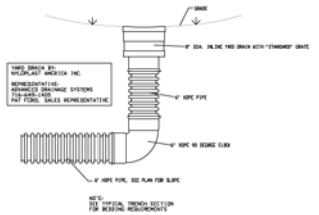


TYPICAL STORM MANHOLE DETAIL

ALTERNATE TOP SLAB

GENERAL NOTES:

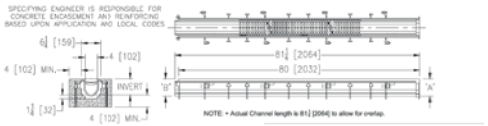
1. REINFORCED STEEL TO CONFORM TO LATEST A.S.T.M. A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) IN BASE SLAB.
2. CONCRETE COMPRESSIVE STRENGTH – 4000 PSI MINIMUM.
3. MANHOLE DESIGN SPECIFICATIONS TO CONFORM TO LATEST A.S.T.M. C478 SPEC. FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
4. SINGLE POUR MONOLITHIC BASE SECTION.



TYPICAL YARD DRAIN DETAIL

ZURN Z886
6-1/4 [159] WIDE REVEAL TRENCH DRAIN SYSTEM
SPECIFICATION SHEET
TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



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No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE: DRAINAGE DETAILS

SCALE: -

DRAWN BY: DMZ

DRAWING NO.: C5.0

CHECKED BY: JAR

DATE: 05.05.2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

GENERAL NOTES:
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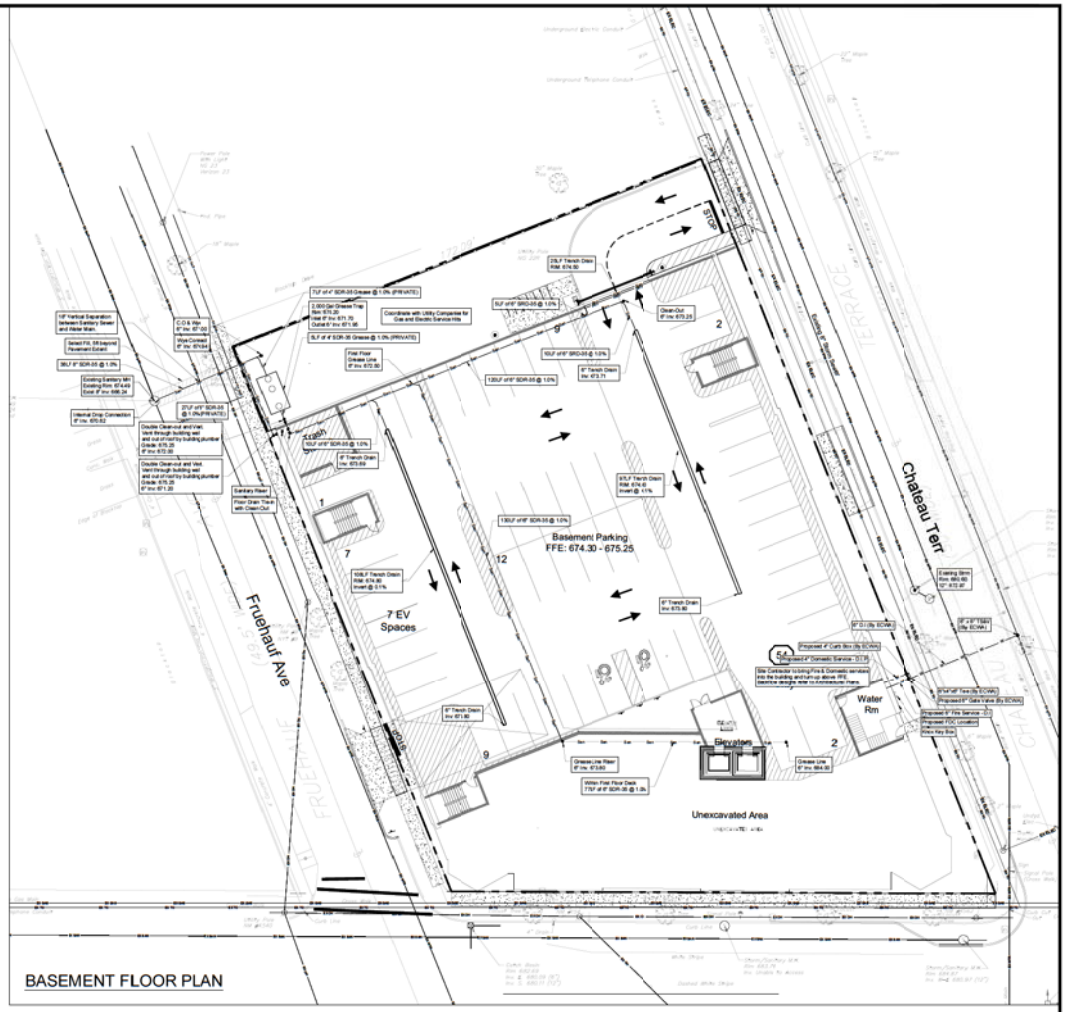
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2 HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SANITARY SEWER NOTES:
1. THE CONTRACTOR IS ADVISED THAT A TRENCH SHIELD AND/OR SHORING DESIGNED IN ACCORDANCE WITH OSHA STANDARDS SHALL BE USED IN ALL OPEN TRENCH EXCAVATIONS.
2. ANY CONTRACTOR AND/OR PLUMBER PERFORMING WORKING IN A CONFINED SPACE (ie MANHOLES, WETWELLS, CHAMBERS) OWNED BY THE TOWN MUST CERTIFY TO THE TOWN THAT THEY HAVE THEIR OWN CONFINED SPACE ENTRY PROGRAM THAT MEETS OR EXCEEDS OSHA'S REGULATIONS. CERTIFICATION MUST BE NOTARIZED BY A NOTARY PUBLIC.
3. CONSTRUCTION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE TOWN AND NEW YORK STATE CODES.
4. IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AREA AND HAS LESS THAN 4' COVER, CONCRETE ENCASEMENT IS REQUIRED. IF MORE THAN 4' COVER IS PROVIDED IN PAVED AREAS SELECT FILL IS REQUIRED.
5. THE CONTRACTOR MUST NOTIFY THE TOWN ENGINEER OFFICE AND THE PLUMBING INSPECTOR 24 HOURS IN ADVANCE OF CONSTRUCTION.
6. CLEANOUTS ARE REQUIRED EVERY 100' AND AT CHANGE IN DIRECTION.
7. ABANDONED SANITARY SEWER CONNECTIONS FROM THE SITE, IF ANY, REQUIRE PROOF OF A DISTRICT PERMIT FOR DISCONNECTION PRIOR TO THE NEW CONNECTION BEING MADE.

UTILITY NOTES:
1. PROVIDE FITTINGS AND BLOCKING AS NECESSARY AT ALL BENDS IN WATER LINES.
2. WHERE UTILITIES ARE INSTALLED IN EXISTING PAVEMENT, LANDSCAPED AREA ETC. ANY ITEMS REMOVED/DAMAGED SHALL BE REPLACED IN KIND.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS NECESSARY: STATE, COUNTY, AND TOWN.
4. WATER MAINS TO HAVE MINIMUM 5FT COVER.

UTILITY LEGEND:
- PROPERTY LINE
- G — PROPOSED GAS
- W — PROPOSED WATER
- E — PROPOSED ELECTRIC
- San — PROPOSED SANITARY
- TC — PROPOSED TELEPHONE
- EX ELEC — EXISTING ELECTRIC
- EX GAS — EXISTING GAS
- EX WTR — EXISTING WATER
- EX OH — EXISTING OVERHEAD UTILITY
- EX SAN — EXISTING SANITARY
- EX STM — EXISTING STORM
- EX TEL — EXISTING TELECOMS



BASEMENT FLOOR PLAN

OFFICIAL TOWN USE ONLY

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SEAL

TITLE: UTILITY PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C6.0

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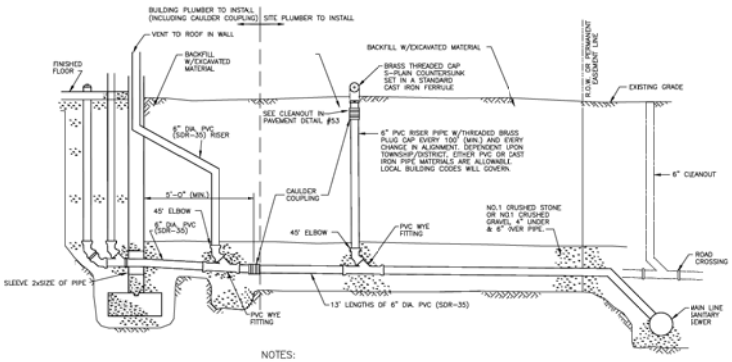
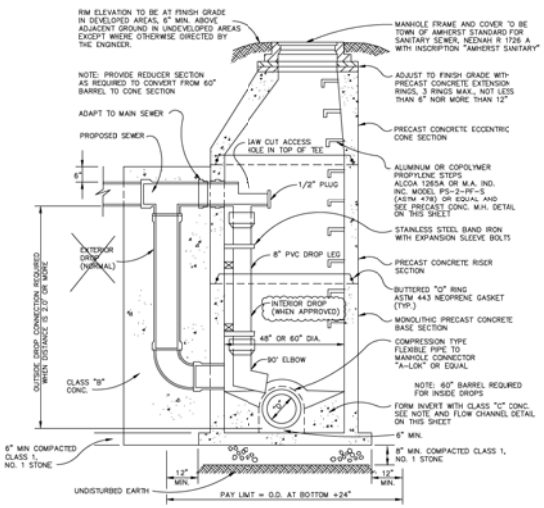
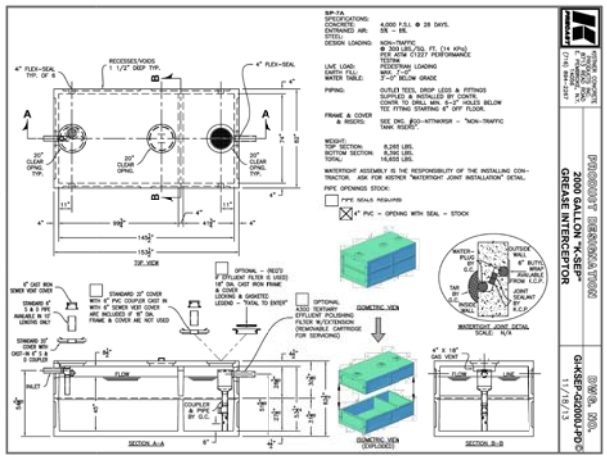


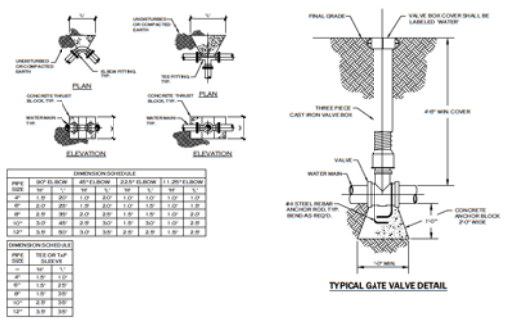
NOTES:
1. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D-3033/D-3034.
2. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
3. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS
4. MIN. DEPTH OF COVER 3'-0"
5. A GREASE SEPARATOR AND OIL SEPARATOR REQUIRED WHERE APPLICABLE.

TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (SANITARY)



TOWN OF AMHERST TYPICAL PRECAST CONCRETE DROP MANHOLE (FOR DROP CONNECTION)





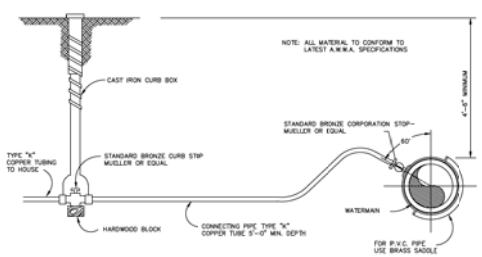
DIMENSION SCHEDULE						
PIPE SIZE	90° ELBOW		45° ELBOW		22.5° ELBOW	11.25° ELBOW
	"A"	"L"	"A"	"L"	"A"	"A"
4"	1'-5"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"
6"	2'-0"	2'-0"	1'-3"	2'-0"	1'-0"	1'-0"
8"	2'-5"	3'-0"	2'-0"	2'-0"	1'-0"	1'-0"
10"	3'-0"	4'-0"	2'-9"	3'-0"	1'-0"	1'-0"
12"	3'-5"	4'-0"	3'-0"	3'-0"	2'-0"	1'-0"

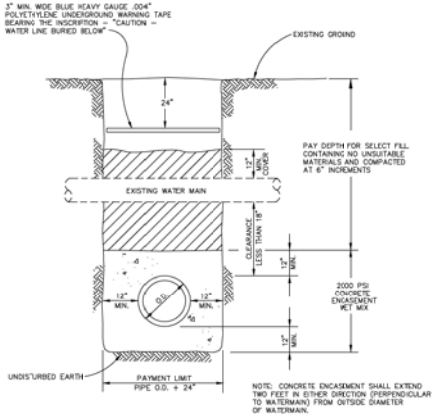
DIMENSION SCHEDULE	
PIPE SIZE	TEE OR TAP SLEEVE
	"W" "L"
4"	1'-0" 1'-0"
6"	1'-0" 2'-0"
8"	1'-0" 3'-0"
10"	2'-0" 3'-0"
12"	3'-0" 3'-0"

THRUST BLOCK SCHEDULE

TYPICAL GATE VALVE DETAIL

TYPICAL WATER SERVICE LINE INSTALLATION





WATER CROSSING DETAIL
CLEARANCE LESS THAN 18"

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SEAL

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DRAWN BY: DMZ
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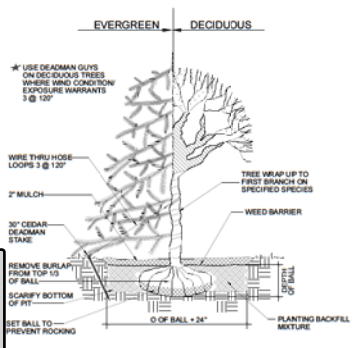
13. ISLAND ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

LANDSCAPE NOTES:

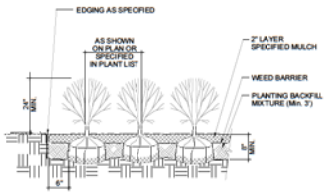
1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF. THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY. ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY. CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, ½ PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A MIN. 2" LAYER OF COCOA BROWN MULCH. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS (INCLUDING RIGHT-OF-WAYS) SHALL BE PROVIDED WITH SOD. SEED PERMITTED AT DETENTION POND IF PLANTED EARLY ENOUGH TO ESTABLISH.
10. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
11. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING.
    HYDROSEED SPEC: 20% RYE, 20% BLUE GRASS, 60% TURF TYPE FESCUE
    SOD MAY BE SUBSTITUTED FOR SEED DOWN IN ORDER TO ACHIEVE THE REQUIRED COVERAGE (REFER TO CONTRACTOR FOR SOD/SEED COVERAGE).
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR, AS REQUIRED BY WEATHER CONDITIONS, AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.
13. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING TREES ONSITE AND OFFSITE, WHICH ARE TO BE PRESERVED, FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE.

PLANT LIST

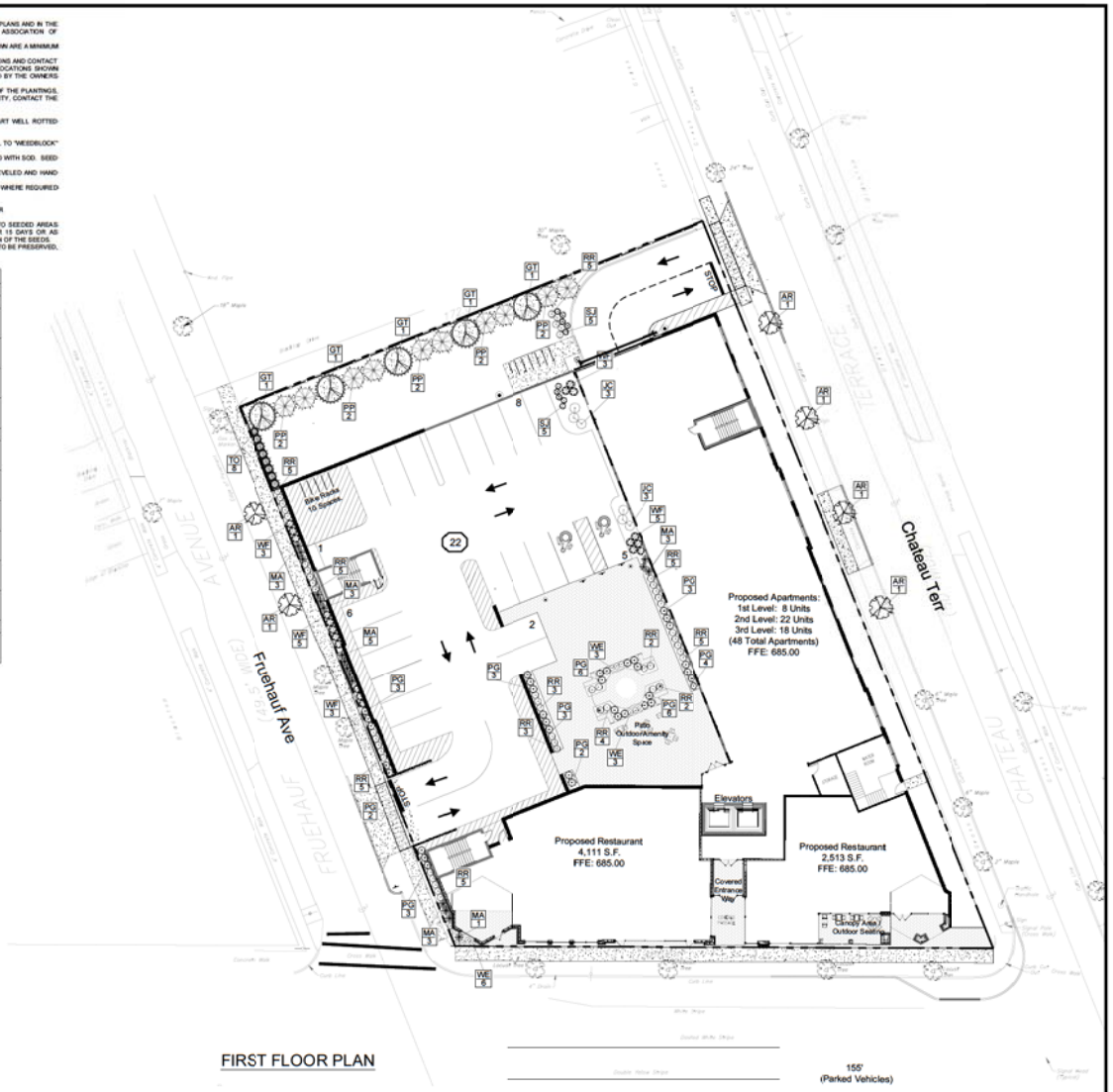
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	CAL.	SIZE	ROOT	QTY.
TREES							
	AR	Acer x freemanii 'Armstrong'	ARMSTRONG MAPLE	2½"		B&B	6
	TO	Thija occidentalis 'Emerald'	EMERALD GREEN ARBORVITAE		5'	B&B	8
	GT	Gleditsia Triacanthos	HONEY LOCUST	3"		B&B	5
	PP	Picea pungens	COLORADO SPRUCE		5'	B&B	10
SHRUBS							
	JC	Juniperus conferta 'Blue Pacific'	BLUE PACIFIC JUNIPER		24"	3 GAL.	6
	PG	Picea pungens 'Glauca Globosa'	LOW GRAFT GLOBE BLUE SPRUCE		24"	3 GAL.	35
	RR	Rosa 'Radrazz'	KNOCK OUT SHRUB ROSE		24"	3 GAL.	46
	SJ	Spiraea japonica 'Gold Mound'	GOLD MOUND SPIRAEA		24"	3 GAL.	10
	WE	Weigela florida 'Elvera'	MIDNIGHT WINE WEIGELA		24"	3 GAL.	12
	WF	Weigela florida 'Alexandra'	WINE & ROSES WEIGELA		24"	3 GAL.	19
GRASSES							
	MA	Miscanthus sinensis 'Adagio'	AD=300 MAIDEN GRASS		24"	3 GAL.	18



STD. TREE PLANTING



STD. SHRUB PLANTING



FIRST FLOOR PLAN

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.05.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION 7209 OF THE STATE EDUCATION LAW.

811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

ROBERT J. TRYBULSKI
LANDSCAPE ARCHITECT

TITLE: LANDSCAPE PLAN

SCALE: 1:20

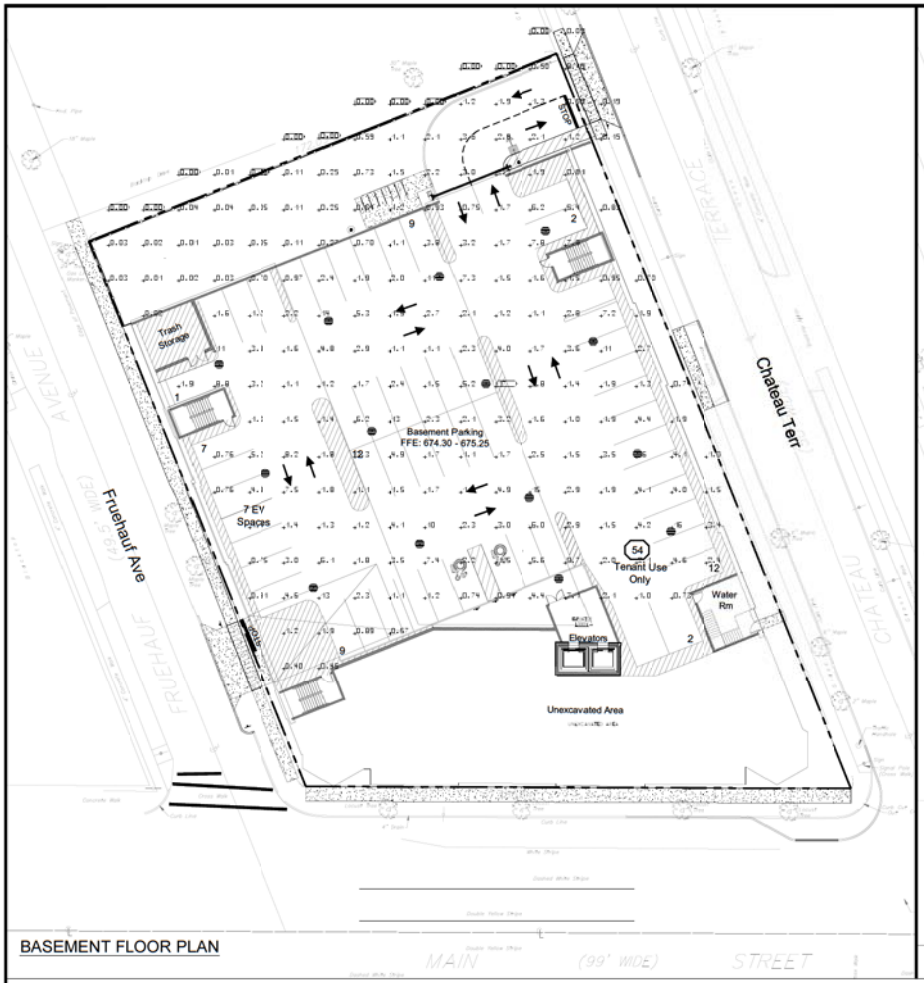
DRAWN BY: DMZ

DRAWING NO.: C7.0

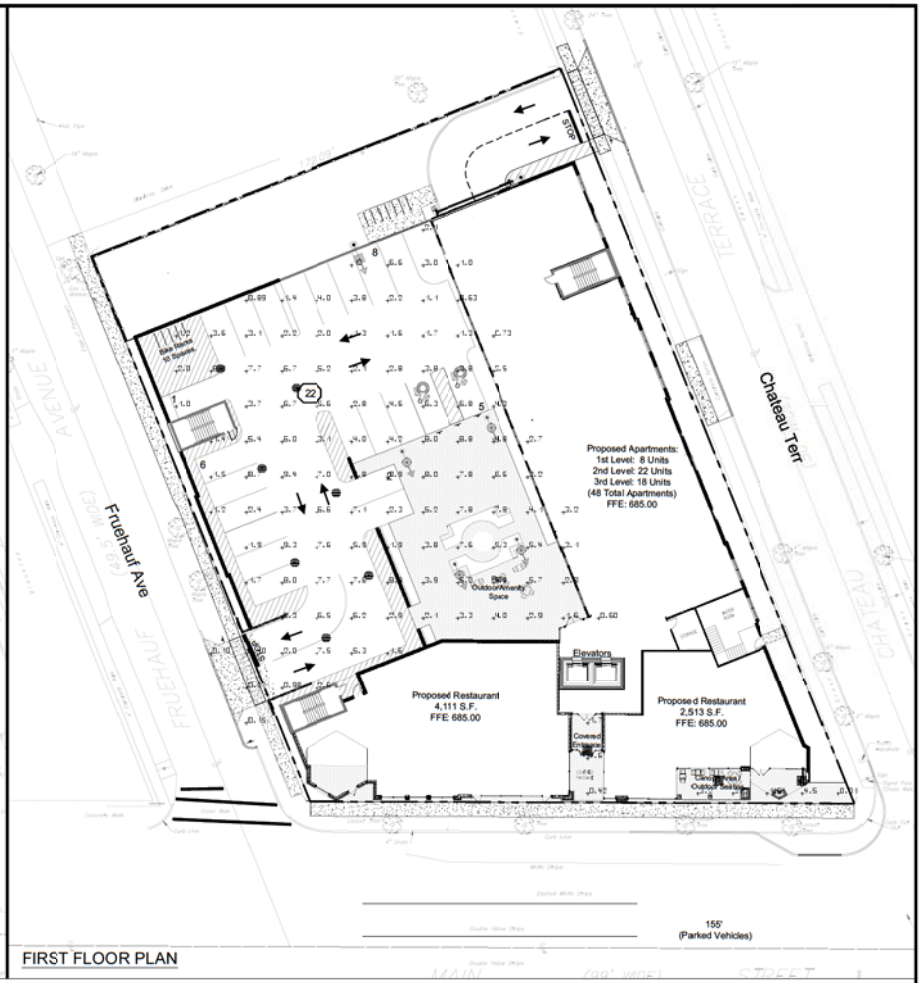
CHECKED BY: RJT

DATE: 05.05.2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:
1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS ANC BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND IE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TC CONSTRUCTION SO THAT THIS WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. INATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
TRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSRY TO PERFORM THE WORK.
LDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT
ING.
DEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK

CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
REY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL
ING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
XPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT
MMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE
EASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF
MMASTERS - POLYSEAL EZ.
GHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THEFIXTURES ARE REQUIRED TO
CE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE
INT.
RB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

Luminaire Schedule

Index	Manufacturer	Luminaire type	Item number	Luminous flux	Mounting Height	Connected load	Quantity
1	Cree Inc	Cree OEG Series Area Luminaire, Type III Medium, 1 TL Input Power Designator, 4000K	OEGN4B-1-L-40K7-SM-U-SK w/OEG-BUS-F	8825 Lm	20 Ft	72 W	2
2	Cree Inc.	Cree XQ Series Parking Garage Luminaire, Type V , TL Input Power Designator, 4000K	XQ-B-MM-55-7L-40K6-UL	7550 Lm	10 Ft	60 W	21
3	Cree Inc	Cree THE EDGE Series Round Luminaire, 60x 0.05mA Power, 4000K	ARE-EDG-2M-R3-0-64-UL-6K-620	10527 Lm	15 Ft	101 W	4
4	Cree Inc	Cree CPY Series - Version C Canopy Luminaire, 2L Power, Flat Lens, 4000K	CPY-2ID-C-2L-40K-SF-UL-GM	1730 Lm	10 Ft	14 W	3

n.	Name	Parameter	Min	Max	Average
1	Pavement Parking Area	Site FC	0.10 fc	16.6 fc	2.91 fc

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:
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4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE: LIGHTING PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C8.0
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Rev. Date: V5 09/14/2021

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 6L lumen package is a suitable upgrade for HID applications up to 250 Watt, and the 11L lumen package is a suitable upgrade for HID applications up to 400 Watt. The 22L lumen package is a suitable upgrade for HID applications up to 750 Watts, and the 30L lumen package is a suitable upgrade for HID applications up to 1000 Watts.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: 4,000 - 30,000

Efficacy: Up to 173 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire; 10 years on ColorFast DeltaGuard® finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

*See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:

Example: **Mount:** OSQ-ML-B-AA-BK + **Luminaire:** OSQM-8L-4L-30K7-3M-UL-NH-BK

OSQ-ML-B-DA Mount

OSQM: 25.0" (635mm)
OSQL: 27.2" (691mm)
8.1" (205mm)
19.0" (482mm)
3.5" (89mm)
3.1" (79mm)
NEMA® 7-Pin Photocell Receptacle location (ordered as an option)
4.0" (102mm)
4.9" (124mm)

Luminaire	Weight
OSQM	28.9 lbs. (13.1kg)
OSQL	32.4 lbs. (14.7kg)

Note: Refer to page 17 for fixture mounting drill pattern. For additional mounts, refer to drawings beginning on page 19

Mount (Luminaire must be ordered separately)*

OSQ-			
OSQ-ML-B-AA Adjustable Arm **OSQ-ML-B-DA** Direct Arm **OSQ-ML-B-PSP** Transportation Mount (stainless steel; do not specify color) **OSQ-ML-B-TM** Trunnion Mount		**Color Options:**	**BZ** Bronze **BK** Black **WH** White

* Reference EPA and pole configuration suitability data beginning on page 16

Luminaire (Mount must be ordered separately)

OSQ	M Family	S Size	Series	Lumen Package*	CCT/CRI	Optic	Voltage	Mount	Color Options	Controls**	Options
				6L 6,000 Lumens **11L** 11,000 Lumens **22L** 22,000 Lumens **30L** 30,000 Lumens	**30K7** 3000K, 70 CRI **40K7** 4000K, 70 CRI **50K7** 5000K, 70 CRI **57K7** 5700K, 70 CRI	**NH** No Optic **3M** Type 3 Medium **4M** Type 4 Medium **5M** Type 5 Medium **5W** Type 5 Medium Wide **5VW** Type 5 Very Wide **SQ** Type 5 Square **HO** Harvest Flood	**UL** Universal 120-277V **UH** Universal 347-480V **XH** Universal 347-480V Available with 4L or 6L lumen packages	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**PML** Programmable Multi-Level, up to 6F Mounting Height • Refer to PML spec sheet for details • Intended for downlight applications at 6F max **PMLZ Programmable Multi-Level, 10-30' Mounting Height** • Refer to PML spec sheet for details • Intended for downlight applications at 10' min **NEMA® 7-Pin Photocell Receptacle** • 7-pin receptacle per ANSI C136.41 • Factory-installed photocell included with maximum 6" tilt • Factory-connected 0.150 dim leads • 10' (457mm) seven-conductor cord sets luminaire • Requires photocell or shorting cap by others **Rotate Left** • LED and optic are rotated to the left • Refer to RRTR configuration diagram on page 19 for optic directionality • Not for use with symmetric optics **Rotate Right** • LED and optic are rotated to the right • Refer to RRTR configuration diagram on page 19 for optic directionality • Not for use with symmetric optics	**DSV** 20kV/10kA Surge Suppression • Replaces standard 10kV surge protection **F** Fuse • Compatible with 120V, 277V or 347V (phase to neutral) • Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) • Refer to PML spec sheet for availability with PML options When code dictates fusing, use time delay fuse **NEMA® 7-Pin Photocell Receptacle** • 7-pin receptacle per ANSI C136.41 • Factory-installed photocell included with maximum 6" tilt • Factory-connected 0.150 dim leads • 10' (457mm) seven-conductor cord sets luminaire • Requires photocell or shorting cap by others **RL** Rotate Left • LED and optic are rotated to the left • Refer to RRTR configuration diagram on page 19 for optic directionality • Not for use with symmetric optics **RR** Rotate Right • LED and optic are rotated to the right • Refer to RRTR configuration diagram on page 19 for optic directionality • Not for use with symmetric optics

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.

** Luminaire comes standard with 0-10V dimming

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

IG Series

LED Parking Garage Luminaire

Rev. Date: V6 09/13/2020

Product Description

Cree Lighting innovates again to reset the performance benchmark in parking garage applications with the IG Series featuring WaveMax® Technology, our innovative optical waveguide platform. Available in 30 watt and 60 watt, two lumen packages are offered to satisfy IES RP-8-18 and IES Security Zone 0-1-03 requirements for environments seeking higher light levels for improved safety and security. The streamlined design breaks away from dated traditional designs, blending form and function, to deliver superior low glare illumination.

For enhanced performance and versatility, a range of optional integrated lighting controllers bring advanced capabilities andenergy savings to the IG Series. From the stand-alone multi-level (PML) option to the full-featuredLimelight by Lutron or Synapse® wireless control options, the IG Series provides the features andflexibility designed to meet the needs of today's most demanding parking garage applications.

Applications: Parking garages

Performance Summary

Utilizes WaveMax® Technology

Initial Delivered Lumens: 3,860 or 7,300 lumens

Input Power: 33 or 60 watts

Efficacy: Up to 126 LPW

Optic: Type V Short Distribution

Assembled in the USA of U.S. and imported parts

CCT: 3000K, 3500K, 4000K, 5700K

CRI: Minimum 80 CRI

Limited Warranty*: 10years on luminaire; 5 years on PML and Limelight options; up to 5 years for Synapse® accessories;1 year on luminaire accessories

*See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire iscomposed of two components that must be ordered separately:
Example: **Mount:** IG-JBW1 – **Luminaire:** IG-B-1MA-SS-4L-40K8-UL-WH

JB Mount

J-Box Bracket
J-Box Basket
5.9" (147mm)
15.97" (406mm)

PD Mount

Pendant Mount Bracket
7.5" (191mm)
15.97" (406mm)

Mount (Luminaire must be ordered separately)

IG-	WH
IG-JB Junction Box **IG-PD** Pendant	**Color Options:** WH White

Weight
10 lbs. (4.5kg)

Luminaire (Mount must be ordered separately)

IG	B Version	MM Mounting	SS Optic	Lumen Package	CCT/CRI	Voltage	Color	Options
IG	B	**MM** No Mount	**SS** Type V Short	**4L** 4,300 Lumens **7L** 7,300 Lumens	**30K8** 3000K, 80 CRI **35K8** 3500K, 80 CRI **40K8** 4000K, 80 CRI **57K8** 5700K, 80 CRI	**UL** 120-277V **UH** 347-480V	**WH** White	**L6F Limelight by Lutron Radio Module** • Not available with UH voltage or PML, SWC, LWL, LPL or LPW options **LPL Limelight by Lutron Radio Module and PIR Sensor Assembly – Low Mounting Height (8-15' mounting height)** • Not available with UH voltage or PML, SWC, LWL, LPL or LPW options **LPW Limelight by Lutron Radio Module and PIR Sensor Assembly – Medium Mounting Height (15-30' mounting height)** • Not available with UH voltage or PML, SWC, LWL, LPL or LPW options **PML Programmable Multi-Level** • Refer to PML spec sheet for details • Field-adjustable ambient light sensitivity to independently control the light output of each luminaire • Refer to PML spec sheet for details • Not available with SWC, LWL, LPL or LPW options SA GEN3EM Hand-held remote required. See Accessory table on page 2)	**SWC Synapse® Wireless Controller** • Includes real-time lighting control with utility-grade power monitoring (±1.2%) • Uses a highly reliable SimplyMAP mesh network • SimplyMAP Gateway is required See Accessory table on page 2) Not available with UH voltage or PML, SWL, JBF, LPL or LPW options **SWN Synapse® Wireless Controller with Network Sensor** • Adds customizable sensor for motion sensing and ambient light sensing for use of Daylight Harvesting Accessory see Accessory table on page 2) • Sensor configured for motion sensing is factory default • SimplyMAP Gateway is required see Accessory table on page 2) Not available with UH voltage or PML, SWC, LWF, LPL or LPW options

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

CPY Series - Version C

CPY250® LED Canopy/Soffit Luminaire

Rev. Date: V3 02/01/2022

Product Description

The CPY250® LED Canopy/Soffit Luminaire has an extremely thin profile constructed of rugged cast aluminum. It can be surface mounted easily from below the canopy deck and can be pendant mounted. Direct imaging of the LEDs is eliminated with a highly efficient patterned flat or EF1™ (23mm) drop glass lens.

Applications: Petroleum canopies, CNG fueling stations, soffits

Performance Summary

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 21,000

Efficacy: Up to 165 LPW

CRI: Minimum 70 CRI (40K, 50K, 57K); 80 CRI (30K); 90 CRI (40K, 50K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire/10 years on ColorFast DeltaGuard® finish/5 years on PML, sensor/1 year on field-installed accessories

IP66 Rated (select models only)

Class I, Division 2 Hazardous Location for select models

*See http://creelighting.com/warranty for warranty terms.

Accessories

Field-Installed

Direct Mount Luminaires
Canopy Upgrade Kits: 18 ga. steel, except where noted:
CPY-AFSS* – for use with Cree Lighting CAN-36k luminaires, 16 ga. 5052 aluminum
KA-EGCCMW – for use with Jet-Pitch, 21.44° (545mm) square, white
KA-EGCCMW – for use with Cisco Francisco, 33.06" (840mm) square, white
KA-EGCCPW – for use with LSI Dakota or Masters, 23.50" (597mm) square, white
KA-EGCCQW – for use with Whitney Reece or Ray-A-Lite, 20.40" (517mm) square, white
KA-EGCCRW – for use with Cisco Merrit, 19.06" (485mm) square, white
KA-EGCCSW – for use with LSI Richmond or Whiteway Civic, 23.00" (584mm) L x 9.00" (229mm) W x 1.00" (25mm) H
Direct Mount Junction Box/Trim Kit
KA-EGCCJBOX – 6.0" (152mm) H x 10¼" (259mm) NPT Stem
• Watertight
• Rated for feed through #14 in, 4 out #12 AWC conductors
Direct Mount Beauty Plates
KA-EGCCBPW – 24.17" (605mm) Beauty Plate (16 ga. steel), white
KA-EGCCBPW DM – 24.17" (605mm) Beauty Plate (16 ga. steel,) w/14" (305mm) Backer Plate (14 ga. steel), white
• Provides a finished look where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 15.79" x 15" (380mm x 379mm)
KA-EGCCBPB kit – 24.17" (605mm) Beauty Plate (16 ga. steel,) w/14" (305mm) Backer Plate (14 ga. steel), white
• Provides a finished look where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 15" x 15" (380mm x 379mm)

*Must specify color: BK (Black), BZ (Bronze), SV (Silver) or WH (White)

Pendant Mount Luminaires
Pendant Mount Kits
KA-PSX2M77 – 5" (127mm) pendant
KA-PSX2M177 – 11" (279mm) pendant
KA-PSX2M77 – 10' (3m) rod pendant
• Includes two conduit fittings and (1) 14.70"ft pipe threaded on two ends
Hand-Held Remote
SA-SENSREM
• For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required
Synapse® Simplynx 10V Interface
DMG-LISSP
• 10V-277V
• Requires other Synapse components to complete system
• Refer to DMG-LISSP spec sheet for details

DM Mount / DM Mount with HZ Option

Flat Lens
Drop Lens
0.91" (23mm) Drop Lens
2.0" (50mm) Flat Glass Lens
¾" (19mm) NPT Conduit Entry
Gasket to Seal up to 4.25" (108mm) Canopy Cutout
7.3" (183mm)
15.0" (380mm)
11.0" (279mm)
Mounts with (4) Supplied Self-Sealing Sheet Metal Screws

Weight
12.5 lbs. (5.7kg)

Refer to Page 4 for additional mounts.

Ordering Information

Example: CPY250-C-5S-57K7-D-UL-DM-SV

CPY250	C

Product	Version	Lumen Package*	CCT/CRI	Optic	Voltage	Mounting	Color Options	Controls	Options
CPY250	**C**	**5L** 5,000 Lumens **6L** 6,000 Lumens **8L** 8,000 Lumens **11L** 11,000 Lumens **21L** 21,000 Lumens	**30K8** 3000K, 80 CRI **40K7** 4000K, 70 CRI **40K8** 4000K, 80 CRI **50K7** 5000K, 70 CRI **50K8** 5000K, 80 CRI **57K7** 5700K, 70 CRI	**D** 0.91" (23mm) Drop Lens **F** Flat Lens	**UL** Universal 120-277V **UH** Universal 347-480V Available with 4L or 5L lumen packages	**DM** Direct Mount **HZ** Hook & Cord **PD** Pendant **SM** Surface Mount	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**BLANK** Non-Dimming **10V** • 10V Dimming • Control by others • Refer to Dimming spec sheet for details	**15kV 10kV/6kA Surge Suppression** • Replaces standard 6kV/3kA surge suppression • Not for use with PML or PML option **HZ** Hook & Cord Option **CL** Class I, Div 2 Hazardous Location Certification • Available with DM and PD mounts only • Not available with PML control or HZ option **PML** Programmable Multi-Level • Available with UL voltage only • Refer to PML spec sheet for details

* Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

THE EDGE® Series

LED Area Luminaire - Round

Rev. Date: V10 12/19/2021

Product Description

THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and fixtures an integral, weathertight LED driver compartment, opal-vented cover, high performance aluminum heat sinks and leaf/debris guard.

Applications: Auto Dealerships, parking lots, campuses, facade lighting and general site lighting applications

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 25,165

CRI: Minimum 70 CRI 6,000K & 5700K); 80 CRI (3000K); 90 CRI (5000K)

CCT: Turtle Friendly Amber, 3030K(+/- 300K), 4000K (+/- 300K), 5000K (+/- 500K), 5700K (+/- 500K) standard

Limited Warranty*: 10years on Luminaire/10 years on ColorFast DeltaGuard® finish /5 year on accessories

*See http://creelighting.com/warranty for warranty terms

R3 Mount

Accessories

Field-Installed

Bird Spikes KA-EDGESPK **0-10V Dimming/Step 10V Interface** DMG-LISSP • 10V-277V • Requires other Synapse components to complete system • Refer to DMG-LISSP spec sheet for details	**Backlight Control Shields** KA-EDBLS-x • Refer to page 5 • Unpainted stainless steel • For use with SM and TS optics • Consult factory for shielding for use with 2M, 3M, and 4M optics

LED Count (x 1K)	Weight
04	33.8 lbs. (15.3kg)
06	35.3 lbs. (15.9kg)
08	37.9 lbs. (16.8kg)
10	40.7 lbs. (18.5kg)
12	42.4 lbs. (19.2kg)

R4/R5 Mount – see page 14 for weight & dimensions

Ordering Information

Example: AERE-EDGE-2M-R3-2-E-UL-SV-350

AERE-EDGE								
Product	**Optic**	**Mounting***	**LED Count (x1K)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
AERE-EDGE	**2M** Type II Medium **3M** Type III Medium **4M** Type IV Medium **5M** Type V Medium **2MP** Type II Medium w/Partial Blinder **3MP** Type III Medium w/Partial Blinder **4MP** Type IV Medium w/Partial Blinder **5MP** Type V Medium w/Partial Blinder **5MS** Type V Short	**R3** Spider, Center Mount, 3" Round **R4** Spider, Center Mount, 4" Square **R5** Spider, Center Mount, 5" Round **T3** Tenon, 3" OD **T4** Tenon, 4" OD **T5** Tenon, 5" OD **WM** Wall Mount	**04**** 4,000 lumens **06**** 6,000 lumens **08**** 8,000 lumens **10** 10,000 lumens **12** 12,000 lumens	**E**	**UL** Universal 120-277V **UH** Universal 347-480V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA **700** 700mA • Available with 4A-4B LEDs	**DIM** 0-10V Dimming • Control by others • Refer to Dimming spec sheet for details • Not for use with PML or PML option **F** Fuse • Compatible only with 120V, 277V or 347V (phase to neutral) • Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) • When code dictates fusing, use time delay fuse **HL** Hand-Hole (Small Input) • Refer to HL spec sheet for details • Terminal block included **P** Photocell • Available with UL voltage only **30K** 3000K Color Temperature • Minimum 80 CRI • Color temperature per luminaire **40K** 4000K Color Temperature • Minimum 70 CRI • Color temperature per luminaire **50K** 5000K Color Temperature • Minimum 70 CRI • Color temperature per luminaire **TRL** Amber Turtle Friendly LEDs • Available only with 350mA • 600nm dominant wavelength • Additional shielding may be required for Florida Fish and Wildlife Conservation Commission Compliance

* Reference EPA and pole configuration suitability data on page 16

** Consists of multiple 3K LED engines. 4K, 4L, and 4N LED units use blanks as needed in place of populated light bars

US: creelighting.com (800)236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION 87.209 OF THE STATE EDUCATION LAW.

811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE:
LIGHTING DETAILS

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C8.1

Packet Pg. 1729

7.9

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BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

July 17, 2020 Job No: 20-533

Benderson Development Company, LLC
570 Delaware Avenue
Buffalo, New York 14202

ATTN: Mr. Matt A. Oates, P.E.

RE: Geotechnical Engineering Report
Proposed Two-Story Building with Underground Garage
4548 & 4564 Main Street, 22 Chateau Terrace, and 17 Fruehauf Avenue
Town of Amherst, Erie Co., New York 14226

Gentlemen:

This report presents the findings of the subsurface investigation program and geotechnical engineering recommendations for the above referenced project. The geographic orientation of the project site is illustrated on the U.S. Geologic Survey (USGS) site location map in Figure No. 1. The project site is illustrated in Figure No. 2, entitled "Test Boring Location Plan", which includes: the approximate location of six test borings that were drilled by Buffalo Drilling Company, Inc. (BDC); relative ground surface elevations; and additional site details.

EXPLORATION METHODS

Sampling Method: A truck-mounted Diedrich D-50 rotary drill rig was used to drill six borings each to auger refusal below ground surface by using 2-1/4 inch and 4-1/4 inch inside diameter (ID), continuous flight hollow stem augers. Samples were recovered by driving a standard split-spoon sampler (2-foot long by 1-3/8 inch inside diameter) 24 inches with a 140-pound hammer falling 30 inches per blow per the American Society of Testing and Materials (ASTM) Standard D1586. The number of blows from six to 18 inches of penetration is defined as the Standard Penetration Test (SPT) N-value. Auger refusal, which may infer the top of bedrock, was encountered at each boring location at depths ranging from about two to six feet. At borings B-1 and B-6, bedrock was confirmed by coring to a depth of five feet below auger refusal. Bedrock coring efforts were done with an Nx-sized (2-1/8 ± inch I.D.) core barrel and impregnated diamond bit in accordance with ASTM Method D2113.

Any encountered groundwater conditions are documented in the field on the driller's logs for each test boring. If indicators of groundwater are observed on the sampling equipment, the depth to groundwater is also checked and measured through the hollow stem augers at the completion of the sampling efforts.

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Classification: The retrieved soil and fill samples were initially logged in the field by the driller, and a portion of each sample was placed and sealed in a glass jar. The boring logs, which are included in Appendix A, were based upon the field logs and a second visual classification of recovered samples in the laboratory by a geologist. Classification/identification of samples, as noted on the boring logs, is based on the Unified Soil Classification System (USCS) in ASTM D2487/D2488. Refer to Appendix B entitled, "Geotechnical Reference Standards", for an explanation of the terminology that is used for soil and rock descriptions.

Each rock core was examined on a run-by-run basis to determine the percentage of core recovery and Rock Quality Designation (RQD). Core recovery percentage is the ratio of the sample length recovered divided by the length of the core run times 100 percent. RQD is defined as the total length of all pieces of core that are greater than four inches divided by the length of the core run times 100 percent. Core recovery and RQD percentages are noted on the boring logs.

Laboratory Testing: Laboratory soil testing was undertaken on several retrieved split spoon samples. The overall laboratory testing program consisted of the following test methods:

- Unconfined Compressive Strength of Intact Rock Core Specimens ASTM D2938

Table No. 1 presents the tabulated results of bedrock physical property data.

SITE AND SUBSURFACE CONDITIONS

General: The proposed site for development consists of four parcels addressed as 4548 & 4564 Main Street, 22 Chateau Terrace, and 17 Fruehauf Avenue in the Town of Amherst, Erie County, New York. The project will include a mixed-use, two-story building with both retail spaces and residential apartments. The majority of the structure will have a lower basement/underground parking garage beneath it. The site topography slopes to the northwest across the boring locations with ground surface elevations varying by approximately five feet.

Subsurface Soil Conditions: In general, subsurface conditions, underlying the topsoil at B-2 and the asphalt pavement with crushed limestone base layer at the remaining borings, consist of naturally deposited cohesive/fine-grained glacial till that extends to auger refusal.

Beneath the asphalt/gravel base or topsoil, a naturally deposited cohesive/fine-grained glacial till exists and extends to auger refusal. The unit ranges in thickness from two to five fee and consists of moderately plastic, silty clay with lesser amounts of sub-rounded fine-sized to coarse-sized sand and gravel. The consistency of this soil is primarily very stiff to hard with moisture contents of retrieved samples noted to be moist.

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Bedrock: Auger refusal, which is generally inferred to be the top of the apparent bedrock surface, was not encountered at each boring approximately two to six feet below ground surface, ranging in elevation from 675.00 to 671.20+/- feet. The proposed footing bearing grade for the building, approximate elevation 671.30 +/- feet, will be at or within the bedrock which will make it necessary to remove almost four feet of bedrock.

Rock coring efforts were undertaken at borings B-1 and B-6 to depths of five feet, below auger refusal. Based upon the regional geology and recovered core samples, the bedrock type is the Onondaga Limestone and is described as a hard and slightly weathered, medium dark gray, banded to thinly bedded, finely crystalline limestone that is porous and calcareous. The percent recoveries for the cores ranged from 33 percent to 83 percent with RQD values of 0 percent (very poor quality) to 29 percent (poor quality).

Table No. 1 provides the laboratory uniaxial compressive strength and density data for the intact limestone specimens near the bottom part of the B-1 cored interval C-1 and middle of B-6 cored interval C-2. The density data is characteristic of a limestone rock. The uniaxial compressive strengths ranged from approximately 4,000 to 7,500 pounds per square inch (psi); which is on the low to middle portion of the range for limestone. The intact bedrock uniaxial compressive strength and other rock properties (e.g., RQD) can be used in the estimation of the strength properties for the bedrock mass.

Groundwater: Groundwater was not encountered during subsurface exploration. Note that the groundwater readings were taken at the completion of drilling efforts and, therefore, an adequate amount of time for the groundwater level to recharge to static conditions was probably not allowed. Fluctuations in the groundwater level may occur due to other factors than those present during field operations.

EARTHQUAKE/SEISMIC CONSIDERATIONS

Site Class Definition: For the given site conditions, the most applicable site definition is Site Class B, as listed in Table 1613.5.2 of the Building Code of New York State, © 2010.

Liquefaction Potential: For the Site Class B, the design spectral response acceleration parameters S_{DS}, at 0.2 seconds, and S_{D1}, at one second, are 0.15g and 0.03g (g = 32.2 feet/sec^2), respectively, for this part of Erie County, New York (see Appendix C). These values have a two percent probability of being exceeded in 50 years. Based upon the above conditions and an approximate magnitude 6.0 earthquake on the Richter Scale, the potential for liquefaction or settlement of Site Class B rock is considered non-existent.

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FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS

General: This section will present and discuss recommendations on foundation design and construction and placement of controlled fills, and subgrade and base layer requirements for concrete floor slabs, paved parking and roadway areas.

As shown in Figure No. 2, the proposed development will include a two-story mixed-use building with underground parking garage. The existing ground surface slopes to the northwest across the proposed development areas with ground surface elevations varying by approximately five feet. As per drawings provided via email with client representatives, finish first floor elevation of the building is at elevation 683.80 ± feet and steps up to 685.00 ± feet. The basement level and underground parking garage will have a finish floor elevation that is 11.5 feet beneath the first floor at approximate elevation 672.3 ± feet. Final exterior grades are assumed to match existing, from about elevation 685.00 ± feet to 675.00 ± feet. The maximum design exterior bearing wall and column loads are not expected to exceed 10 kips per lineal foot and 100 kips, respectively. The maximum design interior bearing column load is not expected to exceed 120 kips.

Site Preparation and Earthwork: General site preparation will include the demolition and complete removal of any encountered foundations and floor slabs, and removing all unsuitable surficial material (i.e., asphalt pavement, concrete, brick, expansive slag, organic or topsoil layer, and construction and demolition-like fill) to a depth where firm, granular or cohesive fills or naturally occurring soils are encountered. It is recommended, particularly in the location of the proposed structure, that any slag and/or cinder/ash containing material, if encountered, should be tested to determine the expansion and corrosion characteristics (where applicable for direct or potential contact with foundation elements and buried utilities) of these materials prior to their use on-site. Any rubble-like and brick fill, boulders, or wood fill in particular, if encountered, will require undercutting. The proposed building and any paved areas are to be proof rolled with a fully loaded ten-wheel dump truck. All encountered soft and disturbed zones should be undercut and stabilized with granular fill that is placed in compacted lifts prior to placement of additional fill materials above. Refer to Appendix D entitled "General Earthwork Specification" for definition of the fill types and gradations, recommended minimum compaction requirements for various site developments, and placement and compaction methods. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components that are included in the select granular fill category as are as follows: Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred; or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size).

Other than the existing buildings along Main Street and the house and garage at 22 Chateau Terrace that will be demolished, it is unknown if any former residential/commercial structures, existed at the project site and if any former footings and foundation walls may be buried within the addition footprint. Septic tank and

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system locations and the abandonment conditions or practices are normally unknown. If encountered during site development, it is recommended that any tanks and systems should be properly removed/treated/remediated relative to the proposed development and under the applicable local and state regulations. The remaining cavities, from the aforementioned items, should be backfilled with select/approved granular fill that is placed in thin lifts and compacted to the minimum recommendation, as presented in this report, for the proposed development at that cavity location.

Shallow Foundation: The recommended foundation type is shallow footings. Continuous strip and spread exterior footings and interior spread footings would bear at an elevation of four feet or lower below final grade, at elevation 670.80 ± feet. The bearing elevation is also approximated based upon the basement/parking garage finish floor elevation of 672.30 ± feet. A four-foot minimum footing depth (as required by local or New York State code) is needed to provide adequate protection from frost for exterior footings.

Basement/parking garage will require the removal of up to four feet of limestone bedrock. If the approved bedrock depth is less than four feet below final exterior grade, hooked rebar dowels are recommended to be placed in grout filled holes at approximately a four-foot spacing and extending to a minimum total depth of four feet into approved bedrock. This precaution is needed to confirm adequate bedrock quality and to incorporate the rock mass into the perimeter footing system.

The exterior and interior footings are recommended to bear at the same relative elevation on stable, natural, approved limestone bedrock or on thin layers of thoroughly compacted (minimum of 95 percent of the maximum dry density by ASTM D 1557) select/approved granular fill that is placed on an approved subgrade. If needed, a geotextile strength and filter fabric (such as, Mirafi 600X) may be used to line the excavation bottom for the purpose of stabilizing the excavation and placement of the select/approved granular fill.

Undercut areas beneath proposed foundations must extend laterally beyond each vertically projected edge of the foundation by a minimum distance equal to one-half the total depth of the undercut or equating to a slope of two vertical to one horizontal from the bottom foundation corner. The undercuts and placement of compacted select/approved granular fill are required to ensure a suitable and more uniform bearing media for the footings, and to prevent unacceptable differential settlements.

Wall footings should have a minimum two-foot width and column footings should have a minimum three-foot width. Based on the above described conditions, the recommended maximum net allowable foundation bearing pressure is 5,000 pounds per square foot (psf) of bearing area. All footings for the proposed building are recommended to be designed near the same contact pressure. The recommended

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maximum net allowable foundation bearing pressure is based on generally accepted design methods for cohesive soil conditions. Based on the provisions of the above recommendations and estimated design requirements and utilization of proper construction procedures and experienced field supervision and testing personnel, total and differential settlements are estimated to be less than one inch and 3/4's inch, respectively. Refer to Appendix C for additional foundation design and construction details.

Additional Foundation Considerations: In addition to the above, the following recommendations will provide additional assurances with regard to proper foundation construction.

a) All fill placed beneath, adjacent, or above foundations must comply with the "General Earthwork Specification", included as Appendix D.

b) Backfill of foundations with approved select granular fill must be completed prior to placement of substantial superstructure loads, except for basement walls or substructure areas that may additionally require superstructure loads and possibly internal bracing.

c) The upper silty materials may rut and “pump” if exposed to excessive surface water and repeated construction traffic. Proper site management and fill placement operations are needed to minimize costly undercuts and subgrade repairs prior to placement of concrete slabs and asphalt pavement. It is noted that construction during wet/rainy and/or Fall and Spring conditions may require added precautions and possibly a thicker base layer to maintain a stable subgrade condition.

d) Step footings, if utilized, should have a rise to run ratio of 1:2, with a two-foot maximum rise and a four-foot minimum run between steps or as recommended by the design structural engineer.

e) The recommended at rest (rigid wall), active, and passive static earth pressure coefficients for unsaturated, select granular sandy gravel fill against an earth retaining structure/wall are 0.76, 0.24, and 2.8 (with an ultimate value of 4.2), respectively. The respective equivalent static lateral fluid pressures are recommended to be 90, 30 and 330 (with an ultimate value of 500) pounds per square foot (psf) per foot depth which are based upon a moist, compacted unit backfill weight of 120 pounds per cubic foot (pcf). The at rest value would account for the average expected compaction induced stresses and/or the potential influences of hydrostatic pressure. The static lateral fluid pressures can be directly proportioned for other unit weights.

Stabilization of Excavations/Underground Structures: The trench/excavation sidewall stability concerns can be addressed with the Occupational Safety and Health Act (OSHA) requirements as set forth in Subpart P of 29 CFR Part 1926, Sections 1926.650 to 1926.652. In lieu of a properly designed shoring system, side slopes of the trench excavation should be one on one (vertical to horizontal distance) or flatter in cohesive soils or one on one and one-half or flatter in the granular materials, as required by OSHA.

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In areas where sloped excavations are impractical, a land cofferdam (e.g., sheet piling or soldier piles with lagging and walers-struts/tiebacks, as needed) must be installed to effectuate the installation of the proposed underground parking structure. The aforementioned system(s) must be designed by a licensed New York State professional engineer with proven experience. These types of designs are outside the scope of this report.

Water must not be allowed to accumulate or pond on exposed foundation bearing grades. Surface water and groundwater from within the excavation must be either pumped, diverted or channelized by gravity flow to effectuate the construction of the proposed foundation. Pockets of localized perched groundwater may seasonally be expected to be encountered at footing and/or footing undercut bearing grades. At these locations, dewatering with surface sumps may be required to maintain stable side slopes and excavation bottom.

Substructures/Retaining Walls: While not a unique design concern, proposed basement/underground parking substructures must be adequately designed and constructed to support horizontal soil pressures and surface loads. Refer to Appendix C and the following recommendations that will provide additional assurances with regard to proper design and construction of free standing retaining walls and fixed/restrained walls.

a) At the location of the proposed structure(s), design the wall foundation based on the previously recommended maximum net allowable bearing capacity and bearing conditions.

b) Cantilever (such as, retaining) walls and fixed/restrained walls must be adequately designed and constructed to support horizontal soil pressures and surface loads.

c) Uniformly distributed surface surcharge loads should be applied at 100 percent of the load times the appropriate lateral earth pressure coefficient to the retaining wall. The lateral design stress on the wall is the sum of the equivalent lateral fluid pressure and other applied surface stresses and subsurface stresses (i.e., footings).

d) The recommended at rest (rigid wall), active, and passive static earth pressure coefficients for unsaturated, select granular sandy gravel fill against an earth retaining structure/wall are 0.76, 0.24, and 2.8 (with an ultimate value of 4.2), respectively. The respective equivalent static lateral fluid pressures are recommended to be 90, 30 and 330 (with an ultimate value of 500) pounds per square foot (psf) per foot depth, which are based upon a moist, compacted unit backfill weight of 120 pounds per cubic foot (pcf). The at rest value would account for the average expected compaction induced stresses and/or the potential influences of hydrostatic pressure. If a moist, compacted granular sandy silt or silty sand fill is used, the recommended active and passive static earth pressure coefficients are 0.33 and 2.0 (with an ultimate value of 3.0) and the equivalent static

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lateral fluid pressures are 45 and 270 (with an ultimate value of 405) psf per foot depth, which is based upon a unit backfill weight of 135 pcf. The static lateral fluid pressures can be directly proportioned for other unit weights.

e) For a soil/fill that is at or near a saturated/liquefied state, the equivalent static lateral fluid pressure on a wall from earthquake/seismic induced loading is recommended to be at least equal to the unit weight of the backfill. For unsaturated backfill conditions under earthquake/seismic induced loading, it is recommended that an additional (to the static) lateral load per foot of wall length (in pounds/foot) to a non-yielding wall will be located at 0.6 times the earth height behind the wall, as taken from the base of the wall, and will be equal to 6.8 times (for S_{ds} = 0.25g) to 13.5 times (for S_{ds} = 0.50g) the earth height squared behind the wall, in feet (for a soil backfill unit weight of 120 pcf and for Site Class C to E soils). As applied to yielding walls, these multiplying factors may be reduced by 33 percent. The earthquake/seismic lateral pressures or loads can be directly proportioned for other unit weights and S_{ds} values. Use a 1.75 multiplier to the earthquake/seismic lateral pressures or loads for walls bearing on Site Class B/A rock. Since non-yielding/rigid walls may move into the backfill, the equivalent lateral static fluid pressure for the static passive condition would also be a structural engineering design concern.

f) Lateral stresses from surface loading (such as, trucks) would not generally be a design concern if the load is transient and the loading is at a horizontal distance from the subsurface wall that is greater than the depth of the subsurface cavity. The geotechnical engineer should be consulted once the type and magnitude of the surface loading are identified.

g) The ultimate values of the friction factor or coefficient of sliding friction for the concrete footing of a retaining wall or foundation wall are recommended to be 0.35 on a silty sand/non-plastic sandy silt interface, 0.45 on non-plastic sand and gravel mixtures with less than five percent silt or on NYSDOT Item No. 304.12, Type 2 and Item No. 304.14, Type 4 gravel interfaces, and 0.60 if cast against a clean, sound and rough bedrock interface (which has a Factor of Safety = 1.0). Use a value of 0.5 for a smooth surface of either bedrock or if a dental concrete leveling course, without bonding reinforcing bars, is to be placed on the bedrock surface prior to casting the footing/foundation wall. For foundations on very stiff to hard natural cohesive soils, the cohesion/adhesion for sliding resistance is limited to 1,000 psf. The minimum recommended factor of safety against sliding is 1.5.

h) The minimum recommended factors of safety against overturning of a retaining wall are 1.5 for a clean/silt-free compacted granular backfill or for foundations on approved rock and 2.0 for a compacted cohesive backfill.

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i) Relieve any hydrostatic or water pressure that develops behind the walls from in-flowing groundwater as is normally provided in practice. The exterior and interior sides of walls are to have a properly designed and installed dewatering system or as determined by the design civil/structural engineer.

Concrete Interior Floor Slab(s)/Pad: For the most part and based on test results for similar soils/fills, moderately plastic cohesive natural soils/fills may be somewhat difficult to compact in a controlled manner considering the varying soil plasticity and natural moisture contents that are estimated to be at to wet of optimum, at the time of this investigation. Excavated and approvable cohesive soil/fill types are not expected to be available in any reasonable quantities. These soils/fills may be expected to be suitable for re-use as general fill with the implementation of uniformly applied soil conditioning (i.e., drying and blending) and compaction methods, if additional volume of soil for backfill is needed.

Excavated and approvable granular (i.e., sand or gravel and non-plastic silt and sand) soil/fill are expected to be available in very limited quantity and associated with the base layer beneath the existing asphalt pavement. For the most part, granular (i.e., sand or gravel) soil/fill is expected to be acceptable for on-site re-use, as general/ordinary fill without substantial reworking and/or modification, while silty fine-sized sand may first require drying and blending.

Dissimilar excavated materials should not be commingled prior to their use elsewhere on-site, unless designated for a green/vegetation area. General fill material is also recommended to be placed on prepared and approved subgrade and in accordance with previous recommendations.

A geotextile fabric (such as, Mirafi 600X or equal) that separates the subgrade and the approved/select granular base layer may be needed and is particularly recommended for sensitive cohesive/fine-grained/silty clay subgrade soil/fills. This approach will stabilize and provide a workable building pad condition with minimal required repairs.

The approved subgrades will consist of very stiff or better/thoroughly compacted (i.e., minimum 92 percent of the maximum dry density by ASTM D 1557) cohesive/fine-grained glacial till, stable approved limestone bedrock, or thoroughly compacted imported select/approved granular fill. Above the approved subgrades, a minimum 12-inch thick select granular fill (i.e., number two crusher run stone or equal) layer is recommended as the base course for the basement/parking garage concrete floor slab. The NYSDOT specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum). This select granular base layer would be compacted to a minimum 95 percent of the maximum dry density by ASTM D 1557. The basement/parking garage floor slab is recommended to be a six-inch minimum thickness or is as determined by the design structural engineer.

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The floor slab reinforcement should be provided through placement of wire mesh or plastic fibers and is also as determined by the design structural engineer.

At the discretion of the design architect, a vapor barrier may be considered for use in the proposed structure. The use of a thin gravel cushion, as a capillary break, or a thin sand cushion over a vapor barrier that is placed beneath the concrete slab(s) are at the discretion of the design architect/engineer or as required by local code. Gradations of gravels that are satisfactory capillary breaks include 1 ¼-inch or ¾-inch crushed stone or aggregate per the ASTM D2321 Types IA, IB and II with less than 5 % fines. A number two crusher run stone may also be applicable, but the gradation and material property specifications must qualify.

Exterior Concrete Slabs-On-Grade/Pad/Parking and Roadway Facilities: The characteristics of the natural soils and the known frost penetration in Western New York require that specific attention is provided to the design and construction of paved roadway and parking areas. For new pavement sections, isolated pockets of surficial silty/cohesive/fine-grained soil/fill may be encountered and may be too soft and wet in the proposed parking and roadway areas. These types of soil/fill may be adequately conditioned (i.e., dried and blended) and compacted (i.e., minimum 90 percent compaction) to support necessary construction equipment and normal pavement section. Otherwise, the removal/undercutting of the silty/cohesive/fine-grained soil/fill to a firm, approved subgrade and subsequent placement and compaction of select or approved granular fill will be required in order to accommodate the recommended pavement sections.

For new pavement sections, it is recommended that the subgrade surface is adequately graded and/or underdrains are installed to prevent water accumulation. Above the approved subgrade surface (i.e., minimum 90 percent compaction), a minimum eight-inch thick select granular layer is recommended as the base course for lightly traveled roadway and parking areas (standard duty section). A geotextile filter and strength fabric (such as, Mirafi 600X or equal) and minimum 12-inch thick base course are recommended for all truck routes and heavily traveled roadways (heavy duty section). If “pumping” of the silty/cohesive/fine-grained soil subgrade occurs or is difficult to stabilize during construction, an increase in the base thickness to that of the heavy-duty section and/or a geotextile filter and strength fabric is recommended to be placed on the prepared and approved subgrade for the standard duty section. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size). The granular aggregate base layer is recommended to be compacted to at least 95 percent of maximum dry density by ASTM D1557.

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The thickness of top and binder course layers should be determined in accordance with AASHTO methods. In summary, the minimum recommended asphalt thicknesses for the heavy-duty section and standard duty section are three and one-half inches and three inches, respectively. The top and binder course layers are recommended to be designed and constructed in accordance with New York State Department of Transportation Standard Specification.

Limitations, Field Inspections and Monitoring: This report is based on the preliminary information that is provided by project representatives and the subsurface conditions that were encountered at the test boring locations. Due to the nature of the investigation method, test pit excavation will provide a greater level of delineation of the subsurface soil/fill/rock conditions than can be defined by the test boring data alone. As detailed in Appendix E "Limitations", modification regarding proposed building/structure locations and other site developments can result in changes to provided recommendations. It is recommended that the geotechnical engineer be provided the opportunity to generally review the final detailed design and contract specifications. Required earthwork and foundation construction should be done under the supervision of experienced construction personnel and in a manner consistent with proven methods. All site work should be carefully monitored and tested by experienced geotechnical personnel to assure compliance with earthwork and foundation construction specifications.

Thank you for the opportunity to assist on this project. If questions should arise, please call the undersigned at your earliest convenience.

Very truly yours,
BARRON & ASSOCIATES, INC.
and
BUFFALO DRILLING COMPANY, INC.

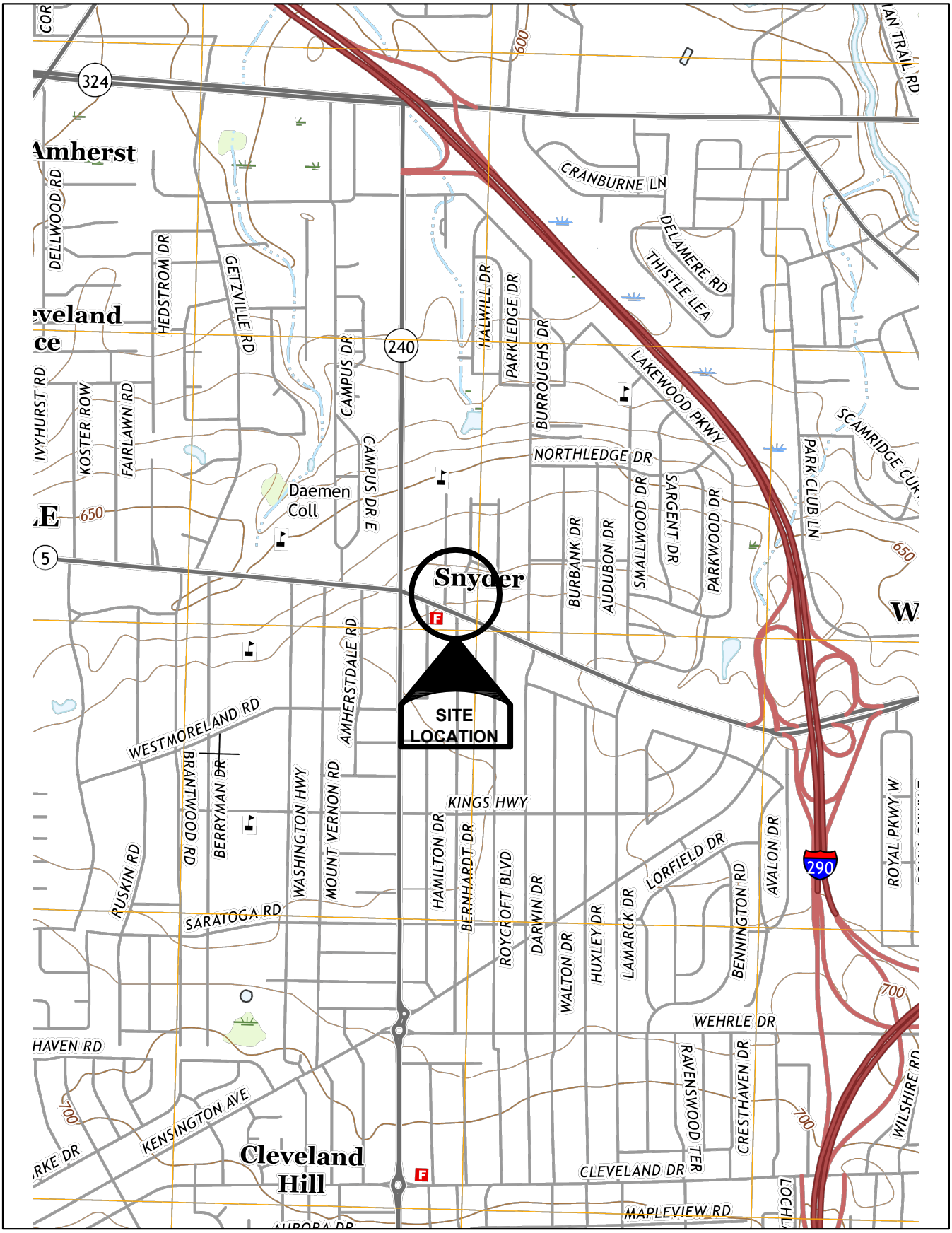
Andrew J. Camping, PG
Senior Geologist

James S. Barron, PE
President/Geotechnical Engineer



7.20.20

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

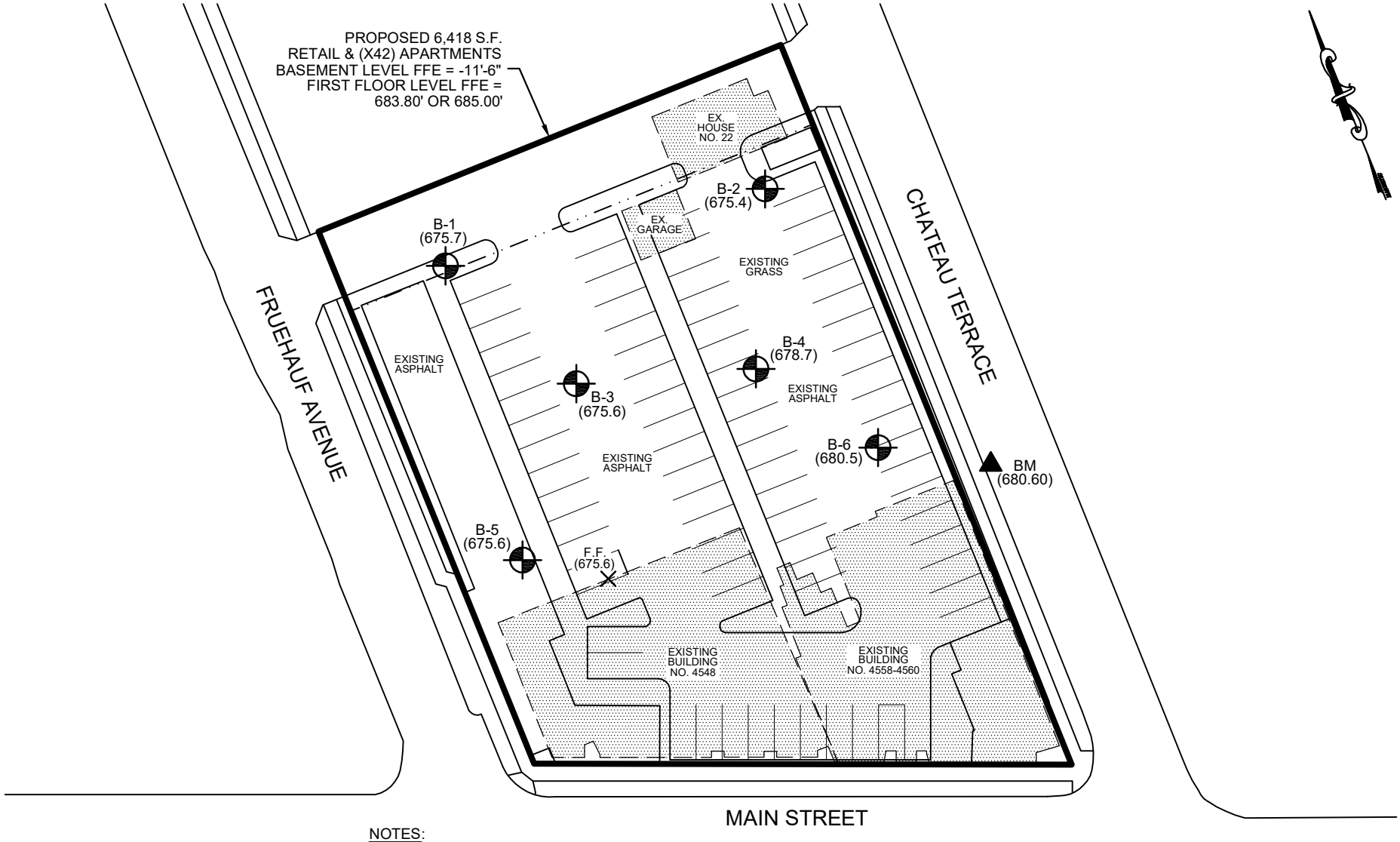


BARRON & ASSOCIATES, P.C. & BUFFALO DRILLING COMPANY 10440 MAIN ST. CLARENCE, NY 14031 (716)759-7821 FAX (716)759-7823 INFO@BUFFALODRILLING.COM INFO@BARRONANDASSOCIATESPC.COM	CLIENT: BENDERSON DEVELOPMENT COMPANY, LLC 570 DELAWARE AVENUE BUFFALO, NEW YORK 14202 PROJECT: PROPOSED TWO-STORY BUILDING WITH UNDERGROUND GARAGE 4548 & 4564 MAIN STREET, 22 CHATEAU TERRACE, AND 17 FRUEHAUF AVENUE TOWN OF AMHERST, ERIE CO., NEW YORK 14226	NEW YORK STATE SITE LOCATION

USGS SITE LOCATION PLAN
BUFFALO NE
2016

DRAWN: DAN KASPROWICZ	JOB NO.: 20-533
	DATE: 3/17/2020
	SCALE: N.T.S.
	FIGURE NO. 1

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



NOTES:

1. BORINGS, BUILDINGS, SITE FEATURES, PROPERTY LINE LOCATIONS, AND SCALE OF DRAWING ARE APPROXIMATE.
2. BASE MAP REFERENCE PROVIDED BY BENDERSON DEVELOPMENT COMPANY, LLC, TITLED "SITE PLAN - MAIN STREET SNYDER", PROPERTY ID # 5202 CONCEPT PLAN, DATED 3/3/2020.
3. EXISTING FEATURES AND BENCH MARK ELEVATION PROVIDED BY MILLARD, MACKAY & DELLES LAND SURVEYORS, LLP, TITLED "ALTA/NSPS LAND TITLE SURVEY", SBL NO. 68.17-6-219,20,21&22, DATED 3/26/2018.
4. FINISH FLOOR ELEVATIONS PROVIDED BY A E-MAIL ATTACHMENT FROM MATT OATES OF BENDERSON TO ANDY CAMPING OF B&A ON 6/23/2020, TITLED "5202 - BASEMENT FLOOR GRADES 04.13.2020.PDF AND 5202 - FRIST FLOOE GRADES 04.21.2020.PDF, UNDATED.

LEGEND

B-2	= TEST BORING & NO.
(675.4)	= GROUND SURFACE ELEVATION (FT.)
×	= SPOT ELEVATION
▲ BM	= BENCH MARK (NORTH RIM OF MAN HOLE)

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BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

CLIENT: BENDERSON DEVELOPMENT COMPANY, LLC
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202

PROJECT: PROPOSED TWO-STORY BUILDING WITH UNDERGROUND GARAGE
4548 & 4564 MAIN STREET, 22 CHATEAU TERRACE, AND 17 FRUEHAUF AVENUE
TOWN OF AMHERST, ERIE CO., NEW YORK 14226

TEST BORING LOCATION PLAN

0 25 50 100

JOB NO.: 20-533	SCALE: 1" = 50' ±
DATE: 6/25/2020	FIGURE NO. 2

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

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B&A JOB NO: 20-533
CLIENT: Benderson Development Company, LLC
PROJECT: Proposed Two-Story Building w/ Underground Garage
4548 & 4564 Main St., 22 Chateau Terrace, and
17 Fruehauf Avenue
Town of Amherst, Erie Co., New York 14226

TABLE NO. 1

SUMMARY TABLE OF BEDROCK UNIAXIAL COMPRESSIVE STRENGTH TESTS

Test Boring No.	Core Run No.	Sample Location		Moisture Content	Wet Density	Dry Density	Uncapped Length / Diameter	Failure Type	Maximum Compressive			Rock Identification
									ASTM D2938			ASTM C294
		Depth Interval	Elevation Interval	ASTM D2216	ASTM D2166	ASTM D2166	ASTM D2938		Load	Strength		
		(ft.)	(ft.)	(%)	(pcf)	(pcf)	(in. / in.)	(-)	(lbs.)	(tsf)	(psi)	
B-1	C-1	9.1 - 9.5	666.6 - 666.2	0.2	162.7	162.4	4.74 / 2.04	COLUMNAR	24,490 [1.]	538	7,478	ONONDAGA LIMESTONE [2.,]
B-6	C-2	8.3 - 8.8	672.2 - 671.7	0.2	153.4	153.1	4.38 / 2.03	COLUMNAR	13,070 [1.]	290	4,024	ONONDAGA LIMESTONE [2.,]

1. Ends of sample capped prior to testing.
2. Sample appeared absent of limiting structures (fracture planes, vugs, etc.).
3. Rock identification based on the local geology according to New York State Geologic Maps.

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APPENDIX A

TEST BORING LOGS

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TEST BORING LOG

7.g

JOB No.: 20-533 **BORING No.:** B-1

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.7
DATE COMPLETED:	5/18/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675	0				Asphalt (6")
	5 9 9	S-1 : 0.5'- 2.0'	18	50	Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, little Clay, tr. Asphalt, moist (Crushed Limestone-Fill)
	12 7 7 7	S-2 : 2.0'- 4.0'	14	2	Brown, stiff CLAY, some Silt, little Gravel, little f/c Sand, mod. plastic, moist (CL-Till) *(Poor recovery due to large gravel caught in shoe.)*
670	5 50/3"	S-3 : 4.0'- 4.3'	50+	100	...grade: hard
		C-1 : 4.5'- 9.5'	-	83.3 (22.5)	ONONDAGA LIMESTONE: med. dark gray, finely crystalline, band to thin bedded, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE) # pieces > 1": 17 # pieces > 4": 3 longest piece: 4.75"
665	10				Depth to Bottom of Hole: 9.5 feet
660	15				
655	20				
650	25				
645	30				
640	35				

Logged by: B. Smith

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

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TEST BORING LOG

7.g

JOB No.: 20-533 **BORING No.:** B-2

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.4
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 – 0	2 8 14 50/4" REFUSAL	S-1 : 0.0'- 2.0'	-	-	Topsoil (4") Dk. brown, m. dense f. SAND and SILT, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM-ML) *(Driller hand excavated upper two feet.)*
670 – 5		S-2 : 2.0'- 3.8'	22	60	Brown, v. stiff CLAY, some Silt, little Gravel, little f/c Sand, mod. plasti moist (CL-Till) ...grade: and Gravel
665 – 10					Depth to Bottom of Hole: 3.8 feet
660 – 15					
655 – 20					
650 – 25					
645 – 30					
640 – 35					

Logged by: B. Smith

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

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TEST BORING LOG

7.g

JOB No.: 20-533 **BORING No.:** B-3

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.6
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 – 0	34 50/5" REFUSAL	S-1 : 0.5'- 1.4'	50+	25	Asphalt (6")
					Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, t
					Asphalt, moist (Crushed Limestone-Fill)
					Depth to Bottom of Hole: 1.4 feet
670 – 5					
665 – 10					
660 – 15					
655 – 20					
650 – 25					
645 – 30					
640 – 35					

Logged by: B. Smith

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

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TEST BORING LOG

7.g

JOB No.: 20-533 **BORING No.:** B-4

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	678.7
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
0 / 675					Asphalt (6")
	12 10 7	S-1 : 0.5'- 2.0'	17	30	Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, t Asphalt, moist (Crushed Limestone-Fill)
5	2 10 50/4"	S-2 : 2.0'- 3.3'	60+	60	Brown, hard CLAY, some Silt, little Gravel, little f/c Sand, mod. plastic, moist (CL-Till)
670	REFUSAL				
10					Depth to Bottom of Hole: 3.8 feet
665					
15					
660					
20					
655					
25					
650					
30					
645					
35					

Logged by: B. Smith

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

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CLARENCE, NEW YORK 14031
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TEST BORING LOG

7.g

JOB No.: 20-533 **BORING No.:** B-5

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.6
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 (0)	22 / 50/1" REFUSAL	S-1 : 0.5'- 1.0'	50+	30	Asphalt (6")
					Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, t
					Asphalt, moist (Crushed Limestone-Fill)
					Depth to Bottom of Hole: 1.5 feet
670 (5)					
665 (10)					
660 (15)					
655 (20)					
650 (25)					
645 (30)					
640 (35)					

Logged by: B. Smith

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

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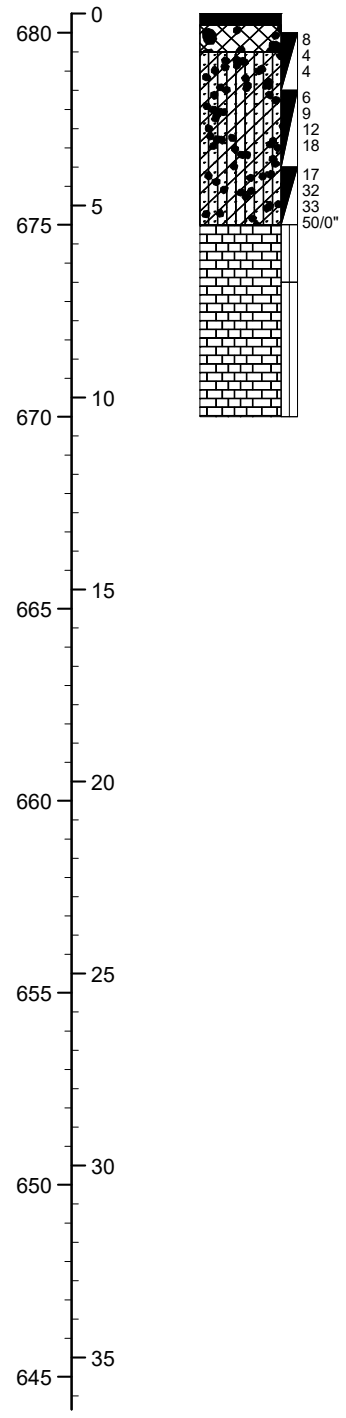
TEST BORING LOG

7.g

JOB No.: 20-533 **BORING No.:** B-6

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	680.5
DATE COMPLETED:	5/18/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None



Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
			Asphalt (4")
S-1 : 0.5'- 2.0'	8	75	Gray, loose f/c sand to gravel sized Crushed Limestone, little Silt, tr. Asphalt, moist (Crushed Limestone-Fill)
S-2 : 2.0'- 4.0'	21	50	Brown, stiff CLAY, some Silt, little f/c Sand, tr. Gravel, mod. plastic, moist (CL-Till) ...grade: v. stiff, little Gravel
S-3 : 4.0'- 5.5'	65	40	...grade: hard, some Gravel
C-1 : 5.5'- 7.0'	-	83.3 (0)	ONONDAGA LIMESTONE: med. dark gray, finely crystalline, band, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE)
C-2 : 7.0'- 10.5'	-	33.3 (28.8)	# pieces > 1": 5 # pieces > 4": 0 longest piece: 3.5" ...grade: band to thin bedded # pieces > 1": 9 # pieces > 4": 2 longest piece: 4.75"

Depth to Bottom of Hole: 10.5 feet

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

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APPENDIX B

GEOTECHNICAL REFERENCE STANDARDS

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

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Column Header Descriptions

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TEST BORING LOG

JOB No.: BORING No.:

PROJECT:

EXAMPLE

DRILLER:
SAMPLING METHODS:
DATE STARTED:
DATE COMPLETED:

TYPE OF DRILL RIG:
SIZE AND TYPE OF BIT:
SURFACE ELEVATION (ft.):
GROUNDWATER DEPTH (ft.):
(measured at completion unless indicated below)

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0	1 1 1 2 / 6 8 11 14	S-1 : 0.0'- 2.0'	2	50	Dk. brown, soft, CLAY, some Silt, little f. Sand, tr. Gravel, tr. Roots, tr. Organic matter, mod. plastic, wet (CL)
		S-2 : 2.0'- 4.0'	19	50	Brown, m. dense f. SAND, some Silt, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM)

Elevation/Depth: The depth column provides the vertical scale of the boring log in feet below ground surface.

Sample No. : Range: Disturbed samples are identified with “S” preceding the sample number. Undisturbed (Shelby-tube) samples are identified with “U” preceding the sample number. Rock core samples identified with “C” preceding the core run. The range of elevation/depth where the sample was taken is identified in one-tenth foot increments.

N-value: The Standard Penetration Test N-value, as specified by ASTM D1586, is defined as the number of blows required by a 140-pound hammer falling 30 inches, each blow, to drive a 2-in outside diameter split-spoon sampler 12 inches.

% REC (RQD): “Percent Recovery” is the length of samples recovered divided by the total length sampled. The result is numerically expressed as a percent. The Rock Quality Designation (RQD) is the total length of places >4 inches divided by the total length of core run.

Soil and Rock Description / Remarks: This column denotes the exact depth of recovery and general documentation of drilling efforts. Description and classification are based on visual inspection of samples and boring operations. The stratum lines shown on the boring logs are based upon interpretation and may not represent precise subsurface conditions. Water-level readings have been made in the drill holes at time under conditions stated on the boring logs. Fluctuations in the water level may occur due to other factors than those present the time measurement was taken. See attached sheet.

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Soil and Rock Description / Remarks: Terminology Used for Soil Description

Density Description of Granular Soil

Number of Blows per ft., N	*Relative Density*
0 - 4	Very Loose
4 - 10	Loose
10 - 30	Medium
30 - 50	Dense
Over 50	Very Dense

Abbreviations Used in Soil Sample Classification

f - fine	v - very
m - medium	gr - gray
c - coarse	bn - brown
f/m - fine to medium	yel - yellow
f/c - fine to coarse	sl - slight
tr - trace	dk - dark

Consistency Description of Cohesive Soil

Number of Blows per ft., N	*Consistency*
Below 2	Very Soft
2 - 4	Soft
4 - 8	Medium
8 - 15	Stiff
15 - 30	Very Stiff
Over 30	Hard

Bedding

Parting	Less than 0.02 ft.
Band	0.02 - 0.2 ft.
Thin bed	0.2 - 0.5 ft.
Medium bed	0.5 - 1.0 ft.
Thick bed	1.0 - 2.0 ft.
Massive	Over 2.0 ft.

Grain Size

	Passing / Retained on
Boulder	LARGE / 12-in sieve
Cobble	12-in / 3-in sieve
Gravel	3-in sieve / No. 4 sieve
	No. 4 sieve / No. 10 sieve
Sand	No. 10 sieve / No. 40 sieve
	No. 40 sieve / No. 200 sieve
Silt	No. 200 sieve / 0.005 mm sieve
Clay	Smaller than 0.005 mm

Hardness

Very Soft or Plastic	Can be indented with thumb
Soft	Can be scratched with fingernail
Moderately Hard	Can be scratched with knife
Hard	Difficulty to scratch with knife
Very hard	Cannot be scratched with knife

Percentage Terminology Used in Soil Classification

Trace	0 - 10 %	Some	20 - 35 %
Little	10 - 20 %	And	35 - 50 %

Moisture

Dry	Absence of moisture, dusty, dry to the touch.
Moisture	Small quantity of moisture. Soil usually above groundwater level.
Wet	Moisture noticeable to the touch. Soil may be below groundwater level.
Saturated	Visible free water, usually soil is below groundwater level.

Plasticity

Non-plastic	An 1/8-in thread cannot be rolled at any water content.
Slight plasticity	Thread can be barley rolled.
Moderate plasticity	Thread is easy to roll and little time is required to reach the plastic limit (PL).
Plasticity	Considerable time is required to reach PL. Thread can be re-rolled several times after reaching the PL.

Crystallinity or Texture

Dense	Crystals are to small they cannot be distinguished with the naked eye.
Very Fine Crystalline	Crystals barely discernable with the naked eye.
Crystalline	Crystals are medium size, up to 1/8-in diameter.
Very Coarsely Crystalline	Crystals larger than 1/8-in diameter.

Voids

Porous	Smaller than pinhead. Their presence is indicated by the degree of absorbency.
Pitted	Pinhead size to 1/4 in. If thin walls separate the individuals pits, the core may be described as honeycomb.
Vug	1/4 inch to the diameter of the core. The upper limit will vary with core size.
Cavity	Larger than the diameter of the core.

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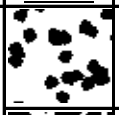
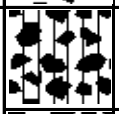
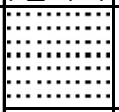
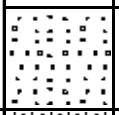
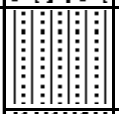
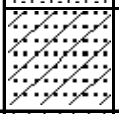
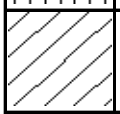
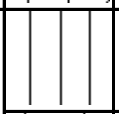
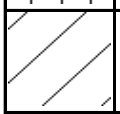
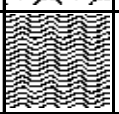
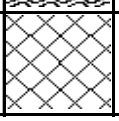
Soil Classification Chart: Unified Soil Classification System (USCS)

Major Divisions			Pattern	USCS ID	Typical Descriptions
Coarse-Grained Soils: More than 50% of material larger than No. 200 sieve	**Gravels**: More than 50% of coarse fraction larger than No. 4 sieve	Clean Gravels (little or no fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with appreciable amounts of fines		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-silt mixtures
	Sands: Less than 50% of coarse fraction larger than No. 4 sieve	Clean sands (little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sands, little or no fines
		Sand with appreciable amount of fines		SM	Silty sands, silt-sand mixtures
				SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils: Less than 50% of material larger than No. 200 sieve	**Silts and Clays, Low plasticity**: Liquid Limit < 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravely clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays, High plasticity: Liquid Limit > 50%			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils				Pt	Peat, humus, swamp soils with organic contents
Miscellaneous Fill				FILL	Miscellaneous fill may belong in any division but is identified as FILL

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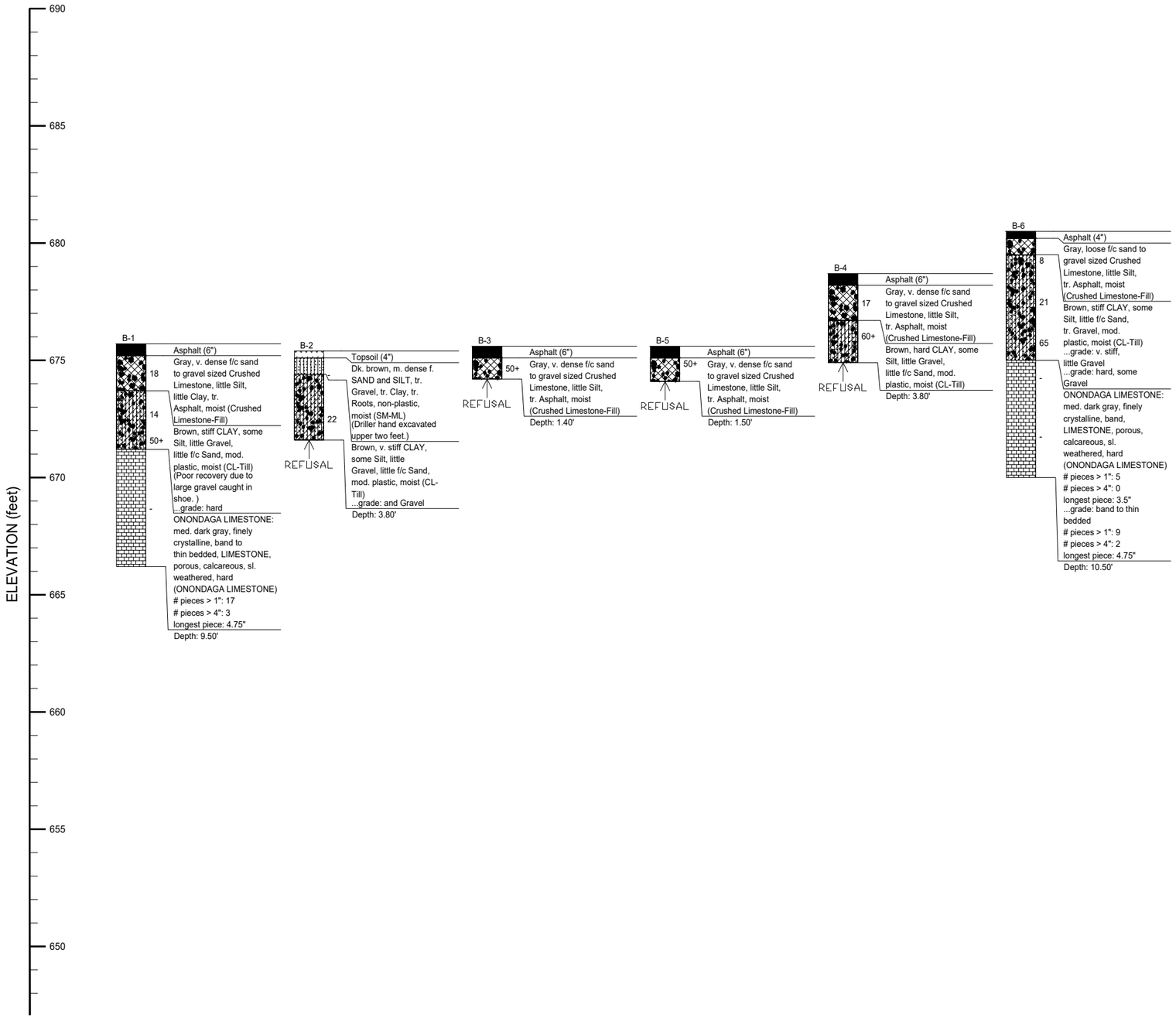
APPENDIX C

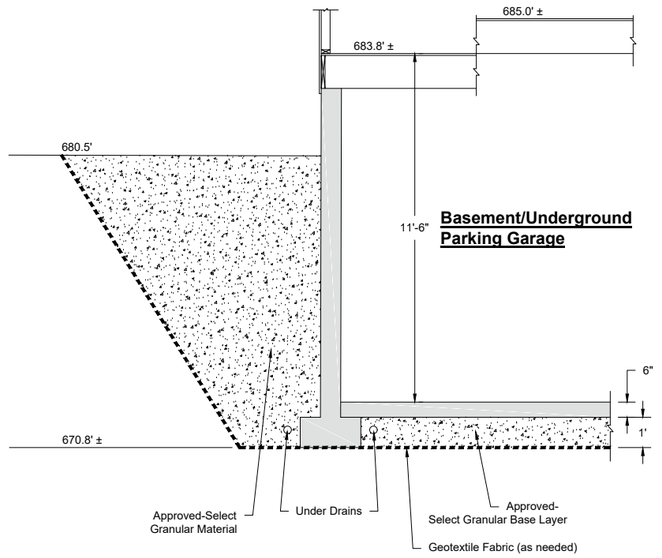
ENGINEERING COMPUTATIONS AND SCHEMATICS

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

"PROFILE" OF BORINGS



Exterior Perimeter Footing Detail (Typical):



Note: Bear footings on stable, natural, approved limestone bedrock or on approved select granular fill section placed in loose lifts no greater than 12 inches thick and compacted to 95% of max. dry density as per ASTM D1557.

Basement/parking garage will require the removal of up to four feet of limestone bedrock. If the approved bedrock depth is less than four feet below final exterior grade, hooked rebar dowels (No. 4 or 5) are recommended to be placed in grout filled holes at approximately a four-foot spacing and extending to a minimum total depth of four feet into approved bedrock.

On above conditions: USE Q_{ALLOW} = 5,000 PSF

Paving
Gravel Fill
Cohesive Glacial till
Limestone
Topsoil
Poorly graded silty fine sand
Drill rejection

BARRON & ASSOCIATES, P.C. & BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET, CLARENCE, NEW YORK 14031

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

Plotted by: A. Camping
7/17/2020

Job No.: 20-533

Page No.: 1 0f 3

Scale: 1" = 5'

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

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10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

DATA INPUT BY: Andrew J. Camping
B&A JOB NO.: 20-533
CLIENT: Benderson Development Company, LLC
PROJECT: Proposed Two-Story Building with Underground Garage
4548 & 4564 Main Street, 22 Chateau Terrace and
17 Fruehauf Avenue
Town of Amherst, Erie Co., New York 14226

BUILDING CODE OF NEW YORK STATE © - 2010: USGS 2008 ACCELERATIONS at 2% IN 50 YEARS CALCULATED BY LATITUDE AND LONGITUDE

Site Latitude (○) = +42.9632

Site Longitude (○) = -78.7817

Seismic Site Class = B

Building/Structure with Shallow Foundation

S_s = 0.2 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_s

LAT. = \ LONG. =	-78.8000	-78.7817	-78.7500
42.9500	0.21962		0.22027
+42.9632	0.21991	0.22012	0.22050
43.0000	0.22071		0.22114

S_1 = 1.0 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_1

LAT. = \ LONG. =	-78.8000	-78.7817	-78.7500
42.9500	0.05091		0.05109
+42.9632	0.05095	0.05101	0.05112
43.0000	0.05105		0.05122

SEISMIC SITE CLASS	Site Coefficient and Design Spectral Response Acceleration Values			
	0.2 Second		1.0 Second	
	F_a	$S_{ds} = 0.6667 * F_a * S_s$	F_v	$S_{d1} = 0.6667 * F_v * S_1$
A	0.8000	0.1174 g	0.8000	0.0272 g
B	1.0000	0.1468 g	1.0000	0.0340 g
C	1.2000	0.1761 g	1.7000	0.0578 g
D	1.6000	0.2348 g	2.4000	0.0816 g
E	2.5000	0.3669 g	3.5000	0.1190 g
F	2.5000	0.3669 g	3.5000	0.1190 g

<<------- USE THESE VALUES FOR SHALLOW FOUNDATIONS

Only residential buildings in Town of Amherst, Erie Co., N.Y.
Sds = 0.147 g Seismic Design Category = A

NOTE: F_a and F_v values are linearly interpolated, for the above S_s and S_s values, respectively, within the appropriate range of the mapped spectral response accelerations.
(Gridded data at 0.05 degree increments from: http://earthquake.usgs.gov/research/hazmaps/products_data/2012/data/)

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B&A JOB NO.: 20-533

DATE: 07/16/20

LATERAL EARTH PRESSURE ON GENERIC BLOCK FOUNDATIONS FOR SIGNS, FREE-STANDING RETAINING WALLS, OR BELOW GRADE/BASEMENT/TANK/POOL RETAINING WALLS (Less Than 20 Feet High)

a) Porous filter media, in contact with the basement/below grade foundation wall or retaining walls, protects and is in contact with a minimum 4 inch diameter perforated drainage pipes at the footing/base of the foundation/structural wall (exterior backfill side and interior basement side) and/or weep pipes through the wall, as needed and as applicable.

b) Where recommended, a geotextile filter fabric will protect the gravel filter media from the earth backfill. Overlap unsewn seams as per the manufacturer's recommendations.

c) Waterproof earth side of wall, as is customarily provided in practice.

d) Drainage pipes are connected to an appropriately designed collector pipe, conveyance, and/or sump pump system as is applicable for the intended purpose of the wall and as customarily provided/installed in practice.

e) For potential groundwater table conditions above the top of the basement slab-on-grade condition, install continuous waterstops (with no joints in stop) at wall and floor construction joints, as is customarily provided in practice. Interior intermediate drainage pipes beneath the slab, that are spaced on-center and in both directions, do appear to be needed.

f) Assume a uniformly graded, clean coarse sand or sandy gravel backfills:

* equivalent N-value in a dense state: $(N_1)_{60}$ = 40 blows/foot
* friction angle: ϕ' = 38 degrees {Teng, pg. 12}
* average in-place densities: moist - γ_m = 120 pcf
  saturated - γ_{sat} = 132 pcf submerged - $\gamma' = (\gamma_{sat} - \gamma_w)$ = 70 pcf

g) Assume at base of wall/footing, coefficient of friction against sliding (f_s) at base of wall (Refer to Teng, pg. 320-1):

f_s = tan (0.58 x ϕ') = 0.40 (AREA silty soil to silty coarse-grained soil)

h) Use equivalent fluid pressure design approach {Hough, pg. 249 and NAVFAC pg. 7-10-9}:

* at rest pressure coefficient - K_0 = 1 - sin (ϕ') = 0.38
* effective lateral pressure of soil - γ'_l = K_o x γ' = 26.6 pcf
* hydrostatic pressure - γ_w = 62.4 pcf
* equivalent fluid pressure with water level at the top of the grade at the wall - γ_{eo} = $\gamma'_l + \gamma_w$ = 89 pcf (say 90 pcf)
* equivalent fluid pressure with compaction induced lateral stress increase (W&F, pg 409) γ_{eo} = 2 x K_o x γ_m = 91 pcf (say 90 pcf)
* active pressure case - K_a = [1 - sin (ϕ')] / [1 + sin (ϕ')] = 0.24
  γ_{ea} = K_a x γ_m = 29 pcf (say 30 pcf)
* passive pressure case - K_p = [1 + sin (ϕ')] / [1 - sin (ϕ')] = 4.2
  γ_{ep} = K_p x γ_m = 504 pcf (say 330 pcf with a F.S. = 1.5)

			Thoroughly Compacted ⇒⇒ Uniformly Graded & Clean Coarse Sand or Sandy Gravel Fill	Non-Plastic Silty Sand or Sandy Silt Fill	
USE:	Earth Pressure Coefficient	Static Active =	0.24	0.33	
		Static At-Rest =	0.76	1.00	
		Static Passive =	2.80	2.00	(with F.S. = 1.5)
		Static Passive =	4.20	3.00	(with F.S. = 1.0)
USE:	Equivalent Fluid Pressure	Static Active =	30 pcf		
		Static At-Rest =	90 pcf (for rigid walls)		
		Static Passive =	330 pcf (with F.S. = 1.5)	[500 pcf with (with F.S. = 1.0)]	

[For earthquakes, structural engineer may elect to use the above Static Passive case instead of the below Earthquake Lateral Load for Non-Yielding Wall movement into the soil backfill.]

USE: Simplified Model for Earthquake Lateral Load/Ft. Wall Length @ 0.6 H_{bw} above base. Loads for Non-Yielding Wall. H_{bw} = Earth Height Behind Wall (feet)

Reduce load by 33% for Yielding Wall (active case) = (6.8 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.25 g)

(γ_m = 120 pcf for S_{ds} value. Add to Static At Rest/ Active Pressure/Load for unsaturated backfill case) = (13.5 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.50 g)

= (17.5 psf / foot) x H_{bw}^2 (NEern NYS, $S_{ds} \leq 0.65$ g)

[Above for Site Class C to E soils. Interpolate for other S_{ds} values.
Use 1.75 x values for walls on Class B/A rock or on rigid foundation base. (FEMA NEHRP Guidelines)]

Saturated/Liquified Soil During Earthquake = 132 pcf
(Equivalent Fluid Pressure. Add to inertial hydrodynamic pressure, not presented here.)

{For looser/denser backfills, adjust above pressures by the ratio = new density / 120 pcf or / 132 pcf (for saturated case)}

USE:	Coefficient of Friction Against Sliding (f_s)	= 0.45	(on compacted NYSDOT Item #304.12 or #304.14 gravels)
	(use lowest f_s with no underlying weaker layers)	= 0.35	(on compacted granular soil & non-plastic silt)
		= 0.20	(slab-on-grade on polyethylene on granular fill)
	[with a F.S. = 1.0]	= 0.60/0.50	(on clean, rough, & sound bedrock/smooth bedrock)
	Min. Factor of Safety Against Sliding	= 1.5	*[Rev.9-30-09]*

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(716) 759-7821
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APPENDIX D

GENERAL EARTHWORK SPECIFICATION

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Barron & Associates, P.C.
GENERAL EARTHWORK SPECIFICATION

PART 1 GENERAL

1.1 SITE AND SUBSURFACE CONDITIONS

1.1.1 Overview

This specification is included as a courtesy to the clients of Barron & Associates, P.C, and addresses earthwork site preparation. Additions and modifications are necessary to create a job-specific specification. This specification may serve as a basis for the development for a technical specification under Division 2, *Site Work*.

1.1.2 Site Conditions

The site-specific conditions are described under separate cover or may be available from the OWNER.

1.1.3 Subsurface Conditions

The site-specific subsurface conditions are described under separate cover or may be available from the OWNER.

1.2 REFERENCES

American Standard for Testing and Measurement (ASTM):

ASTM C136	Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C2922	Density for Soil and Soil-Aggregate in Place by Nuclear Methods
ASTM D422	Test Method for Particle-Size Analysis of Soils
ASTM D1140	Amount of Material in Soils Finer Than the No. 200 Sieve
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft^3)
ASTM D2216	Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D2487	1990 Classification of Soils for Engineering Purposes
ASTM D4318	Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.3 DEFINITIONS

1.3.1 Unacceptable Material

Soil material containing debris, wood, scrap material, vegetation, refuse, soft unsound particles, and other organic, frozen, deleterious, or objectionable materials. Contaminated soils shall be properly documented and removed or remediated on site. If necessary, remediation procedure will be defined by the OWNER.

1.3.2 Unsuitable Material

Brown, organic topsoil and underlying soft pockets of organic silt or wet, reworked silty clay.

1.3.3 Ordinary Fill

Friable soil containing no stone greater than two-thirds loose lift thickness and no unacceptable or unsuitable materials. In general, existing random fill is expected to be acceptable for reuse as ordinary fill given proper sorting, blending, drying, and controlled placement methods.

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1.3.4 Granular Fill

Ordinary fill meeting the designation of ASTM D2487 classification of GW with a maximum of 10 percent by weight passing ASTM D1140, No. 200 sieve.

1.3.5 Select Granular Fill

Clean, uncoated soil which contains no unacceptable materials and conforms to the gradation requirements defined in Table A: Select Granular Fill.

Table A: Select Granular Fill	
Sieve Size	Percent Finer by Weight
2/3 of the loose lift thickness	100
No. 10	30 - 95
No. 40	10 - 70
No. 200	0 - 15

1.3.6 Sand and Gravel

Clean, hard, durable, uncoated particle of sand and gravel, free from lumps of clay, containing no unacceptable matter, and conforming to gradation requirements of *Table B : Sand and Gravel*

Table B: Sand and Gravel	
Sieve	Percent Finer by Weight
*	100
No. 4	50 - 85
No. 10	--
No. 40	10 - 35
No. 100	--
No. 200	0 - 8

* Job-Specific. To be determined by the ENGINEER

1.3.7 Crushed Stone

Clean, durable, sharp-angled fragments of rock or crushed gravel stone of uniform quality, containing no unacceptable matter, free from coatings, and conforming to gradation requirements of *Table C: Crushed Stone*

Table C: Crushed Stone		
	Percent Passing	
Sieve Size	¾-inch Stone	1 ¼-inch Stone
1 ½-inch	__	100
1 ¼-inch	__	85-100
1- inch	100	__
¾-inch	90-100	10-40
5/8-inch	__	__
½-inch	10-50	0-8
3/8-inch	0-20	__
#4	0-5	__

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1.3.8 Flowable Fill

Also known as Controlled Low Strength Material – Controlled Density Fill (CLSM-CDF), this material is available under a variety of producer names (e.g., K-Krete©, M-Crete, Flash Fill©, Flowable Mortar, Unshrinkable Fill, etc.). This non-settling backfill mixture is most commonly used for its flowable characteristics, its support strength under traffic loads, and its removability at a later date. The material may be produced on-site or off-site. In either case, the producer of such materials and the product must meet certain certification criteria. Such information is beyond the scope of this specification and will be considered on a site-specific basis.

Flowable fill may be acceptable for use as a backfill for utility trenches of other low-lying areas which require a compacted granular fill. Its use and warranty of performance is left to the CONTRACTOR in such applications.

The use of flowable fill under load-bearing structural components in place of properly placed and compacted granular fill is NOT common and is questionable. The localized use of such material may have profound affects on the performance of a foundation system. Site-specific conditions and the extent of anticipated use of flowable fill must be examined by geotechnical engineer. Cost of such consultation shall be borne by the CONTRACTOR unless specifically directed by the OWNER to seek such consultation. Without such consultation, warranty of performance for such use is left to the CONTRACTOR.

1.4 SUBMITTALS

The following submittals shall be provided in accordance with approved submittals procedures.

1. Fill Source: Provide name and source locations of fill material.

2. Field Test Reports: Field tests will be performed by OWNER's Representative as needed. CONTRACTOR may be required to perform such tests on proposed off-site fill materials.
a. Fill material grain size analyses per ASTM C136, D422, D1140, D2487
b. Moisture/Density test results per ASTM D2216
c. Liquid limit, plastic limit, and plasticity index per ASTM D4318
d. Compaction/Density test results per ASTM C2922 and D1557

3. Sample: Geotextile fabric

PART 2 PRODUCTS

Geotextile Fabric: Mirafi 600X or equal. (Also referred to as synthetic fabric).

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 General

Manner of excavation shall minimize disturbance of underlying natural ground. If deemed necessary by the Engineer, alter construction procedures to reduce subgrade disturbance. Excavate areas which have been excessively disturbed to firm ground and backfill with properly compacted granular fill.

3.1.2 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

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3.1.3 Trees, Shrubs, and Existing Facilities

Protect from any damage all vegetation and facilities identified to remain.

3.1.4 Utility Lines

Locate all utilities within the area of disturbance prior to the start of work. Show locations on initial plans. Protect utility lines from damage. Notify the ENGINEER immediately of damage to or an encounter with an unknown utility. Damage to utility lines are to be repaired by the CONTRACTOR at no additional cost. The CONTRACTOR shall have underground utility owners stake out utility locations prior to the start of clearing and excavation operations.

3.2 VERIFICATION OF CONDITIONS/PROOF-ROLLING

Prior to placement of the initial layer of fill over the natural ground, proof-roll the exposed natural ground above the groundwater table elevation by making two passes with a fully-loaded ten-wheel truck. Excavate unstable areas detected by this process and replace with compacted granular fill.

3.3 PREPARATION

3.3.1 Surface Preparation

Within the site limits indicated on the drawings, excavate all unsuitable material to firm natural ground in the manner specified herein. Follow a construction procedure which permits visual identification of firm natural ground. In the even that groundwater is encountered, the ENGINEER may require that the size of the open excavation be limited to that which can be handled by open pumping to allow visual inspection of the excavation bottom and the performance of backfill operations to be conducted in a dry state.

Excavation of unsuitable material shall be limited to the greater of the following:

- A distance of 5 feet beyond building lines or
- The area defined by a one-horizontal to one-vertical line sloping down from the outside bottom edge of exterior footings to firm natural ground.

3.4 PLACEMENT AND COMPACTION

3.4.1 General

Place fill in accordance with *Table D: Compaction Alternatives*. These alternatives are provided as minimum compaction
standards only and in no way relieve the CONTRACTOR of his obligation to achieve any specified degree of compaction by whatever means may be necessary.

Grade to provide positive drainage and a smooth surface which will readily shed water. To the extent practicable, compact each layer to the specified density on the same day placed. Place fill in horizontal layers. Where horizontal layers meet a natural slope, key layer into slope by cutting a bench.

Fill that is too wet for proper compaction: Disc, harrow, or otherwise dry to proper moisture content for compaction to the required density.

Fill that is too dry for proper compaction: Uniformly apply water over the surface of the loose layer in sufficient quantity to allow compaction to the required density.

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Table D: Compaction Alternatives					
Compaction Method	Max. Stone Size	Maximum Loose Lift Thickness (inches)		Maximum Number of Passes	
		Below Structure and Pavements	Less Critical Areas	Below Structure and Pavements	Less Critical Areas
Hand operated vibratory plate of light roller in confined areas	3	4	4	4	4
Hand operated vibratory drum rollers weighing at least 1,000 pounds in confined areas	4	6	8	4	4
Loaded 10-wheel truck or D-8 crawler	6	10	12	4	2
Light vibratory drum roller; Min. weight at drum 8,000lbs; Min. dynamic force 10,000lbs.	8	12	12	6	2
Minimum vibratory drum; Min. weight at drum 10,000lbs; Min. dynamic force 20,000lbs.	8	18	18	6	4

3.4.2 Dewatering

Provide adequate pumping and drainage facilities to keep excavated areas sufficiently dry of groundwater and surface run-off. Dewatering shall avoid adversely affection construction procedures or causing excessive disturbance of underlying natural ground. Drain all pumped water in such a manner as to avoid damage to adjacent property.

If requested by the ENGINEER, place a 6-inch to 12-inch layer of sand and gravel or crushed stone over the natural underlying soil to stabilize area which have been disturbed due to groundwater seepage pressures and to expedite dewatering operations. Particular attention shall be given areas under proposed foundations.

3.5 FIELD QUALITY CONTROL

3.5.1 Compaction Requirements

Allow the ENGINEER sufficient time to make necessary observations and tests. Base the degree of compaction on maximum dry density as determined by ASTM D1557. The minimum degree of compaction for placed fill shall be as indicated *in Table E: Compaction Requirements.*

Table E: Compaction Requirements	
Area	Minimum Degree of Compaction (%)
Below foundation	95
Pavement and building subbase and base courses	95
Below building slab base course and above bottom of foundation	92
Below pavement subbase and base courses	90
Trench backfill outside of building	90
Trench backfill inside of building	Refer to one of the above-listed categories
Ordinary fill within 5 feet of grade	90
Vegetated areas below 5 feet of grade	85

3.5.2 Testing

Site work should be monitored and tested by geotechnical ENGINEER or his representative and in accordance with requirements of the design team to assure compliance with earthwork and foundation construction specifications.

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The owner will retain a geotechnical ENGINEER or his representative to perform on-site observations and testing during this phase of construction operations. The geotechnical ENGINEER or his representative will:

- Observe excavation and dewatering of building and controlled fill areas;
- Observe backfill and compaction within building and controlled fill areas;
- Laboratory test and analyze fill material; and
- Observe construction – and performing water content, gradation, and compaction tests.

On a timely basis, the CONTRACTOR will receive copies of test results submitted to the OWNER. In addition, during construction the geotechnical ENGINEER will advise the OWNER and CONTRACTOR in writing of conditions which fail to conform to the Contract Documents. The CONTRACTOR shall take immediate action to remedy indicated deficiencies.

The geotechnical ENGINEER or his representative will not supervise or direct the actual work of the CONTRACTOR or employees and representatives of the CONTRACTOR. The presence of, observations by, and testing performed by the geotechnical ENGINEER or his representatives shall not excuse the CONTRACTOR from defects discovered in the work.

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BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street
Clarence, NY 14031
(716) 759-7821
www.barronandassociatespc.com

APPENDIX E

LIMITATIONS

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

LIMITATIONS

1. This report is based on the data that was obtained from the subsurface explorations and on the design of the proposed two-story building with underground garage as submitted to the geotechnical engineer. A geotechnical engineer, who is experienced in foundation construction and earthwork, should be engaged to review the final design and specifications in order to determine whether any change in concept may have any effect on the validity of the conclusions presented herein, and whether these conclusions have, in fact, been implemented in the design and specifications.

2. The subsurface conditions, including thickness, between the exploration locations are approximate and simplified representations of the strata and transitions. There is the possibility that variations in soil and rock conditions and boundaries will be encountered during construction. In order to permit correlation between the exploratory soil data and the actual soil conditions encountered during construction and so as to assess conformance with the plans and specifications as originally contemplated, it is recommended that a geotechnical engineer, who is experienced in foundation construction and earthwork monitoring, should be retained to perform continuous construction review during the site preparation and foundation construction operations.

3. The subsurface exploration logs and subsurface conditions may aid in estimating material quality and quantities, such as topsoil/organic matter, fills, natural soils, and rock, but are not to be relied upon as the exclusive means for bid preparation purposes. It is the responsibility of the contractor to perform any additional site examinations and explorations and to prepare an accurate bid.

4. Disclaimers:

   a. In the event that any changes in the nature, design or location of the structure are planned, the conclusions that are contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing.

   b. The geotechnical engineering report has been prepared for this project by Barron & Associates, P.C. This report is for assistance in design only and is not a sufficient basis on which to prepare an accurate bid.

   c. This report has been prepared for the exclusive use of Benderson Development Company, LLC of Buffalo, New York, their client(s) and their designated design representatives, for specific application to the construction of a two-story building with underground garage at 4548 & 4564 Main Street, 22 Chateau Terrace, and 17 Fruehauf Avenue in the Town of Amherst, Erie County, New York and in accordance with generally accepted geotechnical engineering practice. No other warranty, expressed or implied, is made.

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COMMONWEALTH
HERITAGE GROUP

NEW YORK OFFICE
2390 Clinton Street
Buffalo, NY 14227
(716) 821-1650

HEADQUARTERS
3215 Central Street
Dexter, MI 48130
(517) 788-3550

Other locations
Alexandria, VA
Columbus, OH
Gainesville, FL
Littleton, MA
Memphis, TN
Milwaukee, WI
Minneapolis, MN
Ogden, UT
Tarboro, NC
Traverse City, MI
Tempe, AZ
Tucson, AZ
West Chester, PA

DOCUMENTATION REPORT:

22 CHATEAU TERRACE,

TOWN OF AMHERST,

ERIE COUNTY, NEW YORK

Prepared for:

BENDERSON DEVELOPMENT COMPANY, LLC
570 Delaware Avenue
Buffalo, New York 14202

Prepared by:

COMMONWEALTH HERITAGE GROUP, INC.
New York Regional Office
2390 Clinton Street
Buffalo, New York 14227-1735
(716) 821-1650

June 2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

COMMONWEALTH HERITAGE GROUP

DOCUMENTATION REPORT: 22 CHATEAU TERRACE, TOWN OF AMHERST, ERIE COUNTY, NY

Prepared for:

BENDERSON DEVELOPMENT, LLC
570 Delaware Avenue
Buffalo, NY 14202

Prepared by:

Christine M. Longiaru, M.A., Senior Architectural Historian
Mark A. Steinback, M.A., Project Director

CHG# NY-0179

COMMONWEALTH HERITAGE GROUP, INC.
New York Regional Office
2390 Clinton Street
Buffalo, New York 14227-1735
(716) 821-1650

June 2022

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Management Summary

Involved Agencies: Town of Amherst, Historic Preservation Committee

Survey Type: Building documentation and S/NRHP eligibility assessment

Location Information:
Location: 22 Chateau Terrace, Snyder, Town of Amherst
County: Erie

Parcel: SBL: 68.7-6-19

USGS 7.5-Minute Quadrangle Maps: Buffalo NE, NY

Report Author(s): C. Longiaru, M. Steinback

Date of Report: June 2022

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Project Summary

Commonwealth Heritage Group, Inc. (Commonwealth) prepared this documentation report for the property at 22 Chateau Terrace in the Snyder area of the Town of Amherst, Erie County, New York, under contract to Benderson Development Company, LLC (Figures 1 and 2).[1] This documentation report includes a State and National Registers of Historic Places (S/NRHPs) eligibility assessment of the ca. 1920 residence at 22 Chateau Terrace. It was prepared for submittal to the Town of Amherst Historic Preservation Commission to comply with the "Historic Preservation Law of the Town of Amherst." The study included exterior and interior photographic documentation (see Appendix A), historical research, and an architectural investigation of the building. On-site field investigation was conducted in April 2022. Christine M. Longiaru, M.A., served as Principal Investigator and Senior Architectural Historian. Mr. Mark A. Steinback, M.A., New York Regional Director/ Senior Historian, was the Project Director. Ms. Longiaru and Mr. Steinback exceed the professional qualifications requirements (36 CFR 61) for their respective disciplines.



Figure 1. The property at 22 Chateau Terrace, Town of Amherst, Erie County, New York *(Commonwealth 2022).*

[1] Note, Commonwealth's New York Regional Office in Buffalo was formerly Panamerican Consultants, Inc. The Buffalo office has conducted 50 cultural resources investigations in the Town of Amherst.

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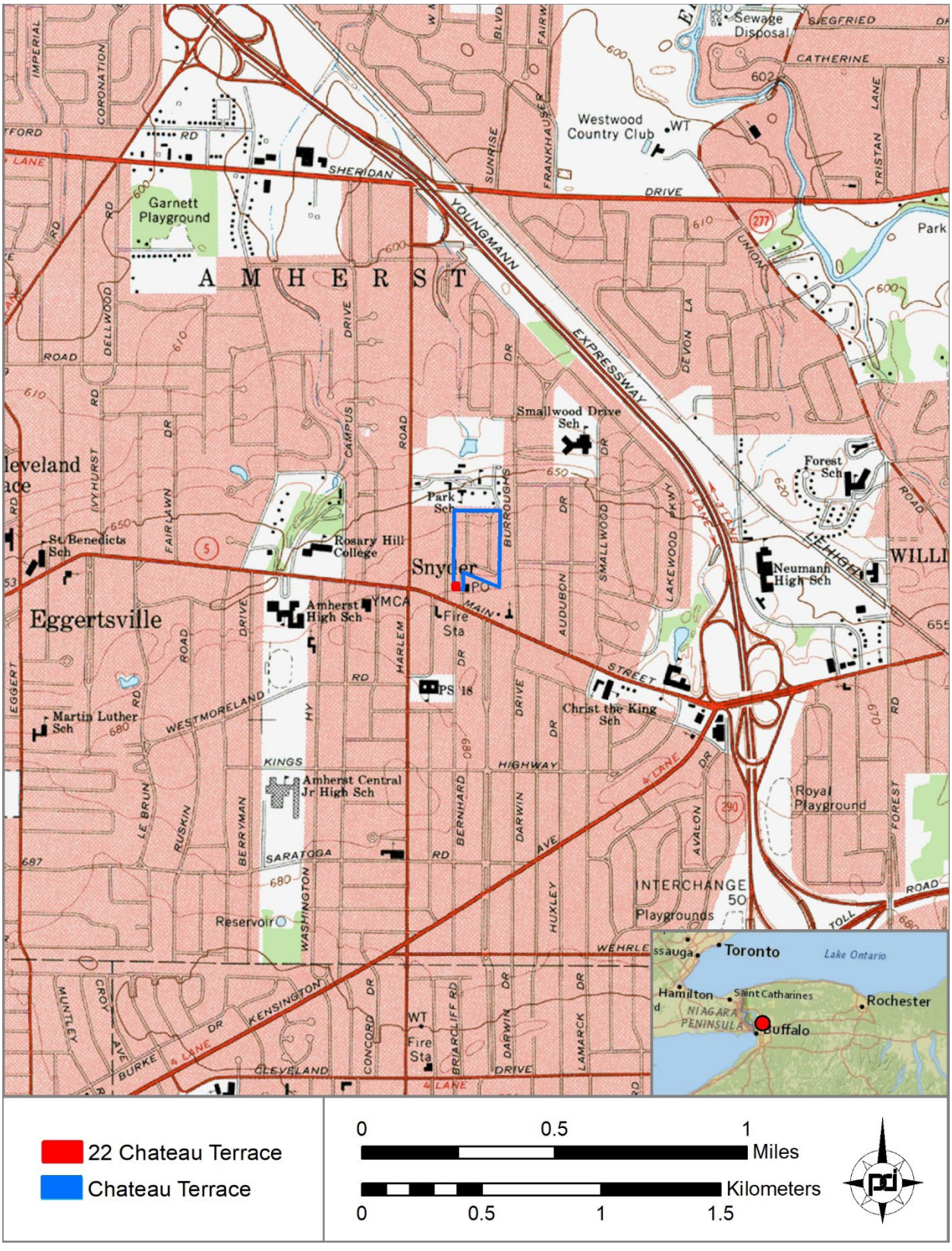

Figure 2 Location of the property at 22 Chateau Terrace, Town of Amherst, Erie County, New York *(USGS Buffalo Northeast, 1965).*

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Current State-level Inventory Status. The residence at 22 Chateau Terrace is in the Chateau Terrace Study Area (New York State Office of Parks, Recreation, and Historic Preservation [NYS OPRHP] Unique Site Number [USN] 02902.001453), which has not been formally evaluated for listing on the State and National Registers of Historic Places (New York State Cultural Resources Information System (CRIS 2022). A general boundary for the study area is delineated in CRIS, though individual residences in the Chateau Terrace Study Area have not been assigned USNs (Figure 3). Audubon Terrace Study Area adjacent to Chateau Terrace (USN 02902.001454) to the east is also a contemporary unevaluated subdivision.



Figure 3. Chateau Terrace Study Area at left as delineated by the NYS OPRHP. The general location of 22 Chateau Terrace is depicted by the red-shaded circle. Note, the adjacent Audubon Terrace Study Area boundary at right *(CRIS 2022).*

Previous Surveys

Local-level Historic Resources Survey Documentation. Chateau Terrace Study Area was first recommended as a potential historic district in the 1997 *Reconnaissance Level Survey of Historic Resources, Town of Amherst* (Bero 1997:Appendix F-6). The residence at 22 Chateau Terrace was identified as a contributing resource to a proposed historic district. In 1997, Chateau Terrace consisted of approximately 73 houses (52 contributing; 21 non-contributing). It included the following properties: 121 Chateau Terrace North; 7-65 and 10-42 Chateau Terrace South, 11-69 and 20-80 Chateau Terrace East 1-121 and 22-120 Chateau Terrace.

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As initially reported, Chateau Terrace Historic District was characterized as a cohesive early twentieth-century residential district consisting of modest scale houses. Chateau Terrace residences were primarily built during the 1920s and 1930s. A variety of popular residential architectural styles are represented in the neighborhood including Bungalow, Craftsman, American Foursquare, Colonial Revival, and Dutch Colonial Revival (Figure 4). Other features of Chateau Terrace include a winding street pattern with mature street trees. The 1997 survey also noted Chateau Terrace's significance at the local level for its association with Amherst's early twentieth-century suburban development.

The 1997 survey assigned a "yellow" color code for Chateau Terrace, which is the third level of color coding for properties in the reconnaissance survey's Annotated List (Bero 1997: Appendix F-6). A "yellow" designation for a property represents a property with moderate architectural and/or historical significance (Bero 1997: 101). Chateau Terrace was one of nine historic districts in Amherst recommended for the intensive level survey. However, the historic districts were not included in the 1998 intensive level survey (Bero 1998:2).



Figure 4. A representative view of 27, 23, and 19 Chateau Terrace in 1997 (*Reproduced from Bero 1997: Photo No. 52*).

In 2011, Chateau Terrace was reassessed in the *Updated Reconnaissance Level Survey of Historic Resources, Town of Amherst* (KTA 2011: Appendix 1-6). The 2011 survey determined Chateau Terrace Historic District met the criteria for a "blue rated" property. The definition of a "blue rated" property is presented below:

> **BLUE:** Extremely high architectural and/or historic significance. These properties would likely also meet the criteria for to be considered National Register eligible. A locally significant district. A resource that is rare and lacks individual distinction. All districts are considered Blue as are most farmsteads.

Seventy properties were identified in Chateau Terrace in 2011; 47 contributing and 23 noncontributing (KTA 2011:Appendix 1-6). The residence at 22 Chateau Terrace is included as a contributing resource (KTA 2011: Area 6-9). Chateau Terrace consists of the following properties: 11 to 77 Chateau Terrace East and 20 to 80 Chateau Terrace East; 7 to 47 Chateau Terrace South and 10 to 42 Chateau Terrace South; 22 to 120 Chateau Terrace and 65 to 121 Chateau Terrace (Figure 5).

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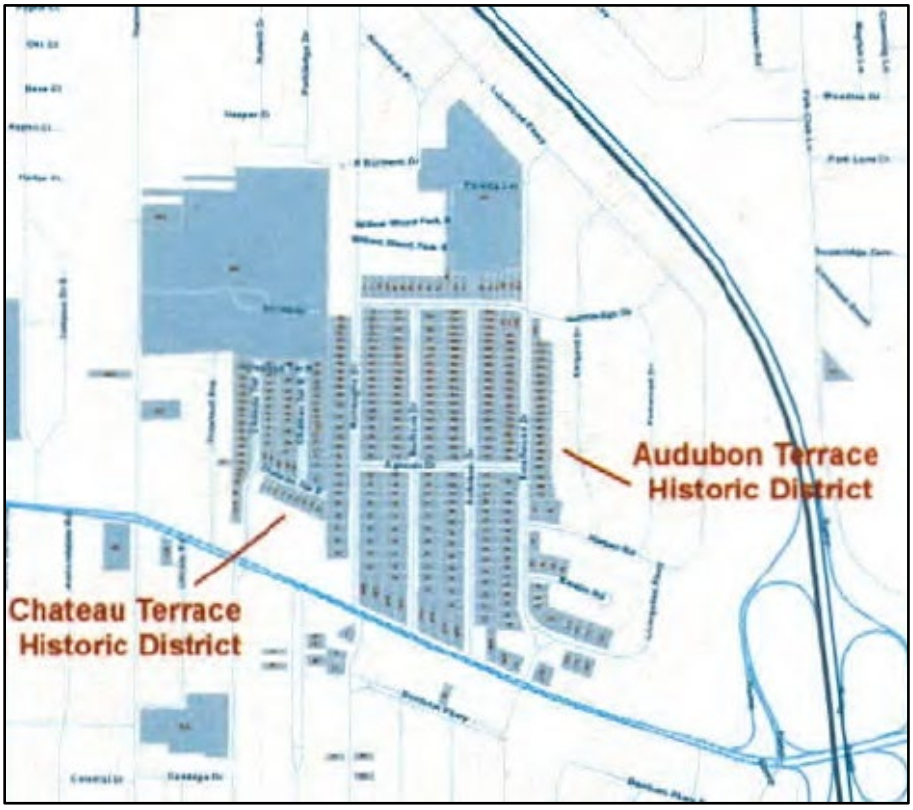

Figure 5. Chateau Terrace Historic District and the adjacent Audubon Terrace District in 2011 (*Reproduced from KTA 2011: Area 6*).

Methodology

Methodologies, historic overviews, and recommendations presented in previous historic resources surveys of the Town of Amherst informed this S/NRHP eligibility assessment for the individual subject property at 22 Chateau Terrace. To assess the historic significance of 22 Chateau Terrace further research was conducted on the development history of the Chateau Terrace Study Area and its surrounding area in the Snyder community. In April 2022, an online Freedom of Information Law (FOIL) request was made with the Town of Amherst Building Department and Planning Department for the following: 1) subdivision files for Chateau Terrace (Suor & Suor Building Company) and 2) building permit records for 22 Chateau Terrace (Online FOIL Request: 2134). The FOIL request did not yield any relevant historical information about the residence or the subdivision.[2]

A research inquiry for Chateau Terrace subdivision was also made with the The Niederlander Research Library of Buffalo Niagara Heritage Museum.[3] The library does not presently hold records specific to Chateau Terrace. Research was conducted at the Eggertsville-Snyder Branch Library and The Grosvenor Room-Special Collections department at the Central Library of the Buffalo & Erie County Public Library. Other research included online searches of relevant genealogical and newspaper web sites.

[2] Online FOIL Request #2134, Town of Amherst, NY (April 28, 2022). FOIL responses were received on May 4 and June 8, 2022.

[3] Rachel Ravago (Deputy Director for Collections and Interpretation, Buffalo Niagara Heritage Museum) in discussion with the author, May 2022.

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On-site documentation of the property was conducted on April 28, 2022. As noted above, the investigation included digital photography of the property's setting and the existing conditions of exterior and interior of the building (see Appendix A). Intact architectural details and the overall condition of the building were noted as were any changes to the building. A cursory drive through of the Chateau Terrace development was also carried out to support the S/NRHP eligibility assessment. The National Register Criteria for Evaluation was applied only to the individual property at 22 Chateau Terrace (National Park Service 2002).

> Criterion A: (Event) Properties that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> Criterion B: (Person) Properties that are associated with the lives of persons significant in our past; or
>
> Criterion C: (Design/Construction) Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> Criterion D: (Information Potential) Properties that have yielded, or may be likely to yield, information important in prehistory or history (*NPS Bulletin 15*, referencing 36 CFR 60).

A property is not eligible if it cannot be related to a particular time period or cultural group and thereby lacks any historic context with which to evaluate the importance of the cultural resource. The cultural property (e.g., historic structure or landscape) must also retain the historic integrity of those features necessary to convey its significance. Seven aspects or qualities of integrity recognized by the National Register are location, design, setting, materials, workmanship, feeling, and association. Actual determinations of eligibility for the S./NRHPs are made by the NYS OPRHP.

Historical Overview

Early Development of Town of Amherst. European-American settlement of the Niagara Frontier dates from the end of the American Revolution in 1783. During the next decade large grants of land in western New York would be sold to private investors who attempted to open the land to settlement. The land's initial purchasers, a syndicate of speculators headed by Oliver Phelps and Nathaniel Gorham, forfeited their obligations, and the rights to the unsurveyed portion of the area were sold to Robert Morris in 1791. Reserving a portion of the land for his own purposes, Morris sold the remainder, including all of present Erie County, to a consortium of Dutch investors, called the Holland Land Company, in 1792-1793 (Turner 1974 [1850]; Silsby 1961).

Joseph Ellicott was contracted in July 1797 to survey the company's land in western New York and divide it into townships. The process began in the spring of the following year. The current path of Main Street (NY Route 5), completed in 1803, was known as the Buffalo-Batavia Road to the early settlers. This road and the future City of Buffalo were laid out by Ellicott (White 1898). Once townships had been surveyed and roads in the area cut, settlement and growth followed quickly. The first land sales in Amherst were made in the autumn of 1803 to Samuel Kelsey, Henry Lake, Benjamin Gardner, and William Lewis, among others. The earliest settlers arrived the following year and included Timothy and Orlando Hopkins, John Hershey, Samuel McConnell, Alexander Logan, Caleb Rogers, Stephen Colvin, John King, and Joel Chamberlain. By 1808 Ellicott Creek (then known as Eleven Mile Creek) had been dammed and a grist mill was operating in what was then called Williams Mill. Erected by Jonas Williams, the mill was joined by a sawmill and later a tannery (Glover 1972:2). Niagara County (consisting of what are now Erie and Niagara counties) was formed from Genesee County in 1808.

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The War of 1812 stunted growth in Western New York which served as one of the primary theaters of that conflict, and areas near the border with Upper Canada (the current province of Ontario) were ravaged by attacks and counterattacks. After the war, Eleven Mile Creek (Ellicott Creek) offered a prime power source for nascent industrial growth, which in turn attracted settlers to the area. With increased population, new political divisions were made. The Town of Amherst was separated from the Town of Buffalo in April 1818 and named for Sir Jeffrey (or Geoffrey) Amherst, Commander of British forces in America in 1759 and 1760 and an early advocate of biological warfare (i.e., blankets infected with small-pox) against the Indians (White 1898:I:493-494; Fenn 2000:1573-1579). Erie County was created when all the land south of Tonawanda Creek was removed from Niagara County in 1821. The Town of Amherst achieved its present size in 1839 when the Town of Cheektowaga was created (White 1898:I:493-494).

The area received a tremendous economic boost when one terminus of the Erie Canal was located at the village of Buffalo. Begun in 1817, the Erie Canal linked Buffalo and Lake Erie with New York City when it opened on October 26, 1825. The completion of the canal attracted additional settlers to the region, including many German-speaking Alsatians, who began to populate the largely agricultural and unoccupied northern portions of the Town of Amherst in the early 1830s (Young 1965:260). Progress was slow since Ellicott Creek flooded regularly, and the nearby land had to be drained before it could be cultivated (Smith 1884:I:400). Despite these endeavors, the center of settlement in the Town of Amherst remained at Williamsville near the creek. Homesteaders focused on growing grain, notably wheat, and grazing cattle. The town's numerous creeks supported a variety of rural industries, including grist mills, a carding mill, sawmills, a tannery, a shoe-and-boot factory, a broom factory, a slaughterhouse, and two furnaces for processing iron needed by area blacksmiths (Glover 1972:2-3; League of Women Voters 1985:6; Amherst Museum 1997). The Fogelsonger limestone quarry was located between Snyder and Williamsville near what is now the entrance to the New York State Thruway. The population of the town increased during the middle decades of the nineteenth century from 4,153 in 1850 to 4,807 in 1875 (Beers 1880:18-19).

First completed to Buffalo in the 1840s, railroads played an important part in the development of western New York as an economic power during the nineteenth and twentieth centuries. As part of the effort "to connect the Hudson River and Lake Erie with a 'ribbon of rails'" the Batavia branch of the New York Central Railroad passed through the central part of the Town of Amherst (Eberle and Grande 1987:52; Stone and Stewart 1866; Beers 1880). This line was abandoned in the twentieth century, and the tracks were pulled up. The New York West Shore & Buffalo Railroad ran passenger service along this route, stopping at Transit Station and Getzville beginning in 1884 (White 1898:I:539; USGS 1905). By 1896, a branch of the Lehigh Valley Railroad ran diagonally through the town, west and south of the project area (Young 1965:264; USGS 1905, 1948).

During the late nineteenth century, the Town of Amherst underwent a period of infrastructure improvements, including the widening and paving of streets and roadways, and the erection of bridges. The first telephone was installed in 1879 (although dial service did not begin until 1949) and the first water system was created in 1895. After the turn of the nineteenth century, other public services began to improve living conditions in the town: water power generated by Niagara Falls was used to provide the town's electricity as electric lights were erected along Main Street in 1901; a natural-gas franchise was granted in 1902; the first water meters were installed in 1919 (League of Women Voters 1985:7; Young 1965:264-265).

Industry in the town at that time centered on processing grain. Large and active flour mills ground wheat grown in the town as well as grain brought to Williamsville from the docks of Buffalo. By the 1890s, however, "electric power from Niagara Falls became available in unlimited quantities. [As a result,] except for the Chalmers gelatine factory [in Williamsville], founded in the 1872, industry disappeared, and Amherst turned toward developing itself as a residential area" (Glover 1972:6-7; see also Young 1965:116-117). Improvements and developments in transportation networks during the 1890s into the twentieth

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century, as well as the prosperity of the cities of Buffalo and Tonawanda facilitated the trend toward creating residential communities. In 1892, an electric trolley system connected Williamsville to Buffalo, which operated until 1930, when gasoline buses and cars proved more popular with commuters (Glover 1972:6; Young 1965:263). These transportation improvements offered suburban living opportunities for urban workers.

Agriculture remained prominent in the town well into the twentieth century although the trend of subdividing former farms or unproductive areas into residential developments accelerated after World War I (Dunn 1972:212; Eberle and Grande 1987:202).

Synderville. To the west of William's Mill, a small community formed in the future Snyder area when in 1804 Timothy Hopkins purchased a large farm on Main Street which extended west from Washington Highway (approximately three blocks west of Harlem Road) to Amherstdale Road (Fiddler-Woite 1998:11). Settlement progressed slowly in the Snyder area during the early nineteenth century. The Schenck family moved to the area from Pennsylvania in 1821. Two years later, Abraham Snyder and his family also moved from Pennsylvania and settled near their cousins, the Schencks.

Other early families include Schenck, Freuhauf, Helfer, LeBrun, Miller, Fisher, Schuler, Cable, Witmer, Beck, Crout, Harrison, Kern, Frick, and Fogelsanger (Fiddler-Woite 2009:63,65). In 1830, the Hopkins sold their property to the Schenk family (Fiddler-Woite 2009:14). Abraham Snyder, his wife Veronica, and their two sons (Michael and Jacob) lived in a log cabin on Main Street near Harlem Road. In 1832, Mr. Snyder mysteriously disappeared leaving the burden of supporting the family on young Michael (Fiddler-Woite 2009:20). Within 5 years, Michael Snyder moved the family into a plank house on the northeast corner of Main Street and Harlem Road. He opened a mercantile with John Schenk in the front room of the house. He later expanded the house and opened Snyder's Inn to cater to travelers on the Buffalo Road. He established a U.S. Post Office, according to Snyder family records, as early as the late 1840s (Fiddler-Woite 2009:23). The first post office stood on the northwest corner of Main Street and Harlem Road. However, Michael Snyder was not formally listed as the postmaster of the Snyderville Post Office until 1882 (Fiddler-Woite 2009:24).

An unnamed crossroads community centered on Main Street and Harlem Road is depicted on the 1855 atlas map of Erie County (Geil 1855). The area near Chateau Terrace along Main Street was lined with structures, one of which was a school house. One map-documented structure was a property owned by Mrs. Snyder, which would later be adjacent to the side of Chateau Terrace. A log and brick school house (District #18) was also located near the future site of the Chateau Terrace development (Grande 2000:51). In 1860, Michael Snyder acquired additional property to the east on Main Street near present Chateau Terrace. Snyderville is first identified on the 1866 map of Erie County (Stone & Stewart 1866). M. Snyder's Store and Post Office are depicted on the northeast corner of the intersection on Lot 13.

Tobias Witmer, surveyor, carried out the original survey of Farm Lot 13, the future location of Chateau Terrace, in 1852 (Holland Company Land Title & Abstract Company 2017). Mid-to late nineteenth-century land owners of the Chateau Terrace section of Lot 3 (east section) included Michael Shenk, Michael Shenk Jr., and Philip J. Ferkel. By 1880, Lot 13 had been further subdivided, and G. Demerest owned the largest tract with 61 acres on the east side of Lot 13. (Beers 1880; Figure 6). John and Jacob Snyder owned adjacent parcels on Lot 12, to the east. In 1896, a branch of Lehigh Valley Railroad was constructed through Amherst (Young 1965:264) to the north and east of Snyder. An 1898 map depicts the Lehigh Valley Railroad and the Buffalo & Williamsville Electric Railroad on Main Street extending through Snyder (The Matthews-Northrup Co. 1898). Lot 13, the future location of 22 Chateau Terrace, remained undeveloped. The first residential development in the Snyder vicinity was laid out along Getzville Road and Main Street by this time.

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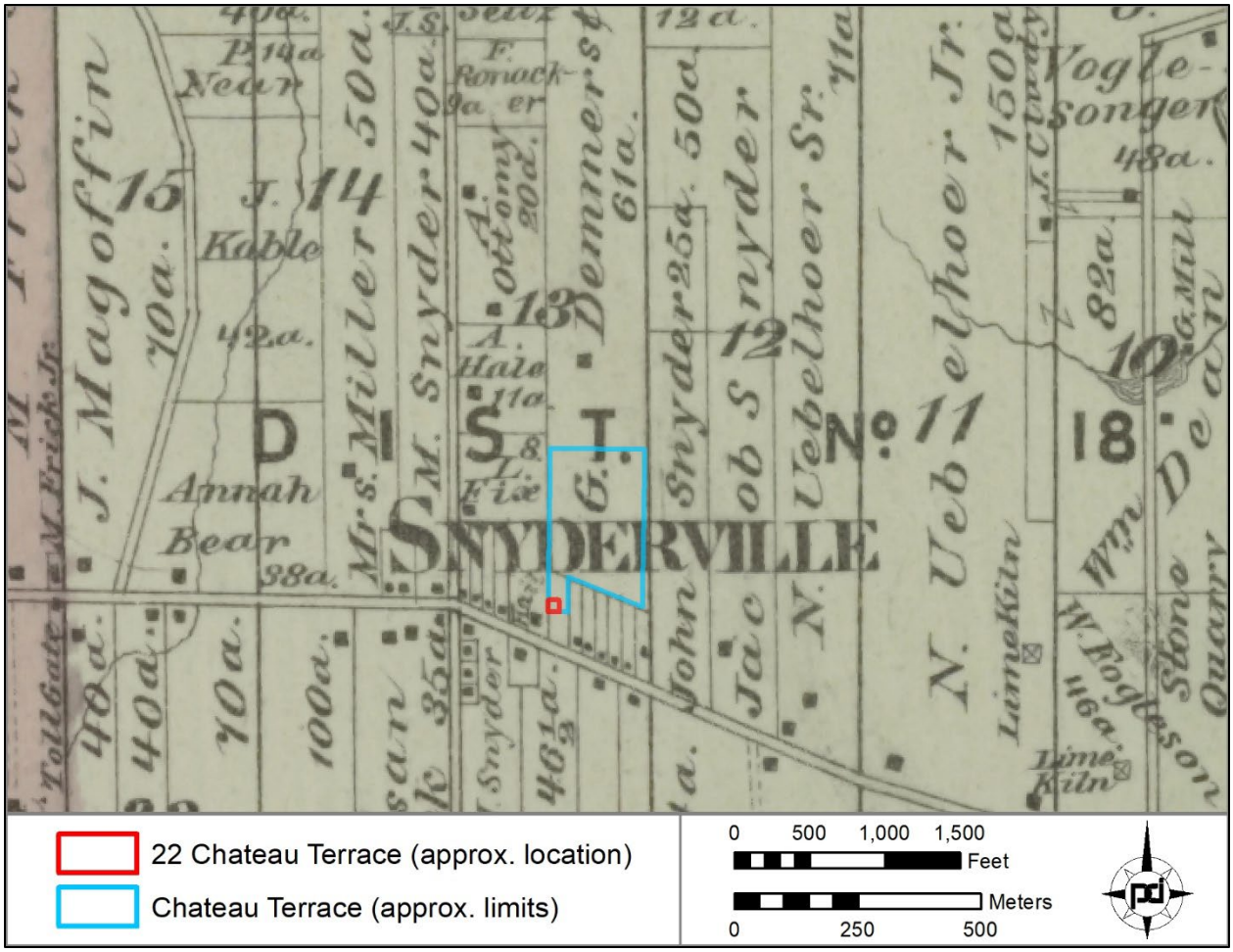

Figure 6. The general location of 22 Chateau Terrace on the 1880 map of the Town of Amherst (*Century Map Co. 1915).*

Twentieth-Century Development in Snyder. Early twentieth-century growth of the Snyder area has been attributed to the opening of Buffalo & Williamsville Electronic Railway (aka Toonerville Trolley in 1893 and the advent of the automobile (Grande 200:145; Fiddler-Woite 2009:38). Running along the north side of Main Street, the trolley line connected Buffalo and Williamsville. Efficient and dependable transportation attracted the interest of future homebuyers in new housing developments (Fiddler-Woite 2009:93). In operation until 1930, the trolley provided access for middle class families to purchase a home in Snyder.

In 1911, brothers William Charles Taylor Suor (1873-1959) and Arthur M. Suor (1874-1936) purchased 99 acres of the Kabel family's farm for the College Hill neighborhood development, which they first called "Amherst Heights" (Grande 2000:149). Formed in 1894, Suor & Suor were initially engaged in real estate business development projects near the Central Park and Parkside neighborhoods of Buffalo (White 1898:439). The brothers developed a few one-block streets near some of the main thoroughfares of Central Park, including Starin and Vorhees Avenues (Moriarty 2017). Their developments on Revere Place, Taft Place, and Sagamore Terrace were speculatively built homes erected on modest lots (Moriarty 2017). Suor & Suor offered affordable single-family homes with modern amenities which appealed to middle class consumers (Moriarty 2017).

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Suor & Suor had been previously involved in more traditional real estate interests of acquiring and selling farm houses (Grande 2000:149). Within a few years the firm would further expand development in Snyder with the College Hill - Chateau Terrace subdivision. A third brother, John Russell Suor (1882-1959), was also involved in the development of Snyder (Buffalo Evening News [BEN] 1953:25). He started his real estate career in Buffalo and later moved to Snyder. For roughly 25 years, John Suor was associated with the Erie County Real Estate Department and the county attorney's office as an appraiser (BEN 1953:25).

In Snyder, the Suors envisioned a new type of residential development on the south side of Main Street between Getzville and Harlem roads. Washington Highway formed the central point of what became known as the College Hill (Fiddler-Woite 2009:93). Suor & Suor's College Hill Office was erected on the southwest corner of Main Street (#4363) and Washington Highway (Fiddler-Woite 2009:94). The company built middle-class-sized homes which typically consisted of a two-story building with four bedrooms, a den, and a bathroom on each floor (Fiddler-Woite 2009:95). In February 1917, there were 40 homes in College Hill (BEN 1917). Suor & Suor advertised their new modern homes in local Buffalo newspapers to attract potential buyers to relocate to Snyder (Figures 7 and 8).

The brothers continued to acquire more tracts of land for their development in Snyder. Suor & Suor purchased an additional 65-acres of the Tobias Witmer farm south of College Hill by 1919 (Fiddler-Woite 2009:95). Named College Hill Terrace, the new 331-lot development extended toward Kensington Avenue. It was laid out with large lots for more upscale homes with landscaping and street furniture (Fiddler-Woite 2009:95). The Suors also endeavored in commercial development. In 1920, the Town of Amherst's population had increased by 36 percent from 4,629 in 1910 to 6,286 with much of the increase in the Snyder-Eggertsville area (Grande 2000:145). This rise in population included both new owners of large estates as well as an increased migration of middle-class commuters who purchased homes in the new subdivisions (Grande 2000:146).

By early 1920s, new residential neighborhoods were established west of Williamsville along Main Street which included the following: Rosedale Park, College Hill, Chateau Terrace, Audubon Terrace, and Amherst Estates. From 1923 to 1930, a town committee on building construction approved 73 major subdivisions (Grande 2000:189). The 1920s building boom in Amherst contributed to a 110 percent increase in population from 6,286 in 1920 to 13,181 in 1920 (Grande 2000:183). This growth is evident on a 1927 aerial photograph of the Snyder area (see Figure 14). The 1938 map of Snyder shows extensive residential subdivisions on the north and east sides of Main Street west of Harlem Road and on the south side of Main Street west of Harlem Road (Niagara Frontier Planning Board 1938a, 1938b).

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NEW HOMES OUT MAIN STREET.
College Hill and College Hill Terraces.
200 Washington Highway, large rooms, 4 bedrooms, 2d floor, one 3d floor; lot 50x155 ..... $12,500.00
30 Chateau Terrace, 4 bedrooms, wide lot 80 feet 9,000.00
65 Chateau Terrace, 3 bedrooms, lot 50x132 ..... 9,500.00
SUOR & SUOR, Main Street and Chateau Terrace. Call Crescent 1048. 31t10



Why Pay Rent?
Your rent money will buy a modern new home out North Main St., all improvements, high land, delightful surroundings.
Sign the Coupon below --mail it right now.
SUOR & SUOR
Main St., over Buffalo City Line—P. O., Snyder, N. Y.
COUPON.
Suor & Suor: Gentlemen, I would like to know more about your proposition of buying a modern home out North Main St. for the money I am paying for rent.
Name .....
Address .....

Figures 7 and 8. Suor & Suor real estate advertisements in 1921 (left) and 1923 (right) *(Reproduced from The Buffalo Times 1921 and Buffalo Courier 1923b).*

Chateau Terrace Area. In 1909, G. Demert is identified with the east portion of Lot 13, which would become the future site of Chateau Terrace subdivision (Century Map Co.1909 [Figures 9 and 10]). The southern portion of Lot 13 consisted of a residential-width parcel consistent with the other lots along Main Street. It would later become the entrance road to Chateau Terrace. J. Freuhaut [sic] owned the adjacent properties on the west side of the southern portion of Lot 13. The south end of the street that became Fruehauf Avenue is shown between the two Frauhaut parcels fronting Main Street in 1909. A parcel owned by A. Snyder is adjacent to the east side of the south section of Lot 13, which became the Chateau Terrace entrance. Five other parcels on Main Street bordered the south boundary of Lot 13, one of which included the 1900 two-story brick school house (District 18). The rectangular-shaped north section of Lot 13 was bound to the west by residences on Harlem Road.

The 1915 Century Atlas map contains a discrepancy in property ownership of Lot 13. Chauncey Hamlin was identified on the Snyder sub plan as the owner of the G. Demert property on Lot 13, while the 1915 map of the Town of Amherst documents G. Demert as the owner of the 61-acre parcel (Century Map Co. 1915a, 1915b [Figures 11 and 12]). Hamlin's country estate stood on a separate parcel that fronted Harlem Road. Adjacent to the west side of the property was "J.C. Fruehaups Sub Div.," which consisted of 23 home sites with eleven frame buildings. Other subdivisions documented in Snyder at this time included Meadow Crest on the west side of Harlem Avenue north of Main Street and College Hill south side of Main Street along Washington Highway. According to the results of the title search, Chauncey Hamlin had the parcel surveyed in November 1917 (Holland Company Land Title & Abstract Company 2017: Table 1).

In 1920, The Park School of Buffalo purchased 100 acres on the east side of Harlem Road from the Hamlin Estate for the location of their new school campus which bordered the north boundary of the new Chateau Terrace subdivision (The Park School of Buffalo 2022; Fiddler-Woite 2009:126). In 1922, the Burkhardt Company purchased the Tobias Witmer farm on the east side of Chateau Terrace for the Audubon Terrace subdivision (Fiddler-Woite 2009:148).

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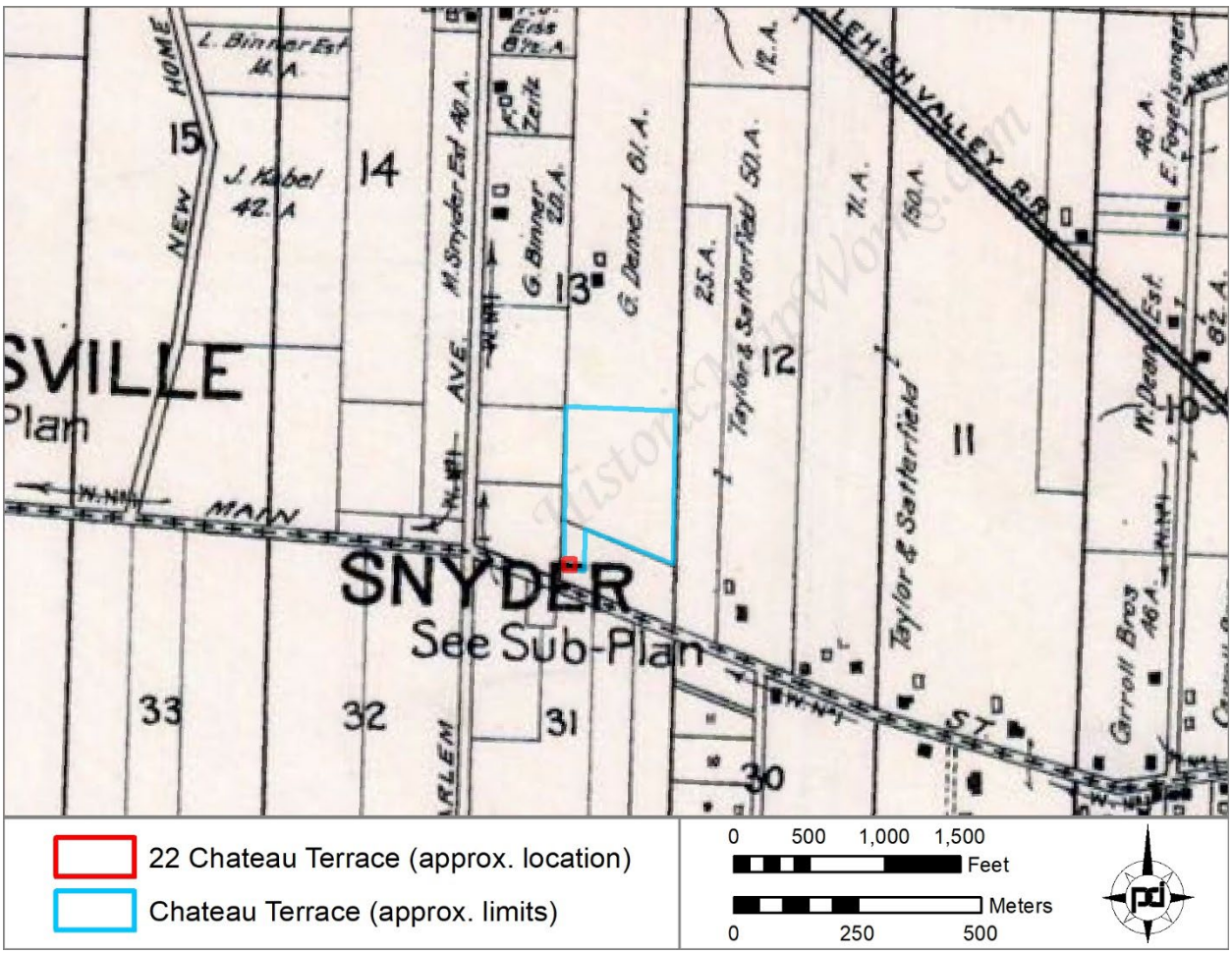

Figure 9. The general location of 22 Chateau Terrace on the 1909 map of the Town Amherst (*Century Map Co. 1909a).*

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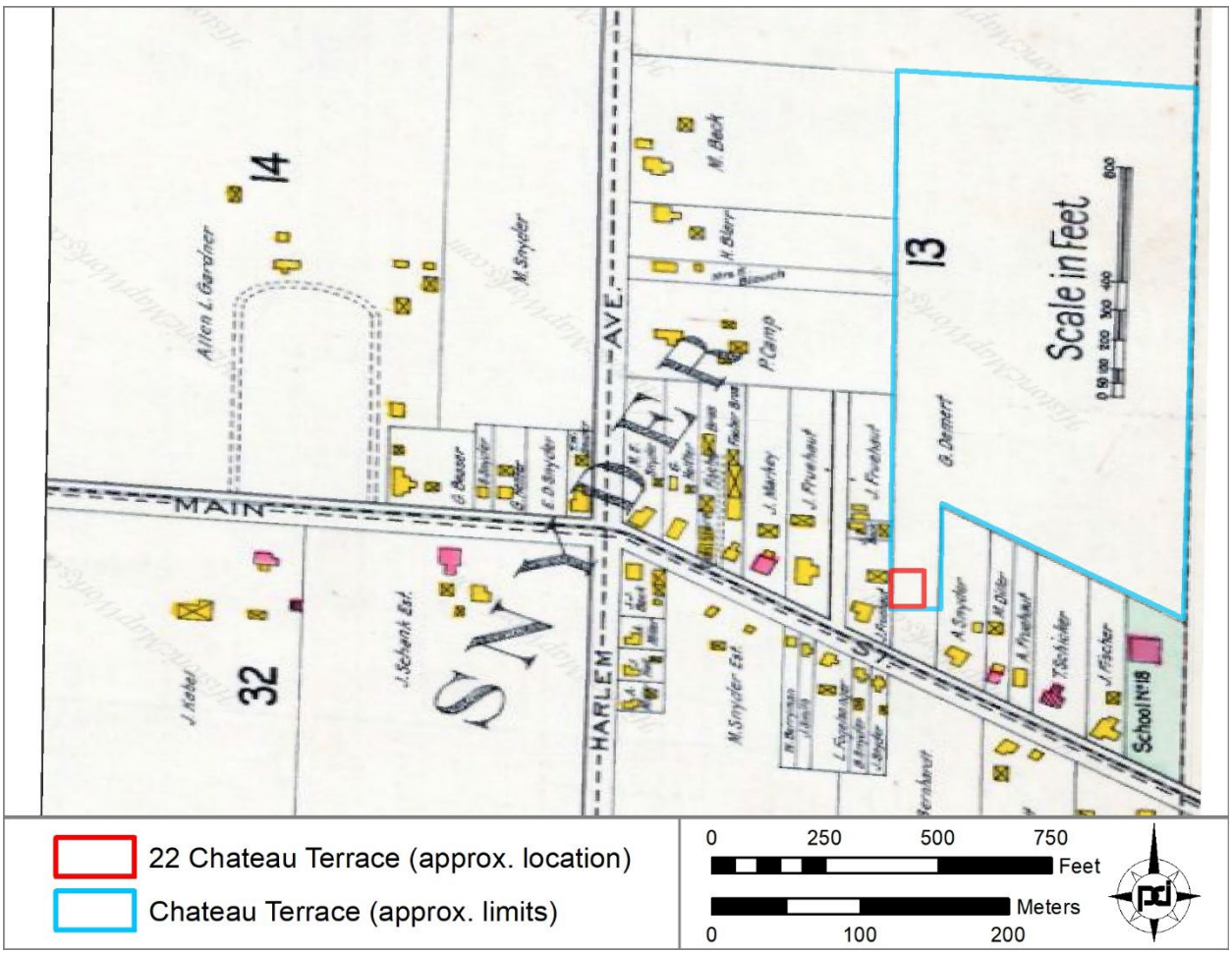

Figure 10. The general location of 22 Chateau Terrace on the 1909 sub-plan of Snyder *(Century Map Co. 1909b).*

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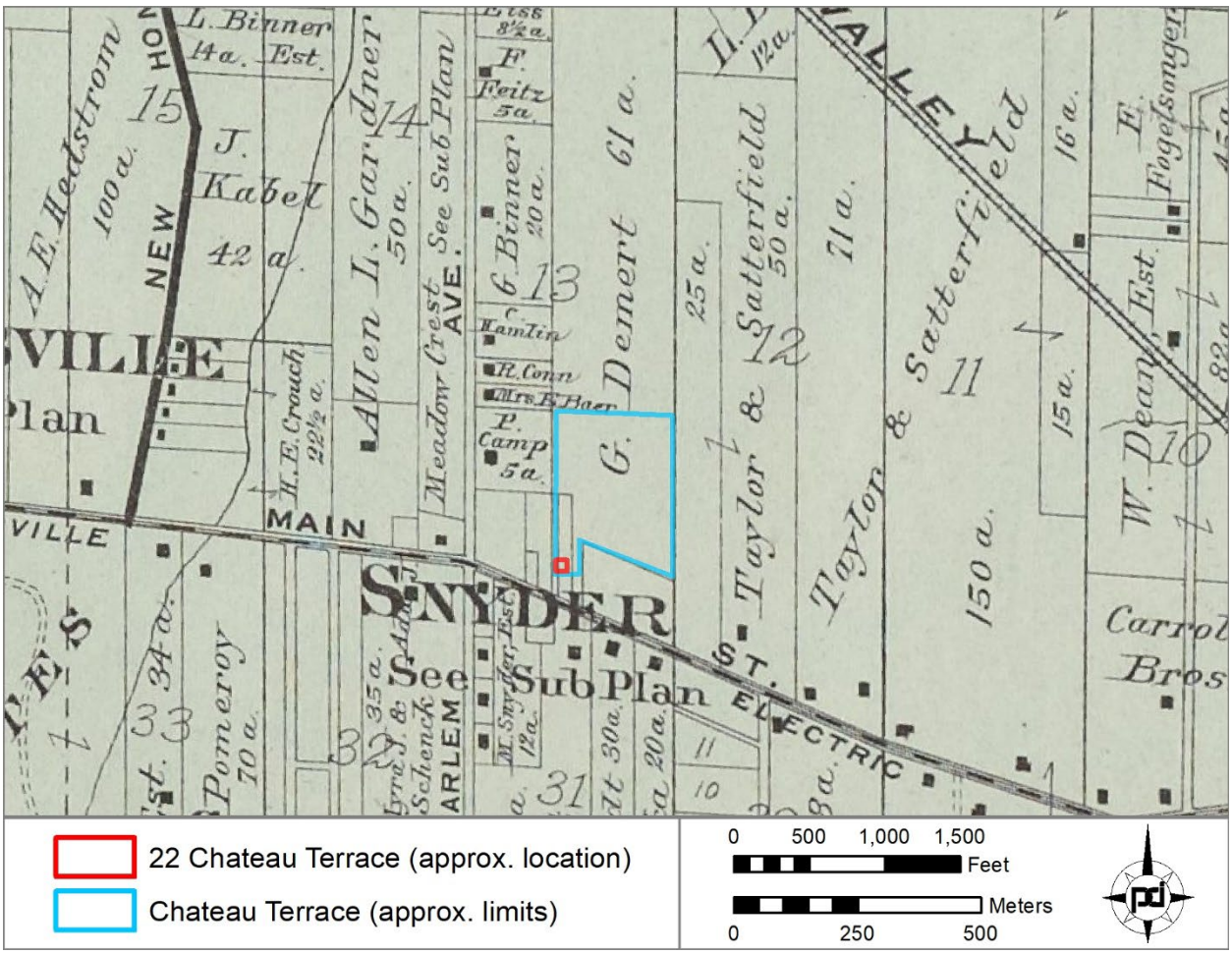

Figure 11. The general location of 22 Chateau Terrace on the 1915 Town of Amherst map *(Century 1915a).*

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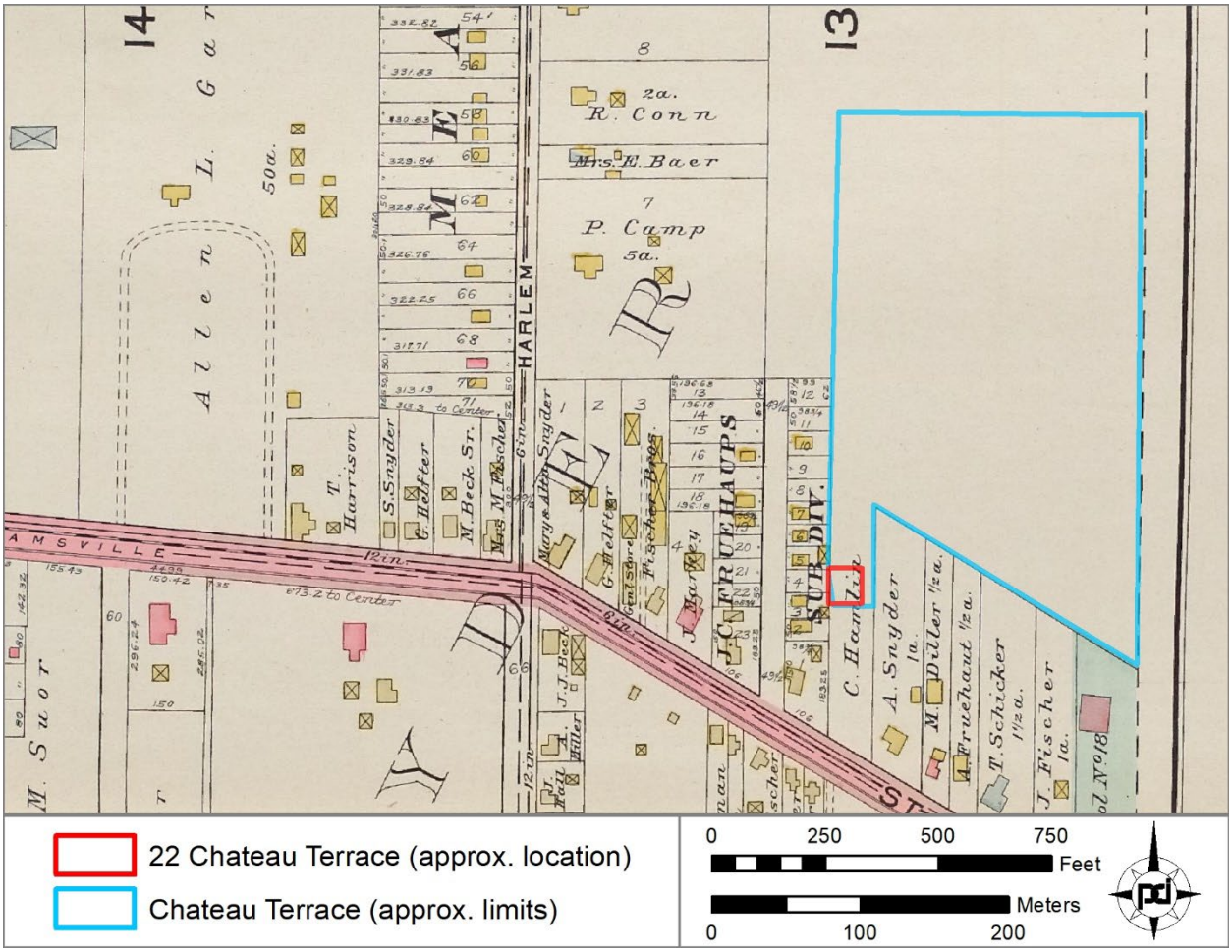

Figure 12. The general location of 22 Chateau Terrace on the 1915 sub-plan of Snyder *(Century 1915b).*

In July 1919, William C.T. Suor and Arthur M. Suor purchased land from Chauncey J. and Emily G. Hamlin for their new College Hill-Chateau Terrace development (Liber 1423 of Deeds, page 240). Louis W. & Josephine E. Ball purchased the parcel at 22 Chateau Terrace on September 1, 1920 (Liber 1555 of Deeds, page 138). The lot was subject to building restriction for a period of 25 years from July 1, 1919. By March 1921, Suor & Suor were listing new homes in the Chateau Terrace development (Buffalo Courier 1921). The house at 30 Chateau Terrace, on the adjacent lot to the north of 22 Chateau Terrace, was advertised with four bedrooms on an 80-foot-wide lot at a list price of $9,000. At 65 Chateau Terrace, the company built a three-bedroom house on a 50-ft by 132-ft lot which listed for $9,500.

By 1923, Chateau Terrace subdivision was platted and sparsely developed with only 13 residences, three of which were on the west side of Chateau Terrace just north of Main Street (Sanborn 1923 [Figure 13]). Individual lot numbers in Chateau Terrace do not appear on the 1923 map. Nos. 22, 30, and 38 Chateau Terrace along the south entrance to the subdivision had been constructed by this time. The Craftsman-style detached garage at 22 Chateau Terrace had yet to be constructed. Roads within the subdivision were 50 ft wide. The Park School campus is documented on the north side of Chateau Terrace for the first time in 1923. By this time, Freuhauf subdivision had acquired additional land extending north to the school property. The properties south of Chateau Terrace South included four dwellings with detached garages and School House No. 18. In 1924, District #18 School moved from the two-story brick schoolhouse to a new location on Harlem Road (Fiddler-Woite 2009:110).

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Charles S. Burkhardt Co., developer of the adjacent Audubon Subdivision, also built homes in Chateau Terrace. In April 1923, Burkhardt advertised two new homes in Chateau Terrace featuring all modern conveniences, garages, and large lots. Ranging in price between $14,000 and $14,500, each house included three bedrooms and tile baths (Buffalo Courier 1923a).

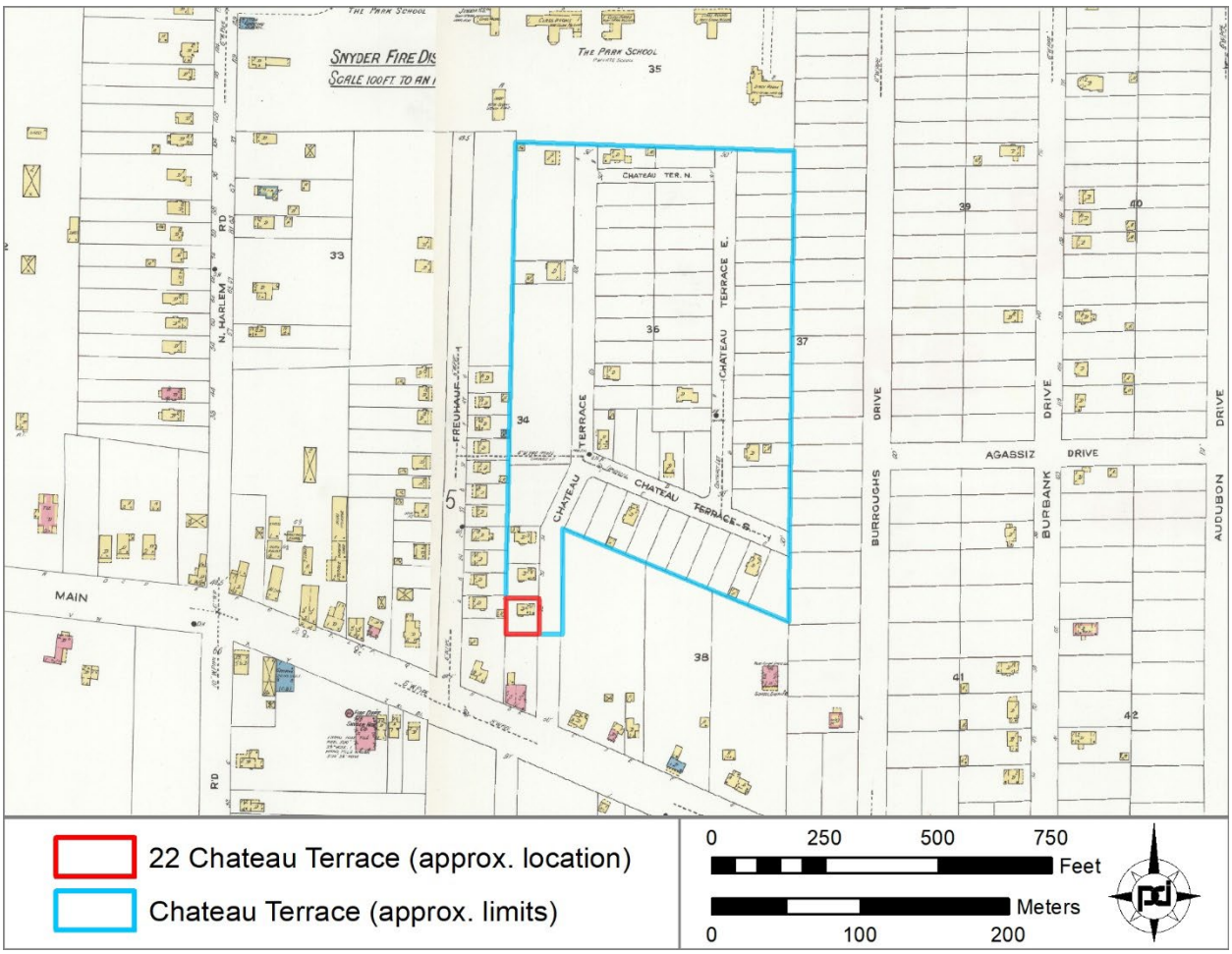

Figure 13. The location and footprint of the house at 22 Chateau Terrace as documented on the 1923 Sanborn Fire Insurance Map *(Sanborn 1923).*

Chateau Terrace was laid out off Main Street serving as the only entrance road to the subdivision. In 1927, Chateau Terrace remained a partially developed subdivision (ECDPW 1927 [Figure 14]). The three residences depicted on the 1923 map on west side of Chateau Terrace, south of the where the road bends, are visible in the aerial photograph. The southernmost of which is 22 Chateau Terrace. By 1932, homes were erected on Chateau Terrace South and Chateau Terrace East along with some construction on Chateau Terrace (KTA 2011: Area 6-9).

On the 1938 map of Snyder, Chateau Terrace consisted of 74 numbered lots. The west side of Chateau Terrace was divided into 20 lots with the lots 1 through 4 located between Main Street and the bend south of Chateau Terrace South (Figure 15). The residence at 22 Chateau Terrace was constructed on Lot #2. The three houses noted on the 1927 aerial had 80 frontages on Chateau Terrace. The other parcels were laid out with 50-ft frontages along Chateau Terrace to the north, the south side Chateau Terrace East, and the south side of Chateau Terrace South. A 1951 aerial view shows additional development in Snyder (Figure 16).

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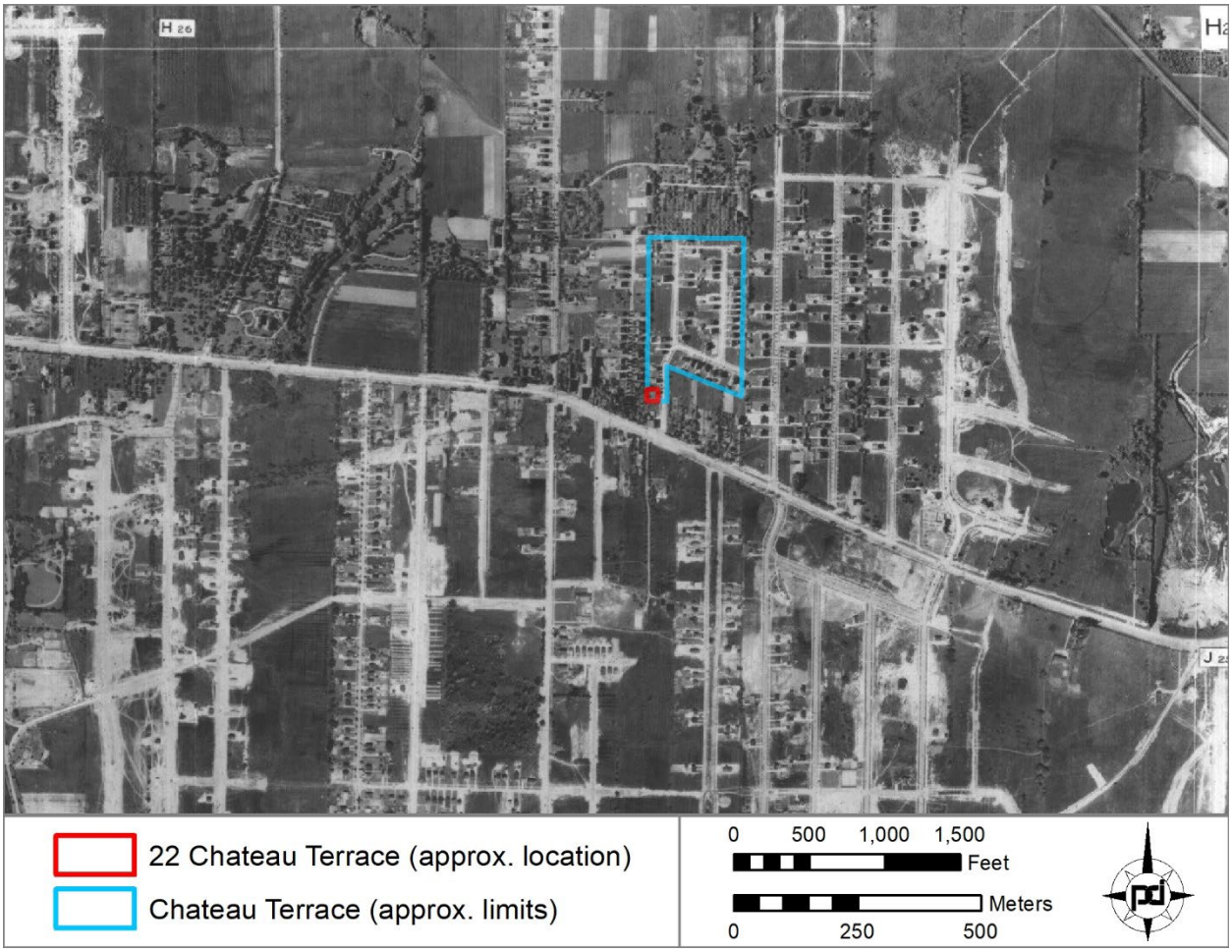

Figure 14. A 1927 aerial view of Chateau Terrace showing residential development in the subdivision and the surrounding area of Snyder *(Erie County Department of Public Works [ECDPW] 1927).*

The former Abram L. Snyder house on the northeast corner of Main Street and Chateau Terrace was demolished in 1957 (Fiddler-Woite 2009:148). A new U.S. Post Office branch (now occupied by the Bornhava school) was erected across the street from 22 Chateau Terrace on the site of the old homestead tract. Willliam C.T. Suor died at 85 years old in January 1959. An editorial on his passing credited the Suor brothers for beginning the trek to the North Buffalo suburbs with their Central Park development and continuing with the suburban development in Snyder (BEN 1959).

Lewis Ball died on August 20, 1968. His widow, Josephine E. Ball, sold the property in July 1971 to Edmund Karnofsky (Liber 7812 of Deeds, page 1). In 1975, the former school building on Main Street was demolished, and the adjacent property to the south of Chateau Terrace was subdivided into parcels (Snyder-Eggertsville Library and Ascension Lutheran Church [Fiddler-Woite 2009:110]). Karnofsky owned the property for 15 years, later selling it to E/K Realty Group LLC in September 2008. The subsequent owner 570 DAB 3 LLC purchased the property in March 2018. Table 1 presents a summary of deed information for Subdivision Lot 2 (22 Chateau Terrace/Parcel B).

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Figure 15. The property at 22 Chateau Terrace in 1938 *(Niagara Frontier Planning Board 1938)*.

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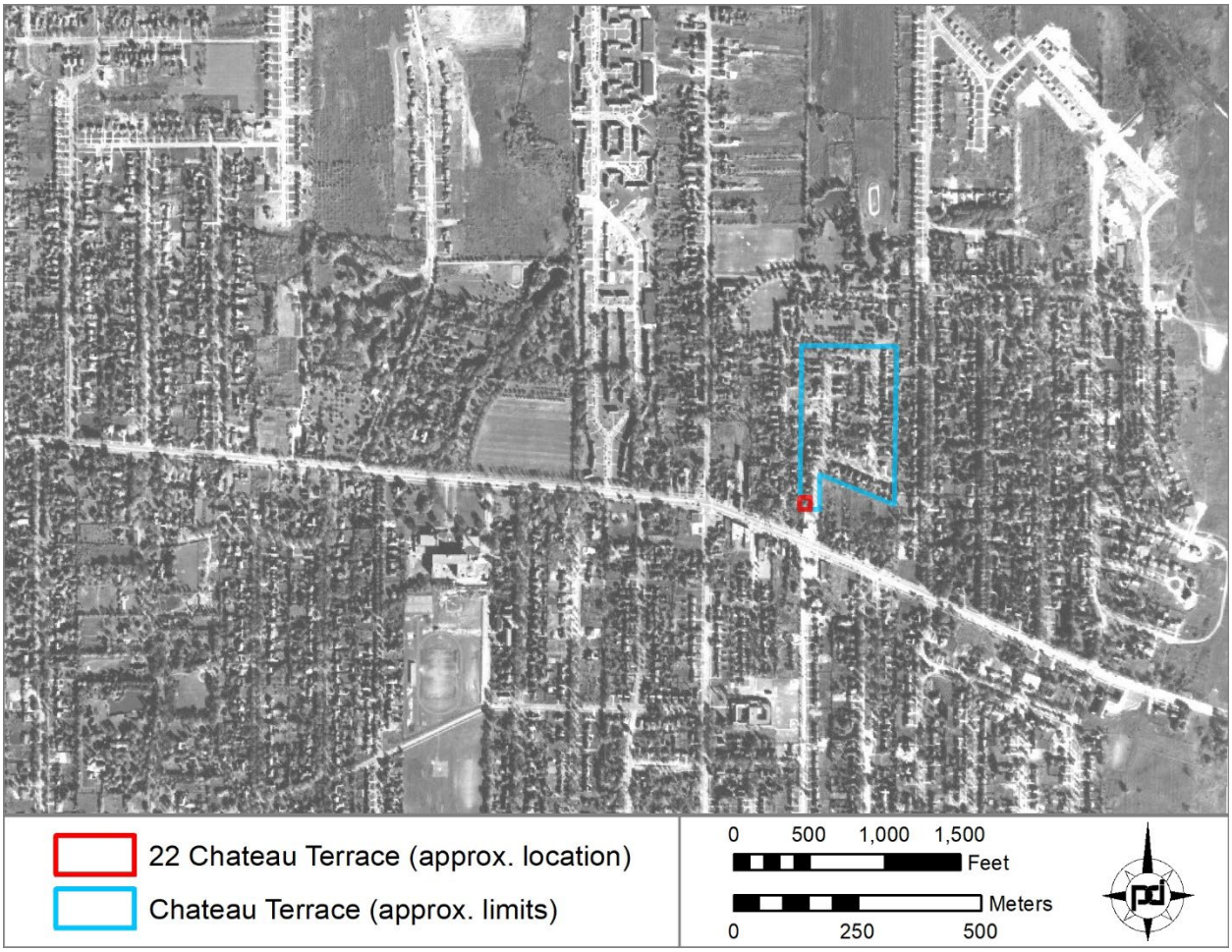

Figure 16. A 1951 aerial view of Chateau Terrace showing residential development in the subdivision and the surrounding area of Snyder *(ECDPW 1951).*

William Charles Taylor Suor and Arthur M. Suor. The Suor brothers were the sons of Charles and Anna (Taylor) Suor (White 1898:439). Their grandfather Joseph Suor was a native of Germany (White 1898:439). Charles Suor operated a wood turning establishment on the corner of Clinton and Oak streets in Buffalo and served as supervisor of the old Eleventh ward (White 1898:439). He died in 1887 when the boys were teenagers.

Arthur M. Suor was educated in public schools and the College of Commerce in Buffalo. He was first employed for three years with the T. C. Tanke's jewelry store and later in the Western Transit Company for a short time. In 1890, he accepted a position with the real estate firm of Thorne & Angell. He was associated with the firm until 1894, when he formed a partnership with his brother, William C. T. Suor (White 1898:439). In 1896, he married Ida Clare Heeb of Buffalo. They had one son, Arthur M., Jr. He was a member of Parish Lodge No. 292, F. & A. M., and of Trinity Lodge, I. O. O. F.

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Table 1. Summary of Deed information: Subdivision Lot 2 (22 Chateau Terrace/Parcel B).

Date	Grantor	Grantee	Notes
n/a	Holland Land Company (Part of Lot #13, Township 12, Range 7)	Michael Shenk	Liber 7 of Deeds, page 48. Conveyed into two parcels East Parcel to Michael Shenk, Jr., Liber 53 of Deeds, page 103. West parcel to John Shenk, Liber 48 of Deeds, page 144.
1852	n/a	n/a	Original survey of Farm Lot 13 by Tobias Witmer, surveyors.
n/a	Michael Shenk, Jr (?)	Philip J. Ferkel	East side of Farm Lot No. 13. According to affidavit by Jacob W. Snyder.
n/a	Philip J. Ferkel	George Demert & Heirs	East side of Farm Lot No. 13. According to affidavit by Jacob W. Snyder.
n/a	George Demert & Heirs	Chauncey J. & Emily G. Hamlin	East side of Farm Lot No. 13. According to affidavit by Jacob W. Snyder.
November 12, 1917	n/a	n/a	Chauncey Hamlin had land surveyed.
July 12, 1919 REC. July 15, 1919	Chauncey J. & Emily G. Hamlin	Wm. C.T. Suor & Arthur M. Suor	Liber 1423 of Deeds, page 240. Subject to easement for water & sewer drainage.
September 1, 1920 Rec. October 7, 1920	Wm. C.T. and Jessie M. Suor & Arthur M. and Ida H. Suor	Louis W. & Josephine E. Ball	Liber 1555 of Deeds, page 138. Subject to building restriction for a period of 25 years from July 1, 1919.
July 1, 1971	Josephine E. Ball as survivor of Lewis W. Ball	Edmund Karnofsky	Liber 7812 of Deeds, page 1 Lewis died August 20, 1968
July 23, 1923 Rec. August 23, 1993	Edmund Karnofsky	New York Telephone Company	Easement. Liber 10727 of Deeds, page 240
August 9, 2008 Rec. Sept. 8, 2008	Edmund Karnofsky	E/K Realty Group LLC	Liber 11149 of Deeds, page 6267
March 16, 2018	E/K Realty Group LLC	570 DAB 3 LLC	Liber 11326 of Deeds, page 9012

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Architectural Summary

Setting. Chateau Terrace on the north side of Main Street east of Harlem Road is nestled between two early-to-mid-twentieth-century residential subdivisions, Freuhauf to the west and Audubon Terrace to the east. Chateau Terrace was laid out to serve as the entrance road for the development. The subdivision was designed with four roads that form a near rectangular-shaped central plan. These include two north-south roads (Chateau Terrace & Chateau Terrace East), one northwest-southeast road (Chateau Terrace South), and one east-west road (Chateau Terrace North). The south end of Chateau Terrace has a bend to the northeast just south of Chateau Terrace South. Street trees were planted throughout Chateau Terrace. Trees lining the entrance road, and the road's winding alignment were designed to provide screening as well as privacy. Chateau Terrace was originally designed with three dead end roads. The north end of Chateau Terrace East is open for access to the Park School of Buffalo Campus. Commercial properties, a school, medical offices, and a public library border the south boundary of the subdivision.

Site. Located on the west side of the street, the single-family residence and detached garage at 22 Chateau Terrace is the first residential property in the subdivision north of Main Street. The parcel measures 80 ft wide by 73.34 ft deep. The house has a narrow 9.77-ft setback and a small, enclosed backyard measuring roughly 22 ft wide by 20 ft deep. A mature 24-inch green ash tree is centered in front of the house on the road verge. Other mature trees include are on the south side of the driveway and along west edge of the parcel. Concrete walkways (2.5 ft-2.6 ft) are on the north and west sides of the house. A low concrete retaining wall stretches across the south property line. Parking lots associated with commercial properties fronting Main Street (Nos. 4558-4560 & 4548) border the south, southwest, and west perimeters of the parcel. Residential properties are adjacent to the north (20 Chateau Terrace) and northwest (23 Fruehauf).

Description of Exterior. The residence at 22 Chateau Terrace is a frame, two-story Craftsman-style building with a front-gabled roof with asphalt shingles, stucco exterior, wood belt course, and stone foundation. It has a rectangular plan and measures approximately 24.20 ft wide by 40.66 ft deep. Window openings are single, paired, and triple groupings. These openings feature simple molded wood surrounds and wood double-hung sash (1/1 and 9/1). Original basement windows have two lights.

The east façade has an enclosed entry porch with a wood stoop in the north bay, a one-story sunroom with a low-pitched gabled roof, and a triple window grouping with bracketed pent. The entrance door features six lights over two lights and two panels. It is flanked by sidelights of four over one, a wood panel, and a single corner pilaster. Six lights over one light windows are on the north side of the entry porch. Stylistic details include wide overhanging eaves with single triangular knee brackets, beveled windows, and paneled and glazed doors.

Exterior alterations include a few replacement windows, a replacement wood rail on the front stoop, and asphalt roofing shingles.

Description of Interior. The open first-floor layout consists of a sunroom, dining room, living room, kitchen, and basement/side entrance hall. Three bedrooms, a bathroom, and a hall closet are on the second floor. It has an unfinished basement. The interior has painted plaster walls. Floor finishes include carpeting, hardwood, linoleum, and tile. Hardwood floors are covered on the first floor and primary bedroom. Interior windows are accented with simple wood trim. Extant interior doors are wood with six panels.

The living room has a central brick fireplace with a wood mantel supported by three brick corbels, built-in wood shelving, and Craftsman-style staircase (quarter turn stairs) with corner pier along the north wall. The Craftsman-type living room entrance door has a single panel and four lights. An original push button switch panel is on right side of front door. A Craftsman-type beveled glass window is in the north wall of the living room and west wall of the dining room. Original wooden baseboards and metal baseboard registers are

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intact. The kitchen has built-in cabinets. Original cabinet doors have been removed from the upper cabinet shelves on the west wall and a new sink with cabinets has been installed on the east wall. The side entrance/ basement hall is on the north side of the house.

The primary bedroom on the second floor is in the upper front (east) of the house. It features two closets and window seat. The other two bedrooms have a single window and closet. The bathroom retains its white hexagonal floor tile, built-in closet, and built-in medicine cabinet.

The basement retains its original door and wood stairs. It has exposed stone walls and a row of built-in cabinets along the west wall. The chimney has a basement clean.

Interior alterations include the following: removal of portions of built-in kitchen cabinets and sink; removal of original light fixtures; drop ceiling in the dining room; new kitchen flooring; removal of a few original doors; and removal of original bathroom sink and tub.

Garage. A detached, frame, two-bay Craftsman-style garage is on the southwest side of the house. The 3.66.5 sq ft garage (18.35 ft wide by 20.15 ft deep) has a hipped roof with overhanging eaves, and asphalt roof shingles, and wood exterior siding. Garage doors feature multiple pane fixed windows and wood panels. The garage is presently structurally unstable. A section of the roof has partially collapsed on the south slope (Photograph 14 in Appendix A).

Conclusions

The ca. 1920 residence with garage at 22 Chateau Terrace does not appear to meet the State/National Register of Historic Places (S/NRHP) criteria for individual eligibility. Though the building retains much of its original materials and stylistic elements, it is a representative example of a modest single-family home type constructed in the first quarter of the twentieth century in Buffalo and suburban neighborhoods. Previous historic resources surveys have also identified the building at 22 Chateau Terrace as not individually eligible for listing on the S/NRHP (Bero 1997; KTA 2011), but instead they recommended the property as a contributing resource to a Chateau Terrace Historic District (Chateau Terrace Study Area in CRIS). Note, Chateau Terrace was not included in the NRHP Multiple Documentation Form for Multiple Resources Associated with the Suburban Development of Buffalo.

As previously recognized in the historic resources survey, Chateau Terrace Study Area is historically significant at the local level for its association with the suburban development of the Town of Amherst during the early to mid-twentieth century. A S/NRHP eligibility assessment for the entire Chateau Terrace Study Area is beyond the scope of this documentation report. Further survey work and documentation of the neighborhood, as well as additional research, would be required to provide an informed S/NRHP recommendation for Chateau Terrace Study Area. The NRHP Multiple Documentation Form for *Multiple Resources Associated with the Suburban Development of Buffalo, New York* (2015) and guidance provided in *Historic Residential Suburbs Guidelines For Evaluation And Documentation For The National Register Of Historic Places* (Ames and Flint 2002) would also need to be applied for an NRHP eligibility recommendation.

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Appendix A

Photographs

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22 CHATEAU TERRACE: EXTERIOR VIEWS



1. **Setting view of 22 Chateau Terrace, facing northwest** *(Commonwealth 2022).*



2. **Setting view along Chateau Terrace (Nos. 22, 30, and 38) looking toward Main Street, facing southwest** *(Commonwealth 2022).*

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3. Oblique view of south and east elevations, facing west-northwest *(Commonwealth 2022).*



4. Direct view of east elevation, facing west *(Commonwealth 2022).*

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5. Oblique view of east and north elevations, facing southwest *(Commonwealth 2022).*

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



6. Detail view of front entrance, facing west *(Commonwealth 2022).*

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



7. Detail view of brackets and eaves, facing northwest *(Commonwealth 2022).*

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8. Detail view of entrance on north elevation, facing southeast *(Commonwealth 2022).*

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9. Direct view of west elevations of the house and garage, facing southeast *(Commonwealth 2022).*

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10. Oblique, partial view of the west elevation facing northeast *(Commonwealth 2022).*

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11. View of backyard and north elevation of the garage, facing south *(Commonwealth 2022).*



12. Direct view of south elevation, facing north *(Commonwealth 2022).*

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13. Direct view of north elevation of garage, facing west *(Commonwealth 2022).*



14. Direct view of south elevation of garage, facing west *(Commonwealth 2022).*

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22 CHATEAU TERRACE: INTERIOR VIEWS



15. Detail of vestibule showing original front door, facing northeast *(Commonwealth 2022).*

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16. View of first floor living room, facing southeast *(Commonwealth 2022).*



17. View of living room looking toward the dining room at left and kitchen at right, facing west *(Commonwealth 2022).*

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18. View of living room looking toward built-in shelves and stairs, facing northwest *(Commonwealth 2022).*



19. View of living room looking toward front entrance, sunroom, and metal baseboard register, facing northeast *(Commonwealth 2022).*

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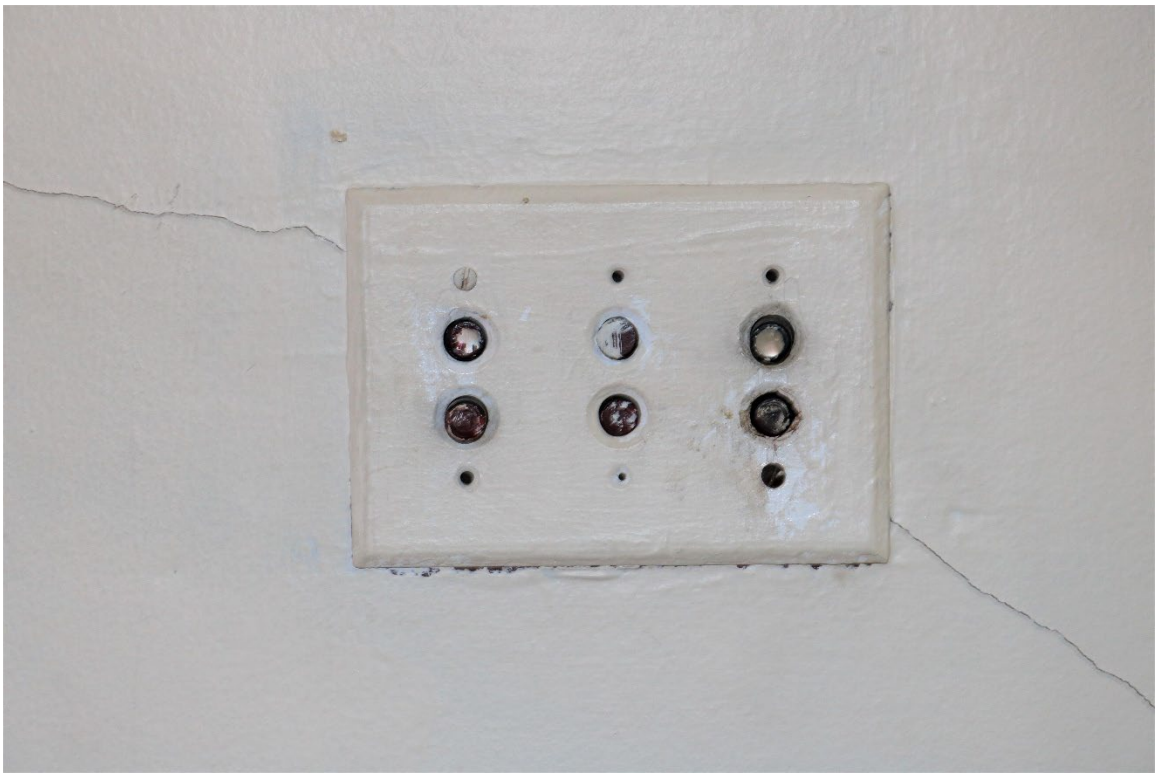

20. Detail of push button switches on right side of front door, facing east *(Commonwealth 2022).*



21. View of first floor sunroom, facing south *(Commonwealth 2022).*

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22. View of dining room, facing west *(Commonwealth 2022).*



23. View of dining room with living room and sunroom in background, facing east-northeast *(Commonwealth 2022).*

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24. View of east wall of first floor from dining room, facing southeast

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25. View of kitchen doorway from dining room, facing north *(Commonwealth 2022).*

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26. View of west wall in kitchen, facing northeast *(Commonwealth 2022).*

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27. View of built-in kitchen cabinets on west wall of kitchen, facing northeast *(Commonwealth 2022).*

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



28. View of east wall in kitchen, facing east *(Commonwealth 2022).*

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29. **View of side entrance hall with basement door at right, facing north** *(Commonwealth 2022).*

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30. View of staircase to second floor, facing west *(Commonwealth 2022).*

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31. **View of 2nd floor hall from staircase landing with bathroom at left and closet at right, facing south** *(Commonwealth 2022).*

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32. View of master bedroom on second floor, facing southeast *(Commonwealth 2022).*



33. View of master bedroom on second floor, facing southwest *(Commonwealth 2022).*

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34. View of west wall in master bedroom on second floor, facing west *(Commonwealth 2022).*

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



35. View of second floor bathroom, facing southeast *(Commonwealth 2022).*

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



36. View of second floor bathroom, facing southwest *(Commonwealth 2022).*

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



37. View of southwest bedroom on second floor, facing west *(Commonwealth 2022).*



38.Detail of wood floor in southwest bedroom on second floor *(Commonwealth 2022).*

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39. View of northwest bedroom on second floor, facing northwest *(Commonwealth 2022).*

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



40. View of northwest bedroom on second floor, facing southeast *(Commonwealth 2022).*

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41. Detail of basement stairs, facing northwest *(Commonwealth 2022).*

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42. View of basement, facing south *(Commonwealth 2022).*



43. Detail of west basement wall, facing southwest *(Commonwealth 2022).*

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44. View of basement, facing north *(Commonwealth 2022).*

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



45. View of basement, facing west-northwest *(Commonwealth 2022).*

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SRF ASSOCIATES
Transportation Planning / Engineering / Design

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

(585) 272-4660
www.srfa.net

Mr. Matt Oates, P.E.
Director, Engineering
Benderson Development
570 Delaware Avenue
Buffalo, New York 14202

July 30, 2021

RE: Proposed Mixed-Use Project, 4548-4564 Main Street, Town of Amherst, NY
Traffic Engineering Assessment Letter

Dear Mr. Oates:

The purpose of this technical letter is to provide a traffic engineering assessment related to the proposed mixed-use project located at 4548-4564 Main Street in the Town of Amherst, NY for informational purposes and to understand the possible traffic impacts resulting from the proposed project. The concept site plan, figures, and supporting data are included in the attachments. This letter evaluates:

- Projected trip generation estimates and discusses the thresholds for completing a Traffic Impact Study (TIS).
- Southbound queuing on Fruehauf Avenue during the AM and PM peak periods.
- Sight line evaluation at the Main Street/Fruehauf Avenue intersesction.

PROJECT DESCRIPTION

The proposed project consists of developing 57 units of one and two-bedroom apartment units, a ±3,628 square foot (SF) quality restaurant, and a ±3,137 SF fast casual restaurant in a three-story building. Access is provided via two full access driveways: one along Chateau Terrace which accesses a parking lot with 50 spaces and one along Fruehauf Avenue which accesses a parking lot with 20 spaces. Chateau Terrace is posted as a "No Outlet" street while Fruehauf Avenue is posted as a "Dead End" street. On-street parking is available along Main Street. Sidewalks are present throughout the adjacent neighborhood.

TRIP GENERATION

Data contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition) was used to project the volume of the traffic generated by the proposed project. Data published by the ITE is the nationally accepted standard for generating trips for new uses. Given the functional characteristics of the corridors and the land uses proposed for the site, the peak hours selected for analysis are the weekday morning (AM) and weekday evening (PM) peak periods. The combination of site traffic and adjacent street traffic produces the greatest demand during these peak periods.

The proposed project as depicted on the site plan consists of two different land uses (residential and restaurant) and is considered mixed-use (multi-use). According to the Institute of Transportation Engineers Trip Generation Handbook (3rd Edition), "…a multi-use development is typically a single real-estate project that consists of two or more ITE land use classifications between which trips can be made without using the off-site road system. Because of the nature of these land uses, the trip-making

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characteristics are interrelated, and some trips are made among the on-site uses. This capture of trips internal to the site has the net effect of reducing vehicle trip generation between the overall development site and the external street system (compared to the total number of trips generated by comparable, standalone sites)." "In some multi-use developments, these internal trips can be made by walking or by vehicles entirely on internal pathways or internal roadways without using streets external to the site."

The Handbook indicates internal capture rates for trips within a multi-use development to vary between residential, office, retail, restaurant, and entertainment and recreational uses during the AM and PM peak hours. Given the proposed land use components and interconnection between these components, multi-use total volume trips will likely occur.

Methodology contained in National Cooperative Highway Research Program (NCHRP) Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Development was consulted to perform the mixed-use adjustment. The NCHRP 684 model reported an internal baseline capture percentage of 0% during the AM peak hour and 10% during the PM peak hour.

These multi-use trip projection adjustments were applied to the respective site generated trips and subtracted from the traffic entering and exiting the site during the PM peak period. The internal capture calculation considers baseline mode shares and vehicle occupancy factors for the proposed land uses, as described in the Handbook.

For certain types of developments, the total number of trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Service/retail-oriented developments (i.e., shopping centers, gas stations, coffee/donut shops, and restaurants) often locate adjacent to busy streets to attract the motorists already passing the site on the adjacent street. These sites attract a portion of their trips from traffic passing the site. The "pass-by" traffic refers to the amount of existing traffic already on the roadway adjacent to the site that, as it "passes by" the site, will enter the site driveways to patronize the project site. The quantifying of "pass-by" trips has the net result of reducing the volume of new traffic that is added to the site driveways and/or adjacent roadways.

This site is likely to exhibit some level of pass-by traffic. The ITE Trip Generation Handbook (3rd Edition) was used as a reference to determine pass-by rates. For quality restaurants, the ITE data reports a range of rates during the PM peak period from 26% to 82% with an average pass-by rate of 44%. No data is available for the AM peak period. To remain conservative, this study used a 20% pass-by rate during the PM peak period.

The ITE does not have data for fast casual restaurants. Therefore, fast food restaurants with drive-thru was considered a comparable use. The ITE data reports a range of rates during the PM peak period from 25% to 71% with an average pass-by rate of 50%. To remain conservative, this study used a 20% pass-by rate during the PM peak period.

Table 1 shows the total site generated trips for the peak hours of study with the pass-by trip adjustment.

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TABLE 1: SITE GENERATED TRIPS AND ADJUSTMENTS

DESCRIPTION	ITE LUC	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Multi-family Residential	220	57 units	6	22	23	13
Quality Restaurant	931	±3,628 SF	1	1	19	9
Fast Casual Restaurant	930	±3,137 SF	4	2	24	20
Sub-Total Trips			**11**	**25**	**66**	**42**
Mixed-Use Adjustment			*0*	*0*	*-5*	*-5*
Sub-Total Driveway Trips			**11**	**25**	**61**	**37**
Pass-by Adjustment			*0*	*0*	*-9*	*-6*
Total Primary (New) Vehicle Trips			**11**	**25**	**52**	**31**

Note:
1. ITE LUC = ITE Land Use Code.

Prior to considering mixed-use and pass-by adjustments, the proposed project is expected to generate 11 entering/25 exiting vehicle trips during the AM peak hour and 66 entering/42 exiting vehicle trips during the PM peak hour. When considering ITE published mixed-use and pass-by trip rates and our professional judgement, the proposed project is expected to generate the following new vehicle trips: 11 entering/25 exiting vehicle trips during the AM peak hour and 52 entering/31 exiting vehicle trips during the PM peak hour.

TRIP DISTRIBUTION

The cumulative effect of site-generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the driveways serving the site. The proposed arrival/departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Commercial/employment and residential centers in the area using US Census Data (e.g., OnTheMap).
- Site access locations.
- Hourly traffic patterns using most recent available Annual Average Daily Traffic (AADT) data obtained from the New York State Department of Transportation (NYSDOT) along Main Street.
- Turning movement counts using the most recent available data obtained from the Greater Buffalo-Niagara Regional Transportation Council (GBNRTC) at the intersections of Main Street/Chateau Terrace/Bernhardt Drive and Main Street/Lamarck Drive/Livingston Parkway.
- Existing traffic controls.

Figure 1 shows the anticipated trip distribution pattern percentages for the traffic from the proposed project for the residential program while Figure 2 illustrates the trip distribution for the restaurant program. Figure 3 illustrates the residential peak hour site generated traffic based on the percentages in Figure 1. Figures 4-5 illustrate the restaurant peak hour site generated traffic based on the percentages in Figure 2 for the project's primary and pass-by trips, respectively. Figure 6 illustrates the total site generated trips. The roads anticipated to be used by the additional trips generated by the proposed project are listed in Table 2.

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To remain conservative, all site generated traffic was assumed to enter and exit the site via the proposed driveways along Fruehauf Avenue and Chateau Terrace. A portion of site visitors may use available on-street parking along Main Street (notably the restaurant patrons); thus, reducing the projected number of vehicle trips entering and exiting Fruehauf Avenue and Chateau Terrace.

TABLE 2: EXISTING HIGHWAY SYSTEM

ROADWAY[1]	CLASS[2]	AGENCY[3]	SPEED LIMIT[4]	# OF TRAVEL LANES[5]	TRAVEL PATTERN	EST. AADT[6] & SOURCE[7]
Main Street (NY-5)	14	NYSDOT	40	4	Two-way/ East-West	21,436 NYSDOT (2019)
Chateau Terrace	19	Town	30	2	Two-way/ North-South	No Data Available
Fruehauf Avenue	19	Town	30	2	Two-way/ North-South	No Data Available

Notes:
1. Route Name and Number.
2. State Functional Classification of Roadway: 14 = Urban Principal Arterial, 19 = Local.
3. Jurisdictional Agency of Roadway.
4. Posted or Statewide Limit in Miles per Hour (mph).
5. Excludes turning/auxiliary lanes developed at intersections.
6. Estimated AADT in Vehicles per Day (vpd).
7. AADT Source (Year).

THRESHOLDS FOR THE REQUIREMENT OF A TRAFFIC IMPACT STUDY

Many reviewing agencies, including the NYSDOT and Erie County Department of Public Works (ECDPW), use a guideline in determining whether a project warrants the preparation of a Traffic Impact Study (TIS). The applicable guideline is that if a proposed project is projected to add 100 or more site generated vehicles per hour (vph) to an adjacent intersection during either peak study period, then that intersection should be studied for potential traffic impacts.

Based upon the ITE trip generation projections and the resulting traffic assignment estimates shown in Figure 6, the projected new vehicle trips are added to the following intersections during the AM and PM peak hours:

- Main Street/Chateau Terrace/Bernhardt Drive: 29 (58)
- Main Street/Fruehauf Drive: 23 (83)
- Fruehauf Drive/Proposed Driveway: 14 (80)
- Chateau Terrace/Proposed Driveway: 22 (33)

Given that fewer than 85 peak hour trips are added to a single intersection during the peak hours studied, a TIS is not warranted.

PEAK HOUR QUEUING ASSESSMENT

A peak hour queuing assessment was performed along Fruehauf Avenue during the AM and PM peak hours to measure the frequency of southbound vehicles that block the proposed driveway. The centerline of the proposed driveway is located approximately 38 feet from the stop bar. Given this distance, the driveway is located approximately 1.7 vehicle lengths from the stop bar.

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Our firm documented southbound queues at the intersection of Main Street/Fruehauf Avenue on Thursday, July 22, 2021, from 7:00-9:00 AM and 4:00-6:00 PM. The peak hours generally occurred from 8:00-9:00 AM and 4:30-5:30 PM. Based on this field investigation during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

SIGHT LINE EVALUATION

Based upon a review of the attached site plan, the proposed building is projected to be built in approximately the same footprint as the existing structures fronting Main Street. There is a marked stop bar for traffic exiting Fruehauf Avenue.

In this case, the primary concern is with the proposed building at the existing Main Street/Fruehauf Avenue intersection. The attached figure illustrates the sight line evaluation performed at the intersection to the east of the intersection.

Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection. Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions.

A Policy on Geometric Design of Highways and Streets (2011) published by the American Association of State Highway and Transportation Officials (AASHTO), was used as a reference to establish the required Stopping Sight Distance (SSD) and desirable Intersection Sight Distance (ISD) for the adjacent driveway location. Table 3 depicts the results of the sight distance evaluation at the Main Street/Fruehauf Avenue intersection.

TABLE 3: SIGHT LINE EVALUATION

DESCRIPTION		VALUE
POSTED SPEED		40 MPH
DESIGN SPEED[1]		45 MPH
REQUIRED SSD		360 feet
DESIRABLE ISD		500 feet
AVAILABLE SIGHT DISTANCE TO THE EAST	*SSD*	>360 feet
	ISD	385 feet (no vehicles) 145 feet (parked vehicles)

Note:
1. Design speed equals posted speed plus 5 MPH.

The required SSD is satisfied to the east of the study intersection. However, the desirable ISD is not satisfied. The existing and proposed ISD sight distance will be the same and the proposed building will not impact the existing sight distance.

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It is noted that the intersection is in an urbanized area with numerous side roads where drivers expect traffic to be entering and exiting. Further, the intersection is located downstream of the signalized intersection of Main Street/Chateau Terrace/Bernhardt Drive and motorists turning out of Fruehauf Avenue will be afforded gap opportunities when the Main Street approaches are in the red phase. As this distance is not satisfied, potential relief consists of installing intersection warning signage for westbound traffic.

CONCLUSIONS AND RECOMMENDATIONS

The following sets forth the findings and recommendations of this assessment:

1. When considering ITE published mixed-use and pass-by trip rates and our professional judgement, the proposed project is expected to generate the following new vehicle trips: 11 entering/25 exiting vehicle trips during the AM peak hour and 52 entering/31 exiting vehicle trips during the PM peak hour.

2. Given the projected site traffic distribution, it is our firm's professional opinion that the adjacent intersections and surrounding roadway network will not experience significant adverse traffic impacts. Given these conditions, no further study is warranted nor recommended at this time.

3. Based upon documentation of southbound queues at the intersection of Main Street/Fruehauf Avenue during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

4. Based upon a sight line evaluation at the Main Street/Fruehauf Avenue intersection, the required SSD is satisfied to the east. However, the desirable ISD is not satisfied. The existing and proposed ISD sight distance will be the same and the proposed building will not impact the existing sight distance. As this distance is not satisfied, potential relief consists of installing intersection warning signage for westbound traffic.

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
SRF Associates, D.P.C.

David Kruse, AICP, PTP
Transportation Planner

Attachments

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

ATTACHMENT

July 30, 2021

Letter to
Mr. Matt Oates, P.E.
Benderson Development

Proposed Mixed-Use Project
4548-4564 Main Street

Traffic Engineering Assessment

Town of Amherst
Erie County, New York

SRF ASSOCIATES

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN .
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:

- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed landscape
- Proposed Concrete Pavement
- Proposed Heavy Duty Pavement

* All curb radii are 3ft unless noted.
* Refer to General Notes, Concstruction Details and Architectural Plans for Concrete Sealer information.

TOWN OF AMHERST, NY ZONING ANALYSIS

	REQUIRED	PROVIDED	REQUIRED	PROVIDED
ZONED	TI-2.5 (General Frontage)	TI-2.5 (General Frontage)	TI-4 (General Frontage)	TI-4 (General Frontage)
SITE ACREAGE	-	0.93 Acres	-	0.93 Acres
MAX. BUILDING HEIGHT	35' (2.5 STORY)	45' (3 Story, exc basement)	45' (4 STORY)	45' (3 Story, exc basement)
MAX. BUILDING LENGTH				
- PRIMARY STREET	200' max	185.64'	200' max	185.64'
- SIDE STREET	150' max	238.45' / 168.82'	150' max	238.45' / 168.82'
MIN. LOT AREA	0 sqft	40,409 sqft	0 sqft	40,409 sqft
MIN. LOT WIDTH	0'	185.64'	0'	185.64'
OUTDOOR AMENITY SPACE	10% min. (4,041 sqft)	10.3% (4,150 sqft)	10% min. (4,041 sqft)	10.3% (4,150 sqft)
- LANDSCAPING	25% min. (1,038 sqft)	31.9% (1,324.9 sqft)	25% min. (1,038 sqft)	31.9% (1,324.9 sqft)
- SEATING	1/500 sqft (9 seats)	9 Seats	1/500 sqft (9 seats)	9 Seats
ALLEY	5' min.	0'	5' min.	0'
LOT FRONTAGE:				
- PRIMARY STREET	75% min.	100%	75% min.	100%
- SIDE STREET (Frue / Chat)	40% min.	84.4% / 88.4%	40% min.	84.4% / 88.4%
STREET FACING ENTRANCES & DISTANCES BETWEEN	Side Street. (N/A)	-	Side Street. (N/A)	-
- PRIMARY STREET	50' max.	< 50'	50' max.	< 50'
- SIDE STREET	75' max.	N/A	75' max.	N/A
CLEAR PEDESTRIAN ZONE	6' min.	10.33' Total - Existing Condition	6' min.	10.33' Total - Existing Condition
CURB ZONE (Curb Face to Pedestrian Zone)	6' min.		6' min.	
BUILDING SETBACKS:				
FRONT STREET	0'min./10'max.	0.3'	0'min./10'max.	0.3'
ALLEY	5'	N/A	5'	N/A
COMMON LOT LINE	0'	31.2'	0'	31.2'
SIDE STREET	0'min./20'max.	2.5' / 0.0'	0'min./20'max.	2.5' / 0.0'
PARKING / ROAD SETBACKS:				
FRONT STREET	20' min.	N/A	20' min.	N/A
ALLEY	5'	N/A	5'	N/A
COMMON LOT LINE	0'	1.7'	0'	1.7'
SIDE STREET	10' min	N/A	10' min	N/A

PROPOSED PARKING ANAYLSIS TI-2.5

USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	6,765 sqft / 1000 x 4 = 28 SPACES	
RESIDENTIAL (Upper-story)	1.0 per 1&2 bed dwelling unit	1.0 x 57 (1&2 Bed) = 57 SPACES	
		Total: 85 SPACES	70 SPACES
STALL SIZE		9'x19'	9'x19'

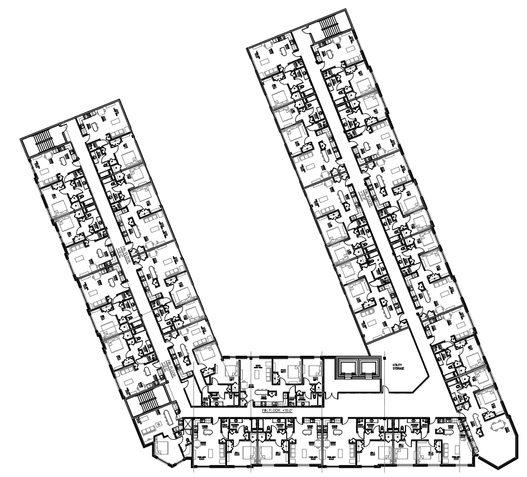
RESTAURANT: 3,628 S.F. + 3,137 S.F.

Note: Amherst Code §6-2-6 Residential Use Standards; allows for "Parking to be shared with ground floor uses, where appropriate."

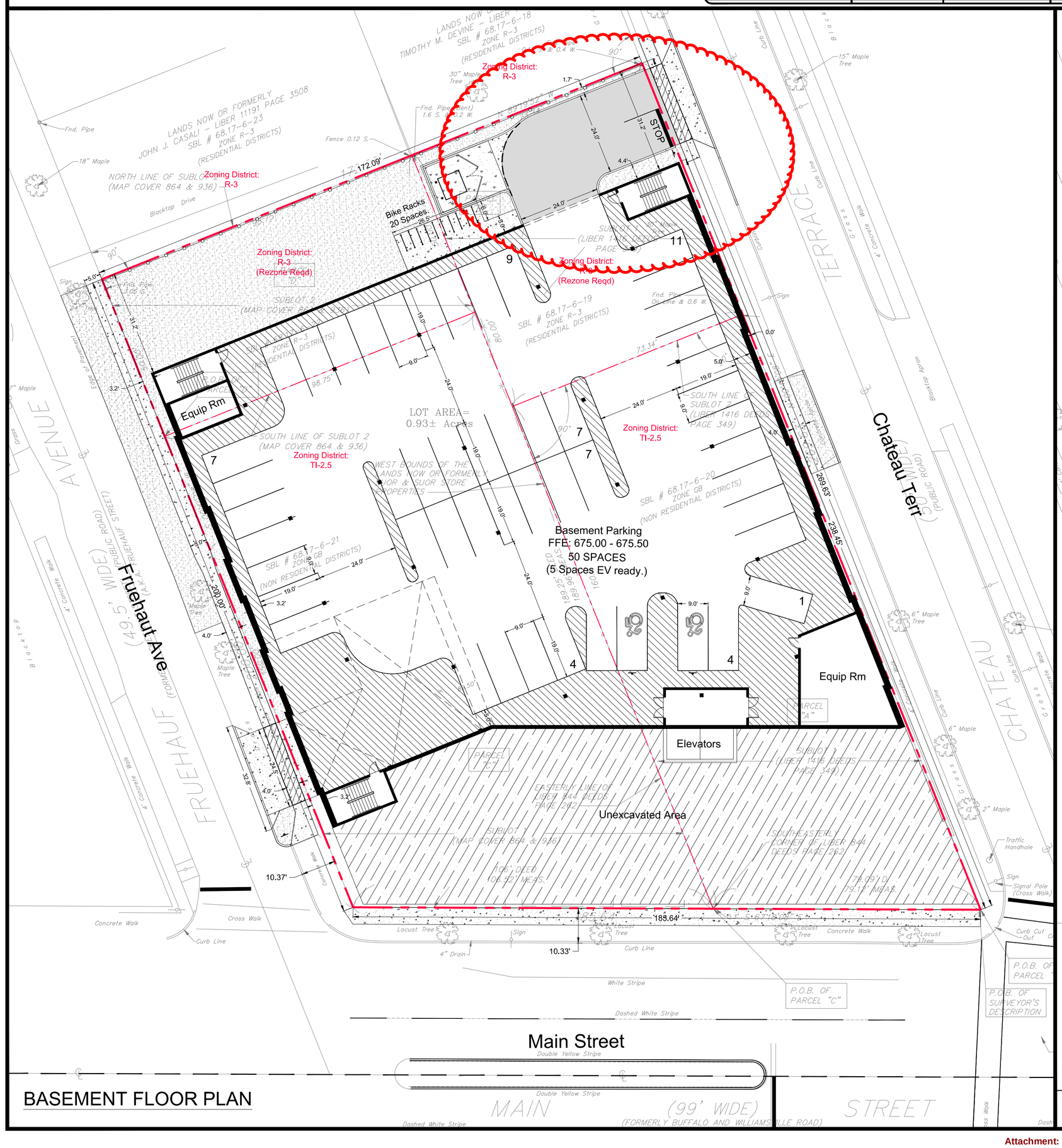
NB:
℄ = Measurement from a Center Line
Curb Island Dimensions are measured from the inside of curb.

MIXED USE DISTRICTS (TI-2.5/TI-4):

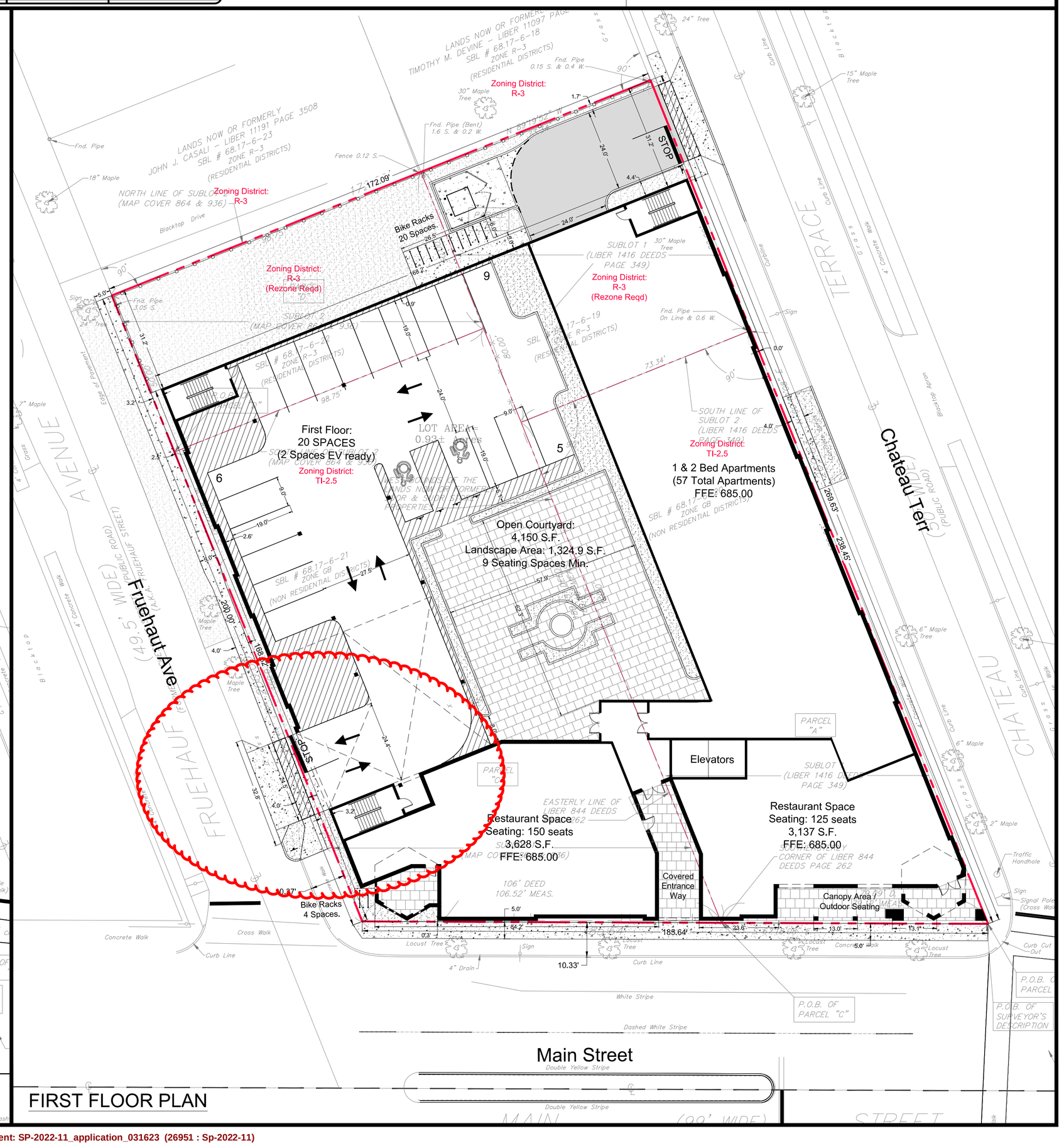
1) Need bicycle parking no more than 100 feet from primary entrance, visible, 0.5 spaces per unit (20max) and 1 per 3000sqft min of retail spaces (20 max). Required: 20 Bike Racks Apartments, 3 Bike Racks Restaurant, Proposed 24 Bike Rack Spaces.
2) Need 10% of parking spaces to be EV ready, with min. 2 EV ready spaces for all parking lots over 20 spaces. (Conduit to be laid ready to connect power in advance). 7 Total Spaces Required. Proposed 7 Spaces.
3) Story Height: Ground Floor Elevation: Residential 2' min./5' max.Non Resi - 0' min./2'max
   Ground Story Height: Resi: 9' Min. NonResi: 13' min, Upper Story: 9' min,
4) Transparency: Ground Story: 50% min (Primary) 30% (Side Street
   Upper Story: 20% min. (Primary and Side)
   Blank Wall Length: 20' max. (Primary) 30' max.(Side)
5) Street Facing Entrance: Required (Primary) N/A (Side).
6) Tree Spacing (Within Curb Zone) 35' on average.
7) 3 Story - exc. Basement Parking (44'-9 3/4") - (4 story at rear with basement lvl 52'-2")



2nd & 3rd FLOOR PLAN



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
-	-	-	-

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED
SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

Proj#: 5202.01
Date: 11/2/20
KKB

TITLE:

ZONING SITE PLAN

SCALE: 1:20
DRAWN BY: JJB
CHECKED BY: JAR
DATE: 10.19.2020
DRAWING NO.: C4.0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Scenario - 1

Scenario Name: AM Peak Hour
Dev. phase: 1
Analyst Note:
Warning:

User Group:
No. of Years to Project Traffic : 0

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
220 - Multifamily Housing (Low-Rise)	General	Dwelling Units	57	Weekday, Peak Hour of	Best Fit (LOG)	6	22	28
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	Ln(T) =0.95Ln(X) - 0.51	23%	77%	
931 - Quality Restaurant	General	1000 Sq. Ft. GFA	3.62	Weekday, Peak Hour of	Average	1	1	2
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	0.73	50%	50%	
930 - Fast Casual Restaurant	General	1000 Sq. Ft. GFA	3.13	Weekday, Peak Hour of	Average	4	2	6
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	2.07	67%	33%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100	100	1	1	23	77
931 - Quality Restaurant	100	100	1	1	50	50
930 - Fast Casual Restaurant	100	100	1	1	67	33

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0	0	6	22
	28		0		28	
931 - Quality Restaurant	1	1	0	0	1	1
	2		0		2	
930 - Fast Casual Restaurant	4	2	0	0	4	2
	6		0		6	

VEHICLE TRIPS AFTER MULTI-MODAL ADJUSTMENT

MODE SHARE:

Land Use	Personal Passenger Vehicle		Truck		Other Modes	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100%	100%	0%	0%	0%	0%
931 - Quality Restaurant	100%	100%	0%	0%	0%	0%
930 - Fast Casual Restaurant	100%	100%	0%	0%	0%	0%

OCCUPANCY:

Land Use	Vehicle	
	Entry	Exit
220 - Multifamily Housing (Low-Rise)	1.00	1.00
931 - Quality Restaurant	1.00	1.00
930 - Fast Casual Restaurant	1.00	1.00

ADJUSTED VEHICLE TRIPS:

Land Use	Entry				Exit			
	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips
220 - Multifamily Housing (Low-Rise)	6	100%	1.00	6	22	100%	1.00	22
931 - Quality Restaurant	1	100%	1.00	1	1	100%	1.00	1
930 - Fast Casual Restaurant	4	100%	1.00	4	2	100%	1.00	2

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
220 - Multifamily Housing (Low-Rise)	Residential
931 - Quality Restaurant	Resturant
930 - Fast Casual Restaurant	Resturant

BALANCED PERSON TRIPS:

220 - Multifamily Housing (Low-Rise) — 931 - Quality Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
22	1	10	2	**0**	0	10	1	1
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
6	1	2.5	0	**0**	0	2	1	1

220 - Multifamily Housing (Low-Rise) — 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
22	1	10	2	**0**	0	10	1	4
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
6	1	2.5	0	**0**	0	2	1	2

931 - Quality Restaurant — 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
1	1	0	0	**0**	0	0	1	4
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
1	1	0	0	**0**	0	0	1	2

INTERNAL PERSON TRIPS:

220 - Multifamily Housing (Low-Rise)

Internal Person Trips From	Entry	Exit	Total
931 - Quality Restaurant	0	0	0
930 - Fast Casual Restaurant	0	0	0
Total Internal Person Trips	**0**	**0**	**0**

931 - Quality Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
930 - Fast Casual Restaurant	0	0	0
Total Internal Person Trips	**0**	**0**	**0**

930 - Fast Casual Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
931 - Quality Restaurant	0	0	0
Total Internal Person Trips	**0**	**0**	**0**

INTERNAL VEHICLE TRIPS AND CAPTURE:

220 - Multifamily Housing (Low-Rise)

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**0**	**0**
Total External Vehicle Trips	6	22	28
Internal Vehicle Trip Capture	**0%**	**0%**	**0%**

931 - Quality Restaurant

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**0**	**0**
Total External Vehicle Trips	1	1	2
Internal Vehicle Trip Capture	**0%**	**0%**	**0%**

930 - Fast Casual Restaurant

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**0**	**0**
Total External Vehicle Trips	4	2	6
Internal Vehicle Trip Capture	**0%**	**0%**	**0%**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0.00%	0.00%	0	0
931 - Quality Restaurant	1	1	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	4	2	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0.00%	0.00%	0	0
931 - Quality Restaurant	1	1	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	4	2	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0.00%	0.00%	0	0
931 - Quality Restaurant	1	1	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	4	2	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	6	22	28
931 - Quality Restaurant	1	1	2
930 - Fast Casual Restaurant	4	2	6

Land Use	New Vehicle Trips (PPV)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	6	22	28
931 - Quality Restaurant	1	1	2
930 - Fast Casual Restaurant	4	2	6

Land Use	New Vehicle Trips (Truck)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
931 - Quality Restaurant	0	0	0
930 - Fast Casual Restaurant	0	0	0

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	11	25	36
Vehicle Trips After Multi-modal Adjustment	11	25	36
Internal Vehicle Trips	0	0	0
External Vehicle Trips	11	25	36
Internal Vehicle Trip Capture	0%	0%	0%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	11	25	36
PPV	11	25	36
Truck	0	0	0
Person Trips by Other Modes	0	0	0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Scenario - 2

Scenario Name: PM Peak Hour
Dev. phase: 1
Analyst Note:
Warning:

User Group:
No. of Years to Project Traffic : 0

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
220 - Multifamily Housing (Low-Rise)	General Urban/Suburban	Dwelling Units	57	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	23	13	36
Data Source: Trip Gen Manual, 10th Ed +					Ln(T) =0.89Ln(X) - 0.02	63%	37%	
931 - Quality Restaurant	General Urban/Suburban	1000 Sq. Ft. GFA	3.62	Weekday, Peak Hour of Adjacent Street Traffic,	Average	19	9	28
Data Source: Trip Gen Manual, 10th Ed +					7.80	67%	33%	
930 - Fast Casual Restaurant	General Urban/Suburban	1000 Sq. Ft. GFA	3.13	Weekday, Peak Hour of Adjacent Street Traffic,	Average	24	20	44
Data Source: Trip Gen Manual, 10th Ed +					14.13	55%	45%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100	100	1	1	63	37
931 - Quality Restaurant	100	100	1	1	67	33
930 - Fast Casual Restaurant	100	100	1	1	55	45

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise)	23	13	0	0	23	13
	36		0		36	
931 - Quality Restaurant	19	9	0	0	19	9
	28		0		28	
930 - Fast Casual Restaurant	24	20	0	0	24	20
	44		0		44	

VEHICLE TRIPS AFTER MULTI-MODAL ADJUSTMENT

MODE SHARE:

Land Use	Personal Passenger Vehicle		Truck		Other Modes	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100%	100%	0%	0%	0%	0%
931 - Quality Restaurant	100%	100%	0%	0%	0%	0%
930 - Fast Casual Restaurant	100%	100%	0%	0%	0%	0%

OCCUPANCY:

Land Use	Vehicle	
	Entry	Exit
220 - Multifamily Housing (Low-Rise)	1.00	1.00
931 - Quality Restaurant	1.00	1.00
930 - Fast Casual Restaurant	1.00	1.00

ADJUSTED VEHICLE TRIPS:

Land Use	Entry				Exit			
	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips
220 - Multifamily Housing (Low-Rise)	23	100%	1.00	23	13	100%	1.00	13
931 - Quality Restaurant	19	100%	1.00	19	9	100%	1.00	9
930 - Fast Casual Restaurant	24	100%	1.00	24	20	100%	1.00	20

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INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
220 - Multifamily Housing (Low-Rise)	Residential
931 - Quality Restaurant	Resturant
930 - Fast Casual Restaurant	Resturant

BALANCED PERSON TRIPS:

220 - Multifamily Housing (Low-Rise) / 931 - Quality Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
13	1	10.5	1	**1**	1	7	1	19
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
23	1	8	2	**1**	1	9	1	9

220 - Multifamily Housing (Low-Rise) / 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
13	1	10.5	1	**1**	2	7	1	24
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
23	1	8	2	**2**	2	9	1	20

931 - Quality Restaurant / 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
9	1	0	0	**0**	0	0	1	24
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
19	1	0	0	**0**	0	0	1	20

INTERNAL PERSON TRIPS:

220 - Multifamily Housing (Low-Rise)

Internal Person Trips From	Entry	Exit	Total
931 - Quality Restaurant	1	1	2
930 - Fast Casual Restaurant	2	1	3
Total Internal Person Trips	**3**	**2**	**5**

931 - Quality Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	1	1	2
930 - Fast Casual Restaurant	0	0	0
Total Internal Person Trips	**1**	**1**	**2**

930 - Fast Casual Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	1	2	3
931 - Quality Restaurant	0	0	0
Total Internal Person Trips	**1**	**2**	**3**

INTERNAL VEHICLE TRIPS AND CAPTURE:

220 - Multifamily Housing (Low-Rise)

Total Internal Person Trips	3	2	5
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**3**	**2**	**5**
Total External Vehicle Trips	20	11	31
Internal Vehicle Trip Capture	**13%**	**15%**	**14%**

931 - Quality Restaurant

Total Internal Person Trips	1	1	2
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**1**	**1**	**2**
Total External Vehicle Trips	18	8	26
Internal Vehicle Trip Capture	**5%**	**11%**	**7%**

930 - Fast Casual Restaurant

Total Internal Person Trips	1	2	3
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**1**	**2**	**3**
Total External Vehicle Trips	23	18	41
Internal Vehicle Trip Capture	**4%**	**10%**	**7%**

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	20	11	0.00%	0.00%	0	0
931 - Quality Restaurant	18	8	20.00%	20.00%	4	2
930 - Fast Casual Restaurant	23	18	20.00%	20.00%	5	4

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	20	11	0.00%	0.00%	0	0
931 - Quality Restaurant	18	8	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	23	18	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	20	11	0.00%	0.00%	0	0
931 - Quality Restaurant	14	6	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	18	14	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	20	11	31
931 - Quality Restaurant	14	6	20
930 - Fast Casual Restaurant	18	14	32

Land Use	New Vehicle Trips (PPV)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	20	11	31
931 - Quality Restaurant	14	6	20
930 - Fast Casual Restaurant	18	14	32

Land Use	New Vehicle Trips (Truck)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
931 - Quality Restaurant	0	0	0
930 - Fast Casual Restaurant	0	0	0

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	66	42	108
Vehicle Trips After Multi-modal Adjustment	66	42	108
Internal Vehicle Trips	5	5	10
External Vehicle Trips	61	37	98
Internal Vehicle Trip Capture	8%	12%	10%
Pass-by Vehicle Trips	9	6	15
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	52	31	83
PPV	52	31	83
Truck	0	0	0
Person Trips by Other Modes	0	0	0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Traffic Engieering Assessment
LOCATION: Town of Amherst, NY
PEAK HOUR: AM Peak Hour

Figure Number:

LOCATION NUMBER	INTERSECTION DESCRIPTION	Proposed Residential				Proposed Restaurants				Pass-by Trips	Total Site Trips
		Enter Dist. %	Exit Dist. %	Trips IN 6	Trips OUT 22	Enter Dist. %	Exit Dist. %	Trips IN 5	Trips OUT 3		
1	Main Street/ Chateau Terrace/Bernhardt Drive										
	SR		30%		7		5%		0		7
	ST										
	SL		45%		10		5%		0		10
	WR	45%		3		5%		0			3
	WT	15%		1		35%		2			3
	WL										
	NR										
	NT										
	NL										
	ER										
	ET		15%		3		35%		1		4
	EL	30%		2		5%		0			2
2	Main Street/ Fruehauf Avenue										
	SR		10%		2		50%		2		4
	ST										
	SL		15%		3		35%		1		4
	WR	15%		1		35%		2			3
	WT		30%		7		5%		0		7
	WL										
	NR										
	NT										
	NL										
	ER										
	ET	30%		2		5%		0			2
	EL	10%		1		50%		3			3
3	Fruehauf Avenue/ Proposed Driveway										
	SR										
	ST										
	SL					1%		0			0
	WR						1%		0		0
	WT										
	WL		25%		5		85%		3		8
	NR	25%		2		85%		5			7
	NT										
	NL										
	ER										
	ET										
	EL										
4	Chateau Terrace/Bernhardt Drive Proposed Driveway										
	SR					4%		0			0
	ST										
	SL										
	WR										
	WT										
	WL										
	NR										
	NT										
	NL	75%		5		10%					5
	ER		75%		17		10%		0		17
	ET										
	EL						4%		0		0

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Traffic Engieering Assessment
LOCATION: Town of Amherst, NY
PEAK HOUR: PM Peak Hour

Figure Number:

LOCATION NUMBER	INTERSECTION DESCRIPTION	Proposed Residential				Proposed Restaurants				Pass-by Trips	Total Site Trips
		Enter Dist. %	Exit Dist. %	Trips IN 20	Trips OUT 11	Enter Dist. %	Exit Dist. %	Trips IN 41	Trips OUT 26		
1	Main Street/ Chateau Terrace/Bernhardt Drive										
	SR		30%		3		5%		1		4
	ST										
	SL		45%		5		5%		2		7
	WR	45%		9		5%		2			11
	WT	15%		3		35%		14			17
	WL										
	NR										
	NT										
	NL										
	ER										
	ET		15%		2		35%		9	-2	9
	EL	30%		6		5%		2			8
2	Main Street/ Fruehauf Avenue										
	SR		10%		1		50%		13	3	17
	ST										
	SL		15%		2		35%		9	3	14
	WR	15%		3		35%		14		4	21
	WT		30%		3		5%		1	-4	1
	WL										
	NR										
	NT										
	NL										
	ER										
	ET	30%		6		5%		2		-5	3
	EL	10%		2		50%		21		5	28
3	Fruehauf Avenue/ Proposed Driveway										
	SR										
	ST										
	SL					1%		0			0
	WR						1%		0		0
	WT										
	WL		25%		3		85%		22	6	31
	NR	25%		5		85%		35		9	49
	NT										
	NL										
	ER										
	ET										
	EL										
4	Chateau Terrace/Bernhardt Drive Proposed Driveway										
	SR					4%		2			2
	ST										
	SL										
	WR										
	WT										
	WL										
	NR										
	NT										
	NL	75%		15		10%		4			19
	ER		75%		8		10%		3		11
	ET										
	EL						4%		1		1

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

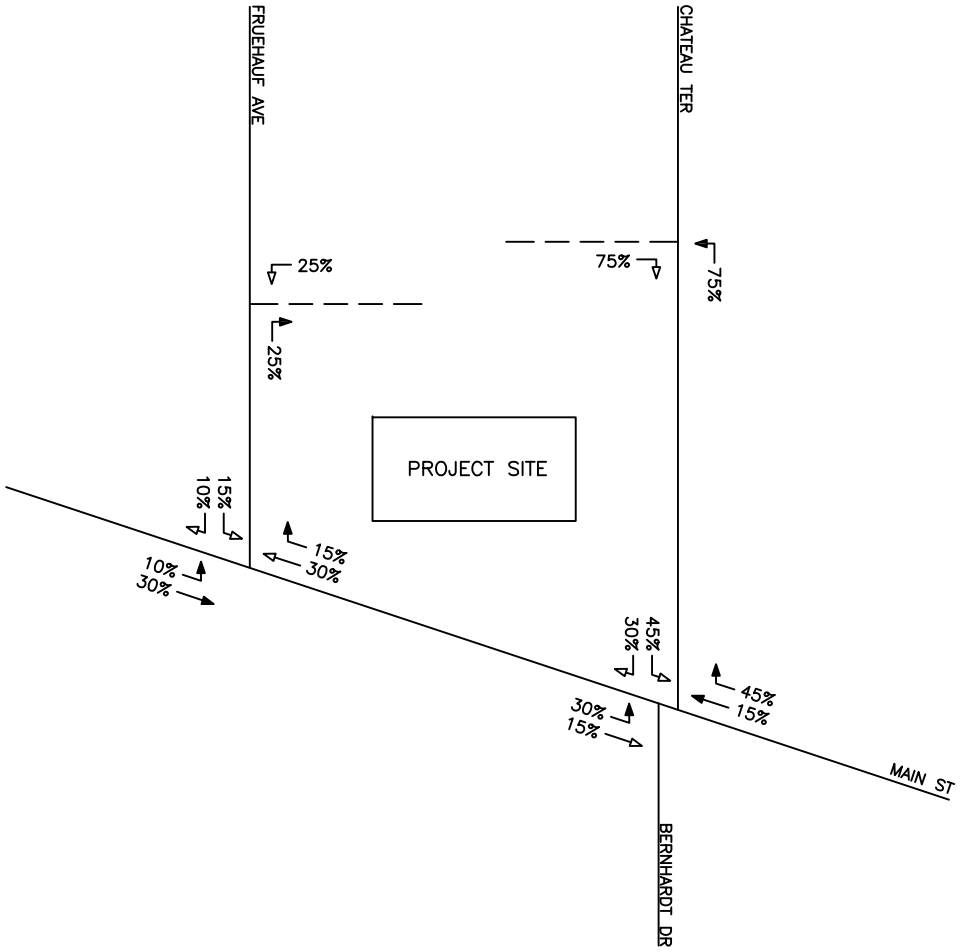


FIGURE 1

TRIP DISTRIBUTION - RESIDENTIAL

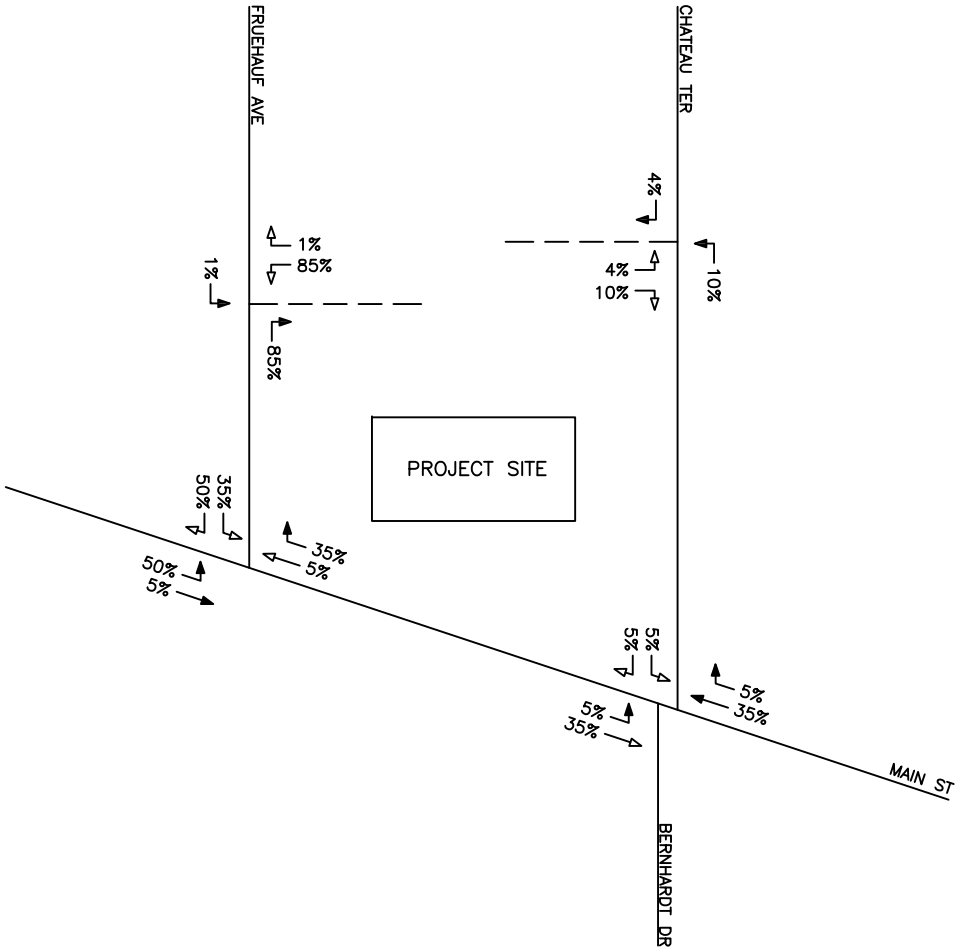


FIGURE 2

TRIP DISTRIBUTION - RESTAURANT

PROJECT NO: 41056

SRF ASSOCIATES
Transportation Planning / Engineering / Design

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)

ENTERING TRIP

EXITING TRIP

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

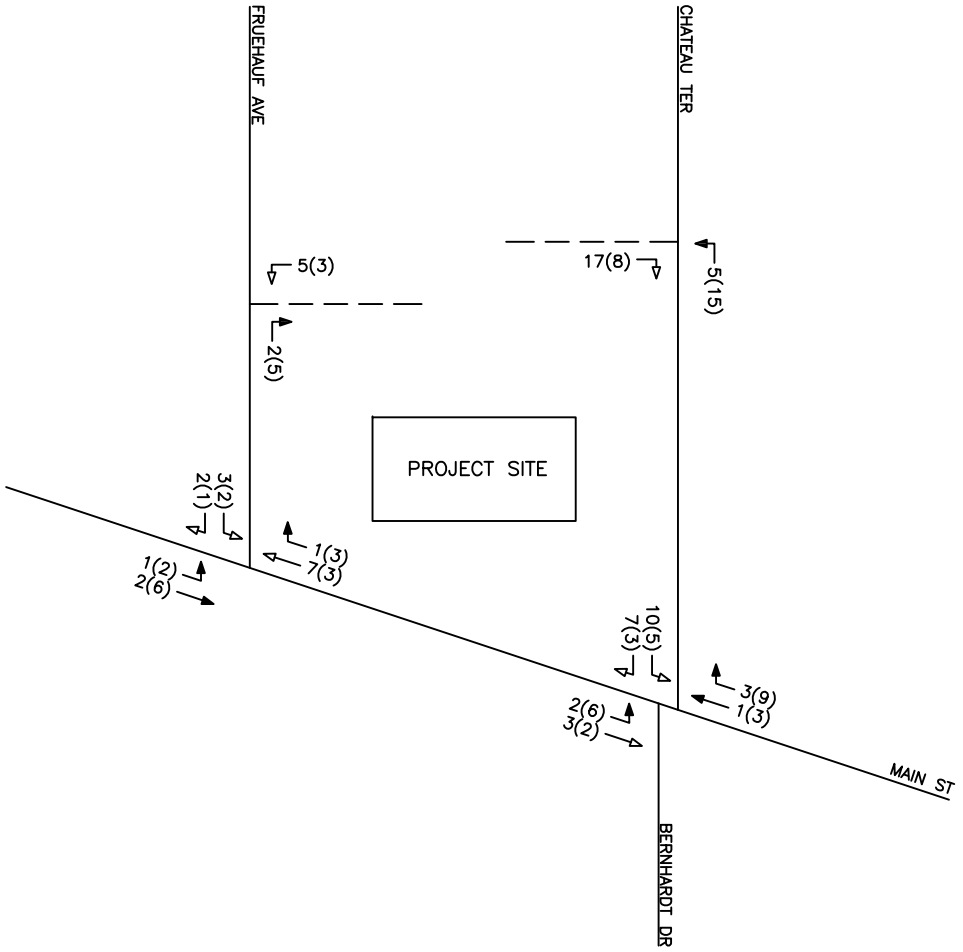


FIGURE 3

SITE GENERATED TRIPS - RESIDENTIAL

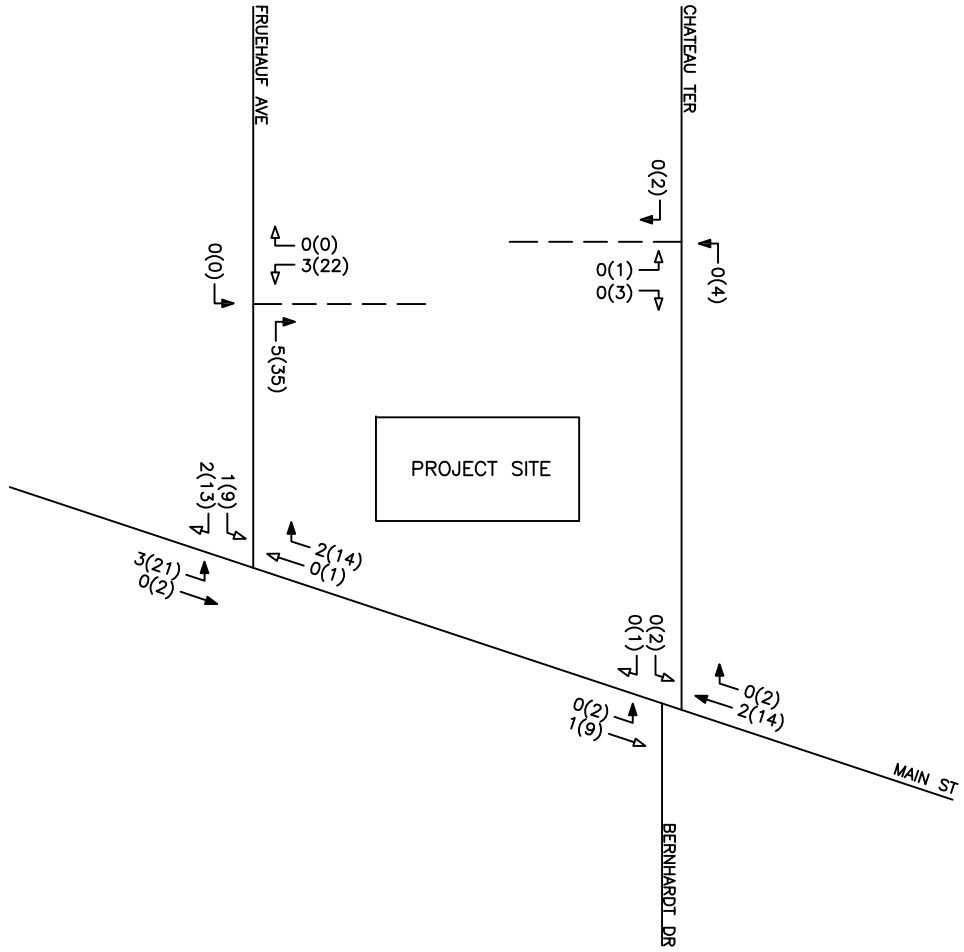


FIGURE 4

SITE GENERATED TRIPS - RESTAURANTS - PRIMARY TRIPS

PROJECT NO: 41056

SRF ASSOCIATES
Transportation Planning / Engineering / Design

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)

→ ENTERING TRIP

→ EXITING TRIP

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

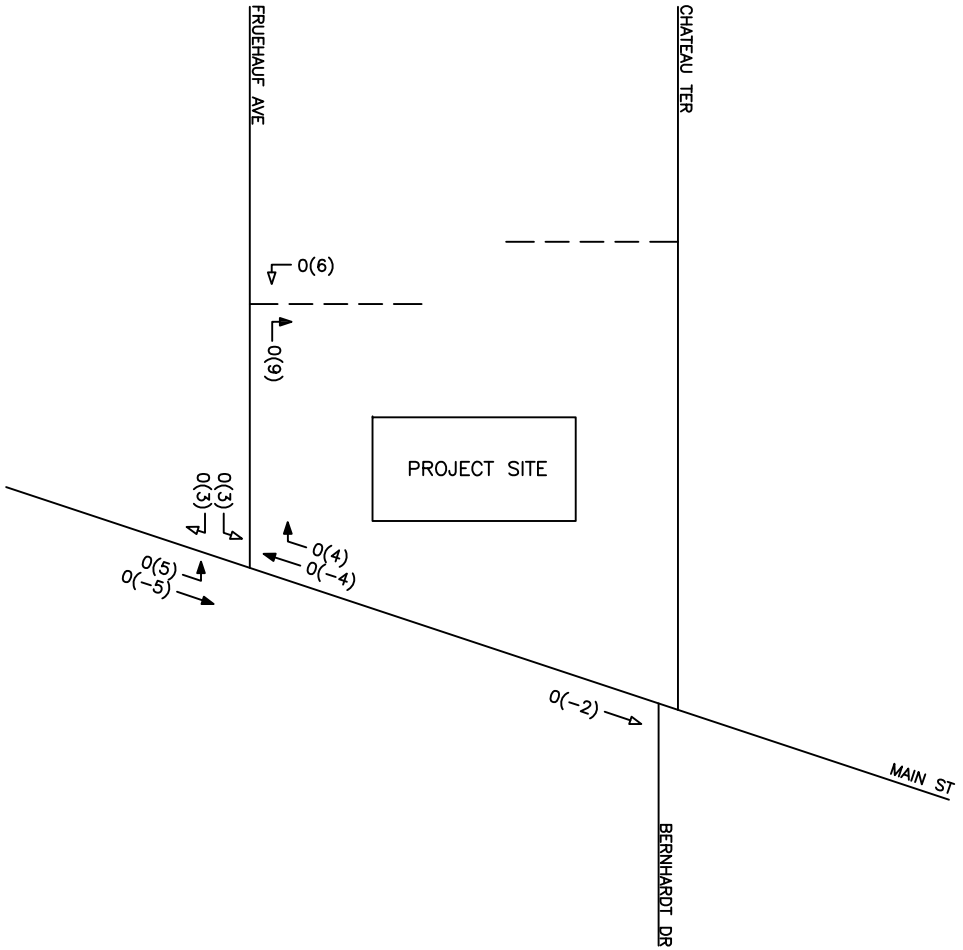


FIGURE 5

SITE GENERATED TRIPS - RESTAURANTS -
PASS-BY TRIPS

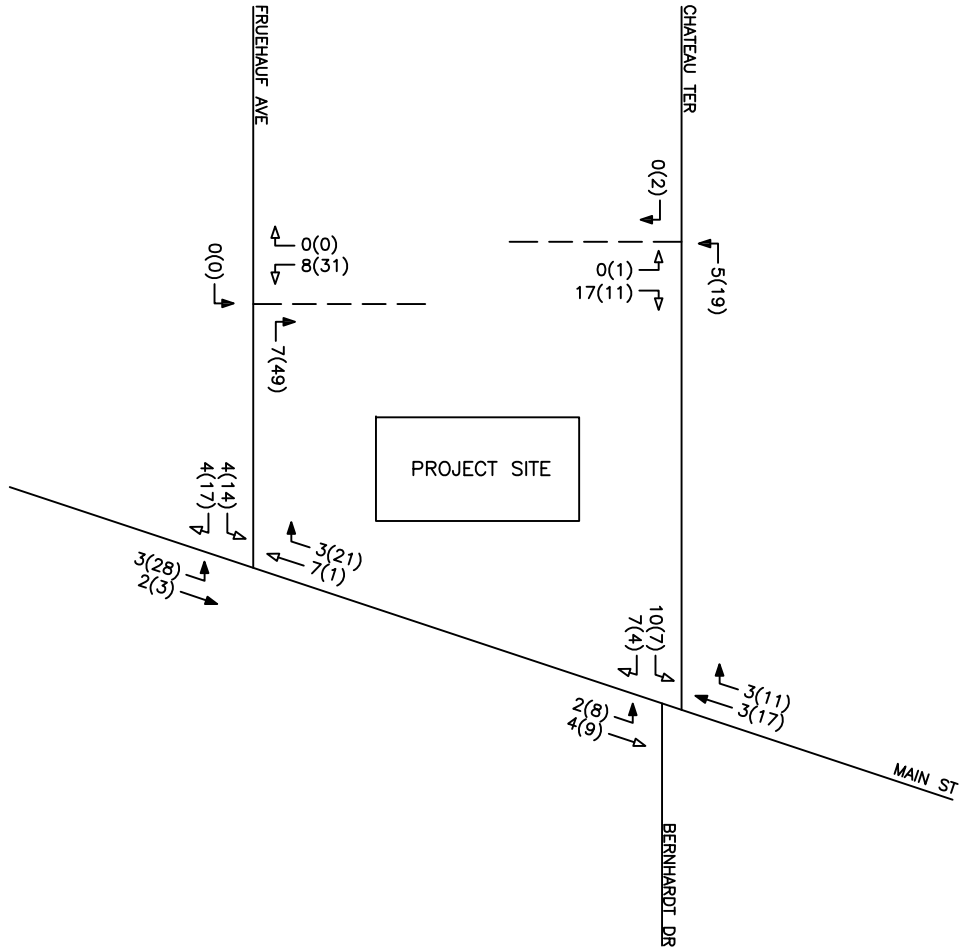


FIGURE 6

SITE GENERATED TRIPS
TOTAL SITE TRIPS

PROJECT NO: 41056

SRF ASSOCIATES
Transportation Planning / Engineering / Design

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

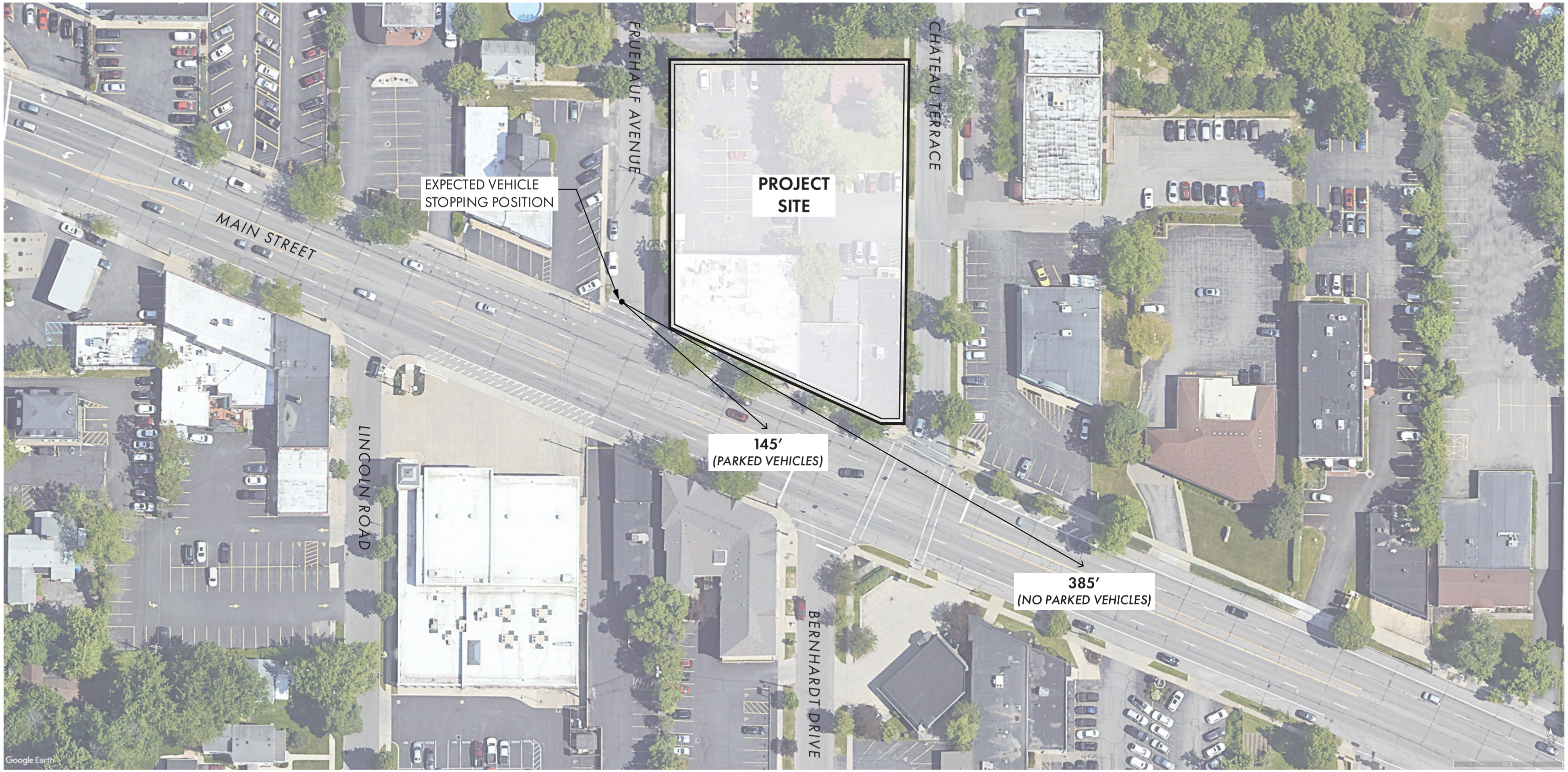
KEY

00(00) = AM(PM)

→ ENTERING TRIP

→ EXITING TRIP

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



SIGHT LINE EVALUATION

4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

OV

Notes:
Main Street Speed Limit: **40 MPH**
Design Speed: **45 MPH (posted speed limit plus 5 MPH)**
Required Stopping Sight Distance: **360 feet**
Desirable Intersection Sight Distance: **500 feet**

0 80
FEET

SRF ASSOCIATES
Transportation Planning / Engineering / Desig
3495 Winton Place, Building E, Suite 110

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

January 27, 2023

Chairman Robert J. Gilmour and Members of the Planning Board
Town of Amherst
Planning Department
5583 Main St.
Williamsville, NY 14221

RE: Proposed Snyder Mixed Use Building – Design Exception Request
4548 & 4564 Main Street, 17 Fruehauf Ave, and 22 Chateau Terrace
Amherst, NY 14226
BDC Property No. 5202

Dear Chairman Gilmour and Members of the Planning Board:

Benderson Development Company, LLC is requesting four (4) design exceptions from Town Code section 203-5A-2-4 B and 203-5A-2-4 D as it relates to the code requirement that the building length along a road frontage be a minimum lot frontage length of 90% and a maximum street-facing building length of 200 feet. The requested design exceptions are as follows:

1) Minimum required lot frontage along Chateau Terrace – 90% required and 88.5% provided.
2) Maximum allowed street facing building length along Chateau Terrace – 200 foot maximum required and 239 foot maximum proposed.
3) Minimum required lot frontage along Fruehauf Ave – 90% required and 84.7% provided.
4) No tree grates provided on Fruehauf and Chateau Terrace

In support of these four (4) designs exception requests, we offer the following:

- The Amherst Town Code is conflicting with request to the Code sections noted above. The Amherst Town Code requires both 200 feet of maximum building frontage and 90% minimum lot frontage along a Village Frontage Street. The Code required minimum 90% street facing frontage does not consider the amount of frontage length as a result once the 90% is calculated it is direct conflict with the street frontage maximum requirement. In order to resolve this conflict, a design wavier is required as the code does distinguish as to which Code section should prevail.

  In this case, the building frontage length along Chateau Terrace was designed to a length that provided the best architectural design for the property along this street frontage and as such requires a design exception for both the minimum required street facing frontage and the maximum allowable street facing frontage because the length falls between both requirements while satisfying neither. If one design exception is eliminated, then the other design exception request would be increased. This proposed length with two (2) design exceptions requires provides for the best overall design.

  For the Fruehauf Ave frontage length, along with the angle of Fruehauf Ave with Main Street, the only way to meet the required frontage would be to provide an angle point along the Main Street frontage and extend the façade on Fruehauf Ave closer to the adjacent residential property. The angle point along Main Street would impact the required build to percentage for that street frontage and may create an

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BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
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additional design exception and would reduce the buffer to the adjacent residential property. This reduced frontage percentage still meets the intent of the Code by having a large percentage of the building along the street while still provide a buffer to the adjacent property. In addition, if the building length is met we will be unable to meet the 20' buffer requirement.

New York Courts have held that local zoning regulations are in derogation of the common law and must be strictly construed against the municipality which has enacted them and seeks to enforce them, and any ambiguity in the language must be resolved in favor of the property owner. See, Matter of Hess Realty Corp v. Planning Commn. Of Town of Rotterdam, 198 A.D.2d 588 (3d Dept. 1993). New York Courts have further stated that a Town must apply the definition which is in its code and cannot ignore a defined term when there is no ambiguity. See Rivendell Winery, LLC v. Donovan, 74 AD3d 1594 (3d Dept., 2010). As noted above, even if there was some ambiguity (which there is not here), Courts have held "any ambiguities in a zoning ordinance must be resolved in favor of the property owner." BRANCATO v. Zoning Board of appeals, 30 AD2d 515 (2nd Dept. 2006). Further, in interpreting a zoning law, a Town "may not insert conditions or criteria into a zoning ordinance … that are not contained in the statutory language adopted" See, Winterton Properties, LLC v. Town of Mamakating Zoning Board of Appeals, 132 A.D.2d 1141 (3d Dept., 2015).

- Based upon the site grades for Chateau Terrace as it relates to Main Street and Fruehauf Ave., the driveway needs to be pushed as far south along Chateau Terrace to allow access to the basement parking field. If the building façade was reduced along Chateau Terrace to meet the maximum allowable building lot frontage, this would open up the view corridor into the underground parking garage rather than providing additional screening of the parking from the public R.O.W. Further it would increase the design exception request for the minimum amount of street facing building frontage that is required.

- The site design has been updated to provide additional buffer from the adjacent residential property on Chateau Terrace to the entrance lane for the parking garage, increasing the buffer space to 20 feet. This allows the required landscape buffer to be extended the full length of this residential property along with adding a 6 foot tall vinyl fence.

- Instead of providing concrete and tree grates, the project proposed to maintain a green landscaping strip in which the trees will be planted along Fruehauf and Chateau Terrace. The greenspace is attractive and will soften the pedestrian amenities around the building.

It is our opinion, based upon the above that the site, as designed, meets the intent of the Town of Amherst code and that the three design exceptions should be granted. If you have any questions or further comments, please do not hesitate to contact me at 716-878-9626 or via email at jamesboglioli@benderson.com.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James Boglioli, Esq.
Director, Development – Northeast US

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

February 14, 2023

Attn: Mr. Daniel Howard, Planning Director
Town of Amherst
Planning Department
5583 Main St.
Williamsville, NY 14221

RE: Proposed Snyder Mixed Use Building
4548 & 4564 Main Street, 17 Fruehauf Ave, and 22 Chateau Terrace
Amherst, NY 14226
BDC Property No. 5202

Dear Mr. Howard:

Benderson Development Company, LLC is pleased to be submitting this response letter in regards to the February 2, 2023 Traffic Safety Board comment letter. Regarding the comments that were issued, we offer the following:

1. The issue of visibility on Main Street from Fruehauf is an existing condition, which is not impacted by the proposed project. As demonstrated by information submitted, the proposed building does not impact visibility and is outside the sight triangle. Benderson is willing to make the request to the NYSDOT for the installation of the additional requested bulb-outs along Main Street and will install them, if approved. Any such condition is limited to making the request and not the installation. Neither the project approval nor the construction and occupancy of the building can be tied to the installation of the bulb-outs because the bulb-outs are not required as mitigation for this project and can only be installed at the discretion of the NYSDOT. Further, Benderson will support the Town requesting from the NYSDOT that the parking spaces in front of the building on Main Street be restricted to loading and unloading and/or be reduced by one space to improve the existing visibility.

2. The TIS indicates that 25% of the residential traffic will use the Fruehauf entrance which is 6 total (enter and exit) trips during the PM peak and 10% of the commercial traffic will use Chateau which is also 6 total (enter and exit) trips. If the trips were redistributed they would cancel each other out and not change the total vehicles going through either intersection so the traffic analysis wouldn't change.

If you have any questions or further comments, please do not hesitate to contact me at 716-878-9626 or via email at jamesboglioli@benderson.com.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James Boglioli, Esq.
Director, Development – Northeast US

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
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February 14, 2023

Attn: Mr. Daniel Howard, Planning Director
Town of Amherst
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5583 Main St.
Williamsville, NY 14221

RE: Proposed Snyder Mixed Use Building
4548 & 4564 Main Street, 17 Fruehauf Ave, and 22 Chateau Terrace
Amherst, NY 14226
BDC Property No. 5202

Dear Mr. Howard:

In connection with the above-referenced project, a concern was by the resident at 23 Fruehauf Ave. that the proposed project would shade the solar panels installed on their roof and which face the project site. To address this concern, enclosed please find the following:

- An aerial photograph which shows the location of that property in relation to the project site (**Exhibit A**);
- A photograph of the residential dwelling (**Exhibit B**); and
- A Sun Study prepared utilizing modeling software (**Exhibit C**).

The Sun Study was run on December 21st (the shortest day in the year and when the angle of the sun is the lowest) and June 21st (the longest day in the year and when the angle of the sun is the highest). The model clearly shows that the proposed project will not shade the rooftop solar panels or the dwelling. Please include this material in the record of this project.

If you have any questions or further comments, please do not hesitate to contact me at 716-878-9626 or via email at jamesboglioli@benderson.com.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James A. Boglioli, Esq.
Director, Development – Northeast US

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

Residential house with solar panels

Law Offices of Mark C. Butler

Bornhava

Juliana Riordan

Karen Schoene, MD

Bomi Jewelers

Fruehauf Ave

5202 - 4548 - 4564 Main St - Snyder

Pibbs Industries

Snyder Pharmacy

THERA Massage Therapy, PLLC

Siena

Have Ewe

Main Rd

Google Earth

1985

Imagery Date: 5/28/2022 42°57'48.00" N 78°46'54.45" W elev 0 ft eye alt 375 ft

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)



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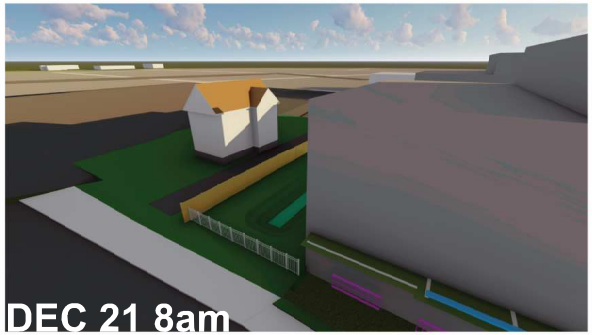
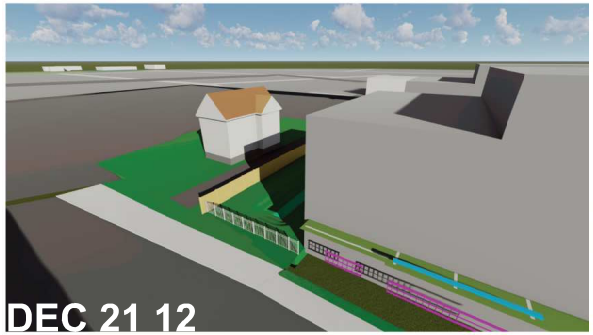
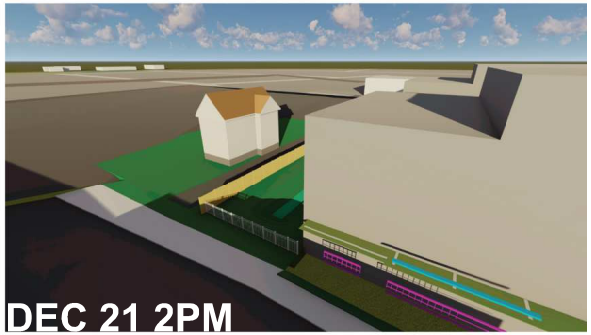
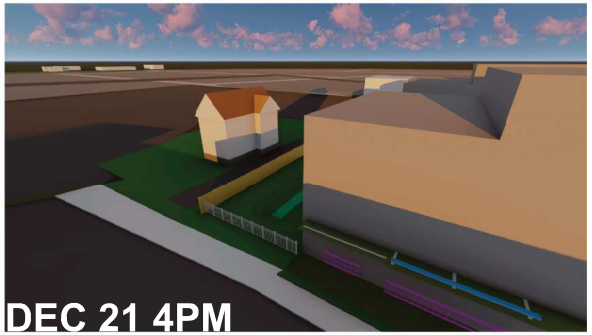
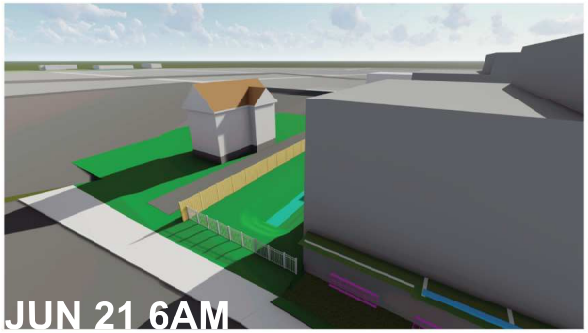


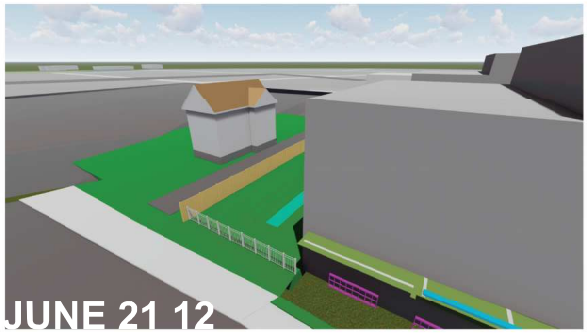












SUN STUDY
PROPOSED 2 1/2 STORY
MAIN ST, SNYDER NY

Attachment: SP-2022-11_application_031623 (26951 : Sp-2022-11)

PROPOSED SITE DEVELOPMENT

Main St. / Chateau Terrace / Fruehauf Ave.

4548 - 4564 Main St, Amherst, NY

BDC Property # 5202

SITE DEVELOPMENT DRAWINGS

INDEX OF DRAWINGS

DWG. #	DRAWING NAME	REVISION	DATE
C1.0	COVER SHEET	5	01.31.2023
C2.0	EXISTING SURVEY		
C3.0	DEMOLITION & EROSION CONTROL PLAN	4	01.27.2023
C3.1	BORING LOCATION PLAN	3	12.14.2022
C3.2	DEMOLITION & EROSION CONTROL DETAILS	3	12.14.2022
C4.0	OVERALL SITE PLAN	5	01.31.2023
C4.1	DETAILED SITE PLAN	5	01.31.2023
C4.2	CONSTRUCTION DETAILS	3	12.14.2022
C5.0	GRADING PLAN	5	01.31.2023
C5.1	DRAINAGE PLAN	4	01.27.2023
C5.2	DRAINAGE DETAILS	3	12.14.2022
C6.0	UTILITY PLAN	5	01.31.2023
C6.1	UTILITY DETAILS	5	01.31.2023
C7.0	LANDSCAPE PLAN	5	01.31.2023
C8.0	LIGHTING PLAN	4	01.27.2023
C8.1	LIGHTING DETAILS	3	12.14.2022

OWNER/DEVELOPER:

NAME: BENDERSON DEVELOPMENT COMPANY, LLC
ADDRESS: 570 DELAWARE AVENUE, BUFFALO, NY 14202
CONTACT: DAVID ZUPPELLI
PHONE: 716 - 878 - 9683

BENDERSON DEVELOPMENT COMPANY, LLC
570 Delaware Ave.
Buffalo, New York 14202

SURVEYOR

NAME: MILLARD, MACKAY & DELLES LAND SURVEYORS, LLP
ADDRESS: 150 AERO DRIVE, BUFFALO, NY 14225
CONTACT: FRANCIS C. DELLES
PHONE: 716-631-5140

UTILITIES:

WATER DEPARTMENT
NAME/TITLE: ADAM MASSARO
COMPANY/DEPT: ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION RD, CHEEKTOWAGA, NY
PHONE: 716 - 685-8207

DIG SAFELY NEW YORK
PHONE: 1 - 800 - 962 - 7962 OR (811)

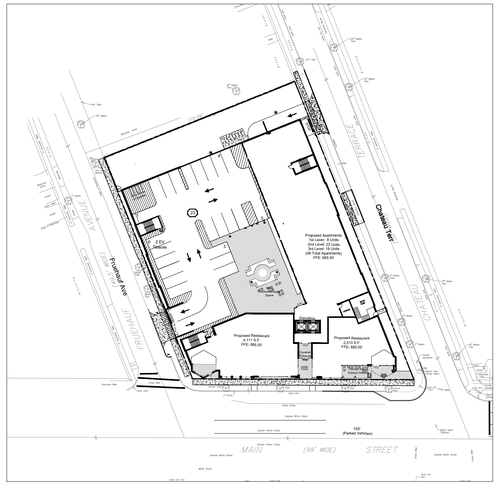
AGENCIES:

ENGINEERING DEPARTMENT
NAME/TITLE: JEFF BURROUGHS
COMPANY/DEPT: TOWN OF AMHERST, NY - ENGINEERING DPT
ADDRESS: 1100 NORTH FOREST RD, WILLIAMSVILLE, NY
PHONE: 716 - 631 - 7154 EX 7418

BUILDING & PLUMBING DEPARTMENT
NAME/TITLE: -
COMPANY/DEPT: TOWN OF AMHERST, NY - BUILDING DPT
ADDRESS: 5583 MAIN STREET, WILLIAMSVILLE, NY 14221
PHONE: 716 - 631 - 7080

NYSDOT - HIGHWAY & UTILITY PERMITS
NAME/TITLE: ALFRED I. OYOYO, ASSISTANT RESIDENT ENGINEER
COMPANY/DEPT: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NORTH ERIE RESIDENCY)
ADDRESS: 111 INDIAN ROAD. DEPEW, NEW YORK 14043
PHONE: 716 - 683 - 3476 (EXT - 27)

SITE LOCATION MAP 1"=60'



REGIONAL LOCATION MAP NTS



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DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	05.23.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments
4	01.27.2023	DZ	Town Comments
5	01.31.2023	DZ	Town Comments

SPECIAL INFORMATION:

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811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

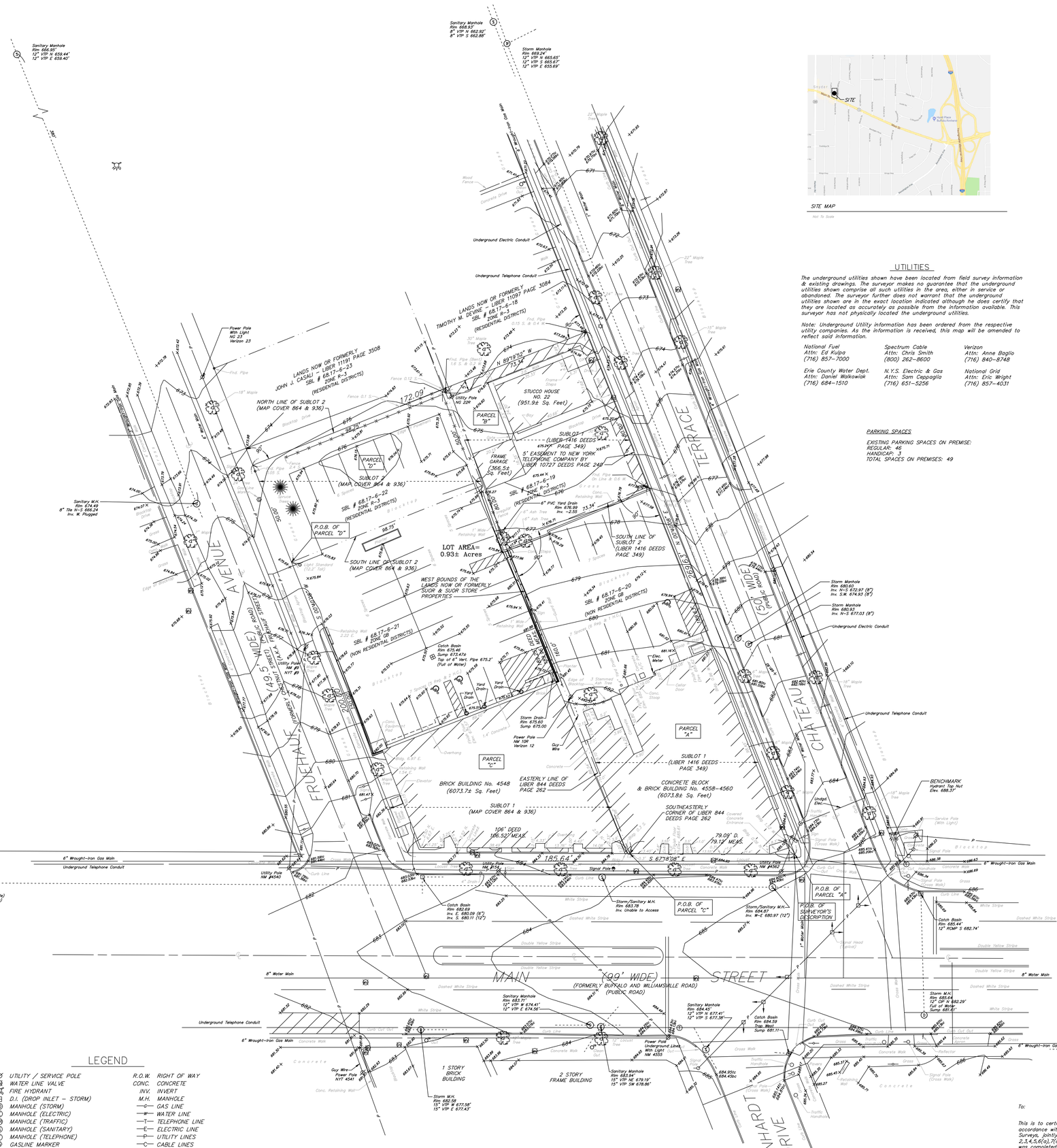
SEAL



TITLE: COVER SHEET

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C1.0

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)


Sanitary Manhole
Rim: 668.93'
8" VTP N 682.92'
8" VTP S 682.88'
Storm Manhole
Rim: 669.24'
12" VTP N 665.65'
12" VTP S 665.67'
12" VTP E 665.69'
Sanitary Manhole
Rim: 669.30'
12" VTP W 659.44'
12" VTP E 659.40'
LANDS NOW OR FORMERLY JOHN J. CASALI — LIBER 11191 PAGE 3508
SBL # 68.17-6-23
ZONE R-3
(RESIDENTIAL DISTRICTS)
NORTH LINE OF SUBLOT 2 (MAP COVER 864 & 936)
172.09'
185.64'
LANDS NOW OR FORMERLY TIMOTHY M. DEVINE — LIBER 11191 PAGE 3084
SBL # 68.17-6-18
ZONE R-3
(RESIDENTIAL DISTRICTS)
N 89°19'22" W
73.34'
STUCCO HOUSE NO. 22 (951.9± Sq. Feet)
PARCEL "B"
PARCEL "D"
SUBLOT 1 (MAP COVER 864 & 936)
SUBLOT 1 (LIBER 1416 DEEDS PAGE 349)
SUBLOT 2 (LIBER 1416 DEEDS PAGE 349)
5' EASEMENT TO NEW YORK TELEPHONE COMPANY BY LIBER 10727 DEEDS PAGE 240
FRAME GARAGE (366.5± Sq. Feet)
SBL # 68.17-6-19
ZONE R-3
(RESIDENTIAL DISTRICTS)
6" PVC Yard Drain Rim: 676.99 Inv: +2.55
73.34'
SOUTH LINE OF SUBLOT 2 (LIBER 1416 DEEDS PAGE 349)
SBL # 68.17-6-22
ZONE R-3
(RESIDENTIAL DISTRICTS)
P.O.B. OF "PARCEL "D"
98.75'
SOUTH LINE OF SUBLOT 2 (MAP COVER 864 & 936)
LOT AREA= 0.93± Acres
WEST BOUNDS OF THE LANDS NOW OR FORMERLY SUOR & SUOR STORE PROPERTIES
SBL # 68.17-6-21
ZONE GB
(NON RESIDENTIAL DISTRICTS)
SBL # 68.17-6-20
ZONE GB
(NON RESIDENTIAL DISTRICTS)
Catch Basin Rim: 675.46 Sump: 671.47± Top. of 6" Vert. Pipe 675.2' (Full of Water)
Yard Drain
Yard Drain
Storm Drain-I Rim: 675.60 Sump: 675.00
Power Pole NM 10R Verizon 12
Guy Wire
PARCEL "C"
EASTERLY LINE OF LIBER 844 DEEDS PAGE 262
BRICK BUILDING No. 4548 (6073.7± Sq. Feet)
CONCRETE BLOCK & BRICK BUILDING No. 4558-4560 (6073.8± Sq. Feet)
SOUTHEASTERLY CORNER OF LIBER 844 DEEDS PAGE 262
106' DEED 106.52' MEAS.
79.09' D. 79.12' MEAS.
S 67°18'08" E
185.64'
PARCEL "A"
P.O.B. OF PARCEL "A"
P.O.B. OF SURVEYOR'S DESCRIPTION
P.O.B. OF PARCEL "C"
Storm/Sanitary M.H. Rim: 678.24 Inv. W-E 669.03 (12" Tile) Inv. S. 669.60 (12" Tile)
Catch Basin Rim: 682.69 Inv. E. 680.09 (6") Inv. S. 680.11 (12")
Storm/Sanitary M.H. Rim: 683.78 Inv. Unable to Access
Storm/Sanitary M.H. Rim: 684.67 Inv. W-E 680.97 (12")
Sanitary M.H. Rim: 674.93 8" Tile N-S 666.24 Inv. W. Plugged
Sanitary Manhole Rim: 683.71' 12" VTP W 674.41' 12" VTP E 674.56'
Sanitary Manhole Rim: 684.45' 12" VTP N 677.41' 12" VTP S 677.38'
Catch Basin Rim: 684.59 Trap. Bkwl Sump: 681.11'
Storm M.H. Rim: 685.44' 12" RCMP S 680.29' Full of Water Sump: 681.81'
Catch Basin Rim: 685.44' 12" RCMP S 682.74'
Sanitary Manhole Rim: 686.41' 12" VTP W 678.91' 6" VTP S 681.83'
Storm Manhole Rim: 682.56' 15" VTP W 677.58' 15" VTP E 677.43'
Storm Manhole Rim: 683.94' 15" VTP NE 678.19' 15" VTP SW 678.86'
Storm Manhole Rim: 680.60 Inv. N-S 672.97 (8") Inv. S.W. 674.93 (8")
Storm Manhole Rim: 680.83 Inv. N-S 677.03 (8")
Power Pole Underground Liber With Light NM 4555
Guy Wire Power Pole NYT 4541
1 STORY BRICK BUILDING
2 STORY FRAME BUILDING
BENCHMARK Hydrant Top Nut Elev. 688.37'
Underground Electric Conduit
Underground Telephone Conduit
6" Wrought-Iron Gas Main
8" Water Main
Utility Pole NM 8454
Utility Pole NM 8154
Utility Pole NG 32R
Power Pole With Light NG 23 Verizon 23
Utility Pole NYT #9
Light Standard (12.2' Tall)
Catch Basin
Storm Manhole
Sanitary Manhole
Gas Valve
Water Valve
Hydrant
Electric Meter
Signal Pole
Signal Pole (With Light)
Signal Pole (Cross Walk)
Service Pole (With Light)
Guy Wire
Overhang
Retaining Wall
Concrete Block Retaining Wall
Concrete Retaining Wall
Stone Retaining Wall
Fence
Wood Fence
Chain Link Fence
Concrete Curb
Curb Cut Out
Curb Cut Out Ramp
Concrete Walk
Cross Walk
Gross Walk
Double Yellow Stripe
Dashed White Stripe
White Stripe
Traffic Handhold
Traffic Reflector
Hand Hole (Typical)
Deciduous Tree
Coniferous Tree
Shrub
Hedge
Bush
Flower Bed
Landscaping
Lawn
Gravel
Concrete
Asphalt
Blacktop
Driveway
Entrance
Steps
Stoop
Porch
Overhang
Covered Concrete Entrance
Edge of Building
Edge of Roof
Roof Line
Roof Peak
Chimney
Vent
Window
Door
Basement Entrance
Garage Door
Overhead Door
Elevator
Gas Meter
Electric Meter
Cable Box
Telephone Box
Mailbox
Flag Pole
Sign
Fire Hydrant
Post
Bollard
Fence 0.1' S.
Fence 0.2' E.
Fence 0.4' W.
Fence 0.6' S.
Fence 0.9' E.
Fence 1.0' W.
Fence 1.2' S.
Fence 1.3' E.
Fence 1.4' W.
Fence 1.5' S.
Fence 1.6' E.
Fence 1.7' W.
Fence 1.8' S.
Fence 1.9' E.
Fence 2.0' W.
Fence 2.1' S.
Fence 2.2' E.
Fence 2.3' W.
Fence


Fruehauf Ave
Chateau Terr
STUCCO HOUSE NO. 22 (951.9± Sq. Feet)
BRICK BUILDING No. 4548 (6073.7± Sq. Feet)
CONCRETE BLOCK & BRICK BUILDING Nos. 4558-4560 (6073.8± Sq. Feet)
FRAME GARAGE (366.6± Sq. Feet)
5' EASEMENT TO NEW YORK TELEPHONE COMPANY BY LIBER 10727 DEEDS PAGE 240
0.93± Acres
24' x 50' Stabilized Construction Entrance (refer to detail)
10' x 20' concrete wash area, lined with a polyethylene sheet. location subject to change due to construction sequencing.
Temporary "Construction Site Entrance Only" Sign
To Obtain NYSDOT Work Permit for all work within NYSDOT ROW
Existing Sanitary MH Existing Rim: 674.49 Exist 8" Inv: 666.24
Existing Strm Rim: 669.24 12": 665.67
Existing Strm Rim: 680.60 12": 672.97
Sanitary Manhole Rim: 668.93 8" VTP N 662.92' 8" VTP S 662.88'
Storm Manhole Rim 669.24' 12" VTP N 665.65' 12" VTP S 665.67' 12" VTP E 655.69'
Sanitary Manhole Rim: 666.95' 12" VTP N 659.44' 12" VTP E 659.40'
Sanitary M.H. Rim: 674.49 8" Tile N-S 666.24 Inv. W. Plugged
Storm Manhole Rim 680.60 Inv. N-S 672.97 (8") Inv. S.W. 674.93 (8")
Storm Manhole Rim 680.93 Inv. N-S 677.03 (8")
Catch Basin Rim 675.46 Sump 673.47± Top of 6" Vert. Pipe 675.2' (Full of Water)
Storm Drain Rim 673.60 Sump 670.00
Catch Basin Rim 682.69 Inv. E. 680.09 (6") Inv. S. 680.11 (12")
Storm/Sanitary M.H. Rim 684.87 Inv. W-E 680.97 (12")
Catch Basin Rim 685.44' 12" RCMP S 682.74'
Existing Building to be removed.
Existing Easement to be removed.
Inlet Protection "Sedi-Bag" or similar
Silt Fence/Sock
Saw Cut Line
Property Line
Existing Electric
Existing Gas
Existing Water
Existing Overhead Utility
Existing Sanitary
Existing Storm
Existing Telecoms
Underground Electric Conduit
Underground Telephone Conduit
Concrete Drive
Blacktop Drive
Edge of Pavement
Wood Fence
Fence 0.1' S.
Fence 0.12' S.
Fnd. Pipe
Fnd. Pipe 0.15 S. & 0.4 W.
Fnd. Pipe On Line & 0.6 W.
Fnd. Iron Pipe 1.6' S. & 0.2' W.
Power Pole With Light NG 23 Verizon 23
Power Pole NM 109 Verizon 12
Light Standard 112.2' Tamp
Gate
Steps
Stoop & Steps
Retaining Wall
Concrete Retaining Wall
Gas Meter
Elec. Meter
Cellar Door
Yard Drain
Catch Basin
Curb Cut Out
Curb Cut Handhole
Curb Line
Cross Walk
Concrete Walk
Signal Pole (Cross Walk)
Signal Head (Typical)
Traffic Handhole
Service Pole (With Light)
Hydrant Top Nut Elev. 688.37'
Utility Pole NM #4540
Double Yellow Stripe
White Stripe
Dashed White Stripe
Overhang
Brick
Concrete
Blacktop
Grass
Conc. Walk
Conc. Equipment Pad
Covered Concrete Entrance
Maple Tree
Spruce Tree
Ash Tree
Irregular Fence
Planter
Sign
Elevator
Existing Sanitary Sewer
Existing Storm Sewer
Existing Water Main
Existing Gas Main
6" Wrought-Iron Gas Main Underground Telephone Conduit
Bldg. 6.97' E.
Retaining Wall 1.54' E.
Bldg. 2.5' N.
Bldg. 0.3' S.
Bldg. 0.3' W.
Bldg. 0.3' E.
Bldg. 0.3



GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    - 11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    - 11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

BOREHOLE TEST NOTES:

BOREHOLE LOCATIONS ARE APPROXIMATE. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR LOCATIONS AND INFORMATION.

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3	12.14.2022	DZ	Town Comments

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Know what's **below.** **Call** before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:

BORING LOCATION PLAN

SCALE: 1:20

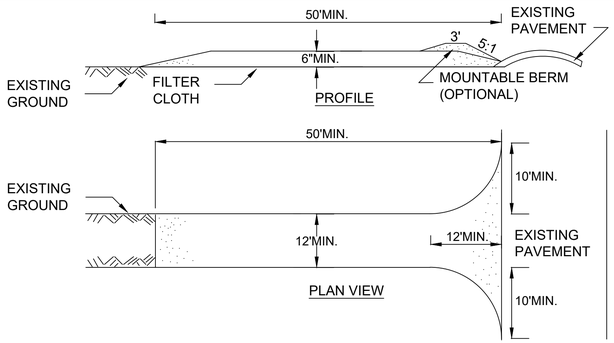
DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C3.1

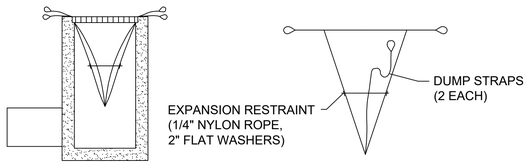
Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)



STABILIZED CONSTRUCTION ENTRANCE DETAIL

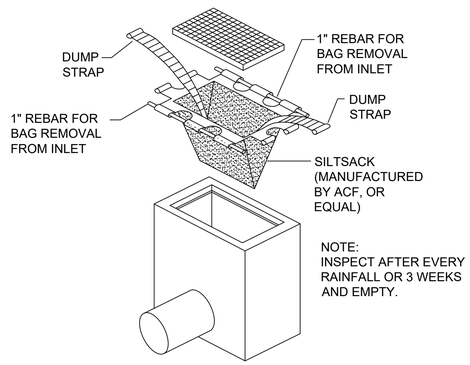
NOT TO SCALE

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



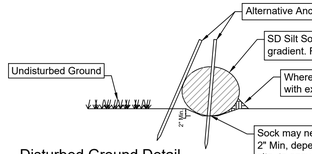
INSTALLATION DETAIL

BAG DETAIL



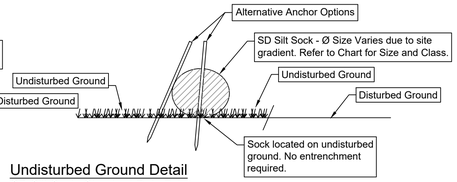
SILT SACK DETAIL

N.T.S.



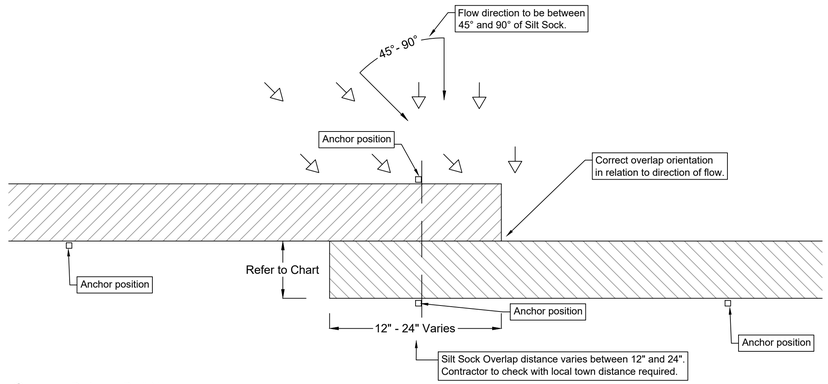
Disturbed Ground Detail

SD Silt Sock: Standard Duty Fabric



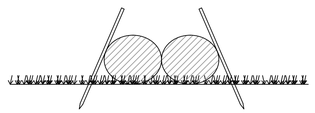
Undisturbed Ground Detail

SD Silt Sock: Standard Duty Fabric



Overlap Detail - PLAN

1) Anchors required at the overlap section are to stay outside the Silt Sock and not pierce through the material. See alternative anchor positons in details above.

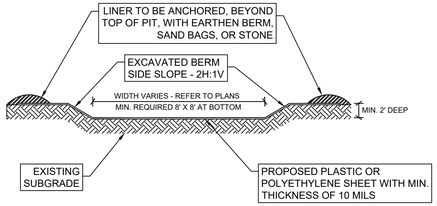


Anchor at Overlaped Ends - SECTION

Size & Class Chart			
	Diameter		
Gradient	8"	12"	18"
0 - 2%	30	55	75
2.1 - 5%	25	40	55
5.1 - 10%	15	30	40
10.1 - 33%	10	15	20
> 33%	5	10	15

SD SILT SOCK DETAIL

SD Silt Sock: Standard Duty Fabric



TYPICAL CONCRETE WASH OUT DETAIL

NOTES:
1. CONSTRUCT TO 2016 NYSDEC BLUE BOOK DESIGN CRITERIA

Notes:

1 - Do not use sock below the normal watermark or perpendicular to flow in river and where the maximum incline is greater than 50%.
2 - Contractors should be aware of federal, state and local laws, rules regulations or permit requirements for the use of Silt Socks on site.
3 - Sock should be positioned on the outline of the area to be protected, but must be installed between 45° to 90° from directions of flow.
4 - Sock may be required to be entrenched a minimum of 2" on disturbed ground to ensure constant ground contact.
5 - All gaps and ruts must be backfilled with soil or sock material.
6 - Sock overlap should be in the direction of the flow. Overlap amount will be between 12" and 24". Contractor to check with local town for requirements.
7 - If sediment collects to 1/2 the height of the sock, then a second sock may be stacked immediately up slope of the original instead of removing the sediment.
8 - Sock joint is where two sock sections meet on a level grade, overlap and adjoining ends, tightening the ends together, and anchoring through each end. Where two sections meet on un-level ground, j-hook higher elevated end, anchor, and begin new section just below. Back fill any gaps.
9 - Sock should be inspected and repaired as needed.
10 - If ruts begin under the sock they should be backfilled with soil and compacted so that the ground and sock have continuous contact.
11 - If sock rolls out of place, the sock should be repositioned and secured with additional anchors.
12 - Tears in the Sock fabric may be repaired by wrapping a new piece of fabric over the sock and securing, or by place a second sock immediately up slope with the required overlap beyond deformation.
13 - A section of sock should be replaced whenever it has weakened to such an extent that the efficiency is reduced or diminished. Weakening can occur because the natural mesh fabric breaks down over time of from being moved/dragged on site.
14 - Sock should be replaced when sediment has built up and has been removed three times.
15 - All sediment in disturbed area next to sock must be removed and correctly disposed of before the sock can be removed.
16 - When removing, cut sock open and spread the filler material around. The netting should be removed from site.
17 - Sock should be installed before works commence on site.

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DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE:

DEMOLITION & EROSION CONTROL DETAILS

SCALE: -

DRAWN BY: DMZ

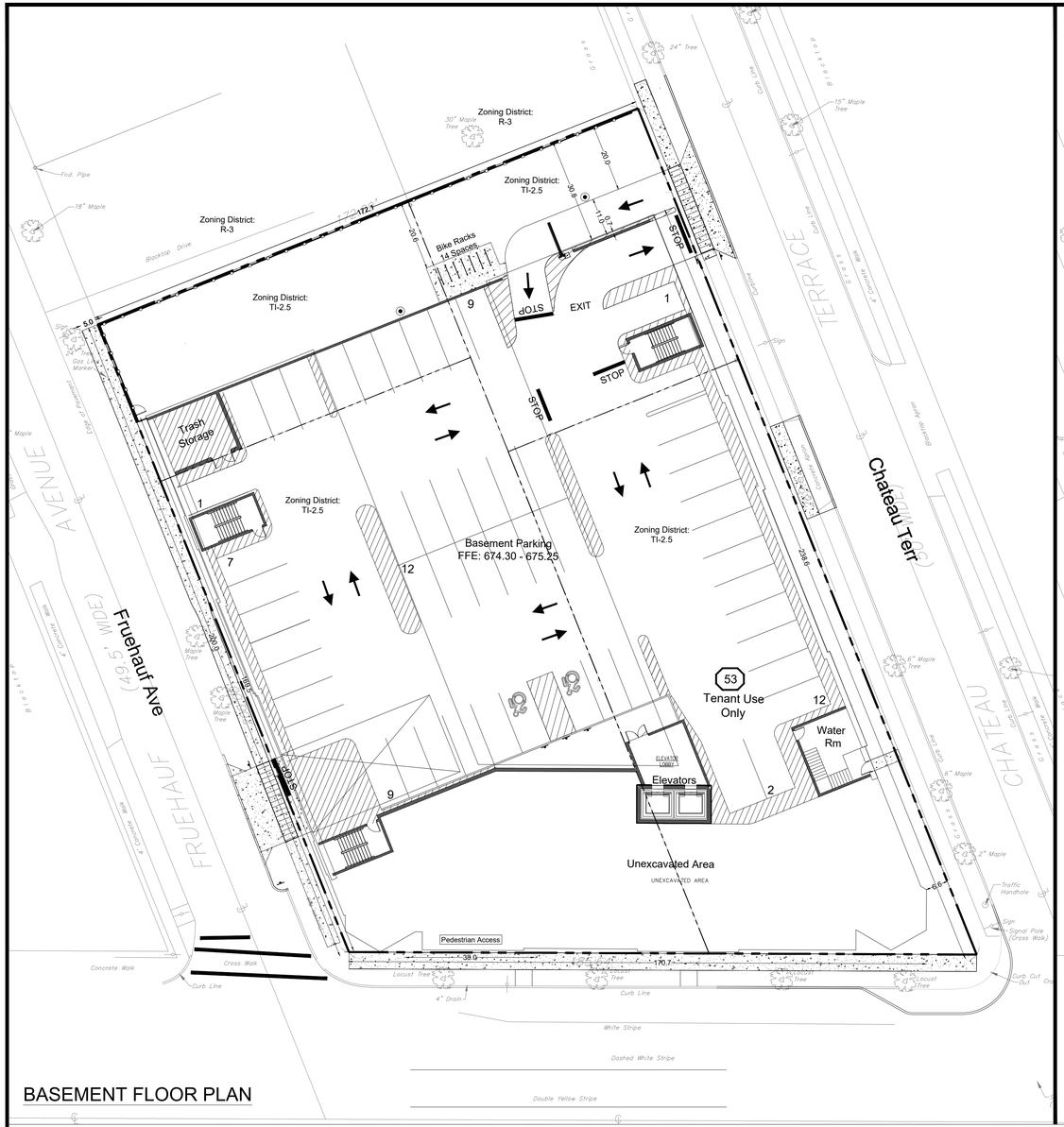
CHECKED BY: JAR

DATE: 05.05.2022

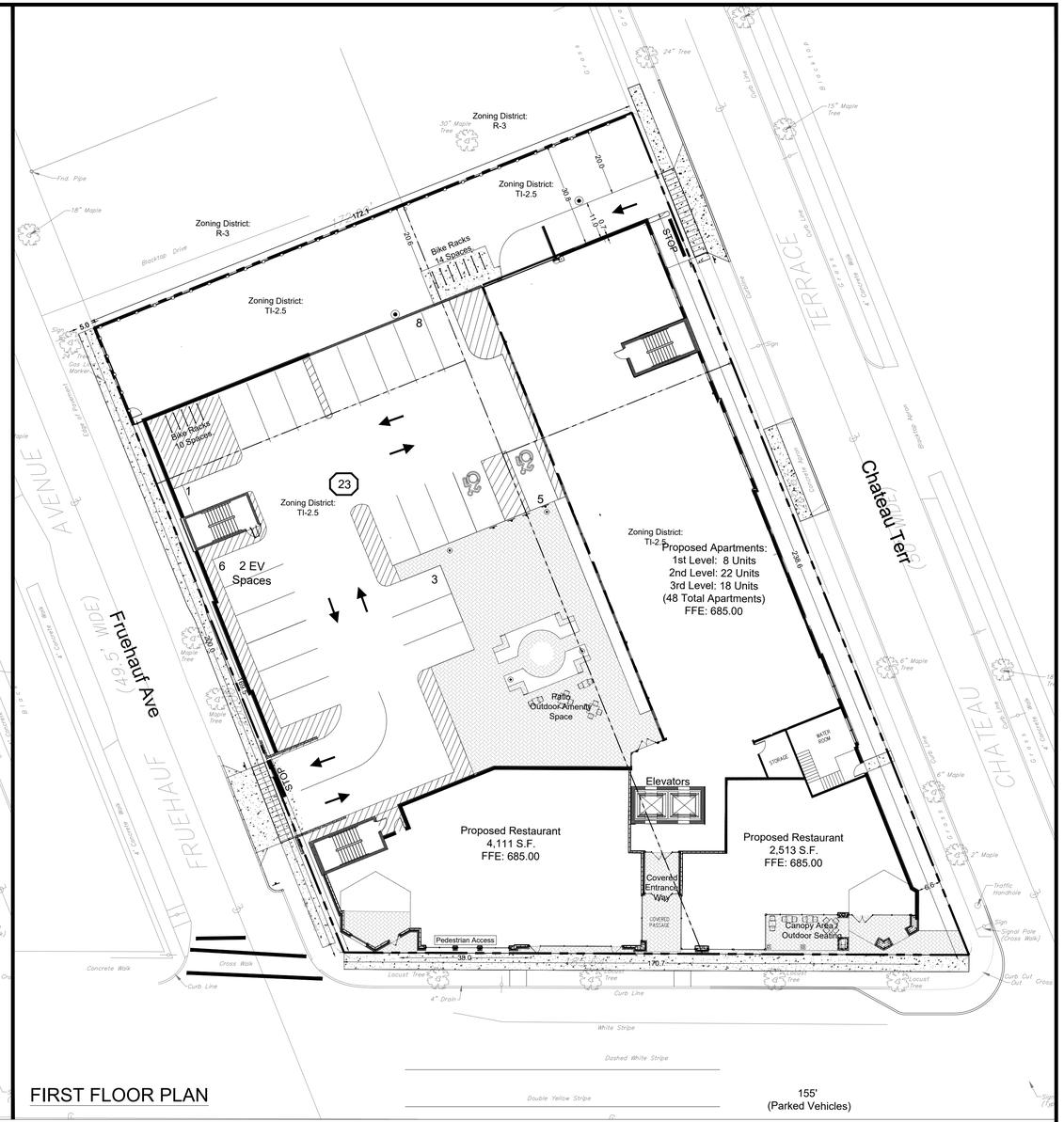
DRAWING NO.

C3.2

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

TOWN OF AMHERST, NY ZONING ANALYSIS	Tax Lots to be consolidated into one parcel as part of this project	
	REQUIRED	PROVIDED
ZONED	TI-2.5 (Village Frontage)	TI-2.5 (Village Frontage)
5A-1-3: TI-2.5 Traditional Infill 2.5 Section		
LOT		
Area	0 S.F. min.	40,409 S.F.
Width	0' min.	170.7'
Outdoor Amenity Space	10% min.	11.3% (4,500 S.F.)
At grade level	50% min. *(See 5A-7-1 B(2)*	68.1% (2,825.1 S.F.)
Planted above ground level	25% min. *(See 5A-7-1 B(2)*	31.9% (1,324.9 S.F.)
Seating	1 per 500 S.F. (4,500 / 500 = 9 Seats min.)	10 Seats
BUILDING SETBACKS		
Building-to-zone	Refer to Section 5A-2 Infill Frontages	
Lot Frontage	Refer to Section 5A-2 Infill Frontages	
Common lot line	0' min.	30.8' (North Side)
Alley	0' min.	N/A
PARKING SETBACKS		
Primary and Side Street	Refer to Section 5A-2 Infill Frontages (below)	
Common lot line	0' min.	30.8' (North Side)
Alley	5' min.	N/A
BUILDING HEIGHT		
Top Plate Height	2 Stories / 24' max.	-
Building Height	2.5 Stories / 35' max.	-
Roof Pitch	18:12 max.	-
BUILDING LENGTH	Refer to Section 5A-2 Infill Frontages (below)	
STORY HEIGHT	Refer to Section 5A-2 Infill Frontages (below)	

5A-2-4: Village Frontage		
BUILDING SETBACKS		
Build-to zone	0' min./10' max.	0.0'
Street Frontage:		
Front: Main Street	90% min.	92.0% (170.7')
Side: Fruehaut Ave	90% min.	84.7%(169.5')
Side: Chateau Terr	90% min.	88.5% (238.6')
PARKING SETBACKS		
Street	20' min.	30.8' (North Side)
BUILDING MASS		
Street facing building length:		
Front: Main Street	200' max.	170.7'
Fruehaut Ave	200' max.	169.5'
Chateau Terr	200' max.	238.6'
STORY HEIGHT		
Ground floor elevation	0' min. / 2' max.	0.0'
Ground story height	13' min.	-
Upper story height	9' min.	-
TRANSPARENCY		
Ground story	70% min.	1,345S.F./1,890 S.F. = 71.2%
Upper story	20% min.	430 S.F. / 1890 S.F. = 22.7%
Blank wall length	15' max.	7'
PEDESTRIAN ACCESS		
Street facing entrance	Required	Complies
Entrance spacing	50' max.	38'
STREETSCAPE		
Clear pedestrian zone	10' min.	9.8' Total - Existing Condition
Curb zone	6' min.	
Tree planting type	Grates	Noted. Existing
Tree spacing	35' on-center avg.	Noted. Existing

PROPOSED PARKING & BIKE ANAYLSIS TI-2.5 (Section 5A-9-1.A.(1)

USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	6,624 sqft / 1000 x 4 = 27 SPACES	Basement Parking: 53 Spaces Ground Flr Parking: 23 Spaces
RESIDENTIAL (Upper-story)	1.0 per 1&2 bed dwelling unit 1.5 per 3 bed dwelling unit	1.0 x 46 (1&2 Bed) = 46 SPACES 1.5 x 2 (3 Bed) = 3 Spaces	
		Total: 76 SPACES	Total: 76 SPACES
STALL SIZE		9'x19'	9'x19'
ELECTRIC CHARGING STATIONS			
1% of parking spaces to be EV ready. Min. 2 EV ready spaces for parking lots over 20 spaces. EV Ready defined as power be available at spaces in advanced.		Basement Parking: 54 * 0.01 = .5 Spaces Ground Floor Parking: 22 / 0.01 = 2 Spaces Total: 2 Min Spaces	Basement Parking: 2 Spaces Total: 2 Spaces
BIKE PARKING			
Residential Use: Short Term 0.5 space per unit min. 20 max.		0.5 x 48 = 24 24 > 20 max. 20 SPACES	20 SPACES
Public Use: 1 per 3,000 S.F. min. 20 max.		6,624 S.F. / 3000 = 3 SPACES	4 SPACES
		TOTAL: 23 SPACES	TOTAL: 24 SPACES

RESTAURANT: 4,111 S.F. + 2,513 S.F.

1 BEDROOM APARTMENTS: 22 UNITS
2 BEDROOM APARTMENTS: 24 UNITS
3 BEDROOM APARTMENTS: 2 UNITS

48 Spaces Designated for Residential Units in Lower Parking Level
5 Spaces Designated for Non-Residential Tenants in Lower Parking Level

OFFICIAL TOWN USE ONLY

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PREPARED FOR

BENDERSON DEVELOPMENT
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(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:

ZONING SITE PLAN

SCALE: 1:20

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C4.0

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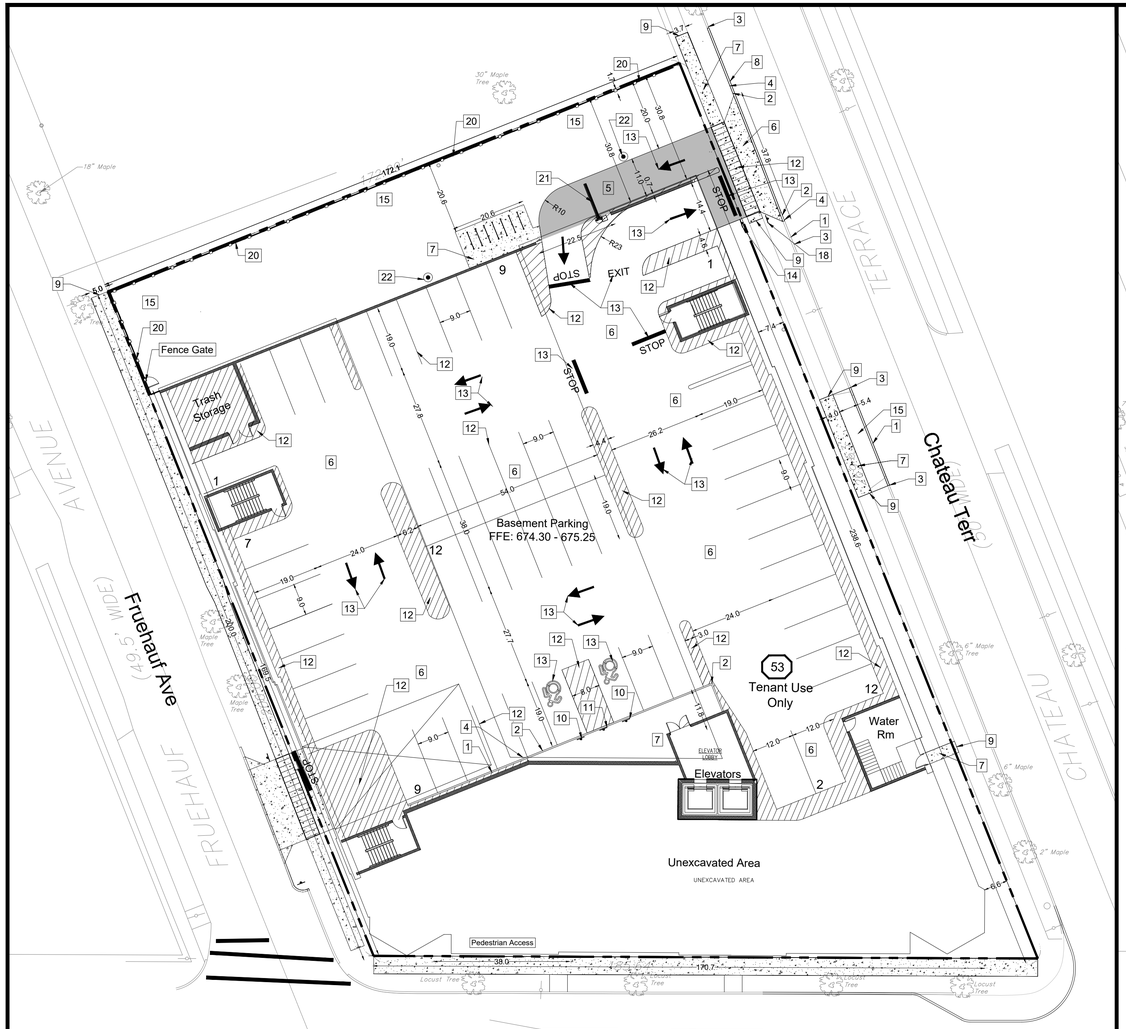

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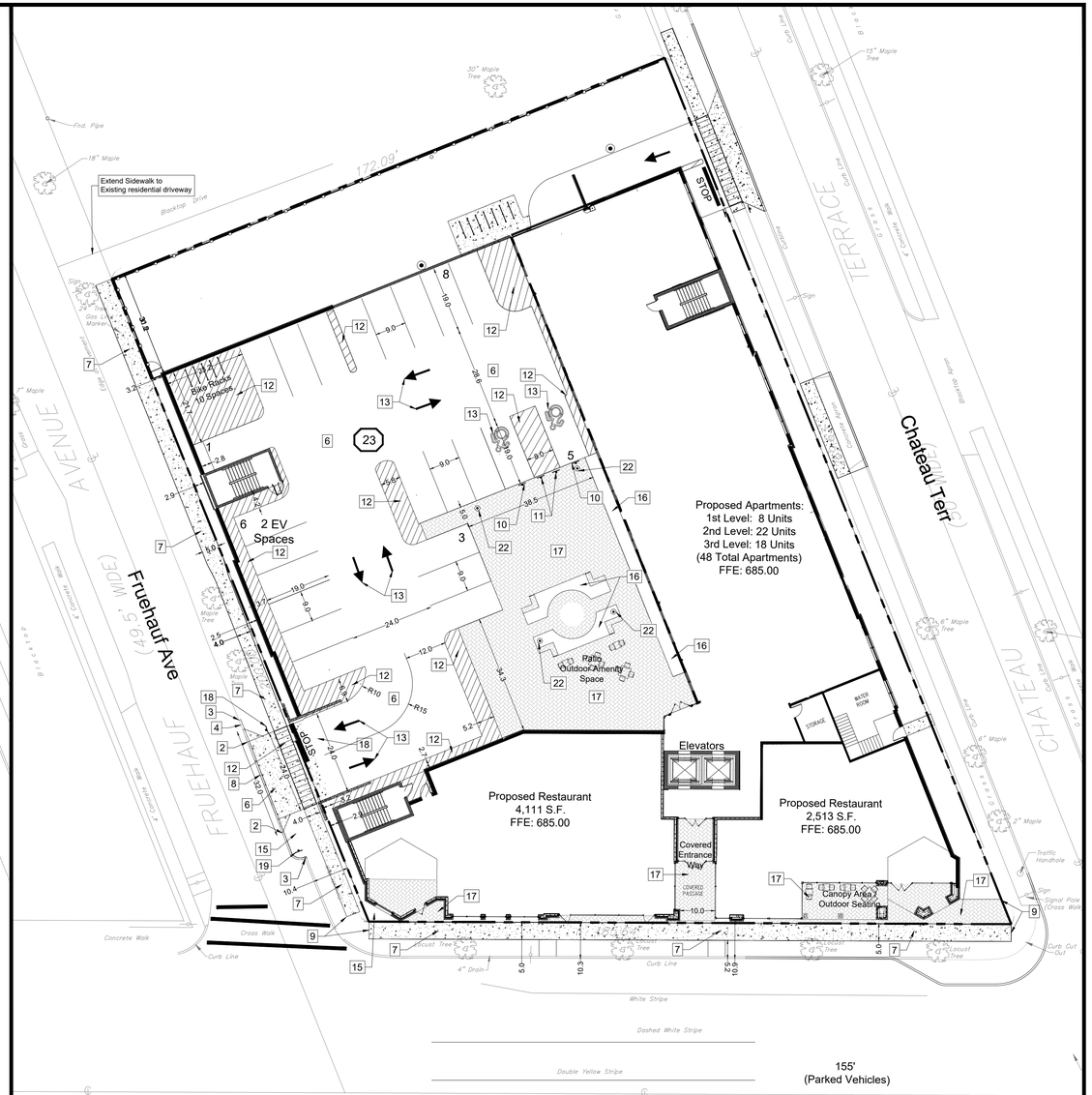

FIRST FLOOR PLAN

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN .
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    - 11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    - 11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:

- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed Concrete Pavement/Sidewalk (Concrete Floors/Deck not Hatched)
- Proposed Heavy Duty Pavement

* All curb radii are 3ft unless noted.
* Refer to General Notes, Concstruction Details and Architectural Plans for Concrete Sealer information.

SITE NOTES: [#]

1. Proposed 6" concrete Curb.
2. Proposed Flush Concrete Curb.
3. Match into Existing Curb or runout over 2'.
4. Transitional Curb.
5. Proposed Heavy Duty Asphalt Pavement
6. Proposed Concrete Pavement.
7. Proposed Concrete Sidewalk.
8. Match into Existing Pavement.
9. Match into Existing Sidewalk
10. Proposed "Handicapped Parking Only" sign.
11. Proposed "No Parking" sign.
12. 4" white Pavement Stripe (at 2' c-c in no parking zones).
13. Proposed White Pavement symbol (stop bar, accessibility symbol, text).
14. Proposed "Stop" Sign.
15. Proposed Landscape Area.
16. Proposed Raised Landscape Area.
17. Proposed Pavers.
18. Proposed Overhead Enter/Exit Signs/Traffic Mirror. Refer to Architectural Plans.
19. Relocated Existing Signage.
20. Proposed 6ft High Solid Board Fence
21. Proposed Security Gate
22. Proposed Light Pole Base

* All curb Radii to be 3' unless otherwise noted.
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SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY 027709 STATE OF NEW YORK

TITLE:

DETAILED SITE PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C4.1

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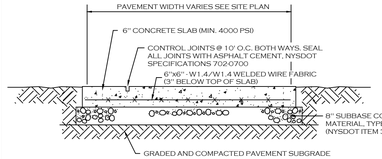

NOTE: CONCRETE PAVEMENT MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 502-3.

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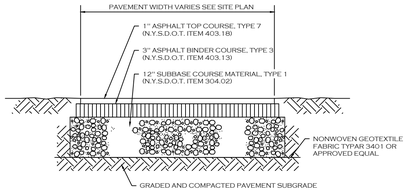
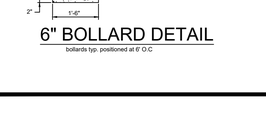
REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES FOR SIDEWALKS.

CONCRETE PAVEMENT (INC DUMPSTER)



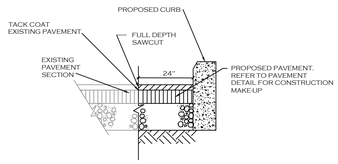
NOTE: CONSTRUCTION METHODS FOR ASPHALT PAVEMENT SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 401-3, WITH SUBBASE CONSTRUCTION METHODS CONFORMING TO NYSDOT STANDARD SPECIFICATION 304-3.

HEAVY DUTY ASPHALT SECTION

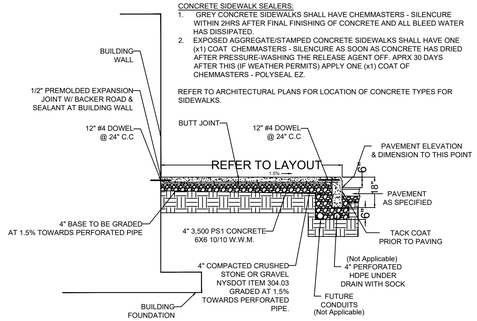


NOTE: CONTROL JOINTS TO BE 2" DEEP AT 15'-0" O.C. BOTHWAYS - SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700

TYPE "A" CONCRETE CURB

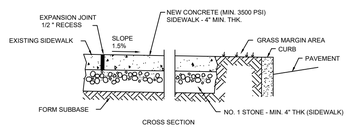


CURB AND PAVEMENT TRANISTION DETAIL



BUILDING SIDEWALK DETAIL

CONTRACTOR TO VERIFY WITH OWNER ON CURB DETAIL



CROSS SECTION

NOTES:
1. CONTROL JOINTS TO BE AT 5'-0" O.C. BOTHWAYS - SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.
2. CONCRETE SIDEWALK MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 608-3.

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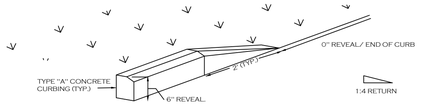
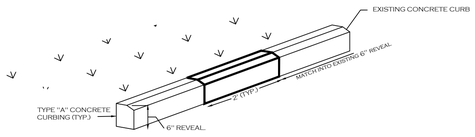
REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES FOR SIDEWALKS.

STANDARD CONCRETE SIDEWALK

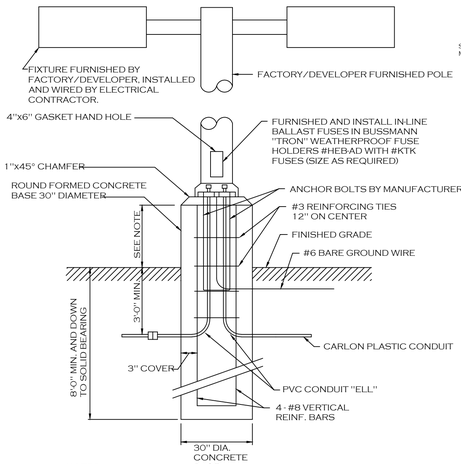


RUNOFF CURB



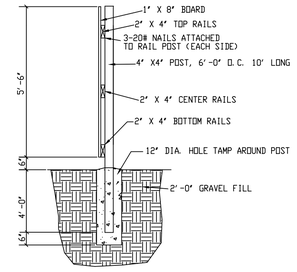
MATCH INTO EXISTING CURB

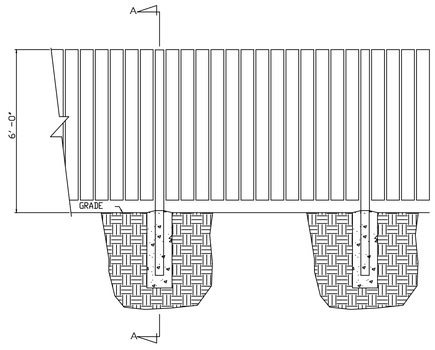
TRANSITIONAL CURBING



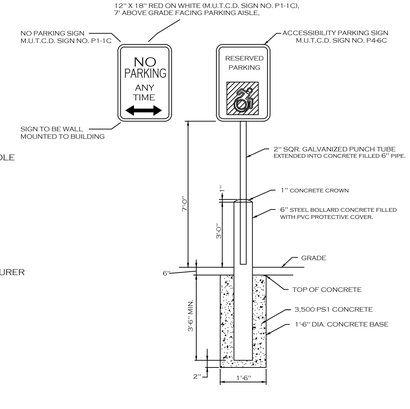
NOTES:
1. FOR LOCATIONS OF FOUNDATIONS SEE SITE PLAN
2. FOR LIGHT FIXTURE ORDERING INFORMATION SEE SITE LIGHTING PLAN
3. LIGHT POLE BASE EXPOSURE ABOVE GRADE SHALL BE:
IN CURBED ISLANDS: 6" ABOVE TOP OF CURB ELEVATION
IN PAVEMENT: 3' ABOVE GRADE
IN NON-CURBED GRASS AREAS: 6" ABOVE GRADE

LIGHT POLE FOUNDATION

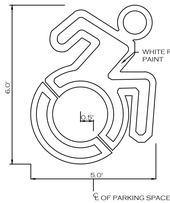




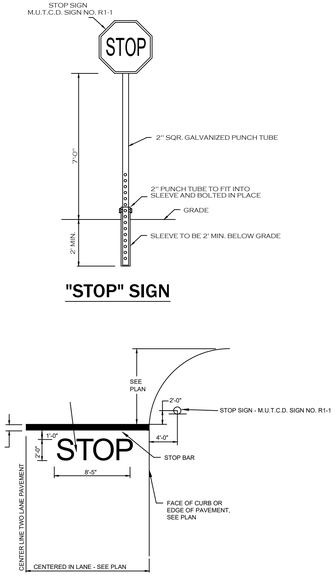
6FT SOLID BOARD FENCE DETAIL



HANDICAP / NO PARKING SIGNS

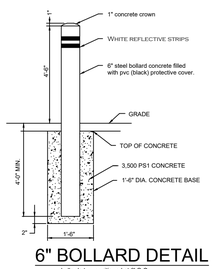


INTERNATIONAL ACCESSIBILITY SYMBOL



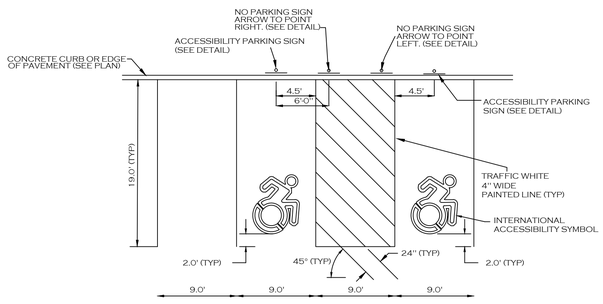
"STOP" SIGN

STOP BAR DETAIL



6" BOLLARD DETAIL

bollards typ. positioned at 6' O.C



ACCESSIBILITY PAVEMENT MARKINGS & SIGNAGE

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(716) 886-0211

SEAL



TITLE:

CONSTRUCTION DETAILS

SCALE: -

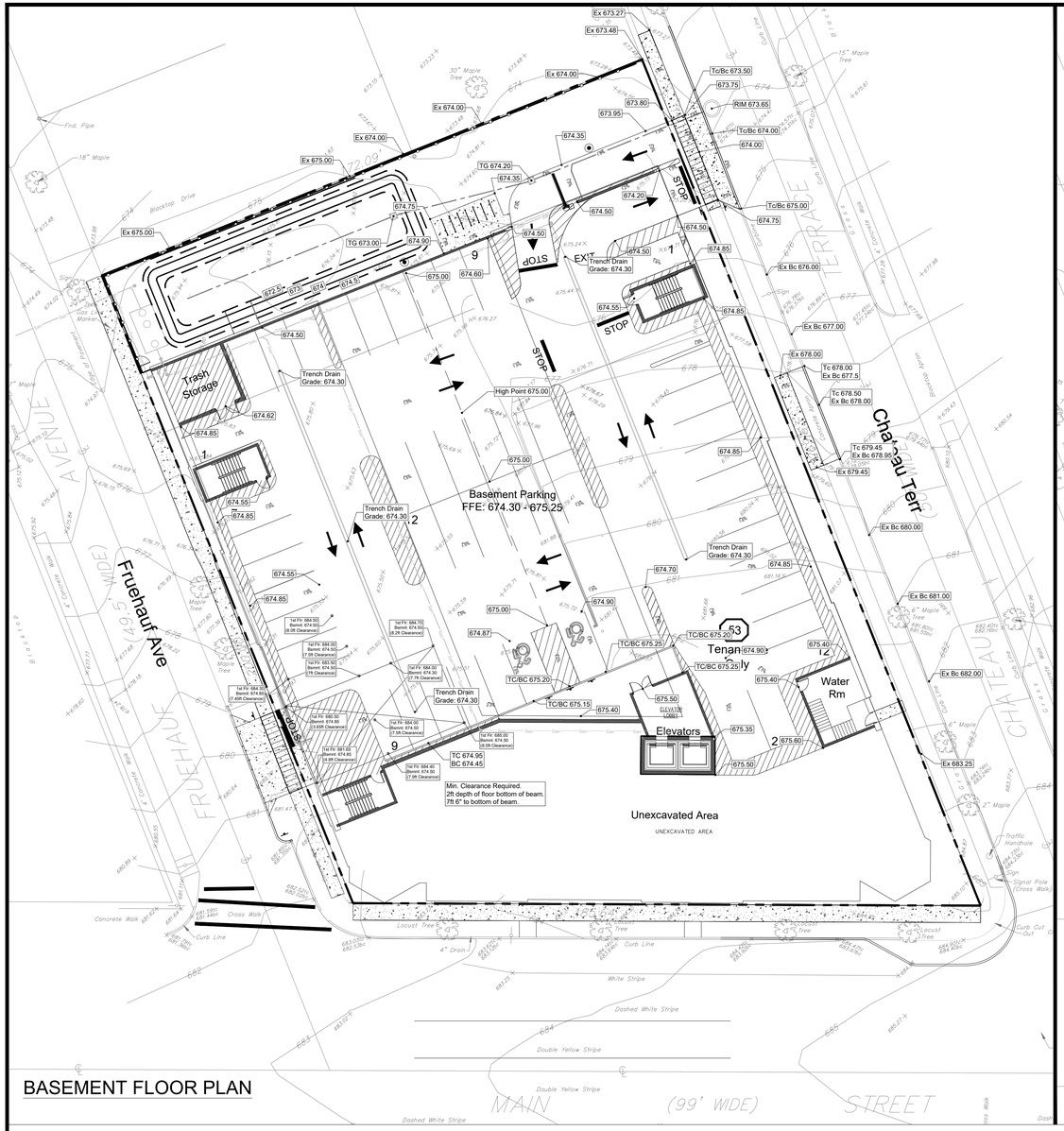
DRAWN BY: DMZ

CHECKED BY: JAR

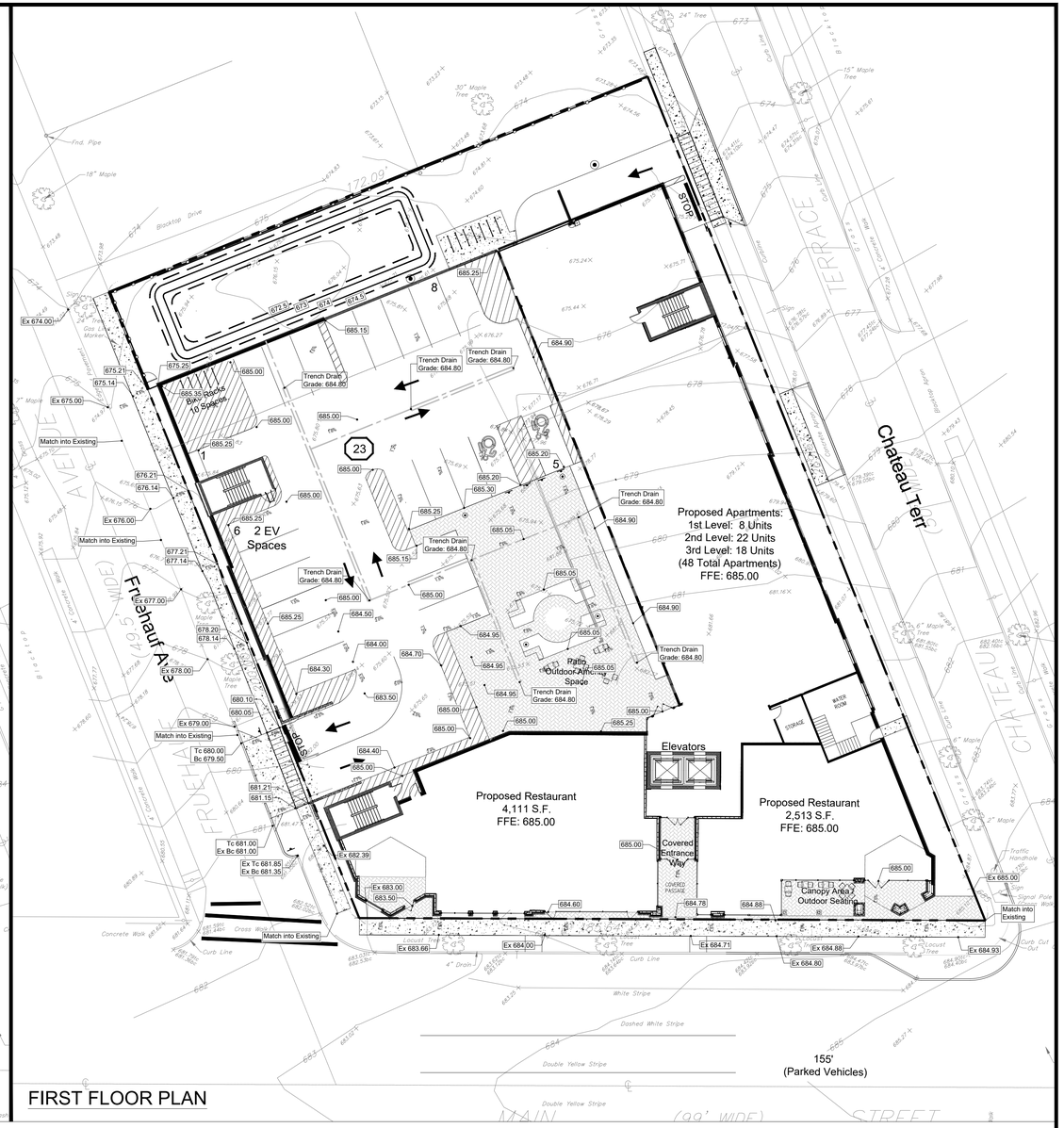
DATE: 05.05.2022

DRAWING NO. C4.2

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:

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2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN .
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    - 11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    - 11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

GRADING LEGEND:

- Property Line
- 6" Curb (typ).
- TG ## — Catch Basin - Top of Grade
- ### — Proposed Contour Line
- ##% — Slope Direction

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DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
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PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY 039 STATE OF NEW YORK

TITLE:

GRADING PLAN

SCALE: 1:20

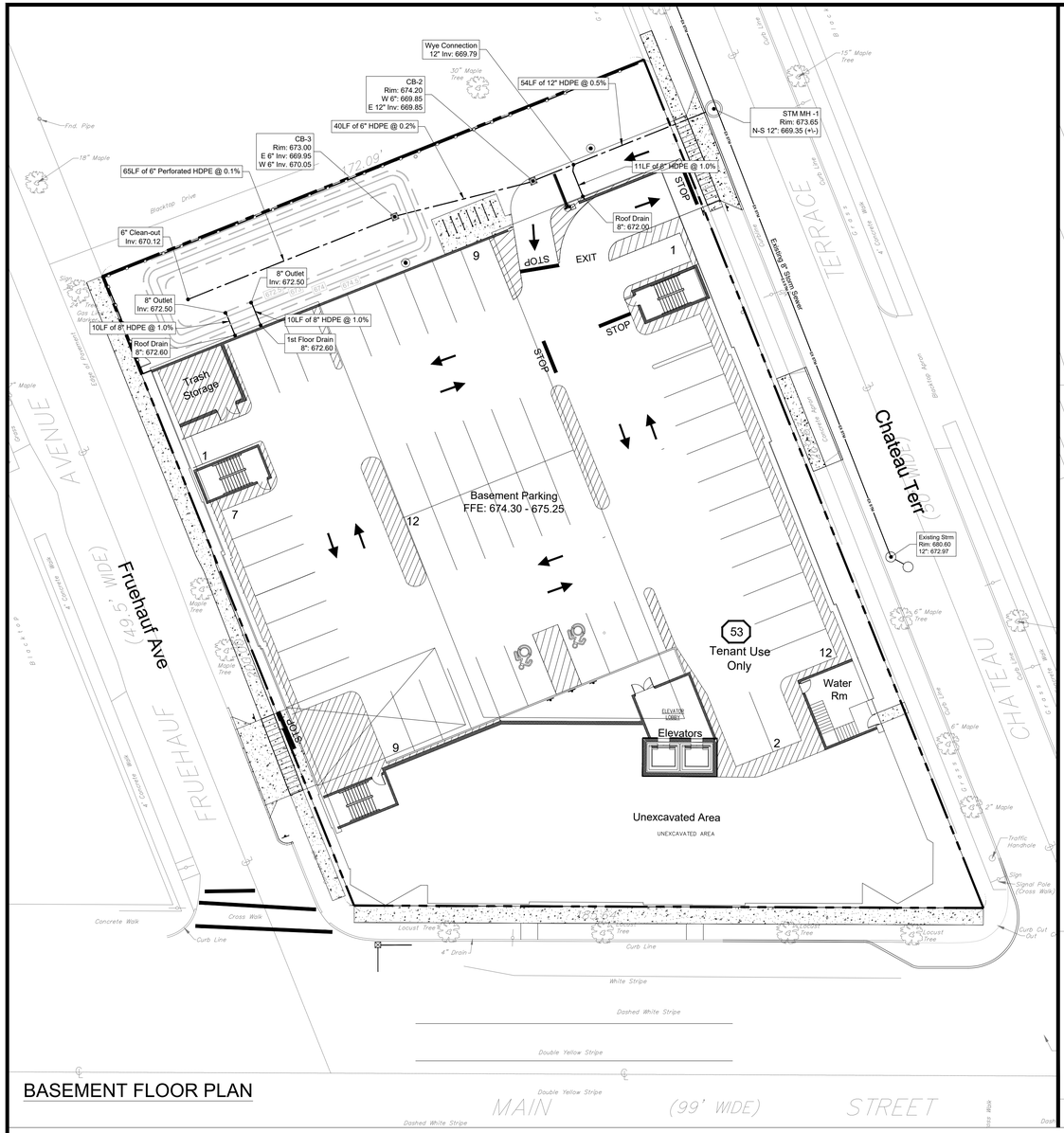
DRAWN BY: DMZ

CHECKED BY: JAR

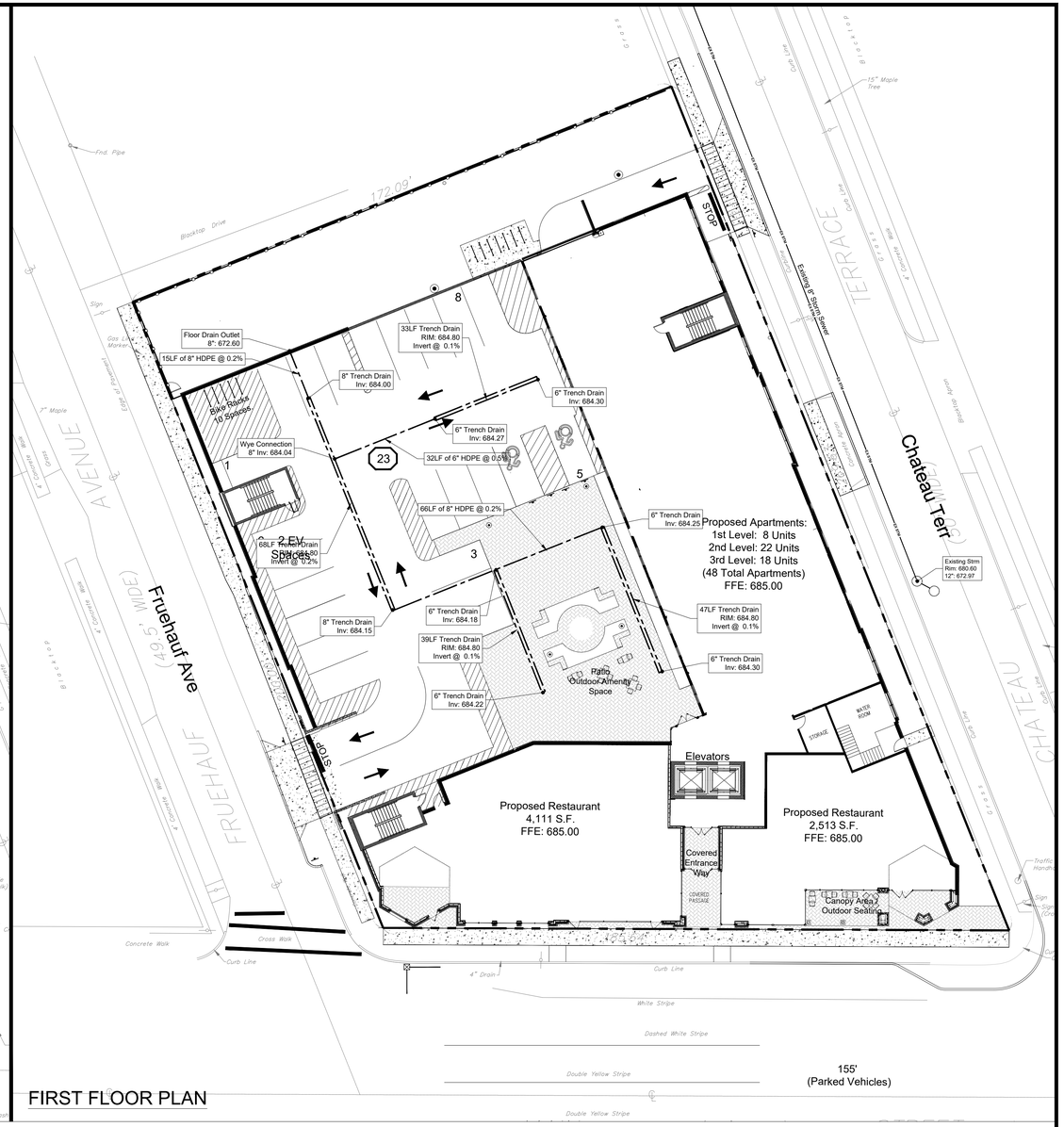
DATE: 05.05.2022

DRAWING NO. C5.0

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

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DRAINAGE LEGEND:

- PROPERTY LINE
- PROPOSED STORMWATER
- 6" CURB TYP.
- CO / WC — PROPOSED STORM CLEAN OUT / WYE CONNECTION
- CB - # — PROPOSED CATCH BASIN

OFFICIAL TOWN USE ONLY

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(716) 886-0211

SEAL

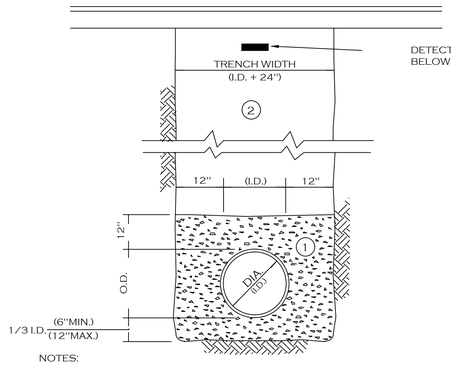
REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:

DRAINAGE PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C5.1

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

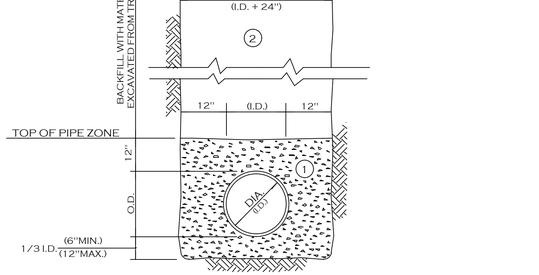
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERAIL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

TRENCH SECTION IN PAVED AREAS



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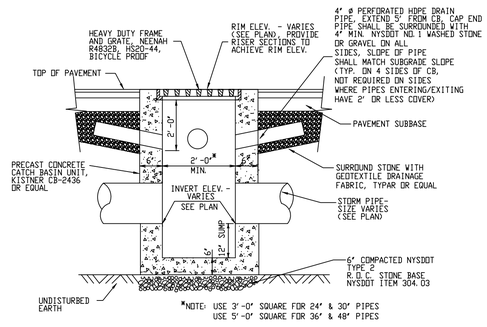
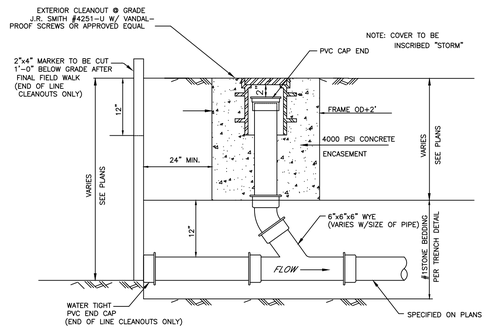
NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

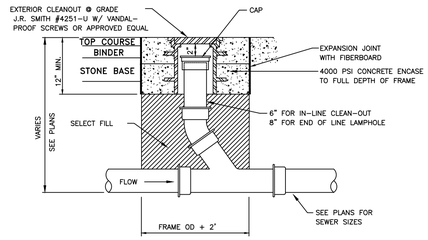
TRENCH SECTION IN UNPAVED AREAS



TYPICAL PRECAST CATCH BASIN

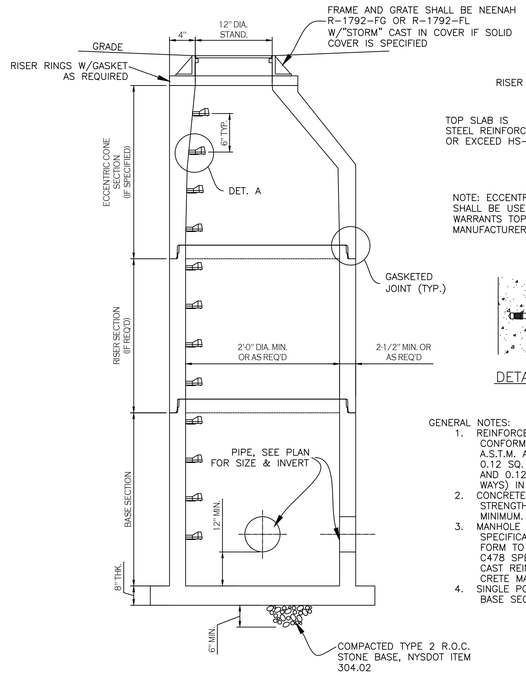


CLEANOUT IN LANDSCAPED AREAS
NOT TO SCALE

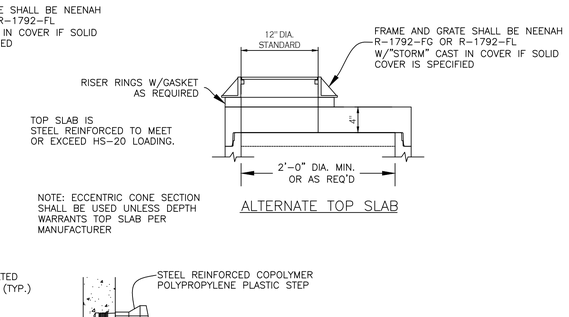


CLEANOUT IN PAVED AREAS
NOT TO SCALE

NOTE: WHERE FRAME & GRATE ARE INSTALLED IN NON-ASPHALT PAVED AREAS, A 4'X4'X6" THK CONCRETE APRON SHALL BE POURED AROUND THE RIM SLOPING TOWARDS THE GRATE



TYPICAL STORM MANHOLE DETAIL

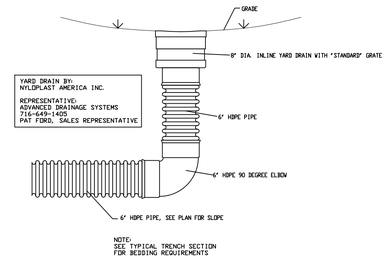


NOTE: ECCENTRIC CONE SECTION SHALL BE USED UNLESS DEPTH WARRANTS TOP SLAB PER MANUFACTURER

ALTERNATE TOP SLAB

DETAIL A

GENERAL NOTES:
1. REINFORCED STEEL TO CONFORM TO LATEST A.S.T.M. A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) IN BASE SLAB.
2. CONCRETE COMPRESSIVE STRENGTH – 4000 PSI MINIMUM.
3. MANHOLE DESIGN SPECIFICATIONS TO CONFORM TO LATEST A.S.T.M. C478 SPEC. FOR PRE-CAST REINFORCED CONCRETE MANHOLE SECTIONS.
4. SINGLE POUR MONOLITHIC BASE SECTION.

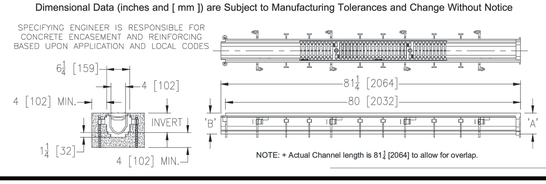


TYPICAL YARD DRAIN DETAIL

ZURN **Z886**
6-1/4 [159] WIDE REVEAL TRENCH DRAIN SYSTEM

SPECIFICATION SHEET
TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



NOTE: + Actual Channel length is 81¼ [2064] to allow for overlap.

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CONSULTANT

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BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:
DRAINAGE DETAILS

SCALE: -
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C5.2

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)

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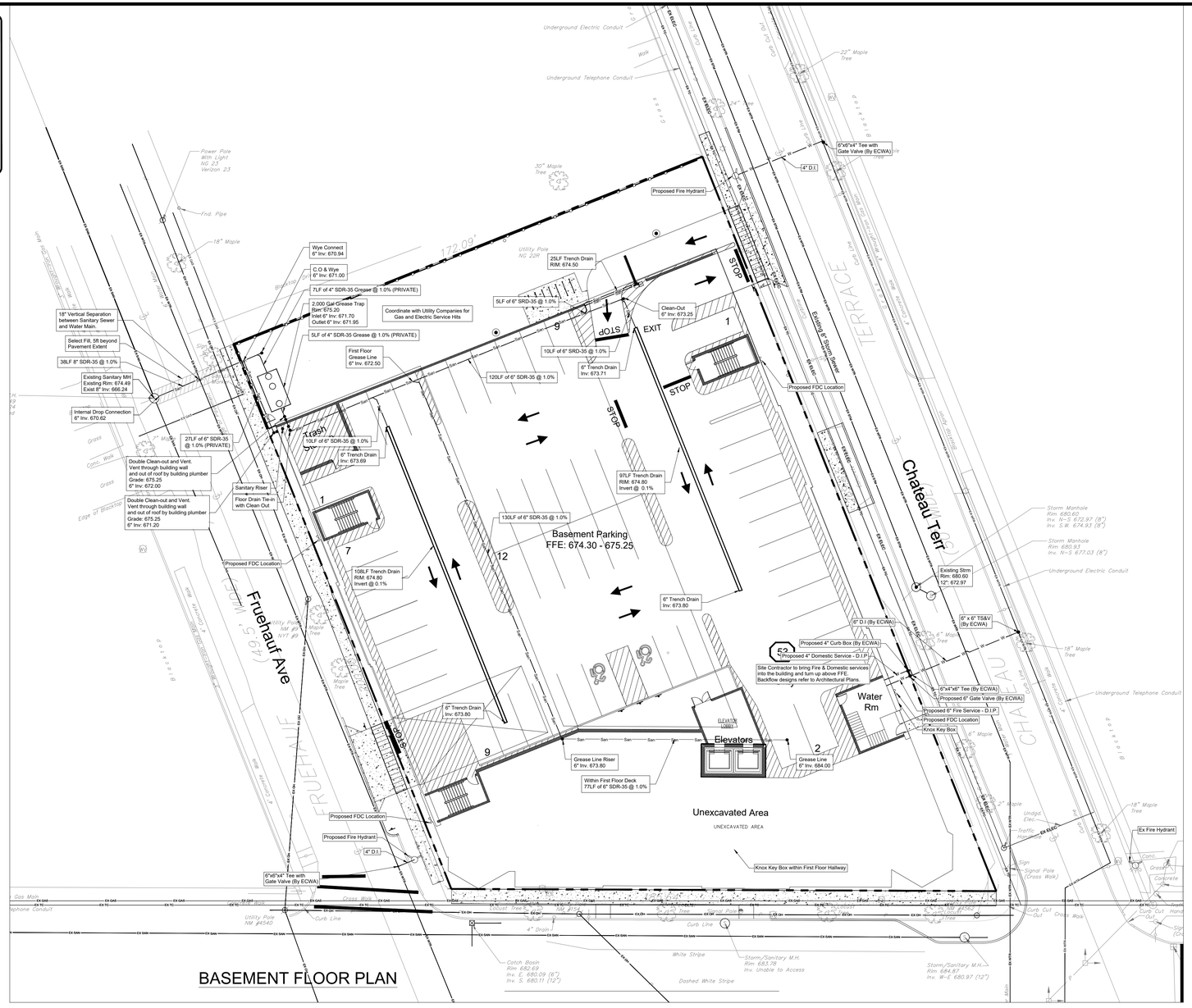
SANITARY SEWER NOTES:
1. THE CONTRACTOR IS ADVISED THAT A TRENCH SHIELD AND/OR SHORING DESIGNED IN ACCORDANCE WITH OSHA STANDARDS SHALL BE USED IN ALL OPEN TRENCH EXCAVATIONS.
2. ANY CONTRACTOR AND/OR PLUMBER PERFORMING WORKING IN A CONFINED SPACE (ie MANHOLES, WETWELLS, CHAMBERS) OWNED BY THE TOWN MUST CERTIFY TO THE TOWN THAT THEY HAVE THEIR OWN CONFINED SPACE ENTRY PROGRAM THAT MEETS OR EXCEEDS OSHA'S REGULATIONS. CERTIFICATION MUST BE NOTARIZED BY A NOTARY PUBLIC.
3. CONSTRUCTION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE TOWN AND NEW YORK STATE CODES.
4. IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AREA AND HAS LESS THAN 4' COVER, CONCRETE ENCASEMENT IS REQUIRED. IF MORE THAN 4' COVER IS PROVIDED IN PAVED AREAS SELECT FILL IS REQUIRED.
5. THE CONTRACTOR MUST NOTIFY THE TOWN ENGINEER OFFICE AND THE PLUMBING INSPECTOR 24 HOURS IN ADVANCE OF CONSTRUCTION.
6. CLEANOUTS ARE REQUIRED EVERY 100' AND AT CHANGE IN DIRECTION.
7. ABANDONED SANITARY SEWER CONNECTIONS FROM THE SITE, IF ANY, REQUIRE PROOF OF A DISTRICT PERMIT FOR DISCONNECTION PRIOR TO THE NEW CONNECTION BEING MADE.

UTILITY NOTES:
1. PROVIDE FITTINGS AND BLOCKING AS NECESSARY AT ALL BENDS IN WATER LINES.
2. WHERE UTILITIES ARE INSTALLED IN EXISTING PAVEMENT, LANDSCAPED AREA ETC. ANY ITEMS REMOVED/DAMAGED SHALL BE REPLACED IN KIND.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS NECESSARY: STATE, COUNTY, AND TOWN.
4. WATER MAINS TO HAVE MINIMUM 5FT COVER,

UTILITY LEGEND:

	PROPERTY LINE
G	PROPOSED GAS
W	PROPOSED WATER
E	PROPOSED ELECTRIC
San	PROPOSED SANITARY
TC	PROPOSED TELEPHONE
EX ELEC	EXISTING ELECTRIC
EX GAS	EXISTING GAS
EX WTR	EXISTING WATER
EX OH	EXISTING OVERHEAD UTILITY
EX SAN	EXISTING SANITARY
EX STM	EXISTING STORM
EX TC	EXISTING TELECOMS



BASEMENT FLOOR PLAN

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SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:

UTILITY PLAN

SCALE: 1:20

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C6.0

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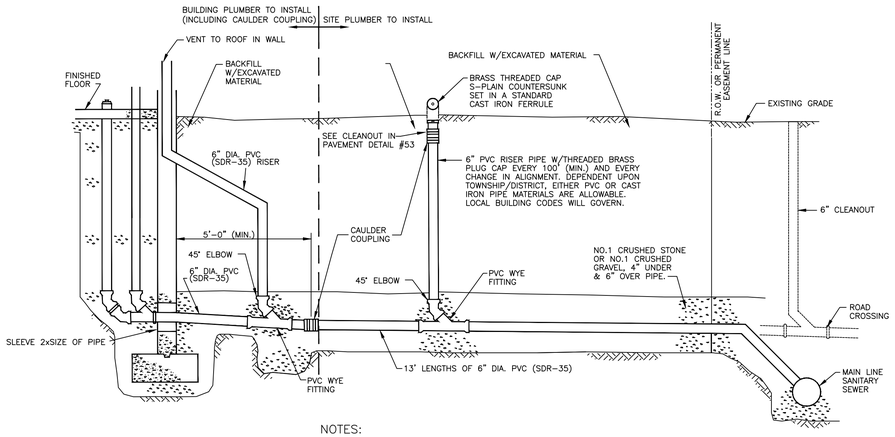
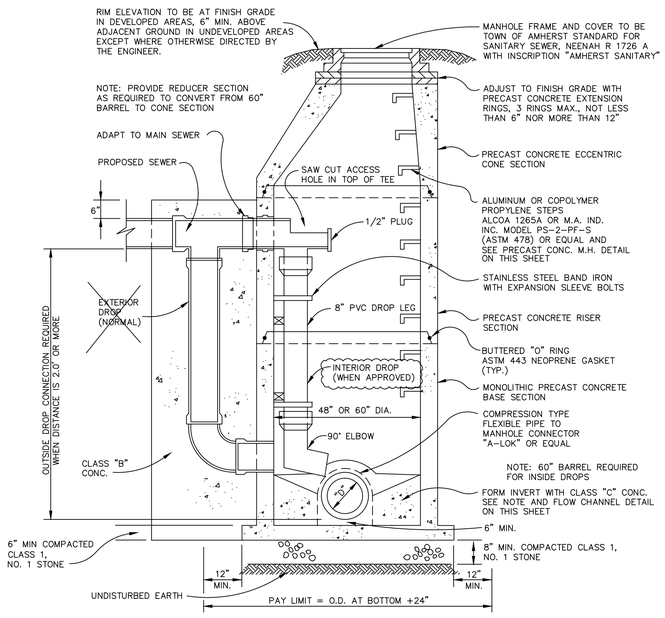


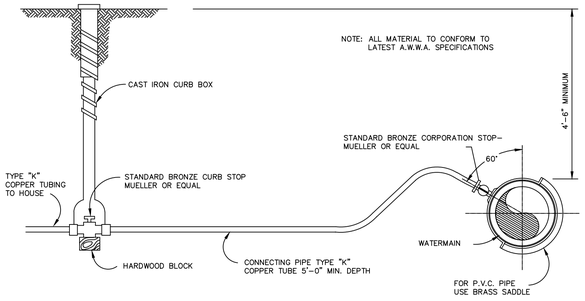
NOTES:

1. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D-3033/D-3034.
2. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
3. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS
4. MIN. DEPTH OF COVER 3'-0"
5. A GREASE SEPARATOR AND OIL SEPARATOR REQUIRED WHERE APPLICABLE.

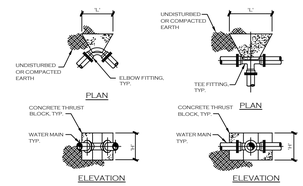
TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (SANITARY)



TOWN OF AMHERST TYPICAL PRECAST CONCRETE DROP MANHOLE (FOR DROP CONNECTION)



TYPICAL WATER SERVICE LINE INSTALLATION

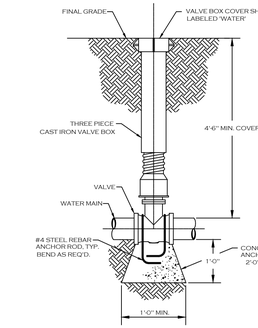


DIMENSION SCHEDULE								
PIPE SIZE	90° ELBOW		45° ELBOW		22.5° ELBOW		11.25° ELBOW	
	'H'	'L'	'H'	'L'	'H'	'L'	'H'	'L'
4"	1.5'	2.0'	1.0'	2.0'	1.0'	1.0'	1.0'	1.0'
6"	2.0'	2.5'	1.5'	2.0'	1.0'	1.5'	1.0'	1.5'
8"	2.5'	3.5'	2.0'	2.5'	1.5'	1.5'	1.0'	2.0'
10"	3.0'	4.5'	2.5'	3.0'	1.5'	3.0'	1.0'	2.5'
12"	3.5'	5.0'	3.0'	3.5'	2.5'	2.5'	1.5'	2.5'

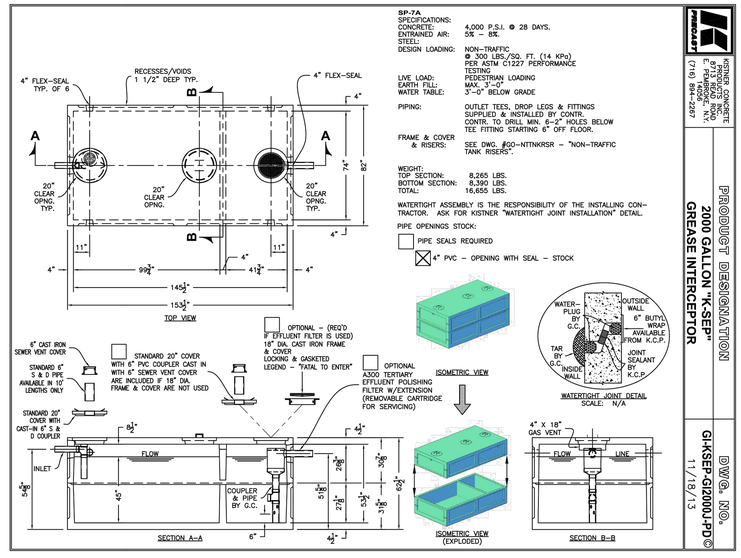
DIMENSION SCHEDULE		
PIPE SIZE	TEE OR TAP SLEEVE	
	'H'	'L'
4"	1.5'	1.0'
6"	1.5'	2.5'
8"	1.5'	3.5'
10"	2.5'	3.5'
12"	3.5'	3.5'

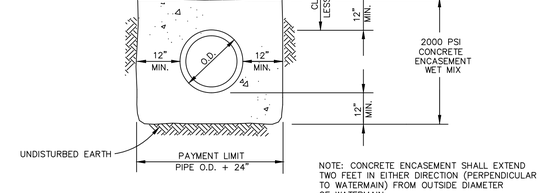
THRUST BLOCK SCHEDULE

WATER MAIN



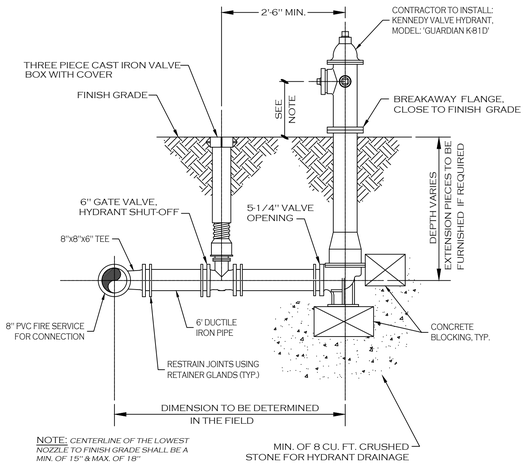
TYPICAL GATE VALVE DETAIL





NOTE: CONCRETE ENCASEMENT SHALL EXTEND TWO FEET IN EITHER DIRECTION (PERPENDICULAR TO WATERMAIN) FROM OUTSIDE DIAMETER OF WATERMAIN.

WATER CROSSING DETAIL CLEARANCE LESS THAN 18"



TYPICAL FIRE HYDRANT ASSEMBLY DETAIL

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments
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PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



OFFICIAL TOWN USE ONLY

TITLE:

UTILITY DETAILS

SCALE: -

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C6.1

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRIX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

LANDSCAPE NOTES:

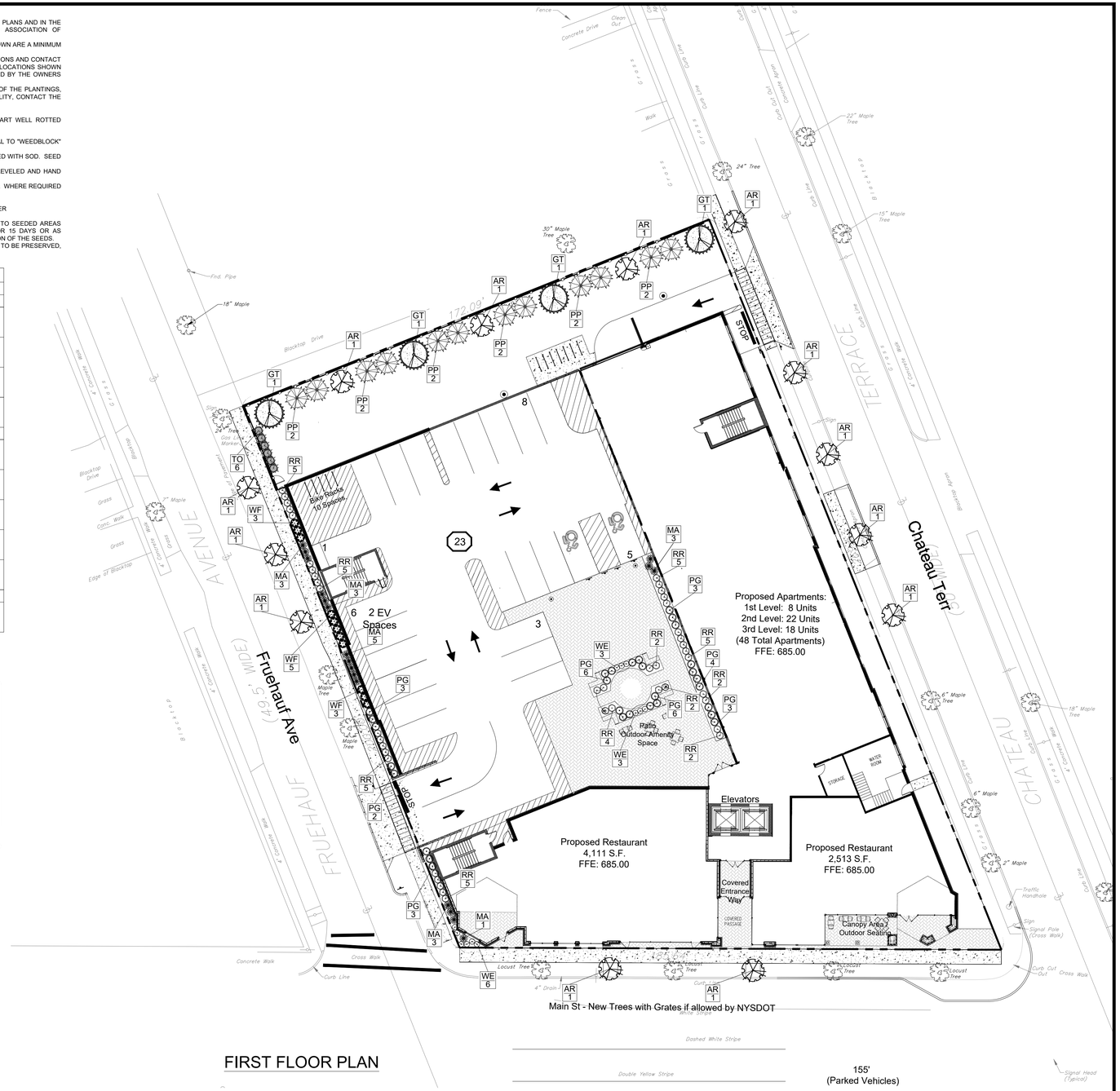
1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI 260.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF, THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY, ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY, CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, ½ PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A MAX. 2" LAYER OF COCOA BROWN MULCH. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS (INCLUDING RIGHT-OF-WAYS) SHALL BE PROVIDED WITH SOD. SEED PERMITTED AT DETENTION POND IF PLANTED EARLY ENOUGH TO ESTABLISH.
10. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
11. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING.
    HYDROSEED SPEC: 20% RYE, 20% BLUE GRASS, 60% TURF TYPE FESCUE.
    SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE (REFER TO CONTRACTOR FOR SOD/SEED COVERAGE).
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER, THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.
13. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING TREES ONSITE AND OFFSITE, WHICH ARE TO BE PRESERVED, FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE.

PLANT LIST

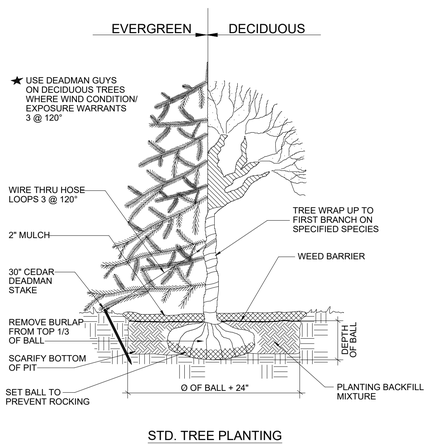
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	CAL.	SIZE	ROOT	QTY.
TREES							
	AR	Acer x freemanii 'Armstrong'	ARMSTRONG MAPLE	2½"		B&B	13
	TO	Thija occidentalis 'Emerald'	EMERALD GREEN ARBORVITAE		5'	B&B	6
	GT	Gleditsia Triacanthos	HONEY LOCUST	3"		B&B	4
	PP	Picea pungens	COLORADO SPRUCE		5'	B&B	12
SHRUBS							
	PG	Picea pungens 'Glauca Globosa'	LOW GRAFT GLOBE BLUE SPRUCE		24"	3 GAL.	30
	RR	Rosa 'Radrazz'	KNOCK OUT SHRUB ROSE		24"	3 GAL.	42
	SJ	Spiraea japonica 'Gold Mound'	GOLD MOUND SPIRAEA		24"	3 GAL.	10
	WE	Weigela florida 'Elvera'	MIDNIGHT WINE WEIGELA		24"	3 GAL.	12
	WF	Weigela florida 'Alexandra'	WINE & ROSES WEIGELA		24"	3 GAL.	11
GRASSES							
	MA	Miscanthus sinensis 'Adagio'	ADAGIO MAIDEN GRASS		24"	3 GAL.	15

LANDSCAPE ANALYSIS

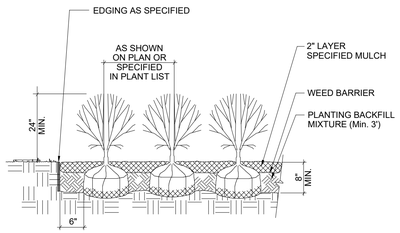
TYPE	REQUIRED	PROVIDED
STREET TREES	1 TREE / 35 L.F. §203-5A-2-4 K	
MAIN STREET	186 L.F. Frontage 186' / 35' = 6 trees required	6 Trees
CHATEAU TERRACE	269 L.F. Frontage 269' / 35' = 8 trees required	8 Trees
FRUEHAUF AVE	200 L.F. Frontage 200' / 35' = 6 trees required	6 Trees
DEEP LOT TRANSITION	20' MIN WIDTH	20'
Medium Impact Screen - Large Deciduous - Small Deciduous/ Ornamental - Evergreen	Screen 3 @ 172LF Length 1 Tree / 50 L.F. = 4 Trees 1 Tree / 60 L.F. = 3 Trees 1 Tree/ 15 L.F. = 12 Trees	 4 Trees 3 Trees 12 Trees



FIRST FLOOR PLAN



STD. TREE PLANTING



STD. SHRUB PLANTING

OFFICIAL TOWN USE ONLY

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PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED LANDSCAPE ARCHITECT · ROBERT J. TRYBULSKI · 001233 · STATE OF NEW YORK

Robert J. Trybulski

ROBERT J. TRYBULSKI
LANDSCAPE ARCHITECT

TITLE:

LANDSCAPE PLAN

SCALE: 1:20

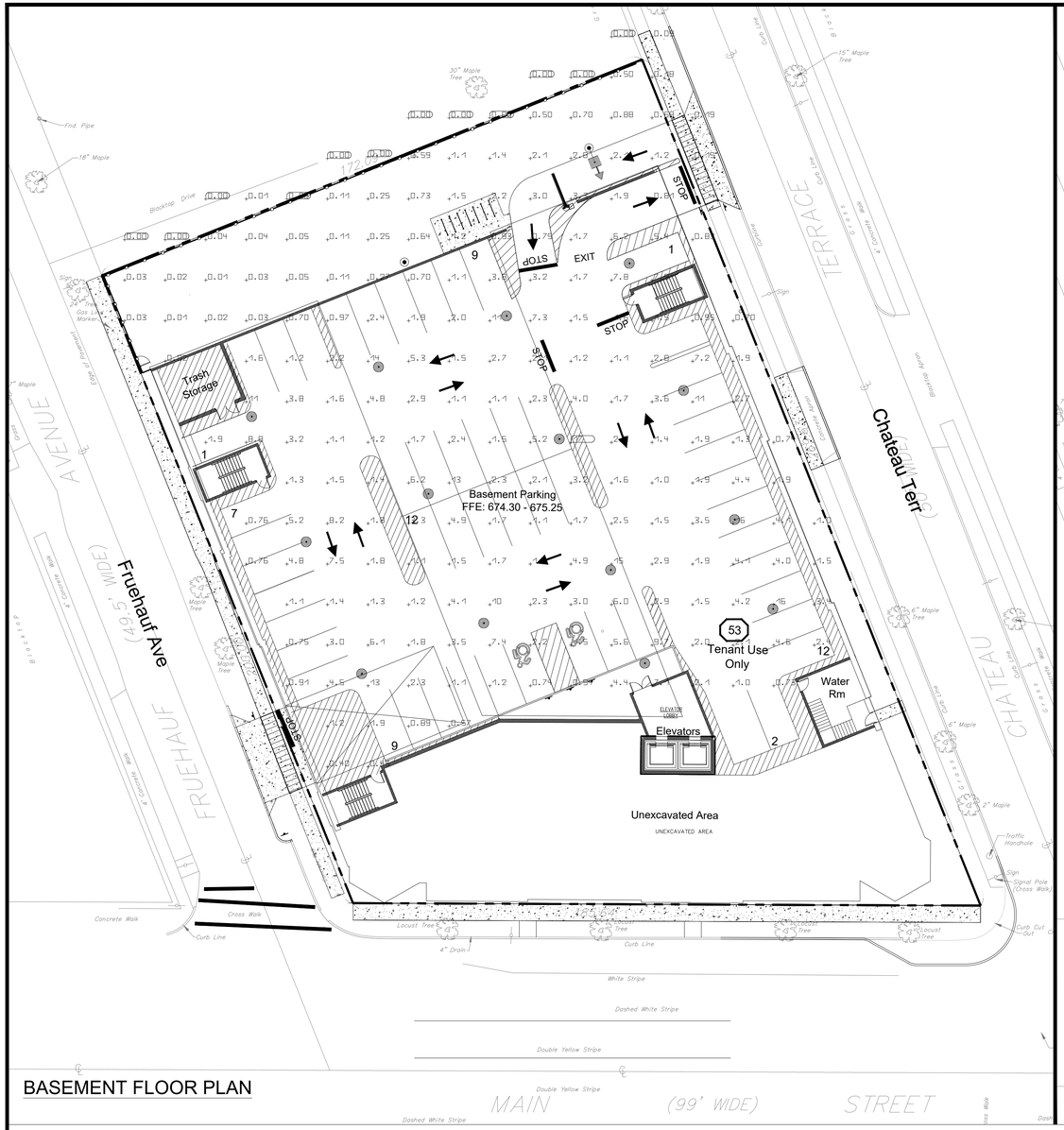
DRAWN BY: DMZ

CHECKED BY: RJT

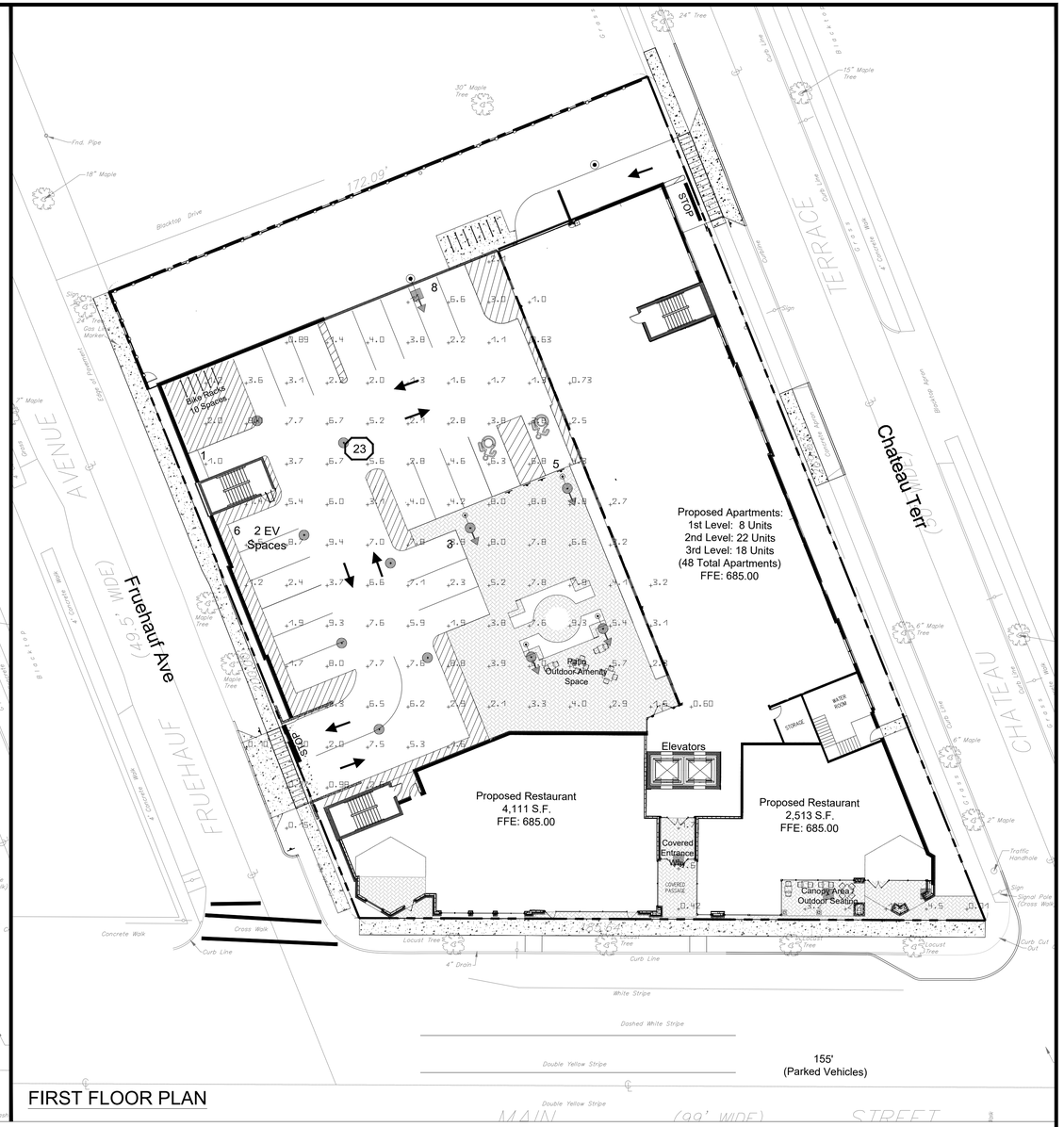
DATE: 05.05.2022

DRAWING NO. C7.0

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



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Luminaire Schedule

Index	Manufacturer	Luminaire type	Item number	Luminous flux	Mounting Height	Connected load	Quantity
	Cree Inc	Cree OSQ Series Area Luminaire, Type III Medium, 11L Input Power Designator, 4000K	OSQM-B-11L-40K7 3M-UL-BK w/OSQ-BLSLF	8825 Lm	20 Ft	72 W	2
	Cree Inc.	Cree IG Series Parking Garage Luminaire, Type V , 7L Input Power Designator, 4000K	IG-B-NM-5S-7L-40K8-UL	7550 Lm	10 Ft	60 W	21
	Cree Inc	Cree THE EDGE Series Round Luminaire, 60x 525mA Power, 4000K	ARE-EDG-2M-R3-06-E-UL-BK-525	10527 Lm	15 Ft	101 W	4
	Cree Inc	Cree CPY Series - Version C Canopy Luminaire, 2L Power, Flat Lens, 4000K	CPY250-C-2L-40K9-F-UL-DM	1730 Lm	10 Ft	14 W	3

m	Name	Parameter	Min	Max	Average
1	Pavement Parking Area	Site FC	0.10 fc	16.6 fc	2.91 fc

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JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
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(716) 886-0211

SEAL



TITLE:

LIGHTING PLAN

SCALE: 1:20

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C8.0

Attachment: SP-2022-11 Cover (26951 : Sp-2022-11)

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Rev. Date: V5 09/14/2021

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 4L lumen package is a suitable upgrade for HID applications up to 250 Watt, and the 11L lumen package is a suitable upgrade for HID applications up to 400 Watt. The 22L lumen package is a suitable upgrade for HID applications up to 750 Watts, and the 30L lumen package is a suitable upgrade for HID applications up to 1000 Watts.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: 4,000 - 30,000

Efficacy: Up to 173 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire; 13 years on Colorfast DeltaGuard® finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

*See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** OSQ-ML-B-AA-BK + **Luminaire:** OSQM-B-4L-30K7-2M-UL-NM-BK

Mount (Luminaire must be ordered separately)*

OSQ-

OSQ-ML-B-AA Adjustable Arm
OSQ-ML-B-DA Direct Arm
OSQ-ML-B-TSP Transportation Mount (stainless steel; do not specify color)
OSQ-ML-B-TM Trunnion Mount

Color Options: **SV** Silver **BK** Black **BZ** Bronze **WH** White

* Reference EPA and pole configuration suitability data beginning on page 10

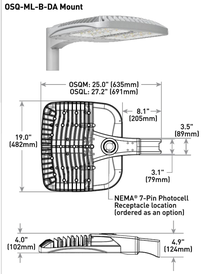
Luminaire (Mount must be ordered separately)

OSQ		B							
Family	**Size**	**Series**	**Lumen Package***	**CCT/CRI**	**Optic**	**Voltage**	**Mount**	**Color Options**	**Controls****	**Options**
OSQ	**M** Medium **L** Large	**B**	**Medium** **4L** 4,000 Lumens **6L** 6,000 Lumens **9L** 9,000 Lumens **11L** 11,000 Lumens **14L** 14,000 Lumens **Large** **22L** 22,000 Lumens **30L** 30,000 Lumens	**30K7** 3000K, 70 CRI **40K7** 4000K, 70 CRI **50K7** 5000K, 70 CRI **57K7** 5700K, 70 CRI	**Asymmetric** **2M*** Type II Medium **3M*** Type III Medium **4M*** Type IV Medium **Symmetric** **5M** Type V Medium **5N** Type V Narrow **5Q** Type V Square **W3** Narrow Flood **33** NEMA® 3x3 **44** NEMA® 4x4 **55** NEMA® 5x5 **66** NEMA® 6x6 **75** NEMA® 7x5	**UL** Universal 120-277V **UH** Universal 347-480V - Not available with 4L or 6L lumen packages	**NM** No Mount - Must specify mount from table above - Mount ships separately	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**PML Programmable Multi-Level, up to 40' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **PML2 Programmable Multi-Level, 10-30' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **09/08/07/06/05/04/03/02/01 Field Adjustable Output** - Must select DP, Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range adjustability - Refer to pages 12-18 for power and lumen values - Not available with PML or PML2 options **XB/XT/XA/XS/XJ/XX/XW/X1 Locked Lumen Output** - Must select and XB, X7, XA, XS, XJ, X4, X3, X2, or X1 - Not available with 22L or 30L lumen packages - Not available with PML or PML2 options - Lumen output is permanently locked to the setting selected - Refer to pages 12-18 for power and lumen values	**20KV 20kV/10kA Surge Suppression** - Replaces standard 10kV surge protection **F Fuse** - Compatible with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - Refer to PML spec sheet for availability with PML options - When code dictates fusing, use time delay fuse **R NEMA® 7-Pin Photocell Receptacle** - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - 18" (457mm) seven-conductor cord exits luminaire - Requires photocell or shorting cap by others **RL Rotate Left** - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 19 for optic directionality - Not for use with symmetric optics **RR Rotate Right** - LED and optic are rotated to the right - Refer to RR/RL configuration diagram on page 19 for optic directionality - Not for use with symmetric optics

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values
* Available with Backlight Shield when ordered with field-installed accessory (see table above)
** Luminaire comes standard with 0-10V dimming

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

OSQ-ML-B-DA Mount



Luminaire	Weight
OSQM	28.9 lbs. (13.1kg)
OSQL	32.4 lbs. (14.7kg)

Note: Refer to page 11 for future mounting drill pattern. For additional mounts, refer to drawings beginning on page 19

CPY Series - Version C

CPY250® LED Canopy/Soffit Luminaire

Rev. Date: V3 02/01/2022

Product Description

The CPY250® LED Canopy/Soffit Luminaire has an extremely thin profile constructed of rugged cast aluminum. It can be surface mounted easily from below the canopy deck and can be pendant mounted. Direct imaging of the LEDs is eliminated with a highly efficient patterned flat or 0.91" (23mm) drop glass lens.
Applications: Petroleum canopies, CNG fueling stations, soffits

Performance Summary

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 21,000

Efficacy: Up to 165 LPW

CRI: Minimum 70 CRI (40K, 50K, 57K); 80 CRI (30K); 90 CRI (40K, 50K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/5 years on PML sensor/1 year on field-installed accessories

IP66 Rated (select models only)

Class I, Division 2 Hazardous Location for select models

*See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed

Direct Mount Luminaires
Canopy Upgrade Kits (18 ga. steel, except where noted)
CPY-AP06/* - for use with Cree Lighting CAN-304 luminaires, 16 ga. 5052 aluminum
XA-BXCCMW – for use with Jet-Philips, 21.40" (569mm) square, white
XA-BXCCNW – for use with Elsco Franciscan, 22.06" (560mm) square, white
XA-BXCCPW – for use with LSI Dakota or Masters, 22.50" (572mm) square, white
XA-BXCCQW – for use with Whiteway Riviera or Rig-A-Lite, 20.60" (523mm) square, white
XA-BXCCRW – for use with Elsco Merrit, 18.06" (459mm) square, white
XA-BXCCSW – for use with LSI Richmond or Whiteway Civic, 23.00" (584mm) L x 13.00" (330mm) W, white
Direct Mount Junction Box/Stem Kit
XA-BXCCJBOX – 6.0" (152mm) H x 3/4" (19mm) NPT Stem
- Watertight
- Rated for feed through 8 (4 in, 4 out) #12 AWG conductors
Direct Mount Beauty Plates
XA-BXCCBPW – 24.17" (665mm) Beauty Plate Only (18 ga. steel), white
XA-BXCCBPB13W – 24.17" (665mm) Beauty Plate (18 ga. steel) w/13" (305mm) Backer Plate (16 ga. steel), white
- For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 10.75" x 15" (183mm x 275mm)
XA-BXCCBPB16W – 24.17" (665mm) Beauty Plate (18 ga. steel) w/16" (406mm) Backer Plate (16 ga. steel), white
- For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 12" x 15" (305mm x 375mm)

Pendant Mount Luminaires
Pendant Mount Kits
XA-PS12KIT* – 5" (127mm) pendant
XA-PS18KIT* – 11" (279mm) pendant
XA-PS22KIT* – 15" (381mm) pendant
- Includes two conduit fittings and 3/4-14 NPT pipe threaded on two ends

Hand-Held Remote
XA-SENSREM
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

Synapse® SimplySnap 10V Interface
DIM10-220F
- 120V-277V
- Requires other Synapse components to complete system
- Refer to DIM10-220F spec sheet for details

Backlight Control Shields
XA-20BLS-4
- Four-pack
- Unpainted stainless steel
- For use with SM and SS optics
- Consult factory for shielding for use with 2M, 3M, and 4M optics

* Must specify color: BK (Black), BZ (Bronze), SV (Silver) or WH (White)

DM Mount / DM Mount with HZ Option



Weight
12.5 lbs. (5.7kg)

Refer to Page 4 for additional mounts.

Ordering Information

Example: CPY250-C-13L-57K7-D-UL-DM-SV

CPY250	C							
Product	**Version**	**Lumen Package***	**CCT/CRI**	**Optic**	**Voltage**	**Mounting**	**Color Options**	**Controls**	**Options**
CPY250	C	**2L** 2,000 Lumens **4L** 4,000 Lumens **6L** 6,000 Lumens **9L** 9,000 Lumens **13L** 13,000 Lumens **21L** 21,000 Lumens	**30K8** 3000K, 80 CRI **40K7** 4000K, 70 CRI **40K8** 4000K, 90 CRI **50K7** 5000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**D** 0.91" (23mm) Drop Lens **F** Flat Lens	**UL** Universal 120-277V **UH** Universal 347-480V - Available only in 4L-21L lumen packages	**DM** Direct Mount **HC** Hook & Cord **PD** Pendant **R6** Car Wash	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**BLANK** Non-Dimming **10V** 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details **PML** Programmable Multi-Level - Available with UL voltage only - Refer to PML spec sheet for details	**10KV 10kV/5kA Surge Suppression** - Replaces standard 4kV/3kA surge suppression - Not for use with PML, as PML option includes10kV surge as standard **HZ Class I, Div 2 Hazardous Location** - Available with DM and PD mounts only - Not available with PML control or K option **K NSF 2 Certification** - Luminaires include NSF certification mark - Suitable for DM mount only - Not available with PML control or HZ option

* Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

IG Series

LED Parking Garage Luminaire

Rev. Date: V6 09/17/2020

Product Description

Cree Lighting innovates again to reset the performance benchmark in parking garage applications with the IG Series featuring WaveMax® Technology, our innovative optical waveguide platform. Available in 33 watt and 60 watt, two lumen packages are offered to satisfy IES RP-8-18 and IES Security Zone 0-1-03 requirements for environments seeking higher light levels for improved safety and security. The streamlined design breaks away from dated traditional designs, blending form and function, to deliver superior low-glare illumination.

For enhanced performance and versatility, a range of optional integrated lighting controllers bring advanced capabilities and energy savings to the IG Series. From the stand-alone multi-level (PML) option to the full-featured Limelight by Lutron or Synapse® wireless control options, the IG Series provides the features and flexibility designed to meet the needs of today's most demanding parking garage applications.

Applications: Parking garages

Performance Summary

Utilizes WaveMax® Technology

Initial Delivered Lumens: 3,860 or 7,550 lumens

Input Power: 33 or 60 watts

Efficacy: Up to 126 LPW

Optic: Type V Short Distribution

Assembled in the USA of U.S. and imported parts

CCT: 3000K, 3500K, 4000K, 5700K

CRI: Minimum 80 CRI

Limited Warranty*: 10 years on luminaire; 5 years on PML and Limelight options; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

*See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** IG-JBWH + **Luminaire:** IG-B-NM-5S-4L-42KB-UL-WH

Mount (Luminaire must be ordered separately)

IG-

IG-JB Junction Box
IG-PD Pendant

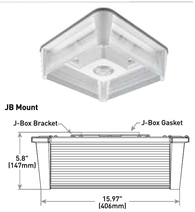
Color Options: **WH** White

Luminaire (Mount must be ordered separately)

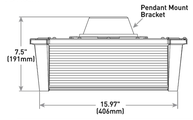
IG	B	NM	5S				WH	
Product	**Version**	**Mounting**	**Optic**	**Lumen Package**	**CCT/CRI**	**Voltage**	**Color**	**Options**
IG	B	**NM** No Mount	**5S** Type V Short	**4L** 4,000 Lumens **7L** 7,000 Lumens	**30KB** 3000K, 80 CRI **35KB** 3500K, 80 CRI **40KB** 4000K, 80 CRI **57KB** 5700K, 80 CRI	**UL** Universal 120-277V **UH** Universal 347-480V	**WH** White	**L8F Limelight by Lutron Radio Module** - Not available with UH voltage or PML, SWC, SWS, LPL, or LPM options **LPL Limelight by Lutron Radio Module and PIR Sensor Assembly – Low Mounting Height (8-15' mounting height)** - Not available with UH voltage or PML, SWC, SWS, L8F, or LPM options **LPM Limelight by Lutron Radio Module and PIR Sensor Assembly – Medium Mounting Height (>15 to 30' mounting height)** - Not available with UH voltage or PML, SWC, SWS, LPL, or L8F options **PML Programmable Multi-Level** - Uses built-in occupancy sensing and field-adjustable ambient light sensitivity to independently control the light output of each luminaire - Refer to PML spec sheet for details - Not available with SWC, SWS, L8F, LPL or LPM options - XA-SENSREM hand-held remote required (see Accessory table on page 2) **SWC Synapse® Wireless Controller** - Provides real-time lighting control with utility-grade power monitoring (+/-2%) - Uses a highly reliable SimplySNAP mesh network - SimplySNAP Gateway is required (see Accessory table on page 2) -Not available with UH voltage or PML, SWS, L8F, LPL or LPM options **SWS Synapse® Wireless Controller with Network Sensor** - Adds customizable sensor for motion or ambient light detection with use of Daylight Harvesting Accessory (see Accessory table on page 2) - Sensor configured for motion sensing as factory default - SimplySNAP Gateway is required (see Accessory table on page 2) - Not available with UH voltage or PML, SWC, L8F, LPL or LPM options

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

JB Mount



PD Mount



Weight
10 lbs. (4.5kg)

THE EDGE® Series

LED Area Luminaire – Round

Rev. Date: V10 12/10/2021

Product Description

THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment, spun vented cover, high performance aluminum heat sinks and leaf/debris guard.
Applications: Auto Dealerships, parking lots, campuses, facade lighting and general site lighting applications

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 25,065

CRI: Minimum 70 CRI (4000K & 5700K); 80 CRI (3000K); 90 CRI (5000K)

CCT: Turtle Friendly Amber, 3000K (+/-300K), 4000K (+/-300K), 5000K (+/- 500K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish /1 year on accessories

*See http://creelighting.com/warranty for warranty terms

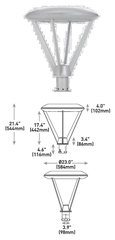
Accessories

Field-Installed

Bird Spikes
XA-BRDSPK
Synapse® SimplySnap 10V Interface
DIM10-220F
- 120V-277V
- Requires other Synapse components to complete system
- Refer to DIM10-220F spec sheet for details

Backlight Control Shields
XA-20BLS-4
- Four-pack
- Unpainted stainless steel
- For use with SM and SS optics
- Consult factory for shielding for use with 2M, 3M, and 4M optics

R3 Mount



LED Count (x10)	Weight
04	33.8 lbs. (15.3kg)
06	35.2 lbs. (15.9kg)
08	37.0 lbs. (16.8kg)
10	40.7 lbs. (18.5kg)
12	42.4 lbs. (19.3kg)

R4/R5 Mount – see page 14 for weight & dimensions

Ordering Information

Example: ARE-EDR-2M-R3-12-E-UL-SV-350

ARE-EDR								
Product	**Optic**		**Mounting**	**LED Count (x10)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
ARE-EDR	**2M** Type II Medium **2MB** Type II Medium w/BLS **2MP** Type II Medium w/ Partial BLS **3MB** Type III Medium w/BLS	**3MP** Type III Medium w/Partial BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS **4MP** Type IV Medium w/Partial BLS **5M** Type V Medium **5S** Type V Short	**R3** Spider, Center Tenon, 2-3/8" to 3" OD **R4** Spider, Center Direct, 4" Square **R5** Spider, Center Direct, 5" Round	**04**** **06**** **08**** **10** **12**	**E**	**UL** Universal 120-277V **UH** Universal 347-480V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA **700** 700mA - Available with 40-60 LEDs	**DIM 0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current **F Fuse** - Compatible only with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - When code dictates fusing, use time delay fuse **HL HL/Low (Dual Circuit Input)** - Refer to HL spec sheet for details - Sensor not included **P Photocell** - Available with UL voltage only **30K 3000K Color Temperature** - Minimum 80 CRI - Color temperature per luminaire **40K 4000K Color Temperature** - Minimum 70 CRI - Color temperature per luminaire **50K 5000K Color Temperature** - Minimum 90 CRI - Color temperature per luminaire **TRL Amber Turtle Friendly LEDs** - Available only with 350mA - 600nm dominant wavelength - Additional shielding (by others) may be required for Florida Fish and Wildlife Conservation Commission compliance

* Reference EPA and pole configuration suitability data on page 14
** Consists of multiple 20 LED light bars. 40, 60, and 80 LED units use blanks as needed in place of populated light bars

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

OFFICIAL TOWN USE ONLY

TITLE: LIGHTING DETAILS

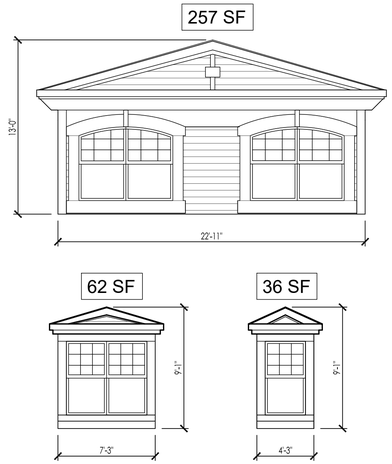
SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C8.1

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)

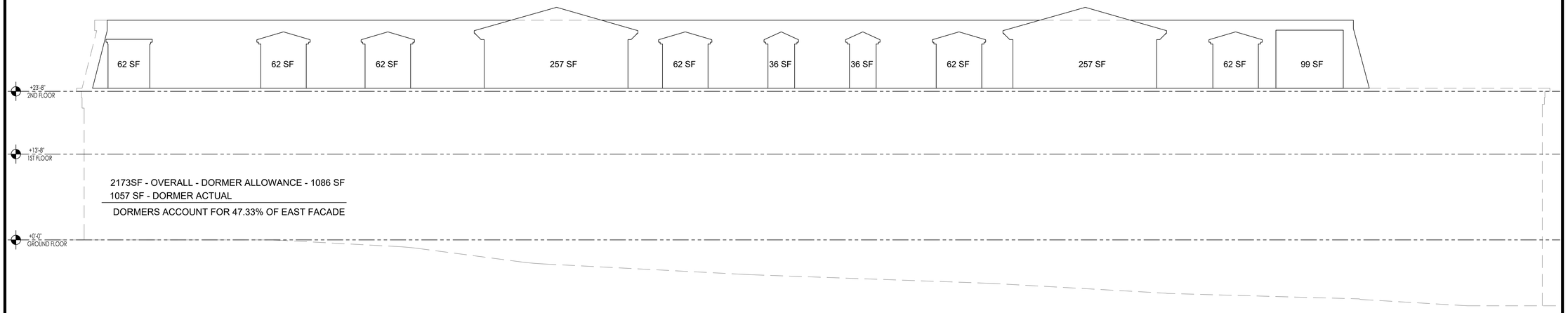


1840 SF - OVERALL - DORMER ALLOWANCE - 920 SF
906 SF - DORMER ACTUAL
DORMERS ACCOUNT FOR 48.48% OF NORTH FACADE

1 NORTH FACADE CALCULATIONS
SCALE: 1/8"=1'-0"

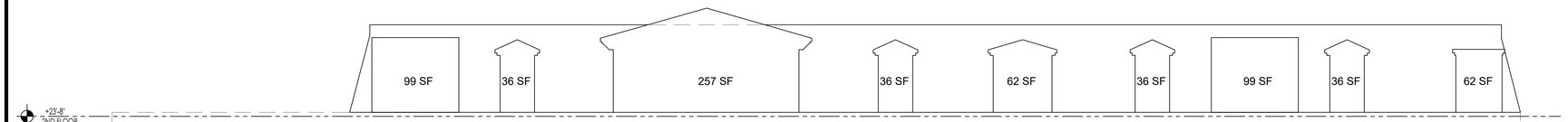


2 PROPOSED DORMERS
SCALE: 3/16"=1'-0"



2173SF - OVERALL - DORMER ALLOWANCE - 1086 SF
1057 SF - DORMER ACTUAL
DORMERS ACCOUNT FOR 47.33% OF EAST FACADE

3 EAST FACADE CALCULATIONS
SCALE: 1/8"=1'-0"



1534 SF - OVERALL - DORMER ALLOWANCE - 767 SF
723 SF - DORMER ACTUAL
DORMERS ACCOUNT FOR 44.26% OF WEST FACADE

4 WEST FACADE CALCULATIONS
SCALE: 1/8"=1'-0"

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
-	-	-	-

SPECIAL INFORMATION:

THIS DRAWING PREPARED FOR TENANT IMPROVEMENTS TO AN EXISTING BUILDING OR BUILDING CONSTRUCTED BY OTHERS IT IS UNDERSTOOD THAT ANY WARRANTY INFORMATION CONCERNING EQUIPMENT INSTALLED MUST BE FORWARDED TO THE OWNER AND THAT ANY AND ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

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PROPERTY NUMBER: 5202
AREA: -

MAIN STREET
4548-4564 MAIN STREET
SNYDER, NY14226

2.5 STORY

CONSULTANT:

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



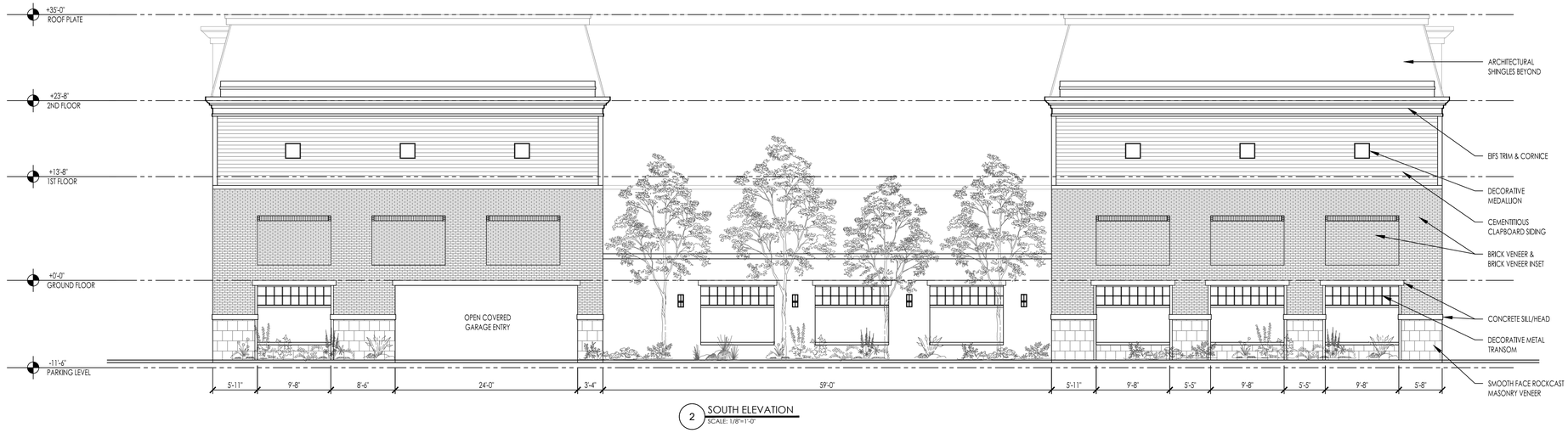
TITLE:
FACADE DORMER CALCULATIONS

DRAWN BY: RKT
CHECKED BY: JAR
DATE: 01.26.23
DRAWING NO.: -

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)



1 NORTH ELEVATION
SCALE: 1/8"=1'-0"



2 SOUTH ELEVATION
SCALE: 1/8"=1'-0"

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
-	-	-	-

SPECIAL INFORMATION:

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PROPERTY NUMBER: 5202

AREA: -

MAIN STREET
4548-4564 MAIN STREET
SNYDER, NY14226

2.5 STORY

CONSULTANT:

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE: ELEVATIONS

DRAWN BY: RKT
CHECKED BY: JAR
DATE: 01.26.23

DRAWING NO.: A2.0

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)



1 WEST ELEVATION
SCALE: 1/8"=1'-0"



2 EAST ELEVATION
SCALE: 1/8"=1'-0"

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
-	-	-	-

SPECIAL INFORMATION:

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PROPERTY NUMBER: 5202

AREA: -

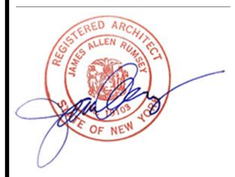
MAIN STREET
4548-4564 MAIN STREET
SNYDER, NY14226

2.5 STORY

CONSULTANT:

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE:

ELEVATIONS

DRAWN BY: RKT
CHECKED BY: JAR
DATE: 01.26.23

DRAWING NO.

A2.1

Attachment: SP-2022-11_drawings_031623 (26951 : Sp-2022-11)

DRAFT
(3/16/23)

SEQR
Negative Declaration

NOTICE OF DETERMINATION OF NON-SIGNIFICANCE

Lead Agency: Town of Amherst
Planning Board

Project: SP-2022-11

Address: 5583 Main Street
Williamsville, NY 14221
(716) 631-7051

Date:

This notice is issued pursuant to Part 617 and Local Law #3-82, as amended, of the implementing regulations pertaining to Article 8 (State Environmental Quality Review) of the Environmental Conservation Law.

The Lead Agency has determined that the proposed action described below will not have a significant adverse effect on the environment.

Title of Action: Site Plan Review

SEQR Status: Unlisted Action

Description of Action: Demolish all existing structures located on the subject parcels and construct a proposed 2½ story mixed use building containing 48 apartment units (22 one bedroom, 24 two bedroom & 2 three bedroom) with 2 commercial (restaurant) tenant spaces totaling 6,624± sq. ft. Parking is provided for 76 vehicles which is internal to the building. Work will include the site improvements not specifically stated above, including, stormwater, utilities, grading, lighting, paving, and landscaping.

Location: 4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace, Amherst, Erie County

Petitioner: Benderson Development Company, LLC

Attachment: SP-2022-11_draft neg dec_031623 (26951 : Sp-2022-11)

Reasons Supporting This Determination

Based on information submitted by the applicant including a Full Environmental Assessment Form (EAF) - Part I, (as amended) and Part 2 and a complete site plan application, a preliminary staff analysis was undertaken. Compared to the criteria listed in Section 617.7, all indications are that this action will not have a significant impact on the environment, as follows:

1. The project is not expected to cause a substantial adverse change in existing air quality, ground or surface water quality or quantity, or noise levels; a substantial increase in solid waste production; or a substantial increase in the potential for erosion, flooding, leaching or drainage problems. The Engineering Department on **January 12, 2023** reviewed the Grading, Drainage and Utility Plans submitted on **January 9, 2023,** Engineer's Report submitted on September 30, 2022, Erosion Control Plan submitted on **January 9, 2023** and Geotechnical Report prepared by Barron & Associates, PC and submitted on **September 30, 2022**. The Stormwater Pollution Prevention Plan (SWPPP) submitted on **January 9, 2023** was also reviewed on **February 7, 2023**. Based on its review of these documents, the Department has determined that the project has or will have met all applicable requirements and has no objection to its approval.

2. The project will not result in the removal or destruction of large quantities of vegetation or fauna; or in significant adverse impacts to fish or wildlife species, habitats or other natural resources. The properties involved with this action are entirely developed for commercial and residential activities and are proposed for redevelopment. The Planning Department reviewed a Landscape Plan submitted on **January 9, 2023** and determined that it meets or exceeds Zoning Ordinance requirements for greenspace. The Landscape Plan has or will have met all Zoning Ordinance and Town requirements for landscaping.

3. The project is not expected to create any substantive conflict with the Town Comprehensive Plan. The Planning Department in their review of **January 20, 2023** and the Zoning Enforcement Officer in his/her review dated **January 20, 2023** has reviewed the application documents and Building Department in their review of **January 12, 2023** has reviewed the application documents along with the Geotechnical Report submitted on **September 30, 2022** and determined that the subject project has or will have met all International Building Code – ~~2015~~ **2018** and Zoning Ordinance regulations.

4. The project is within an area identified by the State as having potential archaeological or historical significance. The properties involved with this action have been previously disturbed in their entirety by the construction of the existing commercial and residential uses on the properties. A report prepared by Commonwealth Heritage Group, Inc. dated June 2022 and received on September 30, 2022 indicates the residence and garage located at 22 Chateau Terrace do not appear to meet the State/National Register of Historic Places criteria for individual eligibility. The property and residence located at 22 Chateau Terrace is located within a potential Town of Amherst Historic District and will require approval of a certificate of appropriateness to allow for the demolition of the residence and ~~associates~~ **associated** garage structure by the Town of Amherst Historic Preservation Commission.

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The removal of the structure will not occur unless it is deemed non-significant by the Town of Amherst Historic Preservation commission with concurrence of the New York State Office of Parks Recreation and Historic Preservation. Therefore it is anticipated that the development will not impair the character or quality of important historical resources.

5. The project will not impair the character or quality of important aesthetic resources or of existing community or neighborhood character. The project is located in the Traditional Infill 2.5 District (TI-2.5) zoning district; neighboring uses are commercial, educational and single family residential and zoned Traditional Infill 2.5 District (TI-2.5) and Residential District Three (R-3); therefore, the project is consistent with surrounding land use.

6. The proposed subject development will include a 2½ story mixed use building containing 48 apartment units with 6,624± sq. ft. of commercial space and 76 vehicle parking spaces that are internal to the building which will not cause a major change in the use of either the quantity or type of energy.

7. The project will not create any hazard to human health. The Fire Chief's Association on **February 10, 2023** has reviewed the project and has no objection to the approval of the site plan, as all requirements of this agency has or will have been met.

8. The project will ~~not~~ cause a ~~substantial~~ change in the use, or intensity of use, of land including agricultural, open space or recreational resources, ~~or in its~~ **however the site has** capacity to support ~~existing~~ **the proposed** uses. The 2½ story mixed commercial and residential building will be consistent **in its form and character** ~~with the scale of~~ surrounding land uses.

9. The function of the proposed mixed use building containing commercial spaces and residential units will not significantly increase the number of people using the site over its historical previous level of use.

10. Review by the Town Traffic/Safety Board dated February 2, 2023 and NYSDOT dated January 11, 2023 **indicates** that significant negative traffic impacts are not expected to result from the proposed project. Review of the Traffic Impact Assessment prepared by Passero Associates submitted to the planning Department on **January 20, 2023** and reviewed by the Town Traffic/Safety Board on **February 2, 2023** and NYSDOT on **January 11, 2023** indicates that significant negative traffic impacts are not expected to result from the proposed project. **The petitioner has agreed to improve traffic safety by modifying the curb line and limiting parking along the Main Street frontage if permitted by NYSDOT.**

11. A coordinated review of the project has been undertaken by Town Departments, in addition to those mentioned above, Highway on **November 16, 2022,** Assessor on **January 18, 2023,** Plumbing Division on **January 13, 2023** and Right-of-Way Agent on **October 17, 2022** along with outside agencies including the Erie County Department of Environment and Planning on _____, New York State Department of Transportation on **January 11,**

Attachment: SP-2022-11_draft neg dec_031623 (26951 : Sp-2022-11)

2023 and the New York State Office of Parks, Recreation and Historic Preservation on _____. These reviews have not identified any significant environmental issues and indicate that the proposal will not have a significant damaging impact on the environment.

12. Issues not specifically mentioned above and/or those not specifically reviewed were not raised by Town departments, outside agencies or the public and are not determined to cause significant negative environmental impacts.

Planning Board Approval
Moved by: ; Seconded by: Ayes; Noes Absent

_____ _____
signature & title of preparer Date

_____ _____
Robert J. Gilmour, Planning Board Chair Date

Attachment: SP-2022-11_draft neg dec_031623 (26951 : Sp-2022-11)

SM/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-11_(4548_4564_Main_St_17_Fruehauf_Ave_&_22_Chateau_Ter)_2022\SP-2022-11_draft neg dec_031623.doc
cc: Commissioner of Building
Town Engineer
Fire Chiefs'
Highway Superintendent
Traffic/Safety
ECDEP
NYSDOT
James Boglioli, Benderson Development, 570 Delaware Avenue, Buffalo, NY 14202

DRAFT (3/16/23)
TOWN OF AMHERST
PLANNING BOARD
DESIGN EXCEPTION RESOLUTION
SP-2022-11

PETITIONER

Benderson Development
570 Delaware Avenue
Buffalo, NY 14202

PROPERTY LOCATION

4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

WHEREAS, the Town of Amherst Planning Board on Thursday, February 16, 2023 held a public hearing on a Site Plan for which design exceptions to the design standards of the mixed use districts is being sought, and

WHEREAS, the Planning Board reviewed the design exception request and reasoning in the petitioners letter to the Planning Board dated January 27, 2023 and received on February 8, 2023 by the Planning Department for the subject site plan, and

WHEREAS, in accordance with Section 5A of the Zoning Ordinance, the following are the required design standards for which design exceptions are being sought

~~A. Section 5A-2-4 B requires the building face lengths along Chateau Terrace and Fruehauf Avenue to be 90% of the lot frontage. The required building face length along Chateau Terrace is 242.67 feet (269.63 ft. x 0.9) and along Fruehauf Avenue is 180.00 feet (200.00 ft. x 0.90).~~

~~B. Section 5A-2-4 D limits the building length along Chateau Terrace to be 200 feet.~~

~~C. Section 5A-5-4 requires a 30 foot minimum setback to the protected district (north property line) which limits the maximum allowed building length along Chateau Terrace to be 239.63 feet and along Fruehauf Avenue to be 170.00 feet.~~

~~D~~ **A**. Section 5A-2-4 K requires tree planting in grates along Chateau Terrace & Fruehauf Avenue.

WHEREAS, in accordance with Section 5A-7-19 of the Zoning Ordinance, the Planning Board finds that:

A. The alternative design approach satisfies the overall intent of the design standards for which the design exceptions are being sought.

B. The design exceptions meet the intent of the applicable standards in an alternative way.

C. The design exceptions are equivalent to or produce a better outcome than the applicable standards in Section 5A of the Zoning Ordinance.

Attachment: SP-2022-11_draft design resolution_031623 (26951 : Sp-2022-11)

DRAFT (3/16/23)
TOWN OF AMHERST
PLANNING BOARD
DESIGN EXCEPTION RESOLUTION
SP-2022-11

PETITIONER	PROPERTY LOCATION
Benderson Development	4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

NOW THEREFORE BE IT RESOLVED that in accordance with 6 NYCRR, Part 617 and Local Law #3-82, as amended, the Planning Board has issued a Negative Declaration attached hereto, and

NOW THEREFORE BE IT FURTHER RESOLVED that the Planning Board, in accordance with Section 5A-7-19 of the Zoning Ordinance **approves** the following design exceptions to the standards of Section 5A:

~~1. Length of the building wall along Chateau Terrace to be 239.00± feet.~~

~~2. Length of the building wall along Fruehauf Avenue to be 170.00± feet.~~

~~3.~~ **1.** That a grass panel be provided along Chateau Terrace and Fruehauf Avenue between the sidewalk and curb line of the streets.

The foregoing resolution was adopted by the Town of Amherst Planning Board, _____; moved by - _____; seconded by - _____; ayes _, noes _; absent - ____.

_____ _____
Robert J. Gilmour, Planning Board Chair Date

SM/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-11_(4548_4564_Main_St_17_Fruehauf_Ave_&_22_Chateau_Ter)_2022\SP-2022-11_draft design resolution_031623.doc
cc: Commissioner of Building
Town Engineer
Fire Chiefs
Traffic/Safety
Highway Superintendent
ECDEP
NYSDOT
James Boglioli, Benderson Development, 570 Delaware Avenue, Buffalo, NY 14202

Attachment: SP-2022-11_draft design resolution_031623 (26951 : Sp-2022-11)

Attachment: SP-2022-11_draft design resolution_031623 (26951 : Sp-2022-11)

DRAFT (3/16/23)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-11

PETITIONER

Benderson Development
570 Delaware Avenue
Buffalo, NY 14202

PROPERTY LOCATION

4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

WHEREAS, the Town of Amherst Planning Board on Thursday, February 16, 2023 held a public hearing on a Site Plan for a 2½ story mixed use building containing 48 apartment units 6,624± sq. ft. of commercial space and parking for 76 vehicles which is internal to the building, and

WHEREAS, the Planning Board reviewed the plans and specifications for the proposed project, and

WHEREAS, the Site Plan was referred to the Town's various review agencies, and

WHEREAS, the site and building plans were reviewed by the Town's Design Advisory Board and their recommendations were provided, and

WHEREAS, in accordance with Section 8-7-8 of the Zoning Ordinance, the Planning Board finds that:

A. The site plan includes usable space for active and passive recreation, including pedestrian connections.

B. The site plan does not include open space lands for public ownership and use offered for dedication or other disposition to the Town or other public entity.

C. School sites and facilities are adequate to accommodate the proposed site plan.

D. The site plan does not include the extension of roadways to adjacent property, and

WHEREAS, in accordance with Section 8-7-9 of the Zoning Ordinance, the Planning Board finds that:

A. The proposed site plan is consistent with the development plan if one is required.

B. The proposed site plan is consistent with the purpose and specific requirements of the Zoning Ordinance and generally consistent with the policies of the Comprehensive Plan.

C. Adequate services and utilities will be available prior to occupancy.

Attachment: SP-2022-11_draft site plan resolution_031623 (26951 : Sp-2022-11)

DRAFT (3/16/23)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-11

PETITIONER	PROPERTY LOCATION
Benderson Development	4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

D. The site plan is consistent with all other applicable laws.

E. Pursuant to Local Law #3-82, as amended, the Planning Board has determined that the requirements of SEQR are complete and that the subject proposal is not expected to have a significant adverse effect on the environment.

F. Review by the US Army Corps of Engineers under Section 404 of the Clean Water Act may be waived because the parcel is developed, and

WHEREAS, in accordance with Section 5A-7-19 of the Zoning Ordinance, the Planning Board has approved design exceptions for the proposed site plan, and

WHEREAS, in accordance with Section B-7f of the Design Guidelines for Mixed-Use Districts, the Planning Board allows the use of Exterior Insulation Finish System as a decorative material on the upper stories of the building,

NOW THEREFORE BE IT RESOLVED that in accordance with 6 NYCRR, Part 617 and Local Law #3-82, as amended, the Planning Board has issued a Negative Declaration attached hereto, and

BE IT FURTHER RESOLVED that the Planning Board, in accordance with Section 8-7 of the Zoning Ordinance **approves~~/denies~~** said Site Plan subject to the following conditions:

1. That the consideration of signs is specifically excluded from this approval as they require a separate review and approval by the Town.

2. That all dumpsters/trash containers and all mechanical equipment, utility structures, multiple meter boards, generators, and similar appurtenances, including those which are mounted on any part of a primary structure shall be appropriately screened with a fence, wall, and/or landscaping. Provide gate on dumpster enclosure that shall be closed whenever dumpster is not being serviced, enclosure shall be high enough to screen the dumpster(s) within.

3. That as-built record drawings, including location of utilities, be provided to the Engineering Department prior to issuance of a Certificate of Occupancy by the Building Department.

Attachment: SP-2022-11_draft site plan resolution_031623 (26951 : Sp-2022-11)

DRAFT (3/16/23)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-11

PETITIONER	PROPERTY LOCATION
Benderson Development	4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

4. That a certificate of appropriateness be issued by the Town of Amherst Historic Preservation Commission to demolish any structures on the property located at 22 Chateau Terrace, prior to issuance of final approved site plan drawings by the Planning Department.

5. **That the street facing building length along Chateau Terrace not exceed 200 feet.**

6. **That the parcel addressed 4549 & 4564 Main Street along with those addressed 17 Fruehauf Avenue and 22 Chateau Terrace be merged into a single parcel.**

7. **That the storm piping underground inside the building footprint comply with PCNYS Tables 1102.3 and 702.2 as stipulated in the Town of Amherst Senior Pluming Inspectors letter dated February 10, 2023.**

8. **That the developer is committed to a payment of $33,199.86 to the Sewer Remediation Trust Fund. This payment must be received by the Town of Amherst Engineering Department prior to the issuance of any plumbing permits or acceptance of any PIP applications as stipulated in the Engineering Department letter dated February 13, 2023.**

9. **That the petitioner address the concerns raised in the Town of Amherst Engineering Department Stormwater Management Officer letter dated February 7, 2023 to the satisfaction of the officer.**

10. **That the petitioner request permission from the New York State Department of Transportation (NYSDOT) to install bulb-outs at the intersection of Main Street and Fruehauf Avenue as indicated in their letter dated February 14, 2023 to the Town of Amherst Planning Department, and if permitted by NYSDOT the petitioner install the bulb-out and any associated improvements and obtain the necessary permits from the NYSDOT.**

11. **That the petitioner additionally request from the NYSDOT that the westerly 90± feet of the Main Street frontage of the parcel inclusive of any bulb-out be restricted to "No Parking".**

12. **That the petitioner obtain any required permits for any work within the Main Street right-of-way from the NYSDOT.**

Attachment: SP-2022-11_draft site plan resolution_031623 (26951 : Sp-2022-11)

DRAFT (3/16/23)
TOWN OF AMHERST
PLANNING BOARD
SITE PLAN RESOLUTION
SP-2022-11

PETITIONER	PROPERTY LOCATION
Benderson Development	4548 & 4564 Main Street, 17 Fruehauf Avenue, and 22 Chateau Terrace

13. **That the petitioner satisfactorily address the comments in the Traffic Safety Board review dated February 14, 2023 to the satisfaction of that Board.**

14. **That the petitioner request from the Amherst Town Board permission to install two (2) new public hydrants on Fruehauf Avenue and Chateau Terrace respectively as stipulated in the Town of Amherst Fire Chiefs Association memorandum dated February 10, 2023 and install same.**

15. **That the fence along the north property line be of a shadowbox style and the fence along the Fruehauf Avenue be on the same plane as the building wall and be of a wrought iron style.**

16. **That the concerns raised by the Town of Amherst Zoning Enforcement Officer in the Planning Department letter dated February 15, 2023 be addressed to the satisfaction of the officer.**

The foregoing resolution was adopted by the Town of Amherst Planning Board, _____; moved by - _____; seconded by - _____; ayes _, noes _; absent - ____.

_____ _____
Robert J. Gilmour, Planning Board Chair Date

SM/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-11_(4548_4564_Main_St_17_Fruehauf_Ave_&_22_Chateau_Ter)_2022\SP-2022-11_draft site plan resolution_031623.doc

cc: Commissioner of Building
Town Engineer
Fire Chiefs
Traffic/Safety
Highway Superintendent
ECDEP
NYSDOT
James Boglioli, Benderson Development, 570 Delaware Avenue, Buffalo, NY 14202

Approved Plan: _____
Received: _____

Attachment: SP-2022-11_draft site plan resolution_031623 (26951 : Sp-2022-11)

Attachment: SP-2022-11_draft site plan resolution_031623 (26951 : Sp-2022-11)

TOWN OF AMHERST

APPLICATION & REVIEW PROCEDURE

MAJOR SITE PLAN

MATERIALS MUST BE PROVIDED IN AN ELECTRONIC FORMAT THAT CONTAINS PDF FILES OF THE APPLICATION, EAF, SITE PLAN DRAWING SET SURVEY, LANDSCAPE PLAN, PRELIMINARY BUILDING FLOO PLANS / ELEVATIONS & ANY OTHER SUPPORTING INFORMATION. THIS MUST BE SUBMITTED WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE TRANSMITTED WITHOUT THIS ELECTRONIC INFORMATION.

THIS ALSO APPLIES TO REVISED MATERIALS THAT AR SUBMITTED.

This application package includes the following:

- Application Procedures
- Application Form & Checklist
- Stormwater Pollution Prevention Plan Checklist
- Appendix A Town of Amherst EAF Addendum
- Appendix B Criteria for Required 8½" x 11" Sketches
- Appendix C Erie Sewer District No. 5 – Commercial / Industrial New & Existing Buildings Requirements

- IMPORTANT-

1. A pre-submittal consultation with Planning Department staff is *strongly recommended* prior to submitting an application. The pre-submittal meeting gives the applicant an opportunity to discuss with staff such items as:
   - classifying the action as a major site plan, minor site plan, or minor site plan adjustment;
   - determining what specific information will be required to be submitted with the application;
   - identifying and discussing issues that must be addressed as part of the SEQR review;
   - identifying any potential variances required to implement the project as proposed.

   An appointment is required for all meetings with Planning Department staff.

2. This site plan petition is subject to the requirements of 6 NYCRR Part 617, State Environmental Quality Review Act (SEQR), and Chapter 104 of the Town of Amherst Code, as amended. The Planning Board cannot make a SEQR determination unless a complete Environmental Assessment Form (EAF), including Town of Amherst EAF Addendum, and any required supplementary information such as traffic impact studies, archaeological reports, wetland delineations or geotechnical reports, are submitted. SEQR issues may be discussed with Planning Department staff at a recommended pre-submittal meeting. Unlisted Actions require a Short EAF; Type I Actions require a Full EAF. The following is a link to the NYSDEC website and fillable forms with instructions*:*
   http://www.dec.ny.gov/permits/6191.html.

3. **Review by the Town Design Advisory Board (DAB) is required for Major Site Plans located in the following Mixed-Use zoning districts:**

   Traditional Infill 2.5 (TI-2.5)
   Traditional Infill 4 (TI-4)
   Shallow Corridor 3 (SC-3)
   Deep Corridor 3 (DC-3)
   Deep Corridor 5 (DC-5)
   Center 2.5 (CTR-2.5)
   Center 5 (CTR-5)
   Center 8 (CTR-8)

   The application for DAB review is required to be filed in conjunction with the major site plan application.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

4. The application shall be executed or consented to in writing by the owner of the property.

5. **Any variances from the Zoning Board of Appeals, or any decision from the Town Board (e.g. removal of deed restrictions) must be obtained prior to action by the Planning Board on a Site Plan application.**

6. Submittal of an application grants permission to Town staff and Planning Board members to access the parcel(s) under consideration.

7. All site plan drawings must be prepared by a Registered Architect, Professional Engineer, Landscape Architect, or Land Surveyor (as applicable) licensed to practice in New York State.

8. If you wish to include a Coordinated Sign Plan application with the site plan petition, a separate application must be completed. Contact the Planning Department for a copy of a Coordinated Sign Plan application package.

9. All drawings should be no larger than 24 in. x 36 in. If site characteristics warrant larger plan sheets, they may be accepted subject to Planning Department concurrence. All drawings must also reserve a 4 in. x 6 in. area in the lower right hand corner for official Town use.

APPLICATION PROCEDURES

1. Applicant secures application package from the Planning Department, 5583 Main Street, Williamsville, NY 14221. (716) 631-7051. Forms are also available online at: www.amherst.ny.us, (keyword: Planning).

2. Applicant prepares information as required on the Site Plan Submittal Checklist, attached. NOTE: Some proposals may not require all items on the checklist; please verify with the Planning Department.

3. Applicant schedules an appointment with the Planning Department to review the following:
   - a complete set of site plan drawings, preliminary building elevations and floor plans (no larger than 24" x 36" in size)
   - Environmental Assessment Form (EAF) & Town EAF Addendum
   - any supporting reports and materials
   - verification from the Town Assessor that the address in the application is correct

4. Applicant schedules an application submittal appointment with the Planning Department. NO SITE PLAN WILL BE ACCEPTED FOR REVIEW WITHOUT A PRE-SET SUBMITTAL APPOINTMENT.

5. At the submittal appointment, applicant provides fourteen (14) complete and collated sets of drawings and application information to the Planning Department **(materials will not be accepted unless folded into 9" x 12" in size),** including**:**
   - application form
   - Environmental Assessment Form (EAF)
   - supporting reports / materials
   - complete set of site plan drawings, preliminary building elevations and floor plans (**at least one (1) set of drawings must bear a raised or wet seal and signature of the design professional** who prepared the plans; the remaining copies may be submitted with a facsimile of the seal and signature)
   - digital files of all materials in pdf format
   - an 8½" x 11" reduction of the sketch plan or plat drawing (see Appendix B)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

6. After approval for filing by the Planning Department, applicant submits all necessary fees to the Town Clerk. **(See Schedule of Fees on first page of application and make checks payable to: Town of Amherst.)**

7. The applicant returns a copy of the filing receipt to the Planning Department.

8. The Planning Department transmits remaining thirteen (13) copies of the application and supporting materials to:
   - Assessor
   - Commissioner of Building
   - Town Engineer
   - Superintendent of Highways
   - Traffic/Safety Board
   - Fire Chiefs' Association
   - Plumbing Division
   - Right-of-Way Agent
   - Police Department (if applicable)
   - Zoning Enforcement Officer
   - Other Town and outside agencies, as applicable

9. Within 30 days of its receipt of the complete application for Site Plan approval, each agency completes its review and notifies the Planning Department in writing of its comments or recommendations as required by Ordinance.

10. The applicant may be required to submit revised plans, reports, or materials to address review agency comments. The procedures for submittal of revised plans are as follows:

    - A cover letter addressing all comments received to date is required.
    - "Highlight" the area of change on the drawings and provide a notation describing the change.
    - Revised plans/materials are required. Planning staff should be contacted to determine the number of sets needed.
    - All revised plans and materials must also be provided in an electronic format that contains pdf files of the revised information.

11. The Planning Board reviews the EAF to determine whether a Draft Environmental Impact Statement (DEIS) is required. The petitioner will be advised in the event that a DEIS is required and afforded the opportunity to prepare it. If the petitioner declines, the Planning Board will prepare the DEIS at the petitioner's expense. The public hearing will be held on the DEIS concurrently with the Planning Board hearing on the application.

12. Planning Board Meeting Procedures:

    The applicant or representative presents the project at the public hearing before the Planning Board and is available to answer any questions. The Planning Board may take any of the following actions:

    - Adjourn the hearing to a future Planning Board meeting (hearing remains open).
    - Close the hearing and table action on the site plan to a future Planning Board meeting. (The Planning Board may remove the item from the agenda until such time as all required information is provided.)
    - Close the hearing and make a decision on the site plan.

    All determinations on matters before the Planning Board are made after all public hearings on that meeting's agenda are completed.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

13. A copy of the Planning Board's determination will be provided to the applicant, his / her representative, the Building Commissioner and the Town Clerk approximately 1 week following the Planning Board meeting at which it was heard.

14. If the Planning Board approves a Site Plan with conditions, the Planning Department will work with the applicant to ensure that all conditions of the approval are satisfactorily addressed. When all conditions are satisfied, the applicant submits **seven (7) final copies** of the complete set of all site plan drawings, folded into 9" x 12". For site plans in the Mixed-Use zoning districts, building elevations will also be required.

    All 7 sets must have original wet seals and include the required 4 in. x 6 in area in the lower right hand corner for official Town use. These drawings will be stamped and signed "Approved" by the Planning Director and transmitted to Town Departments for their files and use.

15. A building permit will not be issued by the Building Department until the stamped and signed Site Plan is issued by the Planning Director.

NOTE: Please check with the Planning Department to determine the deadline date for filing applications. Due to the public hearing notice requirements and department reviews, no site plan application will be placed on the Planning Board agenda after the deadline for filing has closed. Scheduling may be delayed if an application is incomplete.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

TOWN OF AMHERST PLANNING DEPARTMENT

Application for Major Site Plan Review

For Official Use

File #: _____ **Acreage** _____ **Fee $** _____

Address Verified by Assessor's Office _____ VERIFIED BY DATE

Materials Received by Planning Department _____ RECEIVED BY DATE

Fee Paid to Town Clerk _____ RECEIVED BY DATE

Site Plan Review		**Fill In Applicable Fees**
1 acre or less	$1,250.00	_____
Each additional acre or fraction thereof	$ 650.00/acre	_____
Amendments to Site Plans	$1,200.00	_____
Request for Relief of / Change to Conditions of Site Plan Approval	$1,200.00	_____
Request for Extension of Site Plan Approval	$ 450.00	_____
Stormwater Pollution Prevention Plan		
1 - 4.99 Acres	$ 500.00	_____
5 - 10 Acres	$ 750.00	_____
>10 Acres	$1,000.00	_____
Affidavit Fee for Public Hearing	$ 15.00	_____
	TOTAL FEE:	**$**_____

To Be Completed By Applicant

Petitioner:

Name: Benderson Development Company, LLC

Address: 570 Delaware Avenue

Buffalo , New York 14202

city state zip code

Phone: 716-878-9626 Fax: _____

E Mail: jmb@benderson.com

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

MAJOR SITE PLAN APPLICATION (con't) ***Page 2***

Representative (Architect, Engineer, Landscape Architect, Surveyor, or Attorney)**:**

Name: James A. Boglioli

Address: 570 Delaware Avenue

Buffalo , New York 14202
city state zip code

Phone: 716-878-9626 Fax: _____

E Mail: jmb@benderson.com

Project Location (must be verified by Town Assessor's Office)**:**

Address: 4548 - 4564 Main Street

SBL No(s): 68.17-5-219.20, 68.17-5-219.21, 68.17-5-219.22

Project Name: _____

Project Description:

Property is currently occupied by a 2 story brick and wood retail/office building which faces Main Street. The rear and sides on Château and Freihauf contain split level areas. This will be demolished and removed. The new development will be a mixed uses, including approximately 7,000 square feet of commercial space on Main Street level with 45 to 50 apartments on upper levels. The area between the "U" shaped development will contain a terrace area and partial parking area at the Main Street level. Additional parking is accessible from Chateau Street at the rear of the site, Also, a 30' landscape buffer area will be constructed at the rear of the site. Building architecture will meet design guidelines.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

MAJOR SITE PLAN APPLICATION (con't) ***Page 3***

If this petition is an amendment to a previously approved site plan, please describe the proposed changes (include type and size of existing structures and number of existing parking spaces):

Please see the attached letter of intent

	existing	proposed	total
Gross Floor Area (non-residential):	12,146 sf	6,998 sf	-5,148 sf
Gross Floor Area Residential:	N/A	56,204 sf	56,204 sf
Number of Residential Units:	N/A	48 units	48 units
Number of Parking Spaces:	N/A	79	79

Acreage of Parcel: .93+/-

(list each parcel separately)

Frontage on Public Roads: Main Street – 185.64' Fruehauf – 200.0'

(list each road separately) Chateau – 269.63'

Existing Zoning District(s) TI-2.5

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Site Plan Submittal Requirements and Checklist

The following checklist outlines the information required by the Planning Department to accept a Site Plan application for review. ***It is strongly recommended that you make an appointment with Planning Staff to determine which items apply to your application***.

Item No.	Item	Submitted	Official use
I Basic Drawing Information			
1.0	**Drawing size not to exceed 24" x 36"**		
2.0	**Title of Drawing**		
3.0	**Name and address of Applicant**		
4.0	**Name of person preparing drawing**		
5.0	**Wet seal/raised seal and signature of NYS licensed architect, engineer, landscape architect, or surveyor (as applicable)**		
6.0	**Project address**		
7.0	**Zoning of subject property and adjacent parcels**		
8.0	**North point, scale, date, and revision date(s)**		
9.0	**4" x 6" reserved area in lower right hand corner for official Town use**		
II Structures, Paved Areas, & Open Space			
1.0	**Existing and Proposed Streets**		
1.1	Names of all existing and proposed streets		
1.2	Width and radii of proposed curb-cuts		
1.3	Existing curb-cuts on adjacent and opposite properties		
1.4	Show ROW width, pavement dimensions, lane widths, pavement markings, and proposed signage on proposed streets		
1.5	Show proposed ROW consistent with planned NYSDOT, Erie County, or Town road projects (if applicable)		
1.6	Show location of proposed cross access to adjacent parcels along with a draft easement		
1.7	Designation of Fire Lanes (if applicable)		
1.8	Fire apparatus access roads		
1.9	Label any proposed roads as public or private		
1.10	Location and dimensions of sidewalks		
1.11	Typical cross sections and profiles of proposed streets, pedestrian walkways, and bikeways		
2.0	**Proposed Structures**		
2.1	Location and complete dimensions of proposed structures		
2.2	Setback dimensions of structure(s) to all property lines		
2.3	Proposed use of structures		
2.4	Gross square feet area of each structure		
2.5	Location of all building entrances		
2.6	Indicate type of roof construction/materials		
2.7	Location, height, and design detail of existing and proposed fences and walls		
2.8	Location of light standards and building mounted lights		
2.9	Location of dumpster and detail of dumpster enclosure with gate		
2.10	Layout and dimensions of the lot(s) proposed for development		

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

Item No.	Item	Submitted	Official use
II Structures, Paved Areas, & Open Space (cont'd)			
3.0	**Floor Plans with individual rooms and spaces labeled** (fully dimensioned)		
4.0	**Building elevations with height dimensions from finished grade to the highest point of the roof and to midpoint of gable or hip of a pitched roof.** (fully dimensioned)		
4.1	Show screening of mechanical equipment		
5.0	**Parking/Loading/Stacking Areas**		
5.1	Location and complete dimensions of all paved areas		
5.2	Setback dimensions of all paved areas to property lines		
5.3	Dimension of typical parking space and drive aisles		
5.4	Location and layout of handicapped parking spaces & access aisles		
5.5	Detail of vertical signage for handicapped parking and access aisles		
5.6	Indicate minimum parking requirement & number of spaces provided		
5.7	Proposed signage for directing and guiding traffic		
5.8	Curb cut permits from NYS, Erie County, or Town (if applicable)		
5.9	Pedestrian connections (from proposed structures to public sidewalk network)		
6.0	**Location and proposed development of all open spaces, including parks, playgrounds, and open reservations**		
III Utilities and Drainage			
1.0	**Engineers Report** (bound separately from the Stormwater Pollution Prevention Plan [SWPPP])		
1.1	Stamped/sealed and signed by NYS licensed architect or professional engineer		
1.2	Proposed water service sizing, RPZ pressure and fire safety flow and pressure calculations		
1.3	Proposed sanitary sewer facility load calculations (avg. & peak flows) including calculation of the peaking factor		
1.4	Proposed storm drainage facility calculations (see information included with this application)		
2.0	**Grading Plan**		
2.1	Existing and proposed grades indicated (proposed grades may not exceed 1 on 3)		
3.0	**Water Service**		
3.1	Location, size and material of existing and proposed facilities		
3.2	Location of existing and proposed fire hydrant location(s)		
3.3	Indicate use of sprinklers, location of Fire Department connection, and proposed fire protection systems		
3.4	Existing and proposed meter/RPZ size and location		
3.5	Applicable construction details		
4.0	**Sanitary Sewers**		
4.1	Locations, sizes, slopes, inverts, and materials of all existing and proposed facilities		

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
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Item No.		Submitted	Official use
III Utilities and Drainage (cont'd)			
4.2	Applicable construction details		
4.3	Proposed water/oil/grease interceptor sizing calculations by a professional engineer (if applicable)		
5.0	**Storm Drainage**		
5.1	Locations, sizes, slopes, inverts, and materials of existing and proposed storm drainage facilities		
5.2	Connection of roof drains to proposed drainage system		
5.3	Applicable Town Standard construction details		
5.4	Existing and proposed swales and ditches		
5.5	Detention area cross-section and high-level elevations		
5.6	County and State approval for tie-in to existing sewers		
6.0	**Stormwater Pollution Prevention Plan (SWPPP) as applicable** (bound separately from the Engineer's Report) **See attached checklist.**		
7.0	**Natural Gas Service**		
8.0	**Location of transformers, generators and other mechanical equipment; include detail drawings (if applicable)**		
9.0	**Downstream Sanitary Capacity Analysis (DSCA) Report** (must be submitted if proposed average flows are greater than 2,500 gallons per day)		
9.1	The DSCA Report must include a detailed downstream sewer capacity analysis and the calculations of and commitment to (via Developer commitment letter) the required financial contribution to the Town's I/I mitigation fund based on peak flow conditions. The contribution must be based on $250 per gallon per minute of mitigated flow		
IV Lighting Plan			
1.0	**Photometric plan showing light spread in foot candles at property lines**		
1.1	Detail of all light standards, including dimension of height from finished grade		
1.2	Detail of all exterior lighting fixtures		
V Landscape Plan			
1.0	**Wet/raised seal and signature of a licensed Landscape Architect**		
2.0	**Provide a calculation of the total Parking area and a calculation of interior parking area in square feet and as a percentage**		
3.0	**Indicate location, size, number and type of proposed landscape materials**		
4.0	**Indicate location, type and size of <u>all</u> existing trees 4" caliper or larger and indicate which will be removed or retained**		
VI Other Required Information/General Requirements			
1.0	**Complete boundary survey that includes all existing structures, acreage, legal description with reference to a property line, street, or other known feature, and easements plotted to scale by a NYS licensed land surveyor**		

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
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Item No.		Submitted	Official Use
VI Other Required Information/General Requirements (cont'd)			
1.1	Copies of all easements, reciprocal access agreement or similar leag documents		
2.0	**Topographic Survey with a 30 ft. buffer outside all property lines by a NYS licensed land surveyor**		
3.0	**Draft of any deed restrictions, covenants, provisions for home associations and common ownership, and reciprocal easement agreements (as applicable).**		
4.0	**For assessment purposes, state intent to apply for condominium status (if applicable).**		
5.0	**Completed and signed Environmental Assessment Form**		
5.1	Soil boring report and geotechnical report prepared by a qualified Professional Engineer (if applicable)		
5.2	Traffic Impact Study (if applicable)		
5.3	Archaeological survey (if applicable		
5.4	Wetland Delineation report (if applicable)		
6.0	**Show existing zoning(s) of both the subject property and adjacent parcels on the Site Plan and the Landscape Plan**		
7.0	**Location of NYSDEC wetlands (including buffer area) and/or federal wetlands; indicate jurisdictional status**		
8.0	**Location of Floodway and floodplain** (if applicable)		
9.0	**Documentation pertaining to any conditions of zonings, including copies of required deed restrictions; indicate date of rezoning and the parcel address under which it was rezoned (if applicable)**		
10.0	**Documentation related to any required variances granted by the ZBA**		
11.0	**For residential site plans, provide a statement from the appropriate school district that adequate school sites and facilities are available.**		
12.0	**8 1/2" X 11" reduction of primary site plan drawing (see appendix "B" of application package for specifications)**		
13.0	**A CD containing a PDF of all site plan drawings (Must also be provided with revised drawings)**		
VII Additional Required Information for Projects in the Mixed Use Districts			
1.0	**Design Advisory Board Application**		
1.1	Required for Major Site Plan		
1.2	Required at the Planning Directors Discretion for Minor Site Plans		
2.0	**Block & Street Network Plan**		
2.1	Designation of Core, Local & Alley streets		
2.2	Dimensions of Blocks		
3.0	**Block Usage Plan (as applicable)**		
3.1	Designation of site usage for each block including open space areas		
4.0	**Phasing Plan**		

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
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For official use only:

_____
Approved/Date

X:\Current_Planning\Application Forms 2013 Working Doc\Major Site Plan\Site Plan Submittal Requirements and Checklist (3).doc

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Town of Amherst Planning Department 5583 Main Street Williamsville-NY-14221
(716) 631-7051- Fax: (716) 631-7153

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   _____ Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? □ Yes □ No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? □ Yes □ No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? □ Yes □ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   _____
   _____

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: □ Yes □ No

   Describe_____
   _____

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project_____
   Source: _____

8. Will blasting occur during construction? □ Yes □ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? □ Yes □ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    _____ average flow _____ peak flow.

    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? □ Yes □ No

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

TOWN OF AMHERST
State Environmental Quality Review
ENVIRONMENTAL ASSESSMENT FORM
-- ADDENDUM --

1. For each applicable category of proposed <u>new</u> structures, including additions to existing structures, provide the following information for all soil types on the project site (*according to Soil Survey of Erie County, NY; Table 11, Building Site Development, pp 294-305):*

Soil Name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets
Ux-Urban Land Wassaic complex	Severe	Moderate	Severe	Severe	Severe

2. If the Soil survey indicates either "severe" or "moderate" suitability for the proposed types of construction, a geotechnical and hydrological analysis based on one test per 3.5 acres of project area must be provided (per Town Board resolution, 3/17/03, amended 6/16/03).

   X Geotechnical report attached _____ Not applicable

3. Is your property located: On Youngs Road between Dodge and Klein Roads? ☐ Yes ☒ No
   On Wehrle Dr. between Spindrift Dr. and Oakwood Rd? ☐ Yes ☒ No

   If so, the property may be within an area of the Town that is affected by a moratorium on connections to the sanitary sewer system.

4. Are there alternative locations on the site for this project? ☐ Yes ☒ No

5. Location and size of real property owned by petitioner within one (1) mile of subject proposal:
   4445 Main Street (1.02 Acres); 4925 Main Street (2.2 Acres);

6. Are you aware of current or future plans or intentions by others in the Town of Amherst to develop property within 1000± ft. of the present project request: ☐ Yes ☒ No

   Describe _____

   (Potential environmental impacts from adjacent or nearby projects undergoing the approval process will receive a coordinated environmental review to determine cumulative effects on common receivers (e.g. traffic and drainage corridors) and other relevant environmental concerns.)

7. Maximum number of vehicular trips to be generated per peak hour upon completion of project 83 Trips
   Source: SRF & Associates Traffic Letter dated July 30, 2021

8. Will blasting occur during construction? ☒ Yes ☐ No

9. Does the project propose to connect and be tributary to the public sanitary sewer system? ☒ Yes ☐ No

10. Proposed net additional gallons per day (gpd) of sanitary sewer discharge upon completion of project:
    11,860 GPD average flow 33 GPM peak flow.

    (Average flows of 2,500 gpd or greater will require an Engineer's Report that includes a detailed downstream sewer capacity analysis and the identification of and commitment to required I/I offset work during peak wastewater flow conditions.)

11. Based on the Town's *2011 Reconnaissance Level Survey of Historic Resources,* is your property 'blue-rated' for historic significance? ☒ Yes ☐ No

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Proposed Multi-Story Building		
Project Location (describe, and attach a general location map): 4548-4564 Main Street, 17 Freuhauf Ave, & 22 Chateau Terrace, Town of Amherst, NY 14226		
Brief Description of Proposed Action (include purpose or need): Proposed Action includes: Demolition of existing buildings along Main Street between, Fruehauf Ave and Chateau Terrace and residential property 22 Chateau Terrace and clearing of land; Proposed Multi-Story Building consisting of 48 apartments and 6,624 SF of restaurant space with associated parking garage, improved drainage and utility infrastructure, landscaping and site lighting. The total apartment units are as follows: 22 - 1 Bedroom units, 24 2 Bedroom Units and 2 - 3 Bedroom Units.		
Name of Applicant/Sponsor: Benderson Development Inc.	Telephone: 716-878-9626 E-Mail: jamesboglioli@benderson.com	
Address: 570 Delaware Ave		
City/PO: Buffalo	State: NY	Zip Code: 14202
Project Contact (if not same as sponsor; give name and title/role): James Boglioli, Esq	Telephone: 716-878-9626 E-Mail: jamesboglioli@benderson.com	
Address: 570 Delaware Ave		
City/PO: Buffalo	State: NY	Zip Code: 14202
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

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B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Town of Amherst Planning Board	June 2022
c. City Council, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	Town of Amherst Traffic Safety Board Town of Amherst Historic Preservation Commision	June 2022
e. County agencies ☑Yes ☐No	Erie County Water Authority	June 2022
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDOT; NYSDEC	June 2022
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

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C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Traditional Infill (TI-2.5)

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Amherst CSD

b. What police or other public protection forces serve the project site?
Amherst Police Department; Erie County Sheriff; NY State Troopers

c. Which fire protection and emergency medical services serve the project site?
Amherst Fire Department - Snyder District

d. What parks serve the project site?
None

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Residential and commercial

b. a. Total acreage of the site of the proposed action? 0.93 acres
b. Total acreage to be physically disturbed? 1.02 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.93 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Lot Combination
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 12 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

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f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	0			
At completion of all phases	48			

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 1

ii. Dimensions (in feet) of largest proposed structure: 35 height; 172.1 width; and 238.8 length

iii. Approximate extent of building space to be heated or cooled: 65,000 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Bio-retention pond

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify: Non-permeable surface runoff

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: 0.006 million gallons; surface area: 0.03 acres

v. Dimensions of the proposed dam or impounding structure: 1.5' height; 58' length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): Earth Fill

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging?

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards):
- Over what duration of time?

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe.

v. What is the total area to be dredged or excavated? acres

vi. What is the maximum area to be worked at any one time? acres

vii. What would be the maximum depth of excavation or dredging? feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan:

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

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ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: 12,034 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: Erie County Water Authority
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: 10,940 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary Wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Tonawanda Creek Plant #16
- Name of district: Amherst Sewer District #1
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

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- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: None

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.83 acres (impervious surface)

_____ Square feet or 0.93 acres (parcel size)

ii. Describe types of new point sources. Proposed 12" Storm connected to existing 12" Storm along Chateau Terrace

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Yes, through a series of trench drains, catch basins and bio-retention pond

- If to surface waters, identify receiving water bodies or wetlands: N/A
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☑ No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐ Yes ☑ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐ Yes ☑ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

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h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☑ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: 1

iii. Parking spaces: Existing 50 Proposed 76 Net increase/decrease 26

iv. Does the proposed action include any shared use parking? ☑Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:
New Curb cut access points along Fruehauf Ave and Chateau Terrace

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☑Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☑Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____
TBD

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
National Grid

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 AM -9 PM (as allowed per code)
- Saturday: 7 AM -9 PM (as allowed per code
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: 24 hours
- Saturday: 24 hours
- Sunday: 24 hours
- Holidays: 24 hours

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m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Construction Equipment Monday - Saturday, 7am to 9 pm

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Parking Garage - Overhead LED Fixtures; Outdoor Seating - Architectural Poles on 1st floor

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

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s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

Proposed Multi-Use Building with first floor retail and apartments

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.80	0.83	+ 0.03
• Forested	-	-	-
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	-	-	-
• Agricultural (includes active orchards, field, greenhouse etc.)	-	-	-
• Surface water features (lakes, ponds, streams, rivers, etc.)	-	0.01	+ 0.01
• Wetlands (freshwater or tidal)	-	-	-
• Non-vegetated (bare rock, earth or fill)	0.13	0.10	-0.03
• Other Describe: _____			

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c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No
If Yes,
i. Identify Facilities:
Elder Care Solutions of WNY, Daemen University, Garden Nursery School-Ahmerst, Bornhava School and The Park School of Buffalo

e. Does the project site contain an existing dam? ☐ Yes ☑ No
If Yes:
i. Dimensions of the dam and impoundment:
- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:
_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No
If Yes:
i. Has the facility been formally closed? ☐ Yes ☐ No
- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:
_____
iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:
_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No
☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____
☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____
☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☐ No
If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

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v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? +/- 5 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: Ux 100 %
_____ _____%
_____ _____%

d. What is the average depth to the water table on the project site? Average: >10' feet

e. Drainage status of project site soils: ☑ Well Drained: 100 % of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes: ☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☐ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100 year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500 year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

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m. Identify the predominant wildlife species that occupy or use the project site: None

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation): _____
ii. Source(s) of description or evaluation: _____
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No
If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No
i. If Yes: acreage(s) on project site? _____
ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

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e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Glen Falls - Amherst State Park

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Scenic Park and waterfall

iii. Distance between project and resource: 1.8 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Matthew J. Oates, P.E. Date 12/14/2022

Signature _____ Title Director, Engineering

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PRINT FORM

BENDERSON DEVELOPMENT

570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

September 28, 2022

Robert J. Gilmour, Chairman
Members of the Planning Board
Town of Amherst
5583 Main Street
Williamsville, NY 14221

RE: Application for Site Plan Approval
Proposed Site Redevelopment
4548-4564 Main St, Amherst, NY (BDP # 5202)

Dear Chairman Gilmour and Members of the Planning Board:

Enclosed please find materials in connection with our application for site plan approval for the parcel located at 4548-4564 Main Street (the "Project Site").

The Project Site is approximately 0.93-Acres and consists for four parcels between Fruehauf Ave and Chateau Terrace on the Northside of Main Street. The two parcels along Main Street consist of two existing retail buildings with associated parking lot accessed at the northside of site. All four parcels are in the mixed-use district Traditional Infill 2.5 (TI-2.5). As part of this project, these four parcels shall be combined into a single tax lot.

The proposed project will consist of the following:

- The demolition of existing buildings located on the Project Site (13K removed) and to construct a multi-story mixed use 65,000 +/- square footage building;
- Provide 48 Apartments of various bedroom sizes and 6,995 square feet of restaurant space;
- Provide a two-level parking garage to provide 79 parking spaces and requires 77 parking spaces;
- Provide Outdoor Amenity Space in accordance with the Mixed-Use District Town code;
- Provide new curb cut access drives from Fruehauf Ave and Chateau Terrace;
- Provide new site drainage infrastructures and utilities.

The proposed site plan and building elevations have been designed to meet the intent of the requirements of the TI-2.5 zoning.

We believe the project will be an attractive improvement and look forward to reviewing this project with the Planning Board. Should you have any questions or require any additional information, please do not hesitate to contact me.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James A. Boglioli, Esq.
Director, Right to Build – Northeast US

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PASSERO ASSOCIATES
engineering architecture

January 18, 2023

Mr. Matt Oates, P.E.
Director, Engineering
Benderson Development Company, LLC
570 Delaware Avenue
Buffalo, New York 14202

RE: Proposed 4548-4564 Main Street Mixed-Use Project, Town of Amherst, NY
Traffic Impact Assessment

Dear Mr. Oates:

The purpose of this Traffic Impact Assessment (TIA) is to identify and evaluate the potential traffic impacts associated with the proposed mixed-use project to be located at 4548-4564 Main Street in the Town of Amherst, NY. This assessment identifies the operating characteristics of the proposed access drives and impacts to the adjacent roadway network and recommends mitigating measures (if needed) to minimize any operational concerns. To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project.

SITE LOCATION AND STUDY AREA

The project site is to be located at 4548-4564 Main Street in the Town of Amherst, Erie County, New York. The project site, currently consisting of one to two-story buildings, is bounded by residential to the north, Chateau Terrace to the east, Main Street to the south, and Fruehauf Avenue to the west. Land uses in the vicinity of the site include residential, office, service, and retail.

To ensure a comprehensive analysis of potential traffic impacts, the following existing intersections were included in the analysis:

- Main Street (NY-5)/Chateau Terrace/Bernhardt Drive (signalized)
- Main Street/Fruehauf Avenue (unsignalized)

The site location and study area are illustrated in **Figure 1** (all figures and supporting materials are included at the end of this letter).

EXISTING TRAFFIC CONDITIONS

A. Vehicular Network Description

The following information outlined in **Table 1** provides a description of the existing roadway network within the project study area. **Figure 2** illustrates the lane geometry at the study intersections and the Annual Average Daily Traffic (AADT) volumes on the study roadways. The AADTs reflect the most recently collected data obtained from the New York State Department of Transportation (NYSDOT). Functional classification of highways within the study area is determined by the NYSDOT and the Federal Highway Administration (FHWA). Where recent data is not available, traffic data is shown as an extrapolation of turning movement counts collected by Passero Associates in 2022.

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TABLE 1: EXISTING HIGHWAY SYSTEM

ROADWAY	CLASS[1]	AGENCY[2]	SPEED LIMIT[3]	TRAVEL LANES[4]	ORIENTATION OF TRAVEL	AADT[5]
Main Street (NY-5)	14	NYSDOT	40	4	Two-way/ Northwest-Southeast	21,436 NYSDOT (2019)
Chateau Terrace	19	Town	30	2	Two-way/ North-South	1,210 Passero (2022)
Bernhardt Drive	19	Town	30	2	Two-way/ North-South	400 Passero (2022)
Fruehauf Avenue	19	Town	30	2	Two-way/ North-South	900 Passero (2022)

Notes:
1. State Functional Classification of Roadway: 14 = Urban Principal Arterial, 19 = Urban Local
2. Jurisdictional Agency of Roadway.
3. Posted or Statewide Limit in Miles per Hour (mph).
4. Number of travel lanes. Excludes turning/auxiliary lanes developed at intersections.
5. Estimated AADT in Vehicles per Day (vpd). AADT Source (Year).

B. Multi-Modal Network Description

Sidewalks are present along all study corridors. The signalized intersection of Main Street/Chateau Terrace/Bernhardt Drive consists of actuated pedestrian countdown signals, a high visibility crosswalk across Main Street, and ADA compliant curb ramps. There are no dedicated bicycle lanes, although bicyclists are allowed to share the road with motorists. The Niagara Frontier Transportation Authority has bus stops nearby.

C. Peak Intervals for Analysis

Given the functional characteristics of the study corridors, adjacent land uses, and the proposed land uses (residential, restaurants) for the project site, the peak hours selected for analysis are the weekday commuter AM and PM peak periods. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

D. Existing Traffic Volume Data

Turning movement traffic counts were collected on Tuesday, December 13, 2022, by Passero Associates at the study intersections. Traffic counts were conducted between 7:00-9:00 AM for the weekday AM peak period and 4:00-6:00 PM for the weekday PM peak period. The peak hour traffic periods generally occurred from 7:30-8:30 AM and 4:00-5:00 PM.

All turning movement count data was collected on a typical weekday while local schools were in session. No adverse weather conditions impacted the traffic counts. The traffic volumes were reviewed to confirm the accuracy and relative balance of the collective traffic counts. The actual differences in traffic volumes can be attributed to temporal variations in traffic volumes as well as activity related to parking in the segments between the study intersections. **Figure 3** illustrates the peak hour volumes used for analysis purposes in this study.

E. Field Observations

The study intersections were observed for the project during all peak intervals to assess current traffic operations. Signal timing and phasing information for the signalized intersection was obtained from the NYSDOT to determine peak hour phasing plans and phase durations during each interval. This information was used to support and/or calibrate capacity analysis models described in detail later in this report.

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F. Existing Peak Hour Queuing Assessment

A peak hour queuing assessment was performed along Fruehauf Avenue during the AM and PM peak hours to measure the frequency of southbound vehicles that block the proposed driveway. The centerline of the proposed driveway is located approximately 38 feet from the stop bar. Given this distance, the driveway is located approximately 1.7 vehicle lengths from the stop bar.

Our firm documented southbound queues at the intersection of Main Street/Fruehauf Avenue on Thursday, July 22, 2021, from 7:00-9:00 AM and 4:00-6:00 PM. The peak hours generally occurred from 8:00-9:00 AM and 4:30-5:30 PM. Based on this field investigation during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

G. Existing Crash Analysis

The purpose of this crash analysis is to identify inherent safety issues by studying and quantifying historical crashes at the study intersections and identifying potential crash patterns and clusters.

A crash cluster is defined as an abnormal occurrence of similar crash types occurring at approximately the same location or involving the same geometric features. The severity of the crashes should also be considered. A history of crashes is an indication that further analysis is required to determine the cause(s) of the crash(es) and to identify what actions, if any, could be taken to mitigate the crashes.

A crash investigation within the study area was conducted to assess the safety history from July 31, 2017, through July 31, 2021. The data was provided by the New York State Department of Motor Vehicles through a Freedom of Information (FOIL) request.

Despite the COVID-19 pandemic influencing daily travel in 2020 and 2021, only one crash was reported during this period, and it occurred in 2021. This crash was included in the analysis.

Reportable (non-injury, injury, and fatal injury) type crashes are defined as damage to one person's property in the amount of $1,001 or more. The Non-Reportable type crashes result in property damage of $1,000 or less. Crash rates were computed for the study intersections and compared with NYSDOT average crash rates for similar intersections, as summarized in **Table 2**. Intersection rates are listed as crashes per million entering vehicle (CR/MEV). Pertinent crash data is provided in the Appendices.

TABLE 2: EXISTING CRASH RATES

INTERSECTION	NUMBER OF CRASHES	NUMBER OF ENTERING VEHICLES	ACTUAL CRASH RATE	STATEWIDE AVERAGE CRASH RATE
Main Street/Chateau Terrace/Bernhardt Drive	9	19,800 vpd	0.25	0.26
Main Street/Fruehauf Avenue	0	18,958 vpd	0.00	0.26

Notes:
1. vpd = vehicles per day.
2. **Bold** text denotes crash rate above statewide average

Main Street/Chateau Terrace/Bernhardt Drive

Five of the nine (56%) reported crashes were attributed to rear end collisions. This is characteristic of heavily trafficked signalized intersections. Three of the crashes occurred in the westbound direction. The causes of the rear end crashes were generally due to driver error (e.g., following too closely, driver inattention). The remaining crashes were sideswipe (2), left turn (1), and a crash into a parked vehicle. No geometric improvements are recommended.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed project is anticipated to reach full build-out within approximately two years. Widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but not yet approved are not included in a traffic analysis. Local municipal personnel were contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. No projects were identified.

A review of historical NYSDOT traffic volume data in the vicinity of the site indicates that traffic has decreased slightly between 2015 and 2019. To account for normal increases in background traffic growth, including any unforeseen developments in the project study area, a growth rate of 1.0% was applied to the existing traffic volumes. The background traffic volumes are depicted in **Figure 4**.

PROPOSED PROJECT

A. Project Description

The proposed project consists of constructing 48 apartment units, a ±2,513 square foot (SF) fast casual restaurant, and a ±4,111 SF fine dining restaurant. Access will be provided via two full access driveways: one along Chateau Terrace which accesses a parking lot with 54 spaces and one along Fruehauf Avenue which accesses a parking lot with 22 spaces. Chateau Terrace is posted as a "No Outlet" street while Fruehauf Avenue is posted as a "Dead End" street. On-street parking is available along Main Street. Sidewalks are present throughout the adjacent neighborhood. **Figure 5** illustrates the proposed concept plan.

B. Site Traffic Generation

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. Trip Generation Manual (11th Edition) published by the Institute of Transportation Engineers (ITE) is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of the adjacent street traffic and proposed land use, in this case, the weekday commuter AM and PM peaks, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis.

For certain types of developments, the total number of trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Service/retail-oriented developments (i.e., shopping centers, gas stations, coffee/donut shops, and restaurants) often locate adjacent to busy streets to attract the motorists already passing the site on the adjacent street. These sites attract a portion of their trips from traffic passing the site. The "pass-by" traffic refers to the amount of existing traffic already on the roadway adjacent to the site that, as it "passes by" the site, will enter the site driveways to patronize the project site. The quantifying of "pass-by" trips has the net result of reducing the volume of new traffic that is added to the site driveways and/or adjacent roadways. This site is likely to exhibit some level of pass-by traffic. However, no adjustment was made to remain conservative.

Table 3 shows the site generated trips for the proposed project.

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TABLE 3: SITE GENERATED TRIPS

DESCRIPTION	ITE LUC	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Multi-family Residential	220	48 units	5	14	15	9
Fast Casual Restaurant	930	±2,513 SF	2	2	17	15
Quality Restaurant	931	±4,111 SF	2	1	21	11
Total Site Generated Trips			**9**	**17**	**53**	**35**

Note:
1. ITE LUC = ITE Land Use Code.

The proposed project is expected to generate approximately nine entering/17 exiting vehicle trips during the AM peak hour and 53 entering/35 exiting vehicle trips during the PM peak hour.

C. Site Traffic Distribution

The cumulative effect of site generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site. The proposed arrival/departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Residential and employment centers using U.S. Census Data
- Site access locations
- Existing traffic patterns
- Existing traffic conditions and controls

Based on these parameters, **Figure 6A** illustrates the anticipated trip distribution pattern percentages for the residential traffic and **Figure 6B** illustrates the anticipated trip distribution for the restaurant traffic from the proposed project. **Figure 7** illustrates the peak hour project site generated traffic based on those percentages.

D. Full Development Volumes

Proposed design hour traffic volumes were developed for the AM and PM peak hours by combining the background traffic conditions (**Figure 4**) and the total site generated traffic volumes (**Figure 7**) to yield the traffic volumes under full build conditions. The resulting design hour volumes for the proposed project are illustrated in **Figure 8** under full build-out conditions.

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CAPACITY ANALYSIS

A. Description of Capacity Analysis

A capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis typically focuses on intersections, as opposed to highway segments.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing conditions with little to no delay, and LOS "F" with very long and significant delays to motorists. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Attachments. LOS “C” or better is generally desirable, but LOS “D” for signalized locations and LOS “E” for unsignalized are generally acceptable during peak periods so long as the volume to capacity ratio (v/c) is below 1.0.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the Highway Capacity Manual (HCM 2016) published by the Transportation Research Board (TRB). Traffic analysis software, Synchro 11, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service based on the HCM as an indicator of how well intersections operate. This study used HCM 2000 methodology for determining operations at the unsignalized intersections in accordance with local NYSDOT Region 5 guidelines.

B. Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the proposed project were analyzed to assess the operation of the study area intersections. Capacity results for existing, background, and full development conditions are listed in **Table 4**. The discussion following the table summarizes capacity conditions.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

TABLE 4: CAPACITY ANALYSIS RESULTS

INTERSECTION	2022 EXISTING CONDITIONS				2024 BACKGROUND CONDITIONS				2024 FULL DEVELOPMENT CONDITIONS			
	AM		PM		AM		PM		AM		PM	
1. Main Street/Chateau Terrace/Bernhardt Drive (S)												
EB Left - Main Street	A	8.3	A	7.6	A	8.5	A	7.7	A	8.9	A	8.2
EB Thru/Right - Main Street	A	7.9	A	7.9	A	8.0	A	8.0	A	8.4	A	8.4
WB Left - Main Street	A	8.1	A	7.6	A	8.2	A	7.7	A	8.6	A	7.9
WB Thru/Right - Main Street	A	7.8	A	7.6	A	7.9	A	7.7	A	8.3	A	8.0
NB - Bernhardt Drive	C	30.3	D	36.3	C	30.3	D	36.3	C	30.3	D	36.3
SB - Chateau Terrace	D	37.4	D	37.8	D	37.4	D	38.3	D	38.9	D	39.8
Overall LOS	**A**	**9.3**	**A**	**9.5**	**A**	**9.4**	**A**	**9.7**	**A**	**10.0**	**B**	**10.1**
Volume-to-Capacity (v/c) Ratio	**0.43**		**0.44**		**0.44**		**0.45**		**0.48**		**0.48**	
2. Main Street/Fruehauf Avenue (U)												
EB Left - Main Street	A	9.5	A	9.3	A	9.5	A	9.4	A	9.5	A	9.6
SB - Fruehauf Avenue	B	12.5	B	12.5	B	12.6	B	12.6	B	12.8	B	12.8
3. Fruehauf Avenue/Proposed Driveway (U)												
WB - Proposed Driveway	NA		NA		NA		NA		A	8.7	A	8.9
SB - Fruehauf Avenue									A	0.0	A	0.0
4. Chateau Terrace/Proposed Driveway (U)												
EB - Proposed Driveway	NA		NA		NA		NA		A	8.7	A	8.7
NB - Chateau Terrace									A	0.5	A	1.9

Notes:

1. A(2.8) = Level of Service (Delay in seconds per vehicle)
2. EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound
3. (S) = Signalized; (U) = Unsignalized
4. N/A = Approach does not exist and/or was not analyzed during this condition
5. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.
6. The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available and vehicles are not expected to experience significant queues and delays. A v/c ratio between 0.85 and 0.95 generally indicates an intersection is nearing capacity. Intersections with a v/c ratio of 1.0 or greater generally indicate conditions at or above capacity.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

1. Main Street/Chateau Terrace/Bernhardt Drive (Signalized)
All movements generally operate at LOS "D" or better under existing and projected background conditions with moderate delays for the northbound and southbound movements. The overall LOS is projected to change from "A" to "B" during the PM peak hour between background and full development conditions. However, this is a borderline condition as the threshold is 10.0 seconds of delay per vehicle. There are no other projected changes in LOS because of the proposed project. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

2. Main Street/Fruehauf Avenue (Unsignalized)
All movements operate at LOS "B" or better under existing, background, and full development conditions during both peak hours. There are no projected changes in LOS between background and full development conditions. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

3. Fruehauf Avenue/Proposed Driveway (Unsignalized)
All movements are projected to operate at LOS "A" under full development conditions. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

4. Chateau Terrace/Proposed Driveway (Unsignalized)
All movements are projected to operate at LOS "A" under full development conditions. There is capacity to accommodate the additional traffic volumes and projected minor impacts from the proposed project; thus, no mitigation is warranted nor recommended.

SIGHT LINE EVALUATION

Based upon a review of the attached site plan, the proposed building is projected to be built in approximately the same footprint as the existing structures fronting Main Street. There is a marked stop bar for traffic exiting Fruehauf Avenue.

In this case, the primary concern is with the proposed building at the existing Main Street/Fruehauf Avenue intersection. The attached **Figure 9** illustrates the sight line evaluation performed at the intersection to the east of the intersection.

Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection. Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions.

A Policy on Geometric Design of Highways and Streets (2011) published by the American Association of State Highway and Transportation Officials (AASHTO), was used as a reference to establish the required Stopping Sight Distance (SSD) and desirable Intersection Sight Distance (ISD) for the adjacent driveway location. **Table 5** depicts the results of the sight distance evaluation at the Main Street/Fruehauf Avenue intersection.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

TABLE 5: SIGHT LINE EVALUATION

DESCRIPTION		VALUE
POSTED SPEED		40 MPH
DESIGN SPEED[1]		45 MPH
REQUIRED SSD		360 feet
DESIRABLE ISD		500 feet
AVAILABLE SIGHT DISTANCE TO THE EAST	*SSD*	>360 feet
	ISD	505 feet (no vehicles) 155 feet (parked vehicles)

Note:
1. Design speed equals posted speed plus 5 MPH.

The required SSD is satisfied to the east of the study intersection. When cars are parked in the spaces in front of the building, the ISD is not satisfied. However, with no vehicles parked, the ISD is satisfied.

It is understood that urbanized environments consist of on-street parking, limited to zero building setback lines, and other fixed objects (e.g., signs, trees, street furniture). By regulation, on-street parking is restricted within 20 feet of a crosswalk at an intersection and within 30 feet of a traffic signal or stop sign. In this case, parking is restricted for more than 60 feet along the northern side of Main Street from Fruehauf Avenue. Legally parked vehicles may be considered as allowable objects in this case. It is noted that on-street parking can be beneficial in these settings to reduce vehicle speeds and provide a buffer to pedestrians on the sidewalk. This condition is not unique to this study location and can be found in other areas along Main Street in Amherst and Williamsville.

Parking within the sight triangle may occur throughout the day and limit the sight lines, as noted on **Figure 9**. However, given the existing condition of the intersection and intermittent nature of the sight line being impacted, intersection warning signage may be considered as relief.

CONCLUSIONS & RECOMMENDATIONS

This Traffic Impact Assessment identified and evaluated the potential traffic impacts that can be expected from the proposed mixed-use project to be located at 4548-4564 Main Street in the Town of Amherst, NY. The results of this study determined that the existing transportation network can adequately accommodate the projected traffic volumes and resulting impacts to study area intersections. The following sets forth the conclusions based on the results of the analyses:

1. The proposed project is expected to generate approximately nine entering/17 exiting vehicle trips during the AM peak hour and 53 entering/35 exiting vehicle trips during the PM peak hour.

2. All movements generally operate at LOS “D” or better under existing, projected background, and full development conditions during both peak hours studied at all study intersections. Minimal impacts are projected because of the proposed project. No capacity improvements are recommended at the study intersections.

3. Based upon documentation of southbound queues at the intersection of Main Street/Fruehauf Avenue during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

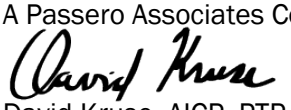
4. Based upon a sight line evaluation at the Main Street/Fruehauf Avenue intersection, the required SSD is satisfied to the east. However, the desirable ISD is not satisfied if/when on-street parking is present. When parked vehicles are not present, the ISD is fully satisfied. The existing and proposed ISD sight distance will be the same and the proposed building will not impact the existing sight distance.

5. For purposes of the environmental review of the proposed project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the proposed project will not result in any potentially significant adverse traffic impacts to the study area.

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,

SRF Associates
A Passero Associates Company



David Kruse, AICP, PTP
Senior Transportation Planner

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

ATTACHMENT

January 18, 2023

Letter to
Mr. Matt Oates, P.E.
Benderson Development

Proposed Mixed-Use Development
4548-4564 Main Street

Traffic Impact Assessment

Town of Amherst
Erie County, New York

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

SRF ASSOCIATES
Transportation Planning / Engineering / Design

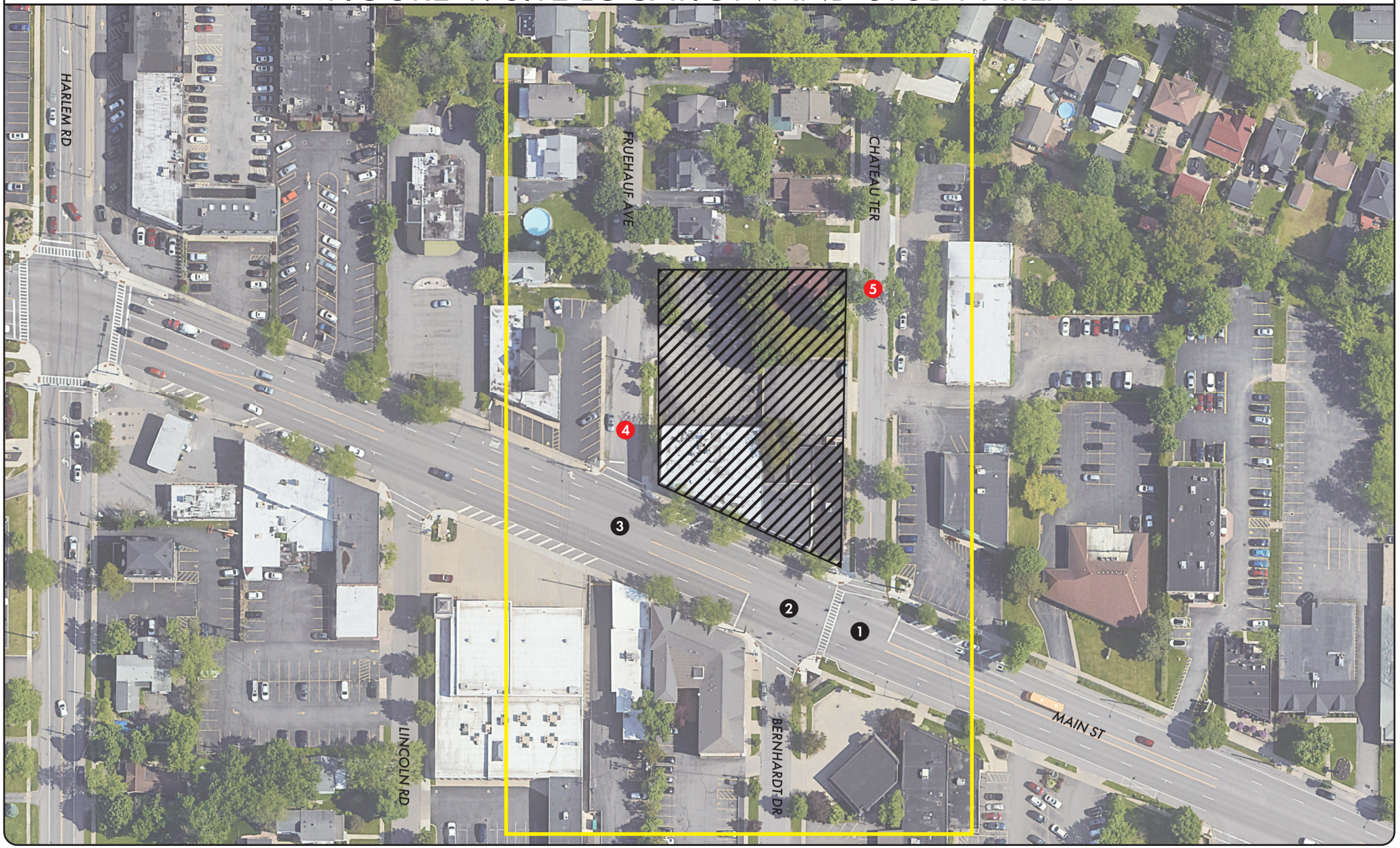
PASSERO ASSOCIATES
engineering architecture

242 West Main Street, Suite 100 Rochester, NY 14614
T 585.325.1000 | www.srfa.net | www.passero.com

FIGURES

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

FIGURE 1: SITE LOCATION AND STUDY AREA



Key

- Study Intersection
- Proposed Intersection
- Site Location
- Study Area

PROPOSED 4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

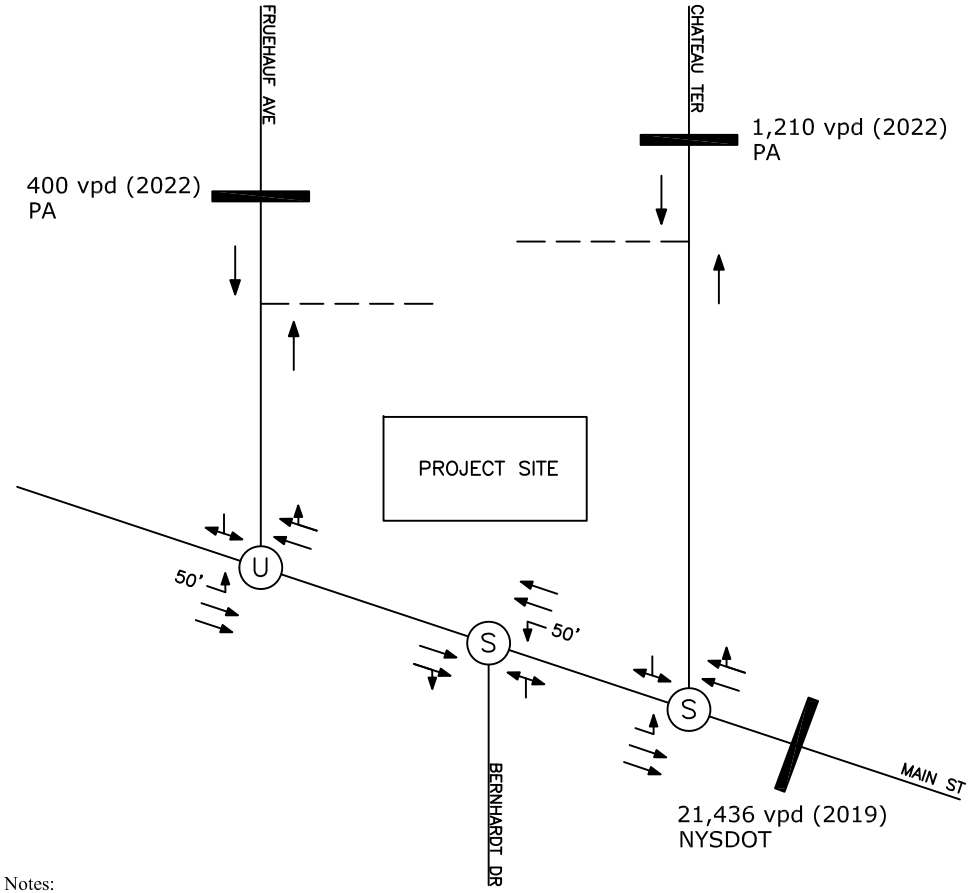
N

0 120
FEET

SRF

PA

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



Notes:
1. All AADT volumes by those noted:
   1.1. NYSDOT = New York State Department of Transportation
   1.2. PA = Passero Associates
2. vpd = Vehicles per Day
3. Turn lane lengths shown

FIGURE 2

LANE GEOMETRY &
AVERAGE DAILY TRAFFIC

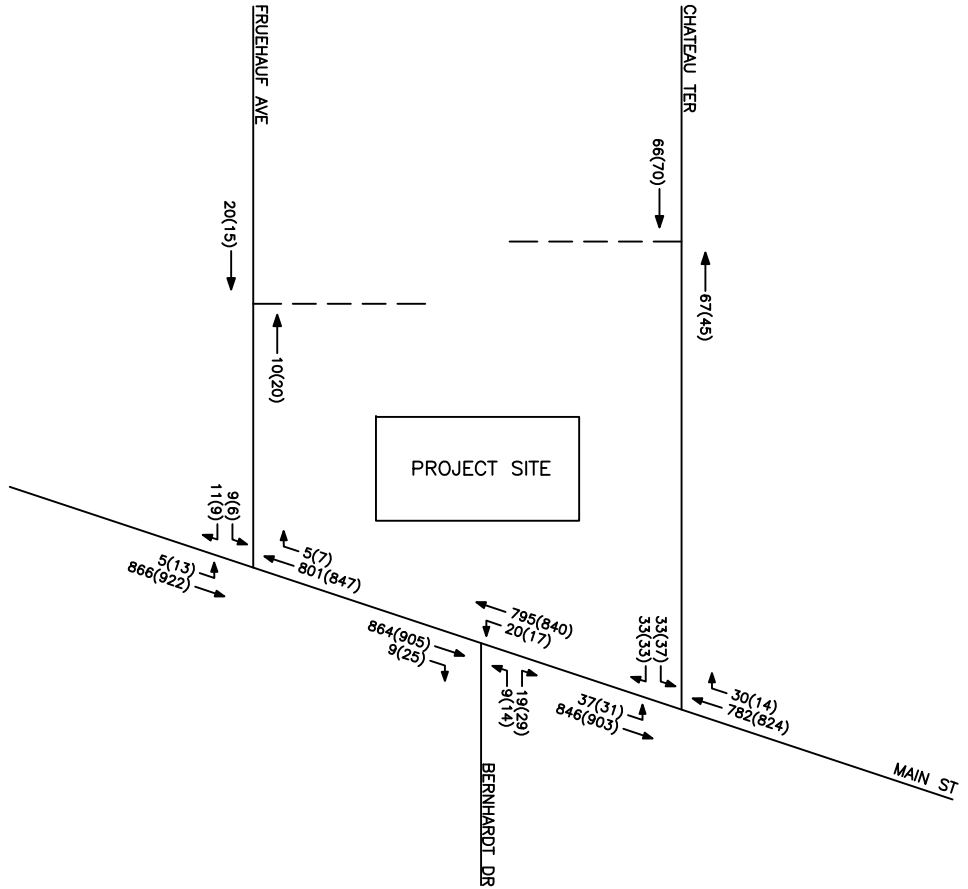


FIGURE 3

PEAK HOUR VOLUMES
2022 EXISTING CONDITIONS

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)
--- PROPOSED DRIVEWAY

TRAFFIC CONTROL
U = Unsignalized
S = Signalized

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

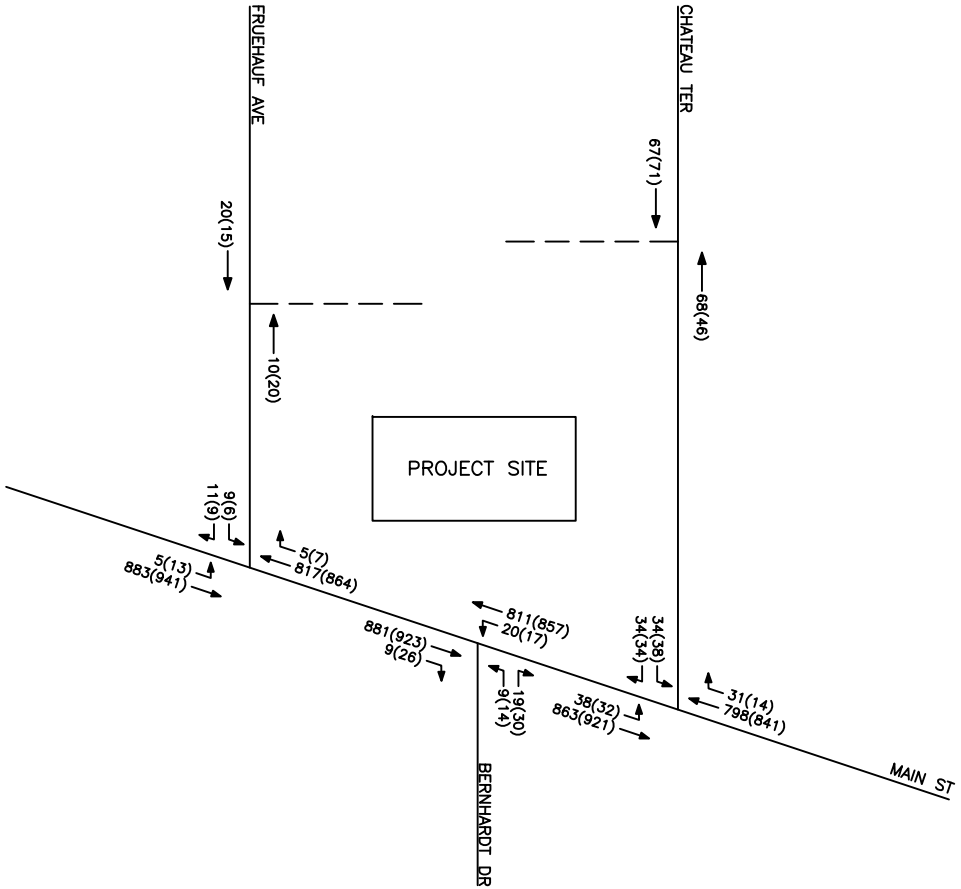


FIGURE 4

PEAK HOUR VOLUMES
2024 BACKGROUND CONDITIONS

SEE SEPARATE SHEET

FIGURE 5

CONCEPT SITE PLAN

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

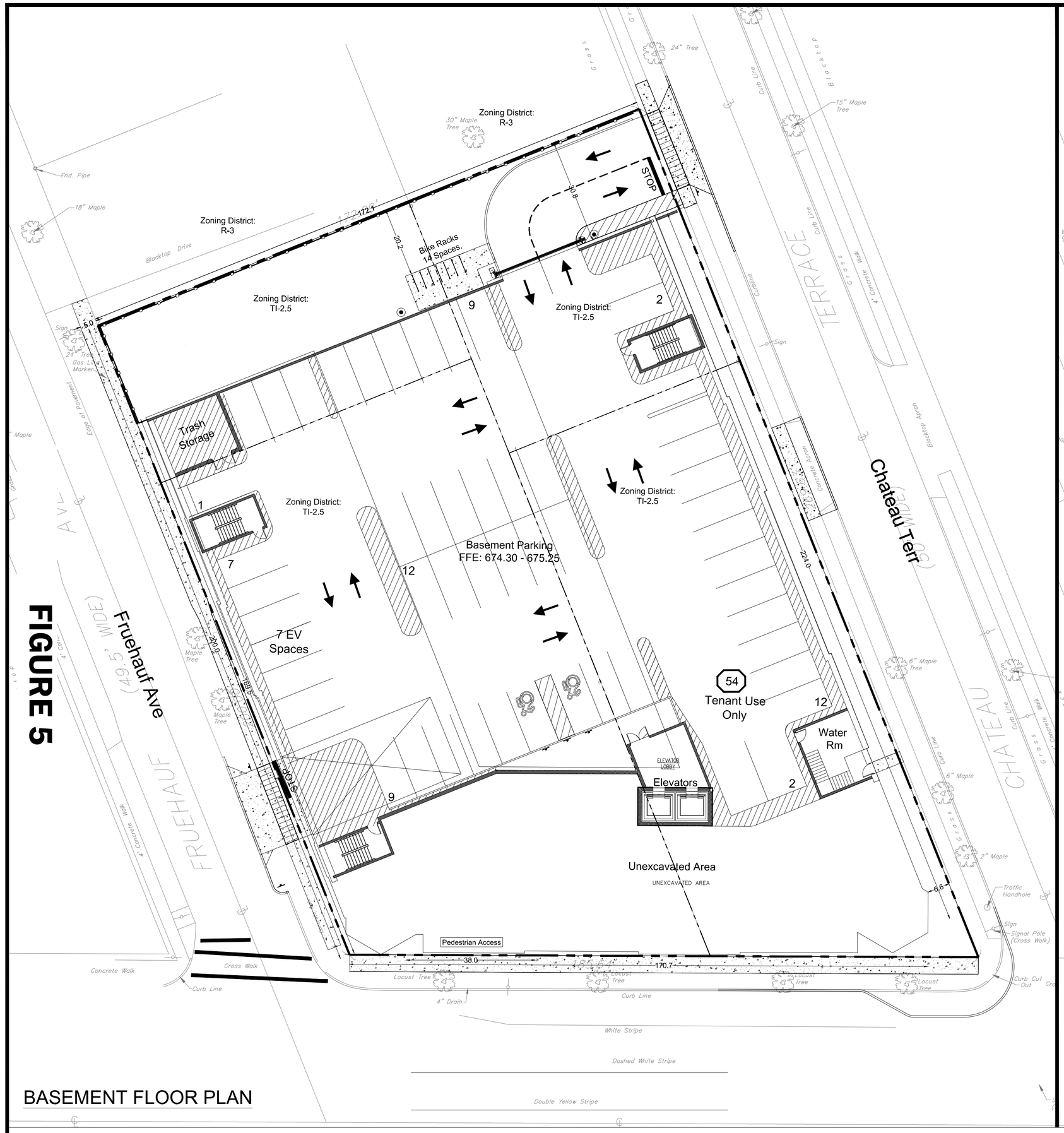
TOWN OF AMHERST, NY

KEY

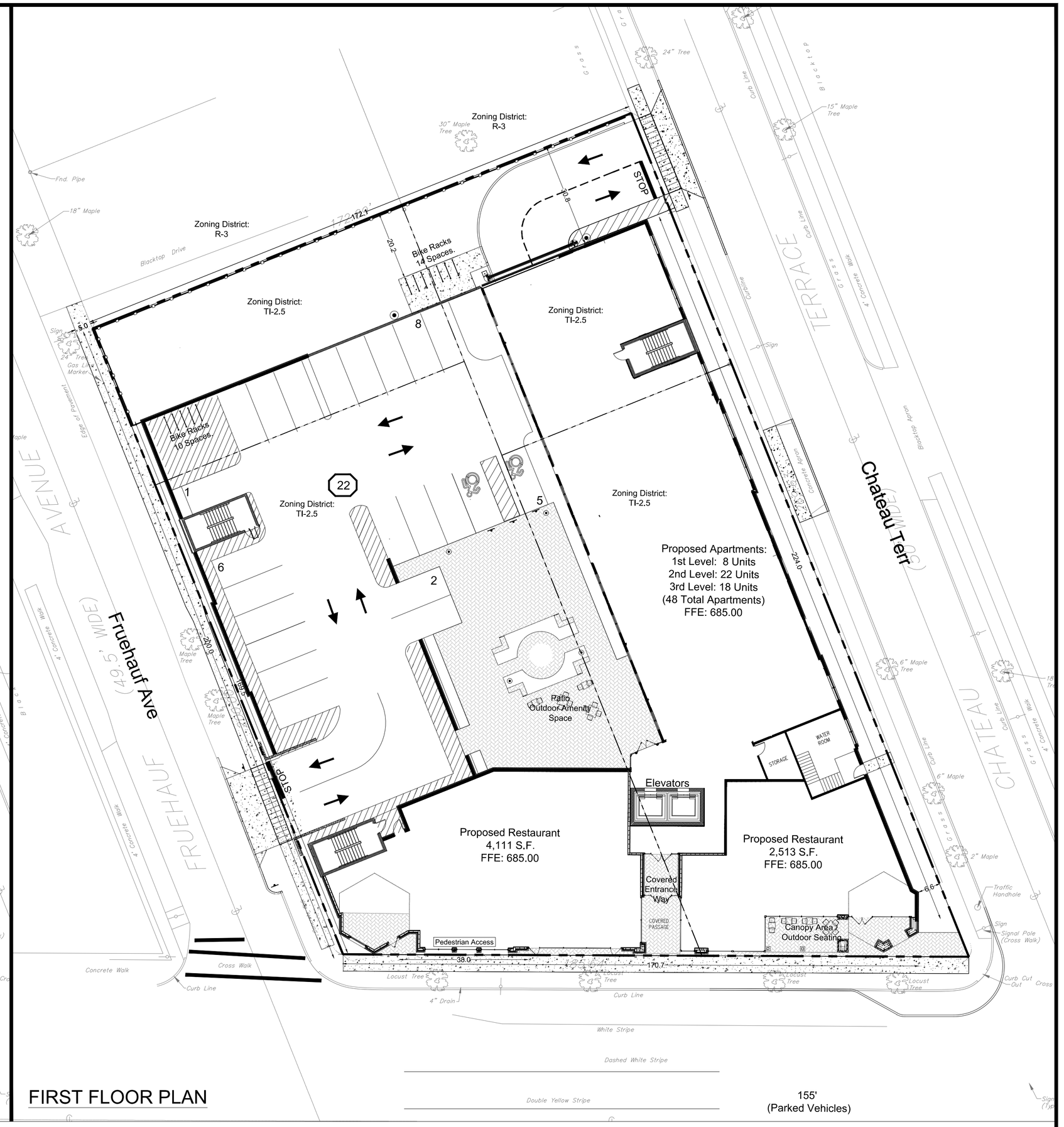
00(00) = AM(PM)
--- PROPOSED DRIVEWAY

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

FIGURE 5



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

TOWN OF AMHERST, NY ZONING ANALYSIS		
	REQUIRED	PROVIDED
ZONED	TI-2.5 (Village Frontage)	TI-2.5 (Village Frontage)
5A-1-3: TI-2.5 Traditional Infill 2.5 Section		
LOT		
Area	0 S.F. min.	40,409 S.F.
Width	0' min.	170.7'
Outdoor Amenity Space	10% min.	11.3% (4,500 S.F.)
At grade level	50% min. *(See 5A-7-1 B(2)*	68.1% (2,825.1 S.F.)
Planted above ground level	25% min. *(See 5A-7-1 B(2)*	31.9% (1,324.9 S.F.)
Seating	1 per 500 S.F. (4,500 / 500 = 9 Seats min.)	10 Seats
BUILDING SETBACKS		
Building-to-zone	Refer to Section 5A-2 Infill Frontages	
Lot Frontage	Refer to Section 5A-2 Infill Frontages	
Common lot line	0' min.	30.8' (North Side)
Alley	0' min.	N/A
PARKING SETBACKS		
Primary and Side Street	Refer to Section 5A-2 Infill Frontages (below)	
Common lot line	0' min.	30.8' (North Side)
Alley	5' min.	N/A
BUILDING HEIGHT		
Top Plate Height	2 Stories / 24' max.	-
Building Height	2.5 Stories / 35' max.	-
Roof Pitch	18:12 max.	-
BUILDING LENGTH	Refer to Section 5A-2 Infill Frontages (below)	
STORY HEIGHT	Refer to Section 5A-2 Infill Frontages (below)	

5A-2-4: Village Frontage		
BUILDING SETBACKS		
Build-to zone	0' min./10' max.	0.0'
Street Frontage:		
Front: Main Street	90% min.	92.0% (170.7')
Side: Fruehaut Ave	-	169.5' - 24' (parking entrance) = 145.5' (72.6%)
Side: Chateau Terr	-	83.1% (224')
PARKING SETBACKS		
Street	20' min.	30.8' (North Side)
BUILDING MASS		
Street facing building length:		
Front: Main Street	200' max.	170.7'
Fruehaut Ave	200' max.	169.5'
Chateau Terr	200' max.	224.0' (Exception 203-5A-2-4 D)
STORY HEIGHT		
Ground floor elevation	0' min. / 2' max.	0.0'
Ground story height	13' min.	-
Upper story height	9' min.	-
TRANSPARENCY		
Ground story	70% min.	1,345S.F./1,890 S.F. = 71.2%
Upper story	20% min.	430 S.F. / 1890 S.F. = 22.7%
Blank wall length	15' max.	7'
PEDESTRIAN ACCESS		
Street facing entrance	Required	Complies
Entrance spacing	50' max.	38'
STREETSCAPE		
Clear pedestrian zone	10' min.	9.8' Total - Existing Condition
Curb zone	6' min.	
Tree planting type	Grates	Noted. Existing
Tree spacing	35' on-center avg.	Noted. Existing

PROPOSED PARKING & BIKE ANAYLSIS TI-2.5 (Section 5A-9-1.A.(1)

USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	6,624 sqft / 1000 x 4 = 27 SPACES	Basement Parking: 54 Spaces Ground Flr Parking: 22 Spaces
RESIDENTIAL (Upper-story)	1.0 per 1&2 bed dwelling unit 1.5 per 3 bed dwelling unit	1.0 x 46 (1&2 Bed) = 46 SPACES 1.5 x 2 (3 Bed) = 3 Spaces	
		Total: 76 SPACES	Total: 76 SPACES
STALL SIZE		9'x19'	9'x19'
ELECTRIC CHARGING STATIONS			
10% of parking spaces to be EV ready. Min. 2 EV ready spaces for parking lots over 20 spaces. EV Ready defined as power be available at spaces in advanced.		Basement Parking: 54 / 10 = 5 Spaces Ground Floor Parking: 22 / 10 = 2 Spaces Total: 7 Spaces	Basement Parking: 7 Spaces Total: 7 Spaces
BIKE PARKING			
Residential Use: Short Term 0.5 space per unit min. 20 max. Public Use: 1 per 3,000 S.F. min. 20 max.		0.5 x 48 = 24 24 > 20 max. 20 SPACES 6,624 S.F. / 3000 = 3 SPACES TOTAL: 23 SPACES	20 SPACES 4 SPACES TOTAL: 24 SPACES

RESTAURANT: 4,111 S.F. + 2,513 S.F.

1 BEDROOM APARTMENTS: 22 UNITS
2 BEDROOM APARTMENTS: 24 UNITS
3 BEDROOM APARTMENTS: 2 UNITS

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	12.09.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:

ZONING SITE PLAN

SCALE: 1:20

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C4.0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

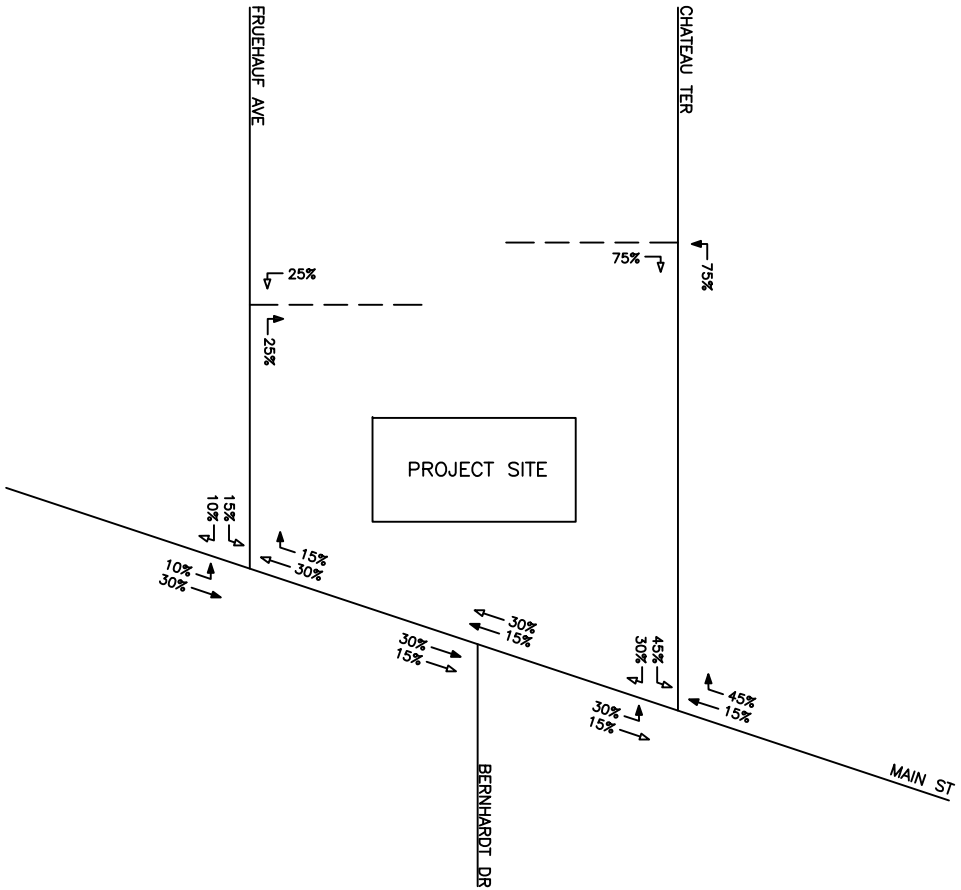


FIGURE 6A

TRIP DISTRIBUTION
RESIDENTIAL

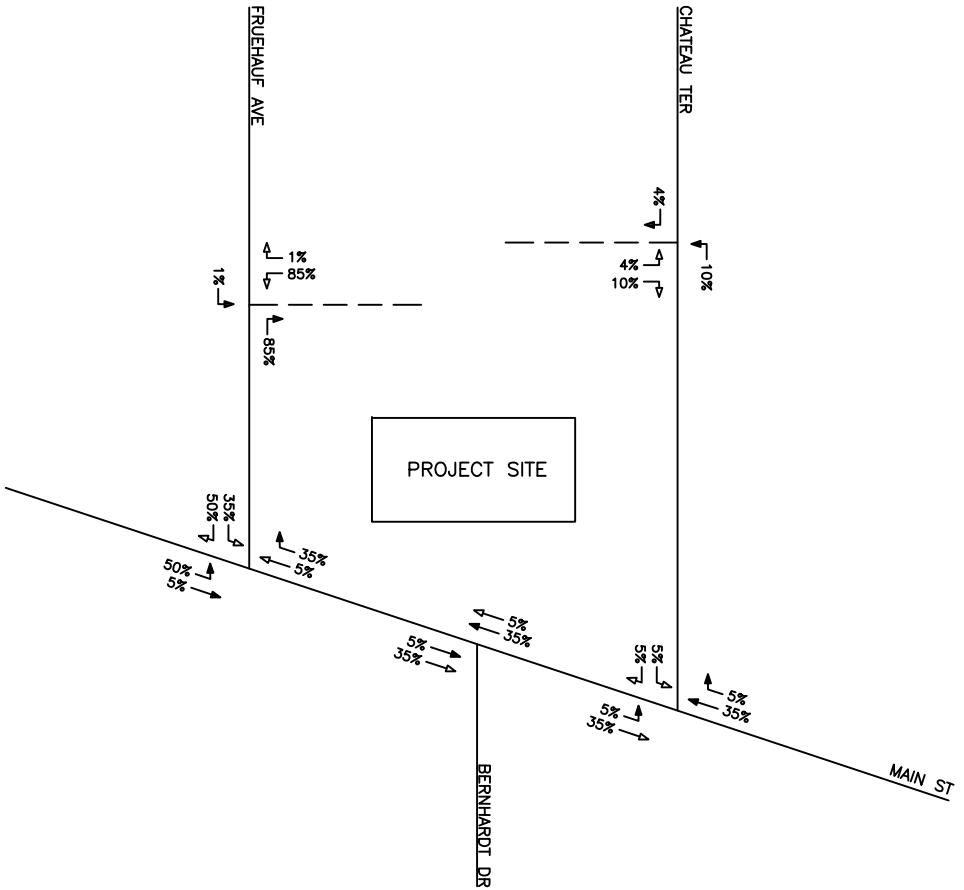


FIGURE 6B

TRIP DISTRIBUTION
RESTAURANTS

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

N
NOT TO SCALE

KEY

00(00) = AM(PM)
--- PROPOSED DRIVEWAY
→ ENTERING TRIP
→ EXITING TRIP

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

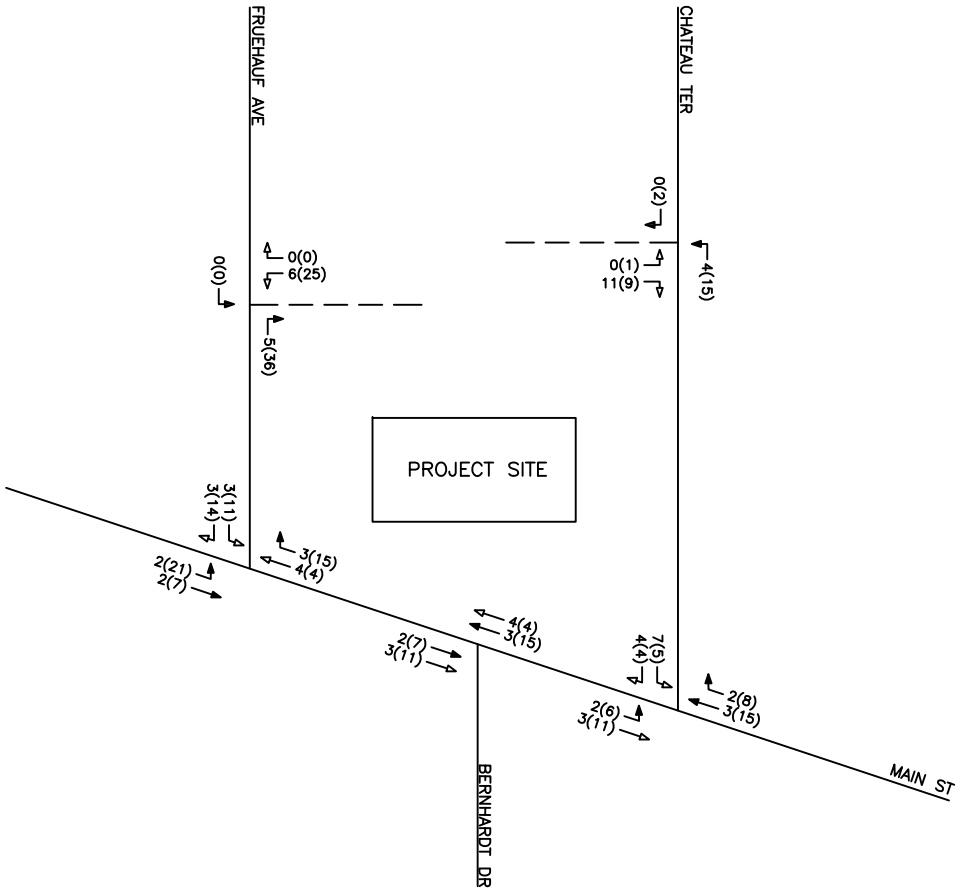


FIGURE 7

SITE GENERATED TRIPS

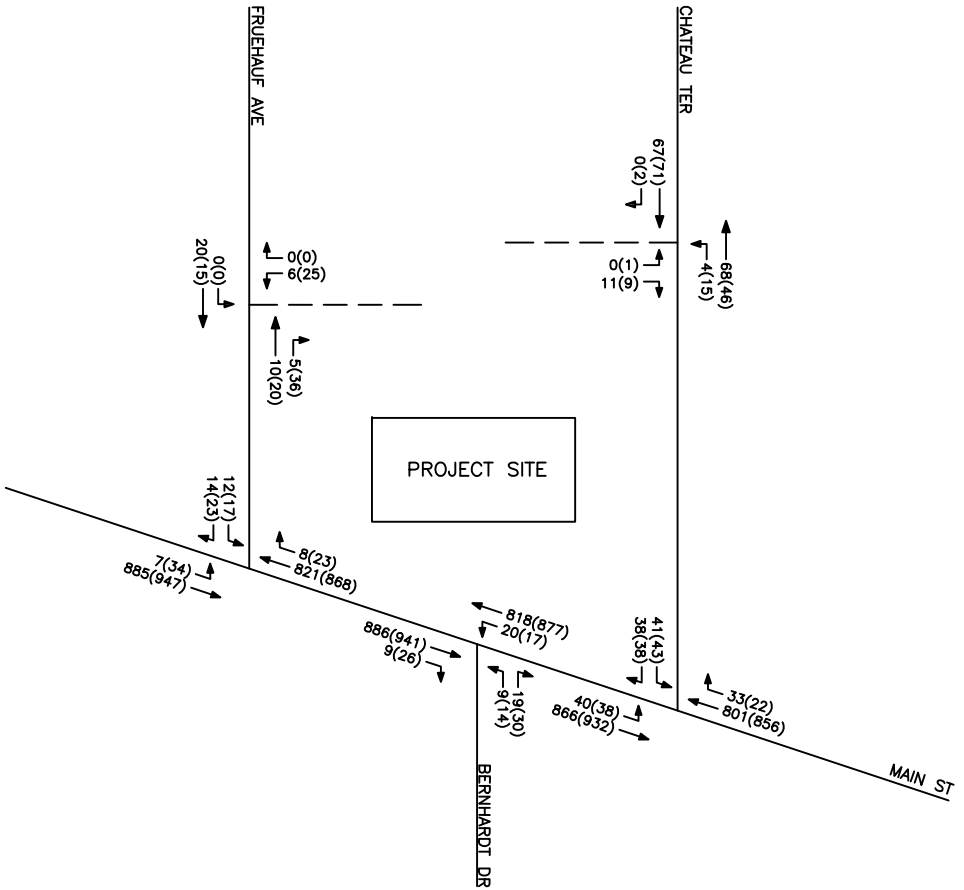


FIGURE 8

PEAK HOUR VOLUMES
FULL DEVELOPMENT CONDITIONS

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

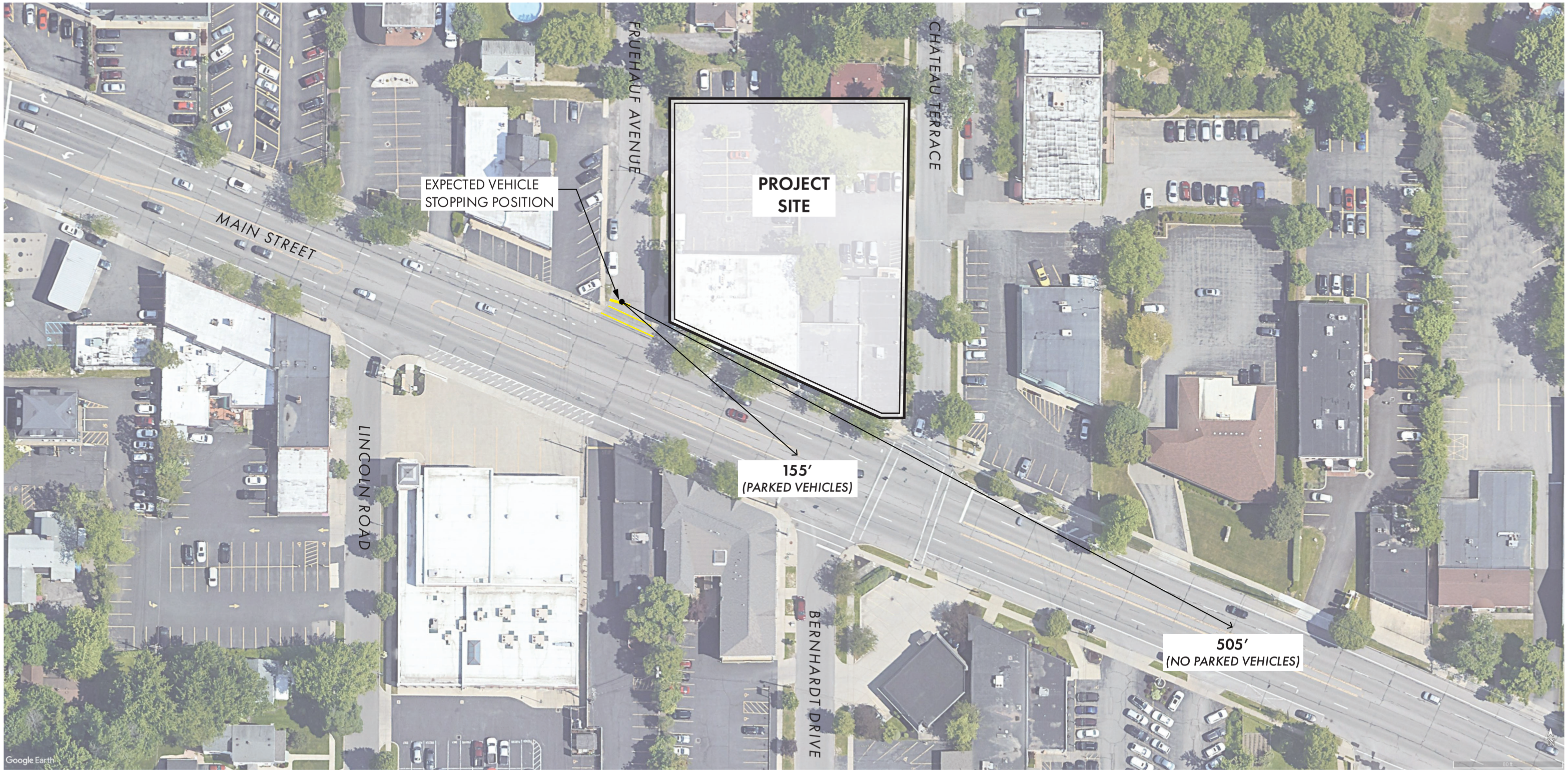
N
NOT TO SCALE

KEY

00(00) = AM(PM)
--- PROPOSED DRIVEWAY
→ ENTERING TRIP
→ EXITING TRIP

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

FIGURE 9



SIGHT LINE EVALUATION

4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

OV

Notes:
Main Street Speed Limit: **40 MPH**
Design Speed: **45 MPH (posted speed limit plus 5 MPH)**
Required Stopping Sight Distance: **360 feet**
Desirable Intersection Sight Distance: **500 feet**

0 80
FEET

SRF ASSOCIATES
242 West Main Street, Suite 100

7.1

Packet Pg. 1940

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

TRAFFIC VOLUME DATA

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

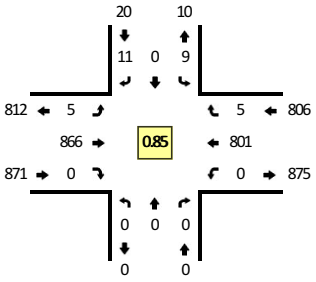
Type of peak hour being reported: Intersection Peak

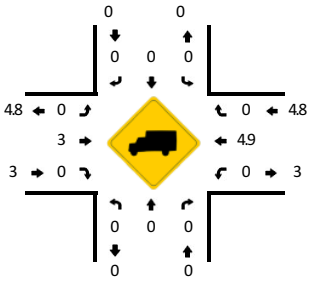
Method for determining peak hour: Total Entering Volume

LOCATION: Fruehauf Ave -- Main St
CITY/STATE: Amherst, NY

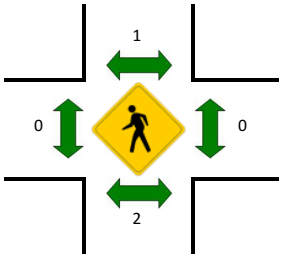
QC JOB #: 16040101
DATE: Tue, Dec 13 2022

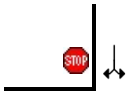
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

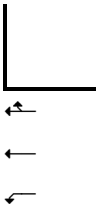


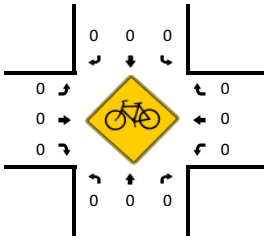


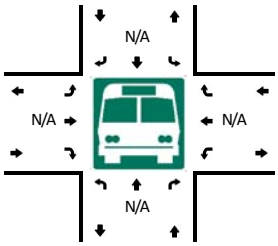
Quality Counts
DATA THAT DRIVES COMMUNITIES

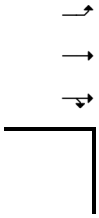


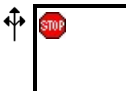


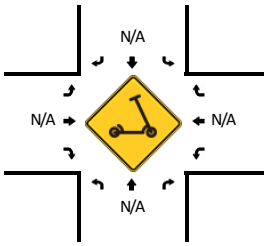












15-Min Count Period Beginning At	Fruehauf Ave (Northbound)				Fruehauf Ave (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	2	0	1	116	0	2	0	130	1	0	253	
7:15 AM	0	0	0	0	4	0	1	0	2	170	0	0	0	159	1	0	337	
7:30 AM	0	0	0	0	2	0	4	0	1	212	0	0	0	201	1	0	421	
7:45 AM	0	0	0	0	4	0	2	0	1	260	0	0	0	230	0	0	497	1508
8:00 AM	0	0	0	0	1	0	4	0	2	186	0	0	0	183	2	0	378	1633
8:15 AM	0	0	0	0	2	0	1	0	1	208	0	0	0	187	2	0	401	1697
8:30 AM	0	0	0	0	0	0	4	0	1	185	0	0	0	142	0	0	332	1608
8:45 AM	0	0	0	0	0	0	2	0	0	191	0	0	0	153	0	0	346	1457

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	8	0	4	1040	0	0	0	920	0	0	1988
Heavy Trucks	0	0	0		0	0	0		0	44	0		0	44	0		88
Buses																	
Pedestrians		4				4				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

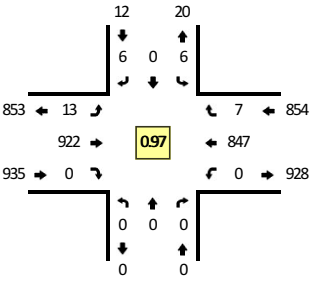
Type of peak hour being reported: Intersection Peak

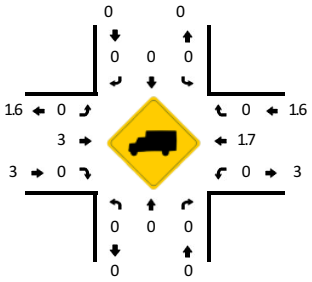
Method for determining peak hour: Total Entering Volume

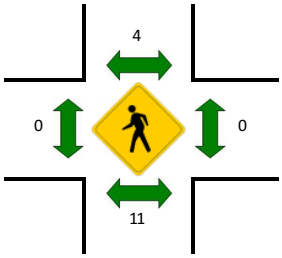
LOCATION: Fruehauf Ave -- Main St
CITY/STATE: Amherst, NY

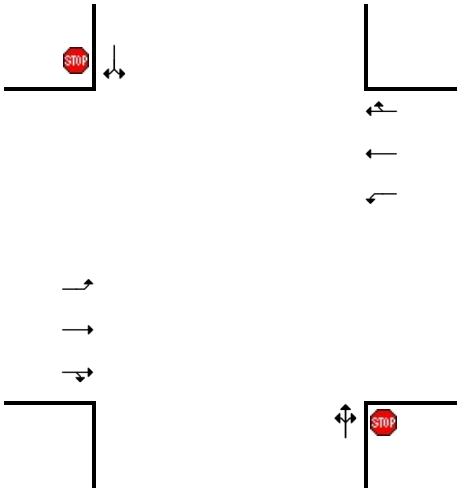
QC JOB #: 16040102
DATE: Tue, Dec 13 2022

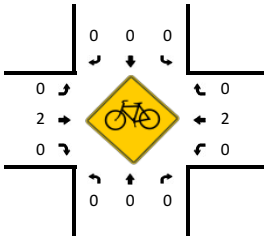
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

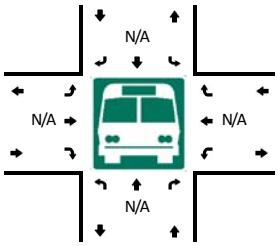


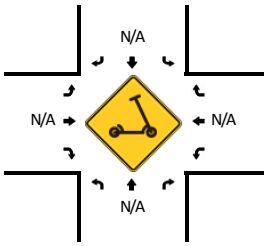












15-Min Count Period Beginning At	Fruehauf Ave (Northbound)				Fruehauf Ave (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	2	0	4	0	5	237	0	0	0	201	1	0	450	
4:15 PM	0	0	0	0	4	0	2	0	3	229	0	0	0	226	1	0	465	
4:30 PM	0	0	0	0	0	0	0	0	3	227	0	0	0	210	4	0	444	
4:45 PM	0	0	0	0	0	0	0	0	2	229	0	0	0	210	1	0	442	1801
5:00 PM	0	0	0	0	0	0	3	0	4	210	0	0	0	173	1	0	391	1742
5:15 PM	0	0	0	0	3	0	0	0	0	217	0	0	0	218	2	0	440	1717
5:30 PM	0	0	0	0	1	0	5	0	3	194	0	0	0	201	2	0	406	1679
5:45 PM	0	0	0	0	1	0	3	0	2	180	0	0	0	208	2	0	396	1633

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	8	0	12	916	0	0	0	904	4	0	1860
Heavy Trucks	0	0	0		0	0	0		0	36	0		0	16	0		52
Buses																	
Pedestrians		0				12				0				0			12
Bicycles	0	0	0		0	0	0		0	8	0		0	8	0		16
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

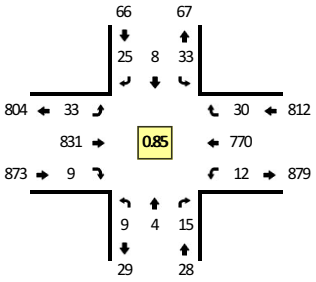
Type of peak hour being reported: Intersection Peak

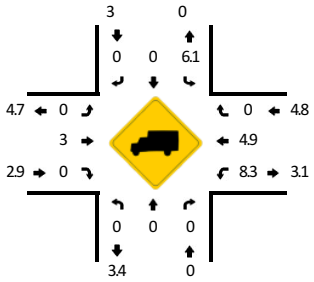
Method for determining peak hour: Total Entering Volume

LOCATION: Chateau Terr/Bernhardt Dr -- Main St
CITY/STATE: Amherst, NY

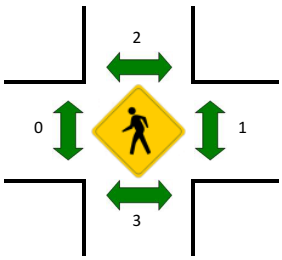
QC JOB #: 16040103
DATE: Tue, Dec 13 2022

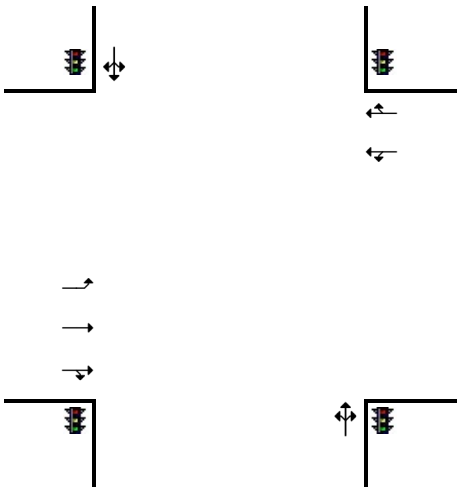
Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

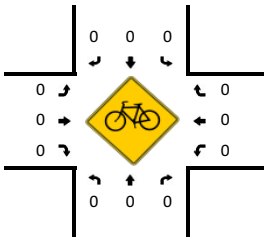


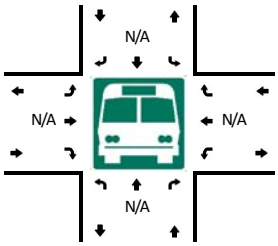


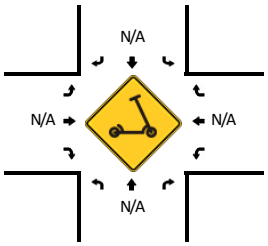
Quality Counts
DATA THAT DRIVES COMMUNITIES











15-Min Count Period Beginning At	Chateau Terr/Bernhardt Dr (Northbound)				Chateau Terr/Bernhardt Dr (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	0	2	0	1	0	1	0	1	116	0	0	3	126	1	0	253	
7:15 AM	2	3	2	0	3	0	3	0	1	170	1	0	1	156	3	0	345	
7:30 AM	2	1	6	0	6	1	2	0	5	207	1	0	2	195	7	0	435	
7:45 AM	3	2	2	0	9	0	5	0	15	248	4	0	4	219	12	0	523	1556
8:00 AM	1	1	4	0	10	4	12	0	11	176	3	0	4	173	10	0	409	1712
8:15 AM	3	0	3	0	8	3	6	0	2	200	1	0	2	183	1	0	412	1779
8:30 AM	2	3	0	0	1	1	3	0	9	175	6	0	2	134	3	0	339	1683
8:45 AM	5	1	4	0	7	1	12	0	7	179	4	0	5	133	5	0	363	1523

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	8	8	0	36	0	20	0	60	992	16	0	16	876	48	0	2092
Heavy Trucks	0	0	0		8	0	0		0	36	0		0	44	0		88
Buses																	
Pedestrians		4				4				0				4			12
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

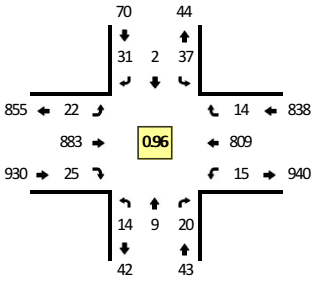
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

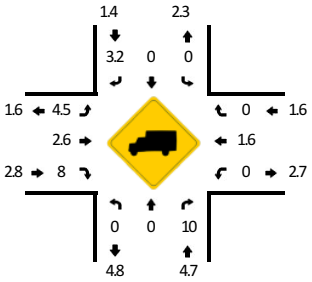
LOCATION: Chateau Terr/Bernhardt Dr -- Main St
CITY/STATE: Amherst, NY

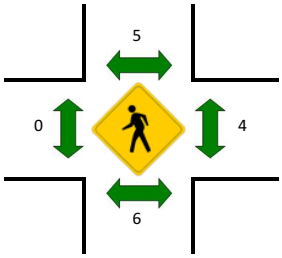
QC JOB #: 16040104
DATE: Tue, Dec 13 2022

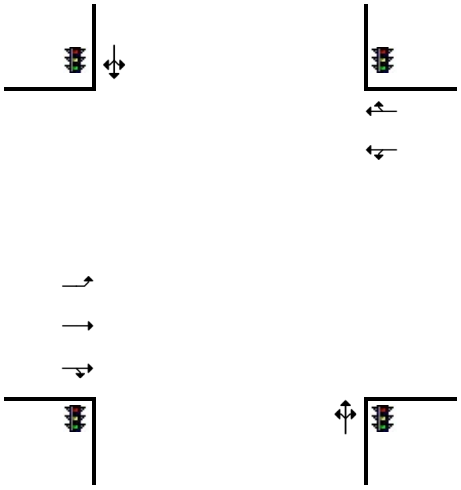
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

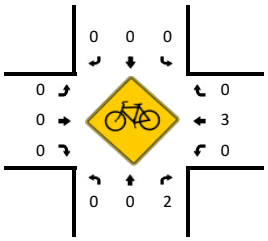


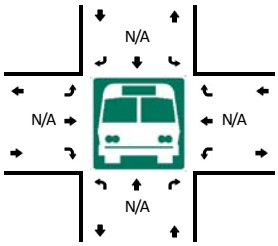


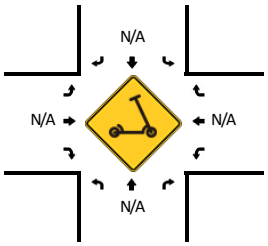












15-Min Count Period Beginning At	Chateau Terr/Bernhardt Dr (Northbound)				Chateau Terr/Bernhardt Dr (Southbound)				Main St (Eastbound)				Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	3	10	0	7	0	6	0	1	227	5	0	2	195	2	0	460	
4:15 PM	4	2	4	0	9	1	10	0	9	224	9	0	4	215	1	0	492	
4:30 PM	4	1	4	0	11	0	8	0	7	217	4	0	5	199	5	0	465	
4:45 PM	4	3	2	0	10	1	7	0	4	215	7	1	4	200	6	0	464	1881
5:00 PM	5	0	2	0	2	1	4	0	4	200	8	0	2	163	5	0	396	1817
5:15 PM	5	1	2	0	1	2	5	0	3	201	7	0	3	202	2	0	434	1759
5:30 PM	2	2	4	0	1	3	3	0	2	192	2	0	3	196	1	0	411	1705
5:45 PM	2	0	2	0	1	0	4	0	2	172	8	0	1	204	1	0	397	1638

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	8	16	0	36	4	40	0	36	896	36	0	16	860	4	0	1968
Heavy Trucks	0	0	0		0	0	0		4	28	4		0	20	0		56
Buses																	
Pedestrians		0				12				0				4			16
Bicycles	0	0	8		0	0	0		0	0	0		0	12	0		20
Scooters																	

Comments:

Report generated on 12/20/2022 8:43 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

MISCELLANEOUS TRAFFIC DATA AND CALCULATIONS

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Proposed 4548-4564 Main Street Mixed-Use Development, Town of Amherst, Erie County, NY

Documentation of Ambient Traffic Volume Growth

Roadway	Segment starts at	Segment end at	2015	2016	2017	2018	2019	Annual Growth
Main Street (NY-5)	NY-240 Harlem Road	ACC RT 290I	22,313	22,014	22,120	20,853	21,436	-1.00%
Harlem Road (NY-240)	Main Street	NY-324		11,976			11,530	-1.26%
Harlem Road (NY-240)	Main Street	CR-290		13,038			12,973	-0.17%
							AVERAGE	**-0.81%**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

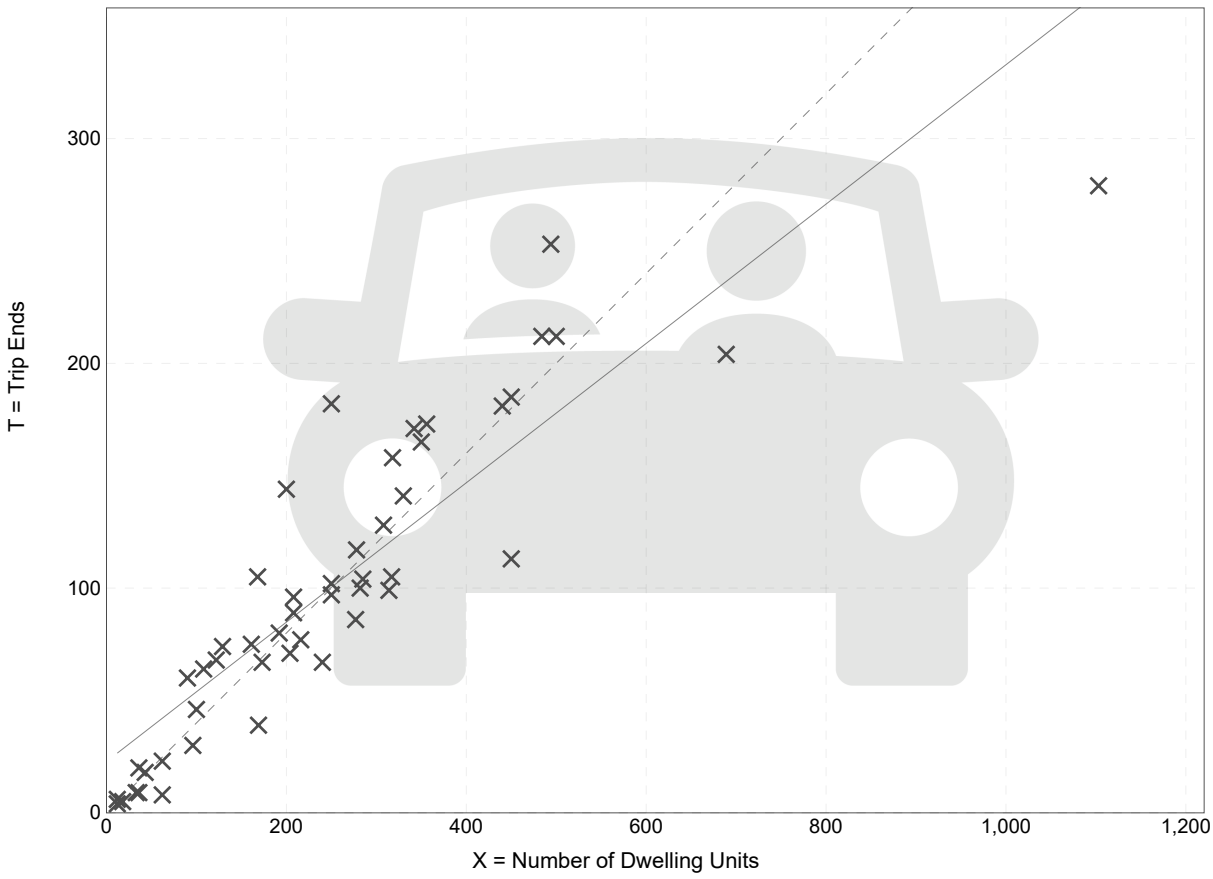
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Fitted Curve Equation: T = 0.31(X) + 22.85

R^2= 0.79

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

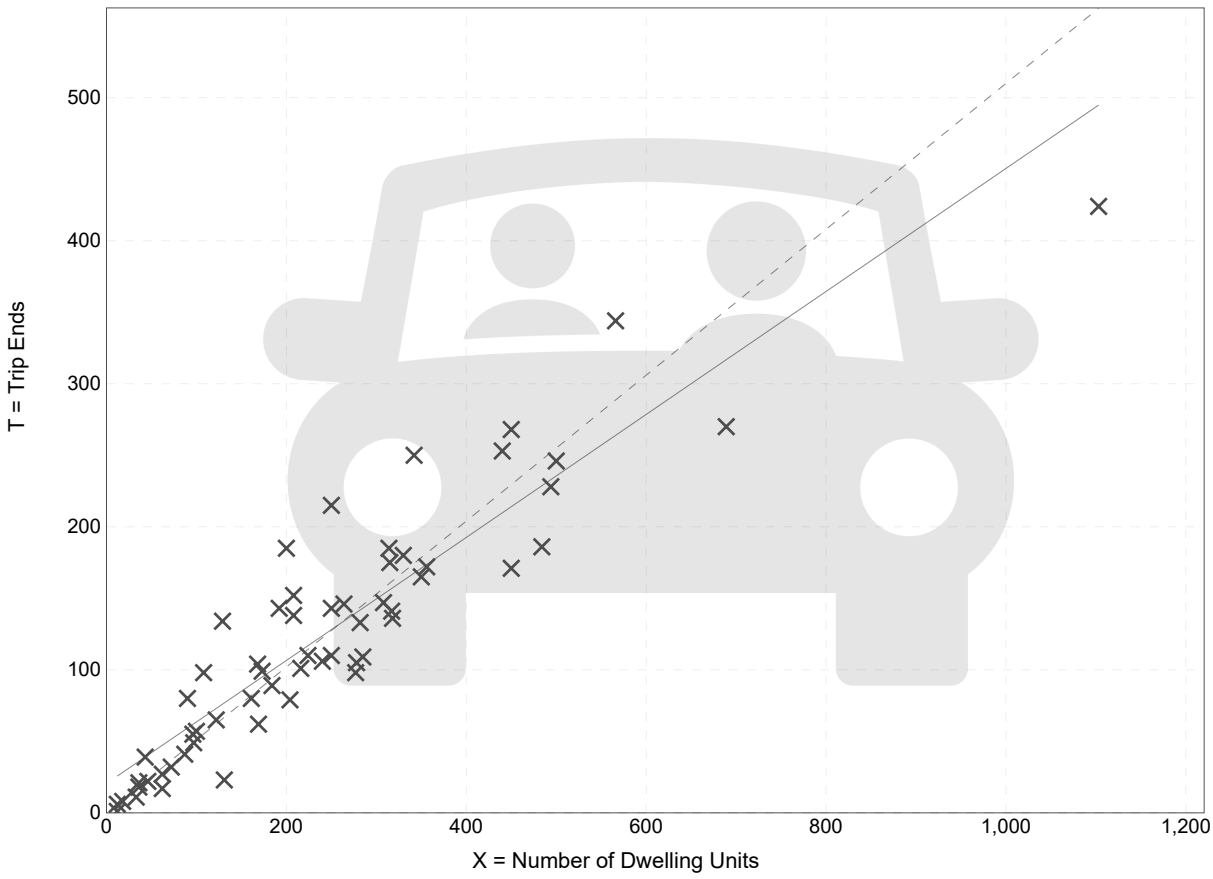
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Fitted Curve Equation: T = 0.43(X) + 20.55

R^2= 0.84

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Fast Casual Restaurant
(930)

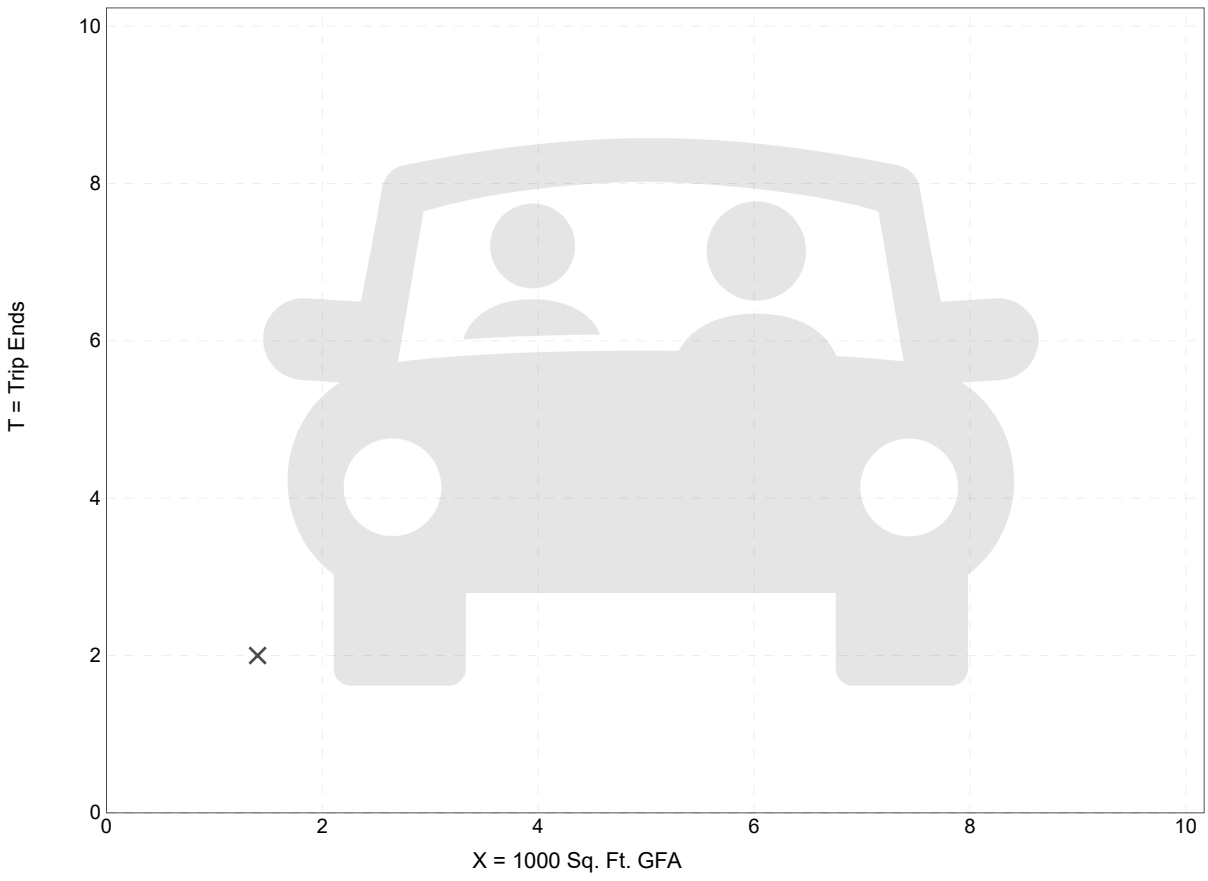
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 1
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.43	1.43 - 1.43	*

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

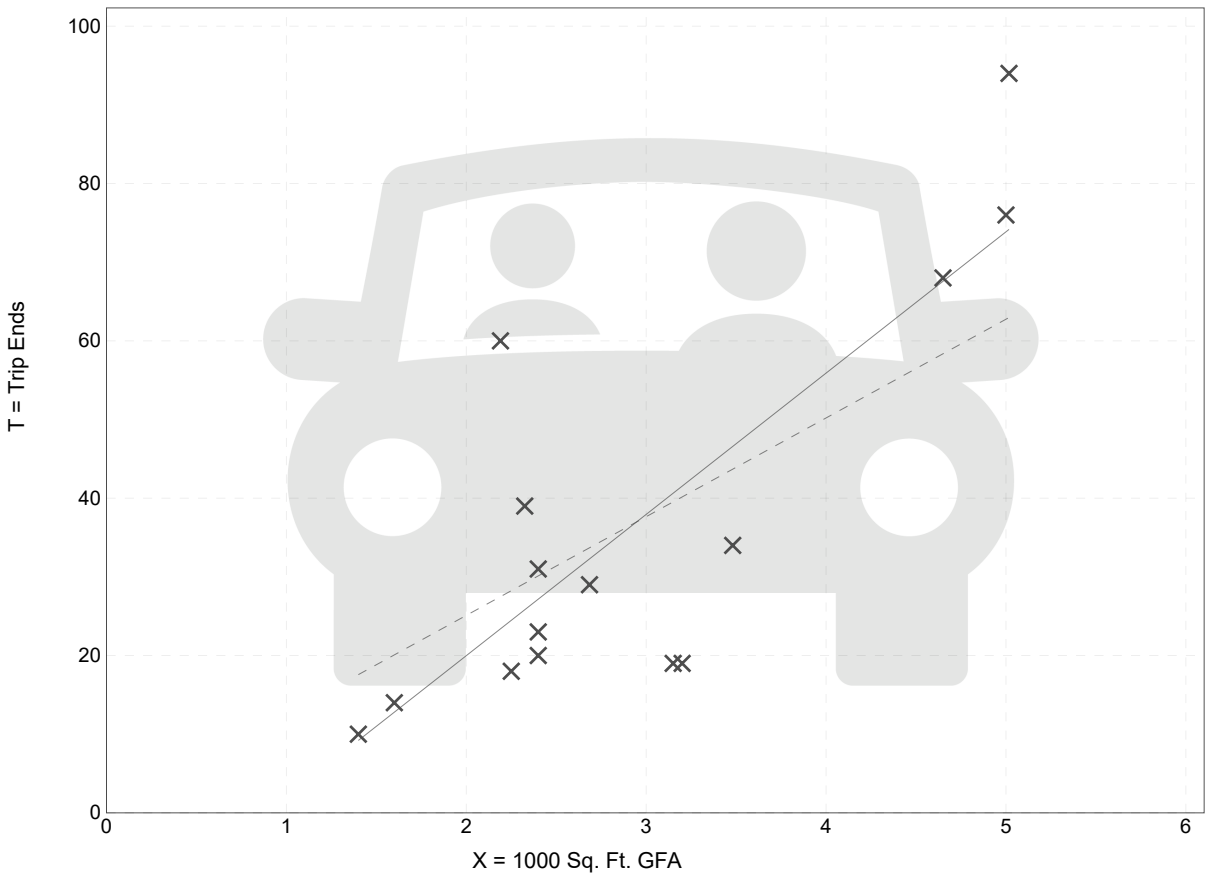
Fast Casual Restaurant
(930)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 15
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
12.55	5.94 - 27.40	5.52

Data Plot and Equation



Fitted Curve Equation: T = 17.96(X) - 15.94

R^2= 0.65

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

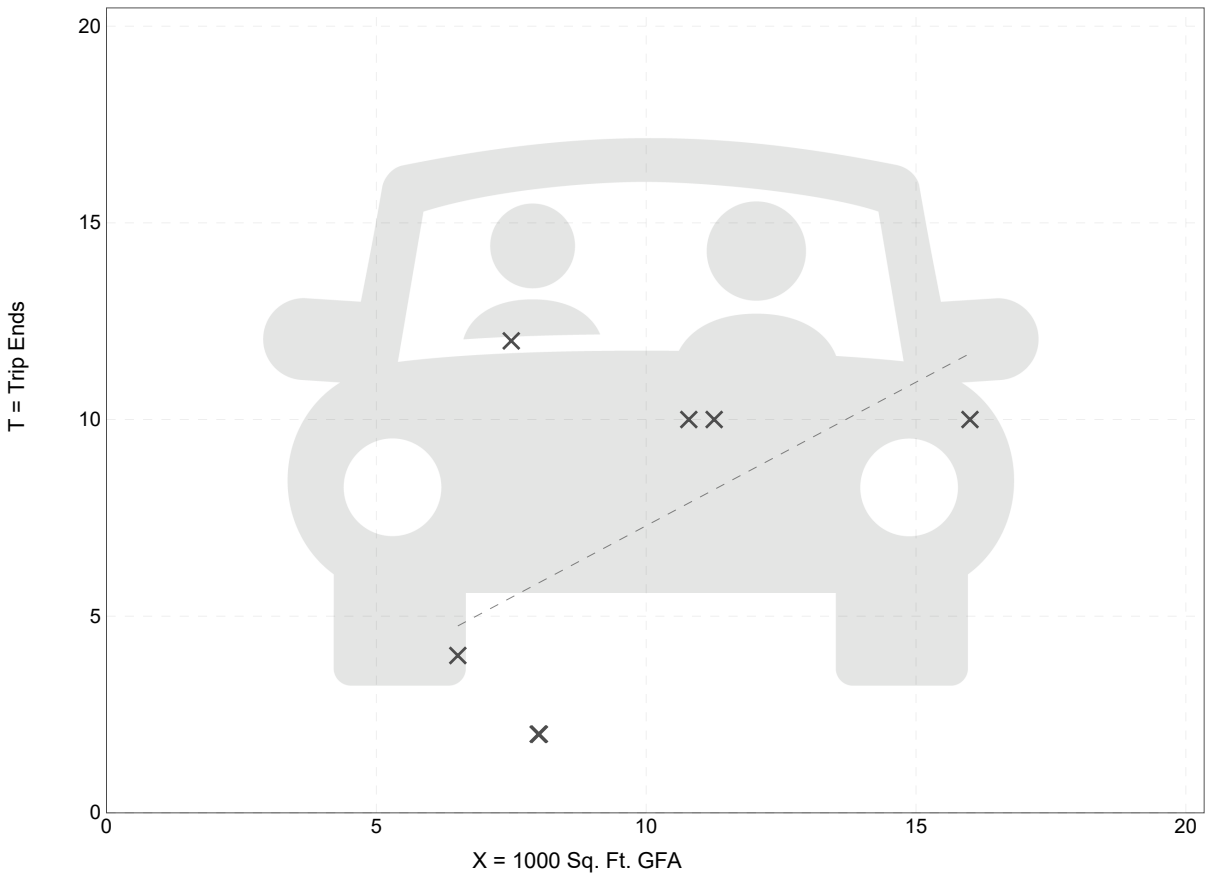
Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. 1000 Sq. Ft. GFA: 10
Directional Distribution: Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.73	0.25 - 1.60	0.42

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

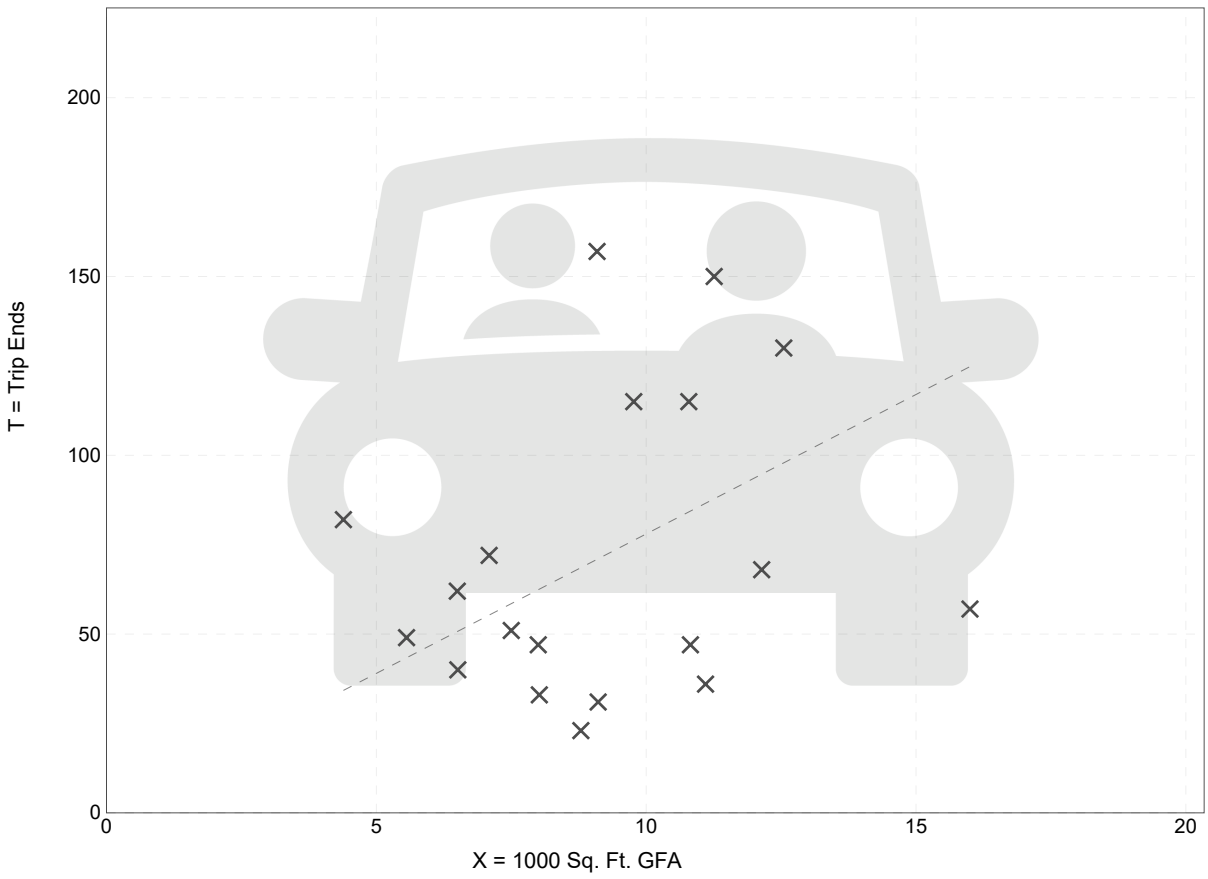
Fine Dining Restaurant
(931)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 67% entering, 33% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11.1 Ed ● Institute of Transportation Engineers

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

4548-4564 Main Street Trip Generation Estimates

DESCRIPTION	ITE LUC	SIZE	AM PEAK		PM PEAK	
			ENTER	EXIT	ENTER	EXIT
Residential	822	48 units	5	14	15	9
Fast Casual Restaurant	930	2,513 SF	2	2	17	15
Fine Dining Restaurant	931	4,111 SF	2	1	21	11
Total Vehicle Trips			**9**	**17**	**53**	**35**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Mixed-Use Development
LOCATION: Town of Amherst, NY
PEAK HOUR: AM Peak

Figure Number: 3 | 4 | 6A | 6B | 7 | 8

Num of yrs: 2

LOCATION NUMBER	INTERSECTION DESCRIPTION	2022 Volumes	2024 Bkgd Vol 1.00%	Proposed Residential				Proposed Restaurants				Total Site Trips	Full Build Volumes
				Enter Dist. %	Exit Dist. %	Trips IN 5	Trips OUT 14	Enter Dist. %	Exit Dist. %	Trips IN 4	Trips OUT 3		
1	Main Street/ Chateau Terrace/Bernhardt Drive												
	SR	25	26		30%		4		5%		0	4	30
	ST - Chateau Terrace	8	8										8
	SL	33	34		45%		7		5%		0	7	41
	WR	30	31	45%		2		5%		0		2	33
	WT - Main Street	770	785	15%		1		35%		2		3	788
	WL	12	12										12
	NR	15	15										15
	NT	4	4										4
	NL	9	9										9
	ER	9	9										9
	ET - Main Street	831	848		15%		2		35%		1	3	851
	EL	33	34	30%		2		5%		0		2	36
2	Main Street/ Fruehauf Avenue												
	SR	11	11		10%		1		50%		2	3	14
	ST - Fruehauf Avenue												
	SL	9	9		15%		2		35%		1	3	12
	WR	5	5	15%		1		35%		2		3	8
	WT - Main Street	801	817		30%		4		5%		0	4	821
	WL												
	NR												
	NT												
	NL												
	ER												
	ET - Main Street	866	883	30%		2		5%		0		2	885
	EL	5	5	10%				50%		2		2	7
3	Fruehauf Avenue/ Proposed Driveway												
	SR												
	ST - Fruehauf Avenue	20	20										20
	SL							1%		0		0	0
	WR								1%		0	0	0
	WT - Proposed Driveway												
	WL				25%		3		85%		3	6	6
	NR			25%		1		85%		4		5	5
	NT - Fruehauf Avenue	10	10										10
	NL												
	ER												
	ET												
	EL												
4	Chateau Terrace/ Proposed Driveway												
	SR							4%		0		0	0
	ST - Chateau Terrace	66	67										67
	SL												
	WR												
	WT												
	WL												
	NR												
	NT - Chateau Terrace	67	68										68
	NL			75%		4		10%		0		4	4
	ER				75%		11		10%		0	11	11
	ET - Proposed Driveway												
	EL								4%		0	0	0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Mixed-Use Development
LOCATION: Town of Amherst, NY
PEAK HOUR: PM Peak

Figure Number: 3 | 4 | 6A | 6B | 7 | 8

Num of yrs: 2

LOCATION NUMBER	INTERSECTION DESCRIPTION	2022 Volumes	2024 Bkgd Vol 1.00%	Proposed Residential Enter Dist. %	Proposed Residential Exit Dist. %	Proposed Residential Trips IN 15	Proposed Residential Trips OUT 9	Proposed Restaurants Enter Dist. %	Proposed Restaurants Exit Dist. %	Proposed Restaurants Trips IN 38	Proposed Restaurants Trips OUT 26	Total Site Trips	Full Build Volumes
1	Main Street/ Chateau Terrace/Bernhardt Drive												
	SR	31	32		30%		3		5%		1	4	36
	ST - Chateau Terrace	2	2										2
	SL	37	38		45%		4		5%		1	5	43
	WR	14	14	45%		6		5%		2		8	22
	WT - Main Street	809	825	15%		2		35%		13		15	840
	WL	15	15										15
	NR	20	20										20
	NT	9	9										9
	NL	14	14										14
	ER	25	26										26
	ET - Main Street	883	901		15%		1		35%		10	11	912
	EL	22	22	30%		5		5%		2		6	28
2	Main Street/ Fruehauf Avenue												
	SR	9	9		10%		1		50%		13	14	23
	ST - Fruehauf Avenue												
	SL	6	6		15%		1		35%		10	11	17
	WR	7	7	15%		2		35%		13		16	23
	WT - Main Street	847	864		30%		3		5%		1	4	868
	WL												
	NR												
	NT												
	NL												
	ER												
	ET - Main Street	922	941	30%		5		5%		2		6	947
	EL	13	13	10%		2		50%		19		21	34
3	Fruehauf Avenue/ Proposed Driveway												
	SR												
	ST - Fruehauf Avenue	15	15										15
	SL							1%		0		0	0
	WR								1%		0	0	0
	WT - Proposed Driveway												
	WL				25%		2		85%		23	25	25
	NR			25%		4		85%		32		36	36
	NT - Fruehauf Avenue	20	20										20
	NL												
	ER												
	ET												
	EL												
4	Chateau Terrace/ Proposed Driveway												
	SR							4%		2		2	2
	ST - Chateau Terrace	70	71										71
	SL												
	WR												
	WT												
	WL												
	NR												
	NT - Chateau Terrace	45	46										46
	NL			75%		11		10%		4		15	15
	ER				75%		7		10%		2	9	9
	ET - Proposed Driveway												
	EL								4%		1	1	1

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Intersection Crash Rate Calculations

4548-4564 Main Street

Intersection #1: Main Street at Bernhardt Drive/Chateau Terrace
Date of Count: Tuesday, December 13, 2022

Number of Crashes: 9
Number of Injuries: 2
Number of Fatalities: 0
Entering Vehicles (PM): 1881
ADT: 19800
Start Date: July 31, 2017
End Date: July 31, 2022
Number of Years: 5

Intersection Type: 4 Legged
Area Type: Urban
Control Type: Signal w/ Left Turn 5 or More Lanes

crash rate = Number of Crashes x 1 Million / ADT x 365 Days per Year x Number of Years

crash rate = 9 x 1,000,000 / 19800 x 365 x 5

	Crash Rate		Fatality Rate	Injury Rate
Study Intersection	**0.25**	**cr/mve**	**0%**	**22%**
Statewide Average*	**0.26**	**cr/mve**		

ADT = Average Daily Total vehicles entering intersection
cr/mve = crashes per million entering vehicles
* Most recent available 2019 Average Crash Rates for State Highways by Facility Type

	Direction					
Type	Northbound - 1	Southbound - 5	Eastbound - 3	Westbound - 7	Unknown	Totals
Left turn				1		1
Rear-end		1	1	3		5
Overtaking						0
Right Angle						0
Right Turn						0
Head On						0
Side-swipe			2			2
Fixed Object			1			1
Backing						0
Other						0
Bike/Ped						0
Animal						0
Totals	0	1	4	4	0	9

PDO	7
Injury	
Injury + PDO	2
Fatal	
NR	
Total	9

Intersection Crash Rate Calculations

4548-4564 Main Street

Intersection #2: Main Street at Fruehauf Avenue
Date of Count: Tuesday, December 13, 2022

Number of Crashes: 0
Number of Injuries: 0
Number of Fatalities: 0
Entering Vehicles (PM): 1801
ADT: 18958
Start Date: July 31, 2017
End Date: July 31, 2022
Number of Years: 5

Intersection Type: 3 Legged
Area Type: Urban
Control Type: Sign 5 or More Lanes

crash rate = Number of Crashes x 1 Million / ADT x 365 Days per Year x Number of Years

crash rate = 0 x 1,000,000 / 18958 x 365 x 5

	Crash Rate		Fatality Rate	Injury Rate
Study Intersection	**0.00**	**cr/mve**	**#DIV/0!**	**#DIV/0!**
Statewide Average*	**0.07**	**cr/mve**		

ADT = Average Daily Total vehicles entering intersection
cr/mve = crashes per million entering vehicles
* Most recent available 2019 Average Crash Rates for State Highways by Facility Type

	Direction					
Type	Northbound - 1	Southbound - 5	Eastbound - 3	Westbound - 7	Unknown	Totals
Left turn						0
Rear-end						0
Overtaking						0
Right Angle						0
Right Turn						0
Head On						0
Side-swipe						0
Fixed Object						0
Backing						0
Other						0
Bike/Ped						0
Animal						0
Totals	0	0	0	0	0	0

PDO	
Injury	
Injury + PDO	
Fatal	
NR	
Total	0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

LEVEL OF SERVICE: CRITERIA/DEFINITIONS

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Level of Service Criteria

Highway Capacity Manual 2016

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15-minute analysis period. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 20
C	20 – 35
D	35 – 55
E	55 – 80
F	>80

UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 - 50
F	>50

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

LEVEL OF SERVICE CALCULATIONS: EXISTING CONDITIONS

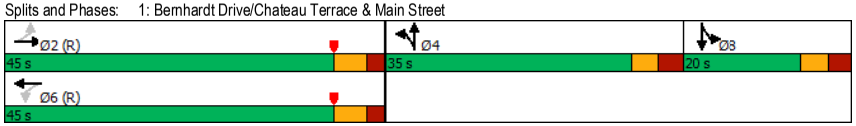
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	831	9	12	770	30	9	4	15	33	8	25
Future Volume (vph)	33	831	9	12	770	30	9	4	15	33	8	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.998			0.994			0.929			0.949	
Flt Protected	0.950			0.950				0.984			0.975	
Satd. Flow (prot)	1805	3498	0	1671	3420	0	0	1725	0	0	1697	0
Flt Permitted	0.279			0.263				0.984			0.975	
Satd. Flow (perm)	530	3498	0	462	3420	0	0	1725	0	0	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4			18			25	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	2		3	3		2			1			1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	0%	8%	5%	0%	0%	0%	0%	6%	0%	0%
Adj. Flow (vph)	39	978	11	14	906	35	11	5	18	39	9	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	989	0	14	941	0	0	34	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		34.1	34.1		32.2	32.2	
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		20.0	20.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		35.0%	35.0%		20.0%	20.0%	
Maximum Green (s)	38.8	38.8		38.8	38.8		28.9	28.9		13.9	13.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	73.7	73.7		73.7	73.7			7.2			9.1	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.07			0.09	
v/c Ratio	0.10	0.38		0.04	0.37			0.24			0.43	
Control Delay	8.3	7.9		8.1	7.8			30.3			37.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.3	7.9		8.1	7.8			30.3			37.4	
LOS	A	A		A	A			C			D	
Approach Delay		7.9			7.8			30.3			37.4	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	8	142		3	133			10			32	
Queue Length 95th (ft)	25	204		11	192			37			69	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	390	2579		340	2522			511			257	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.10	0.38		0.04	0.37			0.07			0.30	

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.43		
Intersection Signal Delay: 9.3	Intersection LOS: A	
Intersection Capacity Utilization 43.8%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 1961
7.1
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	866	801	5	9	11
Future Volume (vph)	5	866	801	5	9	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.927	
Flt Protected	0.950				0.978	
Satd. Flow (prot)	1805	3505	3436	0	1723	0
Flt Permitted	0.950				0.978	
Satd. Flow (perm)	1805	3505	3436	0	1723	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	5%	0%	0%	0%
Adj. Flow (vph)	6	1019	942	6	11	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	1019	948	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	866	801	5	9	11
Future Volume (Veh/h)	5	866	801	5	9	11
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1019	942	6	11	13
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	949				1468	475
vC1, stage 1 conf vol					946	
vC2, stage 2 conf vol					522	
vCu, unblocked vol	679				1266	143
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				97	98
cM capacity (veh/h)	815				352	782

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	6	510	510	628	320	24
Volume Left	6	0	0	0	0	11
Volume Right	0	0	0	0	6	13
cSH	815	1700	1700	1700	1700	502
Volume to Capacity	0.01	0.30	0.30	0.37	0.19	0.05
Queue Length 95th (ft)	1	0	0	0	0	4
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	12.5
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.5
Approach LOS						B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	33.9%	ICU Level of Service		A
Analysis Period (min)	15			

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	883	25	15	809	14	14	9	20	37	2	31
Future Volume (vph)	22	883	25	15	809	14	14	9	20	37	2	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.996			0.997			0.937			0.941	
Flt Protected	0.950			0.950				0.984			0.974	
Satd. Flow (prot)	1719	3483	0	1805	3528	0	0	1661	0	0	1705	0
Flt Permitted	0.310			0.278				0.984			0.974	
Satd. Flow (perm)	560	3483	0	527	3528	0	0	1661	0	0	1705	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2			21			31	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	5		6	6		5			4			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	8%	0%	2%	0%	0%	0%	10%	0%	0%	3%
Adj. Flow (vph)	23	920	26	16	843	15	15	9	21	39	2	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	946	0	16	858	0	0	45	0	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		35.2	35.2		32.2	32.2	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		25.0	25.0	
Total Split (%)	45.5%	45.5%		45.5%	45.5%		31.8%	31.8%		22.7%	22.7%	
Maximum Green (s)	43.8	43.8		43.8	43.8		28.9	28.9		18.9	18.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	80.9	80.9		80.9	80.9			7.8			8.9	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.07			0.08	
v/c Ratio	0.06	0.37		0.04	0.33			0.33			0.44	
Control Delay	7.6	7.9		7.6	7.6			36.3			37.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	7.6	7.9		7.6	7.6			36.3			37.8	
LOS	A	A		A	A			D			D	
Approach Delay		7.9			7.6			36.3			37.8	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	5	135		3	117			16			29	
Queue Length 95th (ft)	17	213		13	187			52			73	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	412	2563		387	2596			451			318	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.06	0.37		0.04	0.33			0.10			0.23	

Intersection Summary		
Area Type:	Other	
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 25 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.44		
Intersection Signal Delay: 9.5	Intersection LOS: A	
Intersection Capacity Utilization 42.8%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 1963
7.1
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	922	847	7	6	6
Future Volume (vph)	13	922	847	7	6	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.932	
Flt Protected	0.950				0.976	
Satd. Flow (prot)	1805	3505	3536	0	1728	0
Flt Permitted	0.950				0.976	
Satd. Flow (perm)	1805	3505	3536	0	1728	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%
Adj. Flow (vph)	13	951	873	7	6	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	951	880	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	35.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	922	847	7	6	6
Future Volume (Veh/h)	13	922	847	7	6	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	13	951	873	7	6	6
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.91				0.91	0.91
vC, conflicting volume	884				1382	444
vC1, stage 1 conf vol					880	
vC2, stage 2 conf vol					502	
vCu, unblocked vol	662				1213	176
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				98	99
cM capacity (veh/h)	844				367	760

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	13	476	476	582	298	12
Volume Left	13	0	0	0	0	6
Volume Right	0	0	0	0	7	6
cSH	844	1700	1700	1700	1700	495
Volume to Capacity	0.02	0.28	0.28	0.34	0.18	0.02
Queue Length 95th (ft)	1	0	0	0	0	2
Control Delay (s)	9.3	0.0	0.0	0.0	0.0	12.5
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.5
Approach LOS						B

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization		35.5%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

LEVEL OF SERVICE CALCULATIONS: BACKGROUND CONDITIONS

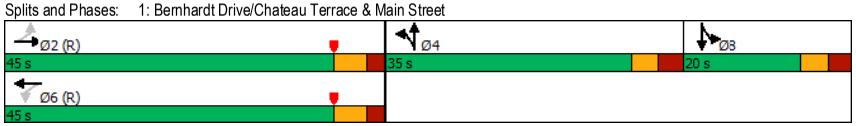
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	848	9	12	785	31	9	4	15	34	8	26
Future Volume (vph)	34	848	9	12	785	31	9	4	15	34	8	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.998			0.994			0.929			0.948	
Flt Protected	0.950			0.950				0.984			0.976	
Satd. Flow (prot)	1805	3498	0	1671	3420	0	0	1725	0	0	1697	0
Flt Permitted	0.272			0.256				0.984			0.976	
Satd. Flow (perm)	516	3498	0	450	3420	0	0	1725	0	0	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			18			26	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	2		3	3		2			1			1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	0%	8%	5%	0%	0%	0%	0%	6%	0%	0%
Adj. Flow (vph)	40	998	11	14	924	36	11	5	18	40	9	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	1009	0	14	960	0	0	34	0	0	80	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		34.1	34.1		32.2	32.2	
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		20.0	20.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		35.0%	35.0%		20.0%	20.0%	
Maximum Green (s)	38.8	38.8		38.8	38.8		28.9	28.9		13.9	13.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

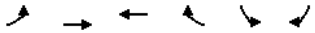
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	73.6	73.6		73.6	73.6			7.2			9.3	
Actuated g/C Ratio	0.74	0.74		0.74	0.74			0.07			0.09	
v/c Ratio	0.11	0.39		0.04	0.38			0.24			0.44	
Control Delay	8.5	8.0		8.2	7.9			30.3			37.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.5	8.0		8.2	7.9			30.3			37.4	
LOS	A	A		A	A			C			D	
Approach Delay		8.0			7.9			30.3			37.4	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	9	147		3	137			10			33	
Queue Length 95th (ft)	25	211		12	199			37			71	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	379	2574		331	2517			511			258	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.11	0.39		0.04	0.38			0.07			0.31	

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.44		
Intersection Signal Delay: 9.4	Intersection LOS: A	
Intersection Capacity Utilization 44.8%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street

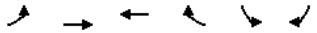


Packet Pg. 1966
7.1
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	883	817	5	9	11
Future Volume (vph)	5	883	817	5	9	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.927	
Flt Protected	0.950				0.978	
Satd. Flow (prot)	1805	3505	3436	0	1723	0
Flt Permitted	0.950				0.978	
Satd. Flow (perm)	1805	3505	3436	0	1723	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	5%	0%	0%	0%
Adj. Flow (vph)	6	1039	961	6	11	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	1039	967	0	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	883	817	5	9	11
Future Volume (Veh/h)	5	883	817	5	9	11
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1039	961	6	11	13
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	968				1496	484
vC1, stage 1 conf vol					965	
vC2, stage 2 conf vol					532	
vCu, unblocked vol	690				1290	140
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				97	98
cM capacity (veh/h)	803				346	781

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	6	520	520	641	326	24
Volume Left	6	0	0	0	0	11
Volume Right	0	0	0	0	6	13
cSH	803	1700	1700	1700	1700	495
Volume to Capacity	0.01	0.31	0.31	0.38	0.19	0.05
Queue Length 95th (ft)	1	0	0	0	0	4
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	12.6
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.6
Approach LOS						B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		34.4%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	901	26	15	825	14	14	9	20	38	2	32
Future Volume (vph)	22	901	26	15	825	14	14	9	20	38	2	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.996			0.997			0.937			0.941	
Flt Protected	0.950			0.950				0.984			0.974	
Satd. Flow (prot)	1719	3483	0	1805	3528	0	0	1661	0	0	1704	0
Flt Permitted	0.303			0.271				0.984			0.974	
Satd. Flow (perm)	547	3483	0	514	3528	0	0	1661	0	0	1704	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			2			21			31	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			310	
Travel Time (s)		2.6			12.0			16.2			7.0	
Confl. Peds. (#/hr)	5		6	6		5			4			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	8%	0%	2%	0%	0%	0%	10%	0%	0%	3%
Adj. Flow (vph)	23	939	27	16	859	15	15	9	21	40	2	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	966	0	16	874	0	0	45	0	0	75	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		35.2	35.2		32.2	32.2	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		25.0	25.0	
Total Split (%)	45.5%	45.5%		45.5%	45.5%		31.8%	31.8%		22.7%	22.7%	
Maximum Green (s)	43.8	43.8		43.8	43.8		28.9	28.9		18.9	18.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	80.8	80.8		80.8	80.8			7.8			9.0	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.07			0.08	
v/c Ratio	0.06	0.38		0.04	0.34			0.33			0.45	
Control Delay	7.7	8.0		7.7	7.7			36.3			38.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	7.7	8.0		7.7	7.7			36.3			38.3	
LOS	A	A		A	A			D			D	
Approach Delay		8.0			7.7			36.3			38.3	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	5	139		3	121			16			30	
Queue Length 95th (ft)	17	220		14	192			52			74	
Internal Link Dist (ft)		72			625			632			230	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	402	2559		377	2591			451			318	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.06	0.38		0.04	0.34			0.10			0.24	

Intersection Summary		
Area Type:	Other	
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 25 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.45		
Intersection Signal Delay: 9.7	Intersection LOS: A	
Intersection Capacity Utilization 43.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 1968
7.1
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	941	864	7	6	6
Future Volume (vph)	13	941	864	7	6	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.932	
Flt Protected	0.950				0.976	
Satd. Flow (prot)	1805	3505	3536	0	1728	0
Flt Permitted	0.950				0.976	
Satd. Flow (perm)	1805	3505	3536	0	1728	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		721	
Travel Time (s)		8.0	2.6		16.4	
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%
Adj. Flow (vph)	13	970	891	7	6	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	970	898	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	941	864	7	6	6
Future Volume (Veh/h)	13	941	864	7	6	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	13	970	891	7	6	6
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	902				1410	453
vC1, stage 1 conf vol					898	
vC2, stage 2 conf vol					511	
vCu, unblocked vol	675				1238	178
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	98				98	99
cM capacity (veh/h)	832				360	756

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	13	485	485	594	304	12
Volume Left	13	0	0	0	0	6
Volume Right	0	0	0	0	7	6
cSH	832	1700	1700	1700	1700	488
Volume to Capacity	0.02	0.29	0.29	0.35	0.18	0.02
Queue Length 95th (ft)	1	0	0	0	0	2
Control Delay (s)	9.4	0.0	0.0	0.0	0.0	12.6
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.6
Approach LOS						B

Intersection Summary				
Average Delay		0.1		
Intersection Capacity Utilization		36.0%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

LEVEL OF SERVICE CALCULATIONS: FULL DEVELOPMENT CONDITIONS

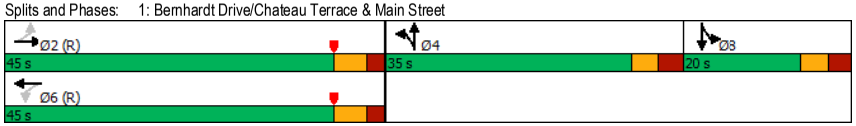
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	851	9	12	788	33	9	4	15	41	8	30
Future Volume (vph)	36	851	9	12	788	33	9	4	15	41	8	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			0.99			0.99	
Frt		0.998			0.994			0.929			0.949	
Flt Protected	0.950			0.950				0.984			0.975	
Satd. Flow (prot)	1805	3498	0	1671	3421	0	0	1725	0	0	1696	0
Flt Permitted	0.269			0.253				0.984			0.975	
Satd. Flow (perm)	511	3498	0	445	3421	0	0	1725	0	0	1696	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			18			26	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			270	
Travel Time (s)		2.6			12.0			16.2			6.1	
Confl. Peds. (#/hr)	2		3	3		2			1			1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	0%	8%	5%	0%	0%	0%	0%	6%	0%	0%
Adj. Flow (vph)	42	1001	11	14	927	39	11	5	18	48	9	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	1012	0	14	966	0	0	34	0	0	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		34.1	34.1		32.2	32.2	
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		20.0	20.0	
Total Split (%)	45.0%	45.0%		45.0%	45.0%		35.0%	35.0%		20.0%	20.0%	
Maximum Green (s)	38.8	38.8		38.8	38.8		28.9	28.9		13.9	13.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	73.0	73.0		73.0	73.0			7.2			9.9	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.07			0.10	
v/c Ratio	0.11	0.40		0.04	0.39			0.24			0.48	
Control Delay	8.9	8.4		8.6	8.3			30.3			38.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.9	8.4		8.6	8.3			30.3			38.9	
LOS	A	A		A	A			C			D	
Approach Delay		8.4			8.3			30.3			38.9	
Approach LOS		A			A			C			D	
Queue Length 50th (ft)	9	151		3	142			10			40	
Queue Length 95th (ft)	27	217		12	206			37			80	
Internal Link Dist (ft)		72			625			632			190	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	373	2554		324	2498			511			258	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.11	0.40		0.04	0.39			0.07			0.36	

Intersection Summary		
Area Type:	Other	
Cycle Length: 100		
Actuated Cycle Length: 100		
Offset: 7 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.48		
Intersection Signal Delay: 10.0	Intersection LOS: A	
Intersection Capacity Utilization 47.7%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 1971
7.1
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	885	821	8	12	14
Future Volume (vph)	7	885	821	8	12	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.999		0.928	
Flt Protected	0.950				0.977	
Satd. Flow (prot)	1805	3505	3436	0	1723	0
Flt Permitted	0.950				0.977	
Satd. Flow (perm)	1805	3505	3436	0	1723	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		110	
Travel Time (s)		8.0	2.6		2.5	
Confl. Peds. (#/hr)	1			1		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	3%	5%	0%	0%	0%
Adj. Flow (vph)	8	1041	966	9	14	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	1041	975	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	885	821	8	12	14
Future Volume (Veh/h)	7	885	821	8	12	14
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	8	1041	966	9	14	16
Pedestrians					1	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	976				1508	488
vC1, stage 1 conf vol					972	
vC2, stage 2 conf vol					536	
vCu, unblocked vol	690				1297	134
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	99				96	98
cM capacity (veh/h)	800				344	785

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	8	520	520	644	331	30
Volume Left	8	0	0	0	0	14
Volume Right	0	0	0	0	9	16
cSH	800	1700	1700	1700	1700	491
Volume to Capacity	0.01	0.31	0.31	0.38	0.19	0.06
Queue Length 95th (ft)	1	0	0	0	0	5
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	12.8
Lane LOS	A					B
Approach Delay (s)	0.1			0.0		12.8
Approach LOS						B

Intersection Summary				
Average Delay		0.2		
Intersection Capacity Utilization		34.5%	ICU Level of Service	A
Analysis Period (min)		15		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	0	10	5	0	20
Future Volume (vph)	6	0	10	5	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.955			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1814	0	0	1900
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1814	0	0	1900
Link Speed (mph)	30		30			30
Link Distance (ft)	145		110			611
Travel Time (s)	3.3		2.5			13.9
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	7	0	12	6	0	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	18	0	0	24
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	0	10	5	0	20
Future Volume (Veh/h)	6	0	10	5	0	20
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	7	0	12	6	0	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	39	15			18	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	39	15			18	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	978	1070			1612	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	7	18	24
Volume Left	7	0	0
Volume Right	0	6	0
cSH	978	1700	1612
Volume to Capacity	0.01	0.01	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.7	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	11	4	68	67	0
Future Volume (vph)	0	11	4	68	67	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected				0.997		
Satd. Flow (prot)	1644	0	0	1809	1900	0
Flt Permitted				0.997		
Satd. Flow (perm)	1644	0	0	1809	1900	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	124			270	178	
Travel Time (s)	2.8			6.1	4.0	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	5%	0%	0%
Adj. Flow (vph)	0	13	5	80	79	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	0	85	79	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	11	4	68	67	0
Future Volume (Veh/h)	0	11	4	68	67	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	13	5	80	79	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				270		
pX, platoon unblocked						
vC, conflicting volume	169	79	79			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	169	79	79			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	823	987	1532			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	13	85	79
Volume Left	0	5	0
Volume Right	13	0	0
cSH	987	1532	1700
Volume to Capacity	0.01	0.00	0.05
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.7	0.5	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	0.5	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	912	26	15	840	22	14	9	20	43	2	36
Future Volume (vph)	28	912	26	15	840	22	14	9	20	43	2	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	25		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00			1.00			0.99			0.99	
Frt		0.996			0.996			0.937			0.940	
Flt Protected	0.950			0.950				0.984			0.974	
Satd. Flow (prot)	1719	3483	0	1805	3524	0	0	1661	0	0	1702	0
Flt Permitted	0.294			0.266				0.984			0.974	
Satd. Flow (perm)	531	3483	0	505	3524	0	0	1661	0	0	1702	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			3			21			32	
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		152			705			712			270	
Travel Time (s)		2.6			12.0			16.2			6.1	
Confl. Peds. (#/hr)	5		6	6		5			4			4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	8%	0%	2%	0%	0%	0%	10%	0%	0%	3%
Adj. Flow (vph)	29	950	27	16	875	23	15	9	21	45	2	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	977	0	16	898	0	0	45	0	0	85	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			-80	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		2			6		4	4		8	8	
Permitted Phases	2			6								
Detector Phase	2	2		6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	32.2	32.2		32.2	32.2		35.2	35.2		32.2	32.2	
Total Split (s)	50.0	50.0		50.0	50.0		35.0	35.0		25.0	25.0	
Total Split (%)	45.5%	45.5%		45.5%	45.5%		31.8%	31.8%		22.7%	22.7%	
Maximum Green (s)	43.8	43.8		43.8	43.8		28.9	28.9		18.9	18.9	
Yellow Time (s)	3.9	3.9		3.9	3.9		3.2	3.2		3.2	3.2	
All-Red Time (s)	2.3	2.3		2.3	2.3		2.9	2.9		2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.2	6.2		6.2	6.2			6.1			6.1	
Lead/Lag												
Lead-Lag Optimize?												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.5	3.5		3.5	3.5	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	13.0	13.0		11.0	11.0		21.0	21.0				
Pedestrian Calls (#/hr)	0	0		0	0		0	0				
Act Effct Green (s)	80.3	80.3		80.3	80.3			7.8			9.5	
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.07			0.09	
v/c Ratio	0.07	0.38		0.04	0.35			0.33			0.48	
Control Delay	8.2	8.4		7.9	8.0			36.3			39.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	8.2	8.4		7.9	8.0			36.3			39.8	
LOS	A	A		A	A			D			D	
Approach Delay		8.4			8.0			36.3			39.8	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	6	144		3	127			16			36	
Queue Length 95th (ft)	21	228		14	203			52			83	
Internal Link Dist (ft)		72			625			632			190	
Turn Bay Length (ft)	25			25								
Base Capacity (vph)	388	2544		368	2574			451			318	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.07	0.38		0.04	0.35			0.10			0.27	

Intersection Summary		
Area Type:	Other	
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 25 (23%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.48		
Intersection Signal Delay: 10.1	Intersection LOS: B	
Intersection Capacity Utilization 44.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Bernhardt Drive/Chateau Terrace & Main Street



Packet Pg. 1975
7.1
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	34	947	868	23	17	23
Future Volume (vph)	34	947	868	23	17	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor						
Frt			0.996		0.923	
Flt Protected	0.950				0.979	
Satd. Flow (prot)	1805	3505	3527	0	1717	0
Flt Permitted	0.950				0.979	
Satd. Flow (perm)	1805	3505	3527	0	1717	0
Link Speed (mph)		40	40		30	
Link Distance (ft)		469	152		110	
Travel Time (s)		8.0	2.6		2.5	
Confl. Peds. (#/hr)	4			4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	3%	2%	0%	0%	0%
Adj. Flow (vph)	35	976	895	24	18	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	976	919	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	34	947	868	23	17	23
Future Volume (Veh/h)	34	947	868	23	17	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	35	976	895	24	18	24
Pedestrians					4	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					0	
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)			152			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	923				1469	464
vC1, stage 1 conf vol					911	
vC2, stage 2 conf vol					558	
vCu, unblocked vol	685				1294	173
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)					5.8	
tF (s)	2.2				3.5	3.3
p0 queue free %	96				95	97
cM capacity (veh/h)	820				345	757

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	35	488	488	597	322	42
Volume Left	35	0	0	0	0	18
Volume Right	0	0	0	0	24	24
cSH	820	1700	1700	1700	1700	501
Volume to Capacity	0.04	0.29	0.29	0.35	0.19	0.08
Queue Length 95th (ft)	3	0	0	0	0	7
Control Delay (s)	9.6	0.0	0.0	0.0	0.0	12.8
Lane LOS	A					B
Approach Delay (s)	0.3			0.0		12.8
Approach LOS						B

Intersection Summary					
Average Delay		0.4			
Intersection Capacity Utilization		38.3%	ICU Level of Service		A
Analysis Period (min)		15			

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	25	0	20	36	0	15
Future Volume (vph)	25	0	20	36	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.914			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1737	0	0	1900
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1737	0	0	1900
Link Speed (mph)	30		30			30
Link Distance (ft)	145		110			611
Travel Time (s)	3.3		2.5			13.9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	26	0	21	37	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	26	0	58	0	0	15
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	0	20	36	0	15
Future Volume (Veh/h)	25	0	20	36	0	15
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	26	0	21	37	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	54	40			58	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	54	40			58	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	100			100	
cM capacity (veh/h)	959	1038			1559	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	26	58	15
Volume Left	26	0	0
Volume Right	0	37	0
cSH	959	1700	1559
Volume to Capacity	0.03	0.03	0.00
Queue Length 95th (ft)	2	0	0
Control Delay (s)	8.9	0.0	0.0
Lane LOS	A		
Approach Delay (s)	8.9	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	9	15	46	71	2
Future Volume (vph)	1	9	15	46	71	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878				0.996	
Flt Protected	0.995			0.988		
Satd. Flow (prot)	1660	0	0	1809	1839	0
Flt Permitted	0.995			0.988		
Satd. Flow (perm)	1660	0	0	1809	1839	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	124			270	178	
Travel Time (s)	2.8			6.1	4.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	5%	3%	0%
Adj. Flow (vph)	1	9	16	48	74	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	0	64	76	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	9	15	46	71	2
Future Volume (Veh/h)	1	9	15	46	71	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1	9	16	48	74	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				270		
pX, platoon unblocked						
vC, conflicting volume	155	75	76			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	155	75	76			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	99			
cM capacity (veh/h)	832	992	1536			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	10	64	76
Volume Left	1	16	0
Volume Right	9	0	2
cSH	973	1536	1700
Volume to Capacity	0.01	0.01	0.04
Queue Length 95th (ft)	1	1	0
Control Delay (s)	8.7	1.9	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	1.9	0.0
Approach LOS	A		

Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	19.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CARMINAWOOD
DESIGN

RECEIVED
JAN 18 2023
TOWN OF AMHERST
PLANNING DEPT.

DOWNSTREAM SANITARY SEWER CAPACITY ANALYSIS REPORT

for

Proposed Site Redevelopment

4548-4564 Main Street
Town of Amherst, Erie County, New York

Prepared for

Benderson Development Co., LLC

570 Delaware Avenue
Buffalo, New York 14202

Prepared by

Carmina Wood Design

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

December 2022
Rev. January 2023



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Project Description

This project is a redevelopment of four parcels with a total of 0.93-acres currently occupied with two (2) multi-tenant buildings and one (1) 950 sf residential house that are all to be demolished. The project is located along Main Street in the Town of Amherst. Proposed construction will include a 34,121 sf multi-story building with associated parking garage, utility, drainage and site improvements.

The proposed sanitary demand for the proposed building will be served by a private 6" SDR-35 PVC lateral that will connect to a private 8" SDR-35 PVC sanitary sewer. The private 8" sanitary sewer will discharge to an existing Town of Amherst sewer manhole within the Fruehaut Avenue R.O.W. Flows then travel north and are ultimately conveyed to the Town of Amherst Wastewater Treatment Facility. Refer to the sewer node maps located at the end of this downstream sewer capacity analysis report.

Node 1 - Harlem Road (12"):

Existing Peak Flow measured (wet weather event)	= 3.379 cfs (2.184 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 3.453 cfs

Theoretical capacity of existing 12" VTP @ 0.44% = 2.193 cfs

Conclusion: The maximum monitored wet weather flow exceeds the capacity of the existing 8" sewer pipe. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 1 following a 1.56" rainfall event, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. I/I mitigation shall be required for the contribution proposed for this project.

Node 2 - Park School (10"):

Existing Peak Flow measured (wet weather event)	= 1.145 cfs (0.740 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 1.219 cfs

Theoretical capacity of existing 10" VTP @ 1.19% = 7.012 cfs

Conclusion: The proposed total peak flow is less than the capacity of the 10" VTP pipe, therefore there is sufficient capacity.

Node 3 - West Side Interceptor (60"):

Existing Peak Flow measured (wet weather event)	= 116.831 cfs (75.510 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 116.904 cfs
Existing Peak Flow (per (T) Amherst)	= 83.705 cfs (54.100 mgd)*
4548-4564 Main St Peak Flow	= 0.074 cfs (0.048 mgd)**
Proposed Total Peak Flow	= 83.779 cfs

Capacity of existing 60" West Side Interceptor = 75.969 cfs (49.1 mgd)

Conclusion: The maximum monitored wet weather flow exceeds the capacity of the existing 60" sewer pipe. One time during the monitoring period the flow depth exceeded the pipe diameter at Node 3 following a 1.56" rainfall event, but at no time during the monitoring period did the flow at any point slow or stall which would have caused a backup or flooding at the manhole. I/I mitigation shall be required for the contribution proposed for this project.

Foot Notes:

Downstream capacity node information provided by Town of Amherst

*Converted from measurements in TECSmith report dated 11/30/22

** See Sanitary Sewage Demand Calculations

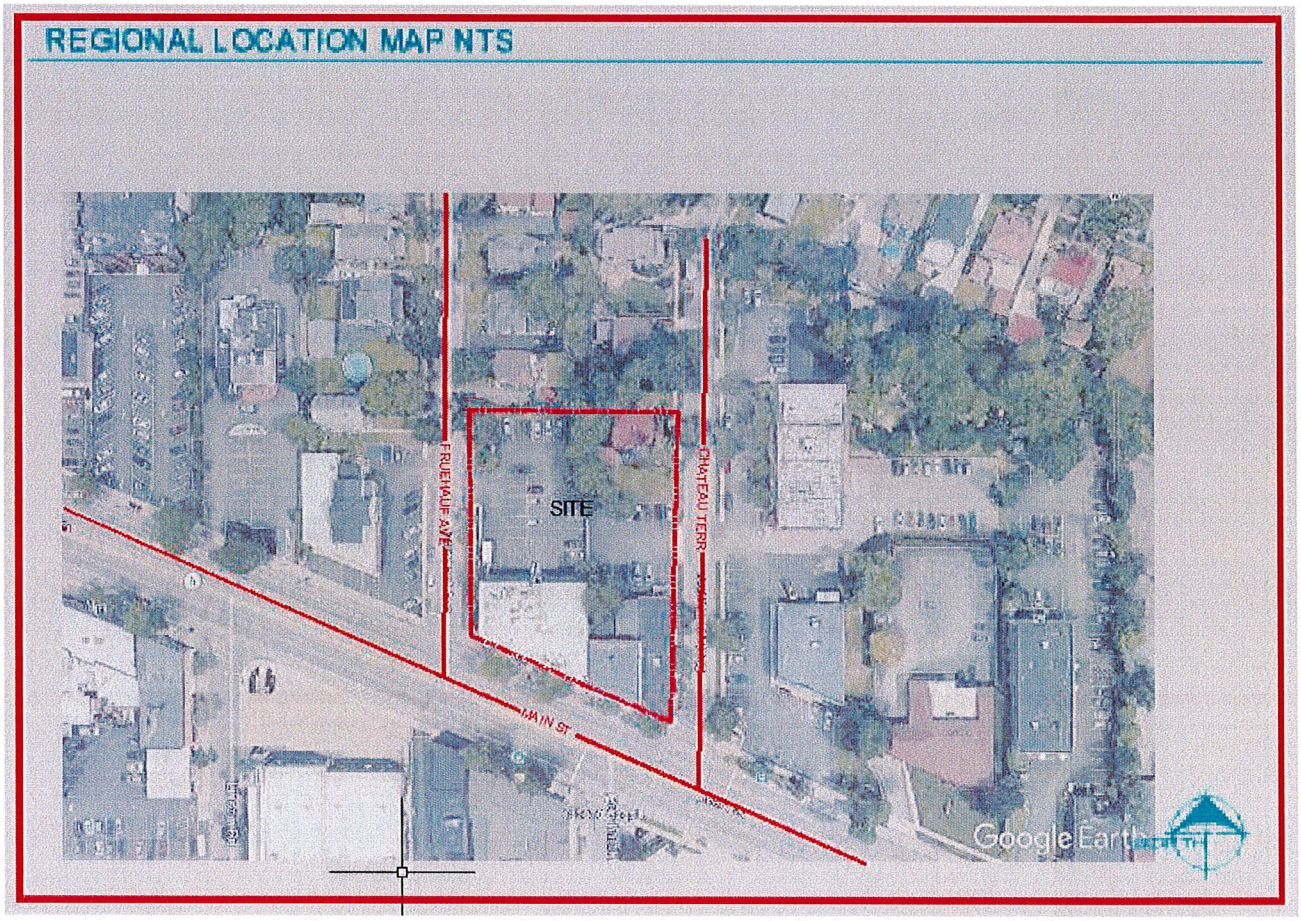
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Location Map

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

FIGURE 1

SITE LOCATION PLAN
ENGINEERING PLANS



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Sanitary Demand Calculations

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

JOB NAME: MAIN ST MULTI-STORY BUILDING
DESCRIPTION: SANITARY & WATER CALCULATIONS
PROPERTY # 5202 DATE: 01.06.2023
CALCULATED BY: DMZ SHEET: 1 OF 2

SANITARY SEWER CALCULATIONS:

Existing Buildings Removed:			13,100 S.F.	
Design GPD:	Restaurant	=	35 GPD / Seat	*NYSDEC Design standard for WWTS
	Residential	=	110 GPD / Bedroom in Apartment (150 GPD per Bed for pre-1980)	
	Retail	=	0.1 GPD/ S.F. + 15gpd/Employee	
Existing		=	1,950 GPD (Residential) + 1,215 GPD (Retail)	= 3,165 GPD
			(150GPD/Bed * 13 Beds) + [(0.1GPD/S.F. * 11250 S.F. + 15gpd/employee * 6 Employees)]	
Proposed		=	2,800 GPD (Restaurant) + 8,140 GPD (Residential)	= 10,940 GPD
			(35 GPD/Seat*80 Seats) + (110GPD/bed* 74 Beds)	

INCREASED SANITARY FLOW = **7,775 GPD**

PEAK SANITARY DEMAND

Total Demand = 10940 GPD
Per Population = 30 Per Capita

Peak Factor: $(18+\sqrt{P}) / (4+\sqrt{P})$ P in Thousands

Peak Factor = 4.37

Peak Sanitary Demand = 10940 x 4.37 = 47,808 gpd = 33.20gpm

WATER CALCULATIONS:

= 1.1 Usage Factor * (GPD)

= GPD / 9hr / 60min
ASSUMED 9HR SHIFT = 12034 / 9 / 60
= **22.29 GPM**

PEAK FACTOR: = GPM X 1.8
= 22.29 X 1.8
Q = **40.11 GPM PEAK**

HEADLOSS FRICTION:

$$= \frac{(10.44) \times (L) \times (Q)^{1.85}}{(C)^{1.85} \times (D)^{4.866}}$$

Q = GPMin
L = LENGTH OF PIPE
C = DESIGN COEF OF PIPE
D = PIPE DIAMETER

$$= \frac{(10.44) \times (18) \times (40.11)^{1.85}}{(140)^{1.85} \times (6)^{4.866}}$$

= **0 PSI**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CARMINA WOOD DESIGN
487 MAIN STREET, SUITE 500
BUFFALO, NEW YORK, 14203
(716) 842-3165
FAX (716) 842-0263

Project No.: 22.323 Date: 12/13/2022
Project Name: Proposed Site Redevelopment
Project Address: 4548-4654 Main St Amherst NY
Subject: Sanitary Sewer
Sheet: 1 of 1

Peak Sanitary Demand = 10,940 x 4.37 = 47,808 gpd
= 0.048 mgd

Required Infiltration and Inflow Mitigation:

Peak Sanitary Flow	=	47,808 gpd	=	33.20 gpm
4:1 offset flow per NYSDEC requirements	=	33.20 x 4	=	132.80 gpm req'd
Mitigation Credit	=	$250 / gpm		
Mitigation Agreement Amount	=	**$33,199.86**		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

TECSmith Monitoring Report

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Attachment: SP-2022-11_application_042023 (26951 : SP-2022-11)

Date	Node 1			Node 2			Node 3			Rain₂	New Snow
	Harlem Rd 12" (12")			Park School 10" (10")			N. Ellicott Crk (59.75")				
	FLOW (GAL x 1,000)	PEAK FLOW (MGD)	PEAK LEVEL (IN)	FLOW (GAL x 1,000)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	FLOW (GAL x 1)	PEAK FLOW (MDG)	PEAK LEVEL (IN)	(inches)	(inches)
11/1/2022	32.000	0.098	2.776	8.902	0.046	1.246	7291659	8.715	16.390	*0.01*	*0*
11/2/2022	70.803	0.108	2.865	18.060	0.063	1.304	6810050	10.005	21.170	*0*	*0*
11/3/2022	66.020	0.091	2.609	18.404	0.057	1.200	6637462	8.338	16.030	*0*	*0*
11/4/2022	64.412	0.133	2.967	15.541	0.063	1.223	6525357	8.162	15.910	*0*	*0*
11/5/2022	65.137	0.098	2.722	17.017	0.087	1.509	6719078	8.583	16.530	*0*	*0*
11/6/2022	131.572	0.318	4.692	69.033	0.262	2.005	14823754	31.217	31.550	*0.38*	*0*
11/7/2022	74.975	0.104	2.914	22.355	0.084	1.501	7733200	9.381	17.230	*0*	*0*
11/8/2022	71.236	0.102	2.829	20.885	0.074	1.426	6894542	8.762	16.450	*0*	*0*
11/9/2022	64.667	0.101	2.832	15.643	0.060	1.295	6842863	8.395	16.120	*0*	*0*
11/10/2022	59.590	0.099	2.776	15.304	0.054	1.182	6537961	8.110	15.880	*0*	*0*
11/11/2022	556.390	2.184	25.869	253.555	0.740	3.082	25848659	75.510	130.100	*1.56*	*0*
11/12/2022	558.945	1.073	7.108	287.113	0.591	2.782	36117004	51.270	125.250	*0.13*	*0*
11/13/2022	202.623	0.285	4.088	103.330	0.194	1.839	16960287	21.024	25.270	*0.04*	*0.2*
11/14/2022	162.921	0.223	3.561	54.369	0.099	1.612	13036958	15.259	21.510	*0*	*0*
11/15/2022	137.224	0.502	3.633	43.356	0.066	1.274	10903734	12.485	19.370	*0.02*	*0*
11/16/2022	196.709	0.413	4.705	80.183	0.308	2.122	14895375	31.949	32.450	*0.08*	*0.1*
11/17/2022	150.339	0.183	3.320	48.841	0.099	1.388	10747286	12.763	19.860	*0.9*	*9.4*
11/18/2022	180.306	0.236	3.782	63.191	0.134	1.645	14101924	19.608	24.380	*0.59*	*5.7*
11/19/2022	185.973	0.237	3.737	65.623	0.131	1.709	13710779	16.597	22.270	*1.49*	*21.5*
11/20/2022	190.214	0.244	3.736	79.001	0.124	1.656	14859457	18.113	23.260	*0*	*0*
11/21/2022	192.331	0.287	3.931	89.392	0.149	1.916	15856032	20.287	25.010	*0*	*0*
11/22/2022	216.776	0.341	4.202	122.753	0.203	2.055	18716668	24.031	27.270	*0*	*0*
11/23/2022	244.754	0.390	4.493	162.150	0.228	2.135	20747374	26.747	29.250	*0*	*0*
11/24/2022	277.595	0.347	4.442	146.598	0.213	2.067	19858616	25.038	27.850	*0*	*0*
11/25/2022	557.277	0.791	6.250	319.304	0.509	3.024	38098700	52.355	43.240	*0.16*	*0*
11/26/2022	364.345	0.495	4.994	188.463	0.250	2.053	24687291	30.556	31.860	*0*	*0*
11/27/2022	366.032	0.607	5.481	170.936	0.288	2.128	25437145	45.700	39.780	*0.26*	*0*
11/28/2022	303.846	0.393	4.550	130.328	0.224	1.986	21449454	27.026	29.540	*0.01*	*0*
11/29/2022	150.565	0.279	3.925	48.933	0.129	1.708	17202810	19.160	24.220	*0*	*0*
---	---	---	---	---	---	---	---	---	---	*5.63*	*36.9*

	MGD	CFS
Wet	2.184	3.379

	MGD	CFS
Wet	0.740	1.145

	MGD	CFS
Wet	75.510	116.831

TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
716-462-0382

Date: November 30, 2022

SANITARY SEWER FLOW CAPACITY STUDY – Summary Review

Prepared For: 4558-4564 Main Capacity Analysis

Christopher Wood, PE Partner
487 Main Street, Suite 500
Buffalo, New York 14203

Project Name: 4558-4564 Main Capacity Analysis

Flow Monitoring Period: November 1, 2022 to November 29, 2022

Rain Events (> 0.5-inches) Monitored: November 11 (1.59"), November 17 (0.90"), November 18 (0.59"), and November 19 (1.49")

Number of Monitoring Nodes: Three (3) downstream manholes

Node Locations and Descriptions:

- Node 1 Harlem Rd 12" (12")
- Node 2 Park School 10" (10")
- Node 3 N. Ellicott Crk (59.75")

Summary Conclusion:

Based on the data presented in this report, specifically the flow depth measurements recorded (see graphs below)

- One time did the flow depth exceed pipe diameter at Node 1 and None 3 of the downstream monitoring points during the wet weather events monitored.
- At no time did the flow depth exceed pipe diameter at Node 2 of the downstream monitoring points during the wet weather events monitored.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

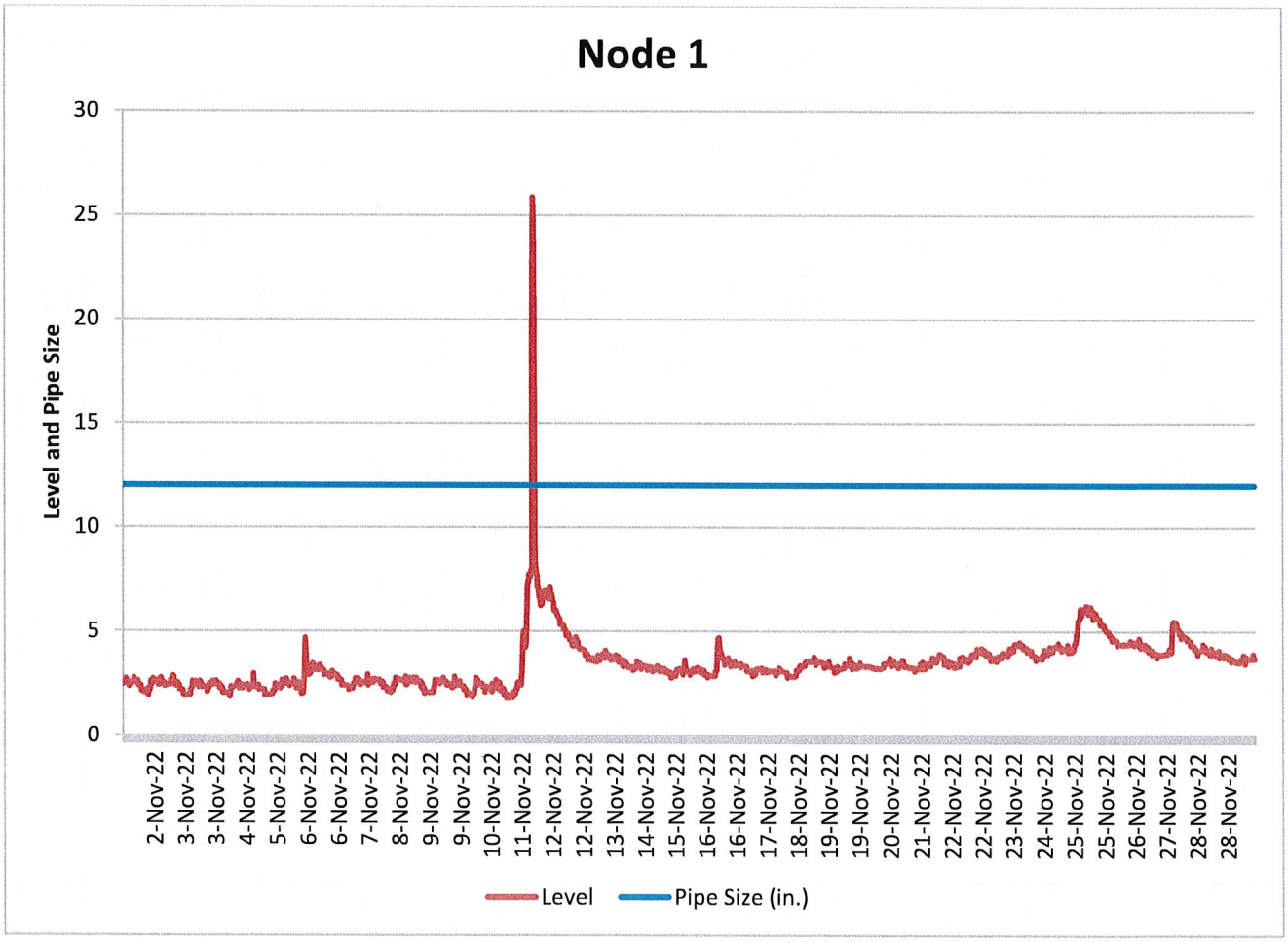
TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
716-462-0382

Depth of Flow Capacity Summary:

Depth of flow capacity is based on diameter of pipe. See graphs below.

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 1.



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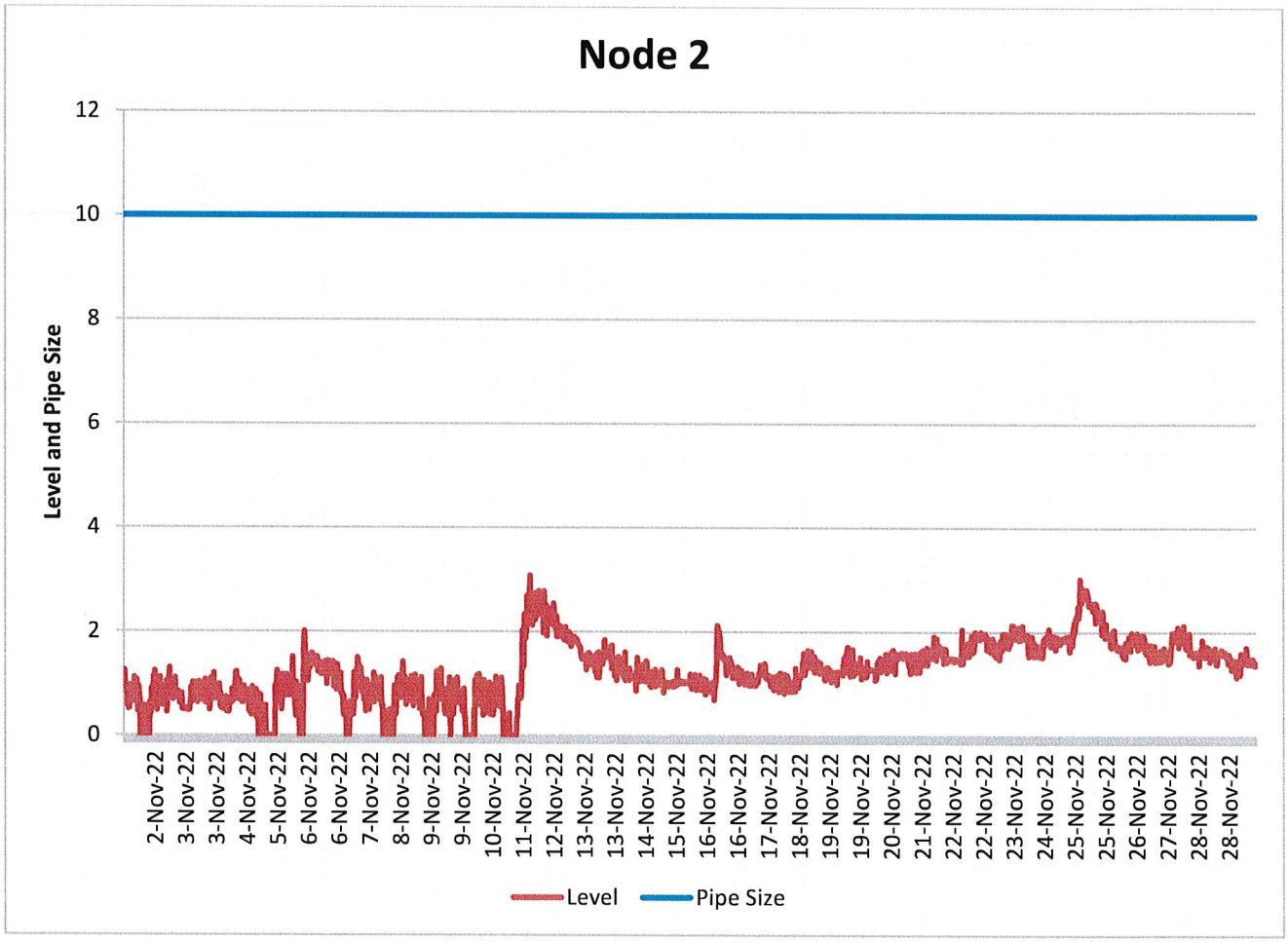
TECsmith

TECSMITH, Inc.
PO Box 95
Clarence, NY 14031
716-462-0382

- At no time during the monitoring period did depth of flow exceed pipe diameter at Node 2.



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TECsmith

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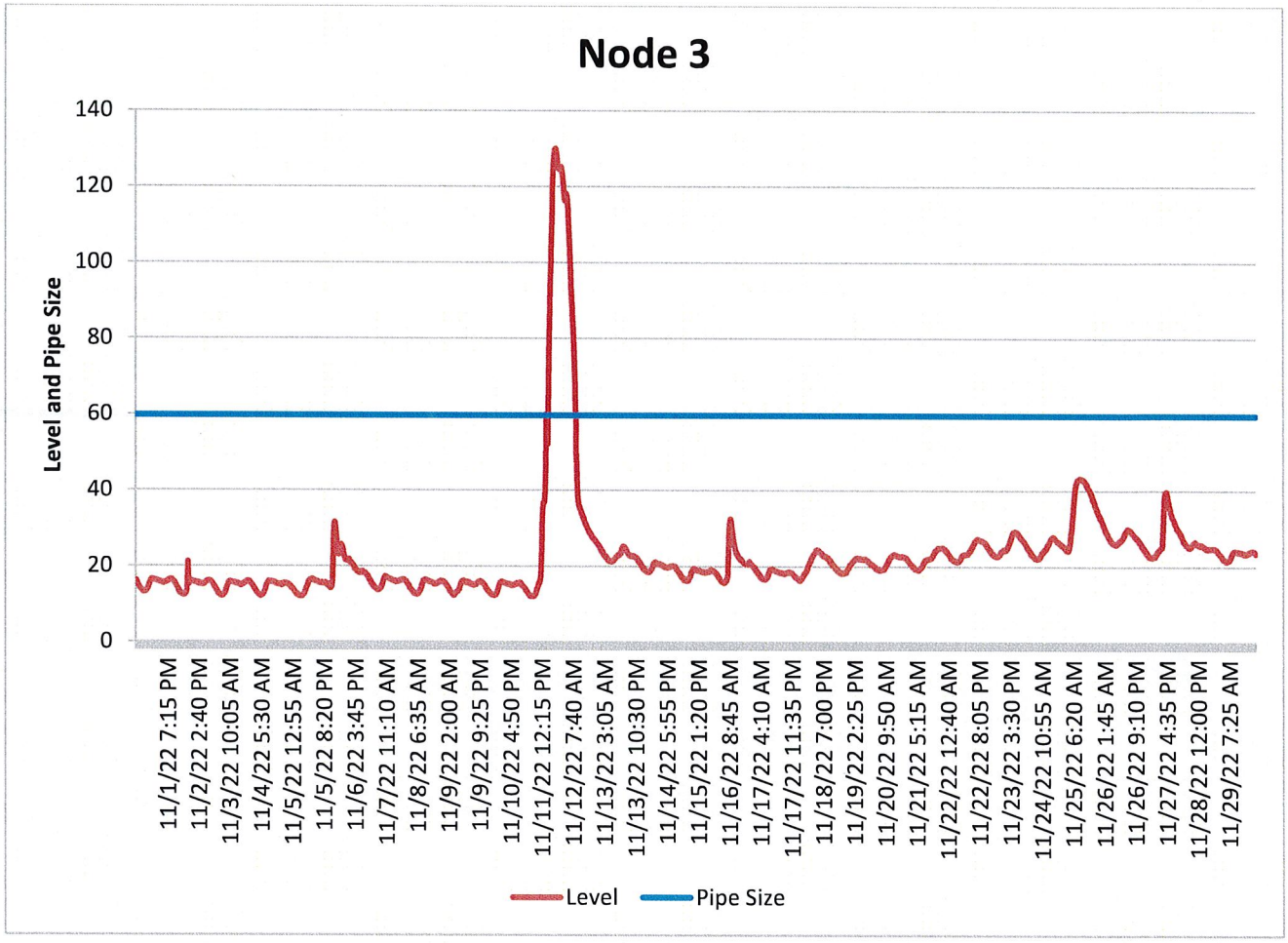
PO Box 95
Clarence, NY 14031
716-462-0382

- One time during the monitoring period did depth of flow exceed pipe diameter at Node 3.



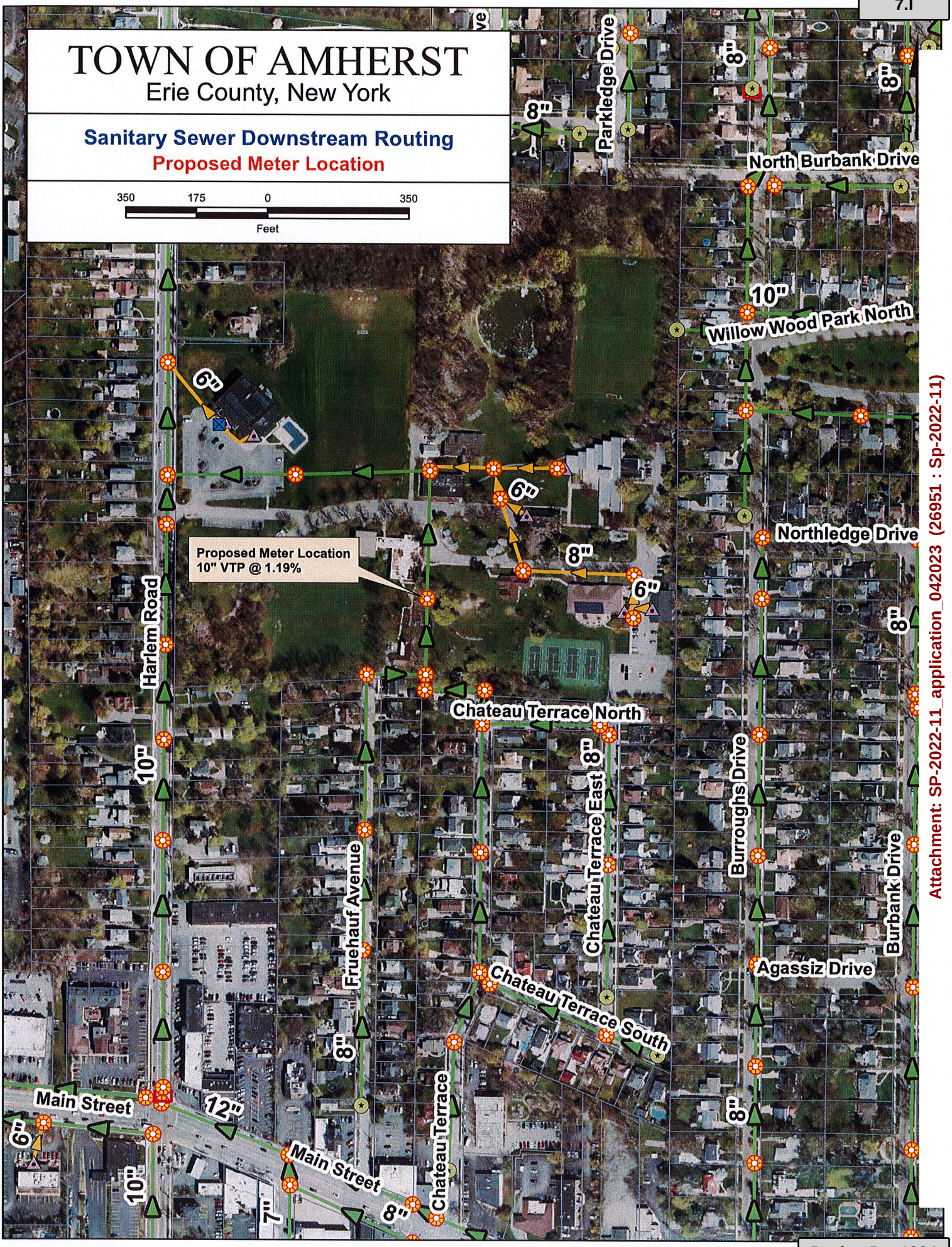
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

(T) Amherst Sanitary Sewer Routing & Node Maps

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



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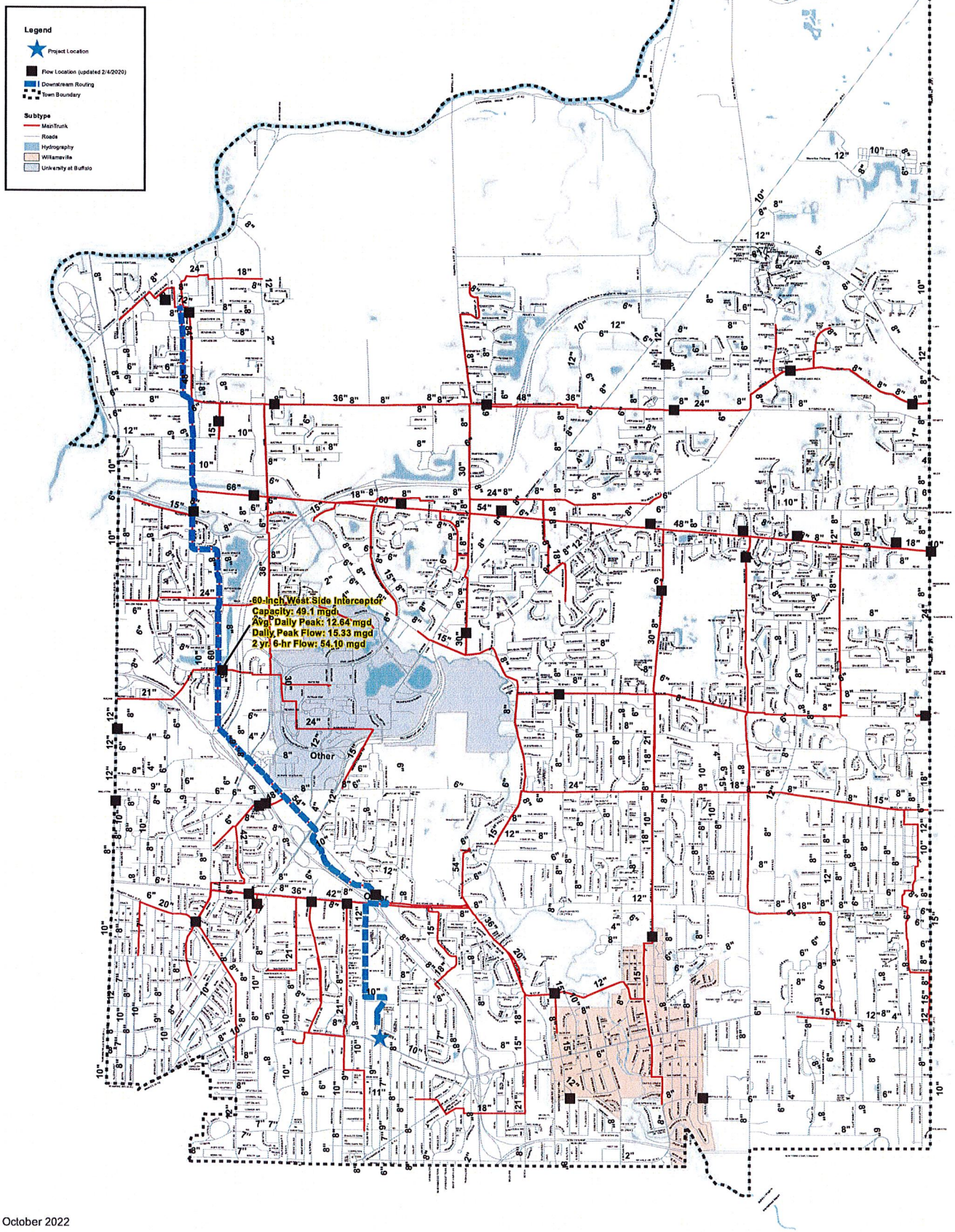
TOWN OF AMHERST
Erie County, New York

Downstream Sewer Routing
Proposed Site: 4548 - 4564 Main Street

1 0.5 0 1
Miles



October 2022

A. Pontikos

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



ENGINEER'S REPORT
FOR
PROPOSED SITE REDEVELOPMENT
4548-4564 MAIN STREET
TOWN OF AMHERST, NEW YORK
PROP # 5202

May 18, 2022
Updated December 13, 2022

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

GENERAL

This project is a redevelopment of four parcels with a total of 0.93-acres currently occupied with two multi-tenant buildings totaling 12,150 S.F. with an associated parking lot, utility and drainage infrastructure and a 950 S.F. residential house with associated driveway and garage. The project is located along Rt. 5 Main Street between Fruehauf Ave and Chateau Terrace in the Town of Amherst. The property abuts general commercial properties along Main Street property and abuts residential properties along the North property line. The existing multi-tenant buildings and residential house will be demolished for the construction of this project.

Existing Conditions:

The site is currently occupied by a multi-tenant building with associated parking lot and a residential house. The site currently is sheet draining any runoff from pavement surface existing on-site drainage structures.

The site contains three existing domestic water services. A ¾" domestic service is located along Main St. that are tapped off the existing 8" water main along the Southside of Main St. A 2" domestic service is tapped off the 6" water main along Fruehauf Ave. A ¾" domestic service, for the residential home, is tapped off the Existing 1" service main along Chateau Terrace. The existing water services will be abandoned as part of this project.

Existing Sanitary Sewers are located along Main Street that discharges into the existing Town of Amherst sewer district #1.

PROJECT OVERVIEW

The proposed project *(Figure 1)* consists of; demolition of the existing 12,150 S.F. multi-tenant buildings, residential house and garage, pavement areas and the clearing of land; construction of a proposed 34,121 S.F. multi-story building with associated parking garage, drainage infrastructure and site improvements to the sites existing grading and utilities.

PROPOSED FACILITIES

Storm Water

SWPPP Engineer's Report prepared by Carmina, Wood, Morris DPC dated May, 2022

Water System

The existing water services to the site are to be abandoned for this proposed project. The proposed development will provide a new water service tap to the 6" main along Chateau Terrace. The proposed domestic and fire services will be backflowed within the proposed building.

Disinfection of the water services following installation will be continuous feed, according to AWWA C-651, latest revision.

Summary: *(Refer to Figure 2)*

Proposed Building:	34,121 S.F.
Operating Demand Increase:	22.29 gpm
Peak Demand Increase:	40.11 gpm
Water Main:	6" main along Chateau Terrace
Static Pressure:	64 PSI
Head Loss Friction:	0.0 psi
Loss through meter/RPZ:	13.0 psi
Elevation Loss:	0.8 psi
Bends Loss:	0 psi
Required Pressure after RPZ:	20 psi
Proposed Pressure after RPZ:	**50.8 PSI**

Sanitary Sewer:

Sanitary services will provide a new sanitary lateral connection to an existing manhole along Fruehauf Ave. The proposed building will be provided a 2,000 Gal grease trap with new 6" SDR-35 PVC lateral sanitary connection.

Summary:

Existing Flow:		3,165 GPD
Proposed New Building S.F.:		34,121 S.F.
Proposed Flow:	Restaurant	35 GPD * 80 Seats = 2,800 GPD
	Residential	110 GPD * 74 Bedrooms = 8,140 GPD
GPD Total =		10,940 GPD
Total Increased Sanitary Flow:		**7,775 GPD**

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FIGURES:

1 Site Location Plan & Engineering Plan

2 Sanitary & Water Calculations

3 SWPPP Report

4 Flow Test performed by ECWA

APPENDICES:

A FEMA Flood Areas

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FIGURE 1

SITE LOCATION PLAN
ENGINEERING PLANS



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FIGURE 2

SANITARY & WATER CALCULATIONS

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

JOB NAME: MAIN ST MULTI-STORY BUILDING
DESCRIPTION: SANITARY & WATER CALCULATIONS
PROPERTY # 5202 DATE: 01.06.2023
CALCULATED BY: DMZ SHEET: 1 OF 2

SANITARY SEWER CALCULATIONS:

Existing Buildings Removed:			13,100 S.F.	
Design GPD:	Restaurant	=	35 GPD / Seat	*NYSDEC Design standard for WWTS
	Residential	=	110 GPD / Bedroom in Apartment (150 GPD per Bed for pre-1980)	
	Retail	=	0.1 GPD/ S.F. + 15gpd/Employee	
Existing		=	1,950 GPD (Residential) + 1,215 GPD (Retail)	= 3,165 GPD
			(150GPD/Bed * 13 Beds) + [(0.1GPD/S.F. * 1125 S.F. + 15gpd/employee * 6 Employees)]	
Proposed		=	2,800 GPD (Restaurant) + 8,140 GPD (Residential)	= 10,940 GPD
			(35 GPD/Seat*80 Seats) + (110GPD/bed* 74 Beds)	

INCREASED SANITARY FLOW = **7,775 GPD**

PEAK SANITARY DEMAND

Total Demand = 10940 GPD
Per Population = 30 Per Capita

Peak Factor: $(18+\sqrt{P}) / (4+\sqrt{P})$ P in Thousands

Peak Factor = 4.37

Peak Sanitary Demand = 10940 x 4.37 = 47,808 gpd = 33.20gpm

WATER CALCULATIONS: = 1.1 Usage Factor * (GPD)

= GPD / 9hr / 60min
ASSUMED 9HR SHIFT = 12034 / 9 / 60
= **22.29 GPM**

PEAK FACTOR: = GPM X 1.8
= 22.29 X 1.8
Q = **40.11 GPM PEAK**

HEADLOSS FRICTION:

$$= \frac{(10.44) \times (L) \times (Q)^{1.85}}{(C)^{1.85} \times (D)^{4.866}}$$

Q = GPMin
L = LENGTH OF PIPE
C = DESIGN COEF OF PIPE
D = PIPE DIAMETER

$$= \frac{(10.44) \times (18) \times (40.11)^{1.85}}{(140)^{1.85} \times (6)^{4.866}}$$

= **0 PSI**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

JOB NAME: MAIN ST MULTI-STORY BUILDING
DESCRIPTION: SANITARY & WATER CALCULATIONS
PROPERTY # 5202 DATE: 12.13.22
CALCULATED BY: DMZ SHEET: 2 OF 2

ELEVATION LOSS: = (BUILDING INTAKE - HYDRANT HEIGHT) X 0.433
= (671.0 - 669.0) X 0.433
= **0.8 PSI (+)**

LOSS THROUGH RPZ & METER:

RPZ = 12 PSI (STANDARD)
METER = 1 (STANDARD)
= **13 PSI**

LOSS DUE TO BENDS:
RESISTANCE EQUIVALENT LENGTH METHOD)

TOTAL = **0 FT ADDITIONAL PIPE**

STATIC PRESSURE @ HYDRANT:
= **64 PSI**

PRESSURE AFTER RPZ / METER / BENDS / ELEVATION / HEADLOSS:

= 64 PSI - 13 PSI + 0.8 PSI
(HYD) (RPZ) (ELEVATION)
= **50.8 PSI**

REQUIRED RESIDUAL PRESSURE = 20 PSI

PROPOSED RESIDUAL PRESSURE = 50.8 psi

THEREFORE PROPOSED > REQUIRED
50.8 PSI (GREATER) 20 PSI

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FIGURE 3

SWPPP Report

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

FIGURE 4

Flow Test by ECWA

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Residual Hydrant: J07E24 **Test Date/Time:** 11/21/2019 13:15

Location.....: **4301 MAIN ST** **1ST HYD E/O GETZVILLE RD**
TOWN OF AMHERST AMHERST CENTRAL H.S.

Size of Main/Branch: **8"/6"** Fire District: **22021 SNYDER FD 7** Water District: **184 ECWA AREA-TOWN OF AMHE**

Performed By: **DWP/CDB** Comments: **HYDRANT FLOW TEST REQUESTED BY DAVID SCHLANT M/E ENGINEERING**
PHONE: 716-845-5092; EMAIL: DMSCHLANT2@MEENGINEERING.COM

CW #43608

Dischrge Coef: **090** Elvtn Usgs(ft): Static(psi): **64** Residual(psi): **54** Required Residual Pressure(psi): **20**
Gallons Used..: **4,500** Total Flow(gpm): **1,500** Flow at Reqd Resid Pressure: **3,339**

Flow Hydrants:

Flow Hyd	Location	Main/Brnch	Nzle	Size	Pitot	Flow	Comments
J07 E21	**2 BRANTWOOD RD**	**6"/6"**	1:	**2.50**	**20.0**	**750**	
	1ST HYD S/O MAIN ST		2:	**2.50**	**20.0**	**750**	
	C/O MAIN ST		3:			Total Flow: **1,500**	

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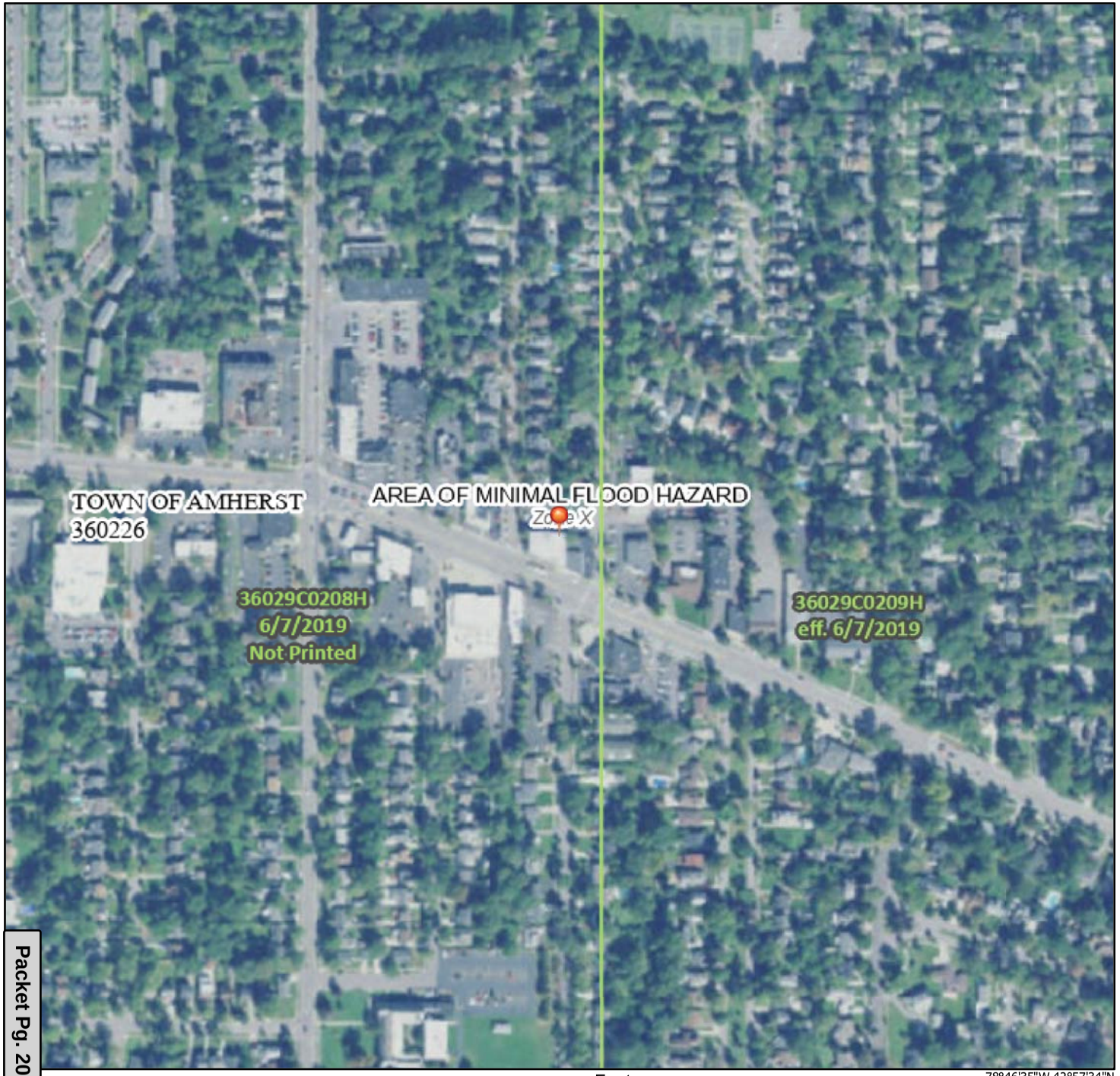
APPENDIX A

FEMA Flood Areas

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

National Flood Hazard Layer FIRMette

78°47'13"W 42°58'N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/11/2021 at 10:16 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following r elements do not appear: basemap imagery, flood zone labe legend, scale bar, map creation date, community identifiers FIRM panel number, and FIRM effective date. Map images for

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Carmina · Wood · Morris DPC

487 Main Street Suite 600 Buffalo, New York 14203 P: 716.842.3165 F: 716.842.0263 W: cwm-ae.com

Architecture Engineering Interior Design

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORMWATER POLLUTION PREVENTION PLAN
for
CONSTRUCTION ACTIVITIES
At

Proposed Site Redevelopment
4548-4564 Main Street
Town of Amherst, Erie County, New York

Prepared for

Benderson Development Company, LLC

570 Delaware Ave
Buffalo, NY 14202

Prepared by

Carmina Wood Morris, D.P.C.

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

August 2021
(Revised 12/19/2022)



Table of Contents

Written Storm Water Pollution Prevention Plan

Section 801 - Scope

Section 802 - Project Name and Location

Section 803 - Operator's Name and Address

Section 804 - Project Description

Section 805 - Runoff Coefficient, Soils and Rainfall Information

Section 806 - Name of Receiving Waters

Section 807 - Indian Country Lands

Section 808 - Endangered or Threatened Species

Section 809 - Critical Habitat

Section 810 - Historic Places

Section 811 - Wetlands and/or Other Surface Waters

Section 812 - Erosion and Sediment Controls

- Section 812.1 - Stabilization Practices
- Section 812.2 - Structural Practices
- Section 812.3 - Sequence of Major Activities
- Section 812.4 - Storm Water Management

Section 813 - Other Controls

Section 814 - Compliance with Federal, State and Local Regulations

Section 815 - Inspection and Maintenance Procedures

Section 816 - Inspection and Maintenance Report Forms

Section 817 - Other Record-Keeping Requirements

Section 818 - Spill Prevention Control and Countermeasures (SPCC) Plan

- Section 818.1 - Materials Covered
- Section 818.2 - Material Management Practices
- Section 818.3 - Spill Prevention and Response Procedures

Section 819 - Control of Non-Storm Water Discharges

Section 820 – Stormwater Control Facility Maintenance

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Appendix A Site Location Maps

Appendix B NYSDEC Notice of Intent (NOI)

Appendix C MS4 SWPPP Acceptance Form

Appendix D Engineer's Report

Appendix E NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001

Appendix F Forms

Form SWPPP-1	Contractor's Certification Log
Form SWPPP-2	Contractor's Certification Statement
Form SWPPP-3	Inspection Report
Form SWPPP-4	Stabilization Schedule
Form SWPPP-5	Final Stabilization/Termination Checklist
Form SWPPP-6	Project Rainfall Log
Form SWPPP-7	Requested Changes to the SWPPP
Form SWPPP-8	Monthly Training Log
Form SWPPP-9	Reportable Quantity Release Form
Form SWPPP-10	Implementation Schedule
Form SWPPP-11	Signatory Authorization Designation
Form NYSDEC	SWPPP Preparer Certification
Form NYSDEC	Owner/Operator Certification

Appendix G NYSDEC Notice of Termination (NOT)

Appendix H Stormwater Management Pond and Bioretention Construction and Maintenance Checklist

Appendix I Construction Documents

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STORM WATER POLLUTION PREVENTION PROGRAM

801 SCOPE

A. **PURPOSE: Benderson Development LLC** has placed an emphasis on following **the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activity** governing storm water discharges during construction, and in accordance with erosion control practices. The Contractor's participation in this program is mandatory and its non-compliance is subject to various remedies, including without limitation, monetary set-offs, withholding payments; reimbursement for costs, expenses (including reasonable attorney's fees), fines and civil penalties incurred by **Benderson Development LLC*;*** and/or liquidated damages. This section provides a descriptive explanation of **Benderson Development LLC's** Storm Water Pollution Prevention Program and required Contractor participation.

The Engineer of record for this project certifies that this SWPPP meets the requirements and is in compliance with the New York State Stormwater Management Design Manual and latest NYSDEC Phase II stormwater regulation requirements.

B. **SPDES General Permit for Stormwater Discharges from Construction Activity:** Regulations promulgated by the NYSDEC to regulate the discharge of storm water from construction activities on sites where more than **one (1)** acre of soil is disturbed. One of the ways to comply with these regulations for affected sites is to request coverage under the General Permit for Construction Activities for New York State. In order to use the General Permit, a Notice of Intent (NOI) form must be completed and mailed to the **NYSDEC** at least ***5 business days*** prior to any earth-disturbing activities (this time frame may increase to 60 business days if a full review of the SWPPP is determined necessary by the NYSDEC) and a Storm Water Pollution Prevention Plan (SWPPP) for the site must be prepared and followed during the construction activities.

Approval from a regulated, traditional land use control MS4:

1. An *owner or operator* of a *construction activity* that is <u>not</u> subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the NYSDEC.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the *MS4* prior to submitting the NOI to the NYSDEC. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under "Notice of Intent (NOI) Submittal".

C. **RESPONSIBILITIES OF THE CONTRACTOR:** The Contractor shall manage the discharge of storm water from the site in accordance with the **NYSDEC** General Permit for Construction Activities conditions and the following provisions of this section. The Operator shall be responsible for conducting the storm water management practices in accordance with the permit. The Contractor shall be responsible for providing qualified inspectors to conduct the inspections required by the SWPPP. The Contractor shall be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the Contractor's failure to comply with the permit provisions. **It shall be the responsibility of the Contractor to make any changes to the SWPPP necessary when the Contractor or any of his subcontractors elects to use borrow or fill or material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites which are used for multiple construction projects are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The Contractor should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage**

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site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.

D. **NOTICE OF INTENT:** The Operator has petitioned the **NYSDEC** for coverage under the storm water discharges during construction at this site to be covered by the **SPDES** General Permit for Construction Activity for the State of **New York.** A Notice of Intent (NOI) for coverage under this permit has been filed by the Operator. The SWPPP must be prepared prior to submittal of the NOI form. The Operator will require the Contractor to be a co-permittee with the Operator. The Contractor will be required to post the NOI at the construction site along with any building permits.

E. **CONTRACTOR CERTIFICATION & TRAINING**: Certification and Training of the Contractor's Project Manager and Superintendent will be performed at the Pre-Construction Meeting and administered by the **Operator's Project Manager** and/or **Operator's Engineer**. This Certification and Training Program has been developed to stress the importance of the following topics:

- Erosion and sediment control for water quality protection
- Implementation of erosion and sediment control plans
- The importance to proper installation of erosion and sediment control measures
- Regular inspection by the **owner/operator** and a **Qualified Professional** of erosion and sediment control measures
- Diligent maintenance of erosion and sediment control measures
- Expedient preparation of accurate and complete records regarding inspection and maintenance of erosion and sediment control measures
- Record-keeping for inspections and maintenance activities

Upon completion of the certification and training program, the project will receive a *SWPPP Ledger* for use by the Contractor's Project Manager and Superintendent with all required certifications and record keeping forms involved with the installation and/or maintenance of erosion and sediment control measures. The Operator's certification and training shall be in addition to any federal, state or local certifications or training required or available to comply with SPDES stormwater permit requirements by the Contractor.

F. **REQUIREMENTS FOR THE GENERAL CONTRACTOR AND SUBCONTRACTOR(S):** The *SWPPP Ledger* shall provide a **"Contractor's Certification Log" (Form SWPPP-1)** for both the General Contractor and Subcontractor(s) identifying the Company Name, Business Address and Telephone Number along with the Responsible Person for the Contractor and all subcontractors' who will implement the measures identified in the SWPPP. **The General Contractor and Subcontractor(s) shall also sign the "Contractor's Certification Statement" (Form SWPPP-2)** verifying they have been instructed on how to comply with and fully understand the requirements of the **SPDES** General Permit for Construction Activity for the State of **New York** and the SWPPP. These certifications must be signed, by a responsible corporate officer or other party meeting the "Signatory Requirements" of the SPDES General Permit, on behalf of each entity, prior to the beginning of any construction activities and shall be filed in the project's *SWPPP Ledger*. A Signatory Authorization Designation **(Form SWPPP-11)** must be filled out by each entity giving the authorization for the individual to sign on behalf of the entity.

G. **STORM WATER POLLUTION PREVENTION PROGRAM LOCATION REQUIREMENTS:** The *SWPPP Ledger* is meant to be a working document that shall be maintained at the site of the Construction Activities at all times throughout the project, shall be readily available upon request by the Operator's personnel or **NYSDEC** or any other agency with regulatory authority over storm water issues, and shall be kept on-site until the site complies with the Final Stabilization section of this document. **A sign or other notice must be posted near the main entrance of the construction site which contains a completed NOI, the location of the SWPPP and the name and phone number of a contact person responsible for scheduling SWPPP viewing times, and any other state specific requirements.**

H. **SWPPP LEDGER:** The SWPPP Ledger shall be a three (3) ring binder, the Ledger shall be tabbed and indexed for the following sections:

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- **Table of Contents**
- **Written SWPPP**
- **Site Map**
- **Erosion and Sedimentation Control Plan(s)**
- **Signed NYSDEC Notice of Intent (NOI)**
- **Copy of Notice of Permit Coverage**
- **Copy of the NYSDEC SPDES General Permit for Construction Activity for the State of New York**
- **Blank Copy of NOI and Notice of Termination (NOT)**
- **Contractor's Certification Log (Form SWPPP-1)**
- **Contractor's Certification Statement (Form SWPPP-2)**
- **Inspection Report(s) (Form SWPPP-3)**
- **Stabilization Schedule (Form SWPPP-4)**
- **Final Stabilization/Termination Checklist (Form SWPPP-5)**
- **Project Rainfall Log (Form SWPPP-6)**
- **Requested Changes to the SWPPP (Form SWPPP-7)**
- **Monthly Training Log (Form SWPPP-8)**
- **Reportable Quantity Release Form (Form SWPPP-9)**
- **Implementation Schedule (Form SWPPP-10)**
- **Signatory Authorization Designation (SWPPP-11)**
- **Owner's Certification (SWPPP-12)**
- **Engineer's Certification (SWPPP-13)**
- **Sample Forms**

The Operator's Project Manager must review and evaluate for compliance the *SWPPP Ledger* at each Project Review. All Inspection and Maintenance Forms must be **signed** by the Operator's Project Manager **(or other duly authorized representative)** at this review and be submitted with the Contractor's Monthly Application for Payment. The approval of the Contractor's Application for Payment will be withheld until the *SWPPP Ledger* is deemed in compliance and all SWPPP Inspection and Maintenance Forms and have been submitted to the satisfaction of the Operator.

I. INSPECTIONS AND RECORD-KEEPING:

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. Owner or Operator Maintenance Inspection Requirements

1. The *owner or operator* shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *owner or operator* can stop conducting the maintenance inspections. The *owner or operator* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of the General Permit as soon as soil

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disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *owner or operator* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. **Qualified Inspector Inspection Requirements**

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

Note: The *trained contractor* identified in Part III.A.6 of the General Permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A of the General Permit. In order to perform these inspections, the *trained contractor* would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity.

1. A *qualified inspector* shall conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B of the General Permit, with the exception of:

   a. The construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C of the General Permit and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

   b. The construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E of the General Permit;

   c. Construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

   d. Construction activities located in the watersheds identified in Appendix D of the General Permit that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

   a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

   b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

   c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter

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shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F of the General Permit) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the MS4 (provided the MS4 is not the *owner or operator* of the construction activity) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the Regional Office stormwater contact person or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the MS4 (provided the MS4 is not the *owner or operator* of the construction activity). in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.A.1 of the General Permit.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

   a. Date and time of inspection;

   b. Name and title of person(s) performing inspection;

   c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

   d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any *discharges* of sediment from the construction site. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

   e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

   f. Identification of all erosion and sediment control practices that need repair or maintenance;

   g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

   h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

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i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and

k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.C.2 of the General Permit, the inspection reports shall be maintained on site with the SWPPP.

Record Retention - The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves *final stabilization*. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

- **Form SWPPP-3** **Inspection Report**
- **Form SWPPP-4** **Stabilization Schedule**
- **Form SWPPP-5** **Final Stabilization/Termination Checklist**
- **Form SWPPP-6** **Project Rainfall Log**
- **Form SWPPP-7** **Requested Changes to the SWPPP**
- **Form SWPPP-8** **Monthly Training Log**
- **Form SWPPP-9** **Reportable Quantity Release Form**
- **Form SWPPP-10** **Implementation Schedule**
- **Form SWPPP-11** **Signatory Authorization Designation**
- **Form SWPPP-12** **Owner's Certification**
- **Form SWPPP-13** **Engineer's Certification**

J. **SWPPP MODIFICATIONS:** The inspection report should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP is meant to be a dynamic working guide that is to be kept current and amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants or when the plan proves to be ineffective in eliminating or significantly minimizing pollutant discharges. Any such changes to the SWPPP must be made in writing on the "**Requested Changes to the SWPPP" (Form SWPPP-7)** within 7 days of the date of such modification or amendment is made. The Contractor's failure to modify or report deficiencies to the Operator will result in the Contractor being liable for fines and construction delays resulting from any federal, state, or local agency enforcement action.

K. **CONTRACTOR'S MONTHLY TRAINING:** The Contractor shall provide monthly training sessions for all entities and subcontractors involved with installing, applying, performing, maintaining and inspection of the SWPPP. Logs of each monthly training shall be kept by the Contractor on the "Monthly Training Log" **(Form SWPPP-8)**, in the *SWPPP Ledger*. Training shall educate the attendees on the topics of:

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- The Location and Type of Control Measures
- The Construction Requirements for the Control Measures
- Maintenance Procedures for each of the Control Measures
- Spill Prevention and Cleanup Measures
- Inspection and Maintenance Record Keeping Requirements

L. **FINAL STABILIZATION AND TERMINATION OF PERMIT COVERAGE:** A site can be considered finally stabilized when all soil disturbing activities have been completed and a uniform perennial vegetative cover with a density of **85%** for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the facility no longer discharges storm water associated with construction activities and a Notice of Termination (NOT) form filed by the Operator(s) with the NYSDEC. The Operator's Project Manager must complete the NOT. The NOT must be signed by the signatory (or equivalent position) on the NOI and subsequently submitted to the appropriate agency. The Operator's Project Manager must provide a completed copy of the NOT to the Contractor for inclusion in the SWPPP, which will then be optically scanned into the final SWPPP document as required. This filing terminates coverage under the General Permit and terminates the Contractor's responsibility to implement the SWPPP, but the requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed. The owner or operator shall also have the qualified inspector perform a final site inspection prior to submitting the NOT to the Department. In addition, the qualified inspector must verify during the final inspection that all Town of Amherst requirements for Final Stabilization have been satisfied prior to Town of Amherst signature of the NOT. Upon achieving this milestone, the Contractor shall also submit "Final Stabilization Certification/Termination Checklist" **(Form SWPPP-5)**. Final payment and/or the release of retainage will be withheld until all provisions of the SWPPP have been submitted, completed and accepted by the Operator.

802 PROJECT NAME AND LOCATION

Proposed Site Redevelopment
4548-4564 Main Street
Town of Amherst, NY 14226
42.963°N, 78.782°W
Estimated Area of Site ≈ 1.02+/- acres
Estimated Area to be Disturbed by Construction Activities ≈ 1.02+/- acres

A general location map is included as Appendix A.

803 OPERATOR'S NAME AND ADDRESS

Benderson Development LLC
570 Delaware Ave
Buffalo, NY 14202
Contact Person: Matt Oates
Telephone: 716-878-9397

804 PROJECT DESCRIPTION

This redevelopment project will consist of the construction of a 3-story mixed-use building that will include apartments, restaurant space and multi-level parking. The site is located on the north side of Main Street (NY-5), between Fruehauf Ave and Chateau Terrace in the Town of Amherst. The existing site is currently occupied by a 3-story vacant building located along the Main Street frontage. Existing surface parking is located north behind the existing building. Both the existing building and parking areas will be removed as part of this project. The overall site area is approximately 0.93+/- acres, however, construction activities will result in approximately 1.02+/- acres of disturbance area.

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Soil disturbing activities will include:

A. Construction of temporary construction exit point
B. Clearing & grubbing of the site within disturbance limits
C. Construction of detention basin & bioretention area
D. Installation of storm sewer pipes and inlets
E. Construction of utilities
F. Construction of driveways and parking lot
G. Final grading & landscaping
H. Construction of building

This project is owned by **Benderson Development LLC** and will be developed by **Benderson Development LLC**. The work area consists of approximately 1.02+/- acres for which erosion and sediment controls have been developed and fully addressed in this written plan and the Erosion and Sediment Control Plans. See the construction documents for additional details

805 RUNOFF COEFFICIENT, SOILS, AND RAINFALL INFORMATION

The initial runoff curve number for the pre-construction site is "CN" = 95. The post-construction runoff curve number for the site will be "CN" = 95. Approximately 1.02+/- acres will be disturbed by construction activities.

See soils information located in Appendix D

The site is in Erie County, which receives an average of approximately 35 inches rainfall annually with the highest amounts of rainfall received in the months of May thru September. Annual snow for this area is approximately 100 inches.

806 WATERS

The runoff generated from this site will discharge to the existing closed Town of Amherst storm sewer that is ultimately tributary to Ellicott Creek and the Niagara River.

807 INDIAN COUNTRY LANDS

This project is not located on Indian Lands.

808 ENDANGERED AND THREATENED SPECIES

No endangered/threatened species have been determined to be on the site.

809 CRITICAL HABITAT

No critical habitats have been determined to be on the site.

810 HISTORIC PLACES

The assessed property is not listed in the National Register of Historical Places.

811 WETLANDS AND/OR OTHER SURFACE WATERS

No wetlands are located on the site.

812 EROSION AND SEDIMENT CONTROLS

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812.1 STABILIZATION PRACTICES

Stabilization practices for this site include:

A. Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed.
B. Use of stabilization method for all slopes having a slope greater than 1V:3H.
C. Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
D. Mulching exposed areas.
E. Vegetation preservation in undisturbed areas.
F. Frequent watering to minimize wind erosion during construction.

a. For sites where **5 acres or more** are disturbed at any one time: In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the *New York Standards and Specifications for Erosion and Sediment Control.*
b. The owner or operator shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
c. The owner or operator shall install any additional measures needed to protect water quality.

812.2 STRUCTURAL PRACTICES

Structural practices for this site include:

A. Inlet protection using a method detailed in the Construction Documents.
B. Perimeter protection using temporary silt fence.
C. Outlet protection using rip-rap stone and end sections.
D. Stabilized Construction Entrance.
E. Temporary stone wash off areas.
F. Storm sewer, curb/gutter.
G. Sediment traps and basins.

812.3 SEQUENCE OF MAJOR ACTIVITIES

The Contractor will be responsible for implementing the following erosion control and storm water management control measures. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor. The order of activities will be as follows:

A. Construct temporary construction exits at locations shown on the Demolition & Erosion Control Plan Sheet.
B. Install perimeter silt fences in the locations shown on the Demolition & Erosion Control Plan Sheet.
C. Clear & Grub site.
D. Construction of detention basin & bioretention area.
E. Commence site grading.
F. Disturbed areas of the site where construction activity has ceased for more than 14 days shall be temporarily seeded and watered.
G. Installation of proposed utilities.
H. Finalize pavement subgrade preparation.
I. Construct all curb, drainage inlets, storm sewer pipes and storm sewer manholes, as shown on the plans. Install temporary inlet protection at the locations of all inlets.
J. Dust control.

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K. Remove inlet protection around inlets and manholes no more than 48 hours prior to placing stabilized base course.
L. Install base material as required for pavement.
M. Carry out final grading and seeding and planting.
N. Clean storm system following construction.
O. Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.
P. Remove temporary construction exits only prior to pavement construction in these areas.

A schedule for implementation for the activities identified above is included as Form SWPPP-4 of the SWPPP.

Note: Sediment control storage during construction (traps & basins) during construction shall be 134cy per acre of disturbance per NYSDEC requirements.

812.4 STORM WATER MANAGEMENT: See Appendix D, Engineer's Report

813 OTHER CONTROLS

813.1 OFF-SITE VEHICLE TRACKING

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments. Existing paved areas will remain as long as possible and will be used for vehicle wash areas and to further aid in the reduction of vehicle tracking of sediments. The paved streets adjacent to the site entrance shall be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material to/from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

813.2 EXCAVATION SPOIL MATERIALS

Excavation spoil materials are generated during the excavation of the development's building and utilities installation. These materials must be properly managed to prevent them from contributing to storm water discharges. The materials generated from the development of this project will be hauled off-site or stockpiled for re-use in designated areas which will have temporary erosion & sediment control measures installed. Any removal from site will be done under the necessary permits required by the local governing agencies.

813.3 DUST CONTROL

Minimizing wind erosion and controlling dust will be accomplished by one or more of the following methods:
A. Frequent watering of excavation and fill areas.
B. Providing gravel or paving at entrance/exit drives, parking areas and transit paths.

813.4 WASTE DISPOSAL

If needed, all waste materials will be collected and stored in securely lidded metal dumpsters rented from an approved waste management company. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpsters. The dumpsters will be emptied when full and then hauled to a NYSDEC approved landfill for proper disposal. No construction waste will be buried on-site. All personnel will be instructed regarding the correct procedures for waste disposal.

813.5 SANITARY WASTE

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If needed, portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

813.6 CONCRETE WASTE FROM CONCRETE TRUCKS

A. Emptying of excess unhardened concrete and/or washout from concrete delivery trucks will be allowed on the job site, but in either (1) specifically designated diked areas which have been prepared to prevent contact between concrete and/or washout and storm water which will be discharged from the site or (2) in locations where waste concrete will be poured into forms to make rip-rap or other useful concrete products.

B. Hardened waste concrete from the designated diked areas described above will be disposed of in accordance with applicable local and state regulations with regards to disposal of construction debris.

813.7 HAZARDOUS SUBSTANCES & HAVARDOUS WASTE

A. All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job superintendent, who will also be responsible for seeing these practices are followed. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such products are stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

B. The contractor will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this SWPPP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials of hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge shall be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job superintendent to properly train all personnel in the use of the SPCC plan.

C. Any spills of hazardous materials which are in excess of the Reportable Quantities as defined by the EPA regulations shall be immediately reported to the EPA National Response Center at 1-800-424-8802. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

D. In order to minimize the potential for a spill of hazardous materials to come in contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, under cover, when not in use.
2. The minimum practical quantity of all such materials will be kept on the job site.
3. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
4. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these

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containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

5. All products will be stored in and used from the original container with the original product label.
6. All products will be used in strict compliance with instructions on the product label.
7. The disposal of excess or used products will be in strict compliance with instructions on the product label.

813.8 CONTAMINATED SOILS

A. Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations.

B. The job site superintendent will be responsible for seeing that these procedures are followed.

814 COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

The Contractor will obtain copies of any and all local and state regulations which are applicable to storm water management, erosion control, and pollution minimization at this job site and will comply fully with such regulations. The Contractor will submit written evidence of such compliance if requested by the Operator or any agent of a regulatory body. The Contractor will comply with all conditions of the **SPDES** General Permit for Construction Activity for the State of **New York**, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

815 INSPECTION AND MAINTENANCE PROCEDURES

The following inspection and maintenance practices will be used to maintain erosion and sediment controls and stabilization measures.

1. All control measures will be inspected by the **owner/operator** at least weekly and shall continue until the site complies with the Final Stabilization section of this document (See Section 816)

2. All control measures will be inspected by a **Qualified Professional** twice a week separated by at least two (2) full calendar days and shall continue until the site complies with the Final Stabilization section of this document (See Section 816)

3. All measures will be maintained in good working order; if repairs or other measures are found to be necessary, they will be initiated within 24 hours of report.

4. Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.

5. Silt fences will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.

6. Inlet protection and the stabilized construction entrance shall be inspected to see if these measures are functioning properly or if maintenance is required.

7. Temporary and permanent seeding and all other stabilization measures will be inspected for bare spots, washouts, and healthy growth.

8. A maintenance inspection report will be made after each inspection. Copies of the report forms to be completed by the inspector are included in this SWPPP.

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9. The job site superintendent will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.

10. Personnel selected for the inspection and maintenance responsibilities will receive training from the job site superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms. Documentation of this personnel training will be kept on site with the SWPPP.

11. Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.

12. Report to the NYSDEC within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event. The following events require 24 hour reporting: a) any unanticipated bypass which exceeds any effluent limitation in the permit, b) any upset which exceeds any effluent limitation in the permit, and c) a violation of a maximum daily discharge limitation for any of the pollutants listed by the NYSDEC in the permit to be reported within 24 hours. The written submission must contain a description of the non-compliance and its cause; the period of non-compliance, including exact dates and times, and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the non-compliance.

13. Releases of hazardous substances or oil in excess of reportable quantities (as established under 40 CFR 110, 40 CFR 117 or 40 CFR 302) must be reported.

Upon completion of construction, the property owner is responsible for ensuring that the stormwater facilities are regularly inspected and maintained. Maintenance and inspection procedures are as follows.

1. On a quarterly basis and following significant rainfall events or snow-melts, perform the following:
   - Inspect catch basins, storm manholes, treatment structures, storm piping and stormwater ponds for debris and accumulation of sediment.
   - Remove and properly dispose of any collected debris and sediment in accordance with applicable state, federal and local regulations.
   - Flush piping with water if necessary to remove accumulated sediment.
   - Clean treatment structures per manufacturer's recommendations
   - Check all stone outfall structures for erosion and re-stone if necessary to prevent further erosion.
   - Inspect grassed/landscaped areas for un-vegetated areas or areas with less than 80% healthy stand of grass and reseed and mulch as necessary. Water daily if reseeded in July and August.
   - A record of all inspections should be kept.
2. Maintain all lawn areas by regular mowing, including the grassed slopes of the stormwater ponds and any grass swales. Any eroded areas shall be regarded, seeded and mulched immediately.

816 INSPECTION AND MAINTENANCE REPORT FORMS

Once installation of any required or optional erosion control device or measure has been implemented, inspections shall be performed by a Qualified Professional at least once every seven (7) calendar days. For construction sites where soil disturbance activities are on-going and the owner or operator has received authorization in accordance with Part II.C.3 of the General Permit to disturb greater than five (5) acres of soil at any one time, the qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. The owner and contractor shall obtain from the MS4 an approval for disturbing more than five-acres at any given time. For construction sites where active construction has been suspended, inspection frequency under the general permit can be reduced to once every 30 days, provided temporary stabilization measures have been applied to all disturbed areas. The forms found in this SWPPP shall be used by the inspectors to inventory and report the

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condition of each measure to assist in maintaining the erosion and sediment control measures in good working order.

These report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the Operator's Engineer, and the Operator for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these persons, upon request, via mail or facsimile transmission. Inspection and maintenance report forms are to be maintained by the permittee for five years following the final stabilization of the site.

THE TOWN OF AMHERST IS TO BE PROVIDED WITH A COPY OF ALL SWPPP INSPECTIONS WITHIN ONE WORKING DAY OF PERFORMING THE INSPECTION.

817 OTHER RECORD-KEEPING REQUIREMENTS

The Contractor shall keep the following records related to construction activities at the site:

- Dates when major grading activities occur and the areas which were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when an areas is stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

818 SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN

818.1 MATERIALS COVERED

The following materials or substances are expected to be present onsite during construction:

Concrete/Additives/Wastes	Cleaning solvents
Detergents	Petroleum based products
Paints/Solvents	Pesticides
Acids	Fertilizers
Solid and construction wastes	Sanitary wastes
Soil stabilization additives	

818.2 MATERIAL MANAGEMENT PRACTICES

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff. The job site superintendent will be responsible for ensuring that these procedures are followed.

A. Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project.

1. An effort will be made to store only enough products required to do the job.
2. All materials stored onsite will be stored in a neat, orderly manner and, if possible, under a roof or in a containment area. At a minimum, all containers will be stored with their lids on when not in use. Drip pans shall be provided under all dispensers.
3. Products will be kept in their original containers with the original manufacturer's label in legible condition.
4. Substances will not be mixed with one another unless recommended by the manufacturer.
5. Whenever possible, all of a product will be used up before disposing of the container.

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6. Manufacturer's recommendations for proper use and disposal will be followed.
7. The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

B. Hazardous Products

These practices will be used to reduce the risks associated with hazardous materials. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.

1. Products will be kept in original containers with the original labels in legible condition.
2. Original labels and material safety data sheets (MSDS's) will be procured and used for each material.
3. If surplus product must be disposed of, manufacturer's or local/state/federal recommended methods for proper disposal will be followed.
4. A spill control and containment kit (containing for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
5. All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

C. Hazardous Waste

All hazardous waste materials will be disposed of by the Contractor in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job site superintendent, who will also be responsible for seeing that these practices are followed.

D. Product Specific Practices

The following product specific practices will be followed on the job site.

1. Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. **Any petroleum storage tanks stored onsite will be located within a containment area that is designed with an impervious surface between the tank and the ground. The secondary containment must be designed to provide a containment volume that is equal to 110% of the volume of the largest tank.** Drip pans shall be provided for all dispensers. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations. The location of any fuel tanks and/or equipment storage areas must be identified on a plan by the contractor once the locations have been determined.

2. Fertilizers

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Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked in the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

3. Paints, Paint Solvents, and Cleaning Solvents

All containers will be tightly sealed and stored when not in use. Excess paint and solvents will not be discharged to the storm sewer system but will be properly disposed of according to manufacturer's instructions or state and federal regulations.

4. Concrete Wastes

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or wash out and storm water which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

The hardened residue from the concrete wash out diked areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the Contractor. The job site superintendent will be responsible for seeing that these procedures are followed.

All concrete wash out areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges. The location of concrete wash out area(s) must be identified on a plan by the contractor once the locations have been determined. In addition, a standard detail on the construction of the concrete wash out shall be included on this plan.

E. Solid and Construction Wastes

All waste materials will be collected and stored in an appropriately covered container and/or securely lidded metal dumpster rented from a local waste management company which must be a solid waste management company licensed to do business in New York and the Town of Amherst. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of twice per week or more often if necessary, and the trash will be hauled to a landfill approved by the NYSDEC. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedures for waste disposal.

All waste dumpsters and roll-off containers will be located in an area where the likelihood of the containers contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of waste dumpsters and roll-off containers must be identified on a plan by the contractor once the locations have been determined.

F. Sanitary Wastes

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Portable toilet units or field offices with toilet facilities connected to the municipal sanitary sewer will be used for sanitary purposes. All portable toilet units will be emptied a minimum of once per week by a licensed portable facility provided in compliance with local and state regulations.

All sanitary waste units will be located in an area where the likelihood of the unit contributing to storm water discharges is negligible. If required, additional BMPs must be implemented, such as sandbags around the base, to prevent wastes from contributing to storm water discharges. The location of sanitary waste units must be identified on a plan by the contractor once the locations have been determined.

G. Contaminated Soils

Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Materials Management Plan and in accordance with applicable state and federal regulations.

818.3 SPILL PREVENTION AND RESPONSE PROCEDURES

The Contractor will train all personnel in the proper handling and cleanup of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with storm water discharges. If such contact occurs, the storm water discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated storm water. It shall be the responsibility of the job site superintendent to properly train all personnel in spill prevention and clean up procedures.

A. In order to minimize the potential for a spill of hazardous materials to come into contact with storm water, the following steps will be implemented:

1. All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, with their lids on, preferably under cover, when not in use.

2. The minimum practical quantity of all such materials will be kept on the job site.

3. A spill control and containment kit (containing, for example, absorbent materials, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

4. Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.

B. In the event of a spill, the following procedures should be followed

1. All spills will be cleaned up immediately after discovery.

2. The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substances.

3. The project manager and the Engineer of Record will be notified immediately.

Spills of toxic or hazardous materials will be reported to the appropriate federal, state, and/or local government agency, regardless of the size of the spill. Spills of amounts that exceed

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Reportable Quantities of certain substances specifically mentioned in federal regulations (40 CFR 110, 40 CFR 117, and 40 CFR 302) must be immediately reported to the EPA National Response Center, telephone 1-800-424-8802. From SWPPP-9 "Reportable Quantity Release Form" must be filled out.

4. If the spill exceeds a Reportable Quantity, the SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The plans must identify measures to prevent the recurrence of such releases and to respond to such releases.

C. The job site superintendent will be the spill prevention and response coordinator. He will designate the individuals who will receive spill prevention and response training. These individuals will each become responsible for a particular phase of prevention and response. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

819 CONTROL OF NON-STORM WATER DISCHARGES

Certain types of discharges are allowable under the **NYSDEC SPDES** General Permit for Construction Activity for the State of **New York**, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures which have been outlined previously in this SWPPP will be strictly followed to ensure that no contamination of these non-storm water discharges takes place. The following allowable non-storm water discharges which may occur at the job site include:

A. Discharges from fire fighting activities.
B. Fire hydrant flushings (see note below)
C. Waters used to wash vehicles or control dust in order to minimize offsite sediment tracking.
D. Routine external building washdown which does not use detergents.
E. Pavement washwaters where spills or leaks of hazardous materials have not occurred or detergents have not been used.
F. Air conditioning condensate.
G. Springs or other uncontaminated groundwater, including dewatering ground water infiltration.
H. Foundation or footing drains where no contamination with process materials such as solvents is present.

Note: The Contractor shall discharge any super-chlorinated water from water distribution pipe disinfection activities into sanitary sewer system

820 STORM WATER CONTROL FACILITY MAINTENANCE

The proposed stormwater drainage system area shall be inspected 2 times per year (spring and fall) for removal of silt and debris. See Appendix H: Stormwater Management Pond and Bioretention Construction and Maintenance Checklist.

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Appendix A

Site Location Maps:

ERIE COUNTY GIS

GOOGLE AERIAL

SHPO

FEMA

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Erie County On-Line Mapping Application





Legend

- Parcels
- Streets and Highways
  - Interstate
  - Primary State Road
  - Secondary State Road
  - County Road
  - Local Road

0 0.02 0.0 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
THIS MAP IS NOT TO BE USED FOR NAVIGATION

ERIE COUNTY
DEPARTMENT OF ENVIRONMENT & PLANNING
OFFICE OF GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

1: 1,128

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Erie County On-Line Mapping Application





Legend

- Parcels
- Streets and Highways
  - Interstate
  - Primary State Road
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0 0.02 0.0 Miles

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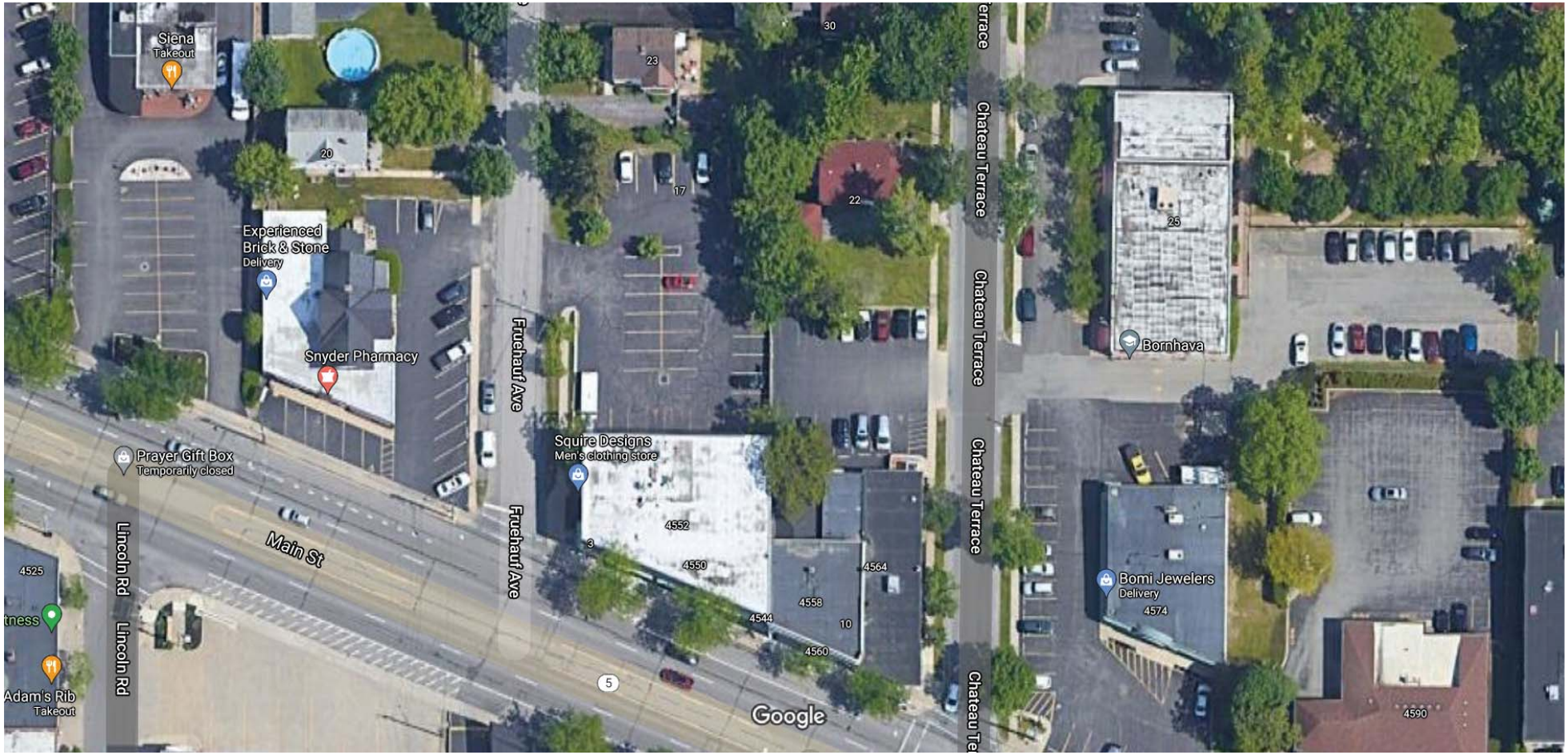
1: 1,128

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Google Maps

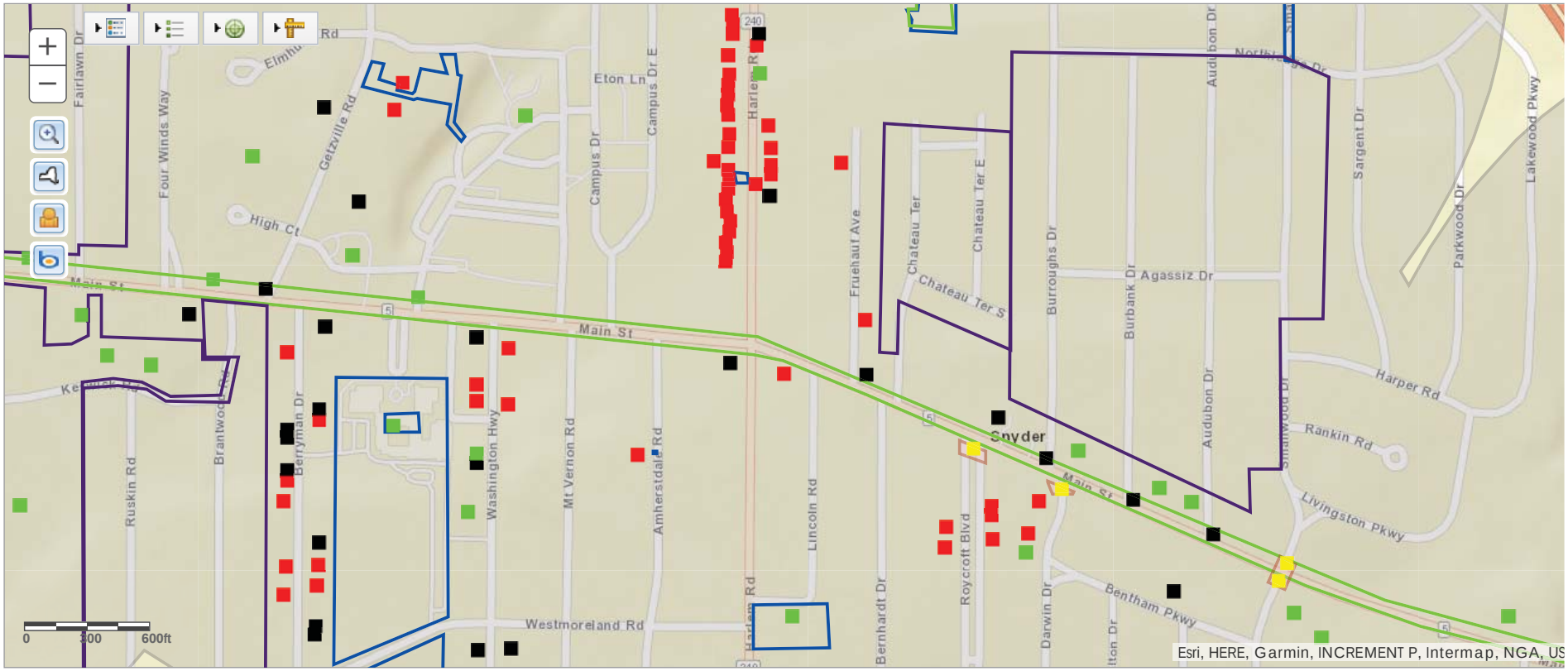


Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CRIS NYS Cultural Resource Information System

HOME SUBMIT SEARCH COMMUNICATE

Welcome Guest User | Contact U



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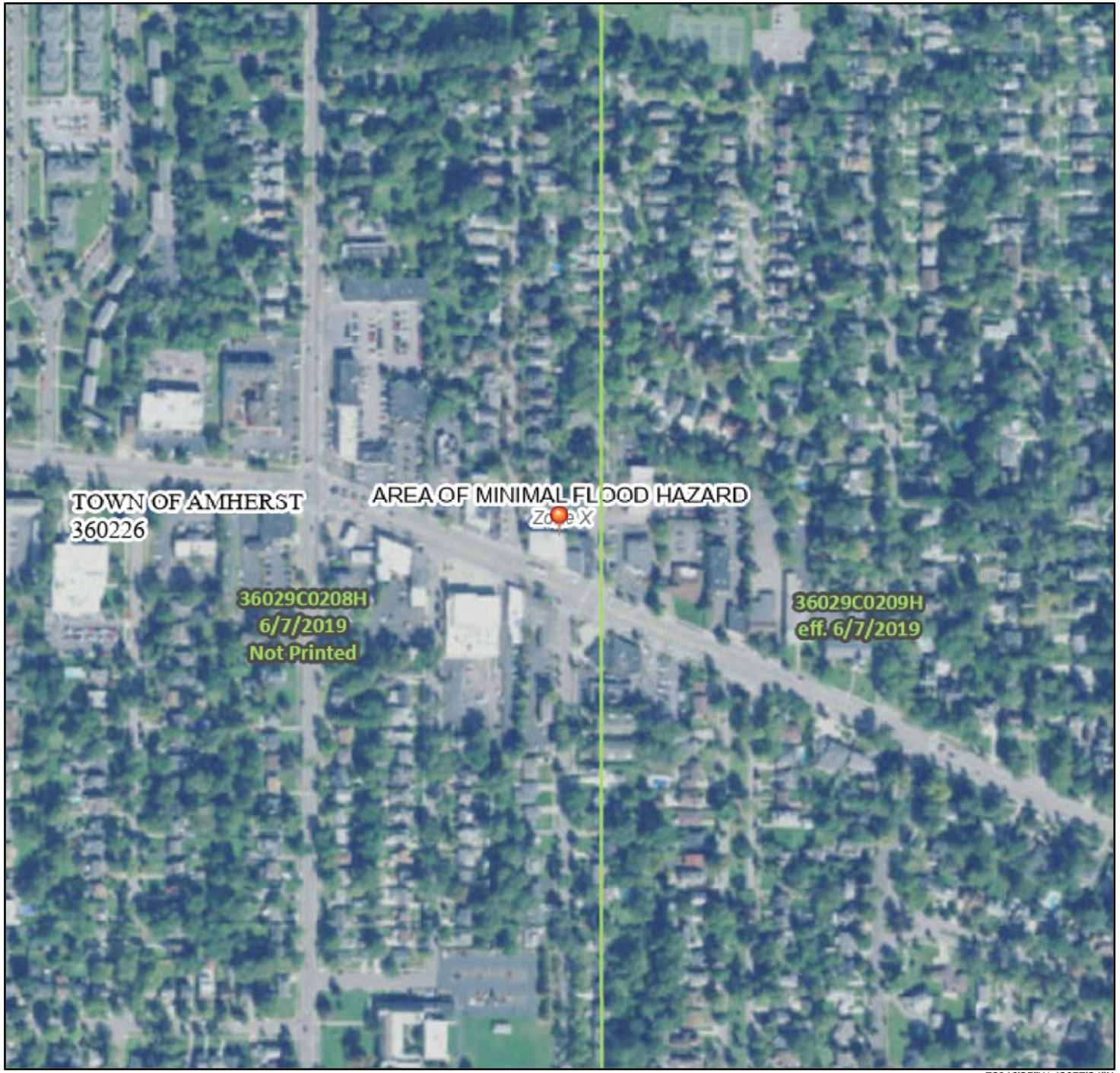
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

National Flood Hazard Layer FIRMette

FEMA

78°47'13"W 42°58'N



78°46'35"W 42°57'34"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BF Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, V
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazar of 1% annual chance flood with a depth less than one foot or with d areas of less than one square mil
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk du Levee. See Notes. Zone X
- Area with Flood Risk due to Levee

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zo
- Effective LOMRs
- Area of Undetermined Flood Haza

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Ch
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an appro point selected by the user and does not r an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This ma was exported on 8/11/2021 at 10:16 AM and does not reflect changes or amendments subsequent to this date an time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following n elements do not appear: basemap imagery, flood zone labe legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized area regulatory purposes.

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Appendix B

NYSDEC Notice of Intent (NOI)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____ (for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-
RETURN THIS FORM TO THE ADDRESS ABOVE
OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
Benderson Development Company

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Oates

Owner/Operator Contact Person First Name
Matt

Owner/Operator Mailing Address
570 Delaware Ave

City
Buffalo

State: NY
Zip: 14202-____

Phone (Owner/Operator): 716-878-9397
Fax (Owner/Operator): ___-___-____

Email (Owner/Operator)
MattOates@benderson.com

FED TAX ID
__-_____ (not required for individuals)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Project Site Information

Project/Site Name

Proposed Site Redevelopment

Street Address (NOT P.O. BOX)

4548-4564 Main Street

Side of Street

● **North** ○ **South** ○ **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)

Town of Amherst

State: NY

Zip: 14226 -

County: Erie

DEC Region: 9

Name of Nearest Cross Street

Chateau Terrace

Distance to Nearest Cross Street (Feet)

0

Project In Relation to Cross Street

○ **North** ○ **South** ○ **East** ● **West**

Tax Map Numbers
Section-Block-Parcel

68.17-6-20

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site. To do this, go to the NYSDEC Stormwater Interactive Map on the DEC website at:

https://gisservices.dec.ny.gov/gis/stormwater/

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located the centroid of your project site, go to the bottom right hand corner of the map for the X, Y coordinates. Enter the coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)

-7 8782

Ex. -73.749

Y Coordinates (Northing)

42963

Ex. 42.652

2. What is the nature of this construction project?

○ **New Construction**

● **Redevelopment with increase in impervious area**

○ **Redevelopment with no increase in impervious area**

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3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use

- ○ FOREST
- ○ PASTURE/OPEN LAND
- ○ CULTIVATED LAND
- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ● COMMERCIAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY
- ○ PARKING LOT
- ○ OTHER

Post-Development Future Land Use

- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION — Number of Lots
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ● COMMERCIAL
- ○ MUNICIPAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY (water, sewer, gas, etc.)
- ○ PARKING LOT
- ○ CLEARING/GRADING ONLY
- ○ DEMOLITION, NO REDEVELOPMENT
- ○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
- ○ OTHER

***Note**: for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
1.0	1.0	0.8	0.9

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ● **No**

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
0 %	0 %	0 %	100 %

7. Is this a phased project? ○ **Yes** ● **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date	End Date
01/01/2022	01/01/2023

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9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

Ellicott Creek

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ● Stream / Creek Off Site
- ○ River On Site
- ○ River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ○ Regulatory Map
- ○ Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001? ● Yes ○ No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? ○ Yes ● No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ Yes ● No
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ Yes ● No
If Yes, what is the acreage to be disturbed?

.

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ Yes ● No

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15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ◉ Yes ○ No ○ Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

Town of Amherst closed storm water drainage system

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ Yes ◉ No ○ Unknown

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ○ Yes ◉ No

19. Is this property owned by a state authority, state agency, federal government or local government? ○ Yes ◉ No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ Yes ◉ No

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ◉ Yes ○ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ◉ Yes ○ No
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ◉ Yes ○ No

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24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer
Carmina Wood Morris, DPC

Contact Name (Last, Space, First)
Wood, Christopher

Mailing Address
487 Main Street Suite 600

City
Buffalo

State Zip
NY 14203-

Phone
716-842-3165

Fax
716-842-0263

Email
cwood@carminawooddesign.com

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name
Christopher

MI

Last Name
Wood

Signature



Date
05 / 20 / 2022

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

25. Has a construction sequence schedule for the planned management practices been prepared? ● Yes ○ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ● Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ○ Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ● Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ● Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ○ Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ○ Retaining Wall
- ○ Riprap Slope Protection
- ● Rock Outlet Protection
- ○ Streambank Protection

Other

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ○ **Preservation of Undisturbed Areas**
- ○ **Preservation of Buffers**
- ○ **Reduction of Clearing and Grading**
- ● **Locating Development in Less Sensitive Areas**
- ○ **Roadway Reduction**
- ○ **Sidewalk Reduction**
- ○ **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ○ **Building Footprint Reduction**
- ○ **Parking Reduction**

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ● All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

		0	.	0	2	3	**acre-feet**

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

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Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area(acres)	
RR Techniques (Area Reduction)				
○ Conservation of Natural Areas (RR-1)		and/or		
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or		
○ Tree Planting/Tree Pit (RR-3)		and/or		
○ Disconnection of Rooftop Runoff (RR-4)		and/or		
RR Techniques (Volume Reduction)				
○ Vegetated Swale (RR-5)				
○ Rain Garden (RR-6)				
○ Stormwater Planter (RR-7)				
○ Rain Barrel/Cistern (RR-8)				
○ Porous Pavement (RR-9)				
○ Green Roof (RR-10)				
Standard SMPs with RRv Capacity				
○ Infiltration Trench (I-1)				
○ Infiltration Basin (I-2)				
○ Dry Well (I-3)				
○ Underground Infiltration System (I-4)				
○ Bioretention (F-5)			0.288	
○ Dry Swale (O-1)				
Standard SMPs				
○ Micropool Extended Detention (P-1)				
○ Wet Pond (P-2)				
○ Wet Extended Detention (P-3)				
○ Multiple Pond System (P-4)				
○ Pocket Pond (P-5)				
○ Surface Sand Filter (F-1)				
○ Underground Sand Filter (F-2)				
○ Perimeter Sand Filter (F-3)				
○ Organic Filter (F-4)				
○ Shallow Wetland (W-1)				
○ Extended Detention Wetland (W-2)				
○ Pond/Wetland System (W-3)				
○ Pocket Wetland (W-4)				
○ Wet Swale (O-2)				

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Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area(acres)
○ Hydrodynamic	
○ Wet Vault	
○ Media Filter	
○ Other [ ]	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

0.012 **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

○ **Yes** ● **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

0.004 **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

● **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

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33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

0.018 **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

0.030

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ● **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

0.019 **acre-feet**

CPv Provided

0.019 **acre-feet**

36a. The need to provide channel protection has been waived because:

○ Site discharges directly to tidal waters or a fifth order or larger stream.

○ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

4.29 **CFS**

Post-development

3.62 **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

7.37 **CFS**

Post-development

5.59 **CFS**

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37a. The need to meet the Qp and Qf criteria has been waived because:

- ○ Site discharges directly to tidal waters or a fifth order or larger stream.
- ○ Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● Yes ○ No

If Yes, Identify the entity responsible for the long term Operation and Maintenance

Benderson Development Company

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

RRv criteria is not required for redevelopment activities & onsite soils with slow infiltration rates

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40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ○ Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP [N][Y][R][ ][ ][ ][ ][ ][ ]
- ○ Other [ ]
- ● None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ **Yes** ● **No**
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][ ][ ].[ ]

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ● **Yes** ○ **No**
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ● **Yes** ○ **No**

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

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Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

Matt

MI

Print Last Name

Oates

Owner/Operator Signature

Date

/ /

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Appendix C

MS4 SWPPP Acceptance Form

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information	
1. Owner/Operator Name:	Benderson Development Company
2. Contact Person:	Matt Oates
3. Street Address:	570 Delaware Ave
4. City/State/Zip:	Buffalo, NY 14202
II. Project Site Information	
5. Project/Site Name:	Proposed Site Redevelopment
6. Street Address:	4548-4564 Main Street
7. City/State/Zip:	Amherst, NY 14226
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information	
8. SWPPP Reviewed by:	
9. Title/Position:	
10. Date Final SWPPP Reviewed and Accepted:	
IV. Regulated MS4 Information	
11. Name of MS4:	Town of Amherst
12. MS4 SPDES Permit Identification Number: NYR20A	
13. Contact Person:	
14. Street Address:	
15. City/State/Zip:	
16. Telephone Number:	

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MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

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Appendix D

Engineer's Report

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Carmina · Wood · Morris DPC

487 Main Street Suite 600 Buffalo, New York 14203 P: 716.842.3165 F: 716.842.0263 W: cwm-ae.com

Architecture Engineering Interior Design

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ENGINEER'S REPORT
for

Proposed Site Redevelopment
4548-4564 Main Street
Town of Amherst, Erie County, New York

Prepared for

Benderson Development Company, LLC

570 Delaware Ave
Buffalo, NY 14202

Prepared by

Carmina Wood Morris, D.P.C.

487 Main Street, Suite 500
Buffalo, NY 14203

Telephone: (716) 842-3165
Fax: (716) 842-0263

August 2021



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Proposed Site Redevelopment
4548-4564 Main Street
Amherst, NY 14226

8/18/2021

Section 1 – Location & Description

This redevelopment project will consist of the construction of a 3-story mixed-use building that will include apartments, restaurant space and multi-level parking. The site is located on the north side of Main Street (NY-5), between Fruehauf Ave and Chateau Terrace in the Town of Amherst. The existing site is currently occupied by a 3-story vacant building located along the Main Street frontage. Existing surface parking is located north behind the existing building. Both the existing building and parking areas will be removed as part of this project. The overall site area is approximately 0.93+/- acres, however, construction activities will result in approximately 1.02+/- acres of disturbance area.

Section 2 – Stormwater Drainage System

The existing side streets, Fruehauf Ave and Chateau Terrace, slope from south to north. Existing closed stormwater drainage systems are located along Main Street (NYSDOT) and Chateau Terrace (Town of Amherst). The existing northeast parking lot area sheet drains to the north and northeast to Chateau Terrace. The existing northwest parking lot is generally flat and drains to an existing closed stormwater drainage system with unknown outlet. Existing stormwater runoff collected and conveyed from the site is ultimately tributary to Ellicott Creek and the Niagara River.

For purposes of the runoff analysis and the stormwater drainage system design, portions of the project site were classified as “Redevelopment” per NYSDEC Stormwater Management Design Manual Chapter 9 requirements. The nature of this construction project will be a “Redevelopment” with an increase in impervious area. The proposed hydrology of the site development will remain similar to existing hydrologic conditions. The proposed parking and patio areas will consist of a combination of overland sheet flow and pipe channel flow connected by a series of trench drains located throughout the runoff areas. Stormwater runoff from these areas will be conveyed to a proposed onsite stormwater management area located on the north side of the site consisting of a dry detention basin with a bioretention planting area located in the bottom of the basin. Runoff routed through the proposed basin will be discharged via a 6” HDPE outlet control pipe to the existing closed stormwater drainage system along Chateau Terrace. Proposed rooftop runoff will be discharged directly to the existing closed stormwater drainage system along Chateau Terrace.

The dry detention basin volume was designed with an outlet control pipe to attenuate proposed runoff to existing conditions prior to discharge. The bioretention area will provide Runoff Reduction and Water Quality volume requirements. The filter area planting soil depth varies throughout the bioretention

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area but maintains a minimum of at least 18 inches of soil. The 18 inches of soil is an acceptable deviation per the NYSDEC where existing grades prevent the full 2.5'-4' foot soil depth. 6" underdrain below the planting soil will be located throughout the bioretention area connected by an overflow catch basin to convey runoff to the outlet control pipe.

The NYSDEC Stormwater Management Design Manual requires a five-step process for Stormwater Management Planning as outlined in Chapter 3. The five steps include:

1. *Site planning to preserve natural features and reduce impervious cover.*
   - Minimal natural existing features are located onsite and the site is located in a less sensitive area.
2. *Calculation of Water Quality Volume (WQv) for site.*
   - See "Stormwater Drainage Analysis".
3. *Incorporation of Green Infrastructure techniques and standard SMPs with Runoff Reduction Volume (RRv) capacity.*
   - A bioretention area was incorporated into the site design to provide required RRv. See "Stormwater Drainage Analysis".
4. *Use of standard SMPs where applicable, to treat the portion of water quality volume not addressed by green infrastructure techniques and standard SMPs with RRv capacity.*
   - 100% of required Water Quality was addressed by the bioretention area. See "Stormwater Drainage Analysis".
5. *Design of volume and peak rate control practices where required.*
   - See "Stormwater Drainage Analysis".

The NYSDEC Stormwater Management Design Manual requires (5) five different criteria be considered when designing a stormwater management system. Those criteria are Water Quality, Runoff Reduction Volume, Channel Protection, Overbank Flooding and Extreme Storm Protection. Below is a summary of each item and how it is incorporated into this project.

Water Quality:
The NYSDEC requires water quality treatment prior to discharge. This will be achieved by the application of a bioretention area. The total WQv provided was 1,301 cf and greater than the required WQv of 1,002 cf.

Runoff Reduction Volume:
The NYSDEC requires reduction of the total water quality volume by green infrastructure techniques and SMPs to replicate pre-development hydrology. A bioretention area was incorporated into the site layout to provide the required RRv for contributing runoff areas in the WQv. The RRv provided was 520 cf and greater than the required RRv min. of 172 cf.

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100% of the required WQv was not reduced due to the followings site specific limitations: *RRv criteria is not required for redevelopment activities & onsite soils with slow infiltration rates.* In addition, below is a summary of how each green infrastructure technique was evaluated and determined to be feasible or infeasible:

1) Conservation of natural areas: the site development is located in a less sensitive area.
2) Sheetflow to riparian buffers or filter strips: no riparian buffers possible on the site; filter strips not feasible given the limited area for development.
3) Vegetated Open Swales: swales are not feasible given the limited area for development.
4) Tree Plantings: new trees to be planted throughout the site.
5) Disconnection of Roof Top Runoff: roof top runoff will be connected to closed stormwater drainage system.
6) Stream Daylighting: is not feasible given the limited area for development.
7) Rain Garden: this method is not recommended for these types of projects.
8) Green Roof: the proposed use of the building makes this an unfeasible practice.
9) Stormwater Planter: this method is not recommended for these types of projects.
10) Rain Barrels & Cisterns: collected water would not be used for irrigation.
11) Porous Pavement: porous pavement is not recommended for areas with impermeable soils (Type D) and areas with sediment laden runoff (salting in winter months).

Channel Protection:
The NYSDEC requires that 24-Hour extended detention be provided for the proposed 1-year storm event. A volume of 842 cf (0.019 ac-ft) will be accommodated in the detention basin onsite.

Overbank Flooding:
The NYSDEC requires that the 10-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. Storage of this storm will be provided within the detention basin onsite. At this storm event the stormwater drainage system will allow discharge of 3.62 cfs, which is below the existing peak 10-year runoff of 4.29 cfs.

Extreme Storm Protection:
The NYSDEC requires that the 100-year proposed storm event be attenuated with detention and that the outlet be restricted to the 100-year existing storm event. Storage of this storm will be provided within the detention basin onsite. At this

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storm event the stormwater drainage system will allow discharge of 5.59 cfs, which is below the existing peak 100-year runoff of 7.37 cfs.

Town of Amherst:
The Town of Amherst requires that the 25-year proposed storm event be attenuated with detention and that the outlet be restricted to the 10-year existing storm event. Storage will be provided within the detention basin onsite. At the 25-year storm event the stormwater drainage system will allow discharge of 4.28 cfs, which is below the existing peak 10-year runoff of 4.29 cfs.

Design Criteria:
Storm pipes: 10-year storm
Detention:

- Comparison of the existing 1-year vs. the proposed 1-year runoff
- Comparison of the existing 10-year vs. the proposed 10-year runoff
- Comparison of the existing 100-year vs. the proposed 100-year runoff
- Comparison of the existing 10-year vs. the proposed 25-year runoff

Bioretention: RRv = 100% of post-development water quality volumes

RUNOFF ANALYSIS OF PROPOSED DEVELOPMENT AREA:

STORM EVENT	EXISTING RUNOFF	PROPOSED RUNOFF
1 YEAR	2.28 CFS	1.61 CFS
10 YEAR	4.29 CFS	3.62 CFS
25 YEAR	5.33 CFS	4.28 CFS
100 YEAR	7.37 CFS	5.59 CFS

WATER QUALITY SUMMARY:
WQv REQUIRED = 1,002 CF (0.023 AC-FT)
RRv MIN. REQUIRED = 172 CF (0.004 AC-FT)
RRv PROVIDED WITHIN BIORETENTION AREA = 520 CF (0.012 AC-FT)
WQv PROVIDED WITHIN BIORETENTION AREA = 1,301 CF (0.030 AC-FT)

BIORETENTION FILTER AREA & ELEVATION SUMMARY:
FILTER AREA = 1,115 SF @ 672.50

See attached “Stormwater Drainage Analysis” for additional information.

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Appendix A

STORMWATER DRAINAGE ANALYSIS

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WATER QUALITY REQUIRED FOR PROPOSED DEVELOPMENT AREA Area, Acres = 1.02

(Note: Reference Chap. 9 NYSDEC Stormwater Design Manual)

"Redevelopment Activity", Acres = 0.835 "New development", Acres = 0.185
(existing, disturbed impervious area)

Total proposed impervious, Acres = 0.873 Adjusted impervious, Acres = 0.25
"New" impervious, Acres = 0.04 (25% redevelopment, 100% new development)

Water Quality Volume (WQv) WQv=P*R*A/12

Where:	P=90% Rainfall Event Number	P= 1
	Rv= 0.05+0.009*(I)	Rv= 0.27
	IC=Impervious Cover, Acres	IC= 0.25
	I=Impervious Cover (%)	I= 24
	A=Runoff Area, Acres	A= 1.02

WQv (ac-ft)= 0.023
WQv (cf)= 991

Note: Runoff Reduction Volume (RRv) sizing criteria not required for "Redevelopment Activity" portion of project.
See attached Green Infrastructure Worksheets for RRv sizing for "New Development" portion of project.

RRv PROVIDED FOR PROPOSED DEVELOPMENT AREA (See NYSDEC worksheets)

		WQv, cf	RRv, cf
Min. RRv Req'd, cf = 172	RRv, Green Infrastructure (Bioretention)	1,301	520
Min. RRv Req'd, ac-ft = 0.004			
	TOTAL, cf	1301	520
	TOTAL, ac-ft	0.030	0.012

WQ & RR SUMMARY (ac-ft):

TOTAL WATER QUALITY PROVIDED FOR PROPOSED DEVELOPMENT AREA 0.030

IS WATER QUALITY VOLUME REQUIREMENT MET? Yes
(WQv provided equal to or greater than WQv required)

IS RUNOFF REDUCTION VOLUME REQUIREMENT MET? Yes
(RRv provided equal to or greater than Min. RRv required)

Revised _/_/____

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Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?.....	No

Design Point:		
P=	1.00	*inch*

Manually enter P, Total Area and Impervious Cover.

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description
1	1.02	0.25	25%	0.27	1,002	
2						
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	1.02	0.25	25%	0.27	**1,002**	**Subtotal 1**
Total	1.02	0.25	25%	0.27	**1,002**	**Initial WQv**

Identify Runoff Reduction Techniques By Area

Technique	Total Contributing Area *(Acre)*	Contributing Impervious Area *(Acre)*	Notes
Conservation of Natural Areas	0.00	0.00	*minimum 10,000 sf*
Riparian Buffers	0.00	0.00	*maximum contributing length 75 feet to 150 feet*
Filter Strips	0.00	0.00	
Tree Planting	1.02	0.25	*Up to 100 sf directly connected impervious area may be subtracted per tree*
Total	**1.02**	**0.25**	

Recalculate WQv after application of Area Reduction Techniques

	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Runoff Coefficient Rv	WQv *(ft^3)*
"<<Initial WQv"	1.02	0.25	25%	0.27	1,002
Subtract Area	-1.02	-0.25			
WQv adjusted after Area Reductions	**0.00**	**0.00**	0%	0.05	0
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.00	0.00	0%	0.05	**0**

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Minimum RRv

Enter the Soils Data for the site		
Soil Group	Acres	S
A		55%
B		40%
C		30%
D	**1.02**	20%
Total Area	1.02	
Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	0.25	*acre*
Precipitation	1	*in*
Rv	0.95	
Minimum RRv	**172**	***ft3***
	0.00	af

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Bioretention Worksheet

(For use on HSG C or D Soils with underdrains)

Af=WQv*(df)/[k*(hf+df)(tf)]

Af	Required Surface Area (ft2)
WQv	Water Quality Volume (ft3)
df	Depth of the Soil Medium (feet)
hf	Average height of water above the planter bed
tf	Volume Through the Filter Media (days)

k — The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor &

Design Point:	

Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	**Total Area** *(Acres)*	**Impervious Area** *(Acres)*	**Percent Impervious** *%*	**Rv**	**WQv** *(ft^3)*	**Precipitation** *(in)*	**Description**
1	1.02	0.25	0.25	0.27	1001.88	1.00	
Enter Impervious Area Reduced by Disconnection of Rooftops			25%	0.27	1,002	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.						*ft^3*	

Soil Information			
Soil Group	D		
Soil Infiltration Rate		*in/hour*	
Using Underdrains?	Yes	*Okay*	

Calculate the Minimum Filter Area				
		Value	Units	Notes
WQv		1,002	*ft^3*	
Enter Depth of Soil Media	*df*	1.5	*ft*	*2.5-4 ft*
Enter Hydraulic Conductivity	*k*	0.5	*ft/day*	
Enter Average Height of Ponding	*hf*	0.25	*ft*	*6 inches max.*
Enter Filter Time	*tf*	2	*days*	
Required Filter Area	***Af***	**859**	***ft^2***	

Determine Actual Bio-Retention Area			
Filter Width	33.39	*ft*	
Filter Length	33.39	*ft*	
Filter Area	1114.8921	*ft^2*	
Actual Volume Provided	1301	*ft^3*	

Determine Runoff Reduction				
Is the Bioretention contributing flow to another practice?			Select Practice	N/A
RRv	520			
RRv applied	**520**	***ft^3***	***This is 40% of the storage provided or WQv whichever is less.***	
Volume Treated	482	*ft^3*	*This is the portion of the WQv that is not reduced in the practice.*	
Volume Directed	0	*ft^3*	This volume is directed another practice	

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	78.782 degrees West
Latitude	42.963 degrees North
Elevation	0 feet
Date/Time	Wed, 11 Aug 2021 14:14:36 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.27	0.41	0.50	0.66	0.83	1.01	**1yr**	0.71	0.94	1.14	1.34	1.57	1.81	2.12	**1yr**	1.61	2.03	2.45	2.94	3.43	**1yr**
2yr	0.31	0.47	0.59	0.78	0.98	1.20	**2yr**	0.84	1.10	1.35	1.61	1.89	2.19	2.48	**2yr**	1.94	2.38	2.81	3.34	3.84	**2yr**
5yr	0.36	0.56	0.71	0.95	1.21	1.50	**5yr**	1.05	1.37	1.69	2.00	2.33	2.67	3.03	**5yr**	2.37	2.91	3.41	4.01	4.59	**5yr**
10yr	0.41	0.64	0.81	1.10	1.43	1.78	**10yr**	1.24	1.63	2.01	2.37	2.73	3.11	3.53	**10yr**	2.75	3.39	3.95	4.61	5.26	**10yr**
25yr	0.48	0.77	0.98	1.35	1.79	2.23	**25yr**	1.55	2.05	2.51	2.94	3.37	3.79	4.32	**25yr**	3.36	4.15	4.80	5.55	6.30	**25yr**
50yr	0.55	0.88	1.13	1.58	2.12	2.64	**50yr**	1.83	2.43	2.98	3.48	3.95	4.41	5.03	**50yr**	3.91	4.84	5.56	6.38	7.22	**50yr**
100yr	0.62	1.01	1.30	1.84	2.52	3.15	**100yr**	2.17	2.89	3.55	4.12	4.65	5.14	5.87	**100yr**	4.55	5.64	6.45	7.34	8.29	**100yr**
200yr	0.72	1.17	1.51	2.17	2.99	3.74	**200yr**	2.58	3.44	4.21	4.86	5.45	5.99	6.84	**200yr**	5.30	6.58	7.48	8.45	9.51	**200yr**
500yr	0.86	1.41	1.84	2.68	3.75	4.70	**500yr**	3.24	4.34	5.28	6.06	6.74	7.34	8.39	**500yr**	6.49	8.07	9.11	10.18	11.41	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.35	0.43	0.58	0.71	0.89	**1yr**	0.61	0.87	0.85	1.16	1.46	1.65	1.95	**1yr**	1.46	1.87	2.12	2.54	3.11	**1yr**
2yr	0.30	0.46	0.56	0.76	0.94	1.08	**2yr**	0.81	1.05	1.18	1.44	1.73	2.12	2.40	**2yr**	1.87	2.31	2.72	3.24	3.72	**2yr**
5yr	0.33	0.51	0.64	0.88	1.11	1.28	**5yr**	0.96	1.25	1.41	1.69	2.03	2.46	2.80	**5yr**	2.18	2.70	3.15	3.73	4.22	**5yr**
10yr	0.36	0.56	0.70	0.97	1.26	1.45	**10yr**	1.08	1.42	1.58	1.90	2.30	2.75	3.15	**10yr**	2.43	3.03	3.52	4.14	4.59	**10yr**
25yr	0.42	0.64	0.79	1.13	1.49	1.71	**25yr**	1.28	1.68	1.84	2.22	2.69	3.18	3.67	**25yr**	2.81	3.53	4.05	4.75	5.05	**25yr**
50yr	0.46	0.70	0.87	1.25	1.68	1.94	**50yr**	1.45	1.90	2.06	2.48	3.02	3.55	4.14	**50yr**	3.14	3.98	4.50	5.28	5.43	**50yr**
100yr	0.50	0.76	0.95	1.37	1.88	2.19	**100yr**	1.63	2.14	2.30	2.76	3.40	3.97	4.65	**100yr**	3.51	4.47	5.00	5.87	5.78	**100yr**
200yr	0.55	0.83	1.06	1.53	2.13	2.49	**200yr**	1.84	2.43	2.55	3.07	3.80	4.44	5.23	**200yr**	3.93	5.03	5.55	6.51	6.13	**200yr**
500yr	0.63	0.94	1.21	1.75	2.49	2.93	**500yr**	2.15	2.86	2.92	3.51	4.39	5.15	6.13	**500yr**	4.56	5.89	6.34	7.46	6.56	**500yr**

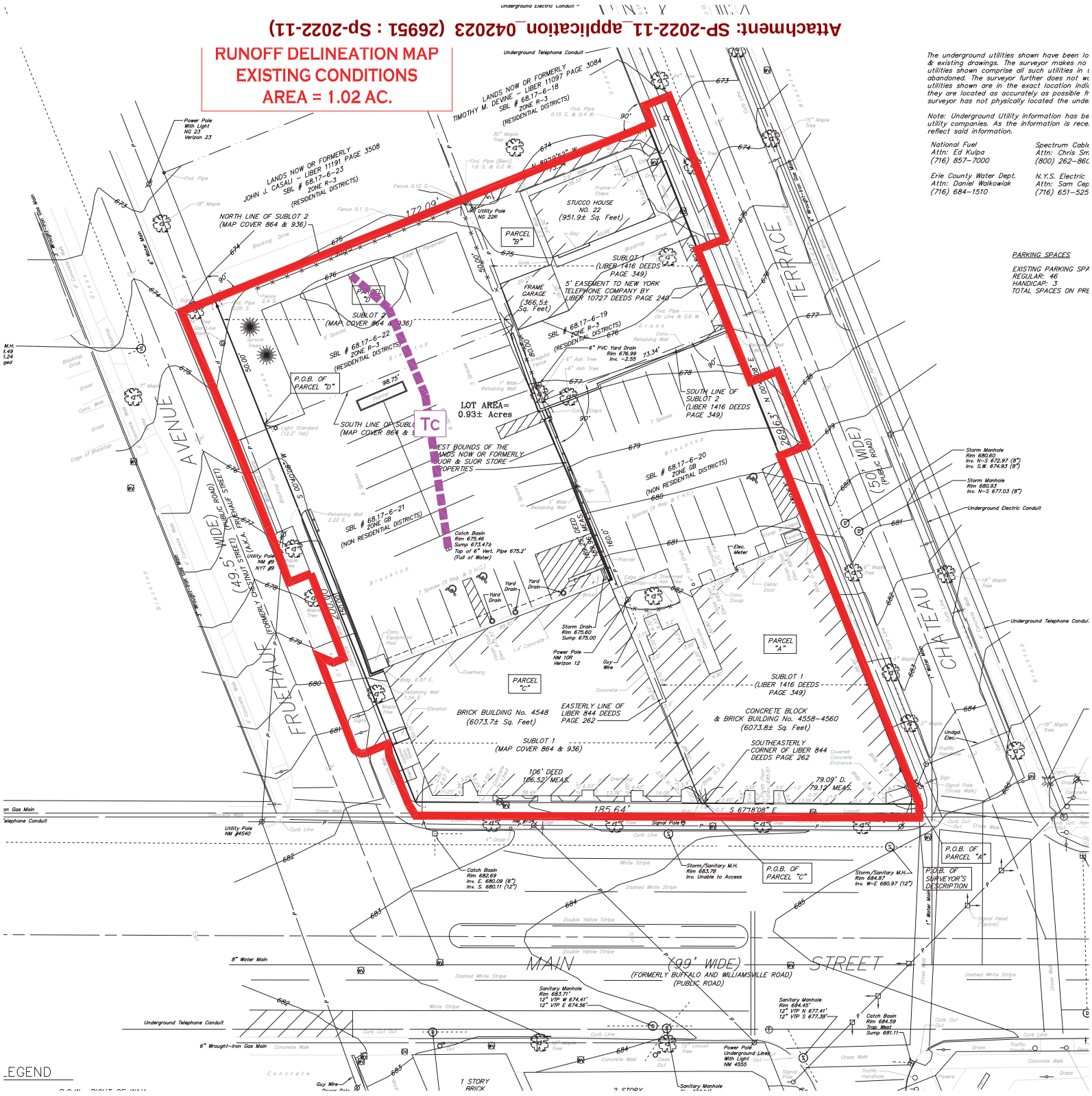
Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.30	0.46	0.56	0.75	0.92	1.07	**1yr**	0.80	1.05	1.21	1.41	1.69	1.93	2.30	**1yr**	1.71	2.21	2.62	3.12	3.66	**1yr**
2yr	0.32	0.49	0.61	0.82	1.01	1.17	**2yr**	0.87	1.15	1.30	1.58	1.87	2.28	2.58	**2yr**	2.02	2.48	2.95	3.46	4.06	**2yr**
5yr	0.39	0.60	0.75	1.03	1.31	1.55	**5yr**	1.13	1.52	1.71	2.09	2.46	2.91	3.28	**5yr**	2.57	3.15	3.69	4.32	4.94	**5yr**
10yr	0.46	0.71	0.88	1.23	1.59	1.91	**10yr**	1.38	1.87	2.12	2.59	3.05	3.50	3.94	**10yr**	3.10	3.79	4.41	5.12	5.84	**10yr**
25yr	0.59	0.89	1.11	1.58	2.09	2.54	**25yr**	1.80	2.48	2.83	3.44	4.03	4.49	5.01	**25yr**	3.97	4.82	5.60	6.42	7.30	**25yr**
50yr	0.69	1.05	1.31	1.89	2.54	3.16	**50yr**	2.19	3.09	3.52	4.29	4.97	5.42	6.03	**50yr**	4.80	5.80	6.73	7.63	8.68	**50yr**
100yr	0.83	1.25	1.57	2.26	3.11	3.91	**100yr**	2.68	3.82	4.41	5.34	6.15	6.54	7.24	**100yr**	5.79	6.97	8.07	9.07	10.29	**100yr**
200yr	0.99	1.48	1.88	2.72	3.80	4.86	**200yr**	3.28	4.75	5.53	6.68	7.61	7.90	8.69	**200yr**	6.99	8.36	9.69	10.80	12.24	**200yr**
500yr	1.25	1.86	2.40	3.48	4.96	6.47	**500yr**	4.28	6.33	7.46	8.97	10.12	10.16	11.08	**500yr**	8.99	10.66	12.35	13.59	15.38	**500yr**

Powered by ACIS Northeast Regional Climate Center

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Attachment: SP-2022-11_application_042023 (26951 : SP-2022-11)

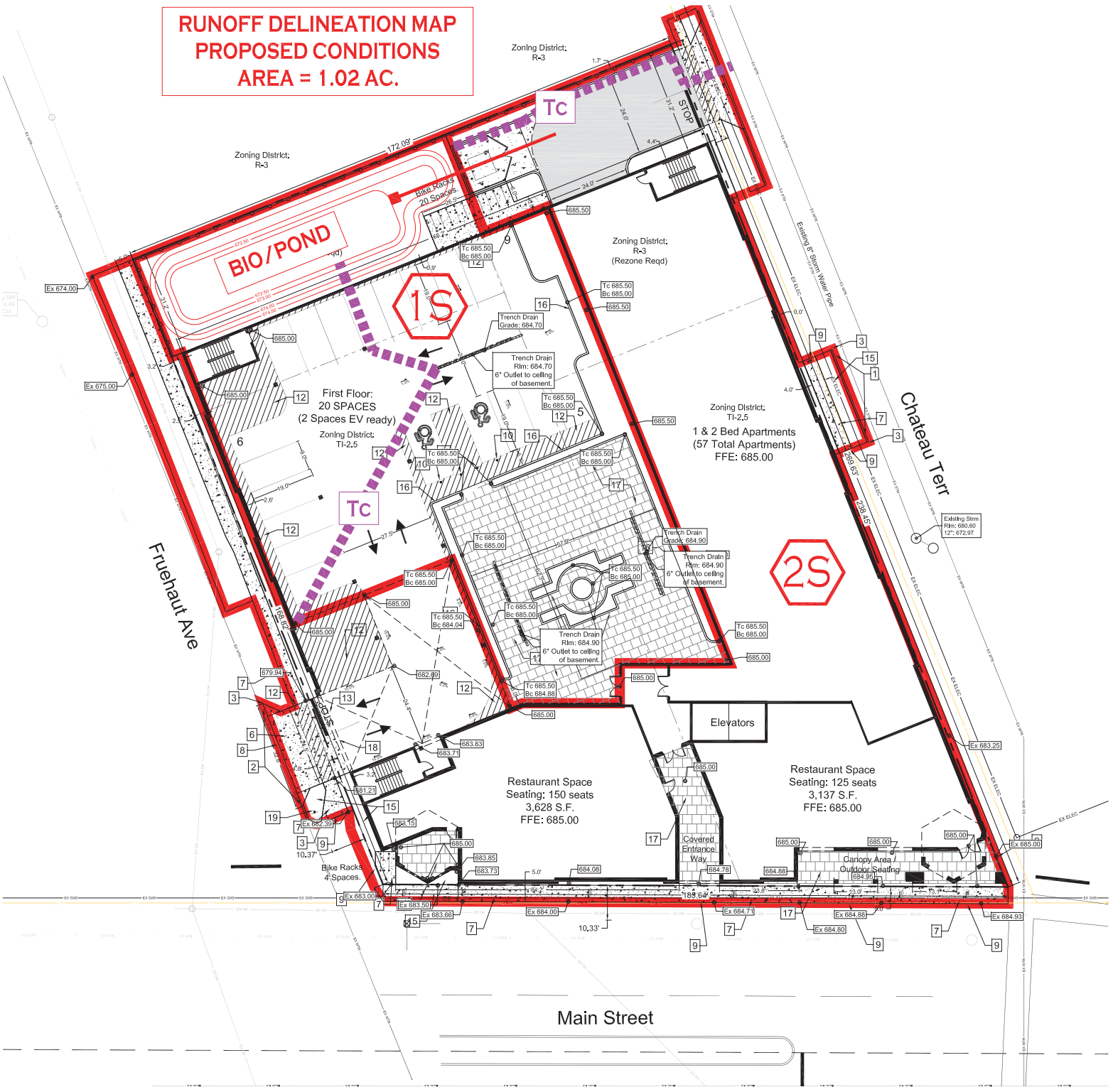


Events for Subcatchment 1S: Existing Site

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	2.28	0.111	1.30
2-Year	2.87	0.141	1.66
5-Year	3.61	0.181	2.13
10-Year	4.29	0.217	2.56
25-Year	5.33	0.274	3.22
50-Year	6.27	0.326	3.84
100-Year	**7.37**	**0.387**	**4.56**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



Events for Pond 1P: Proposed Stormwater Storage & Outlet

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-Year	0.84	0.28	673.12	842
2-Year	1.06	0.61	673.21	976
5-Year	1.35	0.78	673.30	1,134
10-Year	1.61	0.79	673.41	1,313
25-Year	2.01	0.82	673.57	1,597
50-Year	2.38	0.84	673.70	1,859
100-Year	**2.80**	**0.86**	**673.87**	**2,185**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 4.45" for 100-Year event
Inflow = 2.80 cfs @ 11.96 hrs, Volume= 0.142 af
Outflow = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af, Atten= 69%, Lag= 6.8 min
Primary = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.87' @ 12.07 hrs Surf.Area= 2,037 sf Storage= 2,185 cf

Plug-Flow detention time= 107.0 min calculated for 0.127 af (89% of inflow)
Center-of-Mass det. time= 53.3 min (821.6 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.86 cfs @ 12.07 hrs HW=673.87' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.86 cfs @ 4.37 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.86 cfs of 5.20 cfs potential flow)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Events for Link 1L: Proposed Runoff

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-Year	1.61	1.61	**0.00**
2-Year	2.35	2.35	0.00
5-Year	3.19	3.19	0.00
10-Year	3.62	3.62	0.00
25-Year	4.28	4.28	0.00
50-Year	4.89	4.89	0.00
100-Year	**5.59**	**5.59**	0.00

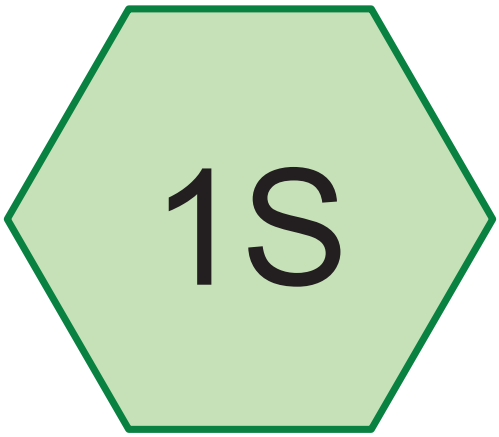
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Appendix B

STORMWATER DRAINAGE ANALYSIS

HydroCAD

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



Existing Site

Subcat Reach Pond Link

Routing Diagram for 21.152 Existing
Prepared by HP Inc., Printed 8/12/2021
HydroCAD® 10.00-18 s/n 05021 © 2016 HydroCAD Software Solutions LLC

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.185	84	50-75% Grass cover, Fair, HSG D (1S)
0.835	98	Impervious (1S)
1.020	**95**	**TOTAL AREA**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.185	HSG D	1S
0.835	Other	1S
1.020		**TOTAL AREA**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.185	0.000	0.185	50-75% Grass cover, Fair	1S
0.000	0.000	0.000	0.000	0.835	0.835	Impervious	1S
0.000	**0.000**	**0.000**	**0.185**	**0.835**	**1.020**	**TOTAL AREA**	

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=1.30"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=2.28 cfs 0.111 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.111 af Average Runoff Depth = 1.30"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

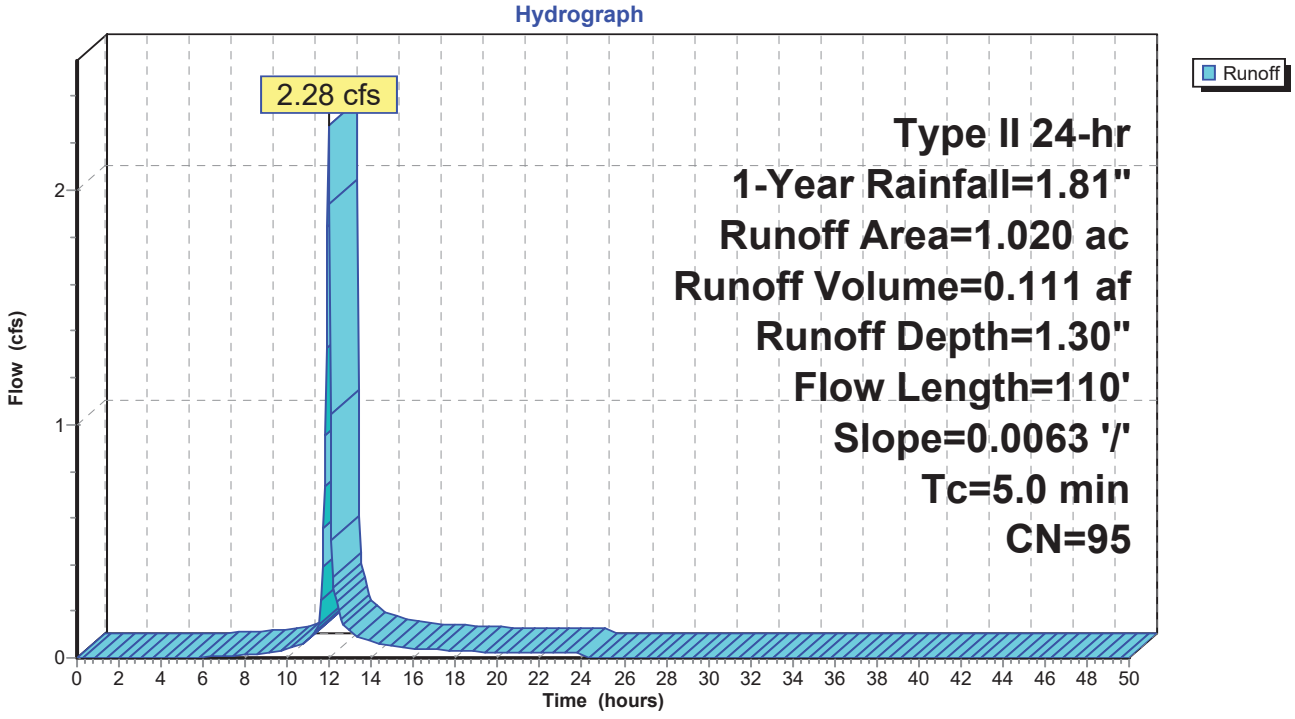
Runoff = 2.28 cfs @ 11.95 hrs, Volume= 0.111 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=1.81"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=2.56"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=4.29 cfs 0.217 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.217 af Average Runoff Depth = 2.56"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

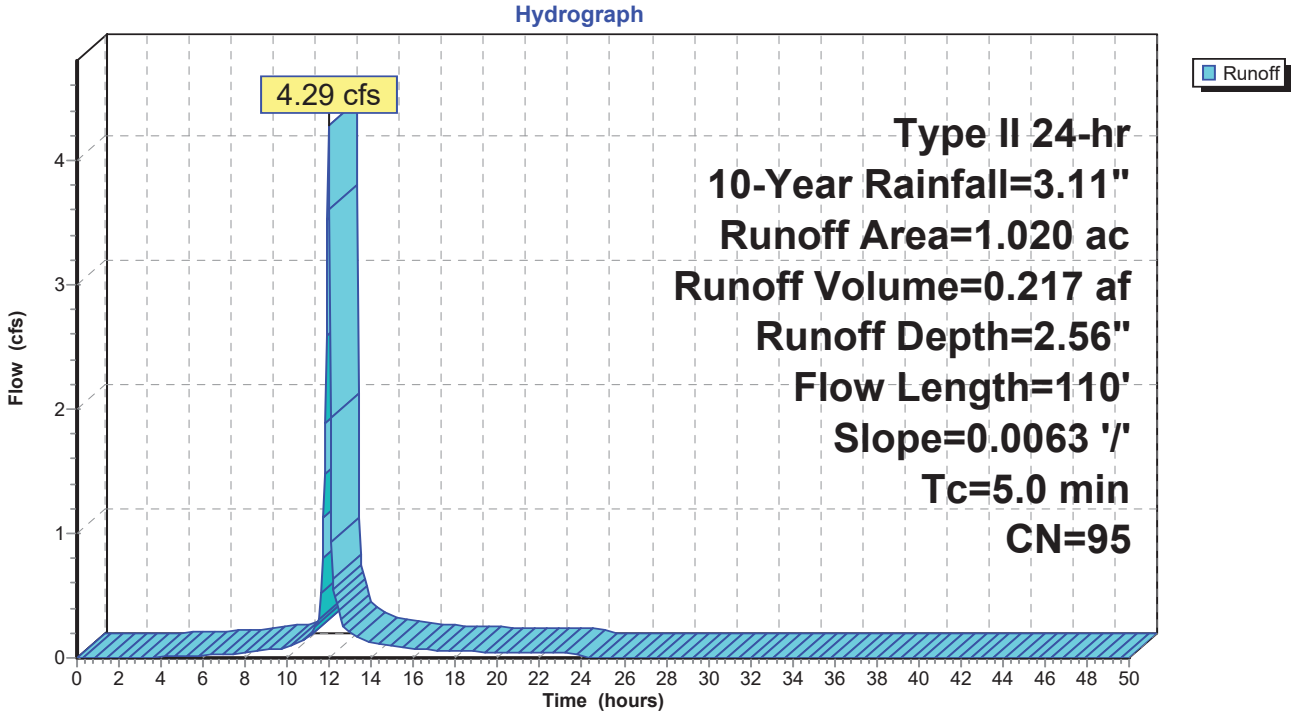
Runoff = 4.29 cfs @ 11.95 hrs, Volume= 0.217 af, Depth= 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.11"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=3.22"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=5.33 cfs 0.274 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.274 af Average Runoff Depth = 3.22"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

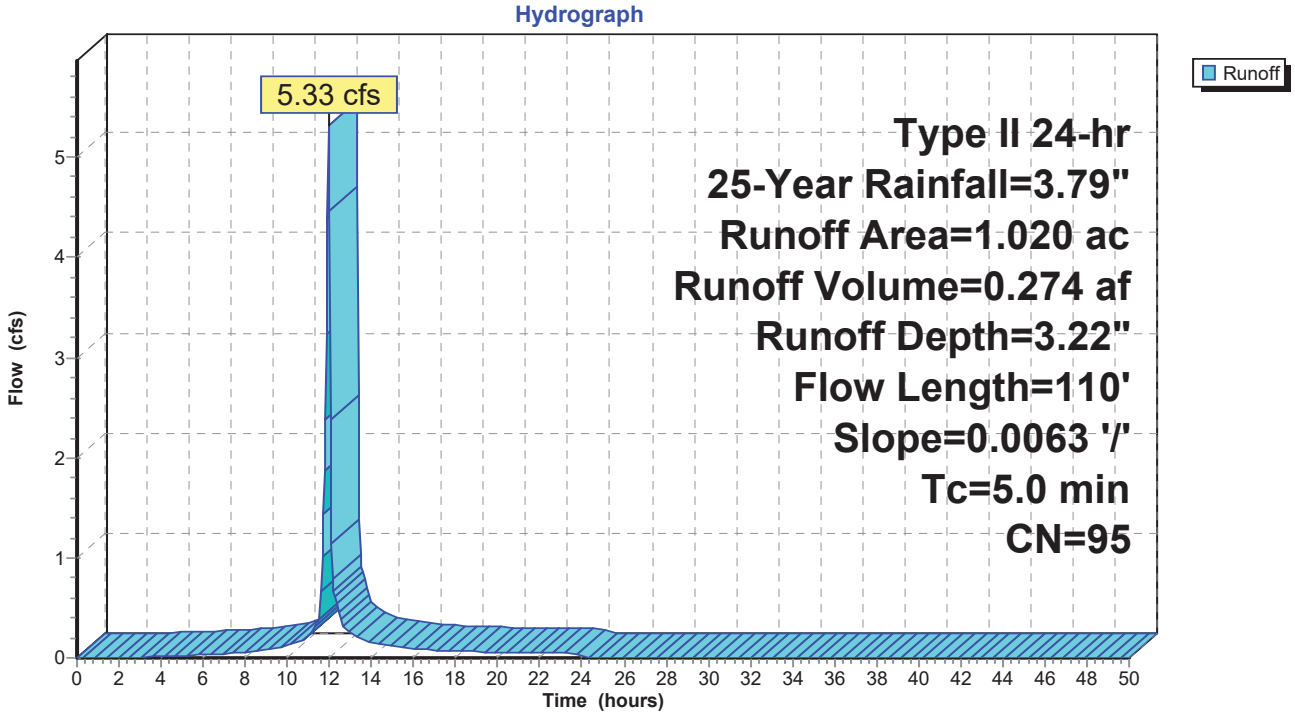
Runoff = 5.33 cfs @ 11.95 hrs, Volume= 0.274 af, Depth= 3.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=3.79"

	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Existing Site Runoff Area=1.020 ac 81.86% Impervious Runoff Depth=4.56"
Flow Length=110' Slope=0.0063 '/' Tc=5.0 min CN=95 Runoff=7.37 cfs 0.387 af

Total Runoff Area = 1.020 ac Runoff Volume = 0.387 af Average Runoff Depth = 4.56"
18.14% Pervious = 0.185 ac 81.86% Impervious = 0.835 ac

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Existing Site

[49] Hint: Tc<2dt may require smaller dt

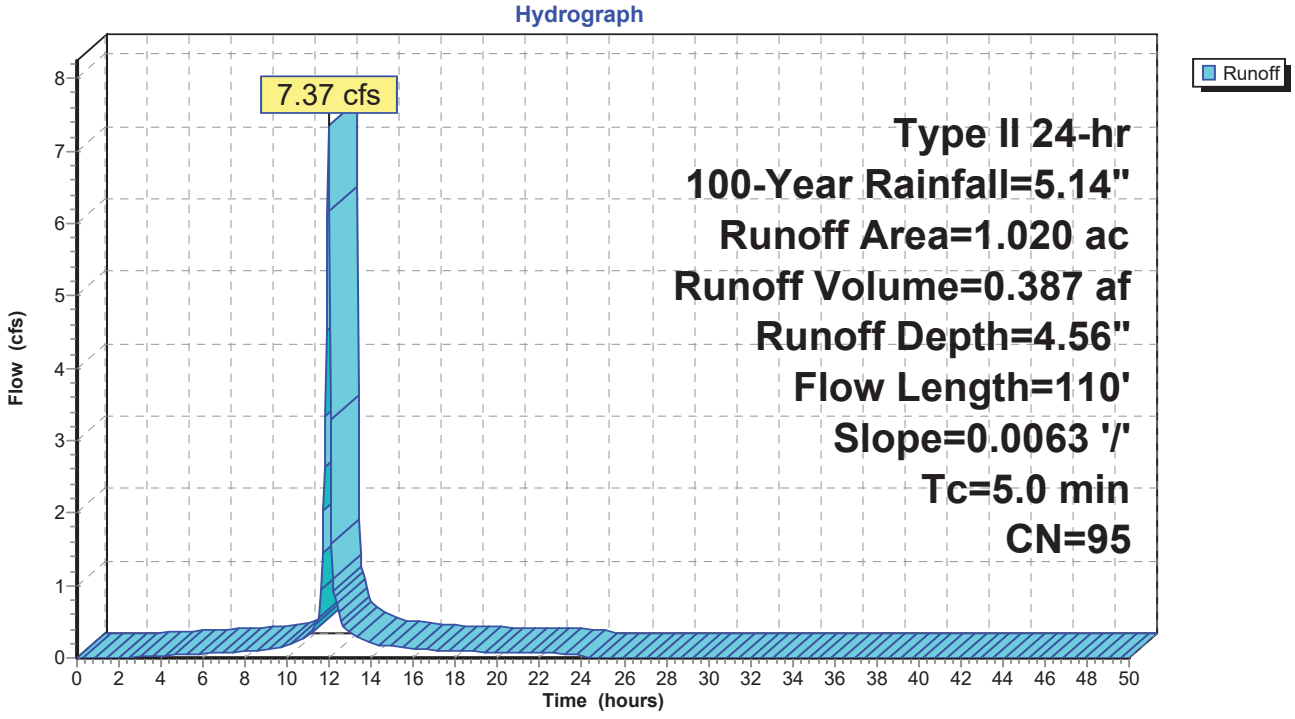
Runoff = 7.37 cfs @ 11.95 hrs, Volume= 0.387 af, Depth= 4.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.14"

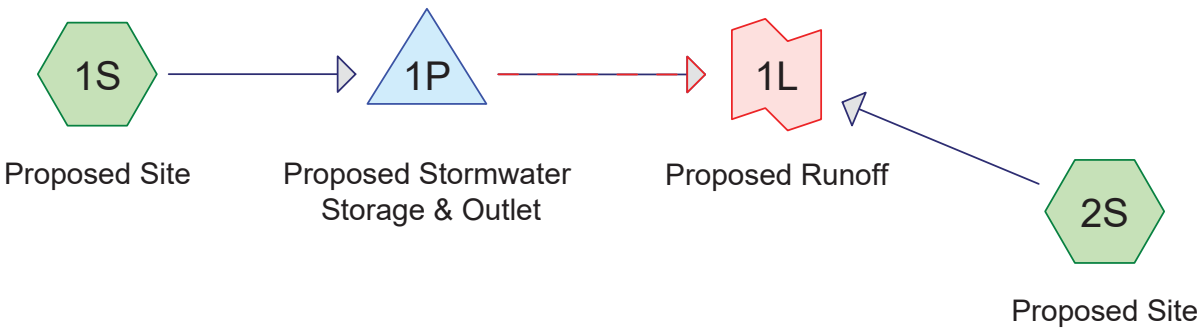
	Area (ac)	CN	Description
	0.185	84	50-75% Grass cover, Fair, HSG D
*	0.835	98	Impervious
	1.020	95	Weighted Average
	0.185		18.14% Pervious Area
	0.835		81.86% Impervious Area

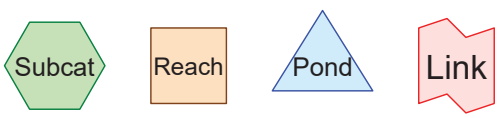
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	110	0.0063	0.78		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
2.3	110	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Existing Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)





Routing Diagram for 21.152 Proposed
Prepared by HP Inc., Printed 8/12/2021
HydroCAD® 10.00-18 s/n 05021 © 2016 HydroCAD Software Solutions LLC

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.147	80	>75% Grass cover, Good, HSG D (1S, 2S)
0.872	98	Impervious, HSG D (1S, 2S)
1.019	**95**	**TOTAL AREA**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
1.019	HSG D	1S, 2S
0.000	Other	
1.019		**TOTAL AREA**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.147	0.000	0.147	>75% Grass cover, Good	1S, 2S
0.000	0.000	0.000	0.872	0.000	0.872	Impervious	1S, 2S
0.000	**0.000**	**0.000**	**1.019**	**0.000**	**1.019**	**TOTAL AREA**	

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	670.25	670.15	50.0	0.0020	0.020	6.0	0.0	0.0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=1.22"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=0.84 cfs 0.039 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=1.49"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=1.59 cfs 0.079 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.12' Storage=842 cf Inflow=0.84 cfs 0.039 af
Outflow=0.28 cfs 0.024 af

Link 1L: Proposed Runoff Inflow=1.61 cfs 0.103 af
Primary=1.61 cfs 0.103 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.118 af Average Runoff Depth = 1.39"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

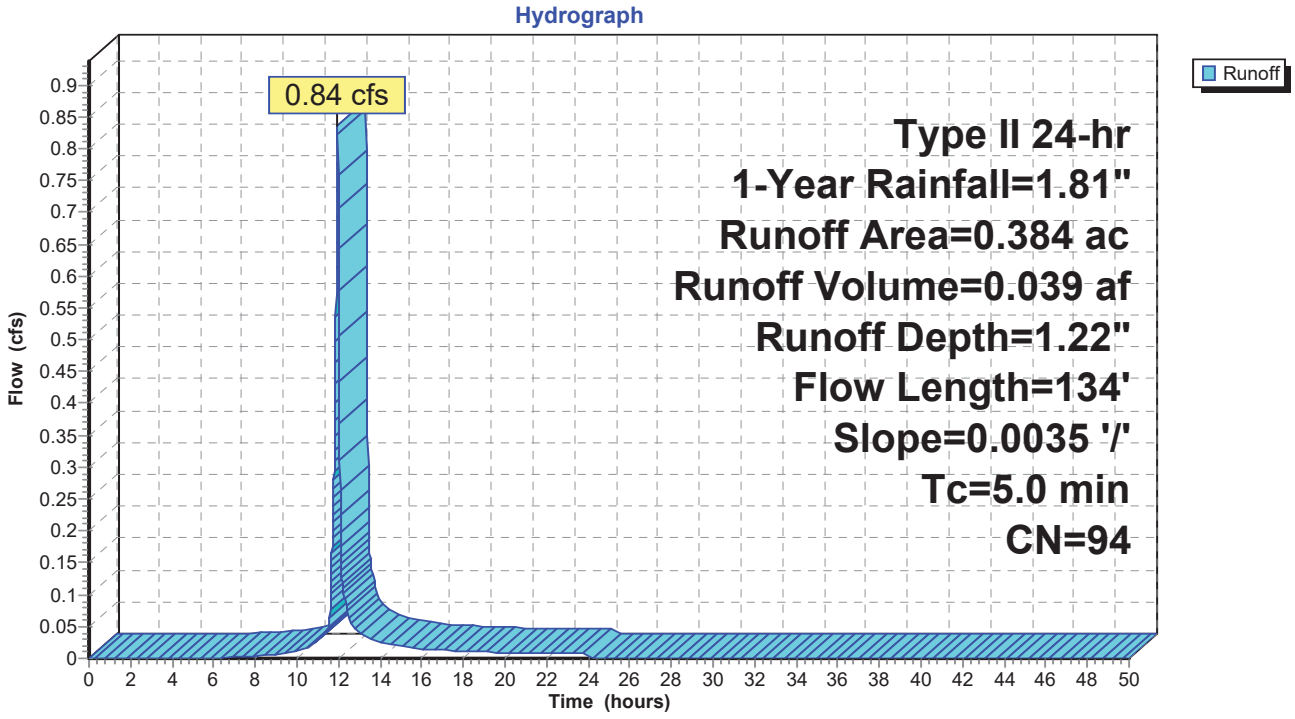
Runoff = 0.84 cfs @ 11.96 hrs, Volume= 0.039 af, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=1.81"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

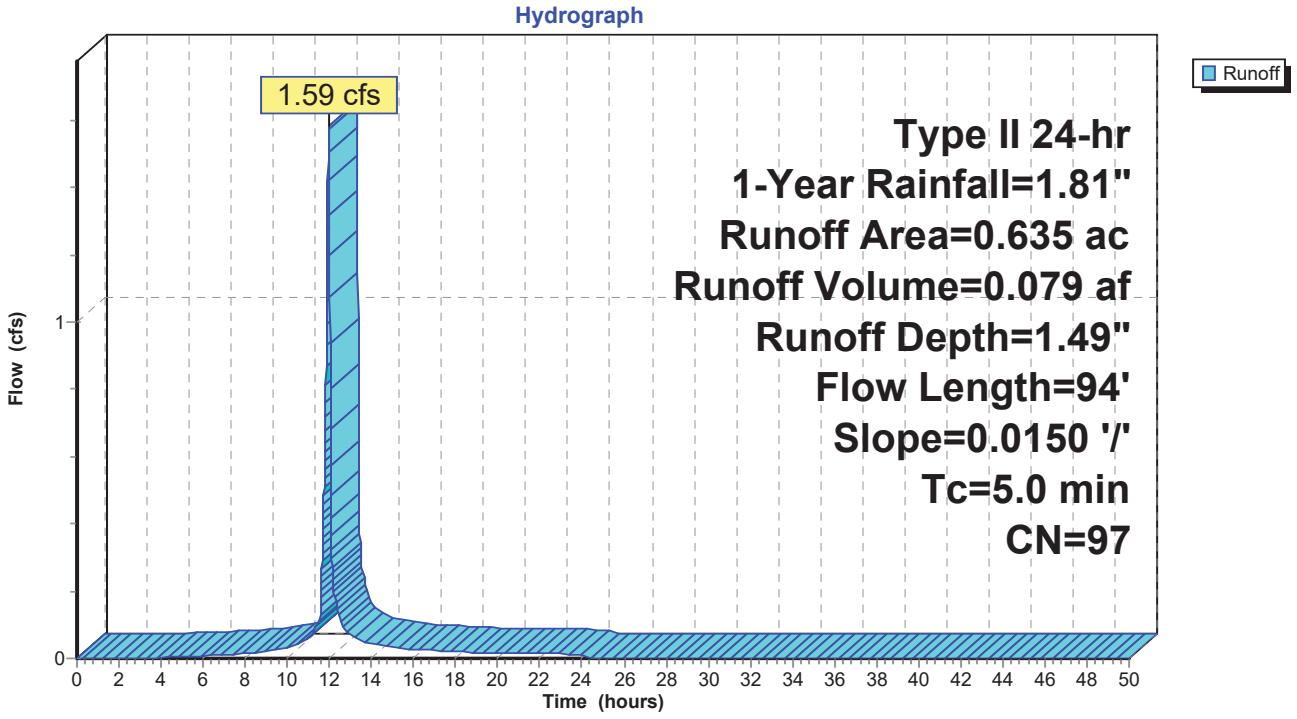
Runoff = 1.59 cfs @ 11.96 hrs, Volume= 0.079 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-Year Rainfall=1.81"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 1.22" for 1-Year event
Inflow = 0.84 cfs @ 11.96 hrs, Volume= 0.039 af
Outflow = 0.28 cfs @ 12.07 hrs, Volume= 0.024 af, Atten= 67%, Lag= 6.5 min
Primary = 0.28 cfs @ 12.07 hrs, Volume= 0.024 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.12' @ 12.07 hrs Surf.Area= 1,571 sf Storage= 842 cf

Plug-Flow detention time= 205.5 min calculated for 0.024 af (62% of inflow)
Center-of-Mass det. time= 99.2 min (902.7 - 803.5)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

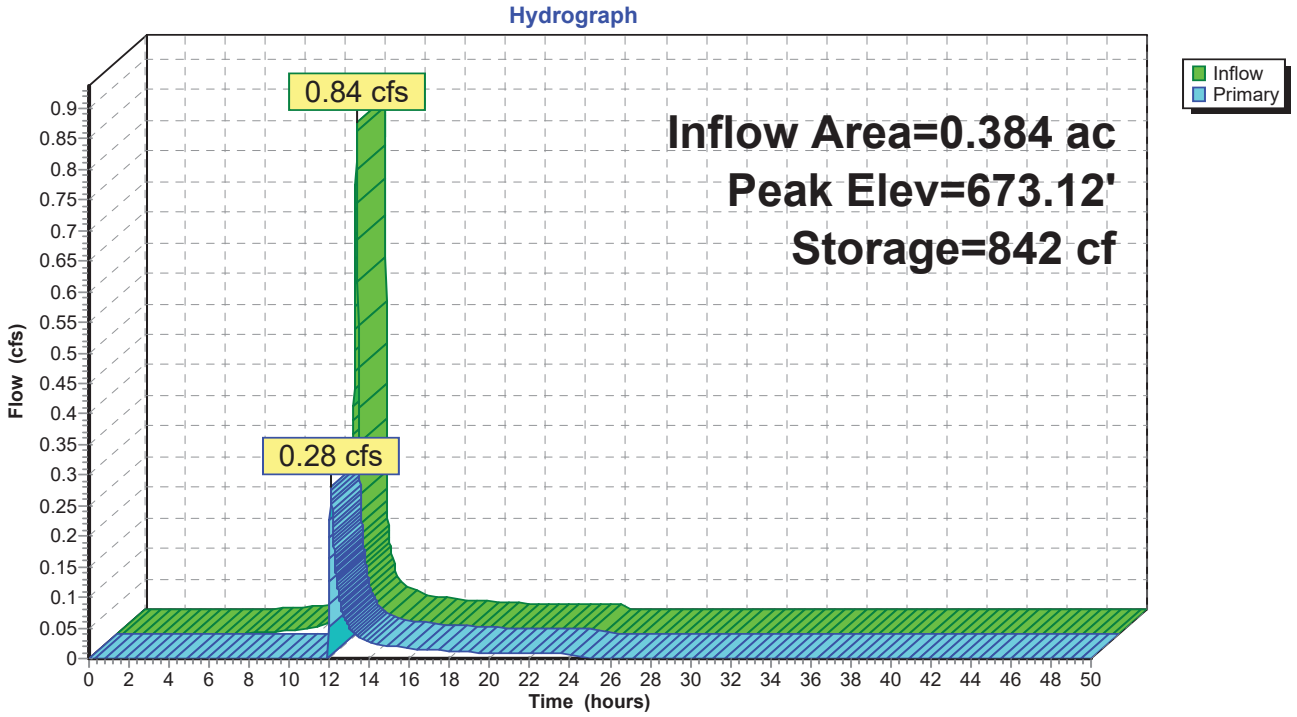
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.28 cfs @ 12.07 hrs HW=673.12' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Passes 0.28 cfs of 0.75 cfs potential flow)
↑—**2=Grate - Outlet Structure** (Orifice Controls 0.28 cfs @ 1.13 fps)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



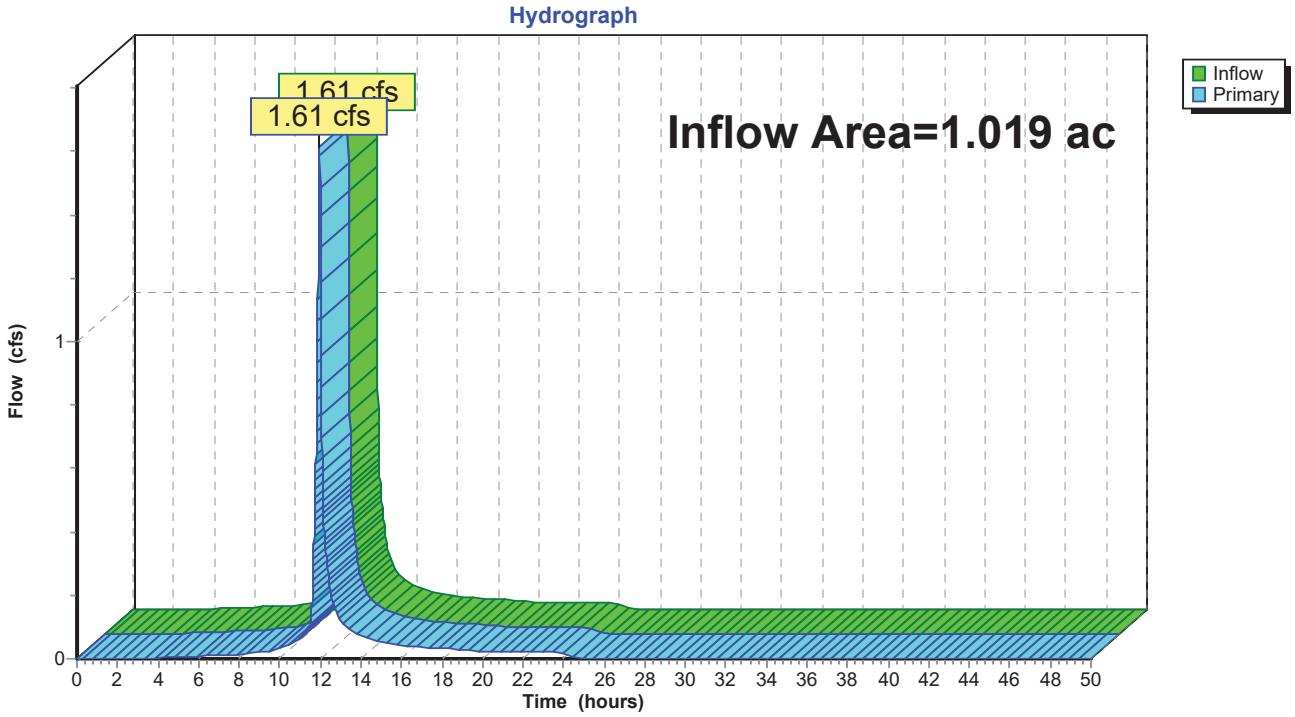
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 1.21" for 1-Year event
Inflow = 1.61 cfs @ 11.97 hrs, Volume= 0.103 af
Primary = 1.61 cfs @ 11.97 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=2.46"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=1.61 cfs 0.079 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=2.77"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=2.84 cfs 0.146 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.41' Storage=1,313 cf Inflow=1.61 cfs 0.079 af
Outflow=0.79 cfs 0.064 af

Link 1L: Proposed Runoff Inflow=3.62 cfs 0.210 af
Primary=3.62 cfs 0.210 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.225 af Average Runoff Depth = 2.65"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

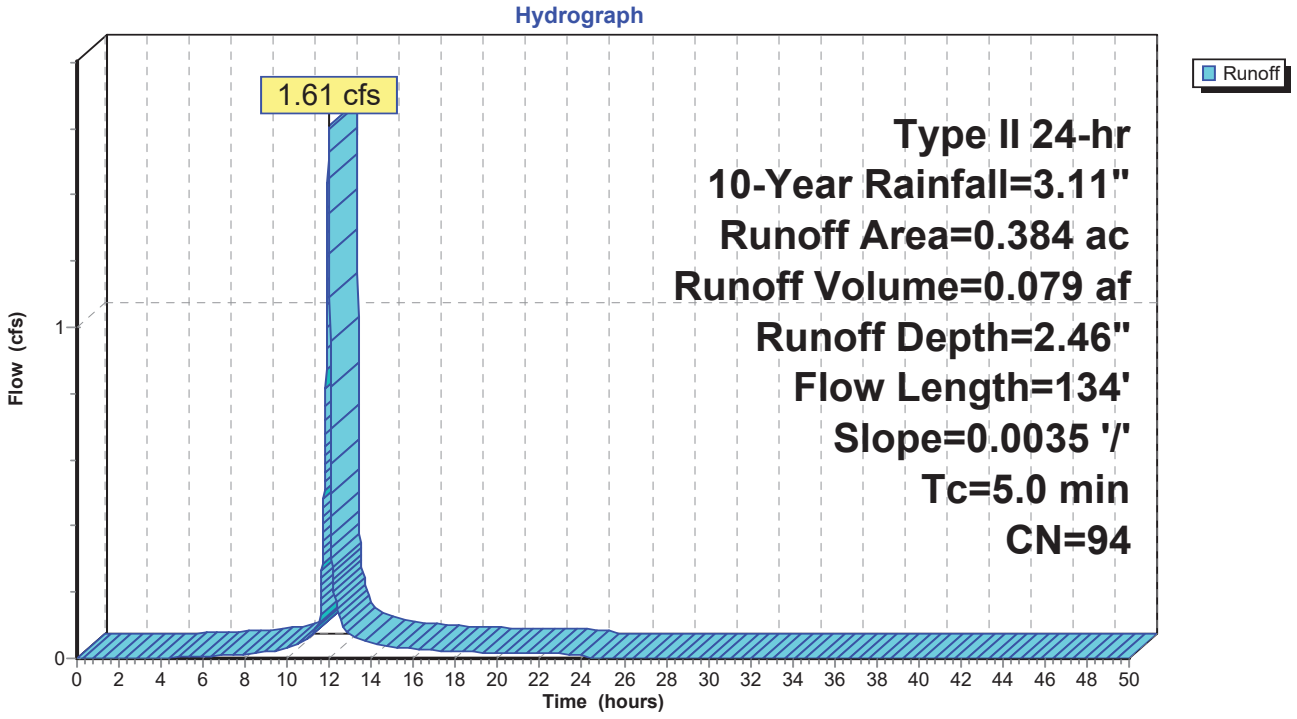
Runoff = 1.61 cfs @ 11.96 hrs, Volume= 0.079 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.11"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

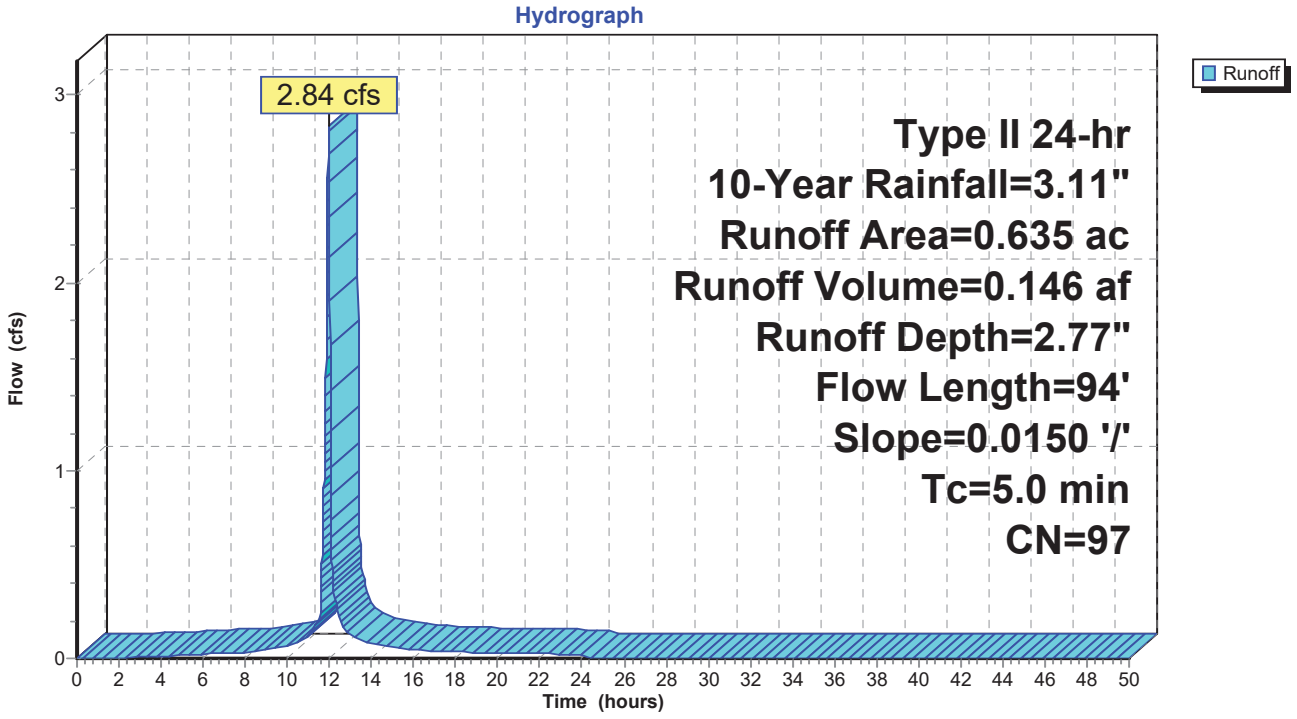
Runoff = 2.84 cfs @ 11.96 hrs, Volume= 0.146 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Year Rainfall=3.11"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 2.46" for 10-Year event
Inflow = 1.61 cfs @ 11.96 hrs, Volume= 0.079 af
Outflow = 0.79 cfs @ 12.04 hrs, Volume= 0.064 af, Atten= 51%, Lag= 5.1 min
Primary = 0.79 cfs @ 12.04 hrs, Volume= 0.064 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.41' @ 12.04 hrs Surf.Area= 1,748 sf Storage= 1,313 cf

Plug-Flow detention time= 137.3 min calculated for 0.064 af (81% of inflow)
Center-of-Mass det. time= 59.3 min (843.2 - 783.9)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

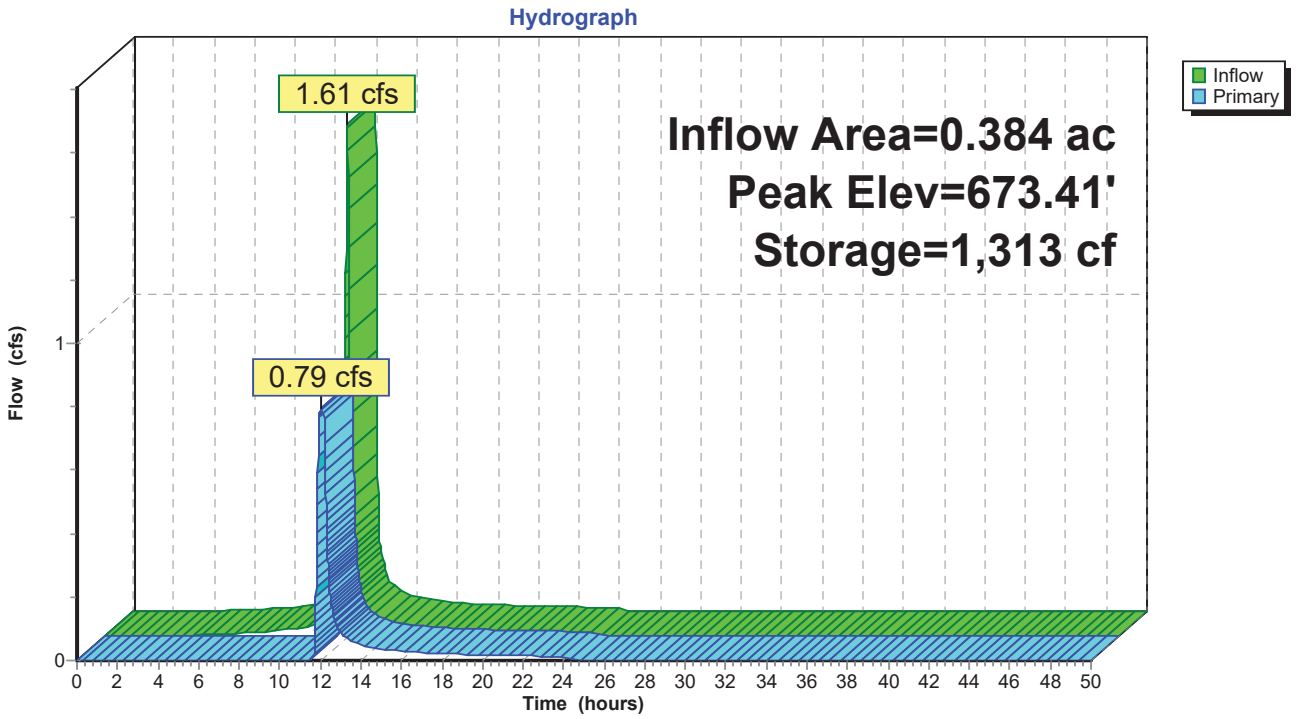
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.79 cfs @ 12.04 hrs HW=673.41' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.79 cfs @ 4.04 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.79 cfs of 1.67 cfs potential flow)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



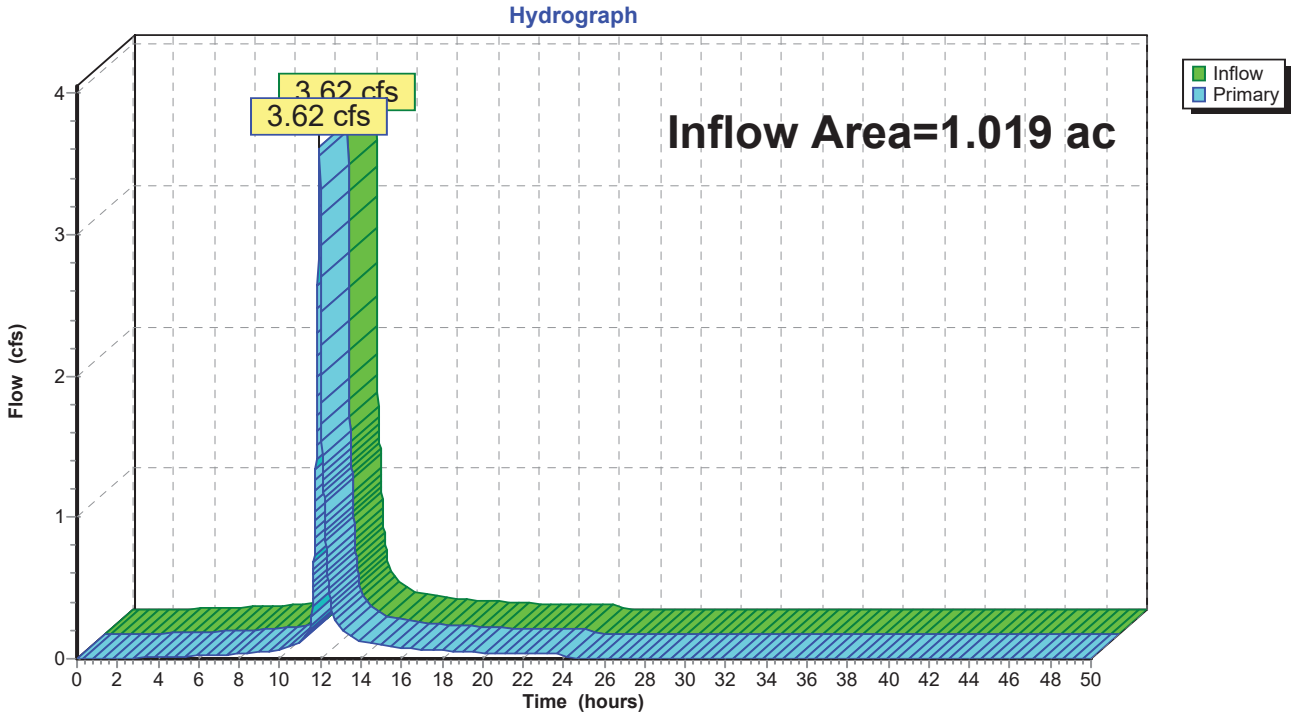
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 2.47" for 10-Year event
Inflow = 3.62 cfs @ 11.96 hrs, Volume= 0.210 af
Primary = 3.62 cfs @ 11.96 hrs, Volume= 0.210 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=3.12"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=2.01 cfs 0.100 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=3.44"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=3.49 cfs 0.182 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.57' Storage=1,597 cf Inflow=2.01 cfs 0.100 af
Outflow=0.82 cfs 0.085 af

Link 1L: Proposed Runoff Inflow=4.28 cfs 0.267 af
Primary=4.28 cfs 0.267 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.282 af Average Runoff Depth = 3.32"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 1S: Proposed Site

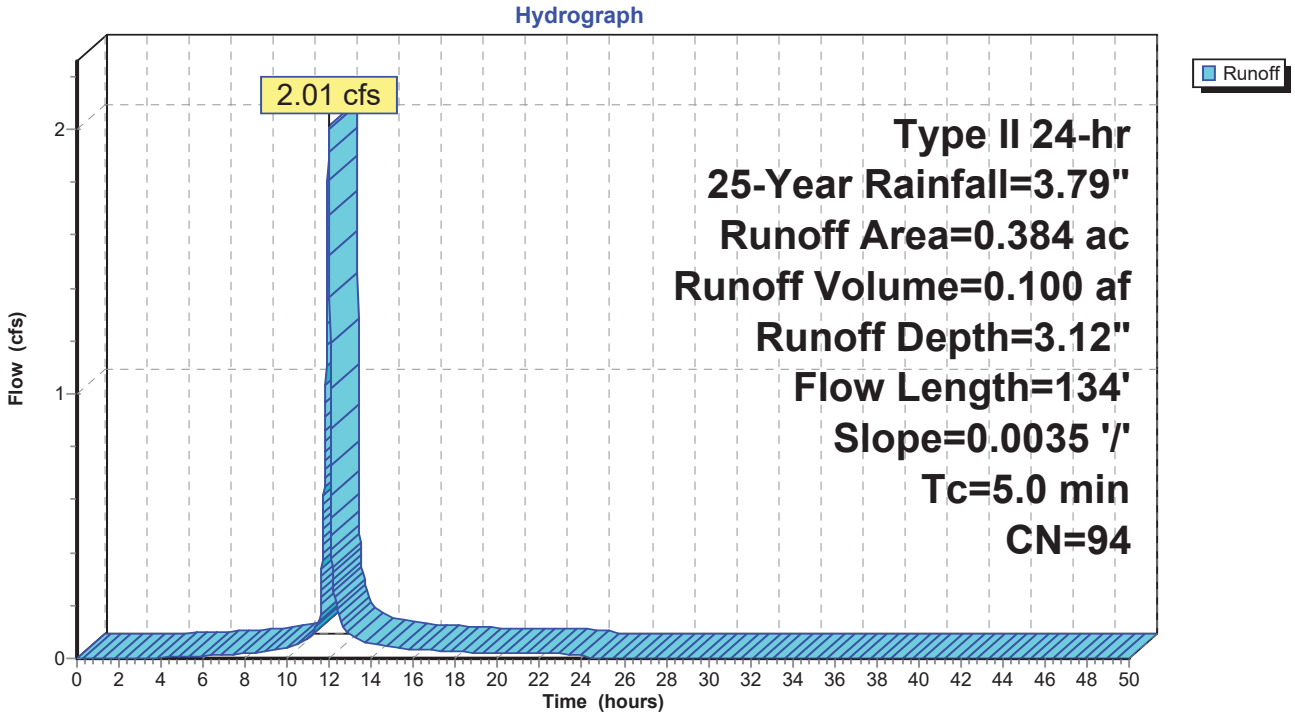
Runoff = 2.01 cfs @ 11.96 hrs, Volume= 0.100 af, Depth= 3.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=3.79"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

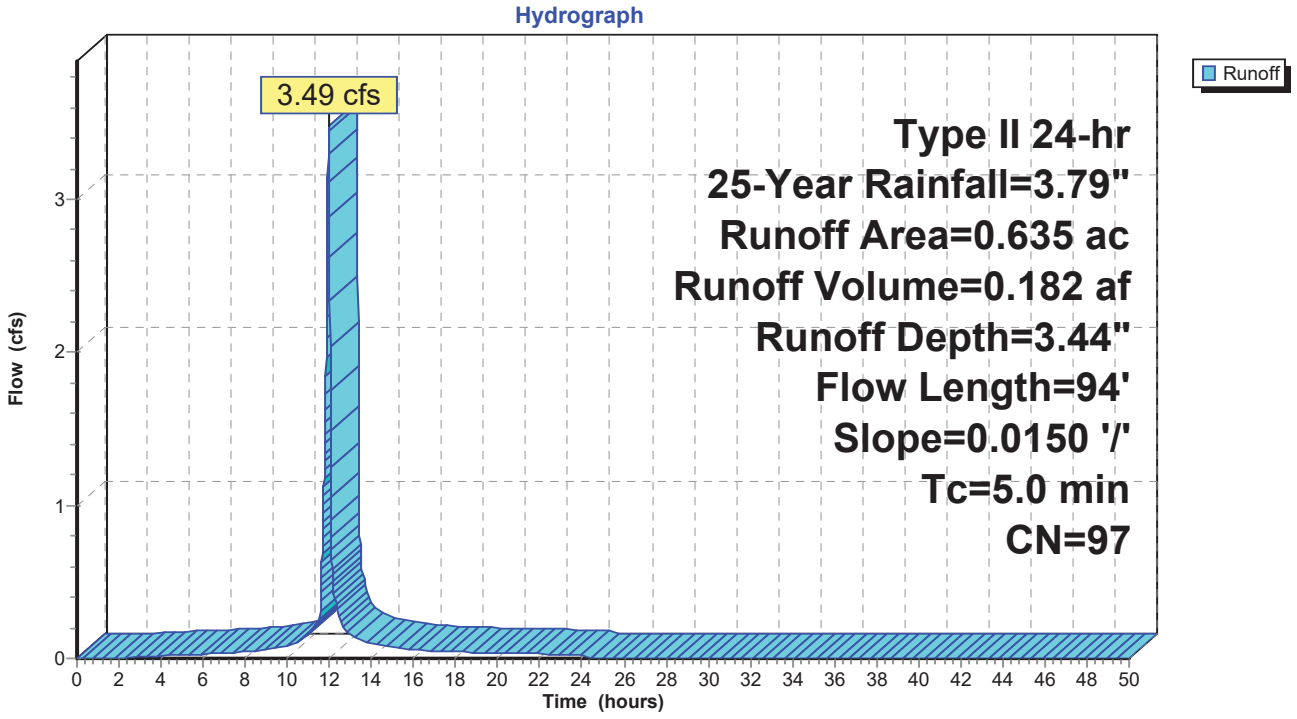
Runoff = 3.49 cfs @ 11.96 hrs, Volume= 0.182 af, Depth= 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Year Rainfall=3.79"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 3.12" for 25-Year event
Inflow = 2.01 cfs @ 11.96 hrs, Volume= 0.100 af
Outflow = 0.82 cfs @ 12.05 hrs, Volume= 0.085 af, Atten= 59%, Lag= 5.8 min
Primary = 0.82 cfs @ 12.05 hrs, Volume= 0.085 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.57' @ 12.05 hrs Surf.Area= 1,847 sf Storage= 1,597 cf

Plug-Flow detention time= 123.7 min calculated for 0.085 af (85% of inflow)
Center-of-Mass det. time= 55.9 min (833.3 - 777.4)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

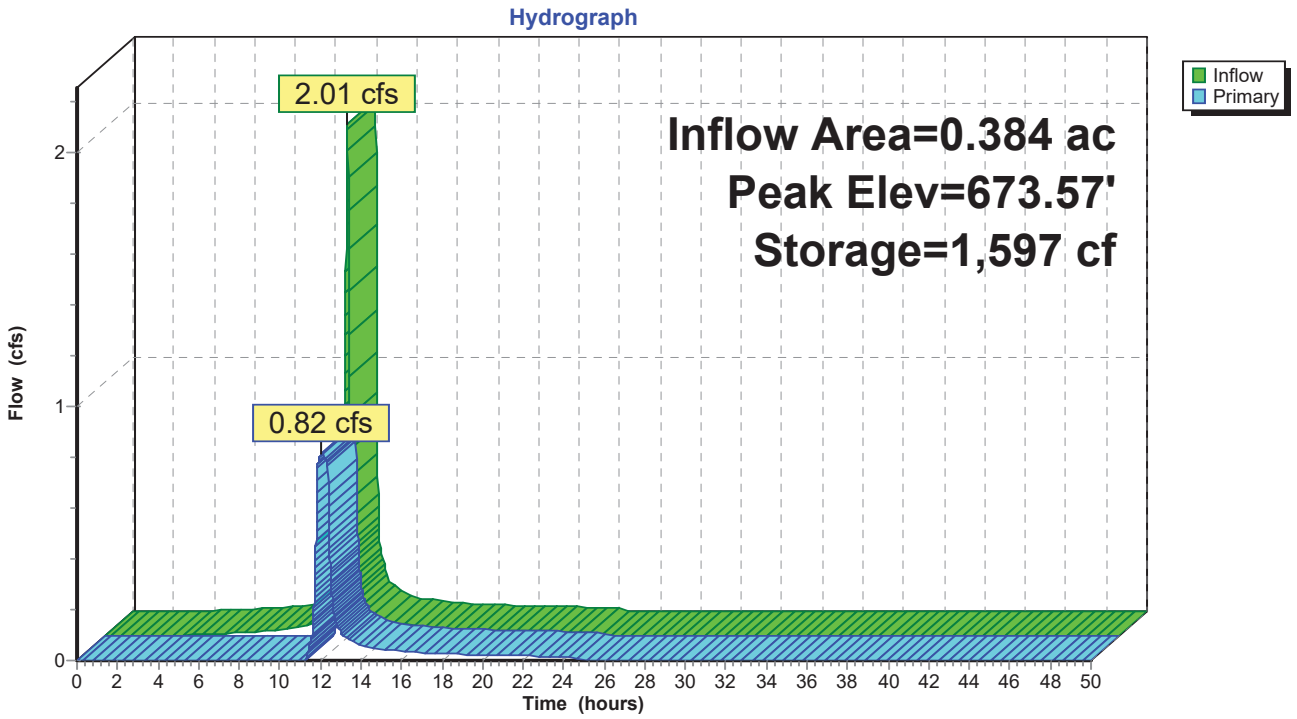
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.82 cfs @ 12.05 hrs HW=673.57' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.82 cfs @ 4.16 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.82 cfs of 2.73 cfs potential flow)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Pond 1P: Proposed Stormwater Storage & Outlet



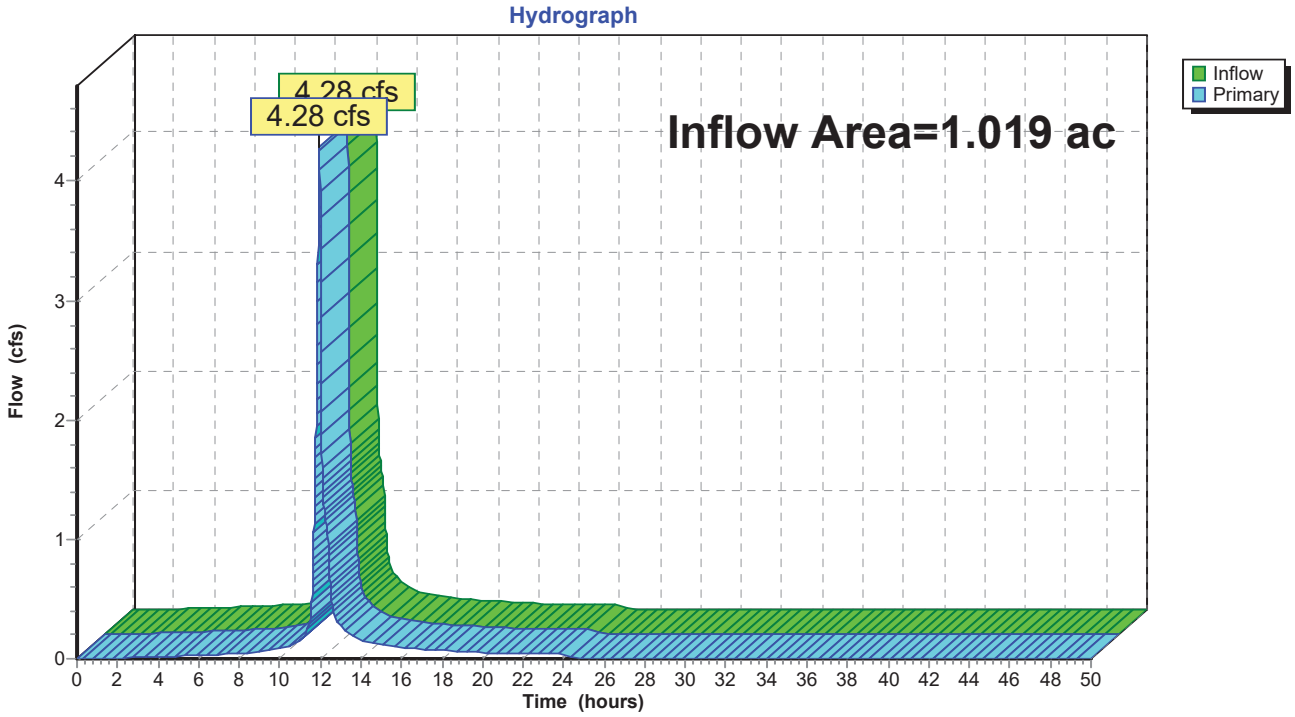
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 3.14" for 25-Year event
Inflow = 4.28 cfs @ 11.96 hrs, Volume= 0.267 af
Primary = 4.28 cfs @ 11.96 hrs, Volume= 0.267 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Time span=0.00-50.00 hrs, dt=0.01 hrs, 5001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Proposed Site Runoff Area=0.384 ac 75.00% Impervious Runoff Depth=4.45"
Flow Length=134' Slope=0.0035 '/' Tc=5.0 min CN=94 Runoff=2.80 cfs 0.142 af

Subcatchment 2S: Proposed Site Runoff Area=0.635 ac 91.97% Impervious Runoff Depth=4.79"
Flow Length=94' Slope=0.0150 '/' Tc=5.0 min CN=97 Runoff=4.77 cfs 0.253 af

Pond 1P: Proposed Stormwater Storage & Peak Elev=673.87' Storage=2,185 cf Inflow=2.80 cfs 0.142 af
Outflow=0.86 cfs 0.127 af

Link 1L: Proposed Runoff Inflow=5.59 cfs 0.381 af
Primary=5.59 cfs 0.381 af

Total Runoff Area = 1.019 ac Runoff Volume = 0.396 af Average Runoff Depth = 4.66"
14.43% Pervious = 0.147 ac 85.57% Impervious = 0.872 ac

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Summary for Subcatchment 1S: Proposed Site

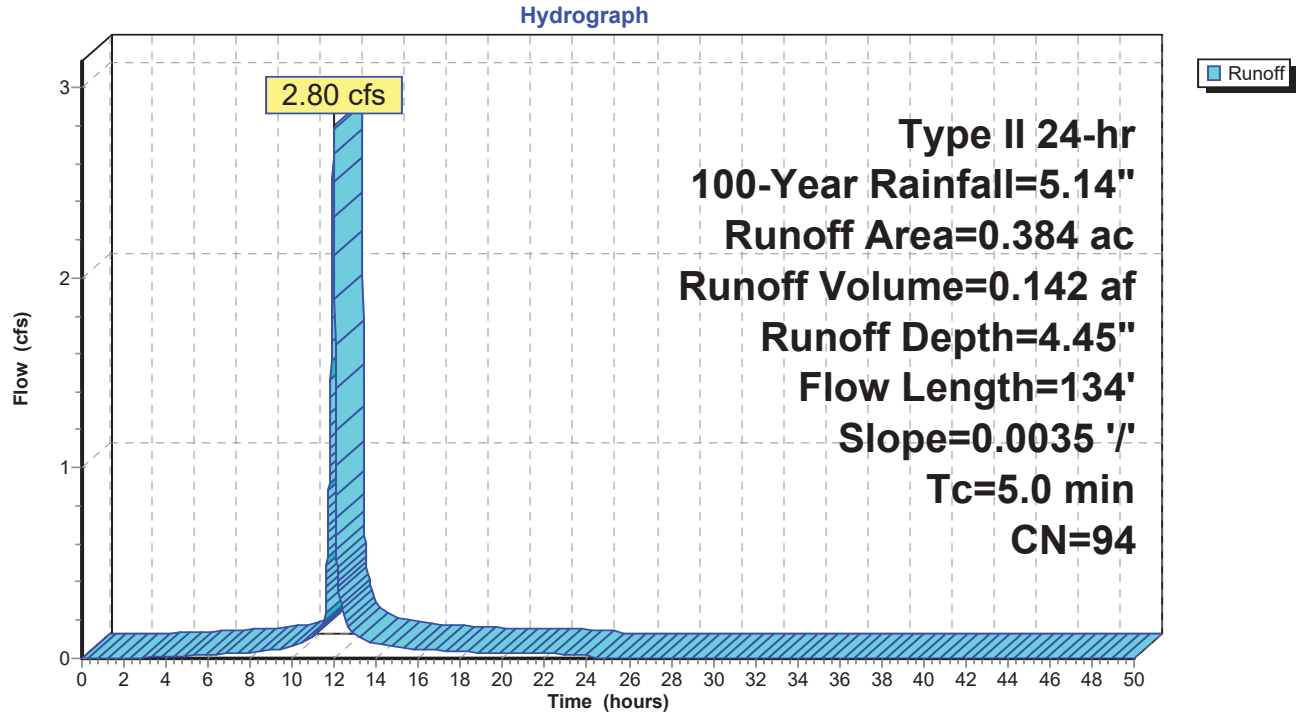
Runoff = 2.80 cfs @ 11.96 hrs, Volume= 0.142 af, Depth= 4.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.14"

	Area (ac)	CN	Description
	0.096	80	>75% Grass cover, Good, HSG D
*	0.288	98	Impervious, HSG D
	0.384	94	Weighted Average
	0.096		25.00% Pervious Area
	0.288		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.4	86	0.0035	0.59		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.3	48		3.00		**Direct Entry, Pipe Flow**
2.7	134	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: Proposed Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Subcatchment 2S: Proposed Site

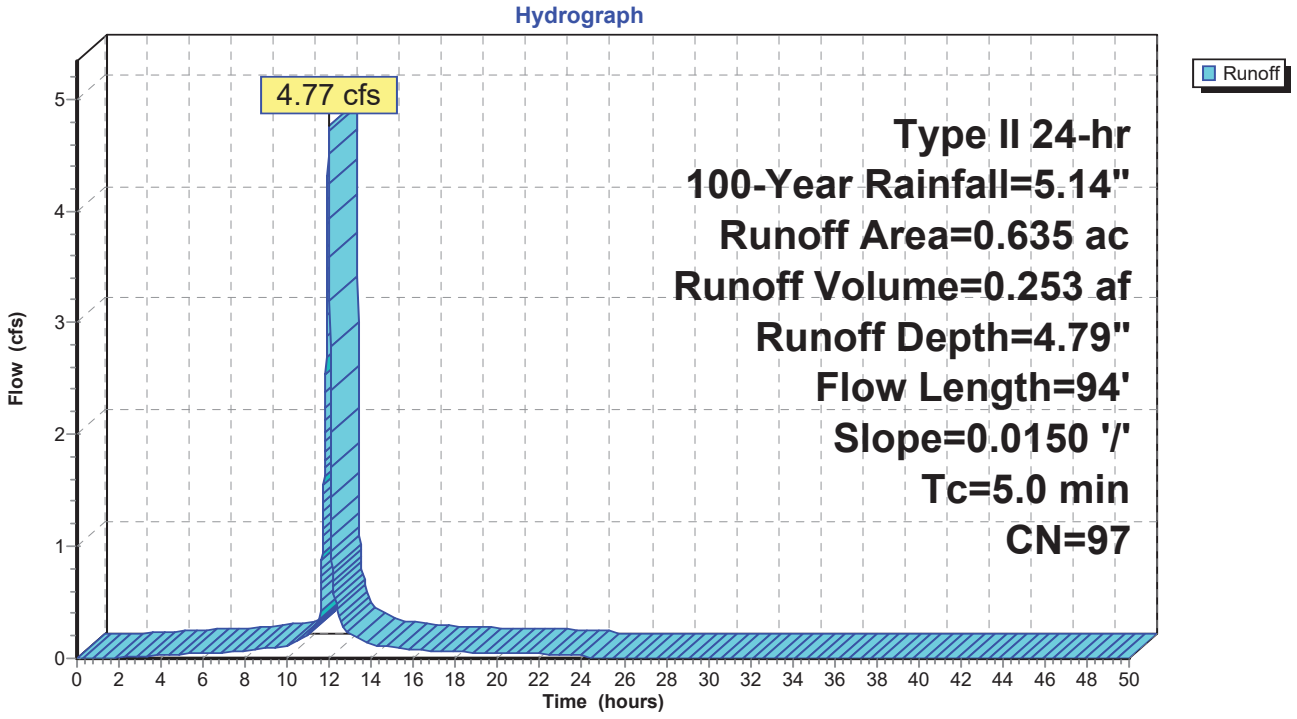
Runoff = 4.77 cfs @ 11.96 hrs, Volume= 0.253 af, Depth= 4.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Year Rainfall=5.14"

	Area (ac)	CN	Description
	0.051	80	>75% Grass cover, Good, HSG D
*	0.584	98	Impervious, HSG D
	0.635	97	Weighted Average
	0.051		8.03% Pervious Area
	0.584		91.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	70	0.0150	1.01		**Sheet Flow, Overland - Pvmt.** Smooth surfaces n= 0.011 P2= 2.50"
0.1	24		3.00		**Direct Entry, Pipe Flow**
1.3	94	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 2S: Proposed Site



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Pond 1P: Proposed Stormwater Storage & Outlet

Inflow Area = 0.384 ac, 75.00% Impervious, Inflow Depth = 4.45" for 100-Year event
Inflow = 2.80 cfs @ 11.96 hrs, Volume= 0.142 af
Outflow = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af, Atten= 69%, Lag= 6.8 min
Primary = 0.86 cfs @ 12.07 hrs, Volume= 0.127 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs
Peak Elev= 673.87' @ 12.07 hrs Surf.Area= 2,037 sf Storage= 2,185 cf

Plug-Flow detention time= 107.0 min calculated for 0.127 af (89% of inflow)
Center-of-Mass det. time= 53.3 min (821.6 - 768.3)

Volume	Invert	Avail.Storage	Storage Description
#1	672.50'	3,601 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
672.50	1,115	0	0
673.00	1,493	652	652
674.00	2,119	1,806	2,458
674.50	2,453	1,143	3,601

Device	Routing	Invert	Outlet Devices
#1	Primary	670.25'	**6.0" Round Outlet Pipe** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 670.25' / 670.15' S= 0.0020 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.20 sf
#2	Device 1	673.00'	**24.0" W x 24.0" H Vert. Grate - Outlet Structure** C= 0.600

Primary OutFlow Max=0.86 cfs @ 12.07 hrs HW=673.87' TW=0.00' (Dynamic Tailwater)
↑—**1=Outlet Pipe** (Barrel Controls 0.86 cfs @ 4.37 fps)
↑—**2=Grate - Outlet Structure** (Passes 0.86 cfs of 5.20 cfs potential flow)

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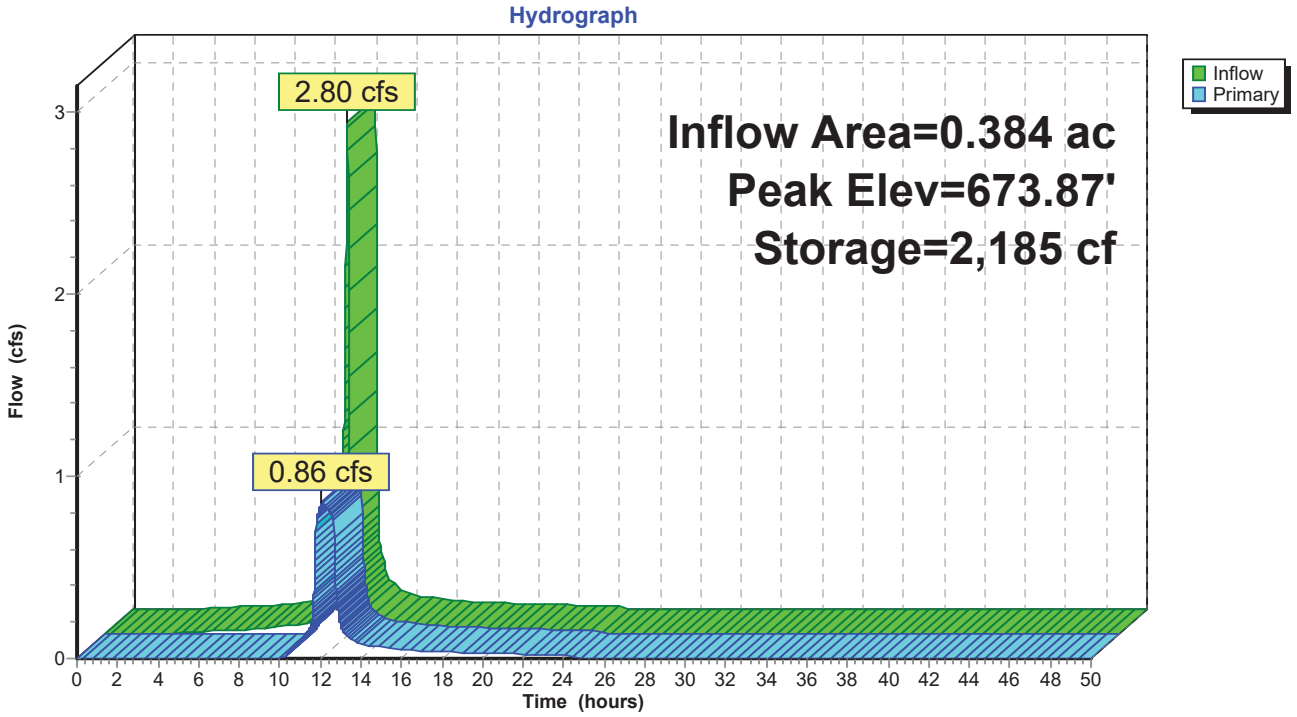
Pond 1P: Proposed Stormwater Storage & Outlet



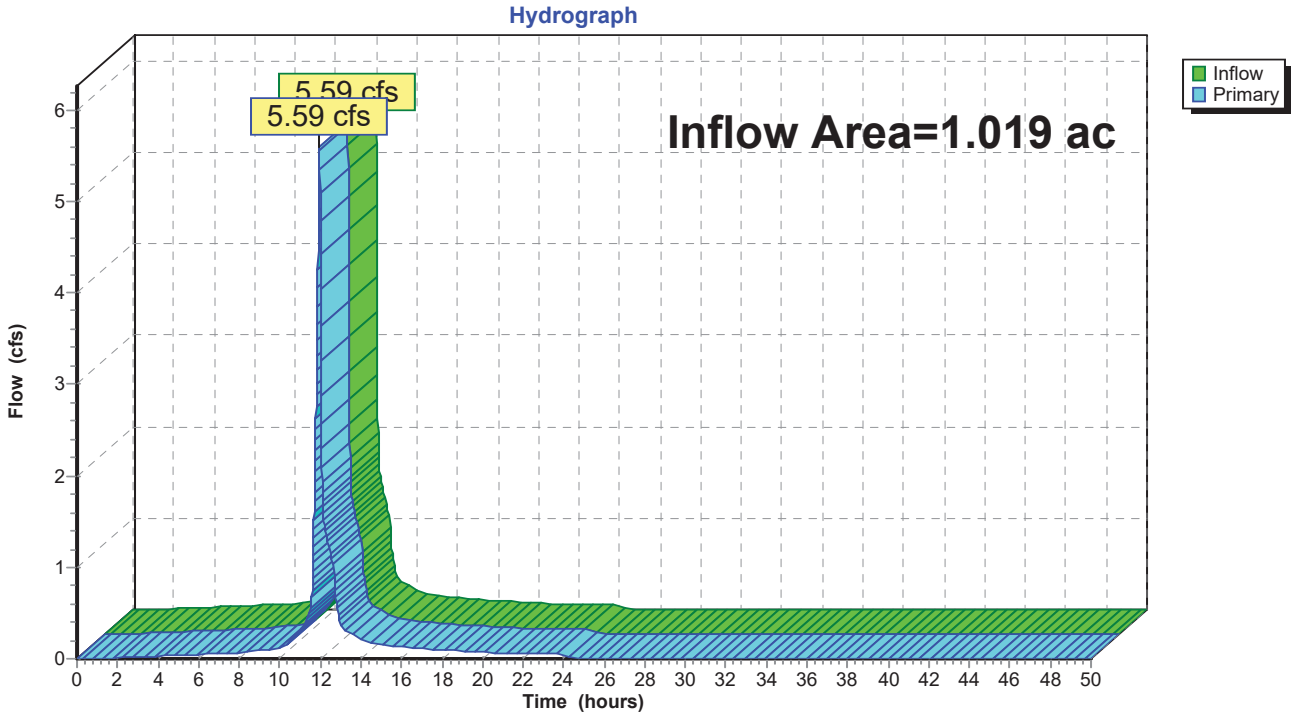
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Summary for Link 1L: Proposed Runoff

Inflow Area = 1.019 ac, 85.57% Impervious, Inflow Depth = 4.48" for 100-Year event
Inflow = 5.59 cfs @ 11.96 hrs, Volume= 0.381 af
Primary = 5.59 cfs @ 11.96 hrs, Volume= 0.381 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-50.00 hrs, dt= 0.01 hrs

Link 1L: Proposed Runoff



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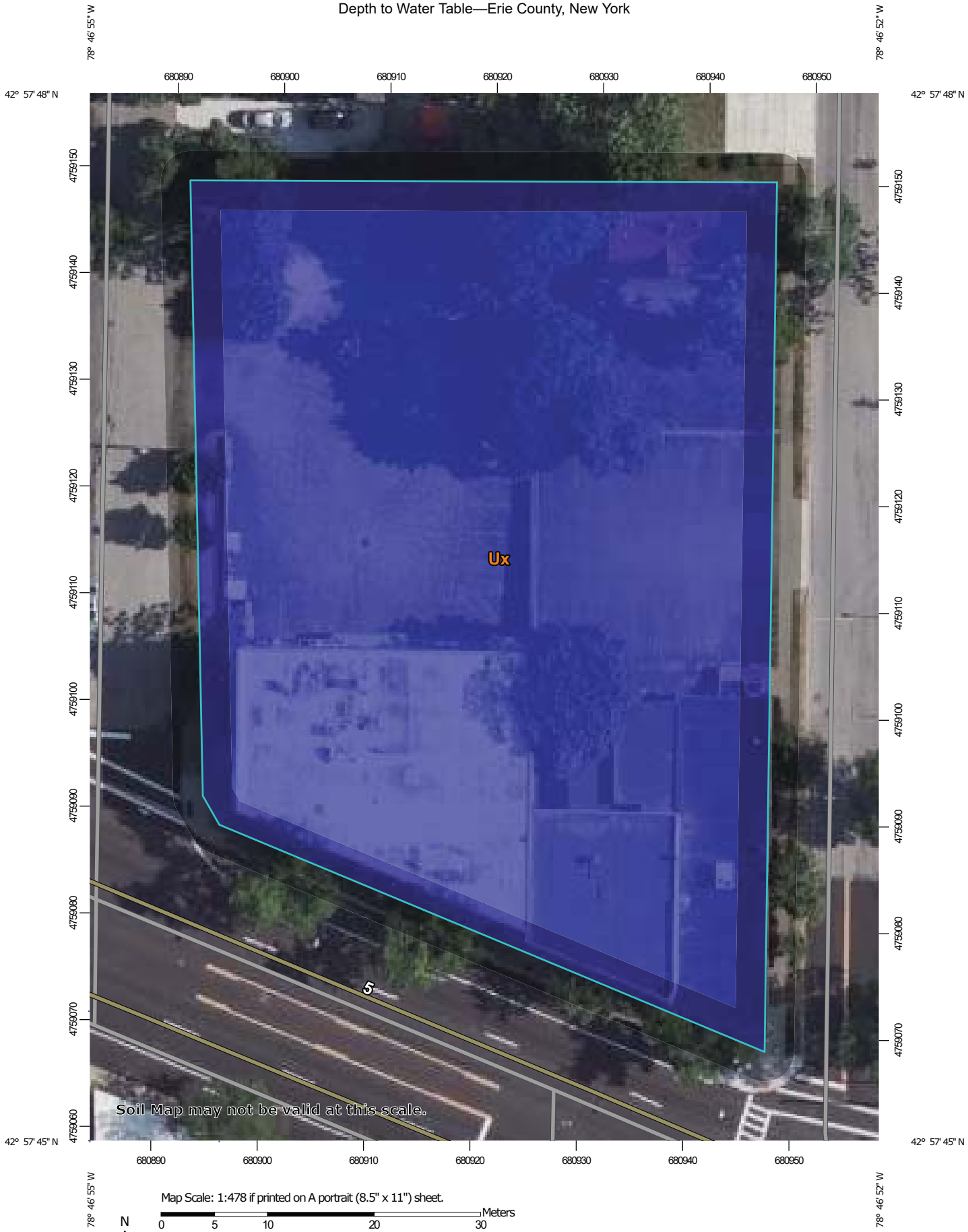
Appendix C

SOILS INFORMATION

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Depth to Water Table—Erie County, New York



Map Scale: 1:478 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 20 40 80 120

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

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MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Lines
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Soil Rating Points
- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 200
- > 200
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erie County, New York
Survey Area Data: Version 20, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 4, 2020—Jul 10, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
Ux	Urban land-Wassaic complex	>200	0.9	100.0%
Totals for Area of Interest			**0.9**	**100.0%**

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Appendix E

NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature

Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System ("NPDES")* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* ("SWPPP") the reason(s) for the

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deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

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listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharges*.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

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(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

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For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

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calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

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c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

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d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

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E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

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operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

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8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

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(i) No Affect
(ii) No Adverse Affect
(iii) Executed Memorandum of Agreement, or

d. Documentation that:

(i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharge*s from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

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B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

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must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

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b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

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use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

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regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

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operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

    a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

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b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

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the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

   a. Background information about the scope of the project, including the location, type and size of project

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b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

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schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

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b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

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3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

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begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

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in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

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d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

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a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

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l. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

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b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

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b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

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Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

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E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

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(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

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superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

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include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner’s or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

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3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

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(Part VII.R)

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

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APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

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Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "*Construction Activity(ies)*" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for "*Commence (Commencement of) Construction Activities"* and "*Larger Common Plan of Development or Sale" also.*

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

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and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

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Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term "plan" in "larger common plan of development or sale" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

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New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

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Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

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SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

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Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

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training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

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APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

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Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

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Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

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Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

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APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

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Figure 1 - New York City Watershed East of the Hudson

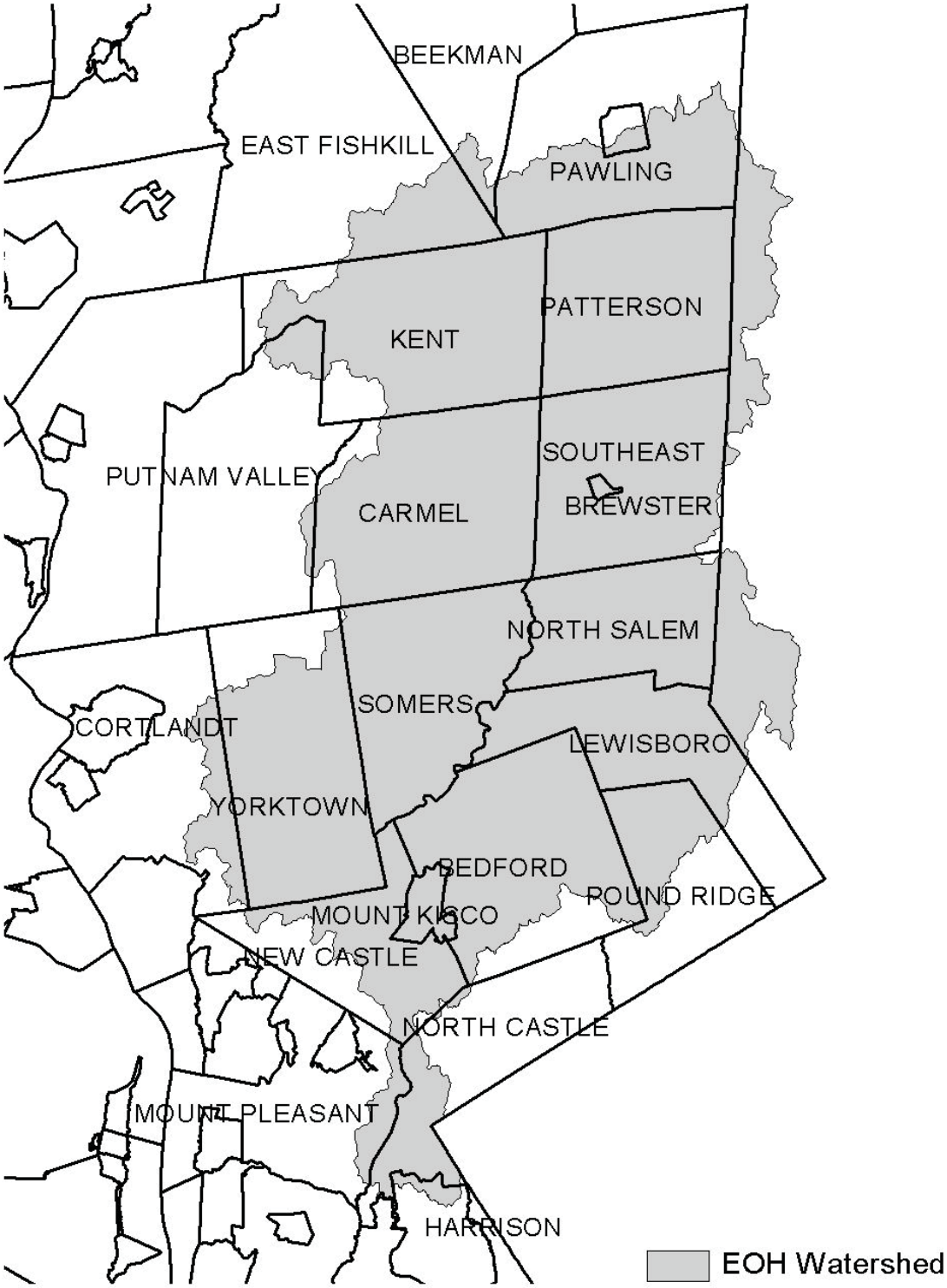

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Figure 2 - Onondaga Lake Watershed

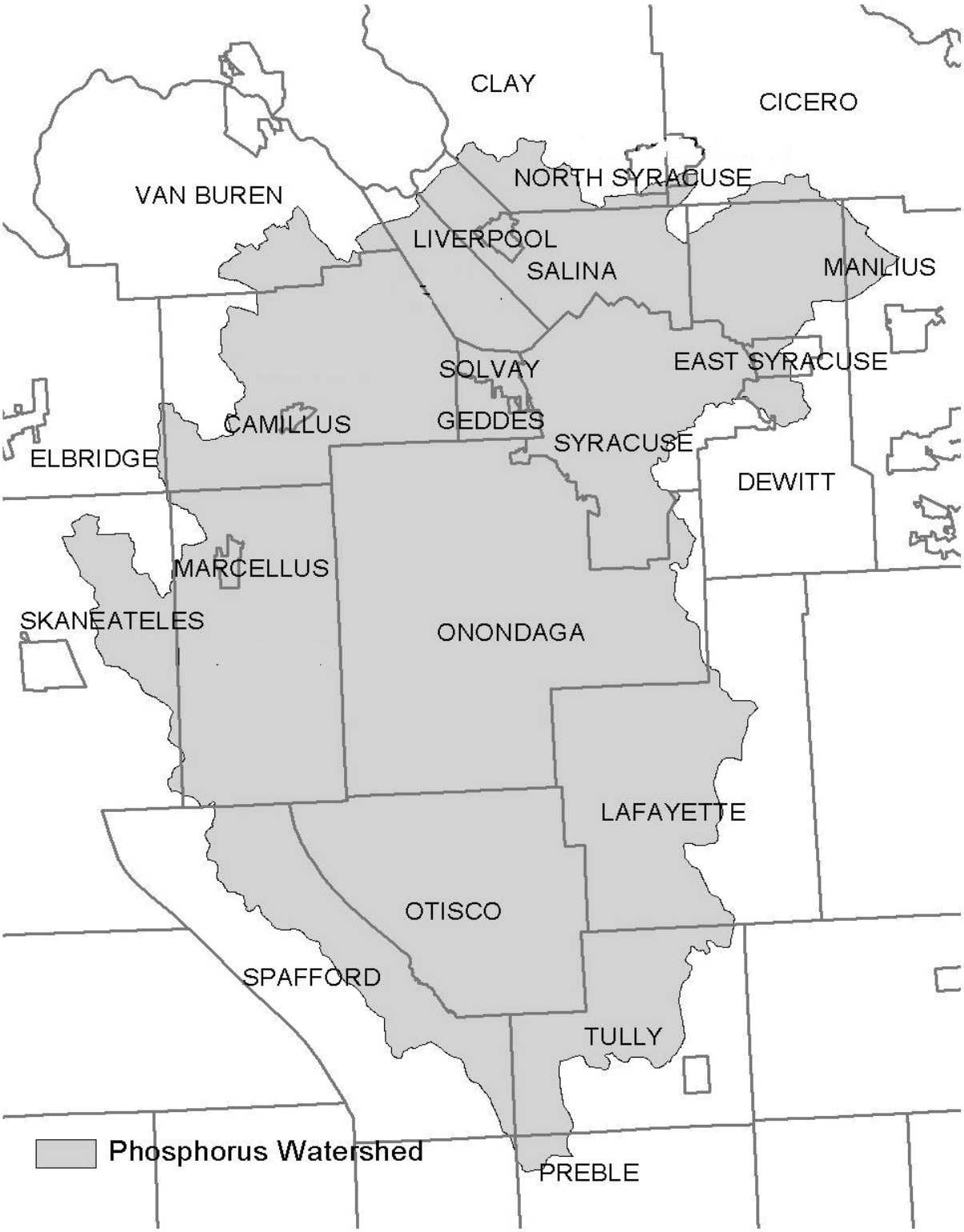

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Figure 3 - Greenwood Lake Watershed



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Figure 4 - Oscawana Lake Watershed

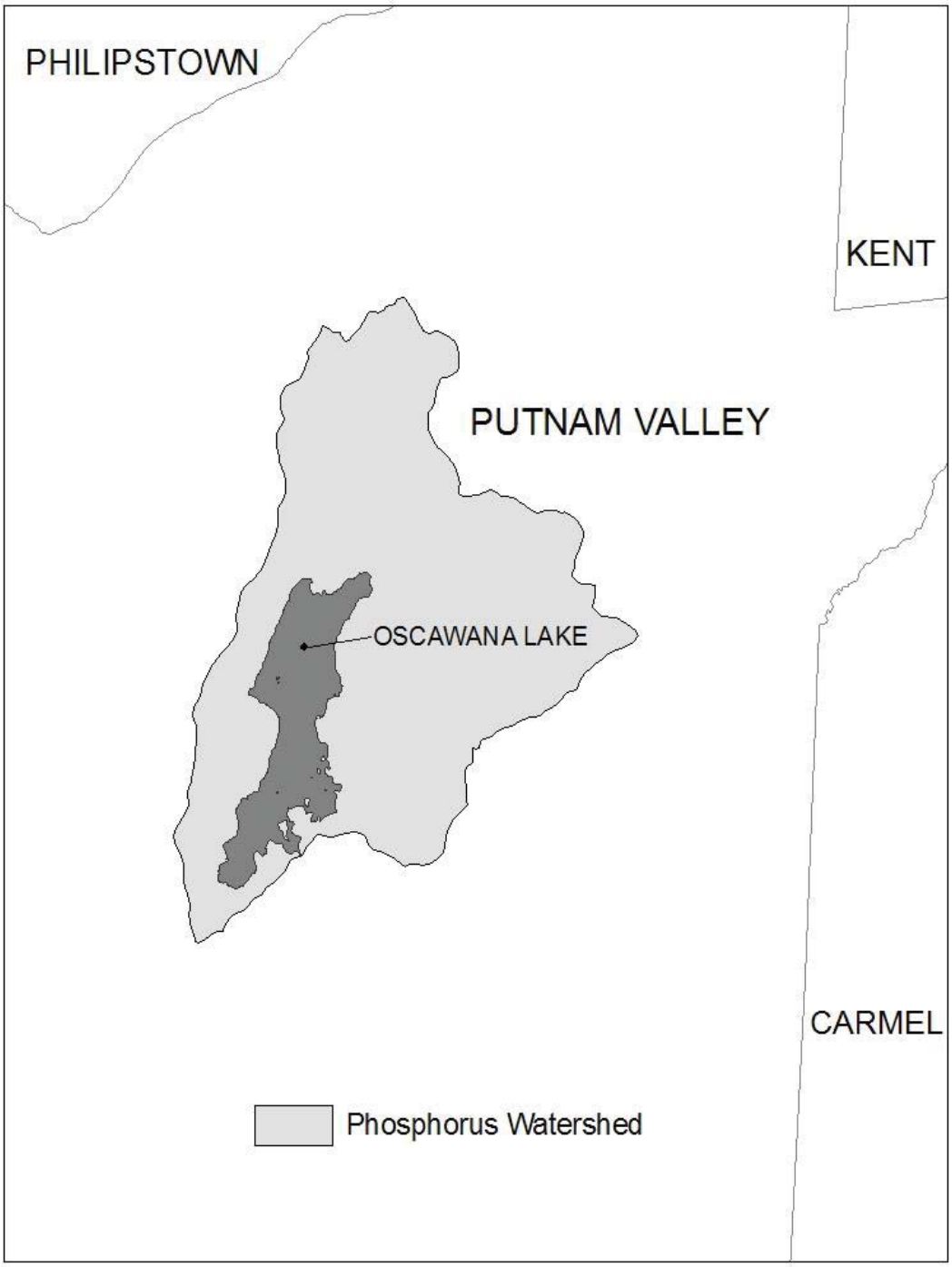

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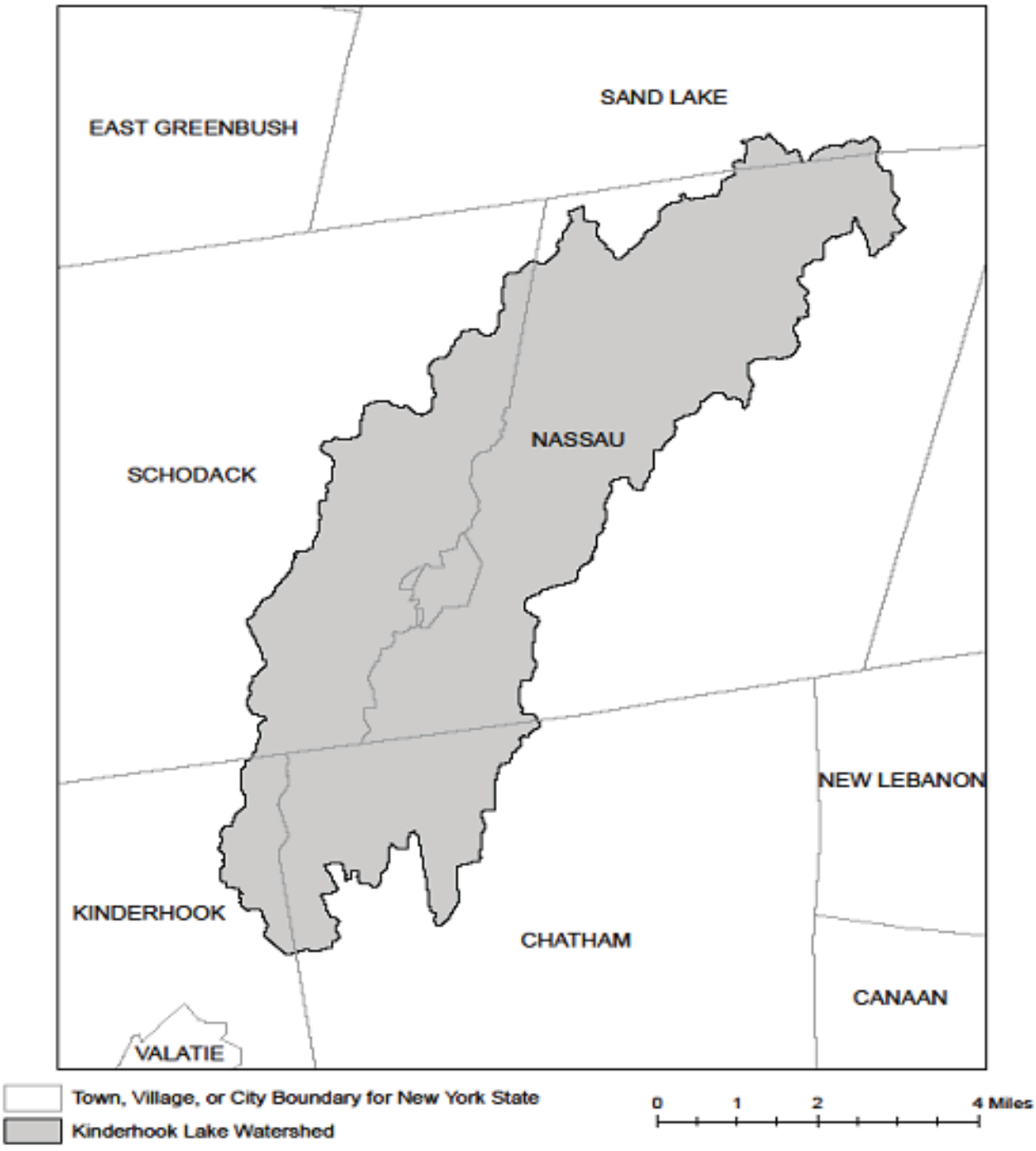
Figure 5 - Kinderhook Lake Watershed



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APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

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303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

APPENDIX F – List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	100 Hillside Avenue, Suite 1W White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Appendix F

Forms

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN

CONTRACTOR'S CERTIFICATION LOG

FORM SWPPP-1

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Company Name _____
Address

Contact Name _____
Telephone Number
Cell Phone/Pager

Scope of Services _____

Certification Date _____

Company Name _____
Address

Contact Name _____
Telephone Number
Cell Phone/Pager

Scope of Services _____

Certification Date _____

Company Name _____
Address

Contact Name _____
Telephone Number
Cell Phone/Pager

Scope of Services _____

Certification Date _____

Contractor's Project Manager_____

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
CONTRACTOR'S CERTIFICATION STATEMENT

FORM SWPPP-2

Construction Site

STORM WATER POLLUTION PREVENTION PROGRAM

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

SUBCONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Note: The contractor shall have at least one NYSDEC trained individual onsite at all times when earthwork and other SWPPP associated work is being performed from each contractor(s) and subcontractor(s). Each contractor(s) and subcontractor(s) shall provide copies of these individuals' certifications to the Town of Orchard Park.

Name: _____
(Print)

Signature: _____

Title: _____

Company Name: _____

Address: _____

Telephone Number: _____

Date: _____

Scope of Services: _____

Contractor's Project Manager_____

This form must be signed by a responsible corporate officer or other party meeting the "Signatory Requirements" of the NYSDEC SPDES General Permit

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION REPORT (Page 1 of 2)

FORM SWPPP-3

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Inspections/reports are required at least once every seven (7) calendar days.

Inspection Type: ☐ **Routine (every 7 calendar days)** ☐ **Routine (every 30 calendar days)** ☐ **Storm**

Date: _____ Week Ending: _____

Weather/Storm Event Information:

Storm Start Time: _____ Storm Duration: _____

Time Elapsed Since Last Storm: _____ Approximate Amount of Rainfall (inches): _____

Based on the results of the inspection, necessary control modifications shall be implemented within seven (7) calendar days. These reports shall be kept on file as part of the Storm Water Pollution Prevention Plan for at least five (5) years from the date of completion and submission of the Final Stabilization Certification/Termination Checklist and Notice of Termination. A copy of the SWPPP shall be kept at the site at all times during construction.

Certification Statement:
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name of Inspector: _____ Title of Inspector: _____

Qualifications of Inspector: _____
_____

Inspector's Signature: _____

Construction phasing/sequencing is consistent with the SWPPP and Erosion Control Plans: ☐ **Yes** ☐ **No**

Compliance Certification
I certify that, based on no incidents of non-compliance identified during the inspection, the site is in compliance with the SWPPP and the Construction General Permit.

Name of Operator's Duly Authorized Representative (Printed): _____

Signature of Operator's Duly Authorized Representative: _____

Date: _____

*Note: This Compliance Certification is only to be signed by the Operator's Duly Authorized Representative (Project Manager) when there are no **"unsatisfactory" conditions and the construction phasing/sequencing is consistent with the SWPPP, rendering the site in full compliance with** the SWPPP and the Construction General Permit.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Form SWPPP-3 Continued

Inspection Areas (Structural)	Satisfactory	Unsatisfactory (provide location or numeric identification per plan sheet)	N/A	Corrective Action Required	Implementation Date of Corrective Action
Construction Entrance/Exit					
Perimeter Silt Fence					

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Contractor's Project Manager_____

STORM WATER POLLUTION PREVENTION PLAN

Stabilization Schedule for Major Grading Activities

FORM SWPPP-4

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

*This form should be updated as necessary

Major Grading Activity/Area to be Stabilized	Begin Date	Date Activity Temporarily Ceased / Date Activity Resumed	Date Temporary Stabilization Measures Initiated and Method of Stabilization (if activities cease for more than 14 days, this column must be completed)	Date Activity Permanently Ceased	Date Permanent Stabilization Measures Initiated	Permanent Stabilization Measure(s) Used (i.e., stone, seeded, rolled, tracked)	Name of Contractor Responsible for Implementing Stabilization Measures
Construction Entrance(s)/Exit(s)							
Seeded, Landscaped Areas							

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Major Grading Activity/Area to be Stabilized	Begin Date	Date Activity Temporarily Ceased / Date Activity Resumed	Date Temporary Stabilization Measures Initiated and Method of Stabilization (if activities cease for more than 14 days, this column must be completed)	Date Activity Permanently Ceased	Date Permanent Stabilization Measures Initiated	Permanent Stabilization Measure(s) Used (i.e., stone, seeded, rolled, tracked)	Name of Contractor Responsible for Implementing Stabilization Measures

FORM SWPPP-4 CONTINUED

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN

FINAL STABILIZATION CERTIFICATION /NOTICE OF TERMINATION CHECKLIST

FORM SWPPP-5

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

1. ☐ **All soil disturbing activities are complete.**

2. ☐ **Temporary Erosion and Sediment Control Measures have been removed or will be removed at the appropriate time.**

3. ☐ **All areas of the Construction Site not otherwise covered by a permanent pavement or structure have been stabilized with a uniform perennial vegetative cover with a density of 85% or equivalent measures have been employed.**

CONTRACTOR'S CERTIFICATION:

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge storm water. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System (SPDES) general permit for storm water discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Company Name _____

Name (Print) _____

Signature _____

Title _____

Date _____

Contractor's Project Manager _____

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

YEAR 20___

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226
STORM WATER POLLUTION PREVENTION PLAN
PROJECT RAINFALL LOG

FORM SWPPP-6

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Day												
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PM Initials												

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
MODIFICATION REPORT

FORM SWPPP-7

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

CHANGES REQUIRED FOR STORM WATER POLLUTION PREVENTION PLAN

The SWPPP must be amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has a significant effect on the discharge of pollutants to the waters of the United States that has not been previously addressed in the SWPPP, if inspections or investigations by site staff, local, state or federal officials determine that discharges are causing water quality exceedances or the SWPPP is ineffective in eliminating or significantly minimizing pollutants in storm water discharges from the construction site, or based on the results of an inspection, the SWPPP must be modified to include additional or modified BMPs designed to correct identified problems. Revisions must be completed within seven (7) calendar days following the inspection.

To:	**Project Manager**	**Date:**	
Address:			
Telephone:			
Facsimile:			
Sent Via:	☐ **Facsimile**	☐ **Courier**	☐ **US Mail**

INSPECTOR: _____ DATE: _____
(Print)

_____
(Signature)

QUALIFICATIONS OF INSPECTOR: _____

CHANGES REQUIRED TO THE STORMWATER POLLUTION PREVENTION PLAN: _____

_____

_____

REASONS FOR CHANGES: _____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

Contractor's Project Manager: _____

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
MONTHLY TRAINING LOG

FORM SWPPP-8

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Storm Water Pollution Prevention Plan Topic: (Check as appropriate)

☐ **Temporary Soil Stabilization**
☐ **Temporary Sediment Control**
☐ **Wind Erosion Control**
☐ **Tracking Control**
☐ **Non-Storm Water Management**
☐ **Waste Management and Materials Pollution Control**
☐ **Erosion & Sediment Control Plan**

Specific Training Objective: _____

Date: _____

Instructor: _____
Location: _____
Telephone: _____

Attendance Roster

Name	Company	Telephone Number	Signature

Contractor's Project Manager _____

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
REPORTABLE QUANTITY RELEASE FORM

FORM SWPPP-9

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

The discharges of hazardous substances or oil in storm water discharges from construction sites must be prevented or minimized in accordance with the SWPPP. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under 40CFR110, 40CFR117 and 40CFR302 occurs, the following steps must be taken:

1. All measures must be taken to contain and abate the spill and to prevent the discharge of the pollutant(s) to storm water or off-site.

2. Notice must be provided to the National Response Center (NRC) at 1-800-424-8802 and the NYSDEC in accordance with regulations referenced above as soon as site staff has knowledge of the discharge.

3. Contact the Project Manager or Engineer of Record immediately upon knowledge of release.

4. The SWPPP must be modified within seven (7) calendar days of knowledge of the discharge to provide a description of the release, the circumstances leading to the release, and the date of the release. The plans must identify measures to prevent the recurrence of such releases and to respond to such releases.

Date of Spill	Material Spilled	Approximate Quantity of Spill (in gallons)	Agency(s) Notified	Date of Notification	SWPPP Revision Date

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
IMPLEMENTATION SCHEDULE

FORM SWPPP-10

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

*To be completed prior to initiation of construction by the contractor.

The Contractor will be responsible for implementing all erosion control and storm water management control structures. The Contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the Contractor.

Refer to Section 812.3 for Sequence of Activities

Construction Activity	Proposed Initiation Date	Proposed Completion Date	Contractor Responsible for Implementation

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

STORM WATER POLLUTION PREVENTION PLAN
SIGNATORY AUTHORIZATION DESIGNATION

FORM SWPPP-11

Construction Site

STORMWATER POLLUTION PREVENTION PLAN

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

"In accordance with the **NYSDEC SPDES General Permit for Storm Water Discharges from Construction Activities, Part V, paragraph H, Signatory Requirements**, _____is hereby duly authorized to sign on my behalf, all reports and certifications that are required under the Permit and as part of this Storm Water Pollution Prevention Plan."

Signed: _____

Printed Name: _____

Title: _____

Company Name: _____

Address: _____

Telephone Number: _____

Date: _____

Note: Multiple designation forms may be required
(i.e., one from the Operator and one from the General Contractor).

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges From Construction Activity (GP-0-20-001)

Project Site Information

Project/Site Name

Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

Owner/Operator Information

Owner/Operator (Company Name/Private Owner/Municipality Name)

Benderson Development Company, LLC - 570 Delaware Ave - Buffalo, NY 14202

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Christopher		Wood
First name	MI	Last Name

Signature 

5/20/22
Date

Revised: January 2020

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: Proposed Site Redevelopment - 4548-4564 Main Street - Amherst, NY 14226

eNOI Submission Number: _____

eNOI Submitted by: ☐ **Owner/Operator** ☑ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Owner/Operator First Name M.I. Last Name

_____

Signature

_____

Date

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Appendix G

NYSDEC Notice of Termination (NOT)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:	
Title/Position:	
Signature:	Date:

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:	
I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.	
Printed Name:	
Title/Position:	
Signature:	Date:
VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):	
I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.	
Printed Name:	
Title/Position:	
Signature:	Date:
IX. Owner or Operator Certification	
I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.	
Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Appendix H

Stormwater Management Pond and Bioretention Construction and Maintenance Checklist

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Stormwater/Wetland Pond Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
Pre-Construction/Materials and Equipment		
Pre-construction meeting		
Pipe and appurtenances on-site prior to construction and dimensions checked		
1. Material (including protective coating, if specified)		
2. Diameter		
3. Dimensions of metal riser or pre-cast concrete outlet structure		
4. Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans		
5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope		
6. Number and dimensions of prefabricated anti-seep collars		
7. Watertight connectors and gaskets		
8. Outlet drain valve		
Project benchmark near pond site		
Equipment for temporary de-watering		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
2. Subgrade Preparation		
Area beneath embankment stripped of all vegetation, topsoil, and organic matter		
3. Pipe Spillway Installation		
Method of installation detailed on plans		
A. Bed preparation		
Installation trench excavated with specified side slopes		
Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation)		
Invert at proper elevation and grade		
B. Pipe placement		
Metal / plastic pipe		
1. Watertight connectors and gaskets properly installed		
2. Anti-seep collars properly spaced and having watertight connections to pipe		
3. Backfill placed and tamped by hand under “haunches” of pipe		
4. Remaining backfill placed in max. 8 inch lifts using small power tamping equipment until 2 feet cover over pipe is reached		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
3. Pipe Spillway Installation		
Concrete pipe		
1. Pipe set on blocks or concrete slab for pouring of low cradle		
2. Pipe installed with rubber gasket joints with no spalling in gasket interface area		
3. Excavation for lower half of anti-seep collar(s) with reinforcing steel set		
4. Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant		
5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix		
6. Upper half of anti-seep collar(s) formed with reinforcing steel set		
7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary.		
C. Backfilling		
Fill placed in maximum 8 inch lifts		
Backfill taken minimum 2 feet above top of anti-seep collar elevation before traversing with heavy equipment		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
4. Riser / Outlet Structure Installation		
Riser located within embankment		
A. Metal riser		
Riser base excavated or formed on stable subgrade to design dimensions		
Set on blocks to design elevations and plumbed		
Reinforcing bars placed at right angles and projecting into sides of riser		
Concrete poured so as to fill inside of riser to invert of barrel		
B. Pre-cast concrete structure		
Dry and stable subgrade		
Riser base set to design elevation		
If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely		
Watertight and structurally sound collar or gasket joint where structure connects to pipe spillway		
C. Poured concrete structure		
Footing excavated or formed on stable subgrade, to design dimensions with reinforcing steel set		
Structure formed to design dimensions, with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
Forms stripped & inspected for “honeycomb” prior to backfilling; parge if necessary		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Embankment Construction		
Fill material		
Compaction		
Embankment		
1. Fill placed in specified lifts and compacted with appropriate equipment		
2. Constructed to design cross-section, side slopes and top width		
3. Constructed to design elevation plus allowance for settlement		
6. Impounded Area Construction		
Excavated / graded to design contours and side slopes		
Inlet pipes have adequate outfall protection		
Forebay(s)		
Pond benches		
7. Earth Emergency Spillway Construction		
Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc.		
Excavated to proper cross-section, side slopes and bottom width		
Entrance channel, crest, and exit channel constructed to design grades and elevations		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
8. Outlet Protection		
A. End section		
Securely in place and properly backfilled		
B. Endwall		
Footing excavated or formed on stable subgrade, to design dimensions and reinforcing steel set, if specified		
Endwall formed to design dimensions with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing, if necessary)		
Forms stripped and structure inspected for "honeycomb" prior to backfilling; parge if necessary		
C. Riprap apron / channel		
Apron / channel excavated to design cross-section with proper transition to existing ground		
Filter fabric in place		
Stone sized as per plan and uniformly place at the thickness specified		
9. Vegetative Stabilization		
Approved seed mixture or sod		
Proper surface preparation and required soil amendments		
Excelsior mat or other stabilization, as per plan		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
10. Miscellaneous		
Drain for ponds having a permanent pool		
Trash rack / anti-vortex device secured to outlet structure		
Trash protection for low flow pipes, orifices, etc.		
Fencing (when required)		
Access road		
Set aside for clean-out maintenance		
11. Stormwater Wetlands		
Adequate water balance		
Variety of depth zones present		
Approved pondscaping plan in place Reinforcement budget for additional plantings		
Plants and materials ordered 6 months prior to construction		
Construction planned to allow for adequate planting and establishment of plant community (April-June planting window)		
Wetland buffer area preserved to maximum extent possible		

Comments:

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Actions to be Taken:

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Bioretention Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
If designed as exfilter, soil testing for permeability		
Facility location staked out		
2. Excavation		
Size and location		
Lateral slopes completely level		
If designed as exfilter, ensure that excavation does not compact susoils.		
Longitudinal slopes within design range		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
3. Structural Components		
Stone diaphragm installed correctly		
Outlets installed correctly		
Underdrain		
Pretreatment devices installed		
Soil bed composition and texture		
4. Vegetation		
Complies with planting specs		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
5. Final Inspection		
Dimensions		
Proper stone diaphragm		
Proper outlet		
Soil/ filter bed permeability testing		
Effective stand of vegetation and stabilization		
Construction generated sediments removed		
Contributing watershed stabilized before flow is diverted to the practice		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Comments:

Actions to be Taken:

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Project _____
Location: _____
Site Status: _____

Date: _____
Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After Major Storms)		
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)		
Type: Reinforced concrete _____ Corrugated pipe _____ Masonry _____ 1. Low flow orifice obstructed		
2. Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
3. Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
5. Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
8. Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (monthly)		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual , After Major Storms)		
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
1. Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
2. Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
4. Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants “choked” with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		

Comments:

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Actions to be Taken:

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Bioretention Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Bioretention and contributing areas clean of debris		
No dumping of yard wastes into practice		
Litter (branches, etc.) have been removed		
2. Vegetation (Monthly)		
Plant height not less than design water depth		
Fertilized per specifications		
Plant composition according to approved plans		
No placement of inappropriate plants		
Grass height not greater than 6 inches		
No evidence of erosion		
3. Check Dams/Energy Dissipaters/Sumps (Annual, After Major Storms)		
No evidence of sediment buildup		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Sumps should not be more than 50% full of sediment		
No evidence of erosion at downstream toe of drop structure		
4. Dewatering (Monthly)		
Dewaters between storms		
No evidence of standing water		
5. Sediment Deposition (Annual)		
Swale clean of sediments		
Sediments should not be > 20% of swale design depth		
6. Outlet/Overflow Spillway (Annual, After Major Storms)		
Good condition, no need for repair		
No evidence of erosion		
No evidence of any blockages		
7. Integrity of Filter Bed (Annual)		
Filter bed has not been blocked or filled inappropriately		

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Comments:

Actions to be Taken:

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Appendix I

Construction Documents

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

PROPOSED SITE DEVELOPMENT

Main St. / Chateau Terrace / Fruehauf Ave.

4548 - 4564 Main St, Amherst, NY

BDC Property # 5202

SITE DEVELOPMENT DRAWINGS

INDEX OF DRAWINGS

DWG. #	DRAWING NAME	REVISION	DATE
C1.0	COVER SHEET	3	12.14.2022
C2.0	EXISTING SURVEY		
C3.0	DEMOLITION & EROSION CONTROL PLAN	3	12.14.2022
C3.1	BORING LOCATION PLAN	3	12.14.2022
C3.2	DEMOLITION & EROSION CONTROL DETAILS	3	12.14.2022
C4.0	OVERALL SITE PLAN	3	12.14.2022
C4.1	DETAILED SITE PLAN	3	12.14.2022
C4.2	CONSTRUCTION DETAILS	3	12.14.2022
C5.0	GRADING PLAN	3	12.14.2022
C5.1	DRAINAGE PLAN	3	12.14.2022
C5.2	DRAINAGE DETAILS	3	12.14.2022
C6.0	UTILITY PLAN	3	12.14.2022
C6.1	UTILITY DETAILS	3	12.14.2022
C7.0	LANDSCAPE PLAN	3	12.14.2022
C8.0	LIGHTING PLAN	3	12.14.2022
C8.1	LIGHTING DETAILS	3	12.14.2022

OWNER/DEVELOPER:

NAME: BENDERSON DEVELOPMENT COMPANY, LLC
ADDRESS: 570 DELAWARE AVENUE, BUFFALO, NY 14202
CONTACT: DAVID ZUPPELLI
PHONE: 716 - 878 - 9683

BENDERSON DEVELOPMENT COMPANY, LLC
570 Delaware Ave.
Buffalo, New York 14202

SURVEYOR

NAME: MILLARD, MACKAY & DELLES LAND SURVEYORS, LLP
ADDRESS: 150 AERO DRIVE BUFFALO, NY 14225
CONTACT: FRANCIS C. DELLES
PHONE: 716-631-5140

UTILITIES:

WATER DEPARTMENT
NAME/TITLE: ADAM MASSARO
COMPANY/DEPT: ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION RD, CHEEKTOWAGA, NY
PHONE: 716 - 685-8207

DIG SAFELY NEW YORK
PHONE: 1 - 800 - 962 - 7962 OR (811)

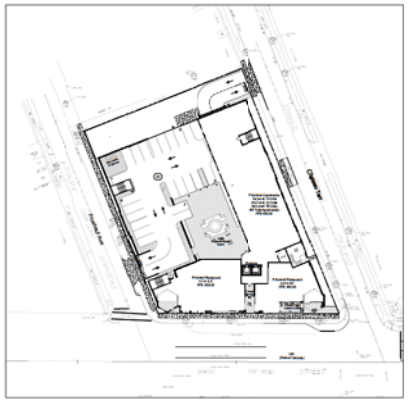
AGENCIES:

ENGINEERING DEPARTMENT
NAME/TITLE: JEFF BURROUGHS
COMPANY/DEPT: TOWN OF AMHERST, NY - ENGINEERING DPT
ADDRESS: 1100 NORTH FOREST RD, WILLIAMSVILLE, NY
PHONE: 716 - 631 - 7154 EX 7418

BUILDING & PLUMBING DEPARTMENT
NAME/TITLE: -
COMPANY/DEPT: TOWN OF AMHERST, NY - BUILDING DPT
ADDRESS: 5583 MAIN STREET, WILLIAMSVILLE, NY 14221
PHONE: 716 - 631 - 7080

NYSDOT - HIGHWAY & UTILITY PERMITS
NAME/TITLE: ALFRED I. OYOYO, ASSISTANT RESIDENT ENGINEER
COMPANY/DEPT: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NORTH ERIE RESIDENCY)
ADDRESS: 111 INDIAN ROAD, DEPEW, NEW YORK 14043
PHONE: 716 - 683 - 3476 (EXT - 27)

SITE LOCATION MAP 1"=60'



REGIONAL LOCATION MAP NTS



OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	05.23.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: --

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

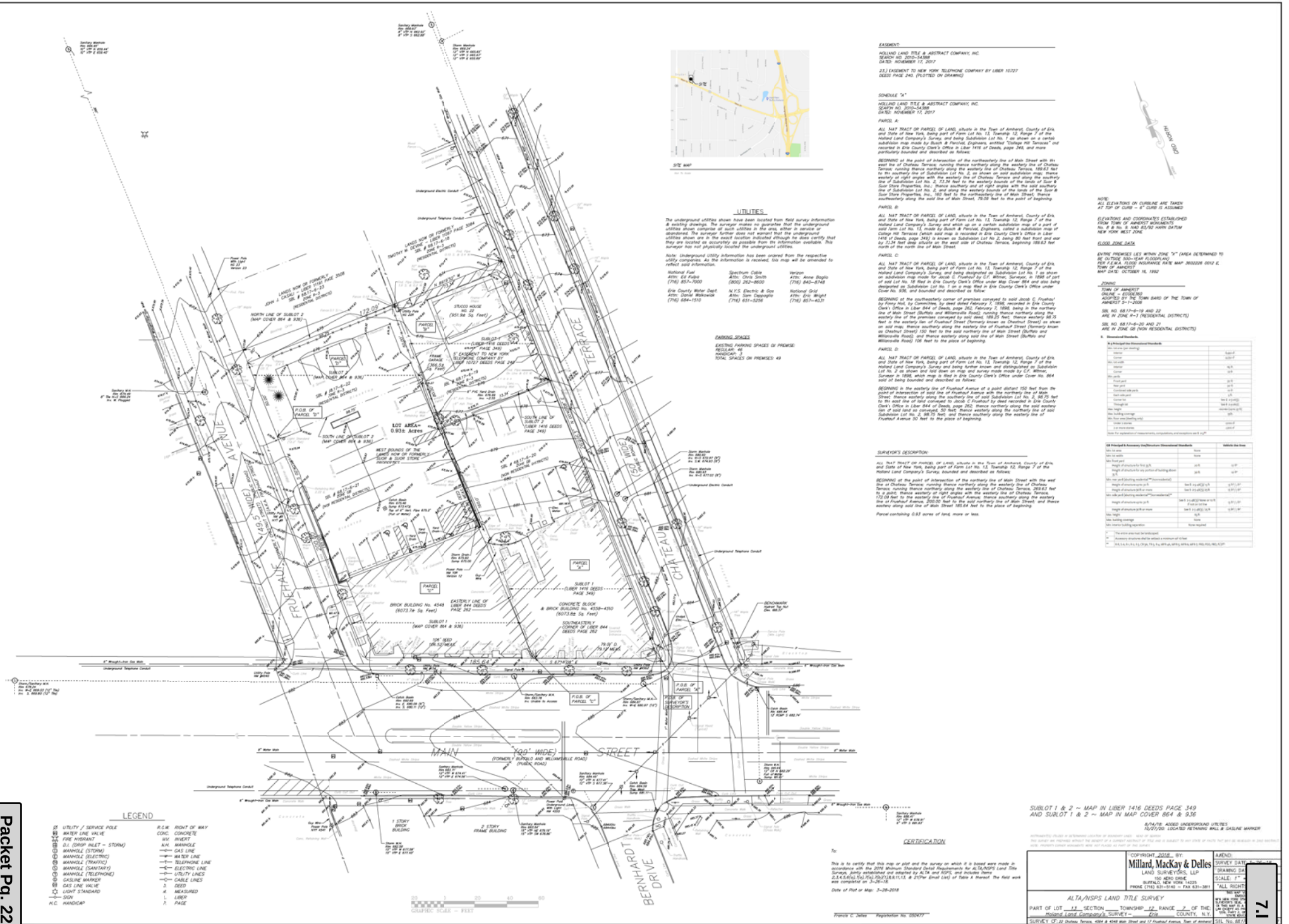
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

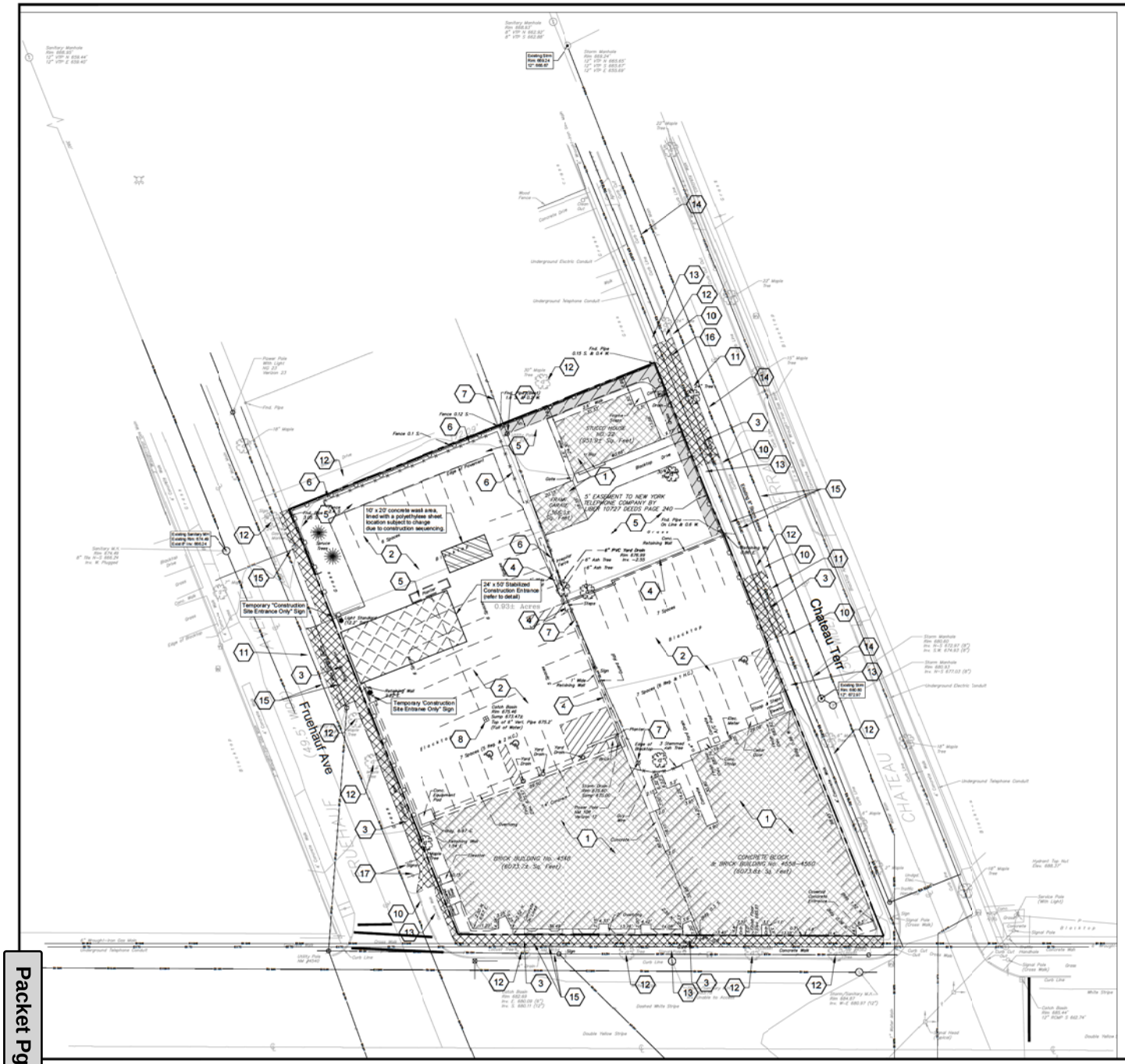
SEAL

TITLE: COVER SHEET

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C1.0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)


SITE MAP
UTILITIES
EASEMENT:
SCHEDULE "A"
PARCEL A:
PARCEL B:
PARCEL C:
PARCEL D:
SURVEYOR'S DESCRIPTION:
PARKING SPACES
FLOOD ZONE DATA
ZONING
LEGEND
CERTIFICATION
SUBLOT 1 & 2 ~ MAP IN LIBER 1416 DEEDS PAGE 349
AND SUBLOT 1 & 2 ~ MAP IN MAP COVER 864 & 936
Millard, MacKay & Delles
LAND SURVEYORS, LLP
ALTA/NSPS LAND TITLE SURVEY
Packet Pg. 2231
7.1
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



GENERAL NOTES:
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5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
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9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONING.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (#1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (#1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DEMOLITION & EROSION NOTES:
1. USE ENTRANCE FROM FRUEHAUF AVE. FOR CONSTRUCTION ENTRANCE
2. INSTALL TEMPORARY EROSION CONTROL DEVICES AS DIRECTED WITHIN THE WORKING AREA TO PREVENT SEDIMENT MIGRATION. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS PROVIDED.
3. ALL EROSION CONTROL DEVICES SHALL BE REPLACED WHEREVER THEY BECOME INOPERABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
5. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION. DURING EARTHWORK OPERATIONS, WATER-SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR, AND WATER SPREAD AS NECESSARY AND AS DIRECTED IN ORDER TO CONTROL DUST.
6. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED AND ROAD SURFACES CLEANED BY THE CONTRACTORS ON A DAILY BASIS, OR MORE FREQUENTLY IF DEEMED NECESSARY.
7. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM OF 4" DEPTH AND SEEDED IMMEDIATELY AFTER FINE GRADING TAKES PLACE AND AS SOON AS PHYSICALLY POSSIBLE.
8. THE CONTRACTOR IS RESPONSIBLY FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES AND CULVERTS. SILT BUILDUP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS, DETENTION PONDS, BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR CITY.
9. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE ALL GRADING WORKS ARE COMPLETE.

DEMOLITION LEGEND:
- Property Line
- Existing Electric
- Existing Gas
- Existing Water
- Existing Overhead Utility
- Existing Sanitary
- Existing Storm
- Existing Telecoms
- Saw Cut Line
- Silt Fence/Sock
- Inlet Protection "Sedi-Bag" or similar
- Existing Easement to be removed.
- Existing Building to be removed.

DEMOLITION NOTES: (#)
1. Existing Buildings to be removed.
2. Existing Pavement to be removed.
3. Existing R.O.W. Driveway, Curb and Sidewalk to be removed.
4. Existing Retaining Wall and Steps to be removed.
5. Existing Landscape Area to be removed.
6. Existing Fence to be removed.
7. Existing Utility to be removed.
8. Existing Storm Drainage/CB to be removed.
9. Existing Sign to be removed.
10. Existing Curb to remain.
11. Existing Pavement to remain.
12. Existing Landscape area to remain.
13. Eising Sidewalk to remain.
14. Existing Storm Drainage/CB to remain and be protected during Construction.
15. Existing Utility to remain and be protected during construction.
16. Existing Light Pole to remain and be poteded during construction.
17. Existing Sign to be relocated.

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PREPARED FOR
BENDERSON DEVELOPMENT
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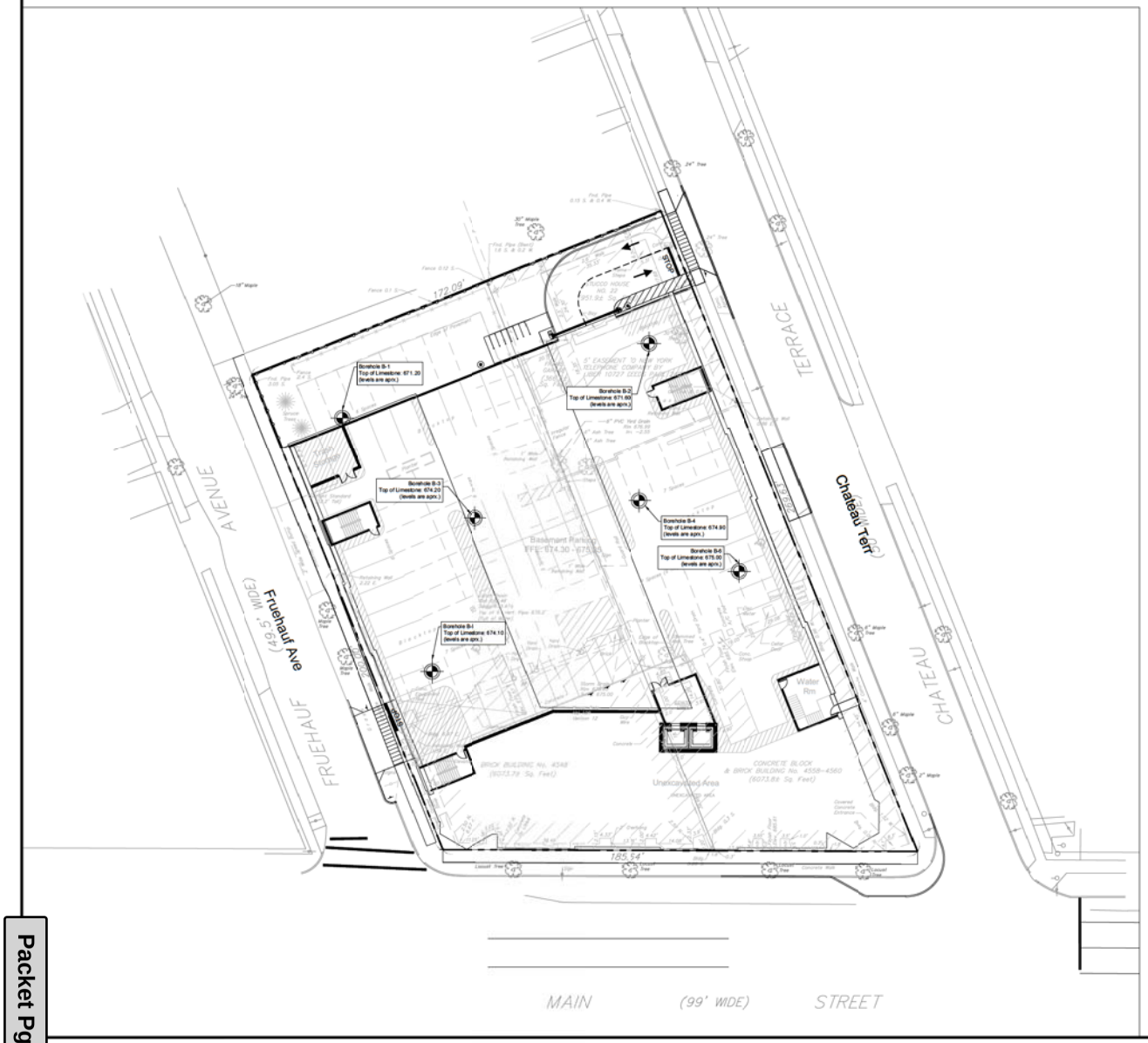
(716) 886-0211

SEAL

TITLE:
DEMO & EROSION CONTROL PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C3.0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



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BOREHOLE TEST NOTES:

BOREHOLE LOCATIONS ARE APPROXIMATE. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR LOCATIONS AND INFORMATION.

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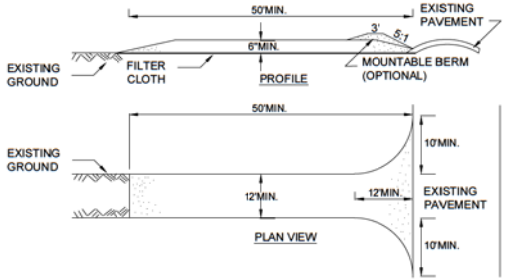
(716) 886-0211

SEAL

TITLE:
BORING LOCATION PLAN

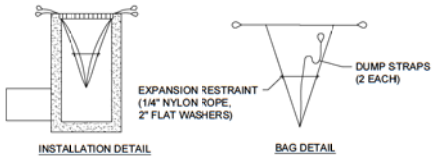
SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C3.1

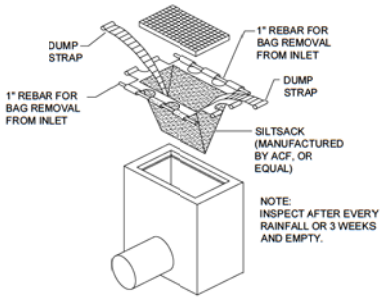


STABILIZED CONSTRUCTION ENTRANCE DETAIL

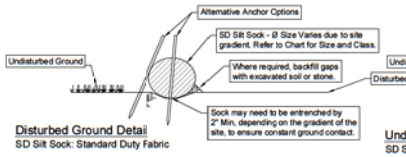
NOT TO SCALE

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



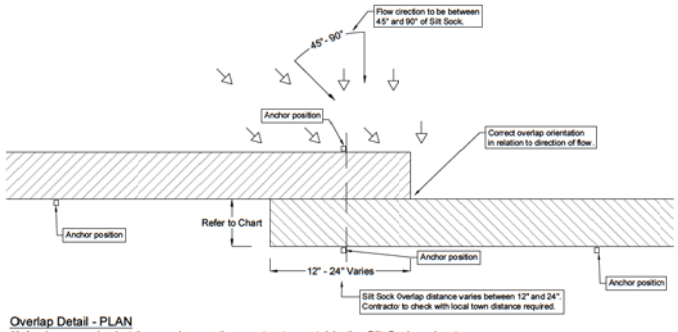


SILT SACK DETAIL
N.T.S.

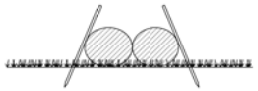


Disturbed Ground Detail
SD Silt Sock: Standard Duty Fabric

Undisturbed Ground Detail
SD Silt Sock: Standard Duty Fabric



Overlap Detail - PLAN
1) Anchors required at the overlap section are to stay outside the Silt Sock and not pierce through the material. See alternative anchor positons in details above.

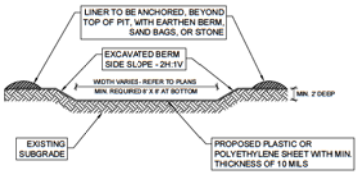


Anchor at Overlaped Ends - SECTION

Size & Class Chart			
	Diameter		
Gradient	8"	12"	18"
0 - 2%	30	55	75
2.1 - 5%	25	40	55
5.1 - 10%	15	30	40
10.1 - 33%	10	15	20
> 33%	5	10	15

SD SILT SOCK DETAIL

SD Silt Sock: Standard Duty Fabric



TYPICAL CONCRETE WASH OUT DETAIL

NOTES:
1. CONSTRUCT TO 2016 NYSDEC BLUE BOOK DESIGN CRITERIA

Notes:

1 - Do not use sock below the normal watermark or perpendicular to flow in river and where the maximum incline is greater than 50%.
2 - Contractors shoud be aware of federal, state and local laws, rules regulations or permit requirements for the use of Silt Socks on site.
3 - Sock should be positioned on the outline of the area to be protected, but must be installed between 45° to 90° from directions of flow.
4 - Sock may be required to be entrenched a minimum of 2" on disturbed ground to ensure constant ground contact.
5 - All gaps and ruts must be backfilled with soil or sock material.
6 - Sock overlap should be in the direction of the flow. Overlap amount will be between 12" and 24". Contractor to check with local town for requirements.
7 - If sediment collects to 1/2 the height of the sock, then a second sock may be stacked immediately up slope of the original instead of removing the sediment.
8 - Sock joint is where two sock sections meet on a level grade, overlap and adjoining ends, tightening the ends together, and anchoring through each end. Where two sections meet on un-level ground, j-hook higher elevated end, anchor, and begin new section just below. Back fill any gaps.
9 - Sock should be inspected and repaired as neeced.
10 - If ruts begin under the sock they should be backfilled with soil and compacted so that the ground and sock have continuous contact.
11 - If sock rolls out of place, the sock should be repositioned and secured with additional anchors.
12 - Tears in the Sock fabric may be repaired by wrapping a new piece of fabric over the sock and securing, or by place a second sock immediately up slope with the required overlap beyond deformation.
13 - A section of sock should be replaced whenever it has weakened to such an extent that the efficiency is reduced or diminished. Weakening can occur because the natural mesh fabric breaks down over time of from being moved/dragged on site.
14 - Sock should be replaced when sediment has built up and has been removed three times.
15 - All sediment in disturbed area next to sock must be removed and correctly disposed of before the sock can be removed.
16 - When removing, cut sock open and spread the filler material around. The neting should be removed from site.
17 - Sock should be installed before works commence on site.

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SEAL

TITLE: DEMOLITION & EROSION CONTROL DETAILS
SCALE: -
DRAWN BY: DMZ
DRAWING NO.: C3.0
CHECKED BY: JAR
DATE: 05.05.2022

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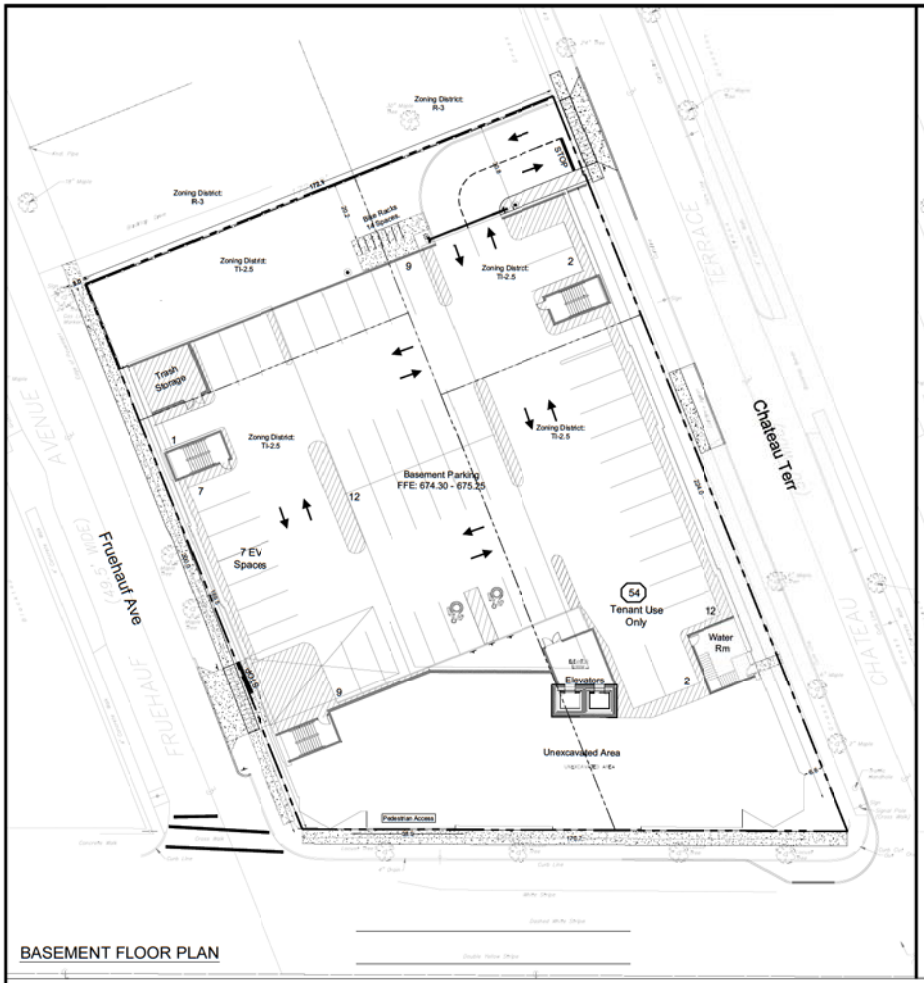
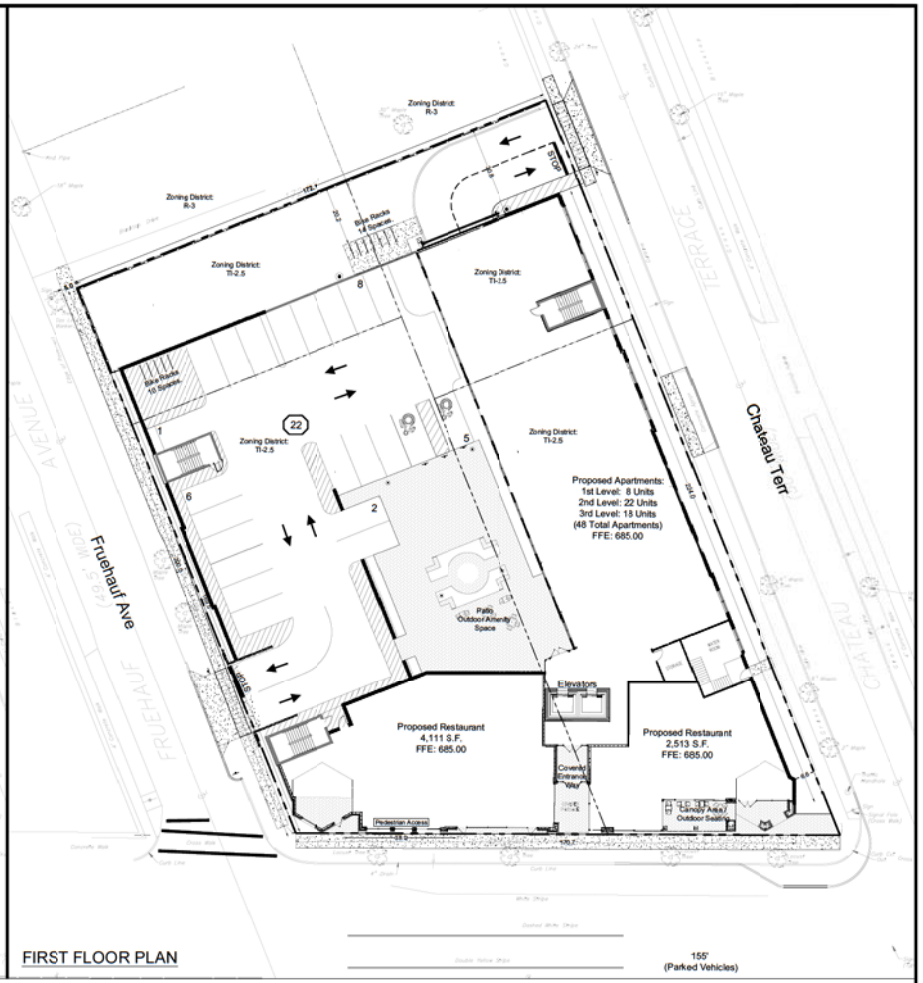


BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

155'
(Parked Vehicles)

TOWN OF AMHERST, NY ZONING ANALYSIS		
	REQUIRED	PROVIDED
ZONED	TI-2.5 (Village Frontage)	TI-2.5 (Village Frontage)
SA-1.3: TI-2.5 Traditional Infill 2.5 Section		
LOT		
Area	0 S.F. min.	40,409 S.F.
Width	0' min.	170.7'
Outdoor Amenity Space	10% min.	11.3% (4,500 S.F.)
At grade level	50% min. (See SA-7.1 B(2)	68.1% (2,825.1 S.F.)
Planted above ground level	25% min. (See SA-7.1 B(2)	31.9% (1,324.9 S.F.)
Seating	1 per 500 S.F. (4,500 / 500 = 9 Seats min.)	10 Seats
BUILDING SETBACKS		
Building-to-zone	Refer to Section 5A-2 Infill Frontages	
Lot Frontage	Refer to Section 5A-2 Infill Frontages	
Common lot line	0' min.	30.8' (North Side)
Alley	0' min.	N/A
PARKING SETBACKS		
Primary and Side Street	Refer to Section 5A-2 Infill Frontages (below)	
Common lot line	0' min.	30.8' (North Side)
Alley	5' min.	N/A
BUILDING HEIGHT		
Eave/Top Plate Height	2 Stories / 24' max.	-
Building Height	2.5 Stories / 35' max.	-
Roof Pitch	18:12 max.	-
BUILDING LENGTH	Refer to Section 5A-2 Infill Frontages (below)	
STORY HEIGHT	Refer to Section 5A-2 Infill Frontages (below)	

5A-2.4: Village Frontage		
BUILDING SETBACKS		
Build-to zone	0' min./10' max.	0.0'
Street Frontage:		
Front: Main Street	90% min.	92.0% (170.7')
Side: Fruehauf Ave	-	169.5' - 24' (parking entrance) = 145.5' (72.6%)
Side: Chateau Terr	-	83.1% (224')
PARKING SETBACKS		
Street	20' min.	30.8' (North Side)
BUILDING MASS		
Street facing building length:		
Front: Main Street	200' max.	170.7'
Fruehauf Ave	200' max.	169.5'
Chateau Terr	200' max.	224.0' (Exception 203-5A-2.4 E)
STORY HEIGHT		
Ground floor elevation	0' min. / 2' max.	0.0'
Ground story height	10' min.	-
Upper story height	9' min.	-
TRANSPARENCY		
Ground story	70% min.	1,345S.F./1,890 S.F. = 71.2%
Upper story	20% min.	430 S.F. / 1890 S.F. = 22.7%
Blank wall length	15' max.	7'
PEDESTRIAN ACCESS		
Street facing entrance	Required	Complies
Entrance spacing	50' max.	38'
STREETSCAPE		
Clear pedestrian zone	10' min.	
Curb zone	6' min.	9.8' Total - Existing Condition
Tree planting type	Grates	Noted: Existing
Tree spacing	38' on-center avg.	Noted: Existing

PROPOSED PARKING & BIKE ANAYLSIS TI-2.5 (Section 5A-9.1.A.(1))			
USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	4,624 sq ft / 1000 x 4 = 21 SPACES	Basement Parking: 54 Spaces Ground Flr Parking: 22 Spaces
RESIDENTIAL (Upper stories)	1.0 x 48 Unit Studio or 1 Bedroom Units = 48 SPACES 1.5 x 0 2 Bedroom Units = 0 Spaces	Total: 76 SPACES	Total: 76 SPACES
STALL SIZE		9'x19'	9'x19'
ELECTRIC CHARGING STATIONS			
10% of parking spaces to be EV ready. Min. 2 EV ready spaces for parking lots over 20 spaces. EV Ready defined as power be available at spaces in advanced		Basement Parking: 54 / 10 = 5 Spaces Ground Floor Parking: 22 / 10 = 2 Spaces Total: 7 Spaces	Basement Parking: 7 Spaces Total: 7 Spaces
BIKE PARKING			
Residential Use: Short Term 0.5 space per unit min. 20 max. Public Use: 1 per 3,000 S.F. min. 20 max.		0.5 x 48 = 24 24 > 20 max. 20 SPACES 4,624 S.F. / 3000 = 1.5 SPACES	20 SPACES 4 SPACES
		TOTAL: 23 SPACES	TOTAL: 24 SPACES

RESTAURANT: 4,111 S.F. +2,513 S.F.

1 BEDROOM APARTMENTS: 21 UNITS
2 BEDROOM APARTMENTS: 24 UNITS
3 BEDROOM APARTMENTS: 3 UNITS

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	12.09.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

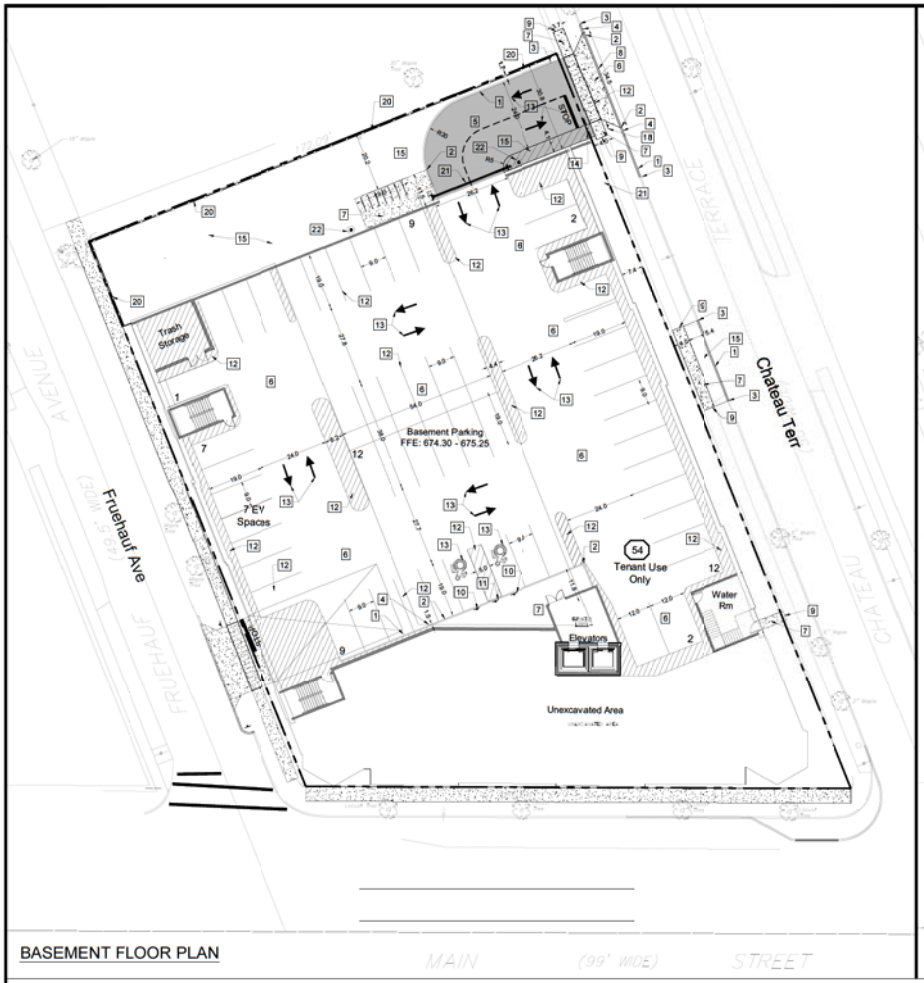
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

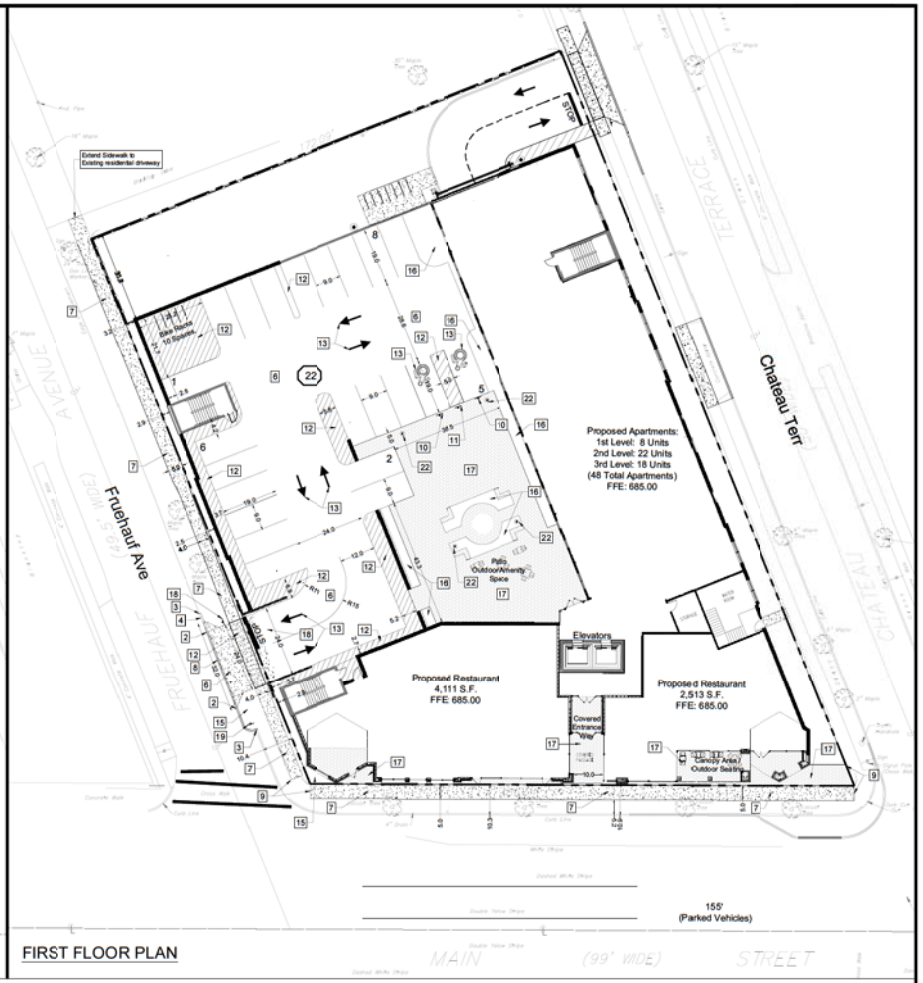
TITLE:
ZONING SITE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C4.0
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:
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2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (#1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE WASHING THE RELEASE AGENT OFF. APPX 30 DAYS AFTER THIS (IF WEATHER PERMITS APPLY ONE (#1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE MOUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:
- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed Concrete Pavement/Sidewalk (Concrete Floors/Deck not Hatched)
- Proposed HeavyDuty Pavement

* All curb radii are 3ft unless noted.
* Refer to General Notes, Construction Details and Architectural Plans for Concrete Sealer information.

SITE NOTES:
1. Proposed 6" concrete Curb.
2. Proposed Flush Concrete Curb.
3. Match into Existing Curb or runout over 2'.
4. Transitional Curb.
5. Proposed Heavy Duty Pavement
6. Proposed Concrete Pavement.
7. Proposed Concrete Sidewalk.
8. Match into Existing Pavement.
9. Match into Existing Sidewalk
10. Proposed "Handicapped Parking Only" sign.
11. Proposed "No Parking" sign.
12. 4" white Pavement Stripe (at 2' c-c in no parking zones).
13. Proposed White Pavement symbol (stop bar, accessibility symbol, text).
14. Proposed "Stop" Sign.
15. Proposed Landscape Area.
16. Proposed Raised Landscape Area.
17. Proposed Pavers.
18. Proposed Overhead Enter/Exit Signs/Traffic Mirror. Refer to Architectural Plans.
19. Relocated Existing Signage.
20. Proposed 6ft High Solid Board Fence
21. Proposed Security Gate
22. Proposed Light Pole Base

* All curb Radii to be 3' unless otherwise noted.
* Refer to General Notes, Construction Details and Architectural Plans for Concrete Sealer information.

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CONSULTANT

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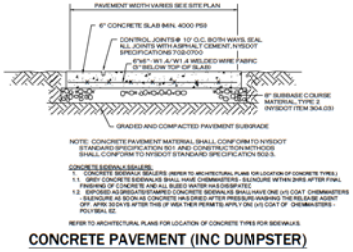
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

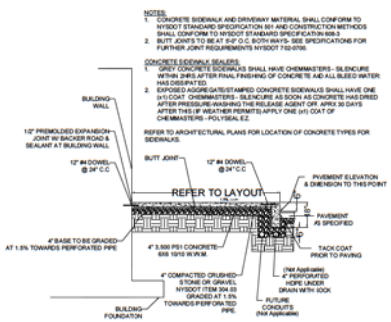
TITLE:
DETAILED SITE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C4.1
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

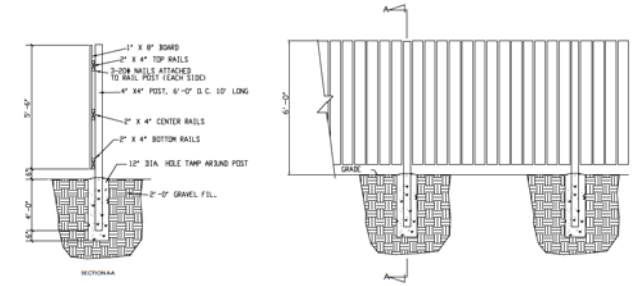


CONCRETE PAVEMENT (INC DUMPSTER)

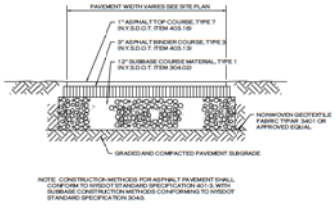


BUILDING SIDEWALK DETAIL

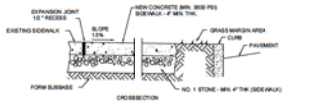
CONTRACTOR TO VERIFY WITH OWNER ON CURB DETAIL



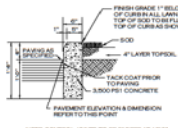
6FT SOLID BOARD FENCE DETAIL



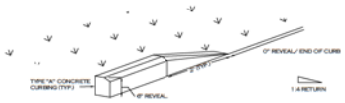
HEAVY DUTY ASPHALT SECTION



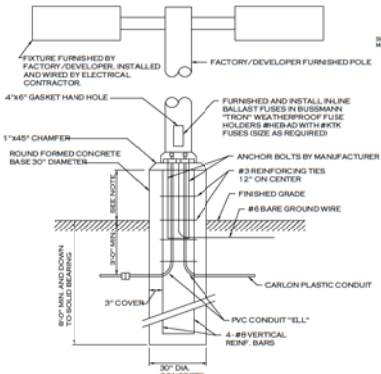
STANDARD CONCRETE SIDEWALK



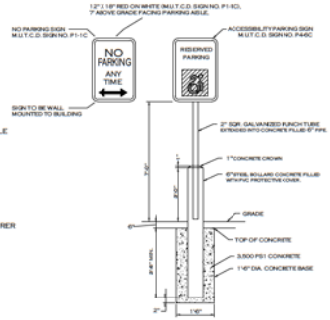
TYPE "A" CONCRETE CURB



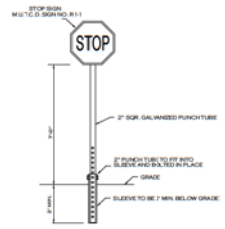
RUNOFF CURB



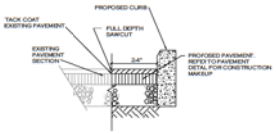
LIGHT POLE FOUNDATION



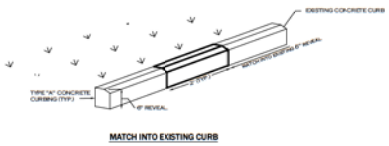
HANDICAP / NO PARKING SIGNS



"STOP" SIGN

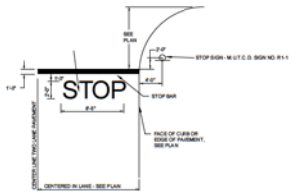


CURB AND PAVEMENT TRANISTION DETAIL

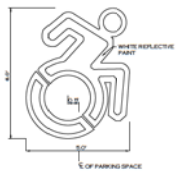


TRANSITIONAL CURBING

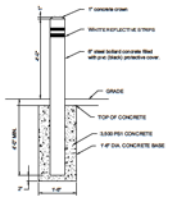
MATCH INTO EXISTING CURB



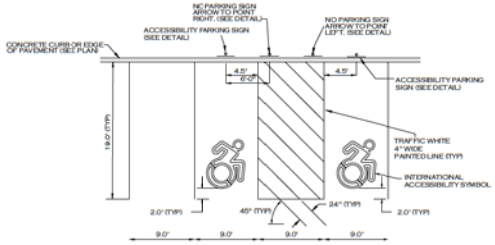
STOP BAR DETAIL



INTERNATIONAL ACCESSIBILITY SYMBOL



6" BOLLARD DETAIL



ACCESSIBILITY PAVEMENT MARKINGS & SIGNAGE

OFFICIAL TOWN USE ONLY

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No.	DATE	BY	REMARKS
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PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT

PREPARED FOR

BENDERSON DEVELOPMENT

570 DELAWARE AVE., BUFFALO, NY 14202

(716) 886-0211

SEAL

TITLE:

CONSTRUCTION DETAILS

SCALE: -

DRAWN BY: DMZ

CHECKED BY: JAR

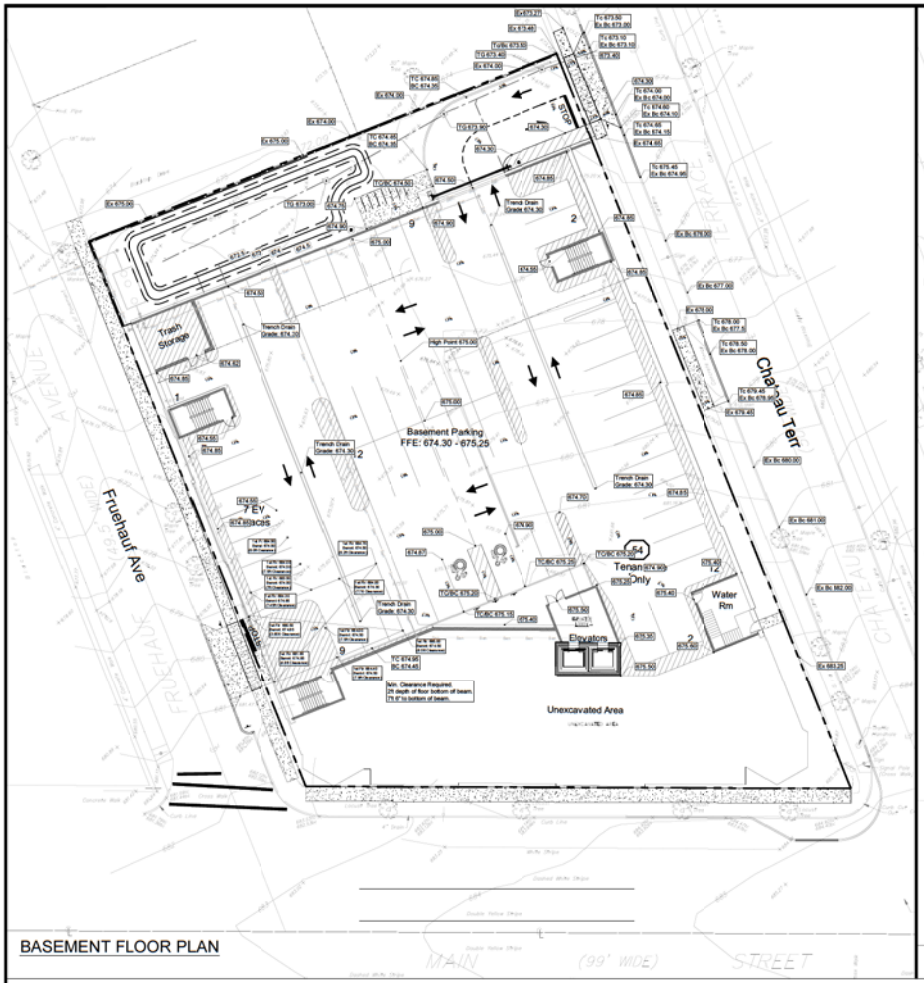
DATE: 05.05.2022

DRAWING NO.: C4.0

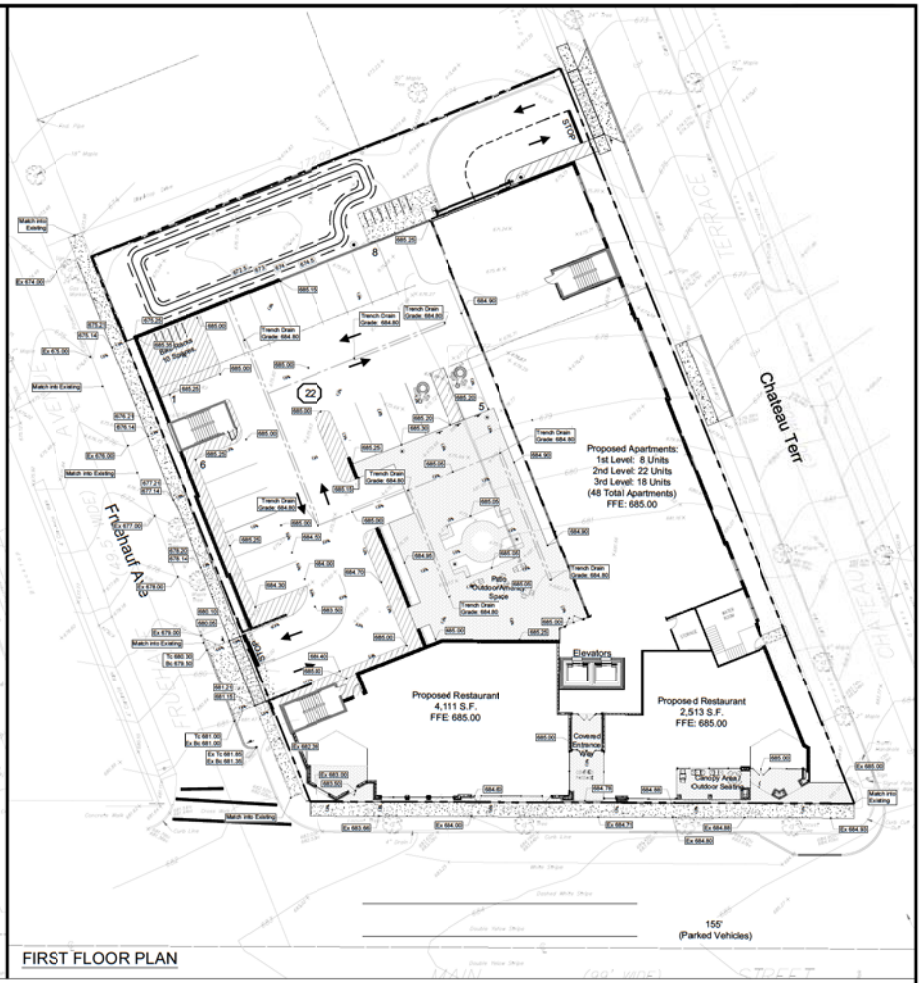
Packet Pg. 2237

7.1

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:
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LDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT ONS.
DEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK

CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
REY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL HING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
XPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT EMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE EASE AGENT OFF. APPX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF EMMASTERS - POLYSEAL EZ.
GHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THEFIXTURES ARE REQUIRED TO CE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE INT.
RB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

GRADING LEGEND:
- Property Line
- 6" Curb (typ).
- TG## — Catch Basin - Top of Grade
- ### — Proposed Contour Line
- ##% — Slope Direction

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PROPOSED SITE DEVELOPMENT

CONSULTANT

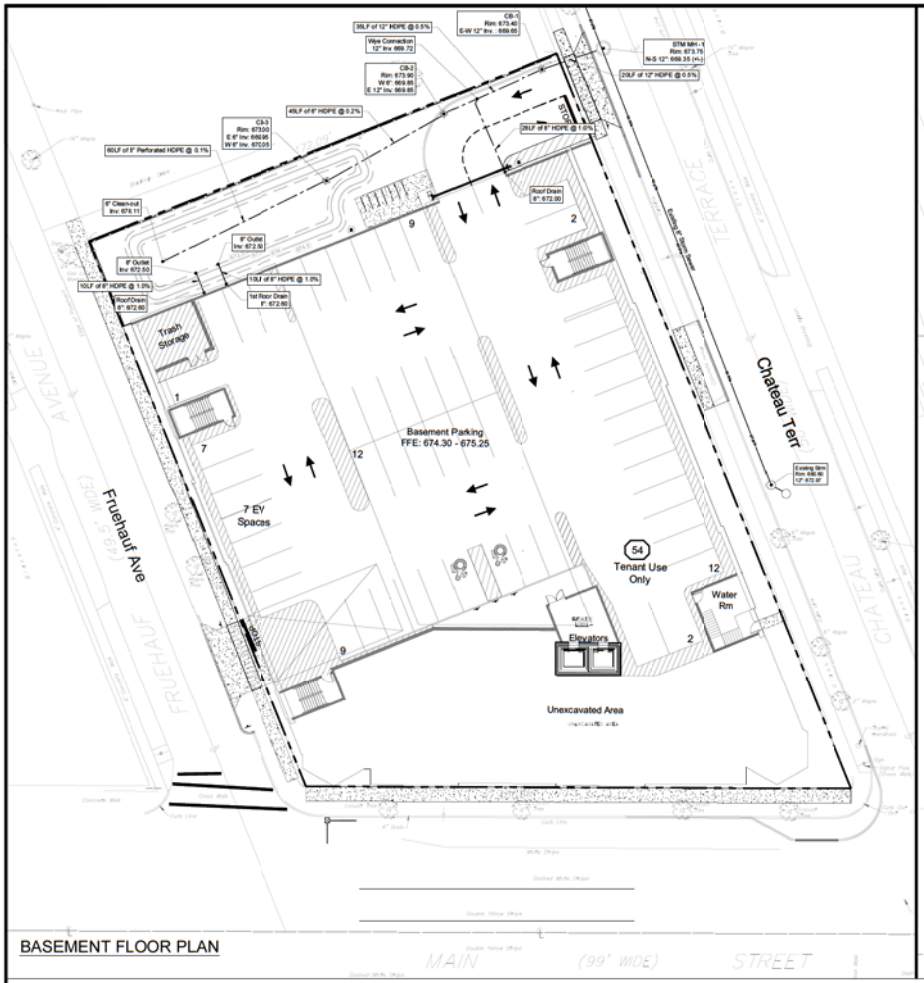
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

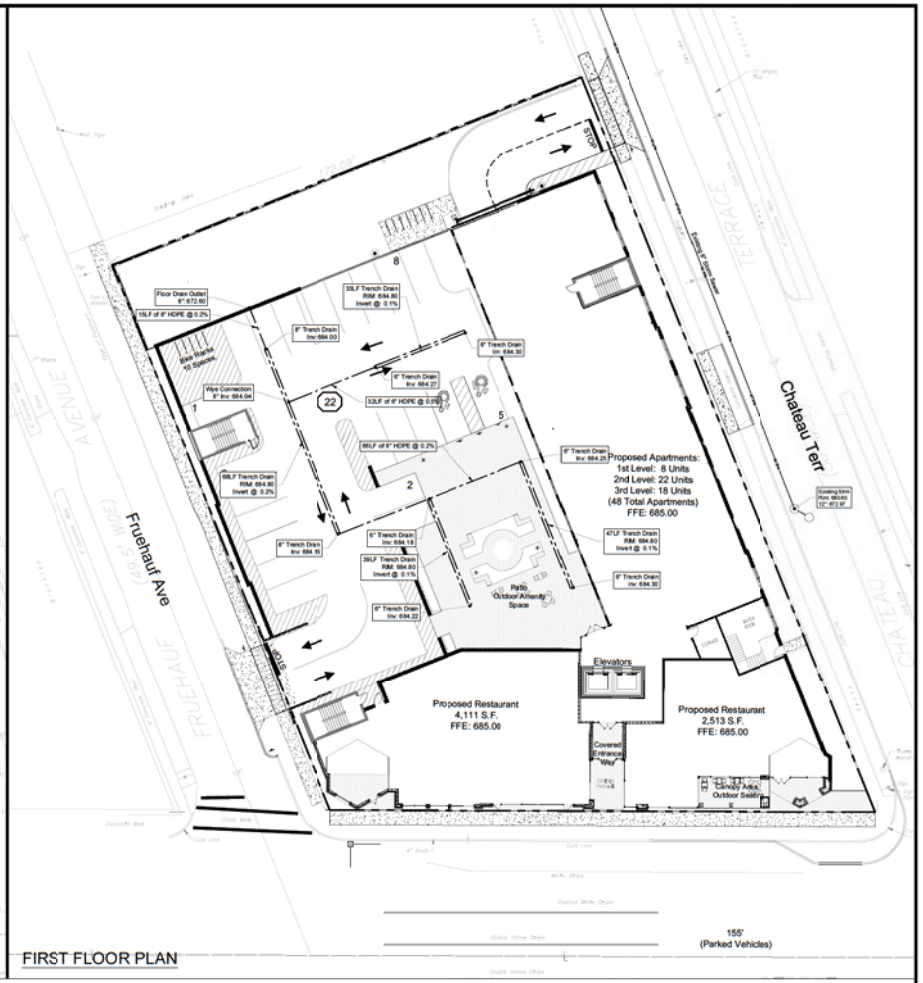
TITLE: GRADING PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C5.0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



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URB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DRAINAGE LEGEND:

- PROPERTY LINE
- PROPOSED STORMWATER
- 6" CURB TYP.
- CO / WC — PROPOSED STORM CLEAN OUT / WYE CONNECTION
- CB-# — PROPOSED CATCH BASIN

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

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CONSULTANT

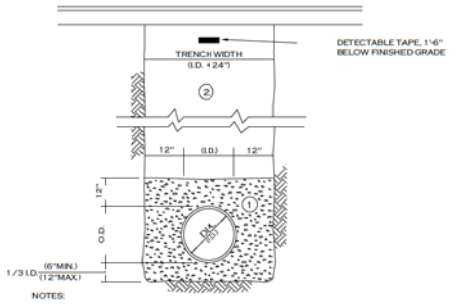
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE: DRAINAGE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C5.1
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

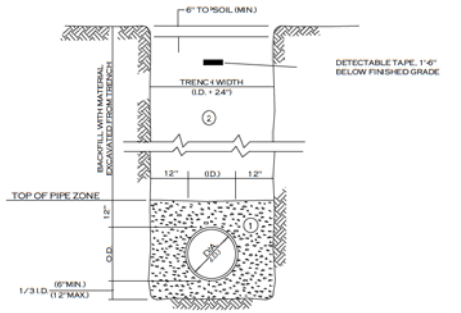
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

TRENCH SECTION IN PAVED AREAS



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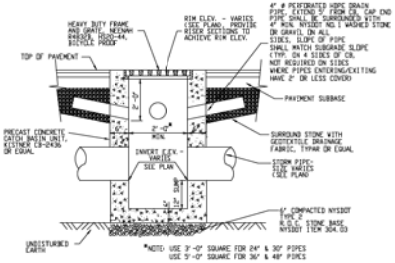
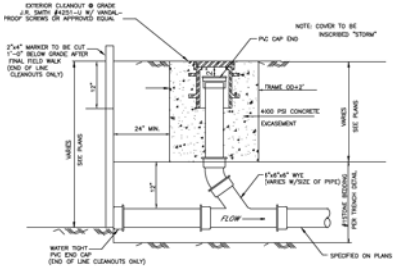
NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

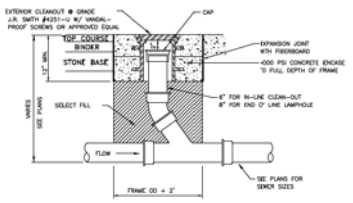
TRENCH SECTION IN UNPAVED AREAS



TYPICAL PRECAST CATCH BASIN

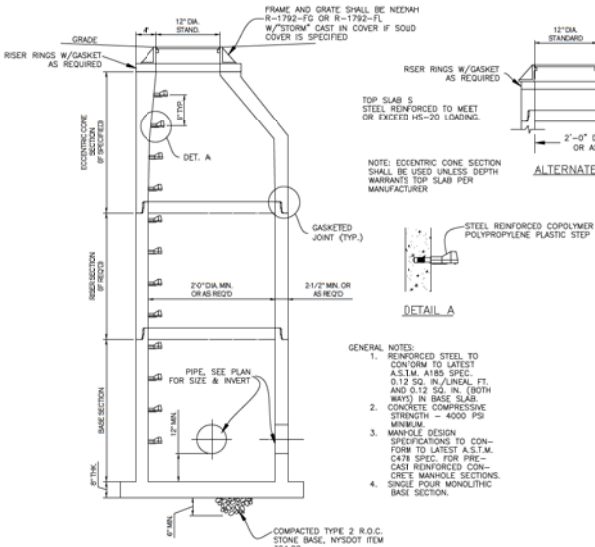


CLEANOUT IN LANDSCAPED AREAS
NOT TO SCALE



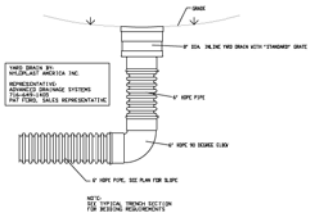
CLEANOUT IN PAVED AREAS
NOT TO SCALE

NOTE: WHERE FRAME & GRATE ARE INSTALLED IN NON-ASPHALT PAVED AREAS, A 4'X4'X6" THK CONCRETE APRON SHALL BE POURED AROUND THE RIM SLOPING TOWARDS THE GRATE



GENERAL NOTES:
1. REINFORCED STEEL TO CONFORM TO LATEST A.S.T.M. A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) IN BASE SLAB.
2. CONCRETE COMPRESSIVE STRENGTH – 4000 PSI MINIMUM.
3. MANHOLE DESIGN SPECIFICATIONS TO CONFORM TO LATEST A.S.T.M. C478 SPEC. FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS.
4. SINGLE POUR MONOLITHIC BASE SECTION.

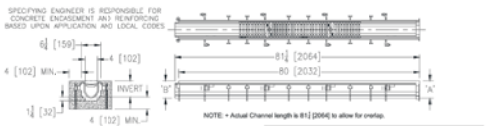
TYPICAL STORM MANHOLE DETAIL



TYPICAL YARD DRAIN DETAIL

ZURN Z886
6-1/4 [159] WIDE REVEAL TRENCH DRAIN SYSTEM
SPECIFICATION SHEET
TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



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PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

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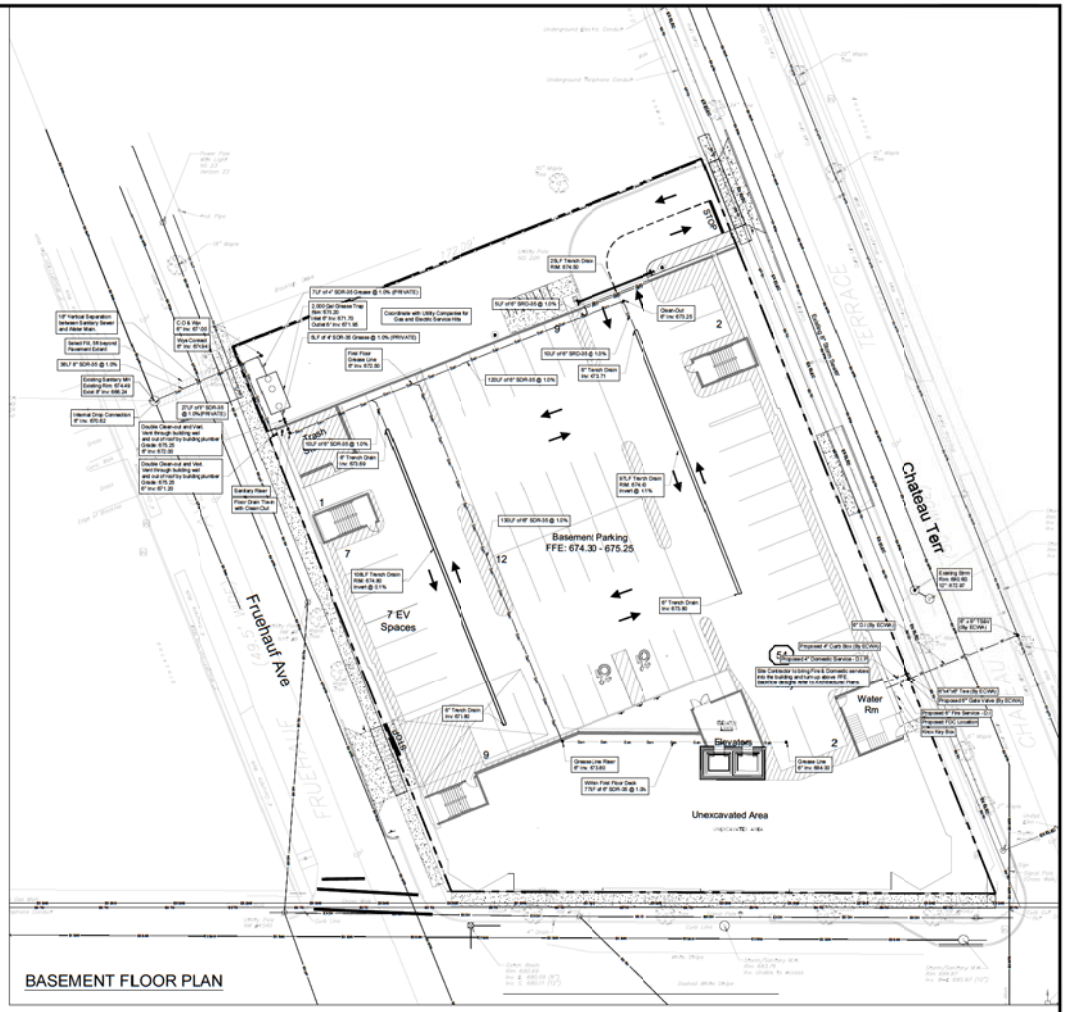
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SANITARY SEWER NOTES:
1. THE CONTRACTOR IS ADVISED THAT A TRENCH SHIELD AND/OR SHORING DESIGNED IN ACCORDANCE WITH OSHA STANDARDS SHALL BE USED IN ALL OPEN TRENCH EXCAVATIONS.
2. ANY CONTRACTOR AND/OR PLUMBER PERFORMING WORKING IN A CONFINED SPACE (ie MANHOLES, WETWELLS, CHAMBERS) OWNED BY THE TOWN MUST CERTIFY TO THE TOWN THAT THEY HAVE THEIR OWN CONFINED SPACE ENTRY PROGRAM THAT MEETS OR EXCEEDS OSHA'S REGULATIONS. CERTIFICATION MUST BE NOTARIZED BY A NOTARY PUBLIC.
3. CONSTRUCTION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE TOWN AND NEW YORK STATE CODES.
4. IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AREA AND HAS LESS THAN 4' COVER, CONCRETE ENCASEMENT IS REQUIRED. IF MORE THAN 4' COVER IS PROVIDED IN PAVED AREAS SELECT FILL IS REQUIRED.
5. THE CONTRACTOR MUST NOTIFY THE TOWN ENGINEER OFFICE AND THE PLUMBING INSPECTOR 24 HOURS IN ADVANCE OF CONSTRUCTION.
6. CLEANOUTS ARE REQUIRED EVERY 100' AND AT CHANGE IN DIRECTION.
7. ABANDONED SANITARY SEWER CONNECTIONS FROM THE SITE, IF ANY, REQUIRE PROOF OF A DISTRICT PERMIT FOR DISCONNECTION PRIOR TO THE NEW CONNECTION BEING MADE.

UTILITY NOTES:
1. PROVIDE FITTINGS AND BLOCKING AS NECESSARY AT ALL BENDS IN WATER LINES.
2. WHERE UTILITIES ARE INSTALLED IN EXISTING PAVEMENT, LANDSCAPED AREA ETC. ANY ITEMS REMOVED/DAMAGED SHALL BE REPLACED IN KIND.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS NECESSARY: STATE, COUNTY, AND TOWN.
4. WATER MAINS TO HAVE MINIMUM 5FT COVER.

UTILITY LEGEND:
- PROPERTY LINE
- G — PROPOSED GAS
- W — PROPOSED WATER
- E — PROPOSED ELECTRIC
- San — PROPOSED SANITARY
- TC — PROPOSED TELEPHONE
- EX ELEC — EXISTING ELECTRIC
- EX GAS — EXISTING GAS
- EX WTR — EXISTING WATER
- EX OH — EXISTING OVERHEAD UTILITY
- EX SAN — EXISTING SANITARY
- EX STM — EXISTING STORM
- EX TEL — EXISTING TELECOMS



BASEMENT FLOOR PLAN

OFFICIAL TOWN USE ONLY

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ARCHITECT
PREPARED FOR
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(716) 886-0211

SEAL

TITLE: UTILITY PLAN

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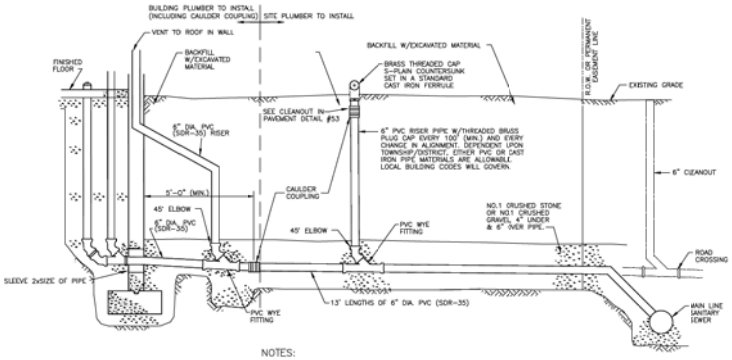
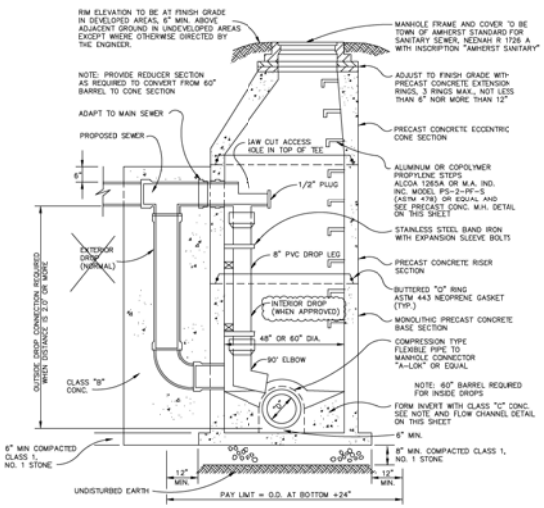


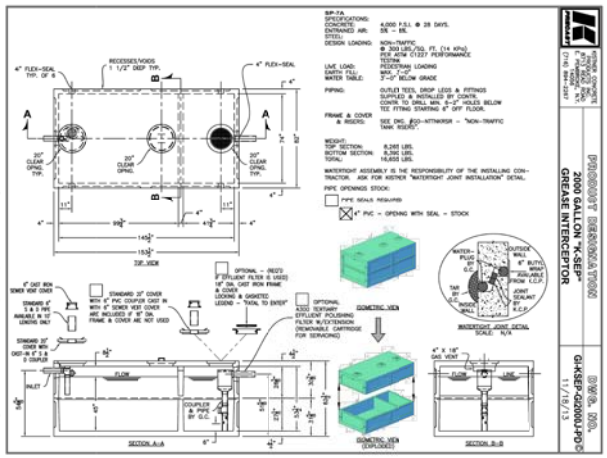
NOTES:

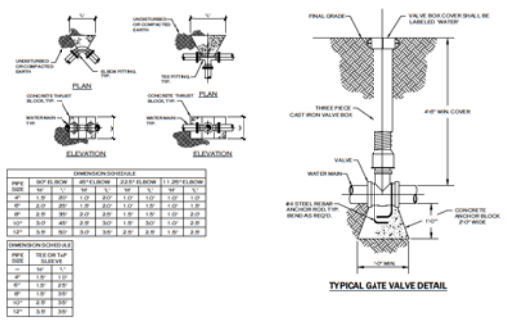
1. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D-3033/D-3034.
2. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
3. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS
4. MIN. DEPTH OF COVER 3'-0"
5. A GREASE SEPARATOR AND OIL SEPARATOR REQUIRED WHERE APPLICABLE.

TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (SANITARY)



TOWN OF AMHERST TYPICAL PRECAST CONCRETE DROP MANHOLE (FOR DROP CONNECTION)

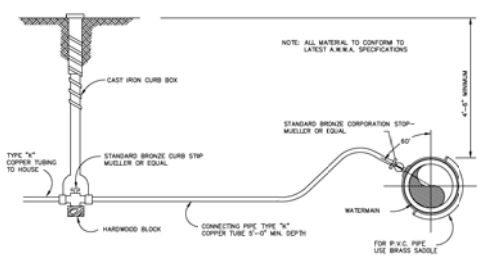


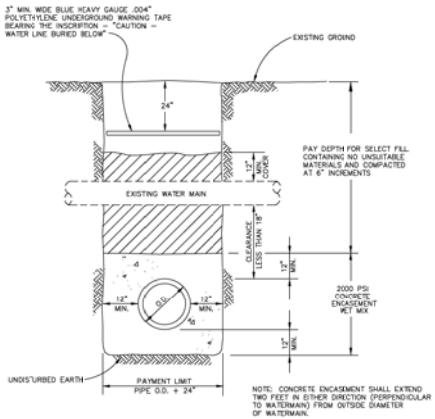


THRUST BLOCK SCHEDULE

TYPICAL GATE VALVE DETAIL

TYPICAL WATER SERVICE LINE INSTALLATION





WATER CROSSING DETAIL
CLEARANCE LESS THAN 18"

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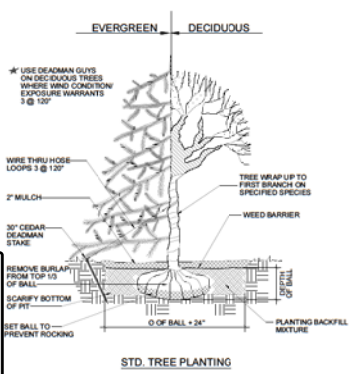
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

LANDSCAPE NOTES:

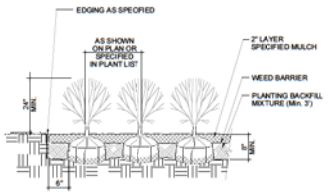
1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF. THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKEOUT OF ALL PLANTING MATERIAL LOCATIONS AND CONTACT THE OWNERS FIELD REPRESENTATIVE PRIOR TO ACTUALL INSTALLING. THE PLANTING MATERIAL LOCATIONS SHOWN ON THE PLANS ARE TO CONVEY THE DESIGN INTENT ONLY. ACTUAL LOCATIONS WILL BE FINALIZED BY THE OWNERS FIELD REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY. CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, ½ PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A MIN. 2" LAYER OF COCOA BROWN MULCH. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS (INCLUDING RIGHT-OF-WAYS) SHALL BE PROVIDED WITH SOD. SEED PERMITTED AT DETENTION POND IF PLANTED EARLY ENOUGH TO ESTABLISH.
10. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
11. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING.
    HYDROSEED SPEC: 20% RYE, 20% BLUE GRASS, 60% TURF TYPE FESCUE
    SOD MAY BE SUBSTITUTED FOR SEED DOWN IN ORDER TO ACHIEVE THE REQUIRED COVERAGE (REFER TO CONTRACTOR FOR SOD/SEED COVERAGE).
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.
13. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING TREES ONSITE AND OFFSITE, WHICH ARE TO BE PRESERVED, FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE.

PLANT LIST

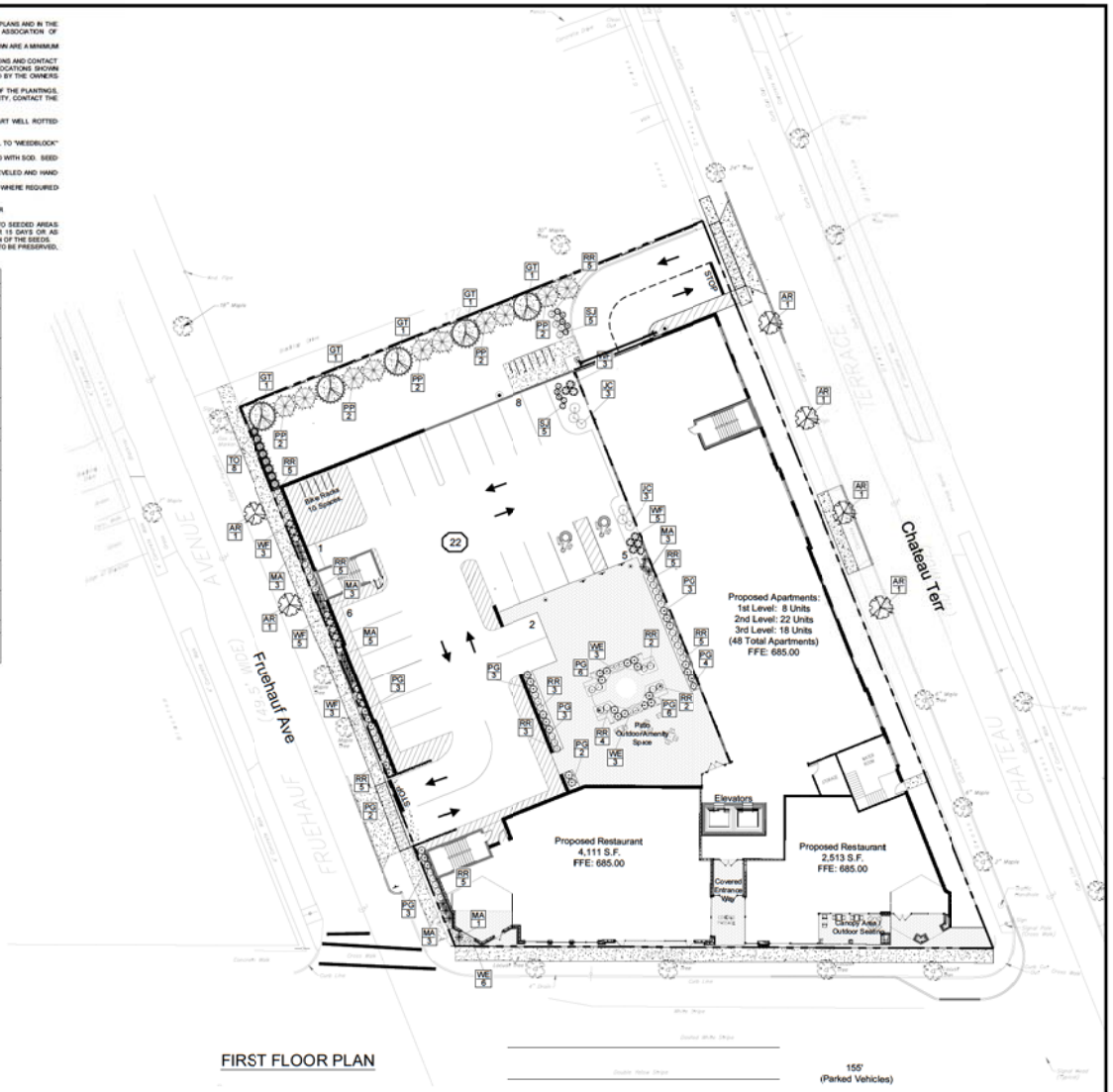
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	CAL.	SIZE	ROOT	QTY.
TREES							
	AR	Acer x freemanii 'Armstrong'	ARMSTRONG MAPLE	2½"		B&B	6
	TO	Thija occidentalis 'Emerald'	EMERALD GREEN ARBORVITAE		5'	B&B	8
	GT	Gleditsia Triacanthos	HONEY LOCUST	3"		B&B	5
	PP	Picea pungens	COLORADO SPRUCE		5'	B&B	10
SHRUBS							
	JC	Juniperus conferta 'Blue Pacific'	BLUE PACIFIC JUNIPER		24"	3 GAL.	6
	PG	Picea pungens 'Glauca Globosa'	LOW GRAFT GLOBE BLUE SPRUCE		24"	3 GAL.	35
	RR	Rosa 'Radrazz'	KNOCK OUT SHRUB ROSE		24"	3 GAL.	46
	SJ	Spiraea japonica 'Gold Mound'	GOLD MOUND SPIRAEA		24"	3 GAL.	10
	WE	Weigela florida 'Elvera'	MIDNIGHT WINE WEIGELA		24"	3 GAL.	12
	WF	Weigela florida 'Alexandra'	WINE & ROSES WEIGELA		24"	3 GAL.	19
GRASSES							
	MA	Miscanthus sinensis 'Adagio'	AD=3/O MAIDEN GRASS		24"	3 GAL.	18



STD. TREE PLANTING



STD. SHRUB PLANTING



FIRST FLOOR PLAN

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.05.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

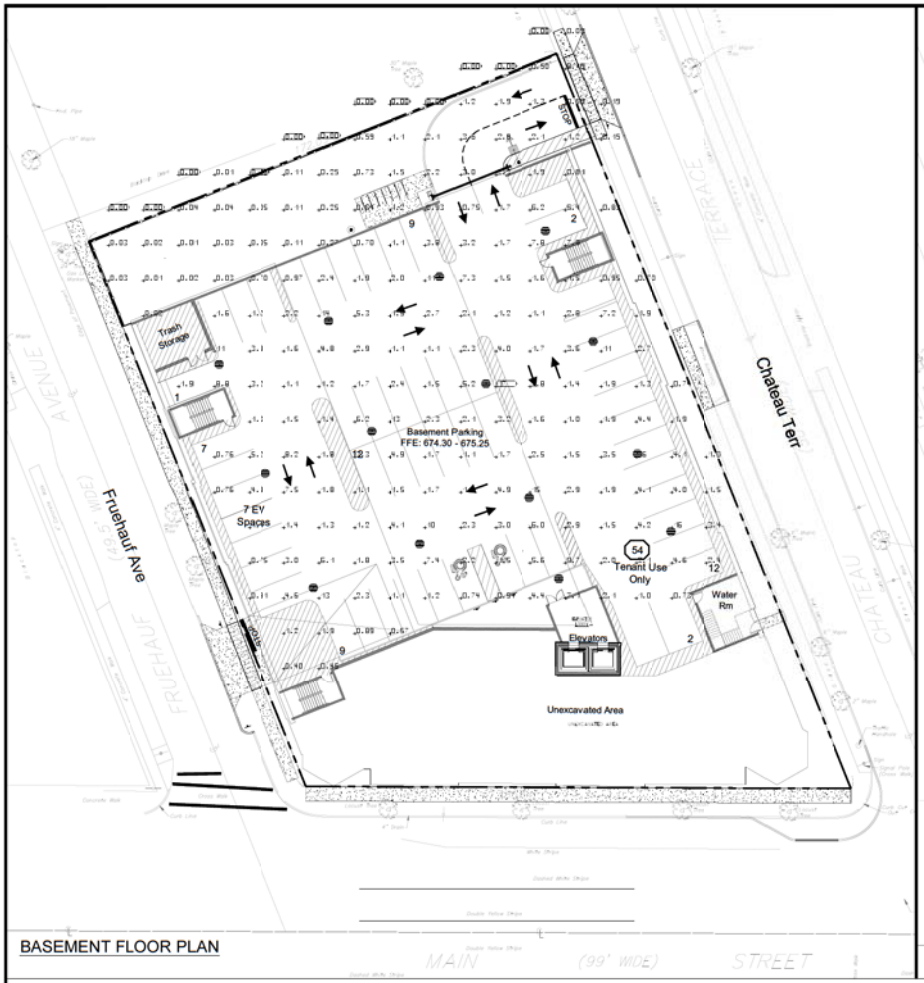
SEAL

ROBERT J. TRYBULSKI
LANDSCAPE ARCHITECT

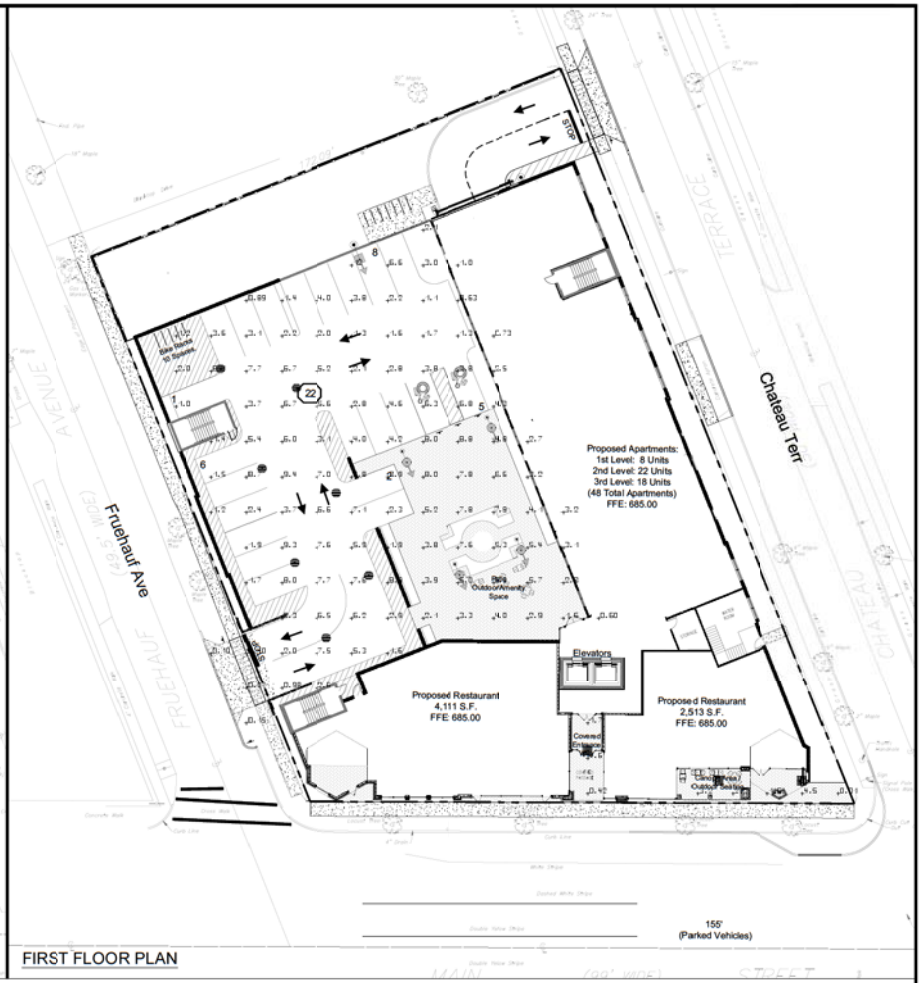
TITLE: LANDSCAPE PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C7.0
CHECKED BY: RJT
DATE: 05.05.2022

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:
1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS ANC BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND IE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TC CONSTRUCTION SO THAT THIS WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. INATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
TRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSRY TO PERFORM THE WORK.
LDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT ONS.
DEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK

CONCRETE SIDEWALK SEALERS (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
REY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL WING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
XPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT EMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE EASE AGENT OFF. APPX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF EMMASTERS - POLYSEAL EZ.
GHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THEFIXTURES ARE REQUIRED TO CE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE UNT.
URB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

Luminaire Schedule

Index	Manufacturer	Luminaire type	Item number	Luminous flux	Mounting Height	Connected load	Quantity
1	Cree Inc	Cree OEG Series Area Luminaire, Type III Medium, 1 TL Input Power Designator, 4000K	OEGN4B-1-L-40K7-SM-U-SK w/OEG-BUD-F	8825 Lm	20 Ft	72 W	2
2	Cree Inc.	Cree XQ Series Parking Garage Luminaire, Type V , TL Input Power Designator, 4000K	XQ-B-MM-55-TL-40K6-UL	7550 Lm	10 Ft	60 W	21
3	Cree Inc	Cree THE EDGE Series Round Luminaire, 60x 0.05mA Power, 4000K	ARE-EDG-2M-RD-E-6-UL-6K-625	10527 Lm	15 Ft	101 W	4
4	Cree Inc	Cree CPY Series - Version C Canopy Luminaire, 2L Power, Flat Lens, 4000K	CPY-2ID-C-2L-40K-SF-UL-GM	1730 Lm	10 Ft	14 W	3

n.	Name	Parameter	Min	Max	Average
1	Pavement Parking Area	Site FC	0.10 fc	16.6 fc	2.91 fc

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:
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PROPOSED SITE DEVELOPMENT

CONSULTANT

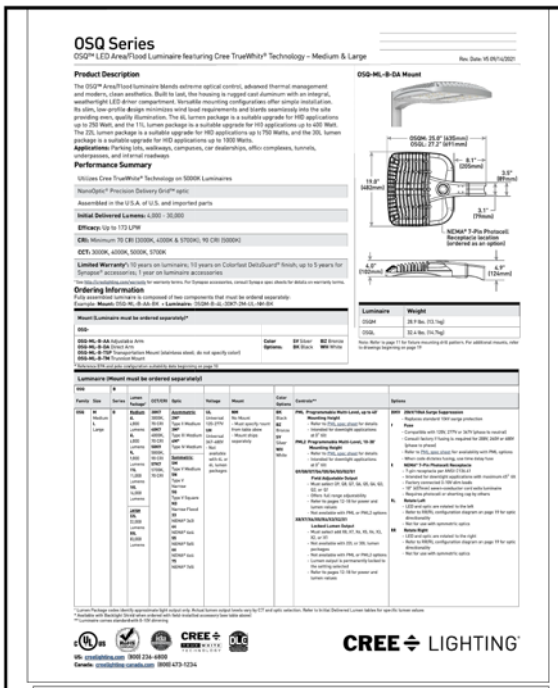
JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE: LIGHTING PLAN

SCALE: 1:20
DRAWN BY: DMZ
DRAWING NO.: C8.0
CHECKED BY: JAR
DATE: 05.05.2022

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Rev. Date: V5 09/14/2021

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 6L lumen package is a suitable upgrade for HID applications up to 250 Watt, and the 11L lumen package is a suitable upgrade for HID applications up to 400 Watt. The 22L lumen package is a suitable upgrade for HID applications up to 750 Watts, and the 30L lumen package is a suitable upgrade for HID applications up to 1000 Watts.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: 4,000 - 30,000

Efficacy: Up to 173 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire; 10 years on ColorFast DeltaGuard® finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

* See DTLEDLighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:

Example: **Mount:** OSQ-ML-B-AA-BK + **Luminaire:** OSQM-8L-4L-30K7-3M-UL-NH-BK

Mount (Luminaire must be ordered separately)*

OSQ-

OSQ-ML-B-AA Adjustable Arm		**Color Options:**	**DF** Silver **BK** Black
OSQ-ML-B-DA Direct Arm			**BZ** Bronze **WH** White
OSQ-ML-B-PSP Transportation Mount (stainless steel; do not specify color)			
OSQ-ML-B-TM Trunnion Mount			

* Reference EPA and pole configuration suitability data on page 16

Luminaire (Mount must be ordered separately)

OSQ																
Family	Size	Series	Lumen Package*	CCT/CRI	Optic	Voltage	Mount	Color Options	Controls**	Options						
OSQ	M Medium L Large	U	4L 4,000 lumens 6L 6,000 lumens 8L 8,000 lumens 11L 11,000 lumens 15L 15,000 lumens 22L 22,000 lumens 30L 30,000 lumens	30K3 3000K, 80 CRI 40K7 4000K, 70 CRI 40K8 4000K, 80 CRI 50K7 5000K, 70 CRI 50K8 5000K, 80 CRI 57K7 5700K, 70 CRI	NH Narrow MV Medium WD Wide SQ Square RW Rectangular Wide RN Rectangular Narrow TS Type V Short TM Type V Medium TL Type V Long	UL Universal 120-277V HV Universal 347-480V (available with 4L or 6L lumen packages)	NM No Mount - Must specify round trim (sold separately) RT Round Trim SQ Square Trim	BK Black BZ Bronze DF Silver WH White	PML Programmable Multi-Level, up to 6F Mounting Height • Refer to PML spec sheet for details • Intended for downlight applications at 6' AD PML2 Programmable Multi-Level, 10-30' Mounting Height • Refer to PML spec sheet for availability with PML options. When code dictates tuning, use time delay fuse. NSTAR™ 5-Pin Photocell Receptacle • 7-pin receptacle per ANSI C136.41 • Button photocell ordered separately; must match maximum 07' 00 • Factory connected 2-100 AN leads • 10' 3/C(Two) seven-conductor cord sets luminaire • Requires photocell or shorting cap by others Rotate Left • LED and optic are rotated to the left • Refer to RRPD, configuration diagram on page 19 for optic orientation • Not for use with symmetric optics Rotate Right • LED and optic are rotated to the right • Refer to RRPD, configuration diagram on page 19 for optic orientation • Not for use with symmetric optics	DSH 0-10V Dimming • Control by others • Refer to Dimming spec sheet for details • Add 2 second specified drive current F Fuse • Compatible only with 120V, 277V or 347V (phase to neutral) • Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) • When code dictates tuning, use time delay fuse HL Wide Field (Small Input) • Refer to HL spec sheet for details • Sensor not included P Photocell • Available with UL voltage only 30K 3000K Color Temperature • Minimum 80 CRI • Color temperature per luminaire 40K 4000K Color Temperature • Minimum 70 CRI • Color temperature per luminaire 50K 5000K Color Temperature • Minimum 70 CRI • Color temperature per luminaire TRL Amber Turtle Friendly LEDs • Available only with 30mA • 590nm dominant wavelength • Additional shielding may be required for Florida Fish and Wildlife Conservation Commission Compliance

* Lumen Package codes identify approximate light output only. Actual lumen output levels may vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.

** Luminaire comes standard with 0-10V dimming.

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Canada: creelighting-canada.com T (800) 473-1234

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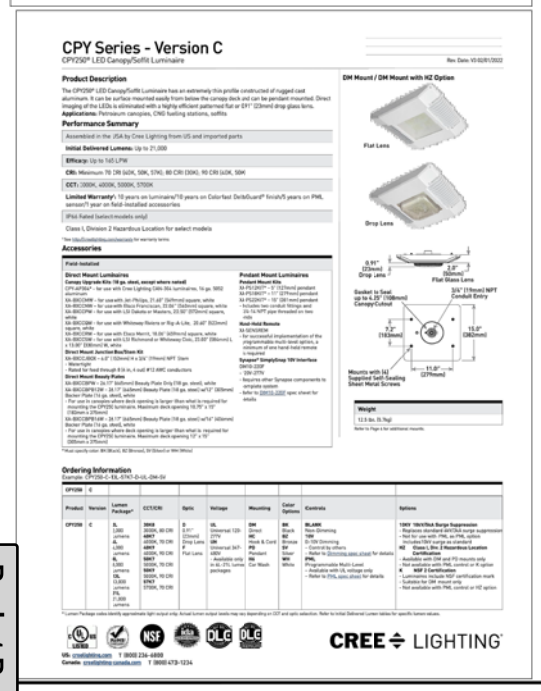

CPY Series - Version C

CPY250® LED Canopy/Soffit Luminaire

Rev. Date: V3 02/01/2022

Product Description

The CPY250® LED Canopy/Soffit Luminaire has an extremely thin profile constructed of rugged cast aluminum. It can be surface mounted easily from below the canopy deck and can be pendant mounted. Direct imaging of the LEDs is eliminated with a highly efficient patterned flat or EF1° (23mm) drop glass lens.

Applications: Petroleum canopies, CNG fueling stations, soffits

Performance Summary

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 21,000

Efficacy: Up to 165 LPW

CRI: Minimum 70 CRI (aLX, S8K, STK); 80 CRI (S0K); 90 CRI (LLX, S8K

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire/10 years on ColorFast DeltaGuard® finish/5 years on PML sensor/1 year on field-installed accessories

IP66 Rated (select models only)

Class I, Division 2 Hazardous Location for select models

* See DTLEDLighting.com/warranty for warranty terms

Accessories

Field-Installed

Direct Mount Luminaires
Canopy Upgrade Kits: 18 ga. steel, except where noted)
CPY-AFBSQ* - for use with Cree Lighting CAN-36L luminaires, 16 ga. S052 aluminum
KA-BSCCMW - for use with Jet-Philips, 31.46" (369mm) square, white
KA-BSCCMW – for use with Esso Francisco, 33.06" (360mm) square, white
KA-BSCCPW – for use with LSI Dakota or Masters, 23.50" (597mm) square, white
KA-BSCCQW - for use with Whitney Retro or Rip-A-Lite, 31.46" (823mm) square, white
KA-BSCCRW – for use with Esso Merrit, 19.06" (609mm) square, white
KA-BSCCSW – for use with LSI Richmond or Whiteway Civic, 23.00" (584mm) L x 23.00" (584mm) W x 3.50" (89mm) H
Direct Mount Junction Box/Trim Kit
KA-BSCCJBOX – 6.0" (152mm) H x 23½" (596mm) NPT Stem
• Watertight
• Rated for feed through #14 in, 4 wall #12 AWG conductors
Direct Mount Beauty Plates
KA-BSCCBPW – 24.17" (605mm) Beauty Plate (14 ga. steel) white
KA-BSCBPW-DM – 24.17" (605mm) Beauty Plate (14 ga. steel) w/14" (605mm) Backer Plate (14 ga. steel), white
• Provides a finished look where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 15.79" x 15" (400mm x 375mm)
KA-BSCCBPB-UM – 26.17" (665mm) Beauty Plate (14 ga. steel) w/14" (605mm) Backer Plate (14 ga. steel), white
• Provides a finished look where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 17" x 15" (500mm x 375mm)

Pendant Mount Luminaires
Pendant Mount Kits
KA-PSX2M77* – 5" (127mm) pendant
KA-PSX2M177* – 11" (279mm) pendant
KA-PSX2M77 – 12" (305 mm) pendant
• Includes two conduit fittings and (4) 14-10 NPT pipe threaded on two sides
Rear-Hold Remote
KA-SENSREM
• For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required
Synapse® Simplynx 10V Interface
DMG-LISSP
• 10V-277V
• Requires other Synapse components to complete system
• Refer to DMG-LISSP spec sheet for details

DM Mount / DM Mount with HZ Option

Weight
12.5 lbs. (5.7kg)

• Refer to Page 4 for additional mounts.

Ordering Information

Example: CPY250-C-5S-STK7-D-UL-DM-SV

CPY250	C								
Product	Version	Lumen Package*	CCT/CRI	Optic	Voltage	Mounting	Color Options	Controls	Options
CPY250	C	5L 5,000 lumens 8L 8,000 lumens 11L 11,000 lumens 15L 15,000 lumens 22L 22,000 lumens	30K8 3000K, 80 CRI 40K7 4000K, 70 CRI 40K8 4000K, 80 CRI 50K7 5000K, 70 CRI 50K8 5000K, 80 CRI 57K7 5700K, 70 CRI	D 0.91" (23mm) Flat Lens F 2" (50mm) Flat Lens	UL Universal 120-277V HV Universal 347-480V • Available only in 6L-77L lumen packages	DM Direct Mount HZ Hook & Cord PD Pendant SV Surface Mount	BK Black BZ Bronze DF Silver WH White	BLANK Non-Dimming • Control by others • Refer to Dimming spec sheet for details DSH 0-10V Dimming • Control by others PML Programmable Multi-Level • Available with UL voltage only • Refer to PML spec sheet for details	10kV 10kV/5kA Surge Suppression • Replaces standard 6kV/3kA surge suppression • Not for use with PML or PML option HZ Hook & Cord Option Class I, Div 2 Hazardous Location Certification • Available with DM and PD mounts only • Not available with PML control or HZ option CSA Certified to US Standards • Luminaires include NSF certification mark • Suitable for DM mount only • Not available with PML control or HZ option

* Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.

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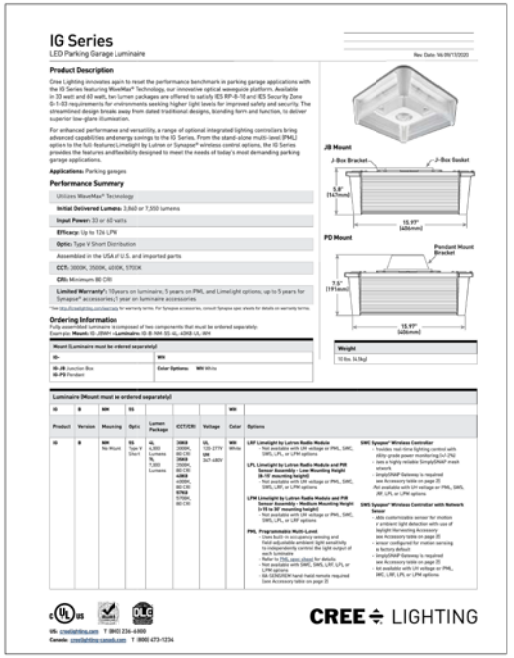

IG Series

LED Parking Garage Luminaire

Rev. Date: V6 09/17/2020

Product Description

Cree Lighting innovates again to reset the performance benchmark in parking garage applications with the IG Series featuring WaveMax® Technology, our innovative optical waveguide platform. Available in 30 watt and 60 watt, two lumen packages are offered to satisfy IES RP-8-18 and IES Security Zone 0-1-03 requirements for environments seeking higher light levels for improved safety and security. The streamlined design breaks away from dated traditional designs, blending form and function, to deliver superior low glare illumination.

For enhanced performance and versatility, a range of optional integrated lighting controllers bring advanced capabilities andenergy savings to the IG Series. From the stand-alone multi-level (PML) option to the full-featuredLimelight by Lutron or Synapse® wireless control options, the IG Series provides the features andflexibility designed to meet the needs of today's most demanding parking garage applications.

Applications: Parking garages

Performance Summary

Utilizes WaveMax® Technology

Initial Delivered Lumens: 3,860 or 7,300 lumens

Input Power: 33 or 60 watts

Efficacy: Up to 126 LPW

Optic: Type V Short Distribution

Assembled in the USA of U.S. and imported parts

CCT: 3000K, 3500K, 4000K, 5700K

CRI: Minimum 80 CRI

Limited Warranty*: 10years on luminaire; 5 years on PML and Limelight options; up to 5 years for Synapse® accessories;1 year on luminaire accessories

* See DTLEDLighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire iscomposed of two components that must be ordered separately:
Example: **Mount:** IG-JBW1 – **Luminaire:** IG-B-MW-SS-4L-40K8-UL-WH

Mount (Luminaire must be ordered separately)*

IG-	WH
IG-JB Junction Box	**Color Options:** WH White
IG-PD Pendant	

* Reference EPA and pole configuration suitability data on page 16

Luminaire (Mount must be ordered separately)

IG	B	MW	SS					
Product	Version	Mounting	Optic	Lumen Package	CCT/CRI	Voltage	Color	Options
IG	B	MW No Mount	SS VL Type V Short	3860 3,860 Lumens 7300 7,300 Lumens	30K8 3000K, 80 CRI 35K8 3500K, 80 CRI 40K8 4000K, 80 CRI 57K8 5700K, 80 CRI	UL 120-277V HV 347-480V	WH White	L6F Limelight by Lutron Radio Module • Not available with UH voltage or PML, SMC, SWS, LPL or LPM options L7L Limelight by Lutron Radio Module and PIR Sensor Assembly – Low Mounting Height (8-15' mounting height) • Not available with UH voltage or PML, SMC, SWS, LPL or LPM options L7M Limelight by Lutron Radio Module and PIR Sensor Assembly– Medium Mounting Height (15-30' mounting height) • Not available with UH voltage or PML, SMC, SWS, LPL, or LPP options PML Programmable Multi-Level • Includes dual-technology sensing and linear adjustable ambient light sensitivity to independently control the light output of each luminaire • Refer to PML spec sheet for details • Not available with SMC, SWS, LMT, LPL or LPM options SA GENSCREM hand-held remote required. See Accessory table on page 2)
								SWC Synapse® Wireless Controller • Includes real-time lighting control with daily-grade power monitoring for LPM • Uses a highly reliable SimplyMAP mesh network • SimplyMAP Gateway is required see Accessory table on page 2) Not available with UH voltage or PML, SWS, JBF, LPL or LPM options SWS Synapse® Wireless Controller with Network Sensor • Adds customizable sensor for motion sensing and ambient light sensing • Can be configured for motion sensing a factory default • SimplyMAP Gateway is required see Accessory table on page 2) Not available with UH voltage or PML, SMC, LMT, LPL or LPM options

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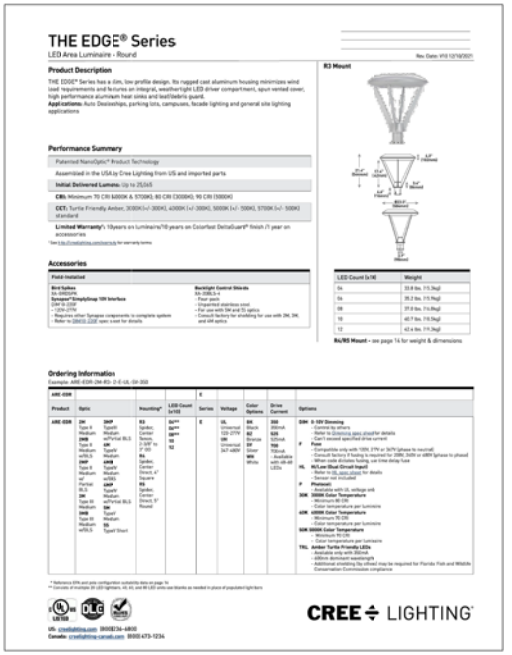

THE EDGE® Series

LED Area Luminaire - Round

Rev. Date: V10 12/19/2021

Product Description

THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment, spun-rivetted cover, high performance aluminum heat sinks and leaf/debris guard.

Applications: Auto Dealerships, parking lots, campuses, facade lighting and general site lighting applications

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 25,165

CRI: Minimum 70 CRI 6,000K & 5700K); 80 CRI (3000K); 90 CRI (5000K)

CCT: Turtle Friendly Amber, 3030K(+/- 300K), 4000K (+/- 300K), 5000K (+/- 500K), 5700K (+/- 500K) standard

Limited Warranty*: 10years on Luminaire/10 years on ColorFast DeltaGuard® finish /1 year on accessories

* See DTLEDLighting.com/warranty for warranty terms

Accessories

Field-Installed

Bird Spikes
KA-SMBSPK
• Requires other Synapse components to complete system
• Refer to DMG-1SSP spec sheet for details

Backlight Control Shields
KA-SSBLS-4
KA-SSBLS-6
• Unpainted stainless steel.
• For use with SW and TS optics
• Consult factory for shielding for use with 2M, 3M, and 4M optics

R3 Mount

LED Count (x 14)	Weight
04	33.8 lbs. (15.3kg)
06	35.3 lbs. (15.9kg)
08	37.9 lbs. (16.8kg)
10	40.7 lbs. (18.5kg)
12	43.4 lbs. (19.3kg)

R4/R5 Mount – see page 14 for weight & dimensions

Ordering Information

Example: AERE-EDGE-2M-R3-2-E-UL-SW-SSS

AERE-EDGE								
Product	Optic	Mounting*	LED Count (x14)	Series	Voltage	Color Options	Drive Current	Options
AERE-EDGE	2M Type II Medium 3M Type III Medium 4M Type IV Medium 2MP Type II Medium Partial BLS 3MP Type III Medium w/Partial BLS 4MP Type IV Medium w/Partial BLS 2M Type II Medium 3MX Type III Medium w/R5.5 4MX Type IV Medium w/R5.5	R3 Spider, Center Mount, 3' SOF or 7' SSS R4 Spider, Center Mount, Direct x1' Square R5 Spider, Center Mount, Direct x1' Square R6 Spider, Center Mount, Direct, 6' Round	04** 04 fixtures 08** 08 fixtures 10 10 12 12	E	UL Universal 120-277V HV Universal 347-480V	BK Black BZ Bronze DF Silver WH White	350 350mA 525 525mA 700 700mA • Available with 4M-4P LEDs	DSH 0-10V Dimming • Control by others • Refer to Dimming spec sheet for details • Add 2 second specified drive current F Fuse • Compatible only with 120V, 277V or 347V (phase to neutral) • Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) • When code dictates tuning, use time delay fuse HL Wide Field (Small Input) • Refer to HL spec sheet for details • Sensor not included P Photocell • Available with UL voltage only 30K 3000K Color Temperature • Minimum 80 CRI • Color temperature per luminaire 40K 4000K Color Temperature • Minimum 70 CRI • Color temperature per luminaire 50K 5000K Color Temperature • Minimum 70 CRI • Color temperature per luminaire TRL Amber Turtle Friendly LEDs • Available only with 350mA • 590nm dominant wavelength • Additional shielding may be required for Florida Fish and Wildlife Conservation Commission Compliance

* Reference EPA and pole configuration suitability data on page 16
** Consists of multiple 24 LED segments. 04, 08, and 12 LED units use blanks as needed in place of populated light bars

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DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION 87.209 OF THE STATE EDUCATION LAW.

811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

TITLE:
LIGHTING DETAILS

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO.: C8.1

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BARRON & ASSOCIATES, P.C.
Geotechnical Consulting and Special Inspections
10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

July 17, 2020 Job No: 20-533

Benderson Development Company, LLC
570 Delaware Avenue
Buffalo, New York 14202

ATTN: Mr. Matt A. Oates, P.E.

RE: Geotechnical Engineering Report
Proposed Two-Story Building with Underground Garage
4548 & 4564 Main Street, 22 Chateau Terrace, and 17 Fruehauf Avenue
Town of Amherst, Erie Co., New York 14226

Gentlemen:

This report presents the findings of the subsurface investigation program and geotechnical engineering recommendations for the above referenced project. The geographic orientation of the project site is illustrated on the U.S. Geologic Survey (USGS) site location map in Figure No. 1. The project site is illustrated in Figure No. 2, entitled "Test Boring Location Plan", which includes: the approximate location of six test borings that were drilled by Buffalo Drilling Company, Inc. (BDC); relative ground surface elevations; and additional site details.

EXPLORATION METHODS

Sampling Method: A truck-mounted Diedrich D-50 rotary drill rig was used to drill six borings each to auger refusal below ground surface by using 2-1/4 inch and 4-1/4 inch inside diameter (ID), continuous flight hollow stem augers. Samples were recovered by driving a standard split-spoon sampler (2-foot long by 1-3/8 inch inside diameter) 24 inches with a 140-pound hammer falling 30 inches per blow per the American Society of Testing and Materials (ASTM) Standard D1586. The number of blows from six to 18 inches of penetration is defined as the Standard Penetration Test (SPT) N-value. Auger refusal, which may infer the top of bedrock, was encountered at each boring location at depths ranging from about two to six feet. At borings B-1 and B-6, bedrock was confirmed by coring to a depth of five feet below auger refusal. Bedrock coring efforts were done with an Nx-sized (2-1/8 ± inch I.D.) core barrel and impregnated diamond bit in accordance with ASTM Method D2113.

Any encountered groundwater conditions are documented in the field on the driller's logs for each test boring. If indicators of groundwater are observed on the sampling equipment, the depth to groundwater is also checked and measured through the hollow stem augers at the completion of the sampling efforts.

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Classification: The retrieved soil and fill samples were initially logged in the field by the driller, and a portion of each sample was placed and sealed in a glass jar. The boring logs, which are included in Appendix A, were based upon the field logs and a second visual classification of recovered samples in the laboratory by a geologist. Classification/identification of samples, as noted on the boring logs, is based on the Unified Soil Classification System (USCS) in ASTM D2487/D2488. Refer to Appendix B entitled, "Geotechnical Reference Standards", for an explanation of the terminology that is used for soil and rock descriptions.

Each rock core was examined on a run-by-run basis to determine the percentage of core recovery and Rock Quality Designation (RQD). Core recovery percentage is the ratio of the sample length recovered divided by the length of the core run times 100 percent. RQD is defined as the total length of all pieces of core that are greater than four inches divided by the length of the core run times 100 percent. Core recovery and RQD percentages are noted on the boring logs.

Laboratory Testing: Laboratory soil testing was undertaken on several retrieved split spoon samples. The overall laboratory testing program consisted of the following test methods:

- Unconfined Compressive Strength of Intact Rock Core Specimens ASTM D2938

Table No. 1 presents the tabulated results of bedrock physical property data.

SITE AND SUBSURFACE CONDITIONS

General: The proposed site for development consists of four parcels addressed as 4548 & 4564 Main Street, 22 Chateau Terrace, and 17 Fruehauf Avenue in the Town of Amherst, Erie County, New York. The project will include a mixed-use, two-story building with both retail spaces and residential apartments. The majority of the structure will have a lower basement/underground parking garage beneath it. The site topography slopes to the northwest across the boring locations with ground surface elevations varying by approximately five feet.

Subsurface Soil Conditions: In general, subsurface conditions, underlying the topsoil at B-2 and the asphalt pavement with crushed limestone base layer at the remaining borings, consist of naturally deposited cohesive/fine-grained glacial till that extends to auger refusal.

Beneath the asphalt/gravel base or topsoil, a naturally deposited cohesive/fine-grained glacial till exists and extends to auger refusal. The unit ranges in thickness from two to five fee and consists of moderately plastic, silty clay with lesser amounts of sub-rounded fine-sized to coarse-sized sand and gravel. The consistency of this soil is primarily very stiff to hard with moisture contents of retrieved samples noted to be moist.

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Bedrock: Auger refusal, which is generally inferred to be the top of the apparent bedrock surface, was not encountered at each boring approximately two to six feet below ground surface, ranging in elevation from 675.00 to 671.20+/- feet. The proposed footing bearing grade for the building, approximate elevation 671.30 +/- feet, will be at or within the bedrock which will make it necessary to remove almost four feet of bedrock.

Rock coring efforts were undertaken at borings B-1 and B-6 to depths of five feet, below auger refusal. Based upon the regional geology and recovered core samples, the bedrock type is the Onondaga Limestone and is described as a hard and slightly weathered, medium dark gray, banded to thinly bedded, finely crystalline limestone that is porous and calcareous. The percent recoveries for the cores ranged from 33 percent to 83 percent with RQD values of 0 percent (very poor quality) to 29 percent (poor quality).

Table No. 1 provides the laboratory uniaxial compressive strength and density data for the intact limestone specimens near the bottom part of the B-1 cored interval C-1 and middle of B-6 cored interval C-2. The density data is characteristic of a limestone rock. The uniaxial compressive strengths ranged from approximately 4,000 to 7,500 pounds per square inch (psi); which is on the low to middle portion of the range for limestone. The intact bedrock uniaxial compressive strength and other rock properties (e.g., RQD) can be used in the estimation of the strength properties for the bedrock mass.

Groundwater: Groundwater was not encountered during subsurface exploration. Note that the groundwater readings were taken at the completion of drilling efforts and, therefore, an adequate amount of time for the groundwater level to recharge to static conditions was probably not allowed. Fluctuations in the groundwater level may occur due to other factors than those present during field operations.

EARTHQUAKE/SEISMIC CONSIDERATIONS

Site Class Definition: For the given site conditions, the most applicable site definition is Site Class B, as listed in Table 1613.5.2 of the Building Code of New York State, © 2010.

Liquefaction Potential: For the Site Class B, the design spectral response acceleration parameters S_{DS}, at 0.2 seconds, and S_{D1}, at one second, are 0.15g and 0.03g (g = 32.2 feet/sec^2), respectively, for this part of Erie County, New York (see Appendix C). These values have a two percent probability of being exceeded in 50 years. Based upon the above conditions and an approximate magnitude 6.0 earthquake on the Richter Scale, the potential for liquefaction or settlement of Site Class B rock is considered non-existent.

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FOUNDATION DESIGN AND CONSTRUCTION RECOMMENDATIONS

General: This section will present and discuss recommendations on foundation design and construction and placement of controlled fills, and subgrade and base layer requirements for concrete floor slabs, paved parking and roadway areas.

As shown in Figure No. 2, the proposed development will include a two-story mixed-use building with underground parking garage. The existing ground surface slopes to the northwest across the proposed development areas with ground surface elevations varying by approximately five feet. As per drawings provided via email with client representatives, finish first floor elevation of the building is at elevation 683.80 ± feet and steps up to 685.00 ± feet. The basement level and underground parking garage will have a finish floor elevation that is 11.5 feet beneath the first floor at approximate elevation 672.3 ± feet. Final exterior grades are assumed to match existing, from about elevation 685.00 ± feet to 675.00 ± feet. The maximum design exterior bearing wall and column loads are not expected to exceed 10 kips per lineal foot and 100 kips, respectively. The maximum design interior bearing column load is not expected to exceed 120 kips.

Site Preparation and Earthwork: General site preparation will include the demolition and complete removal of any encountered foundations and floor slabs, and removing all unsuitable surficial material (i.e., asphalt pavement, concrete, brick, expansive slag, organic or topsoil layer, and construction and demolition-like fill) to a depth where firm, granular or cohesive fills or naturally occurring soils are encountered. It is recommended, particularly in the location of the proposed structure, that any slag and/or cinder/ash containing material, if encountered, should be tested to determine the expansion and corrosion characteristics (where applicable for direct or potential contact with foundation elements and buried utilities) of these materials prior to their use on-site. Any rubble-like and brick fill, boulders, or wood fill in particular, if encountered, will require undercutting. The proposed building and any paved areas are to be proof rolled with a fully loaded ten-wheel dump truck. All encountered soft and disturbed zones should be undercut and stabilized with granular fill that is placed in compacted lifts prior to placement of additional fill materials above. Refer to Appendix D entitled "General Earthwork Specification" for definition of the fill types and gradations, recommended minimum compaction requirements for various site developments, and placement and compaction methods. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components that are included in the select granular fill category as are as follows: Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred; or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size).

Other than the existing buildings along Main Street and the house and garage at 22 Chateau Terrace that will be demolished, it is unknown if any former residential/commercial structures, existed at the project site and if any former footings and foundation walls may be buried within the addition footprint. Septic tank and

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system locations and the abandonment conditions or practices are normally unknown. If encountered during site development, it is recommended that any tanks and systems should be properly removed/treated/remediated relative to the proposed development and under the applicable local and state regulations. The remaining cavities, from the aforementioned items, should be backfilled with select/approved granular fill that is placed in thin lifts and compacted to the minimum recommendation, as presented in this report, for the proposed development at that cavity location.

Shallow Foundation: The recommended foundation type is shallow footings. Continuous strip and spread exterior footings and interior spread footings would bear at an elevation of four feet or lower below final grade, at elevation 670.80 ± feet. The bearing elevation is also approximated based upon the basement/parking garage finish floor elevation of 672.30 ± feet. A four-foot minimum footing depth (as required by local or New York State code) is needed to provide adequate protection from frost for exterior footings.

Basement/parking garage will require the removal of up to four feet of limestone bedrock. If the approved bedrock depth is less than four feet below final exterior grade, hooked rebar dowels are recommended to be placed in grout filled holes at approximately a four-foot spacing and extending to a minimum total depth of four feet into approved bedrock. This precaution is needed to confirm adequate bedrock quality and to incorporate the rock mass into the perimeter footing system.

The exterior and interior footings are recommended to bear at the same relative elevation on stable, natural, approved limestone bedrock or on thin layers of thoroughly compacted (minimum of 95 percent of the maximum dry density by ASTM D 1557) select/approved granular fill that is placed on an approved subgrade. If needed, a geotextile strength and filter fabric (such as, Mirafi 600X) may be used to line the excavation bottom for the purpose of stabilizing the excavation and placement of the select/approved granular fill.

Undercut areas beneath proposed foundations must extend laterally beyond each vertically projected edge of the foundation by a minimum distance equal to one-half the total depth of the undercut or equating to a slope of two vertical to one horizontal from the bottom foundation corner. The undercuts and placement of compacted select/approved granular fill are required to ensure a suitable and more uniform bearing media for the footings, and to prevent unacceptable differential settlements.

Wall footings should have a minimum two-foot width and column footings should have a minimum three-foot width. Based on the above described conditions, the recommended maximum net allowable foundation bearing pressure is 5,000 pounds per square foot (psf) of bearing area. All footings for the proposed building are recommended to be designed near the same contact pressure. The recommended

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maximum net allowable foundation bearing pressure is based on generally accepted design methods for cohesive soil conditions. Based on the provisions of the above recommendations and estimated design requirements and utilization of proper construction procedures and experienced field supervision and testing personnel, total and differential settlements are estimated to be less than one inch and 3/4's inch, respectively. Refer to Appendix C for additional foundation design and construction details.

Additional Foundation Considerations: In addition to the above, the following recommendations will provide additional assurances with regard to proper foundation construction.

a) All fill placed beneath, adjacent, or above foundations must comply with the "General Earthwork Specification", included as Appendix D.

b) Backfill of foundations with approved select granular fill must be completed prior to placement of substantial superstructure loads, except for basement walls or substructure areas that may additionally require superstructure loads and possibly internal bracing.

c) The upper silty materials may rut and “pump” if exposed to excessive surface water and repeated construction traffic. Proper site management and fill placement operations are needed to minimize costly undercuts and subgrade repairs prior to placement of concrete slabs and asphalt pavement. It is noted that construction during wet/rainy and/or Fall and Spring conditions may require added precautions and possibly a thicker base layer to maintain a stable subgrade condition.

d) Step footings, if utilized, should have a rise to run ratio of 1:2, with a two-foot maximum rise and a four-foot minimum run between steps or as recommended by the design structural engineer.

e) The recommended at rest (rigid wall), active, and passive static earth pressure coefficients for unsaturated, select granular sandy gravel fill against an earth retaining structure/wall are 0.76, 0.24, and 2.8 (with an ultimate value of 4.2), respectively. The respective equivalent static lateral fluid pressures are recommended to be 90, 30 and 330 (with an ultimate value of 500) pounds per square foot (psf) per foot depth which are based upon a moist, compacted unit backfill weight of 120 pounds per cubic foot (pcf). The at rest value would account for the average expected compaction induced stresses and/or the potential influences of hydrostatic pressure. The static lateral fluid pressures can be directly proportioned for other unit weights.

Stabilization of Excavations/Underground Structures: The trench/excavation sidewall stability concerns can be addressed with the Occupational Safety and Health Act (OSHA) requirements as set forth in Subpart P of 29 CFR Part 1926, Sections 1926.650 to 1926.652. In lieu of a properly designed shoring system, side slopes of the trench excavation should be one on one (vertical to horizontal distance) or flatter in cohesive soils or one on one and one-half or flatter in the granular materials, as required by OSHA.

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In areas where sloped excavations are impractical, a land cofferdam (e.g., sheet piling or soldier piles with lagging and walers-struts/tiebacks, as needed) must be installed to effectuate the installation of the proposed underground parking structure. The aforementioned system(s) must be designed by a licensed New York State professional engineer with proven experience. These types of designs are outside the scope of this report.

Water must not be allowed to accumulate or pond on exposed foundation bearing grades. Surface water and groundwater from within the excavation must be either pumped, diverted or channelized by gravity flow to effectuate the construction of the proposed foundation. Pockets of localized perched groundwater may seasonally be expected to be encountered at footing and/or footing undercut bearing grades. At these locations, dewatering with surface sumps may be required to maintain stable side slopes and excavation bottom.

Substructures/Retaining Walls: While not a unique design concern, proposed basement/underground parking substructures must be adequately designed and constructed to support horizontal soil pressures and surface loads. Refer to Appendix C and the following recommendations that will provide additional assurances with regard to proper design and construction of free standing retaining walls and fixed/restrained walls.

a) At the location of the proposed structure(s), design the wall foundation based on the previously recommended maximum net allowable bearing capacity and bearing conditions.

b) Cantilever (such as, retaining) walls and fixed/restrained walls must be adequately designed and constructed to support horizontal soil pressures and surface loads.

c) Uniformly distributed surface surcharge loads should be applied at 100 percent of the load times the appropriate lateral earth pressure coefficient to the retaining wall. The lateral design stress on the wall is the sum of the equivalent lateral fluid pressure and other applied surface stresses and subsurface stresses (i.e., footings).

d) The recommended at rest (rigid wall), active, and passive static earth pressure coefficients for unsaturated, select granular sandy gravel fill against an earth retaining structure/wall are 0.76, 0.24, and 2.8 (with an ultimate value of 4.2), respectively. The respective equivalent static lateral fluid pressures are recommended to be 90, 30 and 330 (with an ultimate value of 500) pounds per square foot (psf) per foot depth, which are based upon a moist, compacted unit backfill weight of 120 pounds per cubic foot (pcf). The at rest value would account for the average expected compaction induced stresses and/or the potential influences of hydrostatic pressure. If a moist, compacted granular sandy silt or silty sand fill is used, the recommended active and passive static earth pressure coefficients are 0.33 and 2.0 (with an ultimate value of 3.0) and the equivalent static

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lateral fluid pressures are 45 and 270 (with an ultimate value of 405) psf per foot depth, which is based upon a unit backfill weight of 135 pcf. The static lateral fluid pressures can be directly proportioned for other unit weights.

e) For a soil/fill that is at or near a saturated/liquefied state, the equivalent static lateral fluid pressure on a wall from earthquake/seismic induced loading is recommended to be at least equal to the unit weight of the backfill. For unsaturated backfill conditions under earthquake/seismic induced loading, it is recommended that an additional (to the static) lateral load per foot of wall length (in pounds/foot) to a non-yielding wall will be located at 0.6 times the earth height behind the wall, as taken from the base of the wall, and will be equal to 6.8 times (for S_{ds} = 0.25g) to 13.5 times (for S_{ds} = 0.50g) the earth height squared behind the wall, in feet (for a soil backfill unit weight of 120 pcf and for Site Class C to E soils). As applied to yielding walls, these multiplying factors may be reduced by 33 percent. The earthquake/seismic lateral pressures or loads can be directly proportioned for other unit weights and S_{ds} values. Use a 1.75 multiplier to the earthquake/seismic lateral pressures or loads for walls bearing on Site Class B/A rock. Since non-yielding/rigid walls may move into the backfill, the equivalent lateral static fluid pressure for the static passive condition would also be a structural engineering design concern.

f) Lateral stresses from surface loading (such as, trucks) would not generally be a design concern if the load is transient and the loading is at a horizontal distance from the subsurface wall that is greater than the depth of the subsurface cavity. The geotechnical engineer should be consulted once the type and magnitude of the surface loading are identified.

g) The ultimate values of the friction factor or coefficient of sliding friction for the concrete footing of a retaining wall or foundation wall are recommended to be 0.35 on a silty sand/non-plastic sandy silt interface, 0.45 on non-plastic sand and gravel mixtures with less than five percent silt or on NYSDOT Item No. 304.12, Type 2 and Item No. 304.14, Type 4 gravel interfaces, and 0.60 if cast against a clean, sound and rough bedrock interface (which has a Factor of Safety = 1.0). Use a value of 0.5 for a smooth surface of either bedrock or if a dental concrete leveling course, without bonding reinforcing bars, is to be placed on the bedrock surface prior to casting the footing/foundation wall. For foundations on very stiff to hard natural cohesive soils, the cohesion/adhesion for sliding resistance is limited to 1,000 psf. The minimum recommended factor of safety against sliding is 1.5.

h) The minimum recommended factors of safety against overturning of a retaining wall are 1.5 for a clean/silt-free compacted granular backfill or for foundations on approved rock and 2.0 for a compacted cohesive backfill.

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i) Relieve any hydrostatic or water pressure that develops behind the walls from in-flowing groundwater as is normally provided in practice. The exterior and interior sides of walls are to have a properly designed and installed dewatering system or as determined by the design civil/structural engineer.

Concrete Interior Floor Slab(s)/Pad: For the most part and based on test results for similar soils/fills, moderately plastic cohesive natural soils/fills may be somewhat difficult to compact in a controlled manner considering the varying soil plasticity and natural moisture contents that are estimated to be at to wet of optimum, at the time of this investigation. Excavated and approvable cohesive soil/fill types are not expected to be available in any reasonable quantities. These soils/fills may be expected to be suitable for re-use as general fill with the implementation of uniformly applied soil conditioning (i.e., drying and blending) and compaction methods, if additional volume of soil for backfill is needed.

Excavated and approvable granular (i.e., sand or gravel and non-plastic silt and sand) soil/fill are expected to be available in very limited quantity and associated with the base layer beneath the existing asphalt pavement. For the most part, granular (i.e., sand or gravel) soil/fill is expected to be acceptable for on-site re-use, as general/ordinary fill without substantial reworking and/or modification, while silty fine-sized sand may first require drying and blending.

Dissimilar excavated materials should not be commingled prior to their use elsewhere on-site, unless designated for a green/vegetation area. General fill material is also recommended to be placed on prepared and approved subgrade and in accordance with previous recommendations.

A geotextile fabric (such as, Mirafi 600X or equal) that separates the subgrade and the approved/select granular base layer may be needed and is particularly recommended for sensitive cohesive/fine-grained/silty clay subgrade soil/fills. This approach will stabilize and provide a workable building pad condition with minimal required repairs.

The approved subgrades will consist of very stiff or better/thoroughly compacted (i.e., minimum 92 percent of the maximum dry density by ASTM D 1557) cohesive/fine-grained glacial till, stable approved limestone bedrock, or thoroughly compacted imported select/approved granular fill. Above the approved subgrades, a minimum 12-inch thick select granular fill (i.e., number two crusher run stone or equal) layer is recommended as the base course for the basement/parking garage concrete floor slab. The NYSDOT specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum). This select granular base layer would be compacted to a minimum 95 percent of the maximum dry density by ASTM D 1557. The basement/parking garage floor slab is recommended to be a six-inch minimum thickness or is as determined by the design structural engineer.

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The floor slab reinforcement should be provided through placement of wire mesh or plastic fibers and is also as determined by the design structural engineer.

At the discretion of the design architect, a vapor barrier may be considered for use in the proposed structure. The use of a thin gravel cushion, as a capillary break, or a thin sand cushion over a vapor barrier that is placed beneath the concrete slab(s) are at the discretion of the design architect/engineer or as required by local code. Gradations of gravels that are satisfactory capillary breaks include 1 ¼-inch or ¾-inch crushed stone or aggregate per the ASTM D2321 Types IA, IB and II with less than 5 % fines. A number two crusher run stone may also be applicable, but the gradation and material property specifications must qualify.

Exterior Concrete Slabs-On-Grade/Pad/Parking and Roadway Facilities: The characteristics of the natural soils and the known frost penetration in Western New York require that specific attention is provided to the design and construction of paved roadway and parking areas. For new pavement sections, isolated pockets of surficial silty/cohesive/fine-grained soil/fill may be encountered and may be too soft and wet in the proposed parking and roadway areas. These types of soil/fill may be adequately conditioned (i.e., dried and blended) and compacted (i.e., minimum 90 percent compaction) to support necessary construction equipment and normal pavement section. Otherwise, the removal/undercutting of the silty/cohesive/fine-grained soil/fill to a firm, approved subgrade and subsequent placement and compaction of select or approved granular fill will be required in order to accommodate the recommended pavement sections.

For new pavement sections, it is recommended that the subgrade surface is adequately graded and/or underdrains are installed to prevent water accumulation. Above the approved subgrade surface (i.e., minimum 90 percent compaction), a minimum eight-inch thick select granular layer is recommended as the base course for lightly traveled roadway and parking areas (standard duty section). A geotextile filter and strength fabric (such as, Mirafi 600X or equal) and minimum 12-inch thick base course are recommended for all truck routes and heavily traveled roadways (heavy duty section). If “pumping” of the silty/cohesive/fine-grained soil subgrade occurs or is difficult to stabilize during construction, an increase in the base thickness to that of the heavy-duty section and/or a geotextile filter and strength fabric is recommended to be placed on the prepared and approved subgrade for the standard duty section. The NYS Department of Transportation (NYSDOT) specification numbers for typical aggregate subbase/base course components are Item No. 304.12 (Metric) Subbase Course, Type 2 (< 2-inch maximum size), which is preferred, or Item No. 304.14 (Metric) Subbase Course, Type 4 (< 2-inch maximum size). The granular aggregate base layer is recommended to be compacted to at least 95 percent of maximum dry density by ASTM D1557.

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The thickness of top and binder course layers should be determined in accordance with AASHTO methods. In summary, the minimum recommended asphalt thicknesses for the heavy-duty section and standard duty section are three and one-half inches and three inches, respectively. The top and binder course layers are recommended to be designed and constructed in accordance with New York State Department of Transportation Standard Specification.

Limitations, Field Inspections and Monitoring: This report is based on the preliminary information that is provided by project representatives and the subsurface conditions that were encountered at the test boring locations. Due to the nature of the investigation method, test pit excavation will provide a greater level of delineation of the subsurface soil/fill/rock conditions than can be defined by the test boring data alone. As detailed in Appendix E "Limitations", modification regarding proposed building/structure locations and other site developments can result in changes to provided recommendations. It is recommended that the geotechnical engineer be provided the opportunity to generally review the final detailed design and contract specifications. Required earthwork and foundation construction should be done under the supervision of experienced construction personnel and in a manner consistent with proven methods. All site work should be carefully monitored and tested by experienced geotechnical personnel to assure compliance with earthwork and foundation construction specifications.

Thank you for the opportunity to assist on this project. If questions should arise, please call the undersigned at your earliest convenience.

Very truly yours,
BARRON & ASSOCIATES, INC.
and
BUFFALO DRILLING COMPANY, INC.

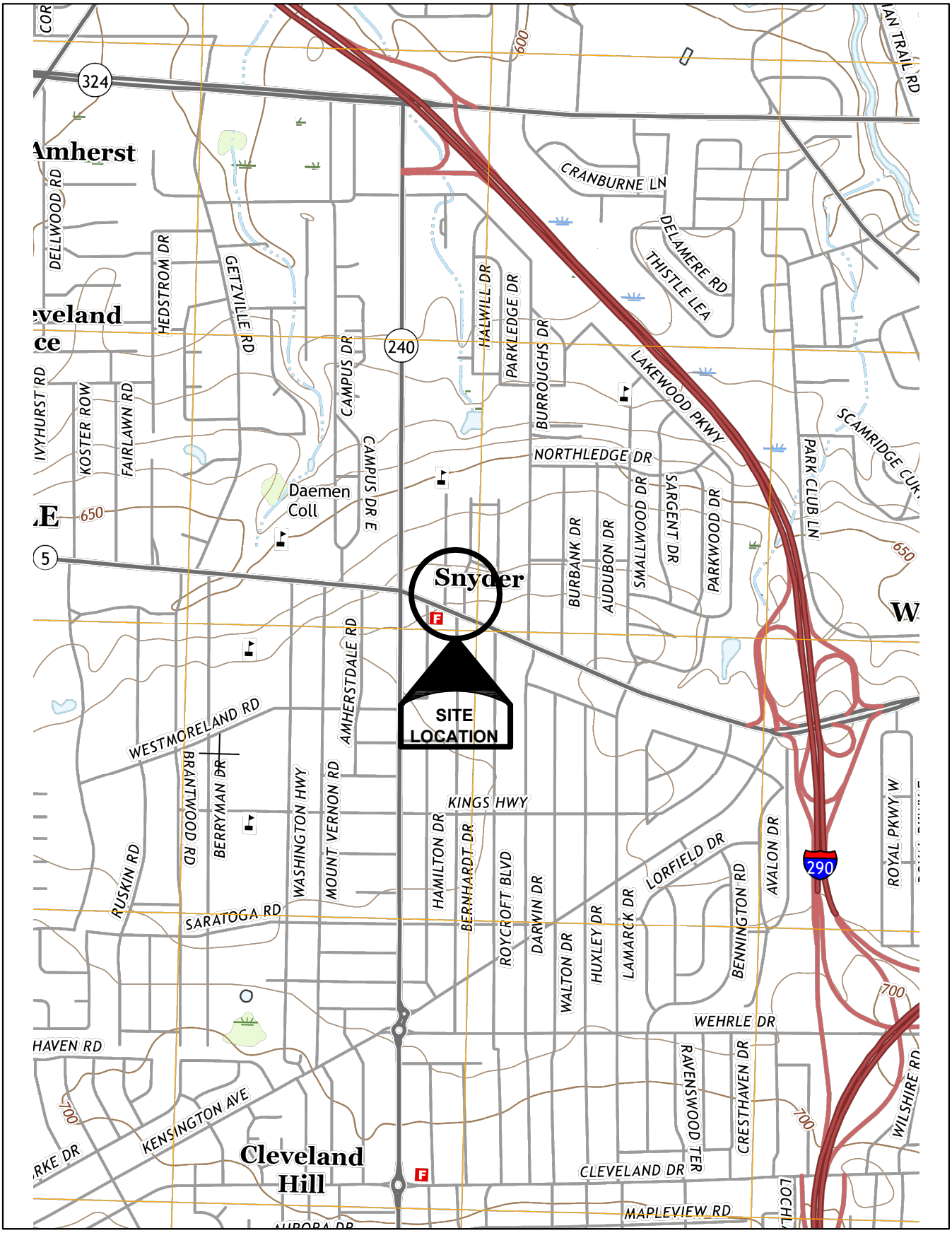
Andrew J. Camping, PG
Senior Geologist

James S. Barron, PE
President/Geotechnical Engineer



7.20.20

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

CLIENT: BENDERSON DEVELOPMENT COMPANY, LLC
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202

PROJECT: PROPOSED TWO-STORY BUILDING WITH UNDERGROUND GARAGE
4548 & 4564 MAIN STREET, 22 CHATEAU TERRACE, AND 17 FRUEHAUF AVENUE
TOWN OF AMHERST, ERIE CO., NEW YORK 14226

NEW YORK STATE SITE LOCATION

USGS SITE LOCATION PLAN
BUFFALO NE
2016

JOB NO.: 20-533 | SCALE: N.T.S.
DATE: 3/17/2020 | FIGURE NO. 1

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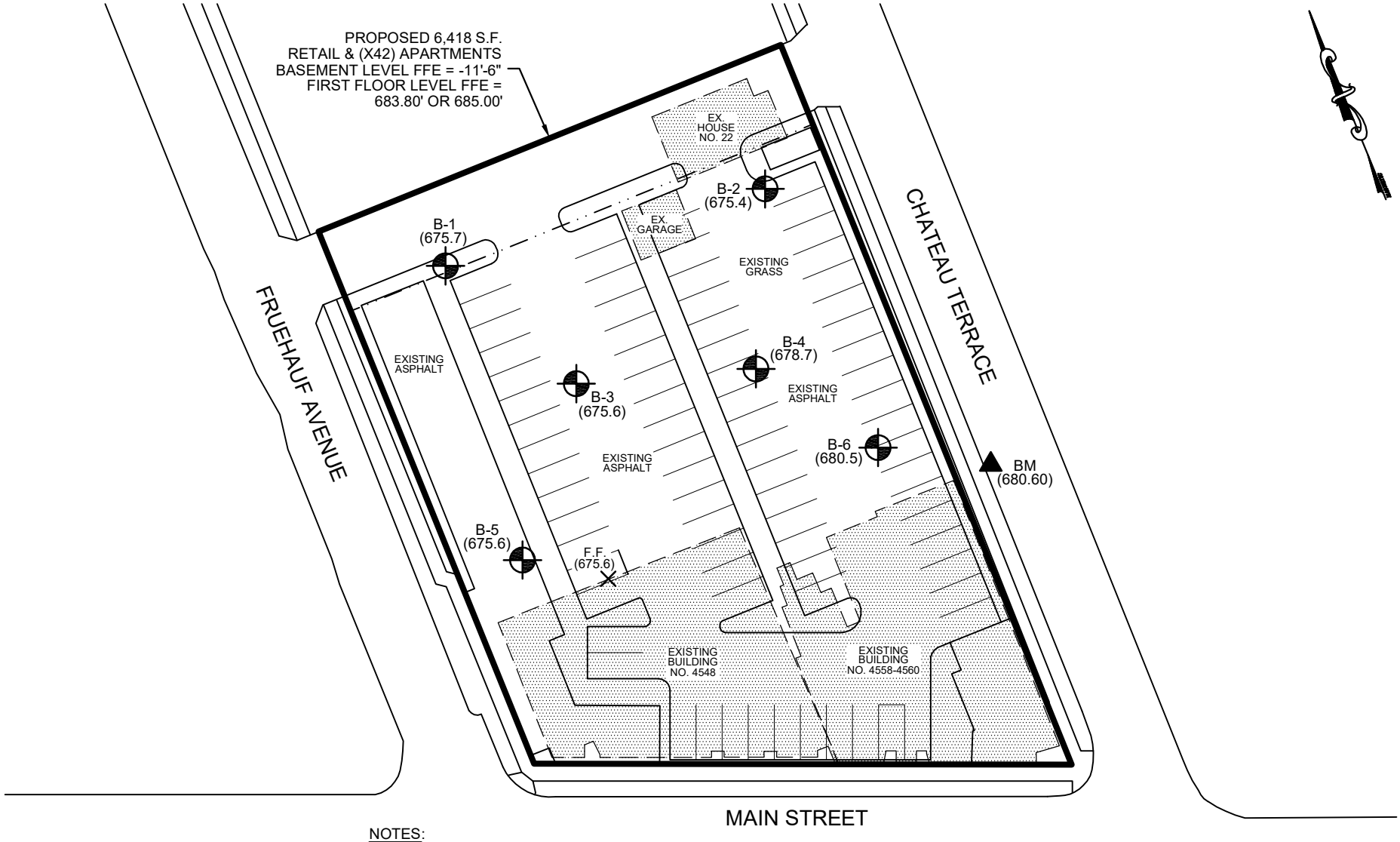

NOTES:

1. BORINGS, BUILDINGS, SITE FEATURES, PROPERTY LINE LOCATIONS, AND SCALE OF DRAWING ARE APPROXIMATE.
2. BASE MAP REFERENCE PROVIDED BY BENDERSON DEVELOPMENT COMPANY, LLC, TITLED "SITE PLAN - MAIN STREET SNYDER", PROPERTY ID # 5202 CONCEPT PLAN, DATED 3/3/2020.
3. EXISTING FEATURES AND BENCH MARK ELEVATION PROVIDED BY MILLARD, MACKAY & DELLES LAND SURVEYORS, LLP, TITLED "ALTA/NSPS LAND TITLE SURVEY", SBL NO. 68.17-6-219,20,21&22, DATED 3/26/2018.
4. FINISH FLOOR ELEVATIONS PROVIDED BY A E-MAIL ATTACHMENT FROM MATT OATES OF BENDERSON TO ANDY CAMPING OF B&A ON 6/23/2020, TITLED "5202 - BASEMENT FLOOR GRADES 04.13.2020.PDF AND 5202 - FRIST FLOOE GRADES 04.21.2020.PDF, UNDATED.

LEGEND

B-2	= TEST BORING & NO.
(675.4)	= GROUND SURFACE ELEVATION (FT.)
×	= SPOT ELEVATION
▲ BM	= BENCH MARK (NORTH RIM OF MAN HOLE)

BARRON & ASSOCIATES, P.C. &
BUFFALO DRILLING COMPANY
10440 MAIN ST.
CLARENCE, NY 14031
(716)759-7821
FAX (716)759-7823
INFO@BUFFALODRILLING.COM
INFO@BARRONANDASSOCIATESPC.COM

DRAWN: DAN KASPROWICZ

CLIENT: BENDERSON DEVELOPMENT COMPANY, LLC
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202

PROJECT: PROPOSED TWO-STORY BUILDING WITH UNDERGROUND GARAGE
4548 & 4564 MAIN STREET, 22 CHATEAU TERRACE, AND 17 FRUEHAUF AVENUE
TOWN OF AMHERST, ERIE CO., NEW YORK 14226

TEST BORING LOCATION PLAN

0 25 50 100

JOB NO.: 20-533	SCALE: 1" = 50' ±
DATE: 6/25/2020	FIGURE NO.: 2

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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B&A JOB NO: 20-533
CLIENT: Benderson Development Company, LLC
PROJECT: Proposed Two-Story Building w/ Underground Garage
4548 & 4564 Main St., 22 Chateau Terrace, and
17 Fruehauf Avenue
Town of Amherst, Erie Co., New York 14226

TABLE NO. 1

SUMMARY TABLE OF BEDROCK UNIAXIAL COMPRESSIVE STRENGTH TESTS

Test Boring No.	Core Run No.	Sample Location		Moisture Content ASTM D2216	Wet Density ASTM D2166	Dry Density ASTM D2166	Uncapped Length / Diameter ASTM D2938	Failure Type	Maximum Compressive ASTM D2938			Rock Identification ASTM C294
		Depth Interval	Elevation Interval						Load	Strength		
		(ft.)	(ft.)	(%)	(pcf)	(pcf)	(in. / in.)	(-)	(lbs.)	(tsf)	(psi)	
B-1	C-1	9.1 - 9.5	666.6 - 666.2	0.2	162.7	162.4	4.74 / 2.04	COLUMNAR	24,490 [1.]	538	7,478	ONONDAGA LIMESTONE [2.,]
B-6	C-2	8.3 - 8.8	672.2 - 671.7	0.2	153.4	153.1	4.38 / 2.03	COLUMNAR	13,070 [1.]	290	4,024	ONONDAGA LIMESTONE [2.,]

1. Ends of sample capped prior to testing.
2. Sample appeared absent of limiting structures (fracture planes, vugs, etc.).
3. Rock identification based on the local geology according to New York State Geologic Maps.

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APPENDIX A

TEST BORING LOGS

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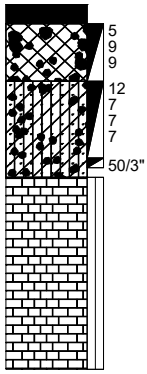
TEST BORING LOG

7.I

JOB No.: 20-533 **BORING No.:** B-1

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.7
DATE COMPLETED:	5/18/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 – 0					Asphalt (6")
		S-1 : 0.5'- 2.0'	18	50	Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, little Clay, tr. Asphalt, moist (Crushed Limestone-Fill)
		S-2 : 2.0'- 4.0'	14	2	Brown, stiff CLAY, some Silt, little Gravel, little f/c Sand, mod. plastic, moist (CL-Till) *(Poor recovery due to large gravel caught in shoe.)*
		S-3 : 4.0'- 4.3'	50+	100	...grade: hard
670 – 5		C-1 : 4.5'- 9.5'	-	83.3 (22.5)	ONONDAGA LIMESTONE: med. dark gray, finely crystalline, band to thin bedded, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE) # pieces > 1": 17 # pieces > 4": 3 longest piece: 4.75"
665 – 10					Depth to Bottom of Hole: 9.5 feet
660 – 15					
655 – 20					
650 – 25					
645 – 30					
640 – 35					

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Logged by: B. Smith

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CLARENCE, NEW YORK 14031
(716) 759-7821 FAX: (716) 759-7823

TEST BORING LOG

7.I

JOB No.: 20-533 **BORING No.:** B-2

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.4
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 – 0	2 8 14 50/4" REFUSAL	S-1 : 0.0'- 2.0'	-	-	Topsoil (4") Dk. brown, m. dense f. SAND and SILT, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM-ML) *(Driller hand excavated upper two feet.)*
670 – 5		S-2 : 2.0'- 3.8'	22	60	Brown, v. stiff CLAY, some Silt, little Gravel, little f/c Sand, mod. plasti moist (CL-Till) ...grade: and Gravel
665 – 10					Depth to Bottom of Hole: 3.8 feet
660 – 15					
655 – 20					
650 – 25					
645 – 30					
640 – 35					

Logged by: B. Smith

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CLARENCE, NEW YORK 14031
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TEST BORING LOG

7.I

JOB No.: 20-533 **BORING No.:** B-3

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.6
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675 0	34 50/5" REFUSAL	S-1 : 0.5'- 1.4'	50+	25	Asphalt (6") Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, t Asphalt, moist (Crushed Limestone-Fill)
670 5					Depth to Bottom of Hole: 1.4 feet
665 10					
660 15					
655 20					
650 25					
645 30					
640 35					

Logged by: B. Smith

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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TEST BORING LOG

7.I

JOB No.: 20-533 **BORING No.:** B-4

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	678.7
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
0 / 675					Asphalt (6")
	12 10 7	S-1 : 0.5'- 2.0'	17	30	Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, t Asphalt, moist (Crushed Limestone-Fill)
5	2 10 50/4"	S-2 : 2.0'- 3.3'	60+	60	Brown, hard CLAY, some Silt, little Gravel, little f/c Sand, mod. plastic, moist (CL-Till)
670	REFUSAL				
10					Depth to Bottom of Hole: 3.8 feet
665					
15					
660					
20					
655					
25					
650					
30					
645					
35					

Logged by: B. Smith

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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TEST BORING LOG

7.I

JOB No.: 20-533 **BORING No.:** B-5

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	675.6
DATE COMPLETED:	5/15/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
675	22 50/1" REFUSAL	S-1 : 0.5'- 1.0'	50+	30	Asphalt (6") Gray, v. dense f/c sand to gravel sized Crushed Limestone, little Silt, t Asphalt, moist (Crushed Limestone-Fill)
670					Depth to Bottom of Hole: 1.5 feet
665					
660					
655					
650					
645					
640					

0 5 10 15 20 25 30 35

Logged by: B. Smith

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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(716) 759-7821 FAX: (716) 759-7823

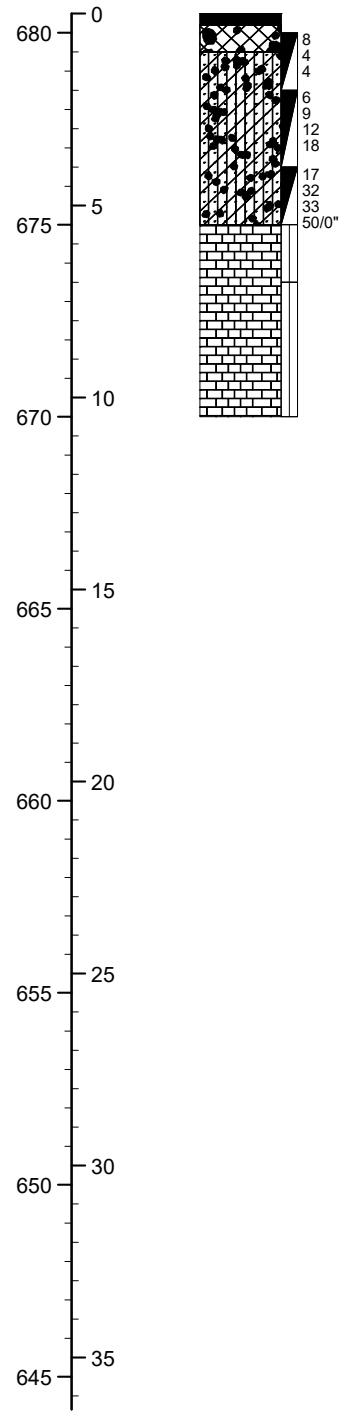
TEST BORING LOG

7.I

JOB No.: 20-533 **BORING No.:** B-6

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

DRILLER:	J. Gardner	**TYPE OF DRILL RIG:**	Diedrich D-50 (Truck)
SAMPLING METHODS:	ASTM D1586	**SIZE AND TYPE OF BIT:**	2 1/4" I.D. H.S.A.
DATE STARTED:	5/15/20	**SURFACE ELEVATION (ft.):**	680.5
DATE COMPLETED:	5/18/20	**GROUNDWATER DEPTH (ft.):** (measured at completion unless indicated below)	None



Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
			Asphalt (4")
S-1 : 0.5'- 2.0'	8	75	Gray, loose f/c sand to gravel sized Crushed Limestone, little Silt, tr. Asphalt, moist (Crushed Limestone-Fill)
S-2 : 2.0'- 4.0'	21	50	Brown, stiff CLAY, some Silt, little f/c Sand, tr. Gravel, mod. plastic, moist (CL-Till) ...grade: v. stiff, little Gravel
S-3 : 4.0'- 5.5'	65	40	...grade: hard, some Gravel
C-1 : 5.5'- 7.0'	-	83.3 (0)	ONONDAGA LIMESTONE: med. dark gray, finely crystalline, band, LIMESTONE, porous, calcareous, sl. weathered, hard (ONONDAGA LIMESTONE) # pieces > 1": 5 # pieces > 4": 0 longest piece: 3.5"
C-2 : 7.0'- 10.5'	-	33.3 (28.8)	...grade: band to thin bedded # pieces > 1": 9 # pieces > 4": 2 longest piece: 4.75"

Depth to Bottom of Hole: 10.5 feet

Logged by: B. Smith

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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APPENDIX B

GEOTECHNICAL REFERENCE STANDARDS

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Column Header Descriptions

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TEST BORING LOG

JOB No.: BORING No.:

PROJECT:

EXAMPLE

DRILLER:
SAMPLING METHODS:
DATE STARTED:
DATE COMPLETED:

TYPE OF DRILL RIG:
SIZE AND TYPE OF BIT:
SURFACE ELEVATION (ft.):
GROUNDWATER DEPTH (ft.):
(measured at completion unless indicated below)

Elevation/ Depth (feet)	Soil Symbols Sampler Symbols Field Test Data	Sample No. : Range	N-Value	% REC (RQD)	Soil and Rock Description / Remarks
100 — 0	1 1 1 2 / 6 8 11 14	S-1 : 0.0'- 2.0'	2	50	Dk. brown, soft, CLAY, some Silt, little f. Sand, tr. Gravel, tr. Roots, tr. Organic matter, mod. plastic, wet (CL)
		S-2 : 2.0'- 4.0'	19	50	Brown, m. dense f. SAND, some Silt, tr. Gravel, tr. Clay, tr. Roots, non-plastic, moist (SM)

Elevation/Depth: The depth column provides the vertical scale of the boring log in feet below ground surface.

Sample No. : Range: Disturbed samples are identified with “S” preceding the sample number. Undisturbed (Shelby-tube) samples are identified with “U” preceding the sample number. Rock core samples identified with “C” preceding the core run. The range of elevation/depth where the sample was taken is identified in one-tenth foot increments.

N-value: The Standard Penetration Test N-value, as specified by ASTM D1586, is defined as the number of blows required by a 140-pound hammer falling 30 inches, each blow, to drive a 2-in outside diameter split-spoon sampler 12 inches.

% REC (RQD): “Percent Recovery” is the length of samples recovered divided by the total length sampled. The result is numerically expressed as a percent. The Rock Quality Designation (RQD) is the total length of places >4 inches divided by the total length of core run.

Soil and Rock Description / Remarks: This column denotes the exact depth of recovery and general documentation of drilling efforts. Description and classification are based on visual inspection of samples and boring operations. The stratum lines shown on the boring logs are based upon interpretation and may not represent precise subsurface conditions. Water-level readings have been made in the drill holes at time under conditions stated on the boring logs. Fluctuations in the water level may occur due to other factors than those present the time measurement was taken. See attached sheet.

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Soil and Rock Description / Remarks: Terminology Used for Soil Description

Density Description of Granular Soil

Number of Blows per ft., N	*Relative Density*
0 - 4	Very Loose
4 - 10	Loose
10 - 30	Medium
30 - 50	Dense
Over 50	Very Dense

Abbreviations Used in Soil Sample Classification

f - fine	v - very
m - medium	gr - gray
c - coarse	bn - brown
f/m - fine to medium	yel - yellow
f/c - fine to coarse	sl - slight
tr - trace	dk - dark

Consistency Description of Cohesive Soil

Number of Blows per ft., N	*Consistency*
Below 2	Very Soft
2 - 4	Soft
4 - 8	Medium
8 - 15	Stiff
15 - 30	Very Stiff
Over 30	Hard

Bedding

Parting	Less than 0.02 ft.
Band	0.02 - 0.2 ft.
Thin bed	0.2 - 0.5 ft.
Medium bed	0.5 - 1.0 ft.
Thick bed	1.0 - 2.0 ft.
Massive	Over 2.0 ft.

Grain Size

	Passing / Retained on
Boulder	LARGE / 12-in sieve
Cobble	12-in / 3-in sieve
Gravel	3-in sieve / No. 4 sieve
	No. 4 sieve / No. 10 sieve
Sand	No. 10 sieve / No. 40 sieve
	No. 40 sieve / No. 200 sieve
Silt	No. 200 sieve / 0.005 mm sieve
Clay	Smaller than 0.005 mm

Hardness

Very Soft or Plastic	Can be indented with thumb
Soft	Can be scratched with fingernail
Moderately Hard	Can be scratched with knife
Hard	Difficulty to scratch with knife
Very hard	Cannot be scratched with knife

Percentage Terminology Used in Soil Classification

Trace	0 - 10 %	Some	20 - 35 %
Little	10 - 20 %	And	35 - 50 %

Moisture

Dry	Absence of moisture, dusty, dry to the touch.
Moisture	Small quantity of moisture. Soil usually above groundwater level.
Wet	Moisture noticeable to the touch. Soil may be below groundwater level.
Saturated	Visible free water, usually soil is below groundwater level.

Plasticity

Non-plastic	An 1/8-in thread cannot be rolled at any water content.
Slight plasticity	Thread can be barley rolled.
Moderate plasticity	Thread is easy to roll and little time is required to reach the plastic limit (PL).
Plasticity	Considerable time is required to reach PL. Thread can be re-rolled several times after reaching the PL.

Crystallinity or Texture

Dense	Crystals are to small they cannot be distinguished with the naked eye.
Very Fine Crystalline	Crystals barely discernable with the naked eye.
Crystalline	Crystals are medium size, up to 1/8-in diameter.
Very Coarsely Crystalline	Crystals larger than 1/8-in diameter.

Voids

Porous	Smaller than pinhead. Their presence is indicated by the degree of absorbency.
Pitted	Pinhead size to 1/4 in. If thin walls separate the individuals pits, the core may be described as honeycomb.
Vug	1/4 inch to the diameter of the core. The upper limit will vary with core size.
Cavity	Larger than the diameter of the core.

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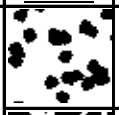
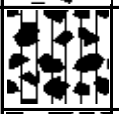
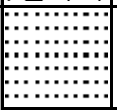
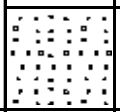
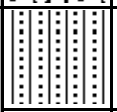
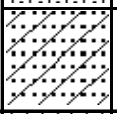
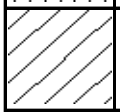
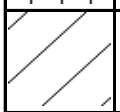
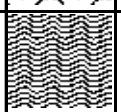
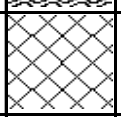
Soil Classification Chart: Unified Soil Classification System (USCS)

Major Divisions			Pattern	USCS ID	Typical Descriptions
Coarse-Grained Soils: More than 50% of material larger than No. 200 sieve	**Gravels**: More than 50% of coarse fraction larger than No. 4 sieve	Clean Gravels (little or no fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with appreciable amounts of fines		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-silt mixtures
	Sands: Less than 50% of coarse fraction larger than No. 4 sieve	Clean sands (little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sands, little or no fines
		Sand with appreciable amount of fines		SM	Silty sands, silt-sand mixtures
				SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils: Less than 50% of material larger than No. 200 sieve	**Silts and Clays, Low plasticity**: Liquid Limit < 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravely clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays, High plasticity: Liquid Limit > 50%			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils				Pt	Peat, humus, swamp soils with organic contents
Miscellaneous Fill				FILL	Miscellaneous fill may belong in any division but is identified as FILL

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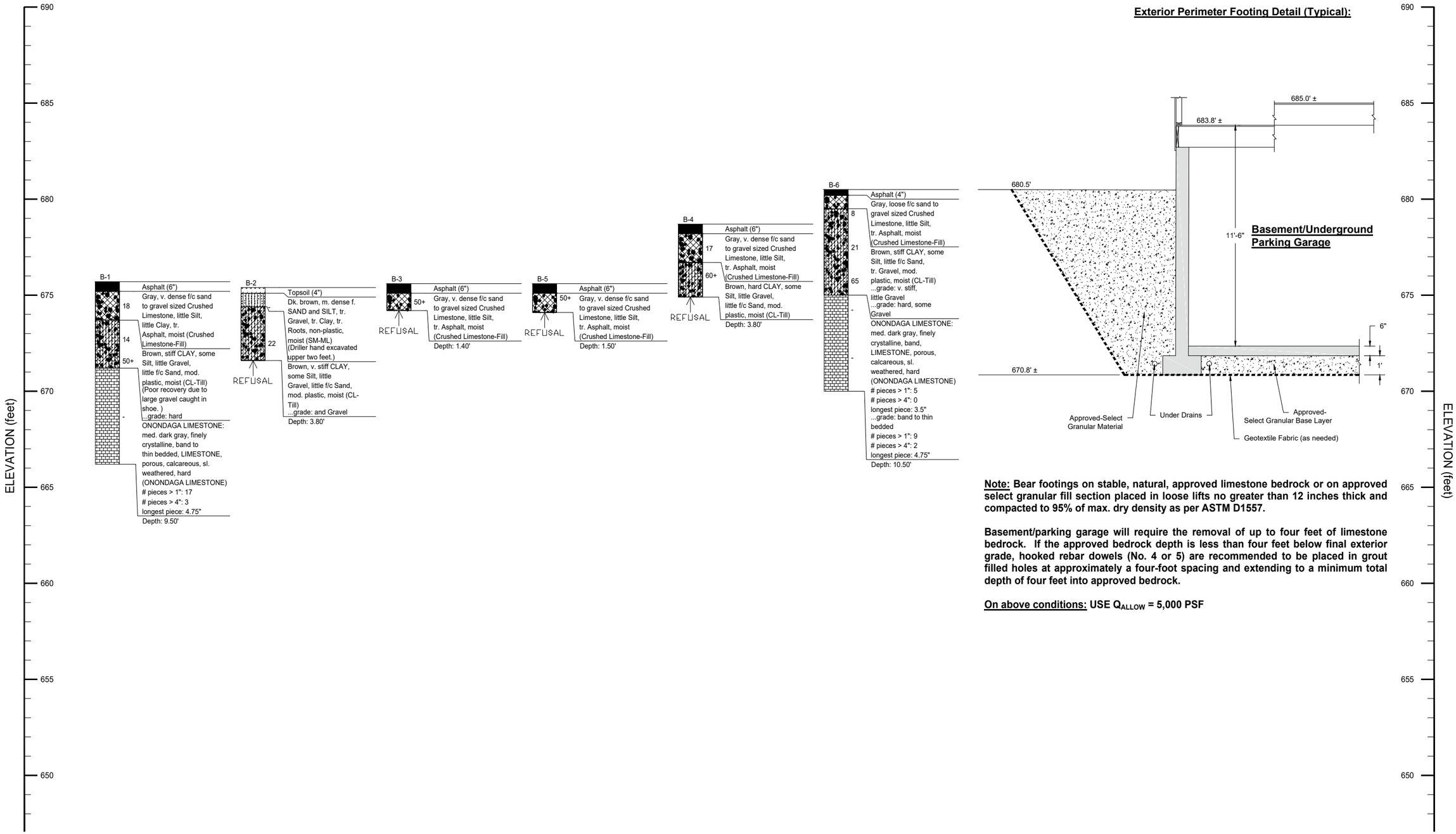
APPENDIX C

ENGINEERING COMPUTATIONS AND SCHEMATICS

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

"PROFILE" OF BORINGS



Exterior Perimeter Footing Detail (Typical):

Note: Bear footings on stable, natural, approved limestone bedrock or on approved select granular fill section placed in loose lifts no greater than 12 inches thick and compacted to 95% of max. dry density as per ASTM D1557.

Basement/parking garage will require the removal of up to four feet of limestone bedrock. If the approved bedrock depth is less than four feet below final exterior grade, hooked rebar dowels (No. 4 or 5) are recommended to be placed in grout filled holes at approximately a four-foot spacing and extending to a minimum total depth of four feet into approved bedrock.

On above conditions: USE Q_{ALLOW} = 5,000 PSF

Paving
Gravel Fill
Cohesive Glacial till
Limestone
Topsoil
Poorly graded silty fine sand
Drill rejection

BARRON & ASSOCIATES, P.C. & BUFFALO DRILLING COMPANY, INC.
10440 MAIN STREET, CLARENCE, NEW YORK 14031

Plotted by: A. Camping
7/17/2020

Job No.: 20-533

PROJECT: Propesed Two-Story Building with Underground Garage
4548 & 4564 Main St., 22 Chateau Tr., and 17 Fruehauf Ave., Amherst, Erie Co., New York 14226

Page No.: 1 0f 3

Scale: 1" = 5'

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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10440 Main Street (716) 759-7821
Clarence, NY 14031 www.barronandassociatespc.com

DATA INPUT BY: Andrew J. Camping
B&A JOB NO.: 20-533
CLIENT: Benderson Development Company, LLC
PROJECT: Proposed Two-Story Building with Underground Garage
4548 & 4564 Main Street, 22 Chateau Terrace and
17 Fruehauf Avenue
Town of Amherst, Erie Co., New York 14226

BUILDING CODE OF NEW YORK STATE © - 2010: USGS 2008 ACCELERATIONS at 2% IN 50 YEARS CALCULATED BY LATITUDE AND LONGITUDE

Site Latitude (○) = +42.9632

Site Longitude (○) = -78.7817

Seismic Site Class = B

Building/Structure with Shallow Foundation

S_s = 0.2 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_s

LAT. = \ LONG. =	-78.8000	-78.7817	-78.7500
42.9500	0.21962		0.22027
+42.9632	0.21991	0.22012	0.22050
43.0000	0.22071		0.22114

S_1 = 1.0 sec acceleration value for Class B (in g's)

Acceleration Values Below are S_1

LAT. = \ LONG. =	-78.8000	-78.7817	-78.7500
42.9500	0.05091		0.05109
+42.9632	0.05095	0.05101	0.05112
43.0000	0.05105		0.05122

SEISMIC SITE CLASS	Site Coefficient and Design Spectral Response Acceleration Values			
	0.2 Second		1.0 Second	
	F_a	$S_{ds} = 0.6667 * F_a * S_s$	F_v	$S_{d1} = 0.6667 * F_v * S_1$
A	0.8000	0.1174 g	0.8000	0.0272 g
B	1.0000	0.1468 g	1.0000	0.0340 g
C	1.2000	0.1761 g	1.7000	0.0578 g
D	1.6000	0.2348 g	2.4000	0.0816 g
E	2.5000	0.3669 g	3.5000	0.1190 g
F	2.5000	0.3669 g	3.5000	0.1190 g

<<------- USE THESE VALUES FOR SHALLOW FOUNDATIONS

Only residential buildings in Town of Amherst, Erie Co., N.Y.
Sds = 0.147 g Seismic Design Category = A

NOTE: F_a and F_v values are linearly interpolated, for the above S_s and S_s values, respectively, within the appropriate range of the mapped spectral response accelerations.
(Gridded data at 0.05 degree increments from: http://earthquake.usgs.gov/research/hazmaps/products_data/2012/data/)

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B&A JOB NO.: 20-533

DATE: 07/16/20

LATERAL EARTH PRESSURE ON GENERIC BLOCK FOUNDATIONS FOR SIGNS, FREE-STANDING RETAINING WALLS, OR BELOW GRADE/BASEMENT/TANK/POOL RETAINING WALLS (Less Than 20 Feet High)

a) Porous filter media, in contact with the basement/below grade foundation wall or retaining walls, protects and is in contact with a minimum 4 inch diameter perforated drainage pipes at the footing/base of the foundation/structural wall (exterior backfill side and interior basement side) and/or weep pipes through the wall, as needed and as applicable.

b) Where recommended, a geotextile filter fabric will protect the gravel filter media from the earth backfill. Overlap unsewn seams as per the manufacturer's recommendations.

c) Waterproof earth side of wall, as is customarily provided in practice.

d) Drainage pipes are connected to an appropriately designed collector pipe, conveyance, and/or sump pump system as is applicable for the intended purpose of the wall and as customarily provided/installed in practice.

e) For potential groundwater table conditions above the top of the basement slab-on-grade condition, install continuous waterstops (with no joints in stop) at wall and floor construction joints, as is customarily provided in practice. Interior intermediate drainage pipes beneath the slab, that are spaced on-center and in both directions, do appear to be needed.

f) Assume a uniformly graded, clean coarse sand or sandy gravel backfills:

* equivalent N-value in a dense state: $(N_1)_{60}$ = 40 blows/foot
* friction angle: ϕ' = 38 degrees {Teng, pg. 12}
* average in-place densities: moist - γ_m = 120 pcf
  saturated - γ_{sat} = 132 pcf submerged - $\gamma' = (\gamma_{sat} - \gamma_w)$ = 70 pcf

g) Assume at base of wall/footing, coefficient of friction against sliding (f_s) at base of wall (Refer to Teng, pg. 320-1):

f_s = tan (0.58 x ϕ') = 0.40 (AREA silty soil to silty coarse-grained soil)

h) Use equivalent fluid pressure design approach {Hough, pg. 249 and NAVFAC pg. 7-10-9}:

* at rest pressure coefficient - K_0 = 1 - sin (ϕ') = 0.38
* effective lateral pressure of soil - γ'_l = K_o x γ' = 26.6 pcf
* hydrostatic pressure - γ_w = 62.4 pcf
* equivalent fluid pressure with water level at the top of the grade at the wall - γ_{eo} = $\gamma'_l + \gamma_w$ = 89 pcf (say 90 pcf)
* equivalent fluid pressure with compaction induced lateral stress increase (W&F, pg 409) - γ_{eo} = 2 x K_o x γ_m = 91 pcf (say 90 pcf)
* active pressure case - K_a = [1 - sin (ϕ')] / [1 + sin (ϕ')] = 0.24
  γ_{ea} = K_a x γ_m = 29 pcf (say 30 pcf)
* passive pressure case - K_p = [1 + sin (ϕ')] / [1 - sin (ϕ')] = 4.2
  γ_{ep} = K_p x γ_m = 504 pcf (say 330 pcf with a F.S. = 1.5)

		Thoroughly Compacted ⇒⇒		Uniformly Graded & Clean Coarse Sand or Sandy Gravel Fill	Non-Plastic Silty Sand or Sandy Silt Fill	
USE:	Earth Pressure Coefficient	Static Active	=	0.24	0.33	
		Static At-Rest	=	0.76	1.00	
		Static Passive	=	2.80	2.00	(with F.S. = 1.5)
		Static Passive	=	4.20	3.00	(with F.S. = 1.0)
USE:	Equivalent Fluid Pressure	Static Active	=	30 pcf		
		Static At-Rest	=	90 pcf (for rigid walls)		
		Static Passive	=	330 pcf (with F.S. = 1.5)	[500 pcf with (with F.S. = 1.0)]	

[For earthquakes, structural engineer may elect to use the above Static Passive case instead of the below Earthquake Lateral Load for Non-Yielding Wall movement into the soil backfill.]

USE: Simplified Model for Earthquake Lateral Load/Ft. Wall Length @ 0.6 H_{bw} above base. Loads for Non-Yielding Wall. H_{bw} = Earth Height Behind Wall (feet)

Reduce load by 33% for Yielding Wall (active case) = (6.8 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.25 g)
(γ_m = 120 pcf for S_{ds} value. Add to Static At Rest/ Active Pressure/Load for unsaturated backfill case) = (13.5 psf / foot) x H_{bw}^2 (NYS, S_{ds} = 0.50 g)
= (17.5 psf / foot) x H_{bw}^2 (NEern NYS, $S_{ds} \leq 0.65$ g)

[Above for Site Class C to E soils. Interpolate for other S_{ds} values.
Use 1.75 x values for walls on Class B/A rock or on rigid foundation base. (FEMA NEHRP Guidelines)]

Saturated/Liquified Soil During Earthquake = 132 pcf
(Equivalent Fluid Pressure. Add to inertial hydrodynamic pressure, not presented here.)

{For looser/denser backfills, adjust above pressures by the ratio = new density / 120 pcf or / 132 pcf (for saturated case)}

USE:	Coefficient of Friction Against Sliding (f_s)	=	0.45	(on compacted NYSDOT Item #304.12 or #304.14 gravels)
	(use lowest f_s with no underlying weaker layers)	=	0.35	(on compacted granular soil & non-plastic silt)
		=	0.20	(slab-on-grade on polyethylene on granular fill)
	[with a F.S. = 1.0]	=	0.60/0.50	(on clean, rough, & sound bedrock/smooth bedrock)
	Min. Factor of Safety Against Sliding	=	1.5	*[Rev.9-30-09]*

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APPENDIX D

GENERAL EARTHWORK SPECIFICATION

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Barron & Associates, P.C.
GENERAL EARTHWORK SPECIFICATION

PART 1 GENERAL

1.1 SITE AND SUBSURFACE CONDITIONS

1.1.1 Overview

This specification is included as a courtesy to the clients of Barron & Associates, P.C, and addresses earthwork site preparation. Additions and modifications are necessary to create a job-specific specification. This specification may serve as a basis for the development for a technical specification under Division 2, *Site Work*.

1.1.2 Site Conditions

The site-specific conditions are described under separate cover or may be available from the OWNER.

1.1.3 Subsurface Conditions

The site-specific subsurface conditions are described under separate cover or may be available from the OWNER.

1.2 REFERENCES

American Standard for Testing and Measurement (ASTM):

ASTM C136	Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C2922	Density for Soil and Soil-Aggregate in Place by Nuclear Methods
ASTM D422	Test Method for Particle-Size Analysis of Soils
ASTM D1140	Amount of Material in Soils Finer Than the No. 200 Sieve
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft^3)
ASTM D2216	Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D2487	1990 Classification of Soils for Engineering Purposes
ASTM D4318	Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.3 DEFINITIONS

1.3.1 Unacceptable Material

Soil material containing debris, wood, scrap material, vegetation, refuse, soft unsound particles, and other organic, frozen, deleterious, or objectionable materials. Contaminated soils shall be properly documented and removed or remediated on site. If necessary, remediation procedure will be defined by the OWNER.

1.3.2 Unsuitable Material

Brown, organic topsoil and underlying soft pockets of organic silt or wet, reworked silty clay.

1.3.3 Ordinary Fill

Friable soil containing no stone greater than two-thirds loose lift thickness and no unacceptable or unsuitable materials. In general, existing random fill is expected to be acceptable for reuse as ordinary fill given proper sorting, blending, drying, and controlled placement methods.

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1.3.4 Granular Fill

Ordinary fill meeting the designation of ASTM D2487 classification of GW with a maximum of 10 percent by weight passing ASTM D1140, No. 200 sieve.

1.3.5 Select Granular Fill

Clean, uncoated soil which contains no unacceptable materials and conforms to the gradation requirements defined in Table A: Select Granular Fill.

Table A: Select Granular Fill	
Sieve Size	Percent Finer by Weight
2/3 of the loose lift thickness	100
No. 10	30 - 95
No. 40	10 - 70
No. 200	0 - 15

1.3.6 Sand and Gravel

Clean, hard, durable, uncoated particle of sand and gravel, free from lumps of clay, containing no unacceptable matter, and conforming to gradation requirements of *Table B : Sand and Gravel*

Table B: Sand and Gravel	
Sieve	Percent Finer by Weight
*	100
No. 4	50 - 85
No. 10	--
No. 40	10 - 35
No. 100	--
No. 200	0 - 8

* Job-Specific. To be determined by the ENGINEER

1.3.7 Crushed Stone

Clean, durable, sharp-angled fragments of rock or crushed gravel stone of uniform quality, containing no unacceptable matter, free from coatings, and conforming to gradation requirements of *Table C: Crushed Stone*

Table C: Crushed Stone		
	Percent Passing	
Sieve Size	¾-inch Stone	1 ¼-inch Stone
1 ½-inch	__	100
1 ¼-inch	__	85-100
1- inch	100	__
¾-inch	90-100	10-40
5/8-inch	__	__
½-inch	10-50	0-8
3/8-inch	0-20	__
#4	0-5	__

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1.3.8 Flowable Fill

Also known as Controlled Low Strength Material – Controlled Density Fill (CLSM-CDF), this material is available under a variety of producer names (e.g., K-Krete©, M-Crete, Flash Fill©, Flowable Mortar, Unshrinkable Fill, etc.). This non-settling backfill mixture is most commonly used for its flowable characteristics, its support strength under traffic loads, and its removability at a later date. The material may be produced on-site or off-site. In either case, the producer of such materials and the product must meet certain certification criteria. Such information is beyond the scope of this specification and will be considered on a site-specific basis.

Flowable fill may be acceptable for use as a backfill for utility trenches of other low-lying areas which require a compacted granular fill. Its use and warranty of performance is left to the CONTRACTOR in such applications.

The use of flowable fill under load-bearing structural components in place of properly placed and compacted granular fill is NOT common and is questionable. The localized use of such material may have profound affects on the performance of a foundation system. Site-specific conditions and the extent of anticipated use of flowable fill must be examined by geotechnical engineer. Cost of such consultation shall be borne by the CONTRACTOR unless specifically directed by the OWNER to seek such consultation. Without such consultation, warranty of performance for such use is left to the CONTRACTOR.

1.4 SUBMITTALS

The following submittals shall be provided in accordance with approved submittals procedures.

1. Fill Source: Provide name and source locations of fill material.

2. Field Test Reports: Field tests will be performed by OWNER's Representative as needed. CONTRACTOR may be required to perform such tests on proposed off-site fill materials.
a. Fill material grain size analyses per ASTM C136, D422, D1140, D2487
b. Moisture/Density test results per ASTM D2216
c. Liquid limit, plastic limit, and plasticity index per ASTM D4318
d. Compaction/Density test results per ASTM C2922 and D1557

3. Sample: Geotextile fabric

PART 2 PRODUCTS

Geotextile Fabric: Mirafi 600X or equal. (Also referred to as synthetic fabric).

PART 3 EXECUTION

3.1 PROTECTION

3.1.1 General

Manner of excavation shall minimize disturbance of underlying natural ground. If deemed necessary by the Engineer, alter construction procedures to reduce subgrade disturbance. Excavate areas which have been excessively disturbed to firm ground and backfill with properly compacted granular fill.

3.1.2 Roads and Walks

Keep roads and walks free of dirt and debris at all times.

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3.1.3 Trees, Shrubs, and Existing Facilities

Protect from any damage all vegetation and facilities identified to remain.

3.1.4 Utility Lines

Locate all utilities within the area of disturbance prior to the start of work. Show locations on initial plans. Protect utility lines from damage. Notify the ENGINEER immediately of damage to or an encounter with an unknown utility. Damage to utility lines are to be repaired by the CONTRACTOR at no additional cost. The CONTRACTOR shall have underground utility owners stake out utility locations prior to the start of clearing and excavation operations.

3.2 VERIFICATION OF CONDITIONS/PROOF-ROLLING

Prior to placement of the initial layer of fill over the natural ground, proof-roll the exposed natural ground above the groundwater table elevation by making two passes with a fully-loaded ten-wheel truck. Excavate unstable areas detected by this process and replace with compacted granular fill.

3.3 PREPARATION

3.3.1 Surface Preparation

Within the site limits indicated on the drawings, excavate all unsuitable material to firm natural ground in the manner specified herein. Follow a construction procedure which permits visual identification of firm natural ground. In the even that groundwater is encountered, the ENGINEER may require that the size of the open excavation be limited to that which can be handled by open pumping to allow visual inspection of the excavation bottom and the performance of backfill operations to be conducted in a dry state.

Excavation of unsuitable material shall be limited to the greater of the following:

- A distance of 5 feet beyond building lines or
- The area defined by a one-horizontal to one-vertical line sloping down from the outside bottom edge of exterior footings to firm natural ground.

3.4 PLACEMENT AND COMPACTION

3.4.1 General

Place fill in accordance with *Table D: Compaction Alternatives*. These alternatives are provided as minimum compaction
standards only and in no way relieve the CONTRACTOR of his obligation to achieve any specified degree of compaction by whatever means may be necessary.

Grade to provide positive drainage and a smooth surface which will readily shed water. To the extent practicable, compact each layer to the specified density on the same day placed. Place fill in horizontal layers. Where horizontal layers meet a natural slope, key layer into slope by cutting a bench.

Fill that is too wet for proper compaction: Disc, harrow, or otherwise dry to proper moisture content for compaction to the required density.

Fill that is too dry for proper compaction: Uniformly apply water over the surface of the loose layer in sufficient quantity to allow compaction to the required density.

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Table D: Compaction Alternatives					
Compaction Method	Max. Stone Size	Maximum Loose Lift Thickness (inches)		Maximum Number of Passes	
		Below Structure and Pavements	Less Critical Areas	Below Structure and Pavements	Less Critical Areas
Hand operated vibratory plate of light roller in confined areas	3	4	4	4	4
Hand operated vibratory drum rollers weighing at least 1,000 pounds in confined areas	4	6	8	4	4
Loaded 10-wheel truck or D-8 crawler	6	10	12	4	2
Light vibratory drum roller; Min. weight at drum 8,000lbs; Min. dynamic force 10,000lbs.	8	12	12	6	2
Minimum vibratory drum; Min. weight at drum 10,000lbs; Min. dynamic force 20,000lbs.	8	18	18	6	4

3.4.2 Dewatering

Provide adequate pumping and drainage facilities to keep excavated areas sufficiently dry of groundwater and surface run-off. Dewatering shall avoid adversely affection construction procedures or causing excessive disturbance of underlying natural ground. Drain all pumped water in such a manner as to avoid damage to adjacent property.

If requested by the ENGINEER, place a 6-inch to 12-inch layer of sand and gravel or crushed stone over the natural underlying soil to stabilize area which have been disturbed due to groundwater seepage pressures and to expedite dewatering operations. Particular attention shall be given areas under proposed foundations.

3.5 FIELD QUALITY CONTROL

3.5.1 Compaction Requirements

Allow the ENGINEER sufficient time to make necessary observations and tests. Base the degree of compaction on maximum dry density as determined by ASTM D1557. The minimum degree of compaction for placed fill shall be as indicated *in Table E: Compaction Requirements.*

Table E: Compaction Requirements	
Area	Minimum Degree of Compaction (%)
Below foundation	95
Pavement and building subbase and base courses	95
Below building slab base course and above bottom of foundation	92
Below pavement subbase and base courses	90
Trench backfill outside of building	90
Trench backfill inside of building	Refer to one of the above-listed categories
Ordinary fill within 5 feet of grade	90
Vegetated areas below 5 feet of grade	85

3.5.2 Testing

Site work should be monitored and tested by geotechnical ENGINEER or his representative and in accordance with requirements of the design team to assure compliance with earthwork and foundation construction specifications.

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The owner will retain a geotechnical ENGINEER or his representative to perform on-site observations and testing during this phase of construction operations. The geotechnical ENGINEER or his representative will:

- Observe excavation and dewatering of building and controlled fill areas;
- Observe backfill and compaction within building and controlled fill areas;
- Laboratory test and analyze fill material; and
- Observe construction – and performing water content, gradation, and compaction tests.

On a timely basis, the CONTRACTOR will receive copies of test results submitted to the OWNER. In addition, during construction the geotechnical ENGINEER will advise the OWNER and CONTRACTOR in writing of conditions which fail to conform to the Contract Documents. The CONTRACTOR shall take immediate action to remedy indicated deficiencies.

The geotechnical ENGINEER or his representative will not supervise or direct the actual work of the CONTRACTOR or employees and representatives of the CONTRACTOR. The presence of, observations by, and testing performed by the geotechnical ENGINEER or his representatives shall not excuse the CONTRACTOR from defects discovered in the work.

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(716) 759-7821
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APPENDIX E

LIMITATIONS

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

LIMITATIONS

1. This report is based on the data that was obtained from the subsurface explorations and on the design of the proposed two-story building with underground garage as submitted to the geotechnical engineer. A geotechnical engineer, who is experienced in foundation construction and earthwork, should be engaged to review the final design and specifications in order to determine whether any change in concept may have any effect on the validity of the conclusions presented herein, and whether these conclusions have, in fact, been implemented in the design and specifications.

2. The subsurface conditions, including thickness, between the exploration locations are approximate and simplified representations of the strata and transitions. There is the possibility that variations in soil and rock conditions and boundaries will be encountered during construction. In order to permit correlation between the exploratory soil data and the actual soil conditions encountered during construction and so as to assess conformance with the plans and specifications as originally contemplated, it is recommended that a geotechnical engineer, who is experienced in foundation construction and earthwork monitoring, should be retained to perform continuous construction review during the site preparation and foundation construction operations.

3. The subsurface exploration logs and subsurface conditions may aid in estimating material quality and quantities, such as topsoil/organic matter, fills, natural soils, and rock, but are not to be relied upon as the exclusive means for bid preparation purposes. It is the responsibility of the contractor to perform any additional site examinations and explorations and to prepare an accurate bid.

4. Disclaimers:

   a. In the event that any changes in the nature, design or location of the structure are planned, the conclusions that are contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing.

   b. The geotechnical engineering report has been prepared for this project by Barron & Associates, P.C. This report is for assistance in design only and is not a sufficient basis on which to prepare an accurate bid.

   c. This report has been prepared for the exclusive use of Benderson Development Company, LLC of Buffalo, New York, their client(s) and their designated design representatives, for specific application to the construction of a two-story building with underground garage at 4548 & 4564 Main Street, 22 Chateau Terrace, and 17 Fruehauf Avenue in the Town of Amherst, Erie County, New York and in accordance with generally accepted geotechnical engineering practice. No other warranty, expressed or implied, is made.

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(716) 821-1650

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DOCUMENTATION REPORT:

22 CHATEAU TERRACE,

TOWN OF AMHERST,

ERIE COUNTY, NEW YORK

Prepared for:

BENDERSON DEVELOPMENT COMPANY, LLC
570 Delaware Avenue
Buffalo, New York 14202

Prepared by:

COMMONWEALTH HERITAGE GROUP, INC.
New York Regional Office
2390 Clinton Street
Buffalo, New York 14227-1735
(716) 821-1650

June 2022

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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Prepared for:

BENDERSON DEVELOPMENT, LLC
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Prepared by:

Christine M. Longiaru, M.A., Senior Architectural Historian
Mark A. Steinback, M.A., Project Director

CHG# NY-0179

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Management Summary

Involved Agencies: Town of Amherst, Historic Preservation Committee

Survey Type: Building documentation and S/NRHP eligibility assessment

Location Information:
Location: 22 Chateau Terrace, Snyder, Town of Amherst
County: Erie

Parcel: SBL: 68.7-6-19

USGS 7.5-Minute Quadrangle Maps: Buffalo NE, NY

Report Author(s): C. Longiaru, M. Steinback

Date of Report: June 2022

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Project Summary

Commonwealth Heritage Group, Inc. (Commonwealth) prepared this documentation report for the property at 22 Chateau Terrace in the Snyder area of the Town of Amherst, Erie County, New York, under contract to Benderson Development Company, LLC (Figures 1 and 2).[1] This documentation report includes a State and National Registers of Historic Places (S/NRHPs) eligibility assessment of the ca. 1920 residence at 22 Chateau Terrace. It was prepared for submittal to the Town of Amherst Historic Preservation Commission to comply with the "Historic Preservation Law of the Town of Amherst." The study included exterior and interior photographic documentation (see Appendix A), historical research, and an architectural investigation of the building. On-site field investigation was conducted in April 2022. Christine M. Longiaru, M.A., served as Principal Investigator and Senior Architectural Historian. Mr. Mark A. Steinback, M.A., New York Regional Director/ Senior Historian, was the Project Director. Ms. Longiaru and Mr. Steinback exceed the professional qualifications requirements (36 CFR 61) for their respective disciplines.



Figure 1. The property at 22 Chateau Terrace, Town of Amherst, Erie County, New York *(Commonwealth 2022).*

[1] Note, Commonwealth's New York Regional Office in Buffalo was formerly Panamerican Consultants, Inc. The Buffalo office has conducted 50 cultural resources investigations in the Town of Amherst.

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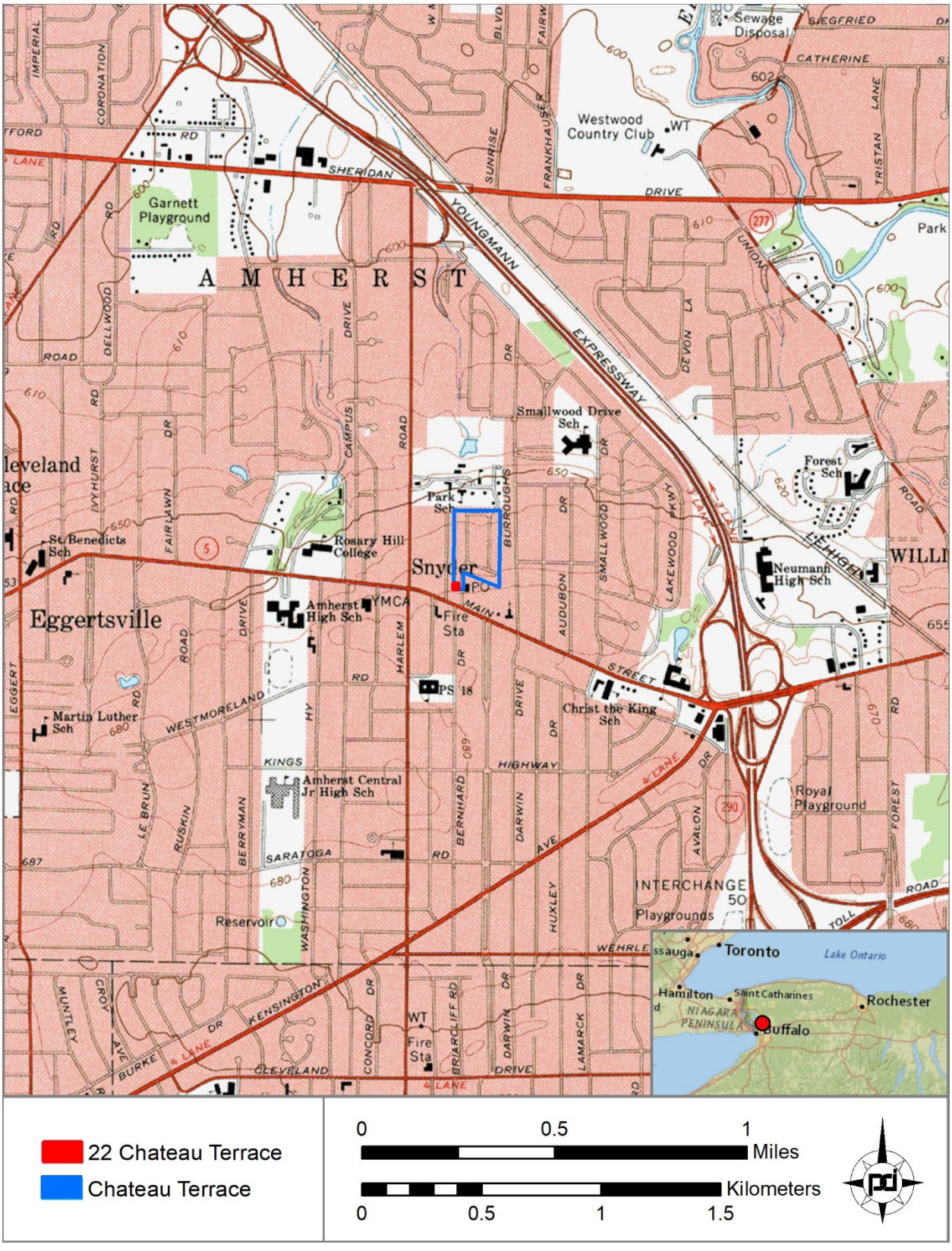

Figure 2 Location of the property at 22 Chateau Terrace, Town of Amherst, Erie County, New York *(USGS Buffalo Northeast, 1965).*

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Current State-level Inventory Status. The residence at 22 Chateau Terrace is in the Chateau Terrace Study Area (New York State Office of Parks, Recreation, and Historic Preservation [NYS OPRHP] Unique Site Number [USN] 02902.001453), which has not been formally evaluated for listing on the State and National Registers of Historic Places (New York State Cultural Resources Information System (CRIS 2022). A general boundary for the study area is delineated in CRIS, though individual residences in the Chateau Terrace Study Area have not been assigned USNs (Figure 3). Audubon Terrace Study Area adjacent to Chateau Terrace (USN 02902.001454) to the east is also a contemporary unevaluated subdivision.



Figure 3. Chateau Terrace Study Area at left as delineated by the NYS OPRHP. The general location of 22 Chateau Terrace is depicted by the red-shaded circle. Note, the adjacent Audubon Terrace Study Area boundary at right *(CRIS 2022).*

Previous Surveys

Local-level Historic Resources Survey Documentation. Chateau Terrace Study Area was first recommended as a potential historic district in the 1997 *Reconnaissance Level Survey of Historic Resources, Town of Amherst* (Bero 1997:Appendix F-6). The residence at 22 Chateau Terrace was identified as a contributing resource to a proposed historic district. In 1997, Chateau Terrace consisted of approximately 73 houses (52 contributing; 21 non-contributing). It included the following properties: 121 Chateau Terrace North; 7-65 and 10-42 Chateau Terrace South, 11-69 and 20-80 Chateau Terrace East 1-121 and 22-120 Chateau Terrace.

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As initially reported, Chateau Terrace Historic District was characterized as a cohesive early twentieth-century residential district consisting of modest scale houses. Chateau Terrace residences were primarily built during the 1920s and 1930s. A variety of popular residential architectural styles are represented in the neighborhood including Bungalow, Craftsman, American Foursquare, Colonial Revival, and Dutch Colonial Revival (Figure 4). Other features of Chateau Terrace include a winding street pattern with mature street trees. The 1997 survey also noted Chateau Terrace's significance at the local level for its association with Amherst's early twentieth-century suburban development.

The 1997 survey assigned a "yellow" color code for Chateau Terrace, which is the third level of color coding for properties in the reconnaissance survey's Annotated List (Bero 1997: Appendix F-6). A "yellow" designation for a property represents a property with moderate architectural and/or historical significance (Bero 1997: 101). Chateau Terrace was one of nine historic districts in Amherst recommended for the intensive level survey. However, the historic districts were not included in the 1998 intensive level survey (Bero 1998:2).



Figure 4. A representative view of 27, 23, and 19 Chateau Terrace in 1997 (*Reproduced from Bero 1997: Photo No. 52*).

In 2011, Chateau Terrace was reassessed in the *Updated Reconnaissance Level Survey of Historic Resources, Town of Amherst* (KTA 2011: Appendix 1-6). The 2011 survey determined Chateau Terrace Historic District met the criteria for a "blue rated" property. The definition of a "blue rated" property is presented below:

> **BLUE:** Extremely high architectural and/or historic significance. These properties would likely also meet the criteria for to be considered National Register eligible. A locally significant district. A resource that is rare and lacks individual distinction. All districts are considered Blue as are most farmsteads.

Seventy properties were identified in Chateau Terrace in 2011; 47 contributing and 23 noncontributing (KTA 2011:Appendix 1-6). The residence at 22 Chateau Terrace is included as a contributing resource (KTA 2011: Area 6-9). Chateau Terrace consists of the following properties: 11 to 77 Chateau Terrace East and 20 to 80 Chateau Terrace East; 7 to 47 Chateau Terrace South and 10 to 42 Chateau Terrace South; 22 to 120 Chateau Terrace and 65 to 121 Chateau Terrace (Figure 5).

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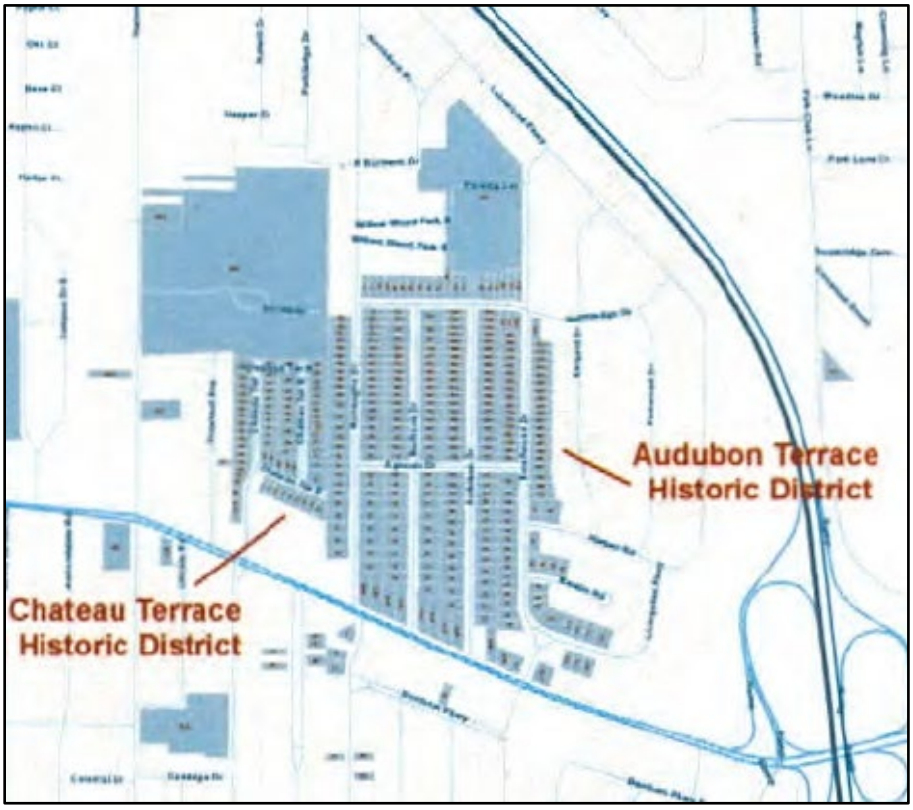

Figure 5. Chateau Terrace Historic District and the adjacent Audubon Terrace District in 2011 (*Reproduced from KTA 2011: Area 6*).

Methodology

Methodologies, historic overviews, and recommendations presented in previous historic resources surveys of the Town of Amherst informed this S/NRHP eligibility assessment for the individual subject property at 22 Chateau Terrace. To assess the historic significance of 22 Chateau Terrace further research was conducted on the development history of the Chateau Terrace Study Area and its surrounding area in the Snyder community. In April 2022, an online Freedom of Information Law (FOIL) request was made with the Town of Amherst Building Department and Planning Department for the following: 1) subdivision files for Chateau Terrace (Suor & Suor Building Company) and 2) building permit records for 22 Chateau Terrace (Online FOIL Request: 2134). The FOIL request did not yield any relevant historical information about the residence or the subdivision.[2]

A research inquiry for Chateau Terrace subdivision was also made with the The Niederlander Research Library of Buffalo Niagara Heritage Museum.[3] The library does not presently hold records specific to Chateau Terrace. Research was conducted at the Eggertsville-Snyder Branch Library and The Grosvenor Room-Special Collections department at the Central Library of the Buffalo & Erie County Public Library. Other research included online searches of relevant genealogical and newspaper web sites.

[2] Online FOIL Request #2134, Town of Amherst, NY (April 28, 2022). FOIL responses were received on May 4 and June 8, 2022.

[3] Rachel Ravago (Deputy Director for Collections and Interpretation, Buffalo Niagara Heritage Museum) in discussion with the author, May 2022.

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On-site documentation of the property was conducted on April 28, 2022. As noted above, the investigation included digital photography of the property's setting and the existing conditions of exterior and interior of the building (see Appendix A). Intact architectural details and the overall condition of the building were noted as were any changes to the building. A cursory drive through of the Chateau Terrace development was also carried out to support the S/NRHP eligibility assessment. The National Register Criteria for Evaluation was applied only to the individual property at 22 Chateau Terrace (National Park Service 2002).

> Criterion A: (Event) Properties that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> Criterion B: (Person) Properties that are associated with the lives of persons significant in our past; or
>
> Criterion C: (Design/Construction) Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> Criterion D: (Information Potential) Properties that have yielded, or may be likely to yield, information important in prehistory or history (*NPS Bulletin 15*, referencing 36 CFR 60).

A property is not eligible if it cannot be related to a particular time period or cultural group and thereby lacks any historic context with which to evaluate the importance of the cultural resource. The cultural property (e.g., historic structure or landscape) must also retain the historic integrity of those features necessary to convey its significance. Seven aspects or qualities of integrity recognized by the National Register are location, design, setting, materials, workmanship, feeling, and association. Actual determinations of eligibility for the S./NRHPs are made by the NYS OPRHP.

Historical Overview

Early Development of Town of Amherst. European-American settlement of the Niagara Frontier dates from the end of the American Revolution in 1783. During the next decade large grants of land in western New York would be sold to private investors who attempted to open the land to settlement. The land's initial purchasers, a syndicate of speculators headed by Oliver Phelps and Nathaniel Gorham, forfeited their obligations, and the rights to the unsurveyed portion of the area were sold to Robert Morris in 1791. Reserving a portion of the land for his own purposes, Morris sold the remainder, including all of present Erie County, to a consortium of Dutch investors, called the Holland Land Company, in 1792-1793 (Turner 1974 [1850]; Silsby 1961).

Joseph Ellicott was contracted in July 1797 to survey the company's land in western New York and divide it into townships. The process began in the spring of the following year. The current path of Main Street (NY Route 5), completed in 1803, was known as the Buffalo-Batavia Road to the early settlers. This road and the future City of Buffalo were laid out by Ellicott (White 1898). Once townships had been surveyed and roads in the area cut, settlement and growth followed quickly. The first land sales in Amherst were made in the autumn of 1803 to Samuel Kelsey, Henry Lake, Benjamin Gardner, and William Lewis, among others. The earliest settlers arrived the following year and included Timothy and Orlando Hopkins, John Hershey, Samuel McConnell, Alexander Logan, Caleb Rogers, Stephen Colvin, John King, and Joel Chamberlain. By 1808 Ellicott Creek (then known as Eleven Mile Creek) had been dammed and a grist mill was operating in what was then called Williams Mill. Erected by Jonas Williams, the mill was joined by a sawmill and later a tannery (Glover 1972:2). Niagara County (consisting of what are now Erie and Niagara counties) was formed from Genesee County in 1808.

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The War of 1812 stunted growth in Western New York which served as one of the primary theaters of that conflict, and areas near the border with Upper Canada (the current province of Ontario) were ravaged by attacks and counterattacks. After the war, Eleven Mile Creek (Ellicott Creek) offered a prime power source for nascent industrial growth, which in turn attracted settlers to the area. With increased population, new political divisions were made. The Town of Amherst was separated from the Town of Buffalo in April 1818 and named for Sir Jeffrey (or Geoffrey) Amherst, Commander of British forces in America in 1759 and 1760 and an early advocate of biological warfare (i.e., blankets infected with small-pox) against the Indians (White 1898:I:493-494; Fenn 2000:1573-1579). Erie County was created when all the land south of Tonawanda Creek was removed from Niagara County in 1821. The Town of Amherst achieved its present size in 1839 when the Town of Cheektowaga was created (White 1898:I:493-494).

The area received a tremendous economic boost when one terminus of the Erie Canal was located at the village of Buffalo. Begun in 1817, the Erie Canal linked Buffalo and Lake Erie with New York City when it opened on October 26, 1825. The completion of the canal attracted additional settlers to the region, including many German-speaking Alsatians, who began to populate the largely agricultural and unoccupied northern portions of the Town of Amherst in the early 1830s (Young 1965:260). Progress was slow since Ellicott Creek flooded regularly, and the nearby land had to be drained before it could be cultivated (Smith 1884:I:400). Despite these endeavors, the center of settlement in the Town of Amherst remained at Williamsville near the creek. Homesteaders focused on growing grain, notably wheat, and grazing cattle. The town's numerous creeks supported a variety of rural industries, including grist mills, a carding mill, sawmills, a tannery, a shoe-and-boot factory, a broom factory, a slaughterhouse, and two furnaces for processing iron needed by area blacksmiths (Glover 1972:2-3; League of Women Voters 1985:6; Amherst Museum 1997). The Fogelsonger limestone quarry was located between Snyder and Williamsville near what is now the entrance to the New York State Thruway. The population of the town increased during the middle decades of the nineteenth century from 4,153 in 1850 to 4,807 in 1875 (Beers 1880:18-19).

First completed to Buffalo in the 1840s, railroads played an important part in the development of western New York as an economic power during the nineteenth and twentieth centuries. As part of the effort "to connect the Hudson River and Lake Erie with a 'ribbon of rails'" the Batavia branch of the New York Central Railroad passed through the central part of the Town of Amherst (Eberle and Grande 1987:52; Stone and Stewart 1866; Beers 1880). This line was abandoned in the twentieth century, and the tracks were pulled up. The New York West Shore & Buffalo Railroad ran passenger service along this route, stopping at Transit Station and Getzville beginning in 1884 (White 1898:I:539; USGS 1905). By 1896, a branch of the Lehigh Valley Railroad ran diagonally through the town, west and south of the project area (Young 1965:264; USGS 1905, 1948).

During the late nineteenth century, the Town of Amherst underwent a period of infrastructure improvements, including the widening and paving of streets and roadways, and the erection of bridges. The first telephone was installed in 1879 (although dial service did not begin until 1949) and the first water system was created in 1895. After the turn of the nineteenth century, other public services began to improve living conditions in the town: water power generated by Niagara Falls was used to provide the town's electricity as electric lights were erected along Main Street in 1901; a natural-gas franchise was granted in 1902; the first water meters were installed in 1919 (League of Women Voters 1985:7; Young 1965:264-265).

Industry in the town at that time centered on processing grain. Large and active flour mills ground wheat grown in the town as well as grain brought to Williamsville from the docks of Buffalo. By the 1890s, however, "electric power from Niagara Falls became available in unlimited quantities. [As a result,] except for the Chalmers gelatine factory [in Williamsville], founded in the 1872, industry disappeared, and Amherst turned toward developing itself as a residential area" (Glover 1972:6-7; see also Young 1965:116-117). Improvements and developments in transportation networks during the 1890s into the twentieth

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century, as well as the prosperity of the cities of Buffalo and Tonawanda facilitated the trend toward creating residential communities. In 1892, an electric trolley system connected Williamsville to Buffalo, which operated until 1930, when gasoline buses and cars proved more popular with commuters (Glover 1972:6; Young 1965:263). These transportation improvements offered suburban living opportunities for urban workers.

Agriculture remained prominent in the town well into the twentieth century although the trend of subdividing former farms or unproductive areas into residential developments accelerated after World War I (Dunn 1972:212; Eberle and Grande 1987:202).

Synderville. To the west of William's Mill, a small community formed in the future Snyder area when in 1804 Timothy Hopkins purchased a large farm on Main Street which extended west from Washington Highway (approximately three blocks west of Harlem Road) to Amherstdale Road (Fiddler-Woite 1998:11). Settlement progressed slowly in the Snyder area during the early nineteenth century. The Schenck family moved to the area from Pennsylvania in 1821. Two years later, Abraham Snyder and his family also moved from Pennsylvania and settled near their cousins, the Schencks.

Other early families include Schenck, Freuhauf, Helfer, LeBrun, Miller, Fisher, Schuler, Cable, Witmer, Beck, Crout, Harrison, Kern, Frick, and Fogelsanger (Fiddler-Woite 2009:63,65). In 1830, the Hopkins sold their property to the Schenk family (Fiddler-Woite 2009:14). Abraham Snyder, his wife Veronica, and their two sons (Michael and Jacob) lived in a log cabin on Main Street near Harlem Road. In 1832, Mr. Snyder mysteriously disappeared leaving the burden of supporting the family on young Michael (Fiddler-Woite 2009:20). Within 5 years, Michael Snyder moved the family into a plank house on the northeast corner of Main Street and Harlem Road. He opened a mercantile with John Schenk in the front room of the house. He later expanded the house and opened Snyder's Inn to cater to travelers on the Buffalo Road. He established a U.S. Post Office, according to Snyder family records, as early as the late 1840s (Fiddler-Woite 2009:23). The first post office stood on the northwest corner of Main Street and Harlem Road. However, Michael Snyder was not formally listed as the postmaster of the Snyderville Post Office until 1882 (Fiddler-Woite 2009:24).

An unnamed crossroads community centered on Main Street and Harlem Road is depicted on the 1855 atlas map of Erie County (Geil 1855). The area near Chateau Terrace along Main Street was lined with structures, one of which was a school house. One map-documented structure was a property owned by Mrs. Snyder, which would later be adjacent to the side of Chateau Terrace. A log and brick school house (District #18) was also located near the future site of the Chateau Terrace development (Grande 2000:51). In 1860, Michael Snyder acquired additional property to the east on Main Street near present Chateau Terrace. Snyderville is first identified on the 1866 map of Erie County (Stone & Stewart 1866). M. Snyder's Store and Post Office are depicted on the northeast corner of the intersection on Lot 13.

Tobias Witmer, surveyor, carried out the original survey of Farm Lot 13, the future location of Chateau Terrace, in 1852 (Holland Company Land Title & Abstract Company 2017). Mid-to late nineteenth-century land owners of the Chateau Terrace section of Lot 3 (east section) included Michael Shenk, Michael Shenk Jr., and Philip J. Ferkel. By 1880, Lot 13 had been further subdivided, and G. Demerest owned the largest tract with 61 acres on the east side of Lot 13. (Beers 1880; Figure 6). John and Jacob Snyder owned adjacent parcels on Lot 12, to the east. In 1896, a branch of Lehigh Valley Railroad was constructed through Amherst (Young 1965:264) to the north and east of Snyder. An 1898 map depicts the Lehigh Valley Railroad and the Buffalo & Williamsville Electric Railroad on Main Street extending through Snyder (The Matthews-Northrup Co. 1898). Lot 13, the future location of 22 Chateau Terrace, remained undeveloped. The first residential development in the Snyder vicinity was laid out along Getzville Road and Main Street by this time.

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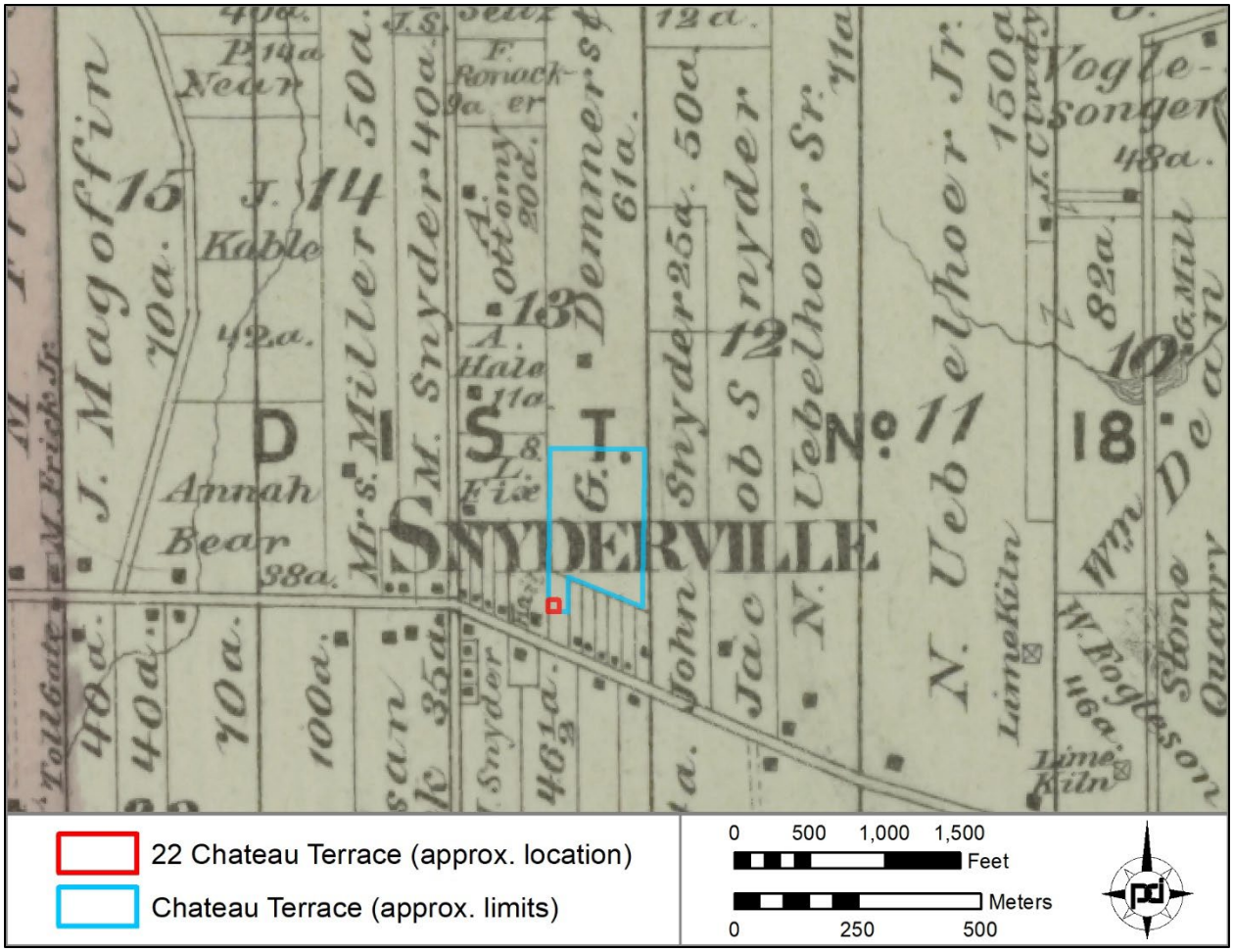

Figure 6. The general location of 22 Chateau Terrace on the 1880 map of the Town of Amherst (*Century Map Co. 1915).*

Twentieth-Century Development in Snyder. Early twentieth-century growth of the Snyder area has been attributed to the opening of Buffalo & Williamsville Electronic Railway (aka Toonerville Trolley in 1893 and the advent of the automobile (Grande 200:145; Fiddler-Woite 2009:38). Running along the north side of Main Street, the trolley line connected Buffalo and Williamsville. Efficient and dependable transportation attracted the interest of future homebuyers in new housing developments (Fiddler-Woite 2009:93). In operation until 1930, the trolley provided access for middle class families to purchase a home in Snyder.

In 1911, brothers William Charles Taylor Suor (1873-1959) and Arthur M. Suor (1874-1936) purchased 99 acres of the Kabel family's farm for the College Hill neighborhood development, which they first called "Amherst Heights" (Grande 2000:149). Formed in 1894, Suor & Suor were initially engaged in real estate business development projects near the Central Park and Parkside neighborhoods of Buffalo (White 1898:439). The brothers developed a few one-block streets near some of the main thoroughfares of Central Park, including Starin and Vorhees Avenues (Moriarty 2017). Their developments on Revere Place, Taft Place, and Sagamore Terrace were speculatively built homes erected on modest lots (Moriarty 2017). Suor & Suor offered affordable single-family homes with modern amenities which appealed to middle class consumers (Moriarty 2017).

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Suor & Suor had been previously involved in more traditional real estate interests of acquiring and selling farm houses (Grande 2000:149). Within a few years the firm would further expand development in Snyder with the College Hill - Chateau Terrace subdivision. A third brother, John Russell Suor (1882-1959), was also involved in the development of Snyder (Buffalo Evening News [BEN] 1953:25). He started his real estate career in Buffalo and later moved to Snyder. For roughly 25 years, John Suor was associated with the Erie County Real Estate Department and the county attorney's office as an appraiser (BEN 1953:25).

In Snyder, the Suors envisioned a new type of residential development on the south side of Main Street between Getzville and Harlem roads. Washington Highway formed the central point of what became known as the College Hill (Fiddler-Woite 2009:93). Suor & Suor's College Hill Office was erected on the southwest corner of Main Street (#4363) and Washington Highway (Fiddler-Woite 2009:94). The company built middle-class-sized homes which typically consisted of a two-story building with four bedrooms, a den, and a bathroom on each floor (Fiddler-Woite 2009:95). In February 1917, there were 40 homes in College Hill (BEN 1917). Suor & Suor advertised their new modern homes in local Buffalo newspapers to attract potential buyers to relocate to Snyder (Figures 7 and 8).

The brothers continued to acquire more tracts of land for their development in Snyder. Suor & Suor purchased an additional 65-acres of the Tobias Witmer farm south of College Hill by 1919 (Fiddler-Woite 2009:95). Named College Hill Terrace, the new 331-lot development extended toward Kensington Avenue. It was laid out with large lots for more upscale homes with landscaping and street furniture (Fiddler-Woite 2009:95). The Suors also endeavored in commercial development. In 1920, the Town of Amherst's population had increased by 36 percent from 4,629 in 1910 to 6,286 with much of the increase in the Snyder-Eggertsville area (Grande 2000:145). This rise in population included both new owners of large estates as well as an increased migration of middle-class commuters who purchased homes in the new subdivisions (Grande 2000:146).

By early 1920s, new residential neighborhoods were established west of Williamsville along Main Street which included the following: Rosedale Park, College Hill, Chateau Terrace, Audubon Terrace, and Amherst Estates. From 1923 to 1930, a town committee on building construction approved 73 major subdivisions (Grande 2000:189). The 1920s building boom in Amherst contributed to a 110 percent increase in population from 6,286 in 1920 to 13,181 in 1920 (Grande 2000:183). This growth is evident on a 1927 aerial photograph of the Snyder area (see Figure 14). The 1938 map of Snyder shows extensive residential subdivisions on the north and east sides of Main Street west of Harlem Road and on the south side of Main Street west of Harlem Road (Niagara Frontier Planning Board 1938a, 1938b).

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NEW HOMES OUT MAIN STREET.
College Hill and College Hill Terraces.
200 Washington Highway, large rooms, 4 bedrooms, 2d floor, one 3d floor; lot 50x155 ..... $12,500.00
30 Chateau Terrace, 4 bedrooms, wide lot 80 feet 9,000.00
65 Chateau Terrace, 3 bedrooms, lot 50x132 ..... 9,500.00
SUOR & SUOR, Main Street and Chateau Terrace. Call Crescent 1048. 31t10



Why Pay Rent?
Your rent money will buy a modern new home out North Main St., all improvements, high land, delightful surroundings.
Sign the Coupon below --mail it right now.
SUOR & SUOR
Main St., over Buffalo City Line—P. O., Snyder, N. Y.
COUPON.
Suor & Suor: Gentlemen, I would like to know more about your proposition of buying a modern home out North Main St. for the money I am paying for rent.
Name .....
Address .....

Figures 7 and 8. Suor & Suor real estate advertisements in 1921 (left) and 1923 (right) *(Reproduced from The Buffalo Times 1921 and Buffalo Courier 1923b).*

Chateau Terrace Area. In 1909, G. Demert is identified with the east portion of Lot 13, which would become the future site of Chateau Terrace subdivision (Century Map Co.1909 [Figures 9 and 10]). The southern portion of Lot 13 consisted of a residential-width parcel consistent with the other lots along Main Street. It would later become the entrance road to Chateau Terrace. J. Freuhaut [sic] owned the adjacent properties on the west side of the southern portion of Lot 13. The south end of the street that became Fruehauf Avenue is shown between the two Frauhaut parcels fronting Main Street in 1909. A parcel owned by A. Snyder is adjacent to the east side of the south section of Lot 13, which became the Chateau Terrace entrance. Five other parcels on Main Street bordered the south boundary of Lot 13, one of which included the 1900 two-story brick school house (District 18). The rectangular-shaped north section of Lot 13 was bound to the west by residences on Harlem Road.

The 1915 Century Atlas map contains a discrepancy in property ownership of Lot 13. Chauncey Hamlin was identified on the Snyder sub plan as the owner of the G. Demert property on Lot 13, while the 1915 map of the Town of Amherst documents G. Demert as the owner of the 61-acre parcel (Century Map Co. 1915a, 1915b [Figures 11 and 12]). Hamlin's country estate stood on a separate parcel that fronted Harlem Road. Adjacent to the west side of the property was "J.C. Fruehaups Sub Div.," which consisted of 23 home sites with eleven frame buildings. Other subdivisions documented in Snyder at this time included Meadow Crest on the west side of Harlem Avenue north of Main Street and College Hill south side of Main Street along Washington Highway. According to the results of the title search, Chauncey Hamlin had the parcel surveyed in November 1917 (Holland Company Land Title & Abstract Company 2017: Table 1).

In 1920, The Park School of Buffalo purchased 100 acres on the east side of Harlem Road from the Hamlin Estate for the location of their new school campus which bordered the north boundary of the new Chateau Terrace subdivision (The Park School of Buffalo 2022; Fiddler-Woite 2009:126). In 1922, the Burkhardt Company purchased the Tobias Witmer farm on the east side of Chateau Terrace for the Audubon Terrace subdivision (Fiddler-Woite 2009:148).

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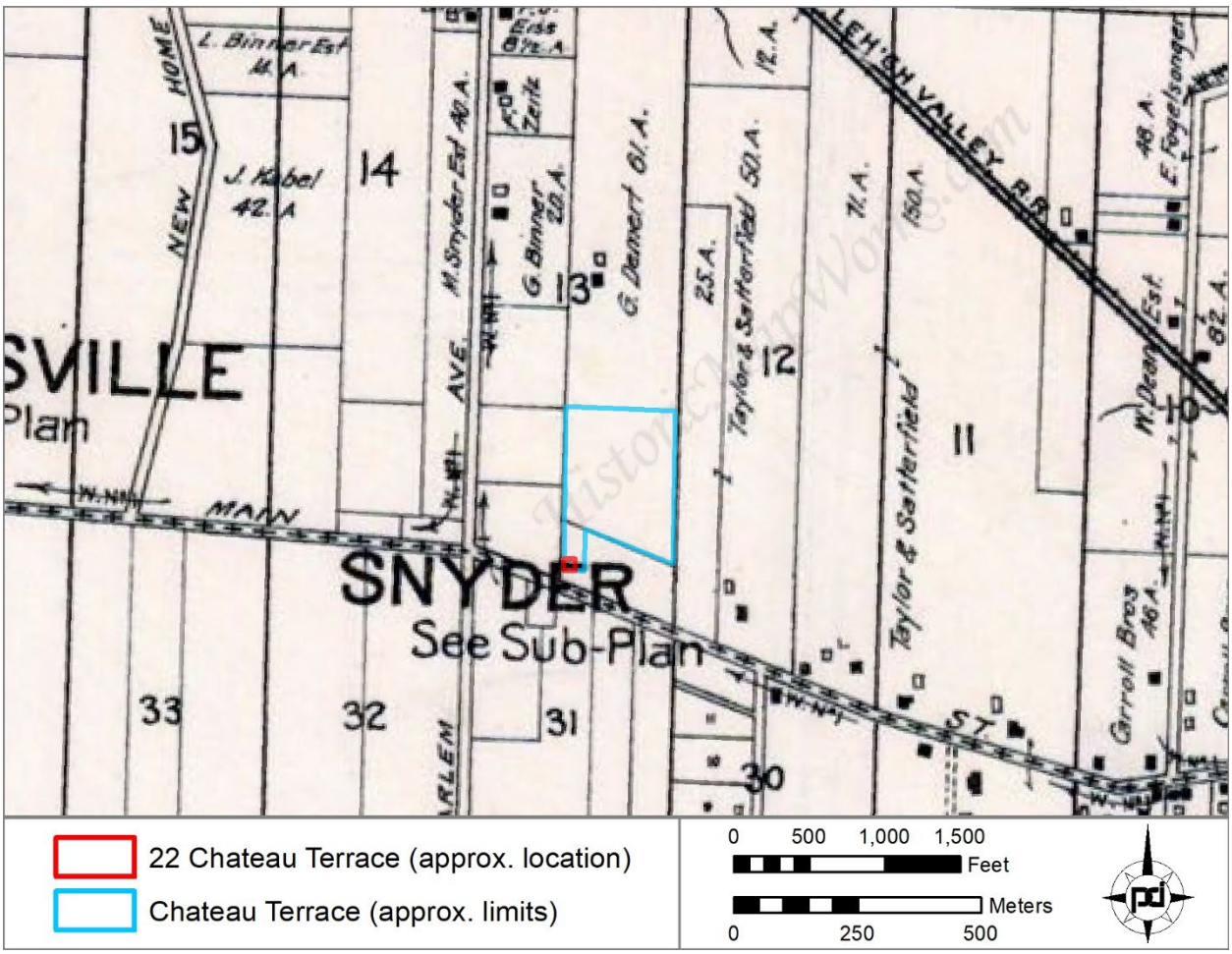

Figure 9. The general location of 22 Chateau Terrace on the 1909 map of the Town Amherst (*Century Map Co. 1909a).*

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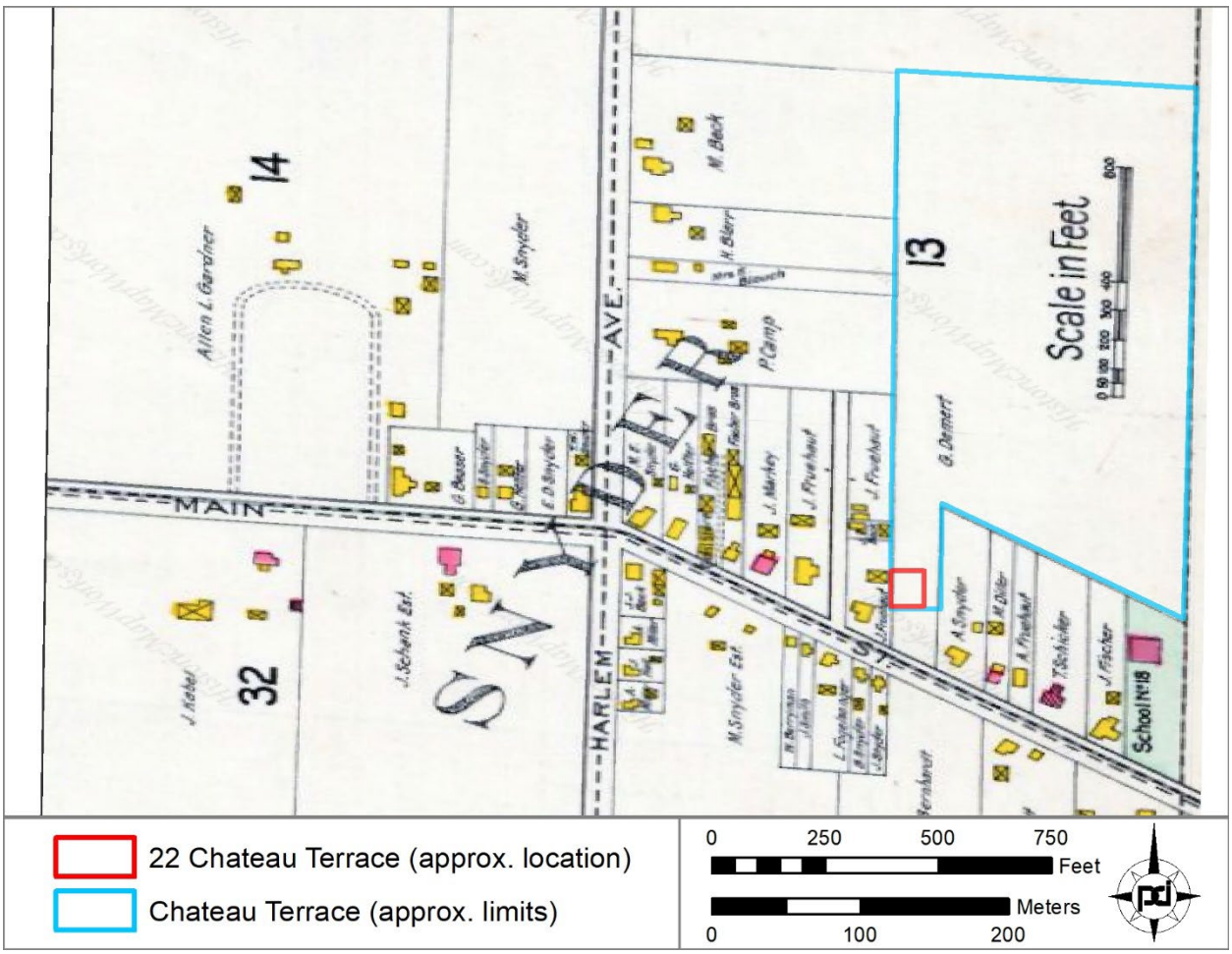

Figure 10. The general location of 22 Chateau Terrace on the 1909 sub-plan of Snyder *(Century Map Co. 1909b).*

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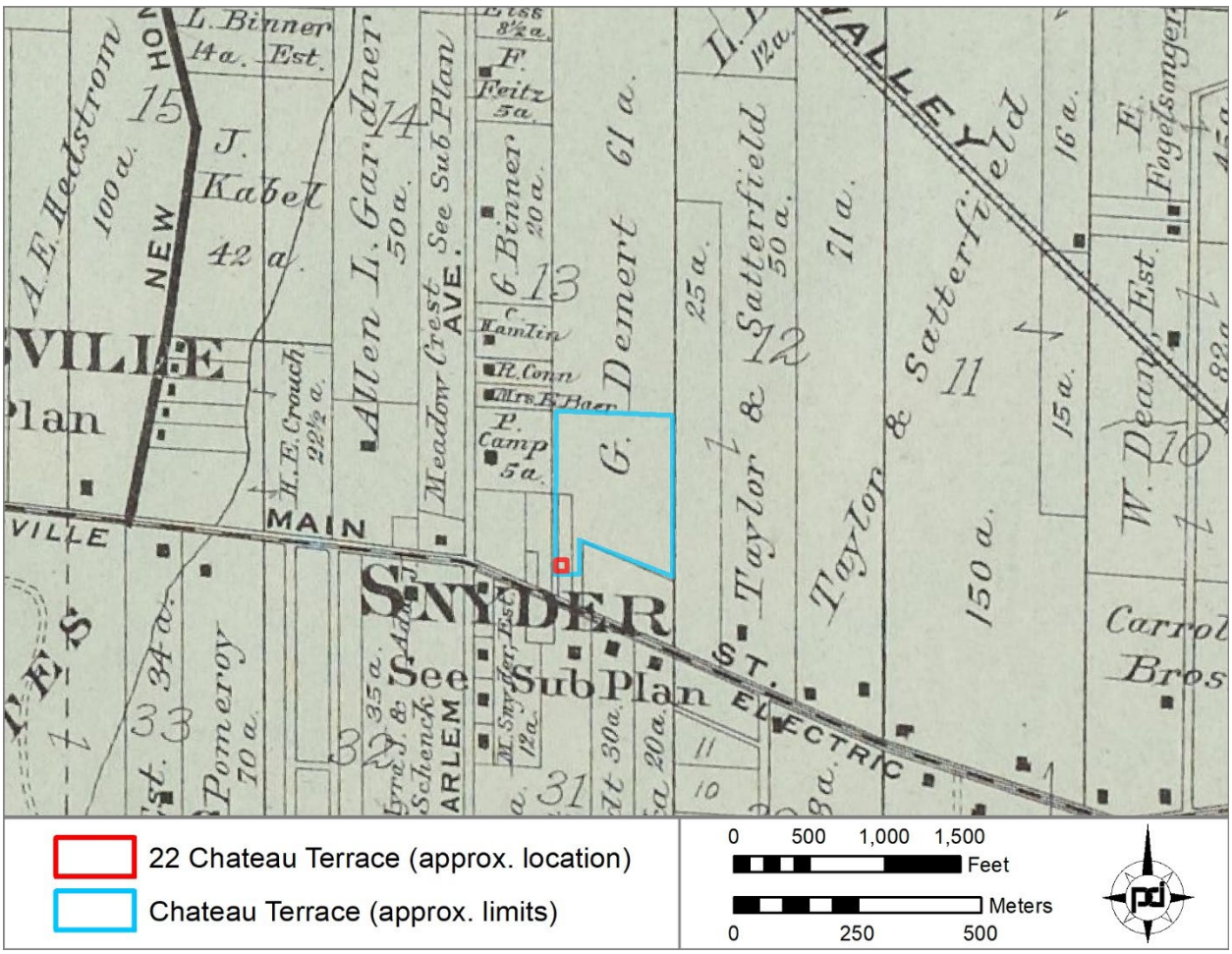

Figure 11. The general location of 22 Chateau Terrace on the 1915 Town of Amherst map *(Century 1915a).*

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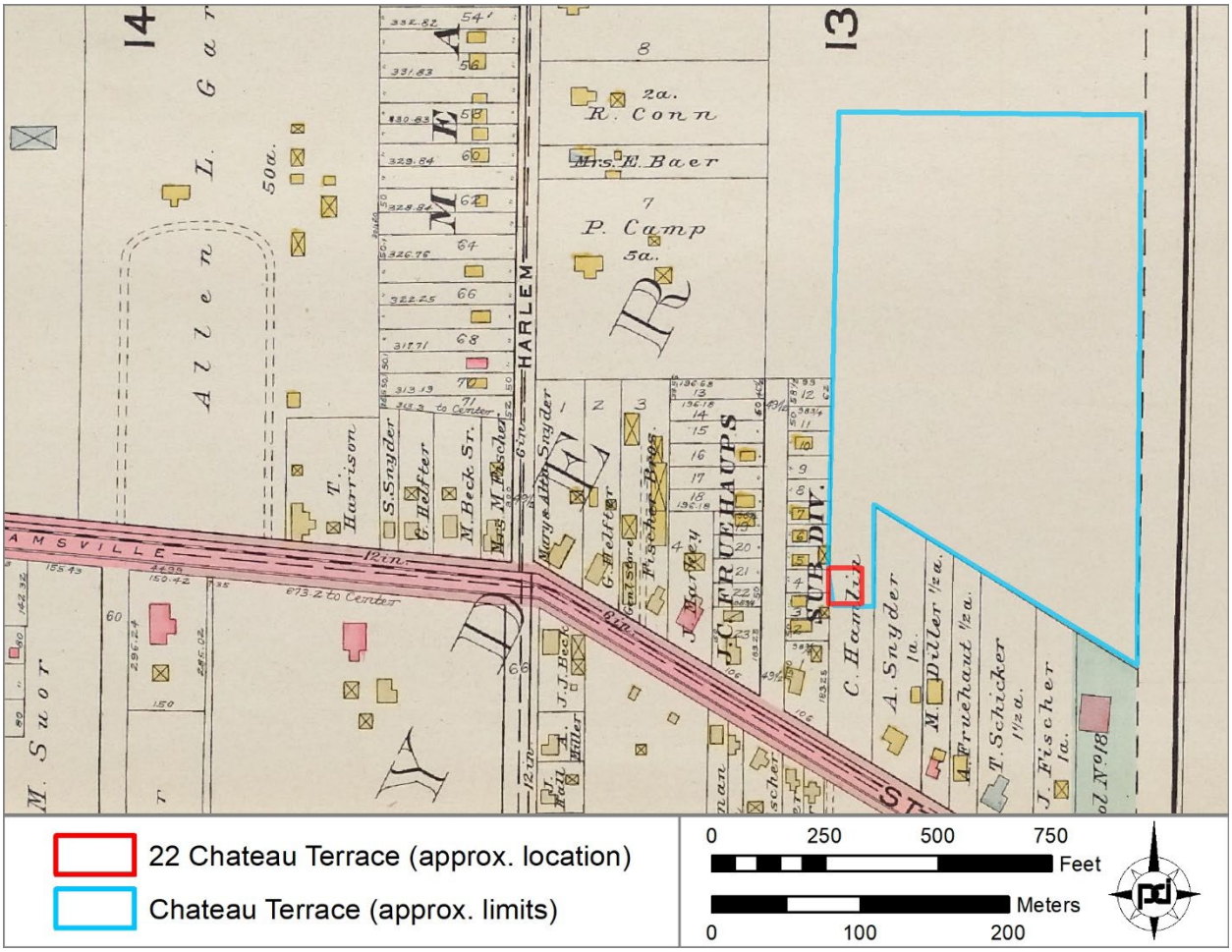

Figure 12. The general location of 22 Chateau Terrace on the 1915 sub-plan of Snyder *(Century 1915b).*

In July 1919, William C.T. Suor and Arthur M. Suor purchased land from Chauncey J. and Emily G. Hamlin for their new College Hill-Chateau Terrace development (Liber 1423 of Deeds, page 240). Louis W. & Josephine E. Ball purchased the parcel at 22 Chateau Terrace on September 1, 1920 (Liber 1555 of Deeds, page 138). The lot was subject to building restriction for a period of 25 years from July 1, 1919. By March 1921, Suor & Suor were listing new homes in the Chateau Terrace development (Buffalo Courier 1921). The house at 30 Chateau Terrace, on the adjacent lot to the north of 22 Chateau Terrace, was advertised with four bedrooms on an 80-foot-wide lot at a list price of $9,000. At 65 Chateau Terrace, the company built a three-bedroom house on a 50-ft by 132-ft lot which listed for $9,500.

By 1923, Chateau Terrace subdivision was platted and sparsely developed with only 13 residences, three of which were on the west side of Chateau Terrace just north of Main Street (Sanborn 1923 [Figure 13]). Individual lot numbers in Chateau Terrace do not appear on the 1923 map. Nos. 22, 30, and 38 Chateau Terrace along the south entrance to the subdivision had been constructed by this time. The Craftsman-style detached garage at 22 Chateau Terrace had yet to be constructed. Roads within the subdivision were 50 ft wide. The Park School campus is documented on the north side of Chateau Terrace for the first time in 1923. By this time, Freuhauf subdivision had acquired additional land extending north to the school property. The properties south of Chateau Terrace South included four dwellings with detached garages and School House No. 18. In 1924, District #18 School moved from the two-story brick schoolhouse to a new location on Harlem Road (Fiddler-Woite 2009:110).

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Charles S. Burkhardt Co., developer of the adjacent Audubon Subdivision, also built homes in Chateau Terrace. In April 1923, Burkhardt advertised two new homes in Chateau Terrace featuring all modern conveniences, garages, and large lots. Ranging in price between $14,000 and $14,500, each house included three bedrooms and tile baths (Buffalo Courier 1923a).

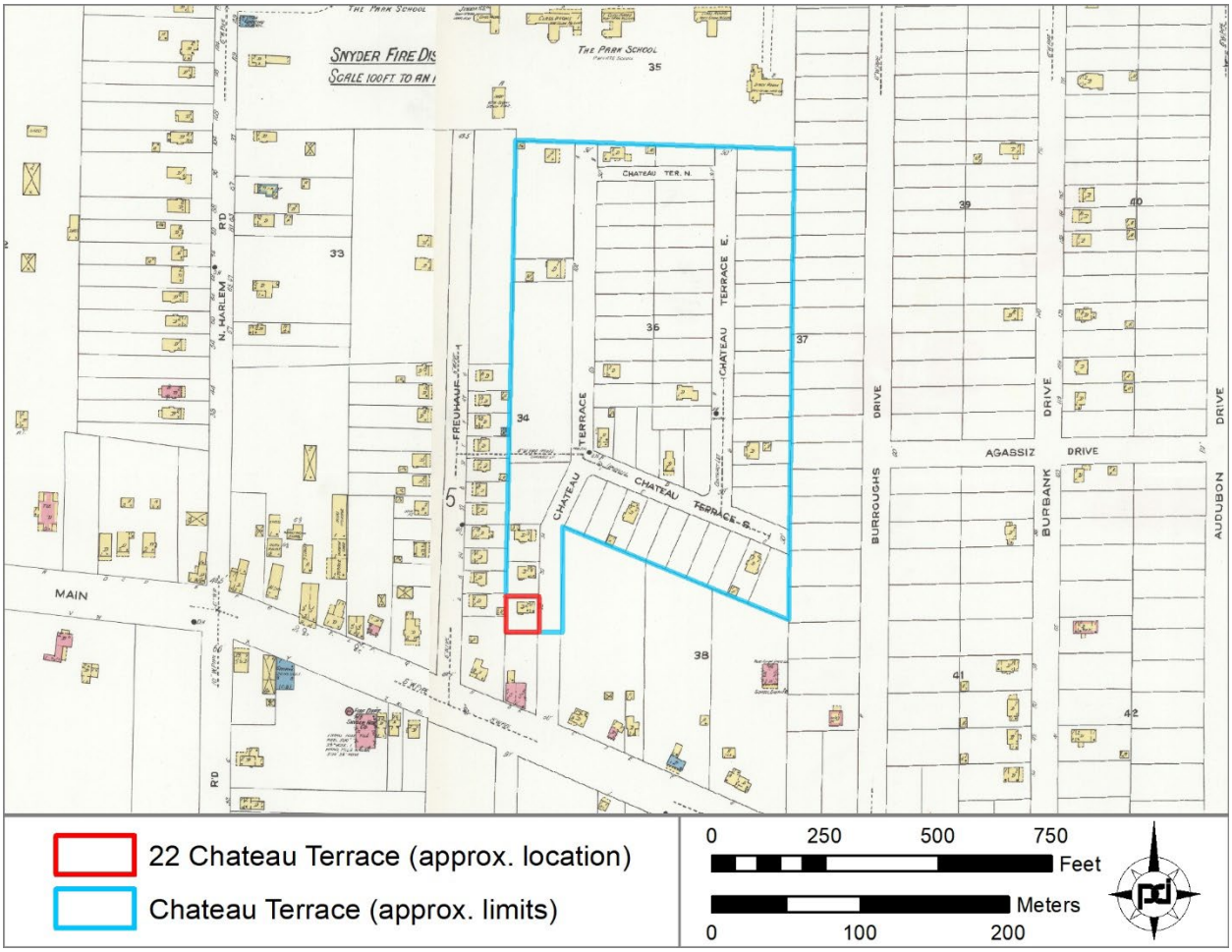

Figure 13. The location and footprint of the house at 22 Chateau Terrace as documented on the 1923 Sanborn Fire Insurance Map *(Sanborn 1923).*

Chateau Terrace was laid out off Main Street serving as the only entrance road to the subdivision. In 1927, Chateau Terrace remained a partially developed subdivision (ECDPW 1927 [Figure 14]). The three residences depicted on the 1923 map on west side of Chateau Terrace, south of the where the road bends, are visible in the aerial photograph. The southernmost of which is 22 Chateau Terrace. By 1932, homes were erected on Chateau Terrace South and Chateau Terrace East along with some construction on Chateau Terrace (KTA 2011: Area 6-9).

On the 1938 map of Snyder, Chateau Terrace consisted of 74 numbered lots. The west side of Chateau Terrace was divided into 20 lots with the lots 1 through 4 located between Main Street and the bend south of Chateau Terrace South (Figure 15). The residence at 22 Chateau Terrace was constructed on Lot #2. The three houses noted on the 1927 aerial had 80 frontages on Chateau Terrace. The other parcels were laid out with 50-ft frontages along Chateau Terrace to the north, the south side Chateau Terrace East, and the south side of Chateau Terrace South. A 1951 aerial view shows additional development in Snyder (Figure 16).

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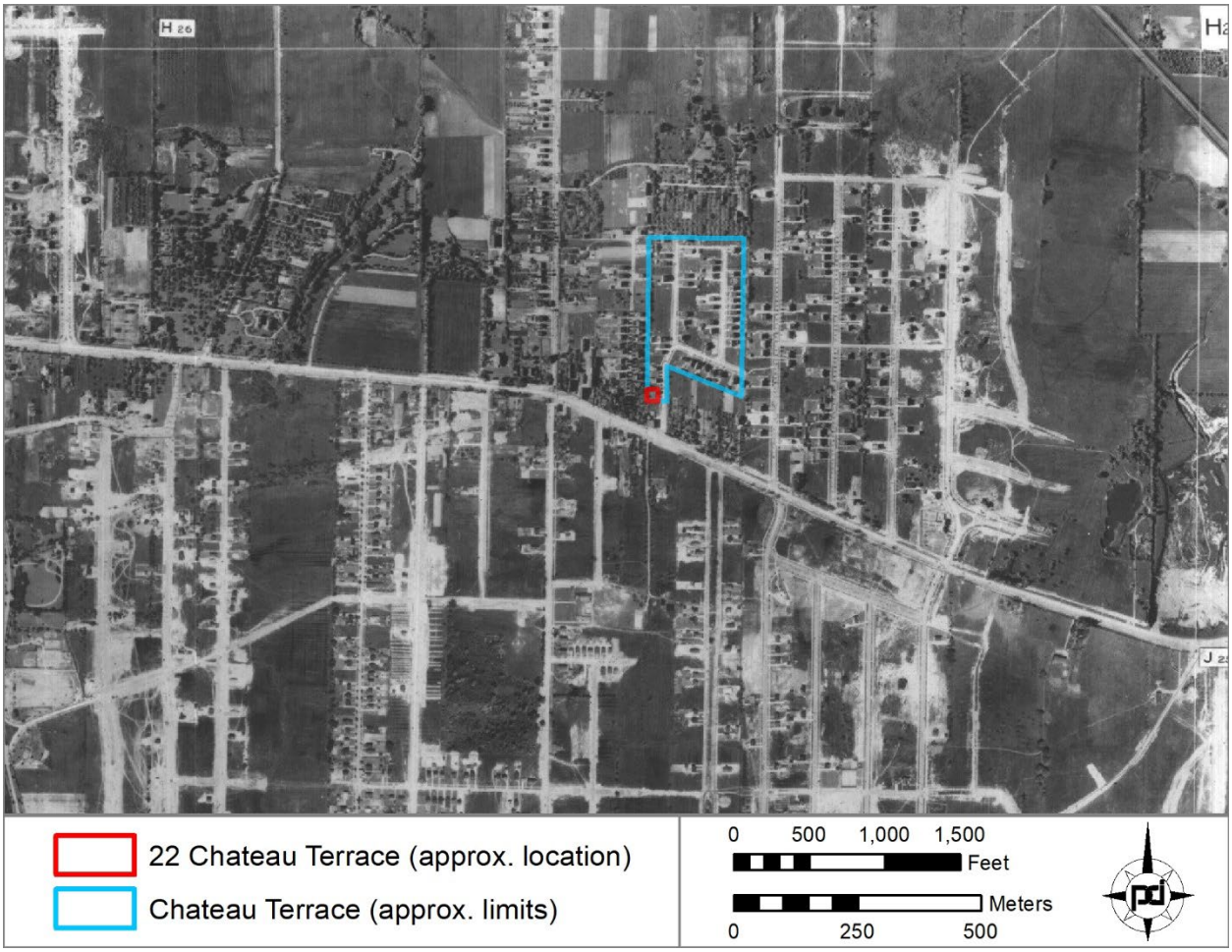

Figure 14. A 1927 aerial view of Chateau Terrace showing residential development in the subdivision and the surrounding area of Snyder *(Erie County Department of Public Works [ECDPW] 1927).*

The former Abram L. Snyder house on the northeast corner of Main Street and Chateau Terrace was demolished in 1957 (Fiddler-Woite 2009:148). A new U.S. Post Office branch (now occupied by the Bornhava school) was erected across the street from 22 Chateau Terrace on the site of the old homestead tract. Willliam C.T. Suor died at 85 years old in January 1959. An editorial on his passing credited the Suor brothers for beginning the trek to the North Buffalo suburbs with their Central Park development and continuing with the suburban development in Snyder (BEN 1959).

Lewis Ball died on August 20, 1968. His widow, Josephine E. Ball, sold the property in July 1971 to Edmund Karnofsky (Liber 7812 of Deeds, page 1). In 1975, the former school building on Main Street was demolished, and the adjacent property to the south of Chateau Terrace was subdivided into parcels (Snyder-Eggertsville Library and Ascension Lutheran Church [Fiddler-Woite 2009:110]). Karnofsky owned the property for 15 years, later selling it to E/K Realty Group LLC in September 2008. The subsequent owner 570 DAB 3 LLC purchased the property in March 2018. Table 1 presents a summary of deed information for Subdivision Lot 2 (22 Chateau Terrace/Parcel B).

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Figure 15. The property at 22 Chateau Terrace in 1938 *(Niagara Frontier Planning Board 1938)*.

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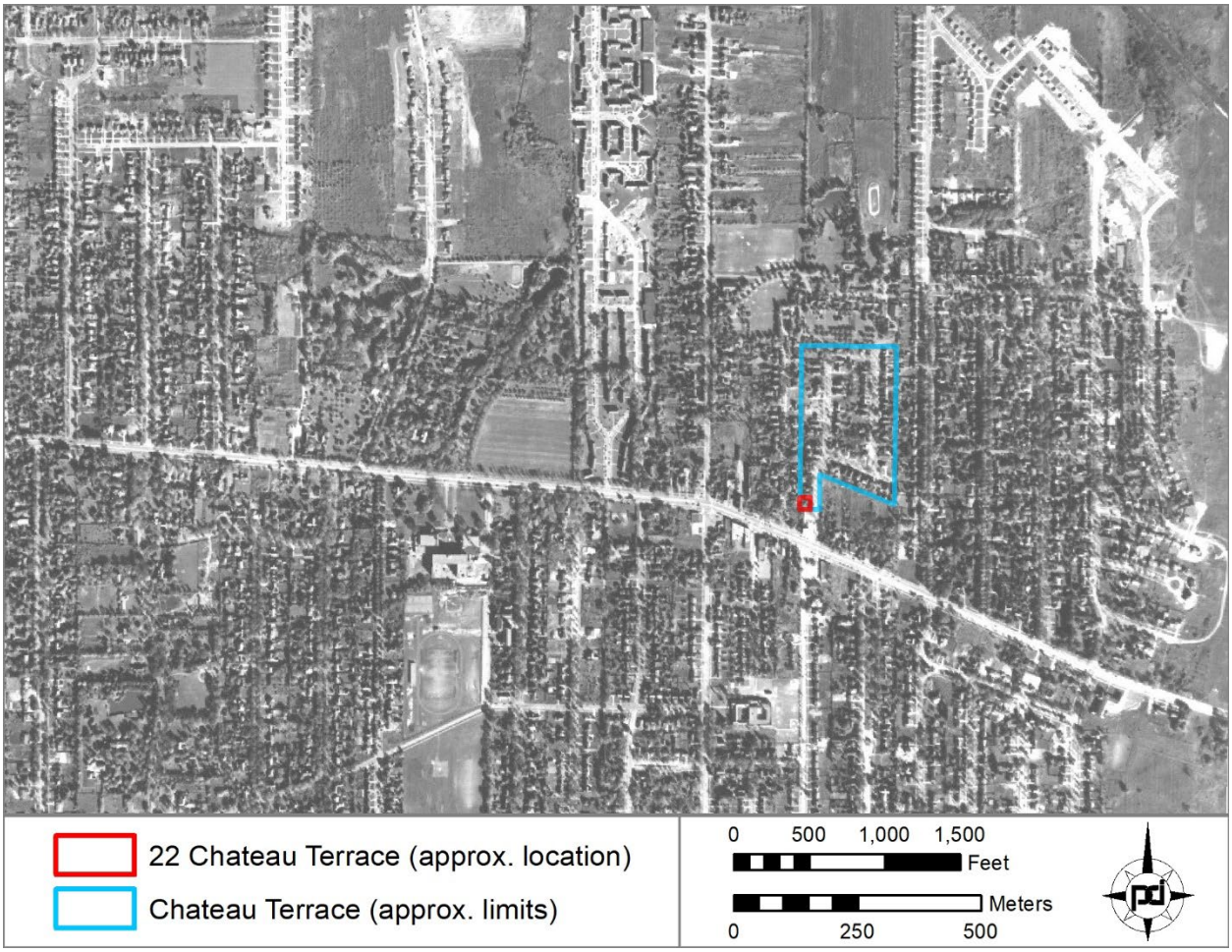

Figure 16. A 1951 aerial view of Chateau Terrace showing residential development in the subdivision and the surrounding area of Snyder *(ECDPW 1951).*

William Charles Taylor Suor and Arthur M. Suor. The Suor brothers were the sons of Charles and Anna (Taylor) Suor (White 1898:439). Their grandfather Joseph Suor was a native of Germany (White 1898:439). Charles Suor operated a wood turning establishment on the corner of Clinton and Oak streets in Buffalo and served as supervisor of the old Eleventh ward (White 1898:439). He died in 1887 when the boys were teenagers.

Arthur M. Suor was educated in public schools and the College of Commerce in Buffalo. He was first employed for three years with the T. C. Tanke's jewelry store and later in the Western Transit Company for a short time. In 1890, he accepted a position with the real estate firm of Thorne & Angell. He was associated with the firm until 1894, when he formed a partnership with his brother, William C. T. Suor (White 1898:439). In 1896, he married Ida Clare Heeb of Buffalo. They had one son, Arthur M., Jr. He was a member of Parish Lodge No. 292, F. & A. M., and of Trinity Lodge, I. O. O. F.

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Table 1. Summary of Deed information: Subdivision Lot 2 (22 Chateau Terrace/Parcel B).

Date	Grantor	Grantee	Notes
n/a	Holland Land Company (Part of Lot #13, Township 12, Range 7)	Michael Shenk	Liber 7 of Deeds, page 48. Conveyed into two parcels East Parcel to Michael Shenk, Jr., Liber 53 of Deeds, page 103. West parcel to John Shenk, Liber 48 of Deeds, page 144.
1852	n/a	n/a	Original survey of Farm Lot 13 by Tobias Witmer, surveyors.
n/a	Michael Shenk, Jr (?)	Philip J. Ferkel	East side of Farm Lot No. 13. According to affidavit by Jacob W. Snyder.
n/a	Philip J. Ferkel	George Demert & Heirs	East side of Farm Lot No. 13. According to affidavit by Jacob W. Snyder.
n/a	George Demert & Heirs	Chauncey J. & Emily G. Hamlin	East side of Farm Lot No. 13. According to affidavit by Jacob W. Snyder.
November 12, 1917	n/a	n/a	Chauncey Hamlin had land surveyed.
July 12, 1919 REC. July 15, 1919	Chauncey J. & Emily G. Hamlin	Wm. C.T. Suor & Arthur M. Suor	Liber 1423 of Deeds, page 240. Subject to easement for water & sewer drainage.
September 1, 1920 Rec. October 7, 1920	Wm. C.T. and Jessie M. Suor & Arthur M. and Ida H. Suor	Louis W. & Josephine E. Ball	Liber 1555 of Deeds, page 138. Subject to building restriction for a period of 25 years from July 1, 1919.
July 1, 1971	Josephine E. Ball as survivor of Lewis W. Ball	Edmund Karnofsky	Liber 7812 of Deeds, page 1 Lewis died August 20, 1968
July 23, 1923 Rec. August 23, 1993	Edmund Karnofsky	New York Telephone Company	Easement. Liber 10727 of Deeds, page 240
August 9, 2008 Rec. Sept. 8, 2008	Edmund Karnofsky	E/K Realty Group LLC	Liber 11149 of Deeds, page 6267
March 16, 2018	E/K Realty Group LLC	570 DAB 3 LLC	Liber 11326 of Deeds, page 9012

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Architectural Summary

Setting. Chateau Terrace on the north side of Main Street east of Harlem Road is nestled between two early-to-mid-twentieth-century residential subdivisions, Freuhauf to the west and Audubon Terrace to the east. Chateau Terrace was laid out to serve as the entrance road for the development. The subdivision was designed with four roads that form a near rectangular-shaped central plan. These include two north-south roads (Chateau Terrace & Chateau Terrace East), one northwest-southeast road (Chateau Terrace South), and one east-west road (Chateau Terrace North). The south end of Chateau Terrace has a bend to the northeast just south of Chateau Terrace South. Street trees were planted throughout Chateau Terrace. Trees lining the entrance road, and the road's winding alignment were designed to provide screening as well as privacy. Chateau Terrace was originally designed with three dead end roads. The north end of Chateau Terrace East is open for access to the Park School of Buffalo Campus. Commercial properties, a school, medical offices, and a public library border the south boundary of the subdivision.

Site. Located on the west side of the street, the single-family residence and detached garage at 22 Chateau Terrace is the first residential property in the subdivision north of Main Street. The parcel measures 80 ft wide by 73.34 ft deep. The house has a narrow 9.77-ft setback and a small, enclosed backyard measuring roughly 22 ft wide by 20 ft deep. A mature 24-inch green ash tree is centered in front of the house on the road verge. Other mature trees include are on the south side of the driveway and along west edge of the parcel. Concrete walkways (2.5 ft-2.6 ft) are on the north and west sides of the house. A low concrete retaining wall stretches across the south property line. Parking lots associated with commercial properties fronting Main Street (Nos. 4558-4560 & 4548) border the south, southwest, and west perimeters of the parcel. Residential properties are adjacent to the north (20 Chateau Terrace) and northwest (23 Fruehauf).

Description of Exterior. The residence at 22 Chateau Terrace is a frame, two-story Craftsman-style building with a front-gabled roof with asphalt shingles, stucco exterior, wood belt course, and stone foundation. It has a rectangular plan and measures approximately 24.20 ft wide by 40.66 ft deep. Window openings are single, paired, and triple groupings. These openings feature simple molded wood surrounds and wood double-hung sash (1/1 and 9/1). Original basement windows have two lights.

The east façade has an enclosed entry porch with a wood stoop in the north bay, a one-story sunroom with a low-pitched gabled roof, and a triple window grouping with bracketed pent. The entrance door features six lights over two lights and two panels. It is flanked by sidelights of four over one, a wood panel, and a single corner pilaster. Six lights over one light windows are on the north side of the entry porch. Stylistic details include wide overhanging eaves with single triangular knee brackets, beveled windows, and paneled and glazed doors.

Exterior alterations include a few replacement windows, a replacement wood rail on the front stoop, and asphalt roofing shingles.

Description of Interior. The open first-floor layout consists of a sunroom, dining room, living room, kitchen, and basement/side entrance hall. Three bedrooms, a bathroom, and a hall closet are on the second floor. It has an unfinished basement. The interior has painted plaster walls. Floor finishes include carpeting, hardwood, linoleum, and tile. Hardwood floors are covered on the first floor and primary bedroom. Interior windows are accented with simple wood trim. Extant interior doors are wood with six panels.

The living room has a central brick fireplace with a wood mantel supported by three brick corbels, built-in wood shelving, and Craftsman-style staircase (quarter turn stairs) with corner pier along the north wall. The Craftsman-type living room entrance door has a single panel and four lights. An original push button switch panel is on right side of front door. A Craftsman-type beveled glass window is in the north wall of the living room and west wall of the dining room. Original wooden baseboards and metal baseboard registers are

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intact. The kitchen has built-in cabinets. Original cabinet doors have been removed from the upper cabinet shelves on the west wall and a new sink with cabinets has been installed on the east wall. The side entrance/ basement hall is on the north side of the house.

The primary bedroom on the second floor is in the upper front (east) of the house. It features two closets and window seat. The other two bedrooms have a single window and closet. The bathroom retains its white hexagonal floor tile, built-in closet, and built-in medicine cabinet.

The basement retains its original door and wood stairs. It has exposed stone walls and a row of built-in cabinets along the west wall. The chimney has a basement clean.

Interior alterations include the following: removal of portions of built-in kitchen cabinets and sink; removal of original light fixtures; drop ceiling in the dining room; new kitchen flooring; removal of a few original doors; and removal of original bathroom sink and tub.

Garage. A detached, frame, two-bay Craftsman-style garage is on the southwest side of the house. The 3.66.5 sq ft garage (18.35 ft wide by 20.15 ft deep) has a hipped roof with overhanging eaves, and asphalt roof shingles, and wood exterior siding. Garage doors feature multiple pane fixed windows and wood panels. The garage is presently structurally unstable. A section of the roof has partially collapsed on the south slope (Photograph 14 in Appendix A).

Conclusions

The ca. 1920 residence with garage at 22 Chateau Terrace does not appear to meet the State/National Register of Historic Places (S/NRHP) criteria for individual eligibility. Though the building retains much of its original materials and stylistic elements, it is a representative example of a modest single-family home type constructed in the first quarter of the twentieth century in Buffalo and suburban neighborhoods. Previous historic resources surveys have also identified the building at 22 Chateau Terrace as not individually eligible for listing on the S/NRHP (Bero 1997; KTA 2011), but instead they recommended the property as a contributing resource to a Chateau Terrace Historic District (Chateau Terrace Study Area in CRIS). Note, Chateau Terrace was not included in the NRHP Multiple Documentation Form for Multiple Resources Associated with the Suburban Development of Buffalo.

As previously recognized in the historic resources survey, Chateau Terrace Study Area is historically significant at the local level for its association with the suburban development of the Town of Amherst during the early to mid-twentieth century. A S/NRHP eligibility assessment for the entire Chateau Terrace Study Area is beyond the scope of this documentation report. Further survey work and documentation of the neighborhood, as well as additional research, would be required to provide an informed S/NRHP recommendation for Chateau Terrace Study Area. The NRHP Multiple Documentation Form for *Multiple Resources Associated with the Suburban Development of Buffalo, New York* (2015) and guidance provided in *Historic Residential Suburbs Guidelines For Evaluation And Documentation For The National Register Of Historic Places* (Ames and Flint 2002) would also need to be applied for an NRHP eligibility recommendation.

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Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Appendix A

Photographs

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22 CHATEAU TERRACE: EXTERIOR VIEWS



1. **Setting view of 22 Chateau Terrace, facing northwest** *(Commonwealth 2022).*



2. **Setting view along Chateau Terrace (Nos. 22, 30, and 38) looking toward Main Street, facing southwest** *(Commonwealth 2022).*

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3. Oblique view of south and east elevations, facing west-northwest *(Commonwealth 2022).*



4. Direct view of east elevation, facing west *(Commonwealth 2022).*

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5. Oblique view of east and north elevations, facing southwest *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



6. Detail view of front entrance, facing west *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



7. Detail view of brackets and eaves, facing northwest *(Commonwealth 2022).*

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8. Detail view of entrance on north elevation, facing southeast *(Commonwealth 2022).*

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9. Direct view of west elevations of the house and garage, facing southeast *(Commonwealth 2022).*

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10. Oblique, partial view of the west elevation facing northeast *(Commonwealth 2022).*

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11. View of backyard and north elevation of the garage, facing south *(Commonwealth 2022).*



12. Direct view of south elevation, facing north *(Commonwealth 2022).*

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13. Direct view of north elevation of garage, facing west *(Commonwealth 2022).*



14. Direct view of south elevation of garage, facing west *(Commonwealth 2022).*

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22 CHATEAU TERRACE: INTERIOR VIEWS



15. Detail of vestibule showing original front door, facing northeast *(Commonwealth 2022).*

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16. View of first floor living room, facing southeast *(Commonwealth 2022).*



17. View of living room looking toward the dining room at left and kitchen at right, facing west *(Commonwealth 2022).*

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18. View of living room looking toward built-in shelves and stairs, facing northwest *(Commonwealth 2022).*



19. View of living room looking toward front entrance, sunroom, and metal baseboard register, facing northeast *(Commonwealth 2022).*

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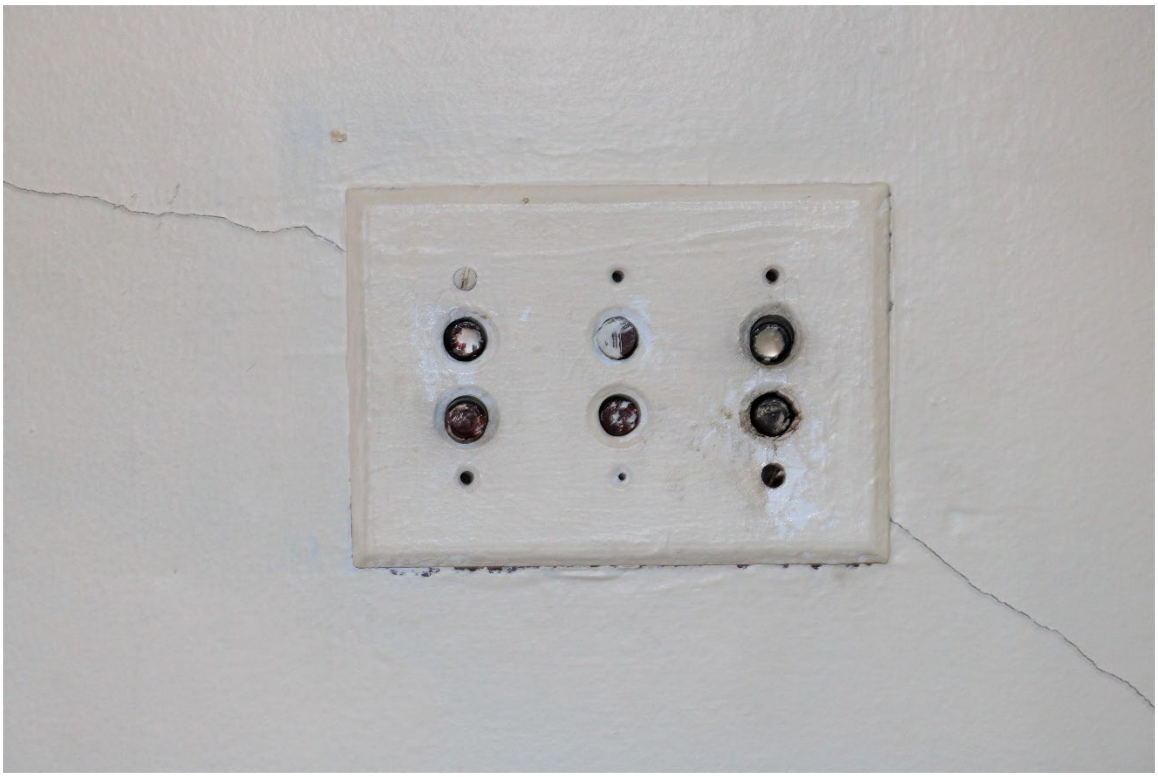

20. Detail of push button switches on right side of front door, facing east *(Commonwealth 2022).*



21. View of first floor sunroom, facing south *(Commonwealth 2022).*

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22. View of dining room, facing west *(Commonwealth 2022).*



23. View of dining room with living room and sunroom in background, facing east-northeast *(Commonwealth 2022).*

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24. View of east wall of first floor from dining room, facing southeast

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25. View of kitchen doorway from dining room, facing north *(Commonwealth 2022).*

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26. View of west wall in kitchen, facing northeast *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



27. View of built-in kitchen cabinets on west wall of kitchen, facing northeast *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



28. View of east wall in kitchen, facing east *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



29. **View of side entrance hall with basement door at right, facing north** *(Commonwealth 2022).*

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30. View of staircase to second floor, facing west *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



31. **View of 2nd floor hall from staircase landing with bathroom at left and closet at right, facing south** *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



32. View of master bedroom on second floor, facing southeast *(Commonwealth 2022).*



33. View of master bedroom on second floor, facing southwest *(Commonwealth 2022).*

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34. View of west wall in master bedroom on second floor, facing west *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



35. View of second floor bathroom, facing southeast *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



36. View of second floor bathroom, facing southwest *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



37. View of southwest bedroom on second floor, facing west *(Commonwealth 2022).*



38.Detail of wood floor in southwest bedroom on second floor *(Commonwealth 2022).*

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39. View of northwest bedroom on second floor, facing northwest *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



40. View of northwest bedroom on second floor, facing southeast *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



41. Detail of basement stairs, facing northwest *(Commonwealth 2022).*

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42. View of basement, facing south *(Commonwealth 2022).*



43. Detail of west basement wall, facing southwest *(Commonwealth 2022).*

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44. View of basement, facing north *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



45. View of basement, facing west-northwest *(Commonwealth 2022).*

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

SRF ASSOCIATES
Transportation Planning / Engineering / Design

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

(585) 272-4660
www.srfa.net

Mr. Matt Oates, P.E.
Director, Engineering
Benderson Development
570 Delaware Avenue
Buffalo, New York 14202

July 30, 2021

RE: Proposed Mixed-Use Project, 4548-4564 Main Street, Town of Amherst, NY
Traffic Engineering Assessment Letter

Dear Mr. Oates:

The purpose of this technical letter is to provide a traffic engineering assessment related to the proposed mixed-use project located at 4548-4564 Main Street in the Town of Amherst, NY for informational purposes and to understand the possible traffic impacts resulting from the proposed project. The concept site plan, figures, and supporting data are included in the attachments. This letter evaluates:

- Projected trip generation estimates and discusses the thresholds for completing a Traffic Impact Study (TIS).
- Southbound queuing on Fruehauf Avenue during the AM and PM peak periods.
- Sight line evaluation at the Main Street/Fruehauf Avenue intersesction.

PROJECT DESCRIPTION

The proposed project consists of developing 57 units of one and two-bedroom apartment units, a ±3,628 square foot (SF) quality restaurant, and a ±3,137 SF fast casual restaurant in a three-story building. Access is provided via two full access driveways: one along Chateau Terrace which accesses a parking lot with 50 spaces and one along Fruehauf Avenue which accesses a parking lot with 20 spaces. Chateau Terrace is posted as a "No Outlet" street while Fruehauf Avenue is posted as a "Dead End" street. On-street parking is available along Main Street. Sidewalks are present throughout the adjacent neighborhood.

TRIP GENERATION

Data contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition) was used to project the volume of the traffic generated by the proposed project. Data published by the ITE is the nationally accepted standard for generating trips for new uses. Given the functional characteristics of the corridors and the land uses proposed for the site, the peak hours selected for analysis are the weekday morning (AM) and weekday evening (PM) peak periods. The combination of site traffic and adjacent street traffic produces the greatest demand during these peak periods.

The proposed project as depicted on the site plan consists of two different land uses (residential and restaurant) and is considered mixed-use (multi-use). According to the Institute of Transportation Engineers Trip Generation Handbook (3rd Edition), "...a multi-use development is typically a single real-estate project that consists of two or more ITE land use classifications between which trips can be made without using the off-site road system. Because of the nature of these land uses, the trip-making

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characteristics are interrelated, and some trips are made among the on-site uses. This capture of trips internal to the site has the net effect of reducing vehicle trip generation between the overall development site and the external street system (compared to the total number of trips generated by comparable, standalone sites)." "In some multi-use developments, these internal trips can be made by walking or by vehicles entirely on internal pathways or internal roadways without using streets external to the site."

The Handbook indicates internal capture rates for trips within a multi-use development to vary between residential, office, retail, restaurant, and entertainment and recreational uses during the AM and PM peak hours. Given the proposed land use components and interconnection between these components, multi-use total volume trips will likely occur.

Methodology contained in National Cooperative Highway Research Program (NCHRP) Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Development was consulted to perform the mixed-use adjustment. The NCHRP 684 model reported an internal baseline capture percentage of 0% during the AM peak hour and 10% during the PM peak hour.

These multi-use trip projection adjustments were applied to the respective site generated trips and subtracted from the traffic entering and exiting the site during the PM peak period. The internal capture calculation considers baseline mode shares and vehicle occupancy factors for the proposed land uses, as described in the Handbook.

For certain types of developments, the total number of trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Service/retail-oriented developments (i.e., shopping centers, gas stations, coffee/donut shops, and restaurants) often locate adjacent to busy streets to attract the motorists already passing the site on the adjacent street. These sites attract a portion of their trips from traffic passing the site. The "pass-by" traffic refers to the amount of existing traffic already on the roadway adjacent to the site that, as it "passes by" the site, will enter the site driveways to patronize the project site. The quantifying of "pass-by" trips has the net result of reducing the volume of new traffic that is added to the site driveways and/or adjacent roadways.

This site is likely to exhibit some level of pass-by traffic. The ITE Trip Generation Handbook (3rd Edition) was used as a reference to determine pass-by rates. For quality restaurants, the ITE data reports a range of rates during the PM peak period from 26% to 82% with an average pass-by rate of 44%. No data is available for the AM peak period. To remain conservative, this study used a 20% pass-by rate during the PM peak period.

The ITE does not have data for fast casual restaurants. Therefore, fast food restaurants with drive-thru was considered a comparable use. The ITE data reports a range of rates during the PM peak period from 25% to 71% with an average pass-by rate of 50%. To remain conservative, this study used a 20% pass-by rate during the PM peak period.

Table 1 shows the total site generated trips for the peak hours of study with the pass-by trip adjustment.

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TABLE 1: SITE GENERATED TRIPS AND ADJUSTMENTS

DESCRIPTION	ITE LUC	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Multi-family Residential	220	57 units	6	22	23	13
Quality Restaurant	931	±3,628 SF	1	1	19	9
Fast Casual Restaurant	930	±3,137 SF	4	2	24	20
Sub-Total Trips			**11**	**25**	**66**	**42**
Mixed-Use Adjustment			*0*	*0*	*-5*	*-5*
Sub-Total Driveway Trips			**11**	**25**	**61**	**37**
Pass-by Adjustment			*0*	*0*	*-9*	*-6*
Total Primary (New) Vehicle Trips			**11**	**25**	**52**	**31**

Note:
1. ITE LUC = ITE Land Use Code.

Prior to considering mixed-use and pass-by adjustments, the proposed project is expected to generate 11 entering/25 exiting vehicle trips during the AM peak hour and 66 entering/42 exiting vehicle trips during the PM peak hour. When considering ITE published mixed-use and pass-by trip rates and our professional judgement, the proposed project is expected to generate the following new vehicle trips: 11 entering/25 exiting vehicle trips during the AM peak hour and 52 entering/31 exiting vehicle trips during the PM peak hour.

TRIP DISTRIBUTION

The cumulative effect of site-generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the driveways serving the site. The proposed arrival/departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Commercial/employment and residential centers in the area using US Census Data (e.g., OnTheMap).
- Site access locations.
- Hourly traffic patterns using most recent available Annual Average Daily Traffic (AADT) data obtained from the New York State Department of Transportation (NYSDOT) along Main Street.
- Turning movement counts using the most recent available data obtained from the Greater Buffalo-Niagara Regional Transportation Council (GBNRTC) at the intersections of Main Street/Chateau Terrace/Bernhardt Drive and Main Street/Lamarck Drive/Livingston Parkway.
- Existing traffic controls.

Figure 1 shows the anticipated trip distribution pattern percentages for the traffic from the proposed project for the residential program while Figure 2 illustrates the trip distribution for the restaurant program. Figure 3 illustrates the residential peak hour site generated traffic based on the percentages in Figure 1. Figures 4-5 illustrate the restaurant peak hour site generated traffic based on the percentages in Figure 2 for the project's primary and pass-by trips, respectively. Figure 6 illustrates the total site generated trips. The roads anticipated to be used by the additional trips generated by the proposed project are listed in Table 2.

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To remain conservative, all site generated traffic was assumed to enter and exit the site via the proposed driveways along Fruehauf Avenue and Chateau Terrace. A portion of site visitors may use available on-street parking along Main Street (notably the restaurant patrons); thus, reducing the projected number of vehicle trips entering and exiting Fruehauf Avenue and Chateau Terrace.

TABLE 2: EXISTING HIGHWAY SYSTEM

ROADWAY[1]	CLASS[2]	AGENCY[3]	SPEED LIMIT[4]	# OF TRAVEL LANES[5]	TRAVEL PATTERN	EST. AADT[6] & SOURCE[7]
Main Street (NY-5)	14	NYSDOT	40	4	Two-way/ East-West	21,436 NYSDOT (2019)
Chateau Terrace	19	Town	30	2	Two-way/ North-South	No Data Available
Fruehauf Avenue	19	Town	30	2	Two-way/ North-South	No Data Available

Notes:
1. Route Name and Number.
2. State Functional Classification of Roadway: 14 = Urban Principal Arterial, 19 = Local.
3. Jurisdictional Agency of Roadway.
4. Posted or Statewide Limit in Miles per Hour (mph).
5. Excludes turning/auxiliary lanes developed at intersections.
6. Estimated AADT in Vehicles per Day (vpd).
7. AADT Source (Year).

THRESHOLDS FOR THE REQUIREMENT OF A TRAFFIC IMPACT STUDY

Many reviewing agencies, including the NYSDOT and Erie County Department of Public Works (ECDPW), use a guideline in determining whether a project warrants the preparation of a Traffic Impact Study (TIS). The applicable guideline is that if a proposed project is projected to add 100 or more site generated vehicles per hour (vph) to an adjacent intersection during either peak study period, then that intersection should be studied for potential traffic impacts.

Based upon the ITE trip generation projections and the resulting traffic assignment estimates shown in Figure 6, the projected new vehicle trips are added to the following intersections during the AM and PM peak hours:

- Main Street/Chateau Terrace/Bernhardt Drive: 29 (58)
- Main Street/Fruehauf Drive: 23 (83)
- Fruehauf Drive/Proposed Driveway: 14 (80)
- Chateau Terrace/Proposed Driveway: 22 (33)

Given that fewer than 85 peak hour trips are added to a single intersection during the peak hours studied, a TIS is not warranted.

PEAK HOUR QUEUING ASSESSMENT

A peak hour queuing assessment was performed along Fruehauf Avenue during the AM and PM peak hours to measure the frequency of southbound vehicles that block the proposed driveway. The centerline of the proposed driveway is located approximately 38 feet from the stop bar. Given this distance, the driveway is located approximately 1.7 vehicle lengths from the stop bar.

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Our firm documented southbound queues at the intersection of Main Street/Fruehauf Avenue on Thursday, July 22, 2021, from 7:00-9:00 AM and 4:00-6:00 PM. The peak hours generally occurred from 8:00-9:00 AM and 4:30-5:30 PM. Based on this field investigation during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

SIGHT LINE EVALUATION

Based upon a review of the attached site plan, the proposed building is projected to be built in approximately the same footprint as the existing structures fronting Main Street. There is a marked stop bar for traffic exiting Fruehauf Avenue.

In this case, the primary concern is with the proposed building at the existing Main Street/Fruehauf Avenue intersection. The attached figure illustrates the sight line evaluation performed at the intersection to the east of the intersection.

Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection. Sight distance is also provided at intersections to allow the drivers of stopped vehicles a sufficient view of the intersecting highway to anticipate and avoid potential incidents. If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions.

A Policy on Geometric Design of Highways and Streets (2011) published by the American Association of State Highway and Transportation Officials (AASHTO), was used as a reference to establish the required Stopping Sight Distance (SSD) and desirable Intersection Sight Distance (ISD) for the adjacent driveway location. Table 3 depicts the results of the sight distance evaluation at the Main Street/Fruehauf Avenue intersection.

TABLE 3: SIGHT LINE EVALUATION

DESCRIPTION		VALUE
POSTED SPEED		40 MPH
DESIGN SPEED[1]		45 MPH
REQUIRED SSD		360 feet
DESIRABLE ISD		500 feet
AVAILABLE SIGHT DISTANCE TO THE EAST	*SSD*	>360 feet
	ISD	385 feet (no vehicles) 145 feet (parked vehicles)

Note:
1. Design speed equals posted speed plus 5 MPH.

The required SSD is satisfied to the east of the study intersection. However, the desirable ISD is not satisfied. The existing and proposed ISD sight distance will be the same and the proposed building will not impact the existing sight distance.

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It is noted that the intersection is in an urbanized area with numerous side roads where drivers expect traffic to be entering and exiting. Further, the intersection is located downstream of the signalized intersection of Main Street/Chateau Terrace/Bernhardt Drive and motorists turning out of Fruehauf Avenue will be afforded gap opportunities when the Main Street approaches are in the red phase. As this distance is not satisfied, potential relief consists of installing intersection warning signage for westbound traffic.

CONCLUSIONS AND RECOMMENDATIONS

The following sets forth the findings and recommendations of this assessment:

1. When considering ITE published mixed-use and pass-by trip rates and our professional judgement, the proposed project is expected to generate the following new vehicle trips: 11 entering/25 exiting vehicle trips during the AM peak hour and 52 entering/31 exiting vehicle trips during the PM peak hour.

2. Given the projected site traffic distribution, it is our firm's professional opinion that the adjacent intersections and surrounding roadway network will not experience significant adverse traffic impacts. Given these conditions, no further study is warranted nor recommended at this time.

3. Based upon documentation of southbound queues at the intersection of Main Street/Fruehauf Avenue during the peak hours of study, the proposed driveway location was blocked once during the AM peak hour for a duration of five seconds and was blocked once during the PM peak hour for a duration of three seconds.

4. Based upon a sight line evaluation at the Main Street/Fruehauf Avenue intersection, the required SSD is satisfied to the east. However, the desirable ISD is not satisfied. The existing and proposed ISD sight distance will be the same and the proposed building will not impact the existing sight distance. As this distance is not satisfied, potential relief consists of installing intersection warning signage for westbound traffic.

If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
SRF Associates, D.P.C.

David Kruse, AICP, PTP
Transportation Planner

Attachments

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

ATTACHMENT

July 30, 2021

Letter to
Mr. Matt Oates, P.E.
Benderson Development

Proposed Mixed-Use Project
4548-4564 Main Street

Traffic Engineering Assessment

Town of Amherst
Erie County, New York

SRF ASSOCIATES

3495 Winton Place
Building E, Suite 110
Rochester, NY 14623

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

GENERAL NOTES:

1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN .
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:

- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed landscape
- Proposed Concrete Pavement
- Proposed Heavy Duty Pavement

* All curb radii are 3ft unless noted.
* Refer to General Notes, Concstruction Details and Architectural Plans for Concrete Sealer information.

TOWN OF AMHERST, NY ZONING ANALYSIS

	REQUIRED	PROVIDED	REQUIRED	PROVIDED
ZONED	TI-2.5 (General Frontage)	TI-2.5 (General Frontage)	TI-4 (General Frontage)	TI-4 (General Frontage)
SITE ACREAGE	-	0.93 Acres	-	0.93 Acres
MAX. BUILDING HEIGHT	35' (2.5 STORY)	45' (3 Story, exc basement)	45' (4 STORY)	45' (3 Story, exc basement)
MAX. BUILDING LENGTH				
- PRIMARY STREET	200' max	185.64'	200' max	185.64'
- SIDE STREET	150' max	238.45' / 168.82'	150' max	238.45' / 168.82'
MIN. LOT AREA	0 sqft	40,409 sqft	0 sqft	40,409 sqft
MIN. LOT WIDTH	0'	185.64'	0'	185.64'
OUTDOOR AMENITY SPACE	10% min. (4,041 sqft)	10.3% (4,150 sqft)	10% min. (4,041 sqft)	10.3% (4,150 sqft)
- LANDSCAPING	25% min. (1,038 sqft)	31.9% (1,324.9 sqft)	25% min. (1,038 sqft)	31.9% (1,324.9 sqft)
- SEATING	1/500 sqft (9 seats)	9 Seats	1/500 sqft (9 seats)	9 Seats
ALLEY	5' min.	0'	5' min.	0'
LOT FRONTAGE:				
- PRIMARY STREET	75% min.	100%	75% min.	100%
- SIDE STREET (Frue / Chat)	40% min.	84.4% / 88.4%	40% min.	84.4% / 88.4%
STREET FACING ENTRANCES & DISTANCES BETWEEN	Side Street. (N/A)	-	Side Street. (N/A)	-
- PRIMARY STREET	50' max.	< 50'	50' max.	< 50'
- SIDE STREET	75' max.	N/A	75' max.	N/A
CLEAR PEDESTRIAN ZONE	6' min.	10.33' Total - Existing Condition	6' min.	10.33' Total - Existing Condition
CURB ZONE (Curb Face to Pedestrian Zone)	6' min.		6' min.	
BUILDING SETBACKS:				
FRONT STREET	0'min./10'max.	0.3'	0'min./10'max.	0.3'
ALLEY	5'	N/A	5'	N/A
COMMON LOT LINE	0'	31.2'	0'	31.2'
SIDE STREET	0'min./20'max.	2.5' / 0.0'	0'min./20'max.	2.5' / 0.0'
PARKING / ROAD SETBACKS:				
FRONT STREET	20' min.	N/A	20' min.	N/A
ALLEY	5'	N/A	5'	N/A
COMMON LOT LINE	0'	1.7'	0'	1.7'
SIDE STREET	10' min	N/A	10' min	N/A

PROPOSED PARKING ANAYLSIS TI-2.5

USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	6,765 sqft / 1000 x 4 = 28 SPACES	
RESIDENTIAL (Upper-story)	1.0 per 1&2 bed dwelling unit	1.0 x 57 (1&2 Bed) = 57 SPACES	
		Total: 85 SPACES	70 SPACES
STALL SIZE		9'x19'	9'x19'

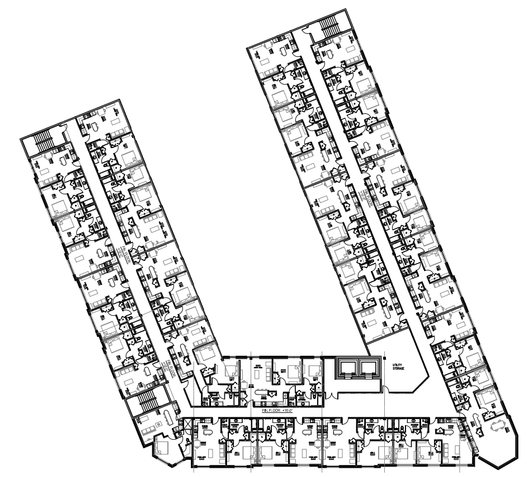
RESTAURANT: 3,628 S.F. + 3,137 S.F.

Note: Amherst Code §6-2-6 Residential Use Standards; allows for "Parking to be shared with ground floor uses, where appropriate."

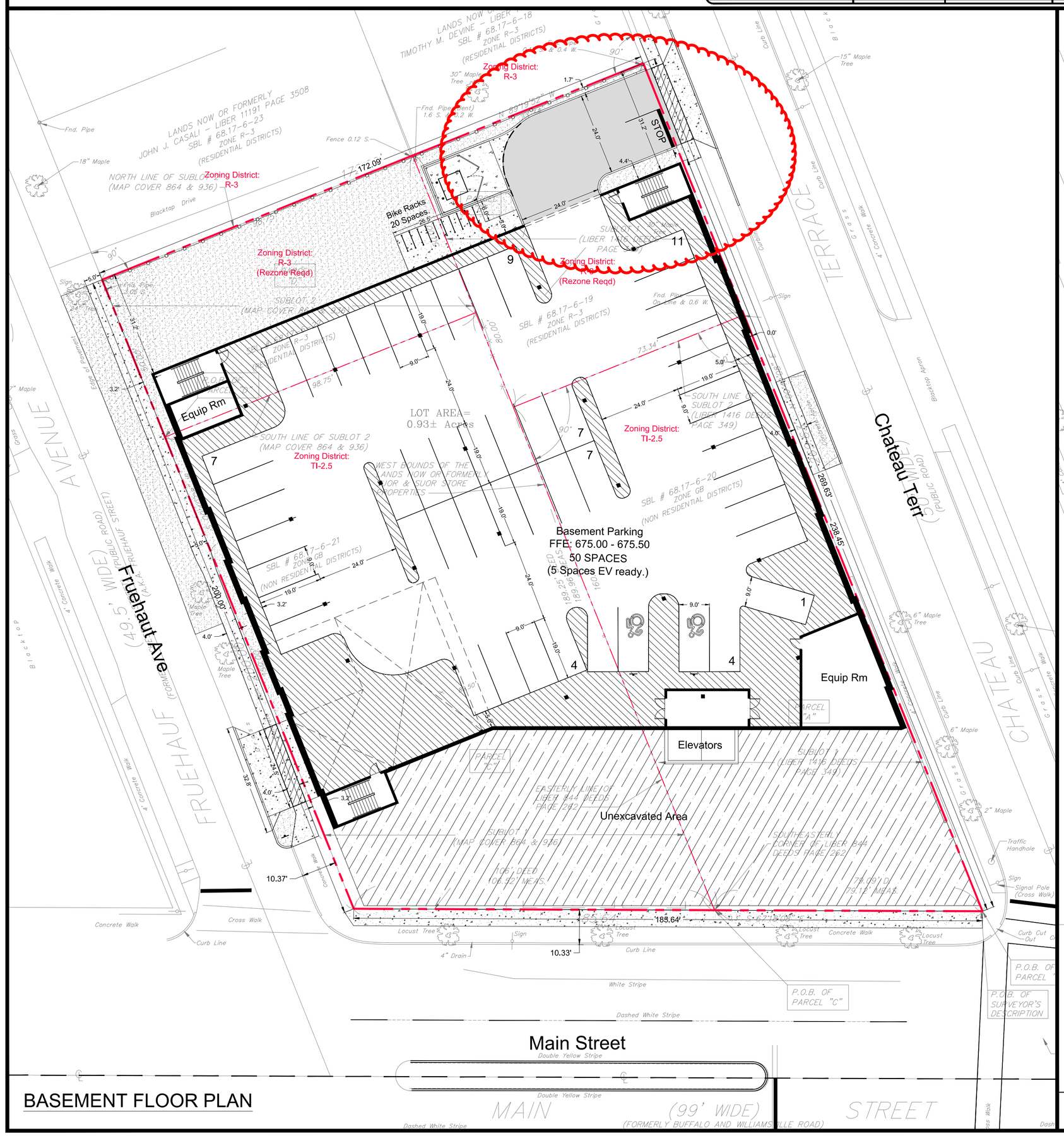
NB:
℄ = Measurement from a Center Line
Curb Island Dimensions are measured from the inside of curb.

MIXED USE DISTRICTS (TI-2.5/TI-4):

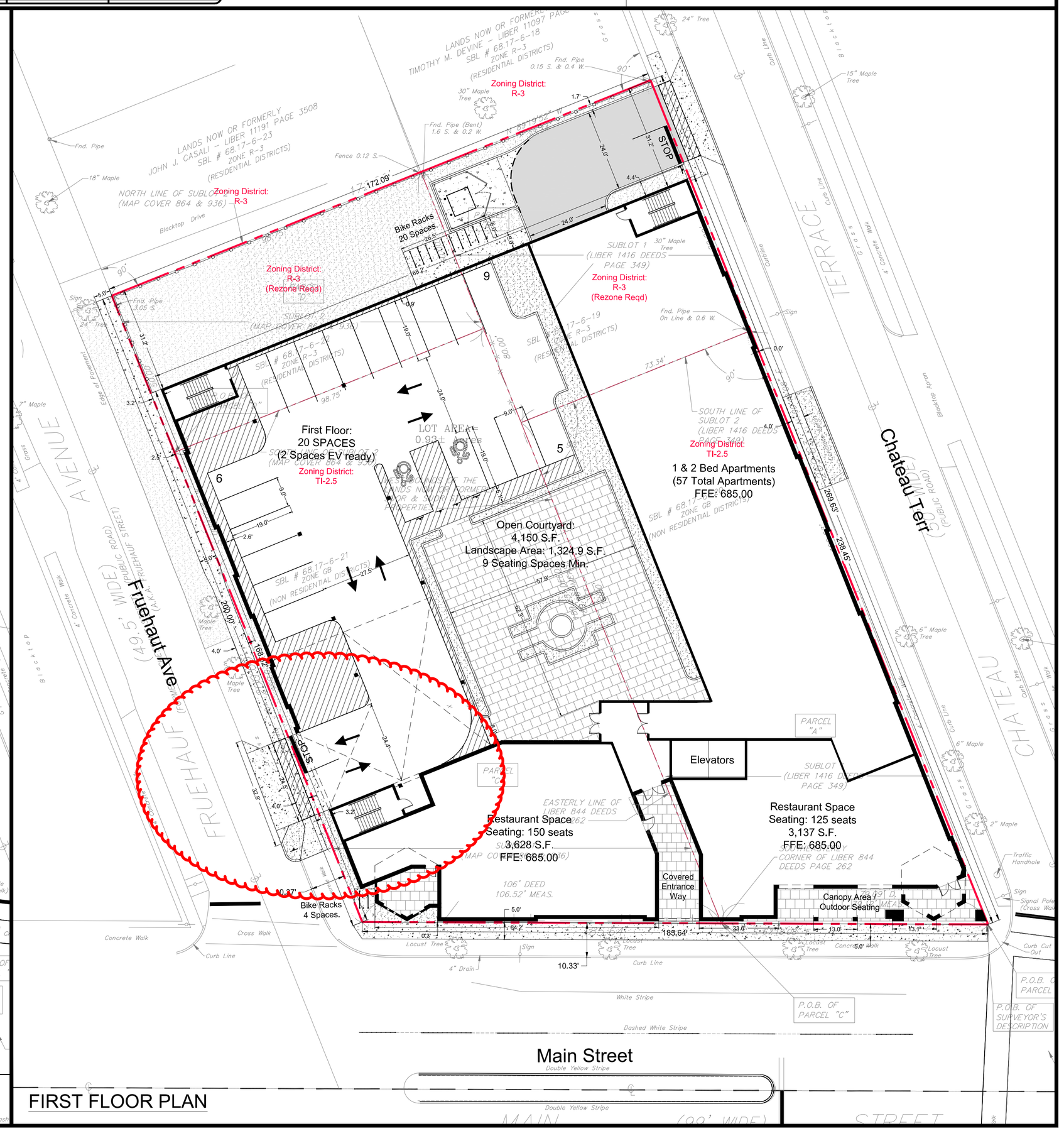
1) Need bicycle parking no more than 100 feet from primary entrance, visible, 0.5 spaces per unit (20max) and 1 per 3000sqft min of retail spaces (20 max). Required: 20 Bike Racks Apartments, 3 Bike Racks Restaurant, Proposed 24 Bike Rack Spaces.
2) Need 10% of parking spaces to be EV ready, with min. 2 EV ready spaces for all parking lots over 20 spaces. (Conduit to be laid ready to connect power in advance). 7 Total Spaces Required. Proposed 7 Spaces.
3) Story Height: Ground Floor Elevation: Residential 2' min./5' max.Non Resi - 0' min./2'max
   Ground Story Height: Resi: 9' Min. NonResi: 13' min, Upper Story: 9' min,
4) Transparency: Ground Story: 50% min (Primary) 30% (Side Street
   Upper Story: 20% min. (Primary and Side)
   Blank Wall Length: 20' max. (Primary) 30' max.(Side)
5) Street Facing Entrance: Required (Primary) N/A (Side).
6) Tree Spacing (Within Curb Zone) 35' on average.
7) 3 Story - exc. Basement Parking (44'-9 3/4") - (4 story at rear with basement lvl 52'-2")



2nd & 3rd FLOOR PLAN



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
-	-	-	-

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

Proj#: 5202.01
Date: 11/2/20
KB

TITLE:

ZONING SITE PLAN

SCALE: 1:20
DRAWN BY: JJB
CHECKED BY: JAR
DATE: 10.19.2020
DRAWING NO.: C4.0

Scenario - 1

Scenario Name: AM Peak Hour
Dev. phase: 1
Analyst Note:
Warning:

User Group:
No. of Years to Project Traffic : 0

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
220 - Multifamily Housing (Low-Rise)	General	Dwelling Units	57	Weekday, Peak Hour of	Best Fit (LOG)	6	22	28
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	Ln(T) =0.95Ln(X) - 0.51	23%	77%	
931 - Quality Restaurant	General	1000 Sq. Ft. GFA	3.62	Weekday, Peak Hour of	Average	1	1	2
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	0.73	50%	50%	
930 - Fast Casual Restaurant	General	1000 Sq. Ft. GFA	3.13	Weekday, Peak Hour of	Average	4	2	6
Data Source: Trip Gen Manual, 10th Ed +	Urban/Suburban			Adjacent Street Traffic,	2.07	67%	33%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100	100	1	1	23	77
931 - Quality Restaurant	100	100	1	1	50	50
930 - Fast Casual Restaurant	100	100	1	1	67	33

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0	0	6	22
	28		0		28	
931 - Quality Restaurant	1	1	0	0	1	1
	2		0		2	
930 - Fast Casual Restaurant	4	2	0	0	4	2
	6		0		6	

VEHICLE TRIPS AFTER MULTI-MODAL ADJUSTMENT

MODE SHARE:

Land Use	Personal Passenger Vehicle		Truck		Other Modes	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100%	100%	0%	0%	0%	0%
931 - Quality Restaurant	100%	100%	0%	0%	0%	0%
930 - Fast Casual Restaurant	100%	100%	0%	0%	0%	0%

OCCUPANCY:

Land Use	Vehicle	
	Entry	Exit
220 - Multifamily Housing (Low-Rise)	1.00	1.00
931 - Quality Restaurant	1.00	1.00
930 - Fast Casual Restaurant	1.00	1.00

ADJUSTED VEHICLE TRIPS:

Land Use	Entry				Exit			
	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips
220 - Multifamily Housing (Low-Rise)	6	100%	1.00	6	22	100%	1.00	22
931 - Quality Restaurant	1	100%	1.00	1	1	100%	1.00	1
930 - Fast Casual Restaurant	4	100%	1.00	4	2	100%	1.00	2

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
220 - Multifamily Housing (Low-Rise)	Residential
931 - Quality Restaurant	Resturant
930 - Fast Casual Restaurant	Resturant

BALANCED PERSON TRIPS:

220 - Multifamily Housing (Low-Rise) — 931 - Quality Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
22	1	10	2	**0**	0	10	1	1
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
6	1	2.5	0	**0**	0	2	1	1

220 - Multifamily Housing (Low-Rise) — 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
22	1	10	2	**0**	0	10	1	4
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
6	1	2.5	0	**0**	0	2	1	2

931 - Quality Restaurant — 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
1	1	0	0	**0**	0	0	1	4
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
1	1	0	0	**0**	0	0	1	2

INTERNAL PERSON TRIPS:

220 - Multifamily Housing (Low-Rise)

Internal Person Trips From	Entry	Exit	Total
931 - Quality Restaurant	0	0	0
930 - Fast Casual Restaurant	0	0	0
Total Internal Person Trips	**0**	**0**	**0**

931 - Quality Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
930 - Fast Casual Restaurant	0	0	0
Total Internal Person Trips	**0**	**0**	**0**

930 - Fast Casual Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
931 - Quality Restaurant	0	0	0
Total Internal Person Trips	**0**	**0**	**0**

INTERNAL VEHICLE TRIPS AND CAPTURE:

220 - Multifamily Housing (Low-Rise)

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**0**	**0**
Total External Vehicle Trips	6	22	28
Internal Vehicle Trip Capture	**0%**	**0%**	**0%**

931 - Quality Restaurant

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**0**	**0**
Total External Vehicle Trips	1	1	2
Internal Vehicle Trip Capture	**0%**	**0%**	**0%**

930 - Fast Casual Restaurant

Total Internal Person Trips	0	0	0
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**0**	**0**	**0**
Total External Vehicle Trips	4	2	6
Internal Vehicle Trip Capture	**0%**	**0%**	**0%**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0.00%	0.00%	0	0
931 - Quality Restaurant	1	1	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	4	2	0.00%	0.00%	0	0

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0.00%	0.00%	0	0
931 - Quality Restaurant	1	1	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	4	2	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	6	22	0.00%	0.00%	0	0
931 - Quality Restaurant	1	1	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	4	2	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	6	22	28
931 - Quality Restaurant	1	1	2
930 - Fast Casual Restaurant	4	2	6

Land Use	New Vehicle Trips (PPV)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	6	22	28
931 - Quality Restaurant	1	1	2
930 - Fast Casual Restaurant	4	2	6

Land Use	New Vehicle Trips (Truck)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
931 - Quality Restaurant	0	0	0
930 - Fast Casual Restaurant	0	0	0

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	11	25	36
Vehicle Trips After Multi-modal Adjustment	11	25	36
Internal Vehicle Trips	0	0	0
External Vehicle Trips	11	25	36
Internal Vehicle Trip Capture	0%	0%	0%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	11	25	36
PPV	11	25	36
Truck	0	0	0
Person Trips by Other Modes	0	0	0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Scenario - 2

Scenario Name: PM Peak Hour
Dev. phase: 1
Analyst Note:
Warning:

User Group:
No. of Years to Project Traffic : 0

VEHICLE TRIPS BEFORE REDUCTION

Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
220 - Multifamily Housing (Low-Rise)	General Urban/Suburban	Dwelling Units	57	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	23	13	36
Data Source: Trip Gen Manual, 10th Ed +					Ln(T) =0.89Ln(X) - 0.02	63%	37%	
931 - Quality Restaurant	General Urban/Suburban	1000 Sq. Ft. GFA	3.62	Weekday, Peak Hour of Adjacent Street Traffic,	Average	19	9	28
Data Source: Trip Gen Manual, 10th Ed +					7.80	67%	33%	
930 - Fast Casual Restaurant	General Urban/Suburban	1000 Sq. Ft. GFA	3.13	Weekday, Peak Hour of Adjacent Street Traffic,	Average	24	20	44
Data Source: Trip Gen Manual, 10th Ed +					14.13	55%	45%	

VEHICLE TO PERSON TRIP CONVERSION

BASELINE SITE VEHICLE CHARACTERISTICS:

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100	100	1	1	63	37
931 - Quality Restaurant	100	100	1	1	67	33
930 - Fast Casual Restaurant	100	100	1	1	55	45

ESTIMATED BASELINE SITE PERSON TRIPS:

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
220 - Multifamily Housing (Low-Rise)	23	13	0	0	23	13
	36		0		36	
931 - Quality Restaurant	19	9	0	0	19	9
	28		0		28	
930 - Fast Casual Restaurant	24	20	0	0	24	20
	44		0		44	

VEHICLE TRIPS AFTER MULTI-MODAL ADJUSTMENT

MODE SHARE:

Land Use	Personal Passenger Vehicle		Truck		Other Modes	
	Entry (%)	Exit (%)	Entry (%)	Exit (%)	Entry (%)	Exit (%)
220 - Multifamily Housing (Low-Rise)	100%	100%	0%	0%	0%	0%
931 - Quality Restaurant	100%	100%	0%	0%	0%	0%
930 - Fast Casual Restaurant	100%	100%	0%	0%	0%	0%

OCCUPANCY:

Land Use	Vehicle	
	Entry	Exit
220 - Multifamily Housing (Low-Rise)	1.00	1.00
931 - Quality Restaurant	1.00	1.00
930 - Fast Casual Restaurant	1.00	1.00

ADJUSTED VEHICLE TRIPS:

Land Use	Entry				Exit			
	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips	Person Trips	Vehicle Mode Share (%)	Vehicle Occupancy	Vehical Trips
220 - Multifamily Housing (Low-Rise)	23	100%	1.00	23	13	100%	1.00	13
931 - Quality Restaurant	19	100%	1.00	19	9	100%	1.00	9
930 - Fast Casual Restaurant	24	100%	1.00	24	20	100%	1.00	20

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INTERNAL VEHICLE TRIP REDUCTION

LAND USE GROUP ASSIGNMENT:

Land Use	Land Use Group
220 - Multifamily Housing (Low-Rise)	Residential
931 - Quality Restaurant	Resturant
930 - Fast Casual Restaurant	Resturant

BALANCED PERSON TRIPS:

220 - Multifamily Housing (Low-Rise) / 931 - Quality Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
13	1	10.5	1	**1**	1	7	1	19
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
23	1	8	2	**1**	1	9	1	9

220 - Multifamily Housing (Low-Rise) / 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
13	1	10.5	1	**1**	2	7	1	24
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
23	1	8	2	**2**	2	9	1	20

931 - Quality Restaurant / 930 - Fast Casual Restaurant

Persons Exit	PAF	UIPTC	Unconstrained Demand	==>>> BALANCED ==>>>	Unconstrained Demand	UIPTC	PAF	Persons Entry
9	1	0	0	**0**	0	0	1	24
Persons Entry	**PAF**	**UIPTC**	**Unconstrained Demand**	**<<<== BALANCED <<<==**	**Unconstrained Demand**	**UIPTC**	**PAF**	**Persons Exit**
19	1	0	0	**0**	0	0	1	20

INTERNAL PERSON TRIPS:

220 - Multifamily Housing (Low-Rise)

Internal Person Trips From	Entry	Exit	Total
931 - Quality Restaurant	1	1	2
930 - Fast Casual Restaurant	2	1	3
Total Internal Person Trips	**3**	**2**	**5**

931 - Quality Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	1	1	2
930 - Fast Casual Restaurant	0	0	0
Total Internal Person Trips	**1**	**1**	**2**

930 - Fast Casual Restaurant

Internal Person Trips From	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	1	2	3
931 - Quality Restaurant	0	0	0
Total Internal Person Trips	**1**	**2**	**3**

INTERNAL VEHICLE TRIPS AND CAPTURE:

220 - Multifamily Housing (Low-Rise)

Total Internal Person Trips	3	2	5
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**3**	**2**	**5**
Total External Vehicle Trips	20	11	31
Internal Vehicle Trip Capture	**13%**	**15%**	**14%**

931 - Quality Restaurant

Total Internal Person Trips	1	1	2
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**1**	**1**	**2**
Total External Vehicle Trips	18	8	26
Internal Vehicle Trip Capture	**5%**	**11%**	**7%**

930 - Fast Casual Restaurant

Total Internal Person Trips	1	2	3
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
Total Vehicle Internal Trips	**1**	**2**	**3**
Total External Vehicle Trips	23	18	41
Internal Vehicle Trip Capture	**4%**	**10%**	**7%**

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

PASS-BY VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	20	11	0.00%	0.00%	0	0
931 - Quality Restaurant	18	8	20.00%	20.00%	4	2
930 - Fast Casual Restaurant	23	18	20.00%	20.00%	5	4

DIVERTED VEHICLE TRIP REDUCTION

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	20	11	0.00%	0.00%	0	0
931 - Quality Restaurant	18	8	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	23	18	0.00%	0.00%	0	0

EXTRA VEHICLE TRIP REDUCTION

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
220 - Multifamily Housing (Low-Rise)	20	11	0.00%	0.00%	0	0
931 - Quality Restaurant	14	6	0.00%	0.00%	0	0
930 - Fast Casual Restaurant	18	14	0.00%	0.00%	0	0

NEW VEHICLE TRIPS

Land Use	New Vehicle Trips		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	20	11	31
931 - Quality Restaurant	14	6	20
930 - Fast Casual Restaurant	18	14	32

Land Use	New Vehicle Trips (PPV)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	20	11	31
931 - Quality Restaurant	14	6	20
930 - Fast Casual Restaurant	18	14	32

Land Use	New Vehicle Trips (Truck)		
	Entry	Exit	Total
220 - Multifamily Housing (Low-Rise)	0	0	0
931 - Quality Restaurant	0	0	0
930 - Fast Casual Restaurant	0	0	0

RESULTS

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	66	42	108
Vehicle Trips After Multi-modal Adjustment	66	42	108
Internal Vehicle Trips	5	5	10
External Vehicle Trips	61	37	98
Internal Vehicle Trip Capture	8%	12%	10%
Pass-by Vehicle Trips	9	6	15
Diverted Vehicle Trips	0	0	0
Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	52	31	83
PPV	52	31	83
Truck	0	0	0
Person Trips by Other Modes	0	0	0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Traffic Engieering Assessment
LOCATION: Town of Amherst, NY
PEAK HOUR: AM Peak Hour

Figure Number:

LOCATION NUMBER	INTERSECTION DESCRIPTION	Proposed Residential				Proposed Restaurants				Pass-by Trips	Total Site Trips
		Enter Dist. %	Exit Dist. %	Trips IN 6	Trips OUT 22	Enter Dist. %	Exit Dist. %	Trips IN 5	Trips OUT 3		
1	Main Street/ Chateau Terrace/Bernhardt Drive										
	SR		30%		7		5%		0		7
	ST										
	SL		45%		10		5%		0		10
	WR	45%		3		5%		0			3
	WT	15%		1		35%		2			3
	WL										
	NR										
	NT										
	NL										
	ER										
	ET		15%		3		35%		1		4
	EL	30%		2		5%		0			2
2	Main Street/ Fruehauf Avenue										
	SR		10%		2		50%		2		4
	ST										
	SL		15%		3		35%		1		4
	WR	15%		1		35%		2			3
	WT		30%		7		5%		0		7
	WL										
	NR										
	NT										
	NL										
	ER										
	ET	30%		2		5%		0			2
	EL	10%		1		50%		3			3
3	Fruehauf Avenue/ Proposed Driveway										
	SR										
	ST										
	SL					1%		0			0
	WR						1%		0		0
	WT										
	WL		25%		5		85%		3		8
	NR	25%		2		85%		5			7
	NT										
	NL										
	ER										
	ET										
	EL										
4	Chateau Terrace/Bernhardt Drive Proposed Driveway										
	SR					4%		0			0
	ST										
	SL										
	WR										
	WT										
	WL										
	NR										
	NT										
	NL	75%		5		10%					5
	ER		75%		17		10%		0		17
	ET										
	EL						4%		0		0

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

PROJECT: 4548-4564 Main Street Traffic Engieering Assessment
LOCATION: Town of Amherst, NY
PEAK HOUR: PM Peak Hour

Figure Number:

LOCATION NUMBER	INTERSECTION DESCRIPTION	Proposed Residential				Proposed Restaurants				Pass-by Trips	Total Site Trips
		Enter Dist. %	Exit Dist. %	Trips IN 20	Trips OUT 11	Enter Dist. %	Exit Dist. %	Trips IN 41	Trips OUT 26		
1	Main Street/ Chateau Terrace/Bernhardt Drive										
	SR		30%		3		5%		1		4
	ST										
	SL		45%		5		5%		2		7
	WR	45%		9		5%		2			11
	WT	15%		3		35%		14			17
	WL										
	NR										
	NT										
	NL										
	ER										
	ET		15%		2		35%		9	-2	9
	EL	30%		6		5%		2			8
2	Main Street/ Fruehauf Avenue										
	SR		10%		1		50%		13	3	17
	ST										
	SL		15%		2		35%		9	3	14
	WR	15%		3		35%		14		4	21
	WT		30%		3		5%		1	-4	1
	WL										
	NR										
	NT										
	NL										
	ER										
	ET	30%		6		5%		2		-5	3
	EL	10%		2		50%		21		5	28
3	Fruehauf Avenue/ Proposed Driveway										
	SR										
	ST										
	SL					1%		0			0
	WR						1%		0		0
	WT										
	WL		25%		3		85%		22	6	31
	NR	25%		5		85%		35		9	49
	NT										
	NL										
	ER										
	ET										
	EL										
4	Chateau Terrace/Bernhardt Drive Proposed Driveway										
	SR					4%		2			2
	ST										
	SL										
	WR										
	WT										
	WL										
	NR										
	NT										
	NL	75%		15		10%		4			19
	ER		75%		8		10%		3		11
	ET										
	EL						4%		1		1

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

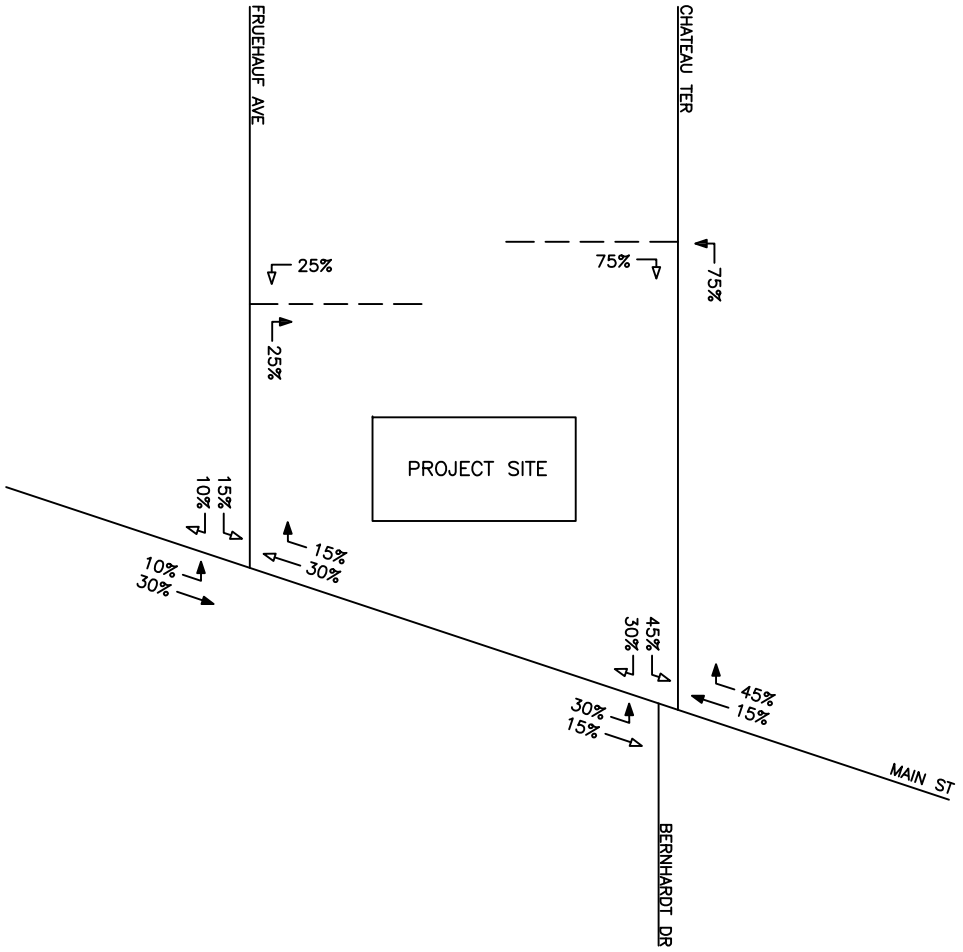


FIGURE 1

TRIP DISTRIBUTION - RESIDENTIAL

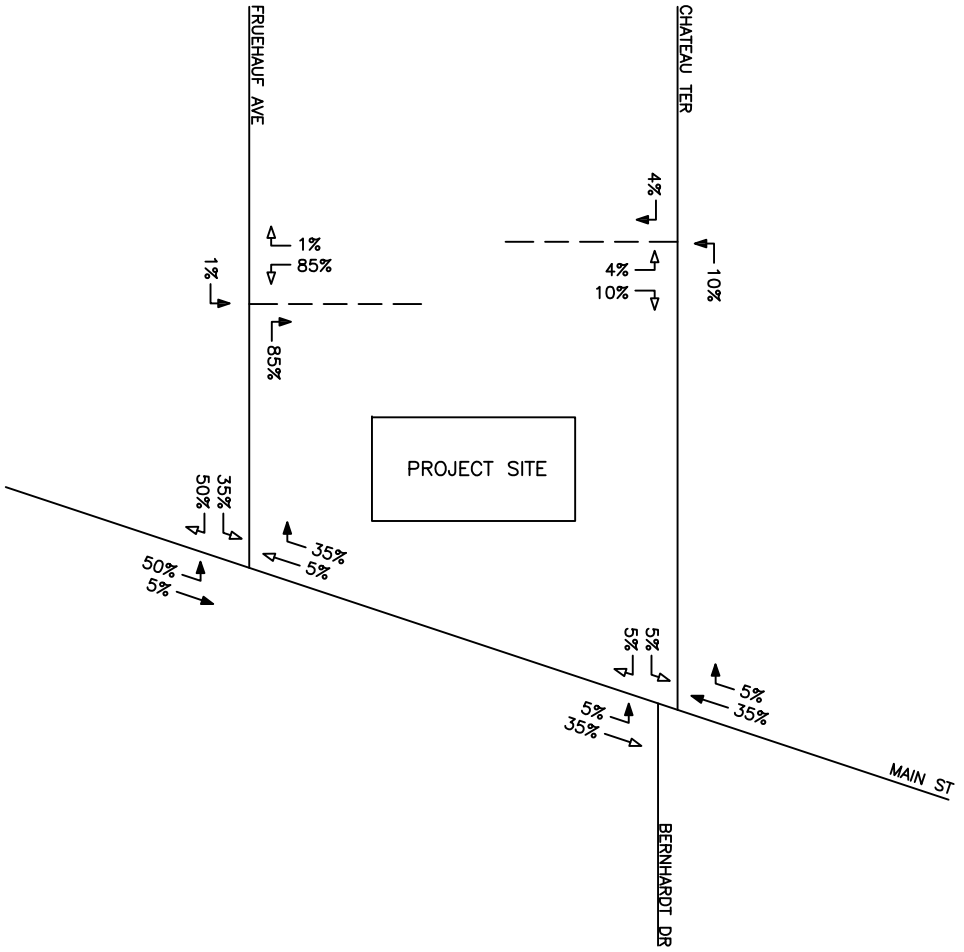


FIGURE 2

TRIP DISTRIBUTION - RESTAURANT

PROJECT NO: 41056

SRF ASSOCIATES
Transportation Planning / Engineering / Design

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)

ENTERING TRIP

EXITING TRIP

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

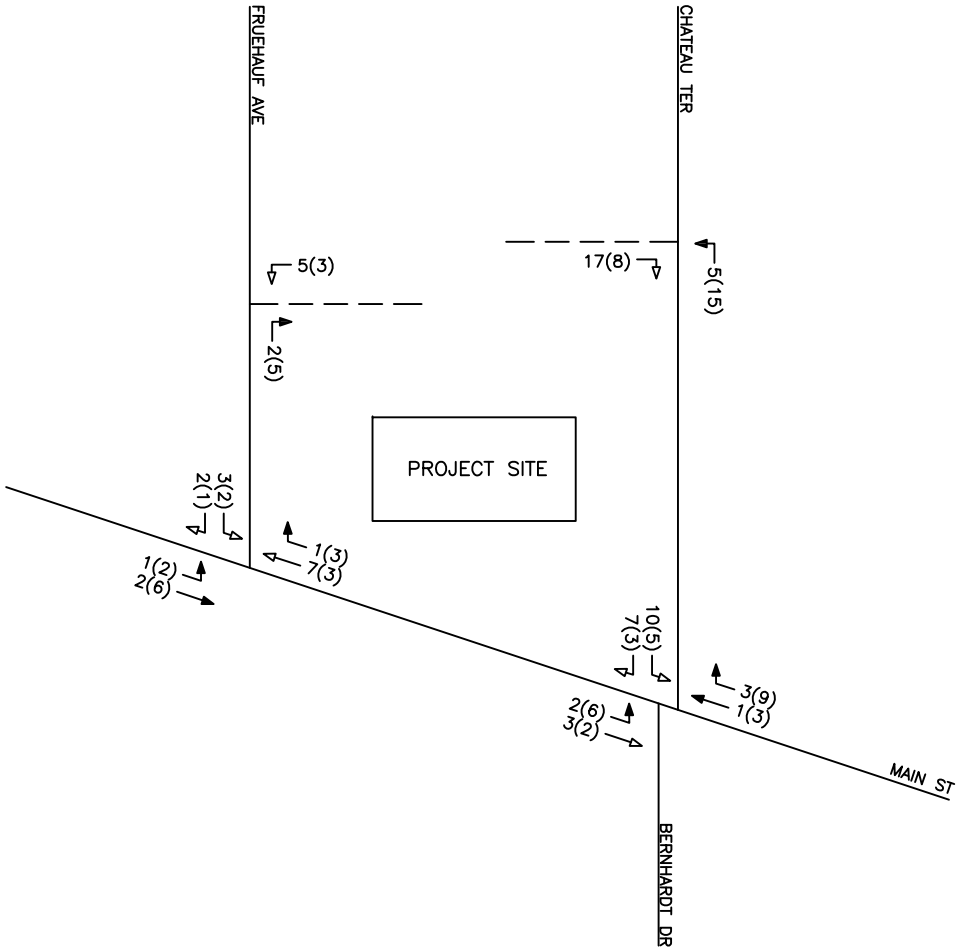


FIGURE 3

SITE GENERATED TRIPS - RESIDENTIAL

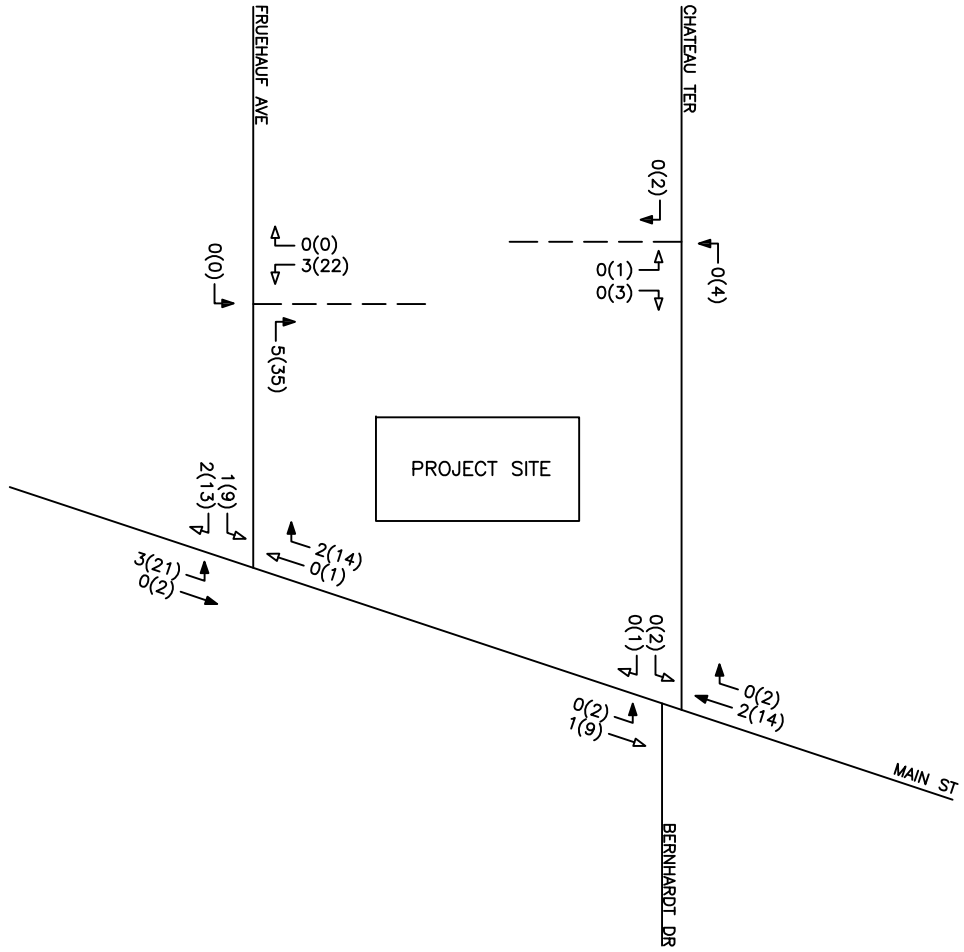


FIGURE 4

SITE GENERATED TRIPS - RESTAURANTS - PRIMARY TRIPS

PROJECT NO: 41056

SRF ASSOCIATES
Transportation Planning / Engineering / Design

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

KEY

00(00) = AM(PM)

ENTERING TRIP

EXITING TRIP

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

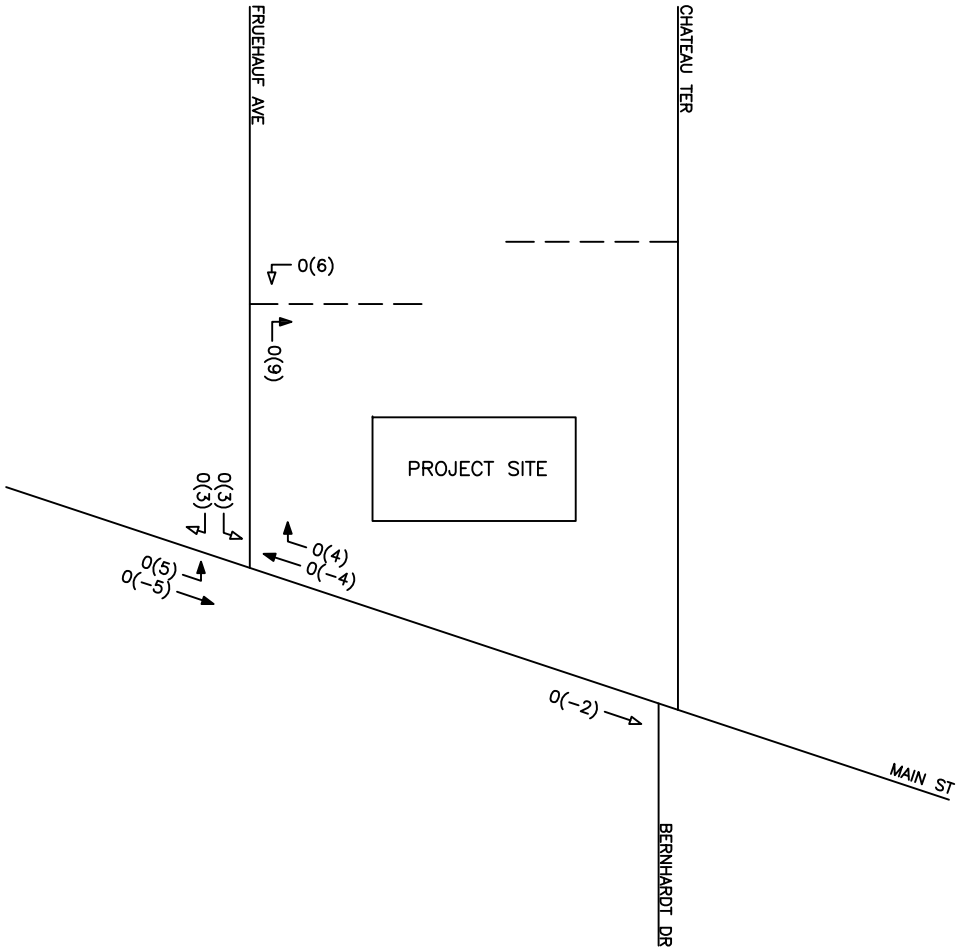


FIGURE 5

SITE GENERATED TRIPS - RESTAURANTS -
PASS-BY TRIPS

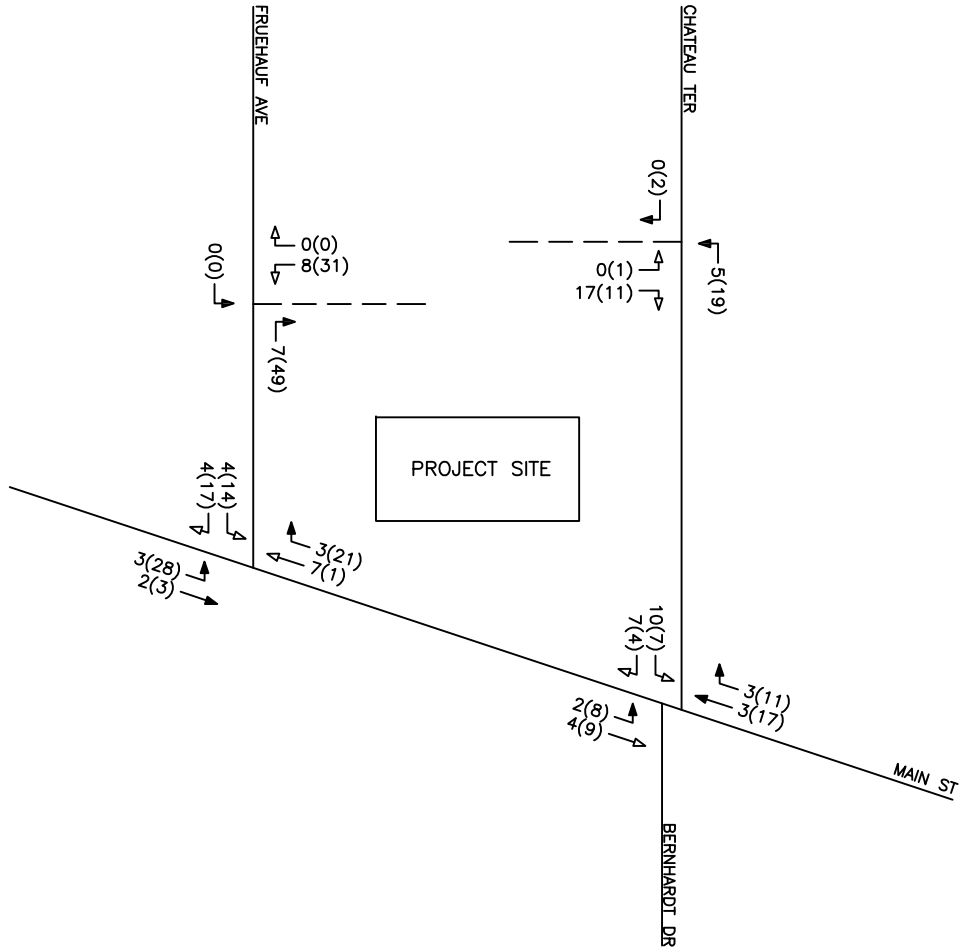


FIGURE 6

SITE GENERATED TRIPS
TOTAL SITE TRIPS

PROJECT NO: 41056

SRF ASSOCIATES
Transportation Planning / Engineering / Design

N
NOT TO SCALE

PROPOSED MIXED-USE PROJECT

TOWN OF AMHERST, NY

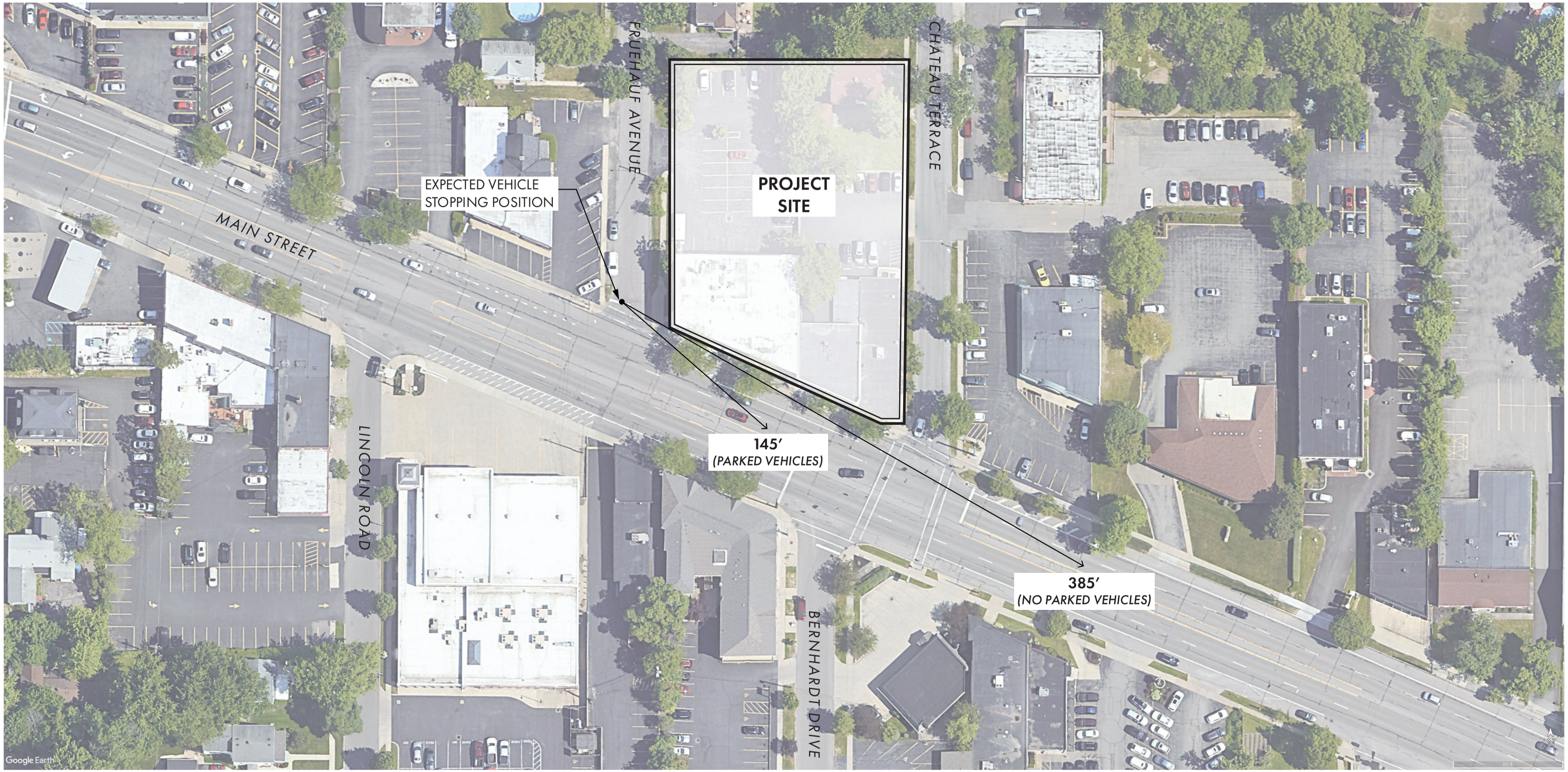
KEY

00(00) = AM(PM)

→ ENTERING TRIP

→ EXITING TRIP

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)



SIGHT LINE EVALUATION

4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

OV

Notes:
Main Street Speed Limit: **40 MPH**
Design Speed: **45 MPH (posted speed limit plus 5 MPH)**
Required Stopping Sight Distance: **360 feet**
Desirable Intersection Sight Distance: **500 feet**

0 80
FEET

SRF ASSOCIATES
Transportation Planning / Engineering / Desig
3495 Winton Place, Building E, Suite 110

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

January 27, 2023

Chairman Robert J. Gilmour and Members of the Planning Board
Town of Amherst
Planning Department
5583 Main St.
Williamsville, NY 14221

RE: Proposed Snyder Mixed Use Building – Design Exception Request
4548 & 4564 Main Street, 17 Fruehauf Ave, and 22 Chateau Terrace
Amherst, NY 14226
BDC Property No. 5202

Dear Chairman Gilmour and Members of the Planning Board:

Benderson Development Company, LLC is requesting four (4) design exceptions from Town Code section 203-5A-2-4 B and 203-5A-2-4 D as it relates to the code requirement that the building length along a road frontage be a minimum lot frontage length of 90% and a maximum street-facing building length of 200 feet. The requested design exceptions are as follows:

1) Minimum required lot frontage along Chateau Terrace – 90% required and 88.5% provided.
2) Maximum allowed street facing building length along Chateau Terrace – 200 foot maximum required and 239 foot maximum proposed.
3) Minimum required lot frontage along Fruehauf Ave – 90% required and 84.7% provided.
4) No tree grates provided on Fruehauf and Chateau Terrace

In support of these four (4) designs exception requests, we offer the following:

- The Amherst Town Code is conflicting with request to the Code sections noted above. The Amherst Town Code requires both 200 feet of maximum building frontage and 90% minimum lot frontage along a Village Frontage Street. The Code required minimum 90% street facing frontage does not consider the amount of frontage length as a result once the 90% is calculated it is direct conflict with the street frontage maximum requirement. In order to resolve this conflict, a design wavier is required as the code does distinguish as to which Code section should prevail.

  In this case, the building frontage length along Chateau Terrace was designed to a length that provided the best architectural design for the property along this street frontage and as such requires a design exception for both the minimum required street facing frontage and the maximum allowable street facing frontage because the length falls between both requirements while satisfying neither. If one design exception is eliminated, then the other design exception request would be increased. This proposed length with two (2) design exceptions requires provides for the best overall design.

  For the Fruehauf Ave frontage length, along with the angle of Fruehauf Ave with Main Street, the only way to meet the required frontage would be to provide an angle point along the Main Street frontage and extend the façade on Fruehauf Ave closer to the adjacent residential property. The angle point along Main Street would impact the required build to percentage for that street frontage and may create an

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BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
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additional design exception and would reduce the buffer to the adjacent residential property. This reduced frontage percentage still meets the intent of the Code by having a large percentage of the building along the street while still provide a buffer to the adjacent property. In addition, if the building length is met we will be unable to meet the 20' buffer requirement.

New York Courts have held that local zoning regulations are in derogation of the common law and must be strictly construed against the municipality which has enacted them and seeks to enforce them, and any ambiguity in the language must be resolved in favor of the property owner. See, Matter of Hess Realty Corp v. Planning Commn. Of Town of Rotterdam, 198 A.D.2d 588 (3d Dept. 1993). New York Courts have further stated that a Town must apply the definition which is in its code and cannot ignore a defined term when there is no ambiguity. See Rivendell Winery, LLC v. Donovan, 74 AD3d 1594 (3d Dept., 2010). As noted above, even if there was some ambiguity (which there is not here), Courts have held "any ambiguities in a zoning ordinance must be resolved in favor of the property owner." BRANCATO v. Zoning Board of appeals, 30 AD2d 515 (2nd Dept. 2006). Further, in interpreting a zoning law, a Town "may not insert conditions or criteria into a zoning ordinance … that are not contained in the statutory language adopted" See, Winterton Properties, LLC v. Town of Mamakating Zoning Board of Appeals, 132 A.D.2d 1141 (3d Dept., 2015).

- Based upon the site grades for Chateau Terrace as it relates to Main Street and Fruehauf Ave., the driveway needs to be pushed as far south along Chateau Terrace to allow access to the basement parking field. If the building façade was reduced along Chateau Terrace to meet the maximum allowable building lot frontage, this would open up the view corridor into the underground parking garage rather than providing additional screening of the parking from the public R.O.W. Further it would increase the design exception request for the minimum amount of street facing building frontage that is required.

- The site design has been updated to provide additional buffer from the adjacent residential property on Chateau Terrace to the entrance lane for the parking garage, increasing the buffer space to 20 feet. This allows the required landscape buffer to be extended the full length of this residential property along with adding a 6 foot tall vinyl fence.

- Instead of providing concrete and tree grates, the project proposed to maintain a green landscaping strip in which the trees will be planted along Fruehauf and Chateau Terrace. The greenspace is attractive and will soften the pedestrian amenities around the building.

It is our opinion, based upon the above that the site, as designed, meets the intent of the Town of Amherst code and that the three design exceptions should be granted. If you have any questions or further comments, please do not hesitate to contact me at 716-878-9626 or via email at jamesboglioli@benderson.com.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James Boglioli, Esq.
Director, Development – Northeast US

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
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February 14, 2023

Attn: Mr. Daniel Howard, Planning Director
Town of Amherst
Planning Department
5583 Main St.
Williamsville, NY 14221

RE: Proposed Snyder Mixed Use Building
4548 & 4564 Main Street, 17 Fruehauf Ave, and 22 Chateau Terrace
Amherst, NY 14226
BDC Property No. 5202

Dear Mr. Howard:

Benderson Development Company, LLC is pleased to be submitting this response letter in regards to the February 2, 2023 Traffic Safety Board comment letter. Regarding the comments that were issued, we offer the following:

1. The issue of visibility on Main Street from Fruehauf is an existing condition, which is not impacted by the proposed project. As demonstrated by information submitted, the proposed building does not impact visibility and is outside the sight triangle. Benderson is willing to make the request to the NYSDOT for the installation of the additional requested bulb-outs along Main Street and will install them, if approved. Any such condition is limited to making the request and not the installation. Neither the project approval nor the construction and occupancy of the building can be tied to the installation of the bulb-outs because the bulb-outs are not required as mitigation for this project and can only be installed at the discretion of the NYSDOT. Further, Benderson will support the Town requesting from the NYSDOT that the parking spaces in front of the building on Main Street be restricted to loading and unloading and/or be reduced by one space to improve the existing visibility.

2. The TIS indicates that 25% of the residential traffic will use the Fruehauf entrance which is 6 total (enter and exit) trips during the PM peak and 10% of the commercial traffic will use Chateau which is also 6 total (enter and exit) trips. If the trips were redistributed they would cancel each other out and not change the total vehicles going through either intersection so the traffic analysis wouldn't change.

If you have any questions or further comments, please do not hesitate to contact me at 716-878-9626 or via email at jamesboglioli@benderson.com.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James Boglioli, Esq.
Director, Development – Northeast US

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

570 DELAWARE AVENUE
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February 14, 2023

Attn: Mr. Daniel Howard, Planning Director
Town of Amherst
Planning Department
5583 Main St.
Williamsville, NY 14221

RE: Proposed Snyder Mixed Use Building
4548 & 4564 Main Street, 17 Fruehauf Ave, and 22 Chateau Terrace
Amherst, NY 14226
BDC Property No. 5202

Dear Mr. Howard:

In connection with the above-referenced project, a concern was by the resident at 23 Fruehauf Ave. that the proposed project would shade the solar panels installed on their roof and which face the project site. To address this concern, enclosed please find the following:

- An aerial photograph which shows the location of that property in relation to the project site (**Exhibit A**);
- A photograph of the residential dwelling (**Exhibit B**); and
- A Sun Study prepared utilizing modeling software (**Exhibit C**).

The Sun Study was run on December 21st (the shortest day in the year and when the angle of the sun is the lowest) and June 21st (the longest day in the year and when the angle of the sun is the highest). The model clearly shows that the proposed project will not shade the rooftop solar panels or the dwelling. Please include this material in the record of this project.

If you have any questions or further comments, please do not hesitate to contact me at 716-878-9626 or via email at jamesboglioli@benderson.com.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James A. Boglioli, Esq.
Director, Development – Northeast US

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

Residential house with solar panels

Law Offices of Mark C. Butler

Bornhava

Juliana Riordan

Karen Schoene, MD

Bomi Jewelers

Fruehauf Ave

5202 - 4548 - 4564 Main St - Snyder

Pibbs Industries

Snyder Pharmacy

THERA Massage Therapy, PLLC

Siena

Main Rd

Have Ewe

Google Earth

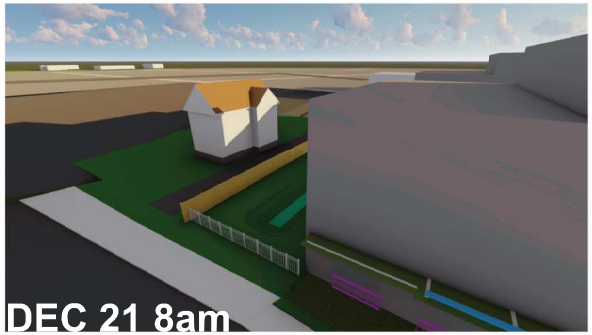
1985

Imagery Date: 5/28/2022 42°57'48.00" N 78°46'54.45" W elev 0 ft eye alt 375 ft

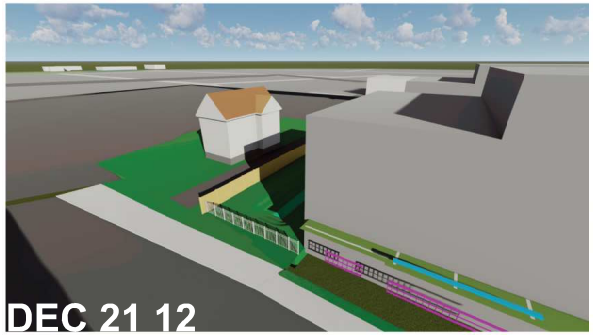
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

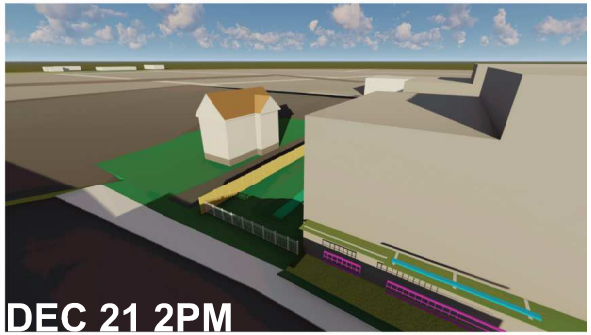


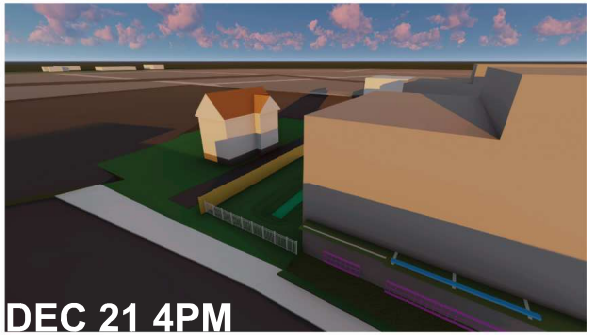
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

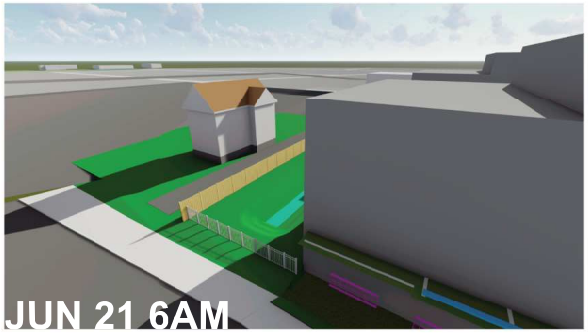


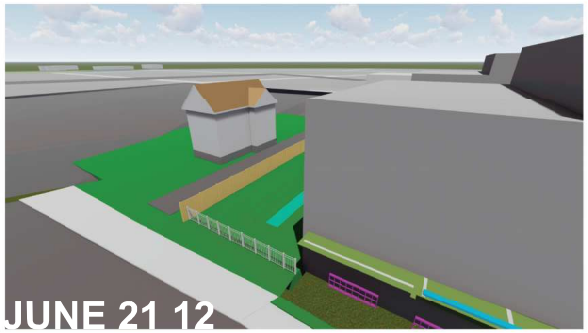












SUN STUDY
PROPOSED 2 1/2 STORY
MAIN ST, SNYDER NY

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

March 29, 2023

Robert J. Gilmour, Chairman
Members of the Planning Board
Town of Amherst
5583 Main Street
Williamsville, NY 14221

RE: Application for Site Plan Approval
Proposed Site Redevelopment
4548-4564 Main St, Amherst, NY (BDP # 5202)

Dear Chairman Gilmour and Members of the Planning Board:

In response to the zoning law interpretation issued by Daniel J. Ulatowski, AICP, Assistant Planning Director/ZEO please find a revised set of civil engineering plan documents for the project reducing the size of the building and increasing the buffer to the residential properties to the south.

The Proposed Site Modifications

With respect to the changes made to the site plan, we note the following:

- The length of the apartment building on Chateau Terrace has been reduced from 239' long to 200' long which resulted in the reducing the project from 48 units to 44 units.

- The front wall of the parking garage on Chateau Terrace has been shifted away from the R.O.W. by over 30'so that the front wall aligns with the rear wall of the apartment building.

- The proposed driveway on Chateau Terrace has been relocated +/- 10' to the south (away from the adjacent residential property), the result of which is to provide 30' of greenspace/buffer between the proposed building/driveway and the residential neighbors. This exceeds the required 20' buffer by 10'. In addition, the bike racks in this greenspace have been relocated to the side of the building, such that there will only be grass, landscaping and the retention area in that 30' of buffer.

Remaining Waiver – To Allow for the Provision of Additional Greenspace

As a result of these modifications, only a single waiver is now being requested – to not provide tree grates on Fruehauf and Chateau Terrace. Tree grates are to be provided when trees are being planted within a concrete area. Rather than remove the existing greenspace between the curb line and the existing sidewalk, the project proposes to maintain this area as well as to maintain the existing trees and provide new trees. The greenspace is attractive and will soften the pedestrian amenities around the building and into the adjoining neighborhood.

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

Conclusion

But for the single waiver, which allows the project to provide more greenspace then is required by Code, this project is entirely code complaint and consistent with the requirements of the TI-2.5 zoning.

As part of this project, the Planning Board was provided several studies which included:

- A Traffic Impact Study which included a line-of-sight analysis, which demonstrates that (1) the project will not have a significant negative impact on the adjacent roadway system and (2) the proposed building does not impact the line of sight on Fruehauf Ave. Further, the applicant has agreed to support the Town seeking to have an existing on-street parking spot in front of the building closest to Fruehauf Ave removed as well as the remainder signed of time-limited loading/unloading which will improve the existing line-of-sight.

- A report prepared by Commonwealth Heritage Group on 22 Chateau Terrace which concludes "the ca. 1920 residence with garage at 22 Chateau Terrace does not appear to meet the State/National Register Places (S/NRHP) criteria for individual eligibility."

- An analysis of sun shading which demonstrates that the proposed building will not impact access to sunlight for the property located at 23 Fruehauf Ave.

- A Storm Water Pollution Prevention Plan (SWPPP) which demonstrates that the project will not have any impact on any abutting properties and all stormwater will be retained on-site which has been approved by the Town Engineer.

In addition, with respect to the PowerPoint presentation presented by the neighbors at the Town's Disability Committee's meeting we note:

- Sidewalk Concern – The model is a rendition of the overall project and is not a direct reflection of the proposed design as it relates to the sidewalk and wingwalls coming off the building. The proposed sidewalks are continuous, without obstructions and are ADA compliant.

- Driveway Concerns – As previously addressed, due to the geometry of the existing roadway, the Fruehauf Ave entrance cannot be moved further down the road as it would lower the clearance requirements for the basement parking field. The entrance ramps up to the first-floor parking level, which if entrance is lowered will conflict with the basement parking significantly. It should further be noted, that as demonstrated by the submitted Traffic Impact Study, Fruehauf Ave has a combined 30 total AM Peak Hour trips and 35 total PM Peak hour trips (entering and exiting) this roadway during the 2024 background conditions. This averages one car either turning onto Fruehauf or turning off Fruehauf once every 2 minutes during the peak hour, which provides more than sufficient gaps to allow cars to exit the upper level of the parking garage.

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BUFFALO, NEW YORK 14202
716.886.0211.P : : 716.886.1026.F

- Bio-Retention Pond – By definition, a bio-retention pond does not retain any standing water. Stormwater infiltrates the pond bed to a series of underdrains that discharge in a closed storm sewer system. The "pond" is also fenced along the South Property line and along Fruehauf Ave.

- Fire Concerns - All comments from the Town of Amherst Fire Marshall have been addressed and the Town Fire Marshall has signed off on design. We have also met with the Snyder Fire Department and have addressed all their concerns including proposing additional fire hydrants, relocating the required electric vehicle charging stations and increasing the size of entrances. It should also be noted that this is a fully sprinklered building.

- Parking Concerns - Project meets exceeds the Town of Amherst parking requirements for proposed uses per Town Zoning code adopted in 2019 (72 spaces required and 73 spaces provided).

- Garbage Concerns – We anticipate approximately 10 totes for the residential component of the project. The site allows totes to be placed within the green space along Chateau Terrace and will not obstruct the sidewalks.

In conclusion, Benderson has addressed all comments issued to date, including having received clean comment letters from the Fire Marshall, the Amherst Traffic Safety Board, and the Town Engineer. Further, the Design Advisory Board made no design recommendations and unanimously found the proposed site and building design are consistent with the Design Guidelines for Mixed Use Districts. Further, the proposed project now exceeds the required parking.

We respectfully request that the Planning Board grant site plan approval at its April 20th meeting. As part of the record, I enclose a copy of the PowerPoint presentation that we presented at the February public hearing. Benderson has worked hard to design a project which meets the requirements of the TI-2.5 zoning and has reduced the size of the project providing more than what is required as a buffer to the adjacent residential properties. Despite the neighbors which have appeared, submitted e-mails, and spread disinformation to their neighbors – all the studies, outside agency reviews, town departmental reviews, and town advisory board recommendations support granting this code-complaint project.

Thank you,
BENDERSON DEVELOPMENT COMPANY, LLC

James A. Boglioli

James A. Boglioli, Esq.
Director, Right to Build – Northeast US

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON
DEVELOPMENT

SITE PLAN APPLICATION, SP-2022-11
Proposed Snyder Mixed-Use Building



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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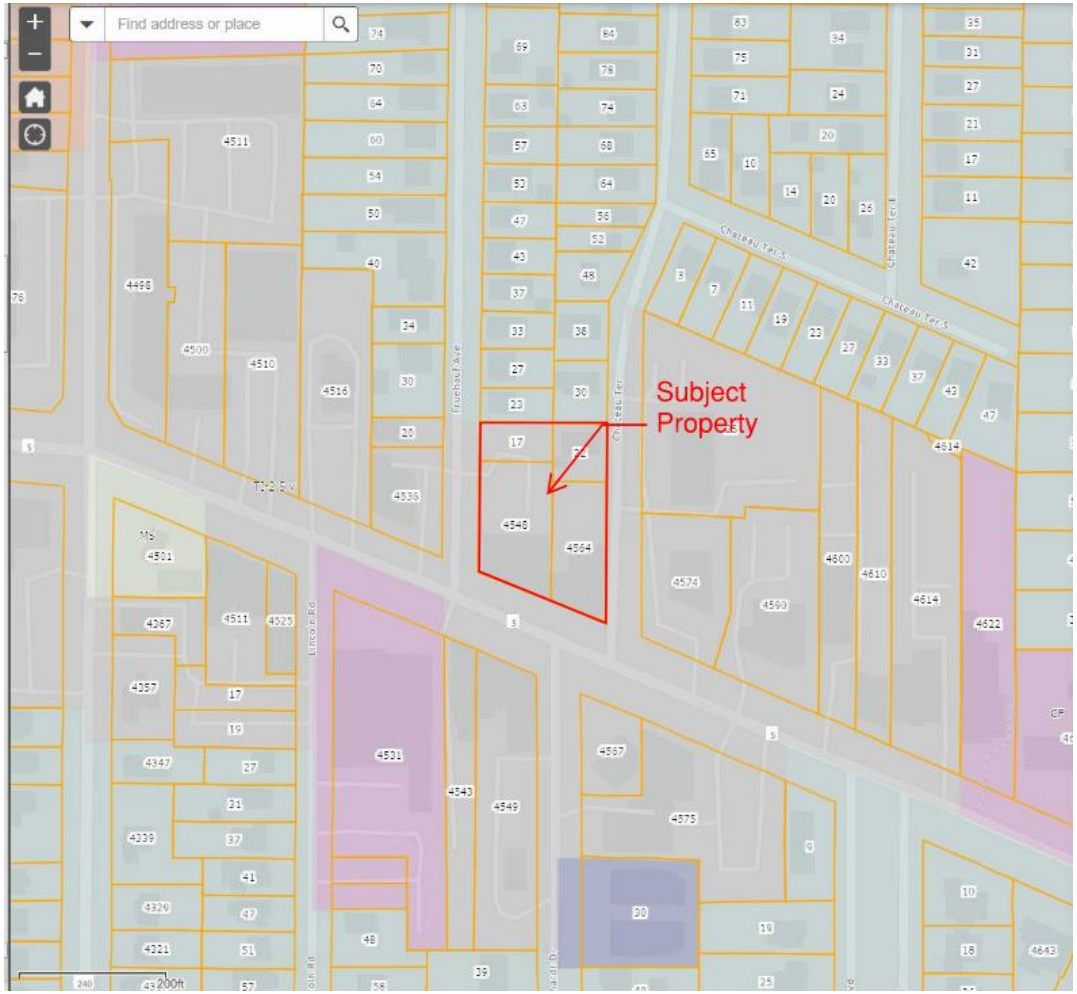
BENDERSON
DEVELOPMENT

Location: North side of Main St between Fruehauf Ave and Chateau Terrace

Zoning
Traditional Infill 2.5

Neighboring Zoning:

- West: Traditional Infill 2.5
- East: Traditional Infill 2.5
- South: Traditional Infill 2.5
- North: Residential



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON
DEVELOPMENT

Existing Development:

- 4548 Main St – 2 story (plus basement) 12,610 sf & 28 parking spaces
- 4564 Main St – 2 story and 1 story 10,134 s.f. & 14 parking spaces
- 17 Fruehauf Ave – parking lot 7 spaces
- 22 Chateau Terrace – 1 1/12 story, 1,727 sf single family dwelling with detached garage

Parcel Size: 0.93 ac

- 185.64’ on Main St
- 200.00’ on Fruehauf Ave
- 269.93’ on Chateau Terrace



Neighboring Uses:

- North: Single Family Residential
- South: Main Street
- East: Office & School
- West: Office & Residential

Site has a 12’ elevation drop from Main Street



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON
DEVELOPMENT

Project Description:

- Demolition of existing buildings located on the Project Site (13K removed)
- Construct 2.5-story high, multi-story building
- Provide 48 apartments
  - 22 units: 1 bedroom
  - 24 units: 2 bedroom
  - 2 units: 3 bedroom

- Provide 6,624 s.f of commercial space in two tenant spaces (4,111 s.f. and 2,513 s.f.)

- Provide a two-level parking garage to provide 76 parking spaces
  - Town Code requires 76 parking spaces for the development
    - 23 parking spaces accessible from Fruehauf – 1st Floor
    - 53 parking spaces accessible from Chateau Terrace - gate arm controlled

- Provide outdoor amenity space in accordance with the Mixed-Use District Town code
- Provide new curb cut access drives from Fruehauf Ave and Chateau Terrace
- Provide new site drainage infrastructures and utilities
- Refuse contained in trash storage room in basement level and bike racks provided on the basement & first floor level

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON
DEVELOPMENT

Project Modifications:

- Relocated driveway Chateau Terrace to provided 20' required buffer (no waiver required now)
  - 6' vinyl fence
  - Mix of Colorado Spruce, Honey Locust, Armstrong Maple, Emerald Arborvitae
- Removed dumpster & dumpster enclosure previously behind building – trash room
- Reduced building width on Chateau Terrace by +/- 10' in width
  - Provide additional sidewalk
  - Provide area for fire equipment
- Met with fire department – building fully sprinklered
  - Provide 2 new hydrants - 1 Fruehauf and 1 on Chateau Terrace
  - Relocated electric charging stations to 2nd level of the parking area – above ground
  - Increase height of garage opening so equipment can enter on Fruehauf
  - Clean fire letter from the Fire Marshall
- Reduced building units from 58 to 48 from original concept

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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BENDERSON
DEVELOPMENT

Site Plan - Main level



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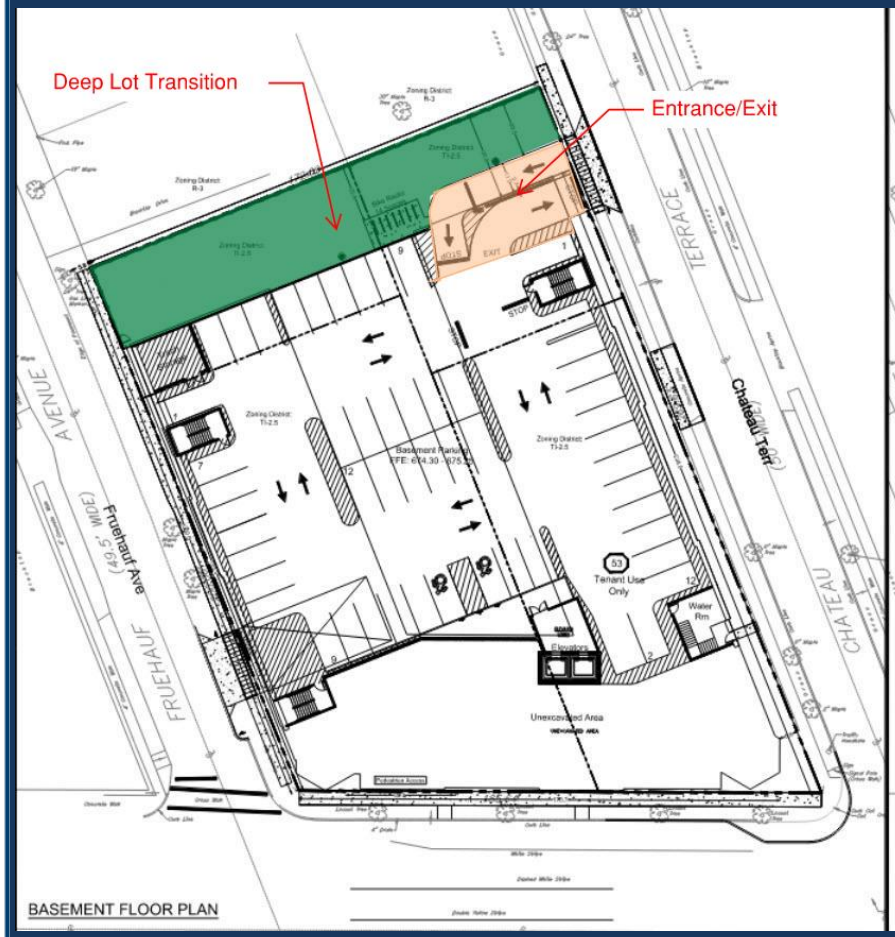
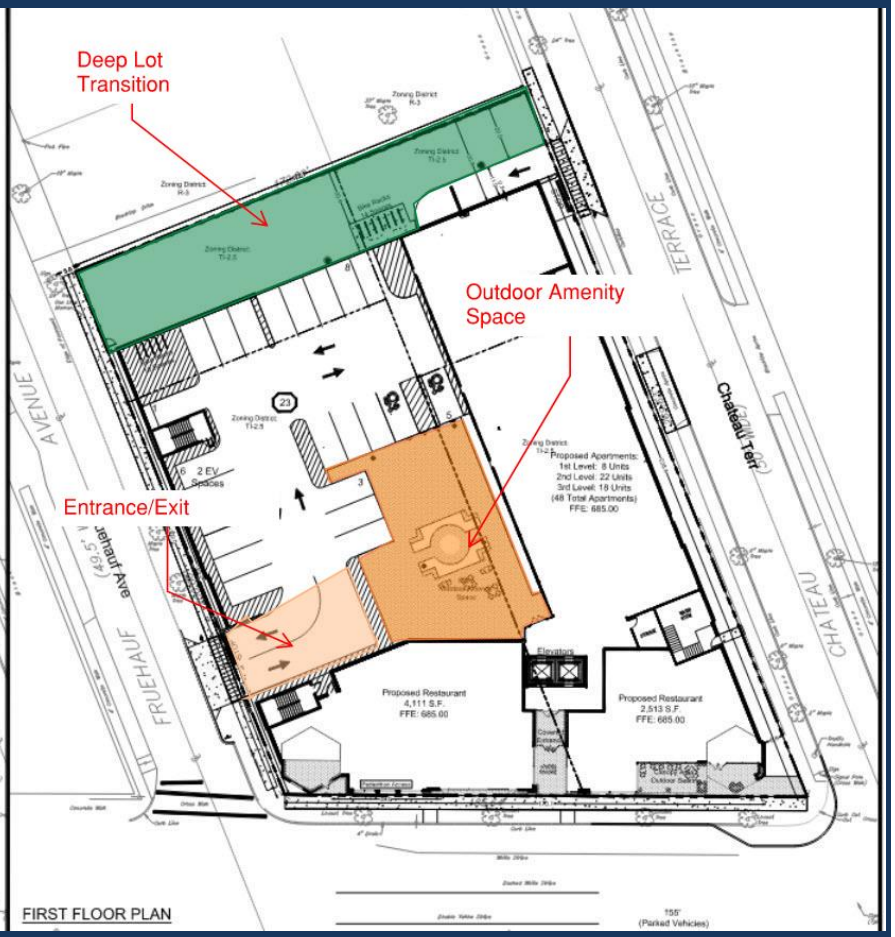
Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

Site Plan – 1st Floor & Basement Floor





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Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

Design Waivers - 4



2 Conflicting provisions:

- Minimum required lot frontage along Chateau Terrace – 90% required and 88.5% provided.
- Maximum allowed street facing building length along Chateau Terrace – 200’ maximum required and 239’ maximum proposed.

Minimum required lot frontage along Fruehauf Ave – 90% required and 84.7% provided – meets the 200’ requirement

No tree grates provided on Fruehauf and Chateau Terrace – providing greenspace instead

Design Advisory Board Review

- Made no design recommendation and finds the proposed site and building design are consistent with the Design Guidelines for Mixed Use Districts

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

Line of Sight



SIGHT LINE EVALUATION
4548-4564 MAIN STREET MIXED-USE DEVELOPMENT

TOWN OF AMHERST | ERIE COUNTY | NEW YORK

Notes:
Main Street Speed Limit: **40 MPH**
Design Speed: **45 MPH (posted speed limit plus 5 MPH)**
Required Stopping Sight Distance: **360 feet**
Desirable Intersection Sight Distance: **500 feet**

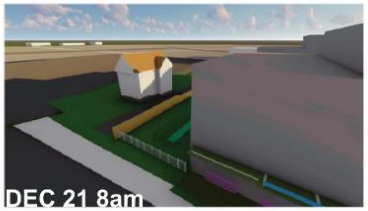
0 80
FEET
JULY 29, 2021

SRF ASSOCIATES
Transportation Planning / Engineering / Design
3495 Winton Place, Building E, Suite 110
Rochester, New York 14623
(585) 272-4550 | www.srfa.net

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

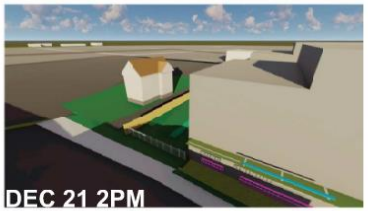
BENDERSON DEVELOPMENT

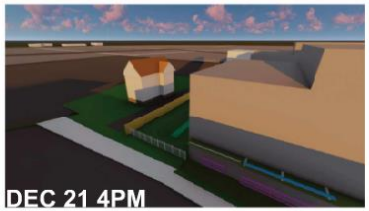
Sun Shade

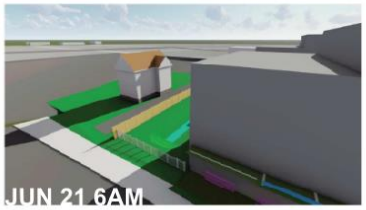
















SUN STUDY
PROPOSED 2 1/2 STORY
MAIN ST, SNYDER NY



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

Elevations



View looking west on Main St



View looking east on Main St



View from Fruehauf looking southeast



View from courtyard are looking northeast

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Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

BENDERSON DEVELOPMENT

Building Elevations - Sides





Last 30’ step down
- 23’-8’ high

Building 2 ½ stories
- Dormers can occupy 50%
- Fruehauf -44.26%
- Chateau – 47.33%

Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

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BENDERSON DEVELOPMENT

Building Elevations - Front & Back

Front façade dormers – 48.48%



Attachment: SP-2022-11_application_042023 (26951 : Sp-2022-11)

PROPOSED SITE DEVELOPMENT

Main St. / Chateau Terrace / Fruehauf Ave.

4548 - 4564 Main St, Amherst, NY

BDC Property # 5202

SITE DEVELOPMENT DRAWINGS

INDEX OF DRAWINGS

DWG. #	DRAWING NAME	REVISION	DATE
C1.0	COVER SHEET	7	03.28.2023
C2.0	EXISTING SURVEY		
C3.0	DEMOLITION & EROSION CONTROL PLAN	4	01.27.2023
C3.1	BORING LOCATION PLAN	3	12.14.2022
C3.2	DEMOLITION & EROSION CONTROL DETAILS	3	12.14.2022
C4.0	OVERALL SITE PLAN	7	03.28.2023
C4.1	DETAILED SITE PLAN	7	03.28.2023
C4.2	CONSTRUCTION DETAILS	3	12.14.2022
C5.0	GRADING PLAN	7	03.28.2023
C5.1	DRAINAGE PLAN	7	03.28.2023
C5.2	DRAINAGE DETAILS	3	12.14.2022
C6.0	UTILITY PLAN	7	03.28.2023
C6.1	UTILITY DETAILS	5	01.31.2023
C7.0	LANDSCAPE PLAN	7	03.28.2023
C8.0	LIGHTING PLAN	7	03.28.2023
C8.1	LIGHTING DETAILS	3	12.14.2022

OWNER/DEVELOPER:

NAME: BENDERSON DEVELOPMENT COMPANY, LLC
ADDRESS: 570 DELAWARE AVENUE, BUFFALO, NY 14202
CONTACT: DAVID ZUPPELLI
PHONE: 716 - 878 - 9683

BENDERSON DEVELOPMENT COMPANY, LLC
570 Delaware Ave.
Buffalo, New York 14202

SURVEYOR

NAME: MILLARD, MACKAY & DELLES LAND SURVEYORS, LLP
ADDRESS: 150 AERO DRIVE, BUFFALO, NY 14225
CONTACT: FRANCIS C. DELLES
PHONE: 716-631-5140

UTILITIES:

WATER DEPARTMENT
NAME/TITLE: ADAM MASSARO
COMPANY/DEPT: ERIE COUNTY WATER AUTHORITY
ADDRESS: 3030 UNION RD, CHEEKTOWAGA, NY
PHONE: 716 - 685-8207

DIG SAFELY NEW YORK
PHONE: 1 - 800 - 962 - 7962 OR (811)

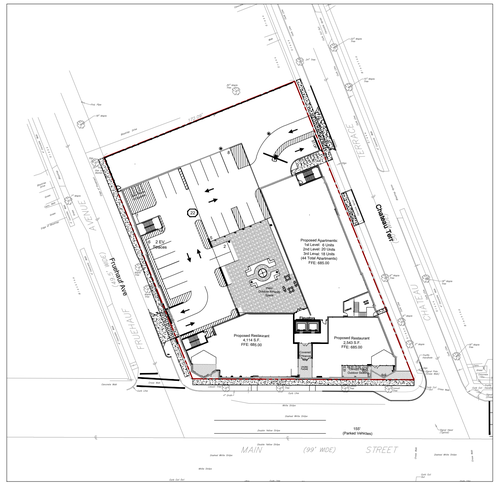
AGENCIES:

ENGINEERING DEPARTMENT
NAME/TITLE: JEFF BURROUGHS
COMPANY/DEPT: TOWN OF AMHERST, NY - ENGINEERING DPT
ADDRESS: 1100 NORTH FOREST RD, WILLIAMSVILLE, NY
PHONE: 716 - 631 - 7154 EX 7418

BUILDING & PLUMBING DEPARTMENT
NAME/TITLE: -
COMPANY/DEPT: TOWN OF AMHERST, NY - BUILDING DPT
ADDRESS: 5583 MAIN STREET, WILLIAMSVILLE, NY 14221
PHONE: 716 - 631 - 7080

NYSDOT - HIGHWAY & UTILITY PERMITS
NAME/TITLE: ALFRED I. OYOYO, ASSISTANT RESIDENT ENGINEER
COMPANY/DEPT: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NORTH ERIE RESIDENCY)
ADDRESS: 111 INDIAN ROAD. DEPEW, NEW YORK 14043
PHONE: 716 - 683 - 3476 (EXT - 27)

SITE LOCATION MAP 1"=60'



REGIONAL LOCATION MAP NTS



OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	05.23.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments
4	01.27.2023	DZ	Town Comments
5	01.31.2023	DZ	Town Comments
6	03.24.2023	DZ	Building Layout
7	03.28.2023	DZ	Building Layout

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202
AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

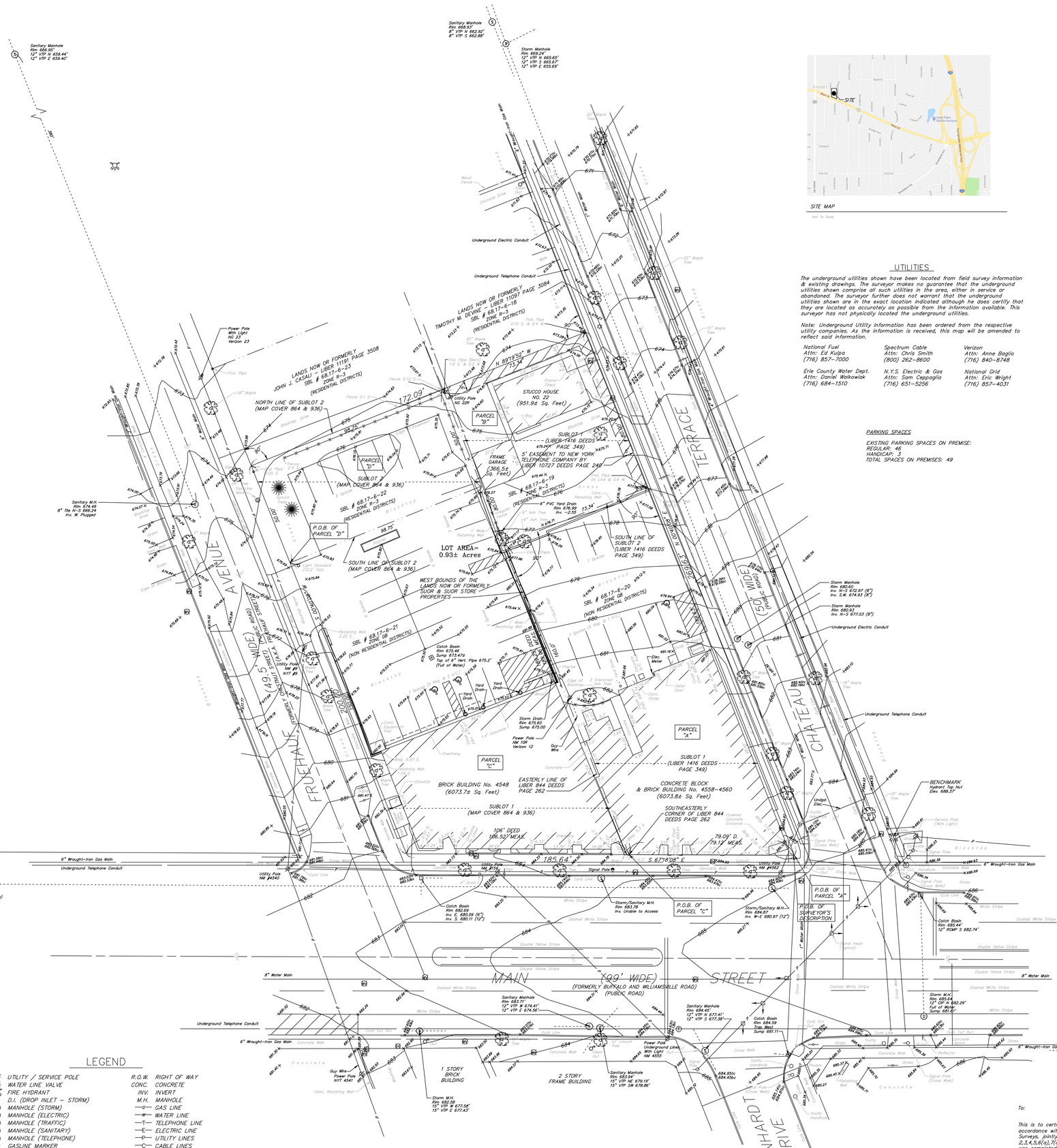
SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE: COVER SHEET

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C1.0

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



SITE MAP

Not To Scale

UTILITIES

The underground utilities shown have been located from field survey information & existing drawings. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from the information available. This surveyor has not physically located the underground utilities.

Note: Underground Utility information has been ordered from the respective utility companies. As the information is received, this map will be amended to reflect said information.

National Fuel Attn: Ed Kulpa (716) 857-7000	Spectrum Cable Attn: Chris Smith (800) 262-8600	Verizon Attn: Anne Baglio (716) 840-8748
Erie County Water Dept. Attn: Daniel Walkowiak (716) 684-1510	N.Y.S. Electric & Gas Attn: Sam Ceppaglia (716) 651-5256	National Grid Attn: Eric Wright (716) 857-4031

PARKING SPACES

EXISTING PARKING SPACES ON PREMISE:
REGULAR: 46
HANDICAP: 3
TOTAL SPACES ON PREMISES: 49

EASEMENT:

HOLLAND LAND TITLE & ABSTRACT COMPANY, INC.
SEARCH NO. 2010-54388
DATED: NOVEMBER 17, 2017

23.) EASEMENT TO NEW YORK TELEPHONE COMPANY BY LIBER 10727 DEEDS PAGE 240. (PLOTTED ON DRAWING)

SCHEDULE "A"

HOLLAND LAND TITLE & ABSTRACT COMPANY, INC.
SEARCH NO. 2010-54388
DATED: NOVEMBER 17, 2017

PARCEL A:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey, and being Subdivision Lot No. 1 as shown on a certain subdivision map made by Busch & Percival, Engineers, entitled "College Hill Terraces" and recorded in Erie County Clerk's Office in Liber 1416 of Deeds, page 349, and more particularly bounded and described as follows:

BEGINNING at the point of intersection of the northeasterly line of Main Street with the west line of Chateau Terrace; running thence northerly along the westerly line of Chateau Terrace; running thence northerly along the westerly line of Chateau Terrace, 189.63 feet to the southerly line of Subdivision Lot No. 2, as shown on said subdivision map; thence westerly at right angles with the westerly line of Chateau Terrace and along the southerly line of Subdivision Lot No. 2, 73.34 feet to the westerly bounds of the lands of Suor & Suor Store Properties, Inc.; thence southerly and at right angles with the said southerly line of Subdivision Lot No. 2, and along the westerly bounds of the lands of the Suor & Suor Store Properties, Inc., 160 feet to the northeasterly line of Main Street; thence southeasterly along the said line of Main Street, 79.09 feet to the point of beginning.

PARCEL B:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey and which up on a certain subdivision map of a part of said Farm Lot No. 13, made by Busch & Percival, Engineers, called a subdivision map of College Hill Terraces (which said map is recorded in Erie County Clerk's Office in Liber 1416 of Deeds, page 349) is known as Subdivision Lot No 2, being 80 feet front and rear by 73.34 feet deep situate on the west side of Chateau Terrace, beginning 189.63 feet north of the north line of Main Street.

PARCEL C:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey, and being designated as Subdivision Lot No. 1 as shown on subdivision map made for Jacob C. Fruehauf by C.F. Witmer, Surveyor, in 1898 of part of said Lot No. 18 filed in Erie County Clerk's Office under Map Cover 864 and also being designated as Subdivision Lot No. 1 on a map filed in Erie County Clerk's Office under Cover No. 936, and bounded and described as follow:

BEGINNING at the southeasterly corner of premises conveyed to said Jacob C. Fruehauf by Fanny Holl, by Committee, by deed dated February 7, 1898, recorded in Erie County Clerk's Office in Liber 844 of Deeds, page 262, February 7, 1898, being in the northerly line of Main Street (Buffalo and Williamsville Road); running thence northerly along the easterly line of the premises conveyed by said deed, 189.25 feet; thence westerly 98.75 feet to the easterly lien of Fruehauf Street (formerly known as Chestnut Street) as shown on said map; thence southerly along the easterly line of Fruehauf Street (formerly known as Chestnut Street) 150 feet to the said northerly line of Main Street (Buffalo and Williamsville Road); and thence easterly along said line of Main Street (Buffalo and Williamsville Road) 106 feet to the place of beginning.

PARCEL D:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey and being further known and distinguished as Subdivision Lot No. 2 as shown and laid down on map and survey made made by C.F. Witmer, Surveyor in 1898, which map is filed in Erie County Clerk's Office under Cover No. 864, said lot being bounded and described as follows:

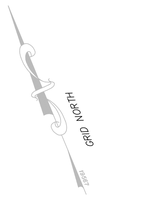
BEGINNING in the easterly line of Fruehauf Avenue at a point distant 150 feet from the point of intersection of said line of Fruehauf Avenue with the northerly line of Main Street; thence easterly along the southerly line of said Subdivision Lot No. 2, 98.75 feet to the east line of land conveyed to Jacob C Fruehauf by deed recorded in Erie County Clerk's Office in Liber 844 of Deeds, page 262; thence northerly along the said easterly lien of said land so conveyed, 50 feet; thence westerly along the northerly line of said Subdivision Lot No. 2, 98.75 feet; and thence southerly along the easterly line of Fruehauf Avenue 50 feet to the place of beginning.

SURVEYOR'S DESCRIPTION:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Amherst, County of Erie, and State of New York, being part of Farm Lot No. 13, Township 12, Range 7 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at the point of intersection of the northerly line of Main Street with the west line of Chateau Terrace; running thence northerly along the westerly line of Chateau Terrace; running thence northerly along the westerly line of Chateau Terrace, 269.63 feet to a point; thence westerly at right angles with the westerly line of Chateau Terrace, 172.09 feet to the easterly line of Fruehauf Avenue; thence southerly along the easterly line of Fruehauf Avenue, 200.00 feet to the said northerly line of Main Street; and thence easterly along said line of Main Street 185.64 feet to the place of beginning.

Parcel containing 0.93 acres of land, more or less.



NOTE:
ALL ELEVATIONS ON CURBLINE ARE TAKEN AT TOP OF CURB – 6" CURB IS ASSUMED

ELEVATIONS AND COORDINATES ESTABLISHED FROM TOWN OF AMHERST MONUMENTS No. 8 & No. 9, NAD 83/92 HARN DATUM NEW YORK WEST ZONE

FLOOD ZONE DATA

ENTIRE PREMISES LIES WITHIN ZONE "X" (AREA DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAN) PER F.E.M.A. FLOOD INSURANCE RATE MAP 3602226 0012 E, TOWN OF AMHERST
MAP DATE: OCTOBER 16, 1992

ZONING

TOWN OF AMHERST
ONLINE – ECODE360
ADOPTED BY THE TOWN BARD OF THE TOWN OF AMHERST 5-1-2006

SBL NO. 68.17-6-19 AND 22
ARE IN ZONE R-3 (RESIDENTIAL DISTRICTS)

SBL NO. 68.17-6-20 AND 21
ARE IN ZONE GB (NON RESIDENTIAL DISTRICTS)

B. Dimensional Standards.

R-3 Principal Use Dimensional Standards	
Min. lot area (per dwelling)	
Interior	8,450 sf
Corner	9,700 sf
Min. lot width	
Interior	65 ft
Corner	75 ft
Min. yards	
Front yard	30 ft
Rear yard	30 ft
Combined side yards	10 ft
Each side yard	3 ft
Corner lot	See § 2-5-2(A)(5)
Through lot	See § 2-5-2(A)(3)
Max. height	2 stories (up to 35 ft)
Max. building coverage	30%
Min. floor area (dwelling only)	
Under 2 stories	1,000 sf
2 or more stories	1,200 sf

Note: For explanation of measurements, computations, and exceptions see § 2-5[1]

GB Principal & Accessory Use/Structure Dimensional Standards		Vehicle Use Area
Min. lot area	None	
Min. lot width	None	
Min. front yard		
Height of structure for first 35 ft	20 ft	10 ft*
Height of structure for any portion of building above 35 ft	30 ft	10 ft*
Min. rear yard (abutting residential ** /nonresidential)		
Height of structure up to 30 ft	See § 2-5-4(C)(1) ft	15 ft* / 5 ft*
Height of structure 30 ft or more	See § 2-5-4(C)(1) 25 ft	15 ft* / 5 ft*
Min. side yard (abutting residential ** /nonresidential) **		
Height of structure up to 30 ft	See § 2-5-4(C)(1) None or 10 ft if not on lot line	15 ft* / 5 ft*
Height of structure 30 ft or more	See § 2-5-4(C)(1) 25 ft	15 ft* / 5 ft*
Max. height	65 ft	
Max. building coverage	None	
Min. interior building separation	None required	

*	The entire area must be landscaped.
**	Accessory structures shall be setback a minimum of 10 feet
***	R-R, S-A, R-1, R-2, R-3, CR-1A, TR-3, R-4, MFR-1A, MFR-5, MFR-6, MFR-7, PRD, PDD, PRD, NCD[2]

SUBLOT 1 & 2 ~ MAP IN LIBER 1416 DEEDS PAGE 349 AND SUBLOT 1 & 2 ~ MAP IN MAP COVER 864 & 936

8/14/18: ADDED UNDERGROUND UTILITIES
10/27/20: LOCATED RETAINING WALL & GASLINE MARKER

INSTRUMENT(S) UTILIZED IN DETERMINING LOCATION OF BOUNDARY LINES: HEAD OF SCARCH
THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT ABSTRACT OF TITLE AND IS SUBJECT TO ANY STATE OF FACTS THAT MAY BE REVEALED IN SAID ABSTRACT.
NOTE: PROPERTY CORNER MONUMENTS WERE NOT PLACED AS PART OF THIS SURVEY.

CERTIFICATION

To:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 2,3,4,5,6(a),7(a),7(b)(1),8,9,11,13, & 21(Per Email List) of Table A thereof. The field work was completed on 3-26-18.

Date of Plat or Map: 3-28-2018

Francis C. Delles Registration No. 050477

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Millard, MacKay & Delles
LAND SURVEYORS, LLP
150 AERO DRIVE
BUFFALO, NEW YORK 14225
PHONE (716) 631-5140 ~ FAX 631-3811
"ALL RIGHTS RESERVED"
THIS MAP VOID UNLESS EMBOSSED
WITH NEW YORK STATE LICENSED LAND SURVEYOR'S SEAL, ALTERING ANY ITEM ON THIS MAP IS A VIOLATION OF THE LAW EXCEPT AS PROVIDED IN SECTION 7209, PART 2, OF THE NEW YORK STATE EDUCATION LAW.

AMEND:
SURVEY DATE: 3-26-18
DRAWING DATE: 3-28-18
SCALE: 1" = 20'

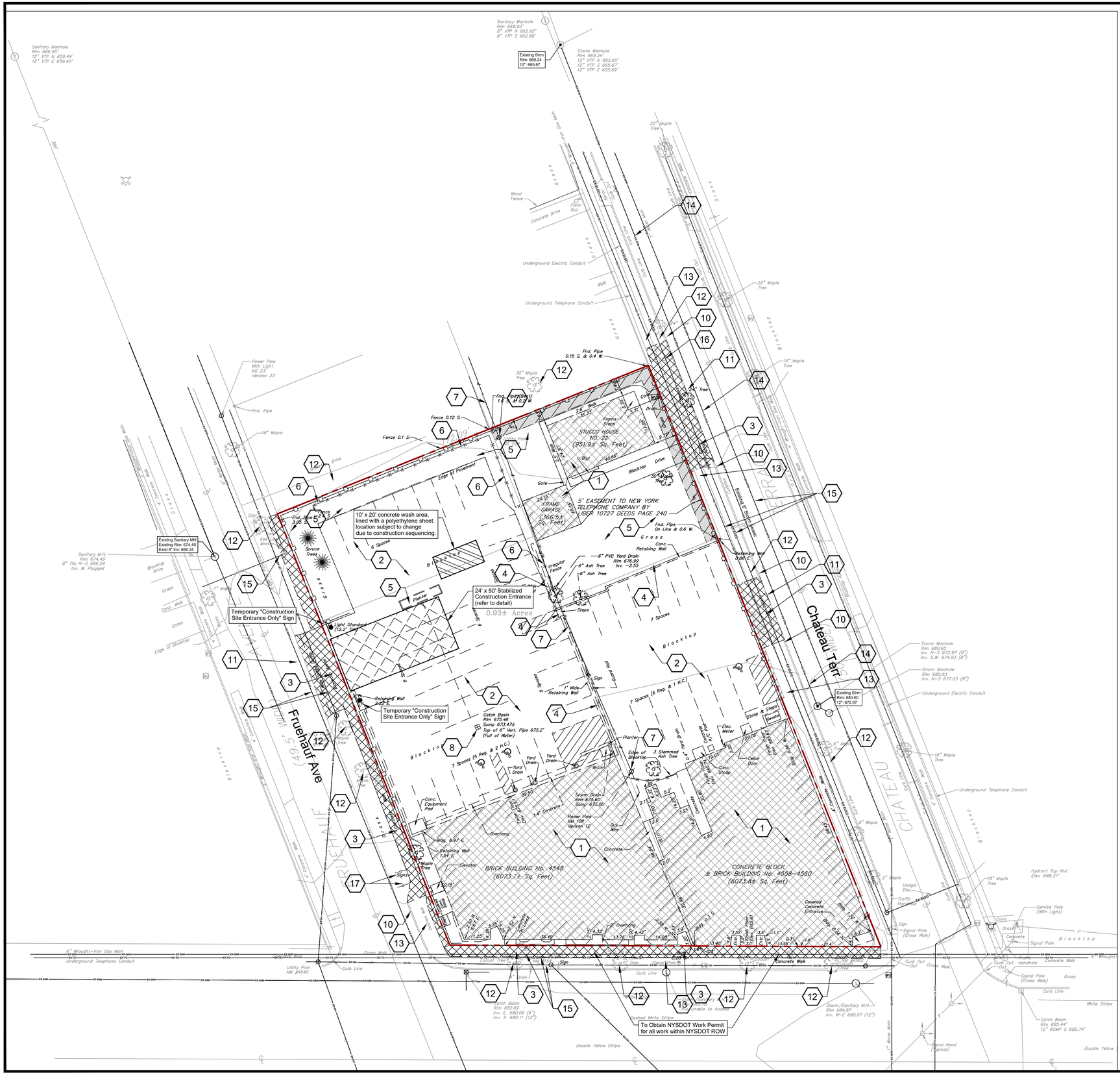
ALTA/NSPS LAND TITLE SURVEY

PART OF LOT 13 SECTION ____ TOWNSHIP 12 RANGE 7 OF THE: Holland Land Company's SURVEY – Erie COUNTY, N.Y.

SURVEY OF: 22 Chateau Terrace, 4564 & 4548 Main Street and 17 Fruehauf Avenue, Town of Amherst

SBL No. 68.17-6-21 & 22

Attachment: SP-2022-11 drawings_042023 (2665 : Sp-2022-11)



GENERAL NOTES:

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3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN .
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    - 11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    - 11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DEMOLITION & EROSION NOTES:

1. USE ENTRANCE FROM FRUEHAUF AVE. FOR CONSTRUCTION ENTRANCE
2. INSTALL TEMPORARY EROSION CONTROL DEVICES AS DIRECTED WITHIN THE WORKING AREA TO PREVENT SEDIMENT MIGRATION. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS PROVIDED.
3. ALL EROSION CONTROL DEVICES SHALL BE REPLACED WHEREVER THEY BECOME INOPERABLE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS.
5. THE CONTRACTOR MUST CONTROL DUST DURING CONSTRUCTION, DURING EARTHWORK OPERATIONS, WATER-SPREADING EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR, AND WATER SPREAD AS NECESSARY AND AS DIRECTED IN ORDER TO CONTROL DUST.
6. DIRT OR DEBRIS LEFT ON LOCAL PUBLIC ROADS AS A RESULT OF THIS CONSTRUCTION PROJECT SHALL BE REMOVED AND ROAD SURFACES CLEANED BY THE CONTRACTORS ON A DAILY BASIS, OR MORE FREQUENTLY IF DEEMED NECESSARY.
7. ALL DISTURBED AREAS (EXCEPT AREAS TO BE PAVED OR BUILT UPON) SHALL BE TOPSOILED TO A MINIMUM OF 4" DEPTH AND SEEDED IMMEDIATELY AFTER FINE GRADING TAKES PLACE AND AS SOON AS PHYSICALLY POSSIBLE.
8. THE CONTRACTOR IS RESPONSIBLY FOR THE MAINTENANCE OF DOWNSTREAM STORM SEWERS, DITCHES AND CULVERTS. SILT BUILDUP FOUND TO BE A RESULT OF THIS SITE CONSTRUCTION WORK SHALL BE REMOVED FROM DOWNSTREAM CULVERTS, DETENTION PONDS, BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER OR CITY.
9. ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AND MATERIALS SHALL BE IN PLACE PRIOR TO BEGINNING EARTHWORK OPERATIONS AND SHALL BE MAINTAINED UNTIL THE ALL GRADING WORKS ARE COMPLETE.

DEMOLITION LEGEND:

- Property Line
- EX ELEC — Existing Electric
- EX GAS — Existing Gas
- EX WTR — Existing Water
- EX OH — Existing Overhead Utility
- EX SAN — Existing Sanitary
- EX STM — Existing Storm
- EX TC — Existing Telecoms
- Saw Cut Line
- Silt Fence/Sock
- Inlet Protection "Sedi-Bag" or similar
- Existing Easement to be removed.
- Existing Building to be removed.

DEMOLITION NOTES: (#)

1. Existing Buildings to be removed.
2. Existing Pavement to be removed.
3. Existing R.O.W. Driveway, Curb and Sidewalk to be removed.
4. Existing Retaining Wall and Steps to be removed.
5. Existing Landscape Area to be removed.
6. Existing Fence to be removed.
7. Existing Utility to be removed.
8. Existing Storm Drainage/CB to be removed.
9. Existing Sign to be removed.
10. Existing Curb to remain.
11. Existing Pavement to remain.
12. Existing Landscape area to remain.
13. Exising Sidewalk to remain.
14. Existing Storm Drainage/CB to remain and be protected during Construction.
15. Existing Utility to remain and be protected during construction.
16. Existing Light Pole to remain and be protected during construction.
17. Existing Sign to be relocated.

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments
4	01.27.2023	DZ	Town Comments

SPECIAL INFORMATION:

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NOTICE

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Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY 031018 STATE OF NEW YORK

TITLE:

DEMO & EROSION CONTROL PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C3.0

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



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BOREHOLE TEST NOTES:

BOREHOLE LOCATIONS ARE APPROXIMATE. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR LOCATIONS AND INFORMATION.

OFFICIAL TOWN USE ONLY

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No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
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PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

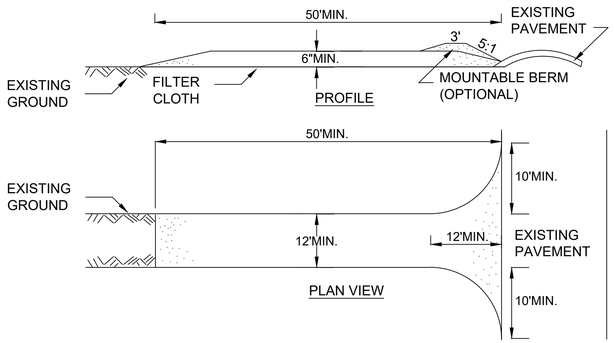
REGISTERED ARCHITECT
JAMES ALLEN RUMSEY
STATE OF NEW YORK

TITLE:

BORING LOCATION PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C3.1

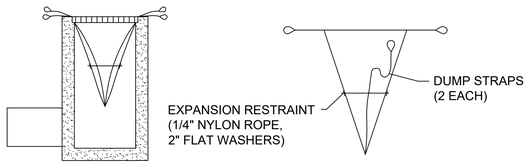
Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



STABILIZED CONSTRUCTION ENTRANCE DETAIL

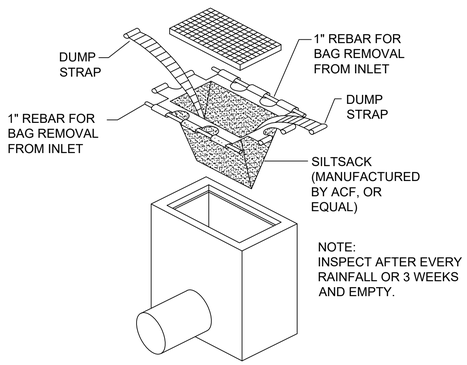
NOT TO SCALE

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



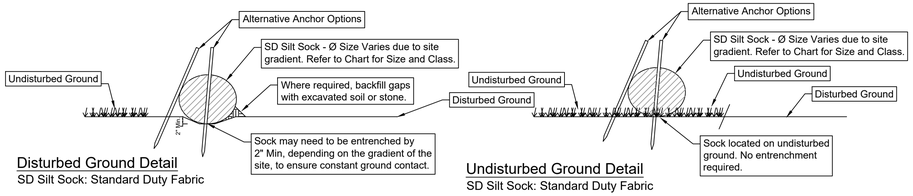
INSTALLATION DETAIL

BAG DETAIL



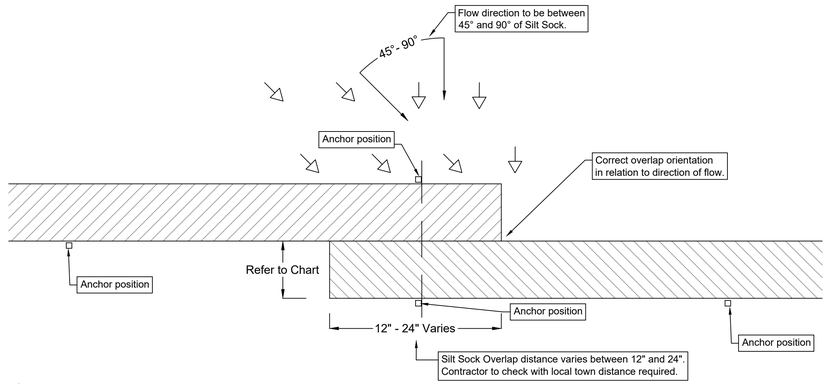
SILT SACK DETAIL

N.T.S.



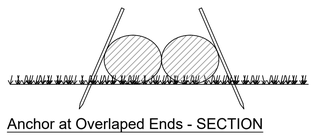
Disturbed Ground Detail
SD Silt Sock: Standard Duty Fabric

Undisturbed Ground Detail
SD Silt Sock: Standard Duty Fabric



Overlap Detail - PLAN

1) Anchors required at the overlap section are to stay outside the Silt Sock and not pierce through the material. See alternative anchor positons in details above.

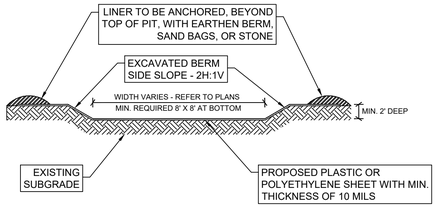


Anchor at Overlaped Ends - SECTION

Size & Class Chart			
	Diameter		
Gradient	8"	12"	18"
0 - 2%	30	55	75
2.1 - 5%	25	40	55
5.1 - 10%	15	30	40
10.1 - 33%	10	15	20
> 33%	5	10	15

SD SILT SOCK DETAIL

SD Silt Sock: Standard Duty Fabric



TYPICAL CONCRETE WASH OUT DETAIL

NOTES:
1. CONSTRUCT TO 2016 NYSDEC BLUE BOOK DESIGN CRITERIA

Notes:

1 - Do not use sock below the normal watermark or perpendicular to flow in river and where the maximum incline is greater than 50%.
2 - Contractors should be aware of federal, state and local laws, rules regulations or permit requirements for the use of Silt Socks on site.
3 - Sock should be positioned on the outline of the area to be protected, but must be installed between 45° to 90° from directions of flow.
4 - Sock may be required to be entrenched a minimum of 2" on disturbed ground to ensure constant ground contact.
5 - All gaps and ruts must be backfilled with soil or sock material.
6 - Sock overlap should be in the direction of the flow. Overlap amount will be between 12" and 24". Contractor to check with local town for requirements.
7 - If sediment collects to 1/2 the height of the sock, then a second sock may be stacked immediately up slope of the original instead of removing the sediment.
8 - Sock joint is where two sock sections meet on a level grade, overlap and adjoining ends, tightening the ends together, and anchoring through each end. Where two sections meet on un-level ground, j-hook higher elevated end, anchor, and begin new section just below. Back fill any gaps.
9 - Sock should be inspected and repaired as needed.
10 - If ruts begin under the sock they should be backfilled with soil and compacted so that the ground and sock have continuous contact.
11 - If sock rolls out of place, the sock should be repositioned and secured with additional anchors.
12 - Tears in the Sock fabric may be repaired by wrapping a new piece of fabric over the sock and securing, or by place a second sock immediately up slope with the required overlap beyond deformation.
13 - A section of sock should be replaced whenever it has weakened to such an extent that the efficiency is reduced or diminished. Weakening can occur because the natural mesh fabric breaks down over time of from being moved/dragged on site.
14 - Sock should be replaced when sediment has built up and has been removed three times.
15 - All sediment in disturbed area next to sock must be removed and correctly disposed of before the sock can be removed.
16 - When removing, cut sock open and spread the filler material around. The netting should be removed from site.
17 - Sock should be installed before works commence on site.

OFFICIAL TOWN USE ONLY

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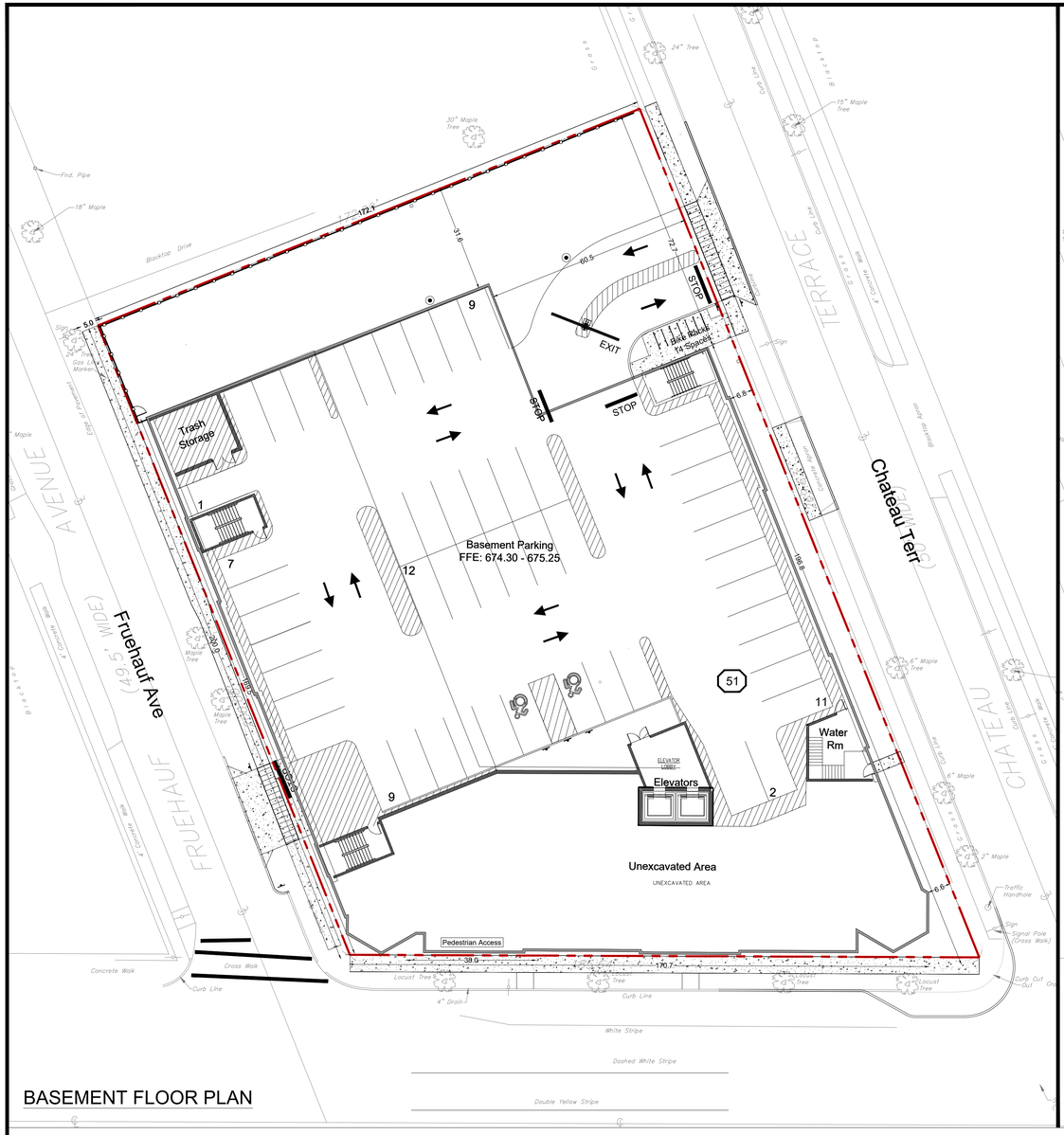
SEAL



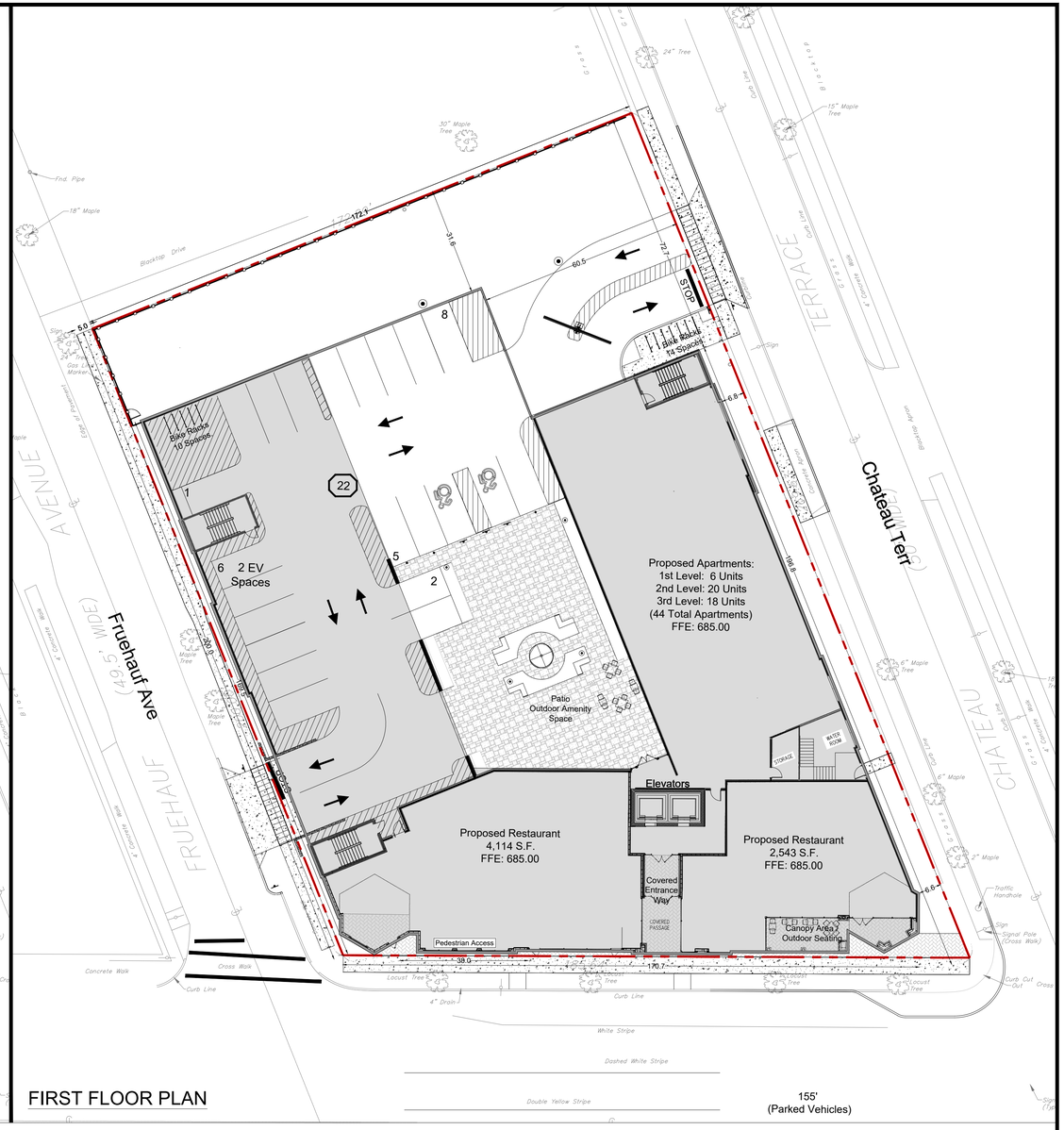
TITLE:
DEMOLITION & EROSION CONTROL DETAILS

SCALE: -
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C3.2

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

155'
(Parked Vehicles)

TOWN OF AMHERST, NY ZONING ANALYSIS	Tax Lots to be consolidated into one parcel as part of this project	
	REQUIRED	PROVIDED
ZONED	TI-2.5 (Village Frontage)	TI-2.5 (Village Frontage)
5A-1-3: TI-2.5 Traditional Infill 2.5 Section		
LOT		
Area	0 S.F. min.	40,409 S.F.
Width	0' min.	170.7'
Outdoor Amenity Space	10% min.	11.3% (4,500 S.F.)
At grade level	50% min. *(See 5A-7-1 B(2)*	68.1% (2,825.1 S.F.)
Planted above ground level	25% min. *(See 5A-7-1 B(2)*	31.9% (1,324.9 S.F.)
Seating	1 per 500 S.F. (4,500 / 500 = 9 Seats min.)	10 Seats
BUILDING SETBACKS		
Building-to-zone	Refer to Section 5A-2 Infill Frontages	
Lot Frontage	Refer to Section 5A-2 Infill Frontages	
Common lot line	0' min.	30.8' (North Side)
Alley	0' min.	N/A
PARKING SETBACKS		
Primary and Side Street	Refer to Section 5A-2 Infill Frontages (below)	
Common lot line	0' min.	30.8' (North Side)
Alley	5' min.	N/A
BUILDING HEIGHT		
Top Plate Height	2 Stories / 24' max.	-
Building Height	2.5 Stories / 35' max.	-
Roof Pitch	18:12 max.	-
BUILDING LENGTH	Refer to Section 5A-2 Infill Frontages (below)	
STORY HEIGHT	Refer to Section 5A-2 Infill Frontages (below)	

5A-2-4: Village Frontage		
BUILDING SETBACKS		
Build-to zone	0' min./10' max.	0.0'
Street Frontage:		
Front: Main Street	90% min.	92.0% (170.7')
Side: Fruehaut Ave	90% min.	84.7%(169.5')
Side: Chateau Terr	90% min.	73.1% (196.8')
PARKING SETBACKS		
Street	20' min.	30.8' (North Side)
BUILDING MASS		
Street facing building length:		
Front: Main Street	200' max.	170.7'
Fruehaut Ave	200' max.	169.5'
Chateau Terr	200' max.	196.8'
STORY HEIGHT		
Ground floor elevation	0' min. / 2' max.	0.0'
Ground story height	13' min.	-
Upper story height	9' min.	-
TRANSPARENCY		
Ground story	70% min.	1,345S.F./1,890 S.F. = 71.2%
Upper story	20% min.	430 S.F. / 1890 S.F. = 22.7%
Blank wall length	15' max.	7'
PEDESTRIAN ACCESS		
Street facing entrance	Required	Complies
Entrance spacing	50' max.	38'
STREETSCAPE		
Clear pedestrian zone	10' min.	9.8' Total - Existing Condition
Curb zone	6' min.	
Tree planting type	Grates	Noted. Existing
Tree spacing	35' on-center avg.	Noted. Existing

PROPOSED PARKING & BIKE ANAYLSIS TI-2.5 (Section 5A-9-1.A.(1)

USE	CODE	REQUIRED	PROVIDED
RESTAURANT	4/1000 SF	6,657 sqft / 1000 x 4 = 27 SPACES	Basement Parking: 51 Spaces Ground Flr Parking: 22 Spaces
RESIDENTIAL (Upper-story)	1.0 per 1&2 bed dwelling unit 1.5 per 3 bed dwelling unit	1.0 x 42 (1&2 Bed) = 42 SPACES 1.5 x 2 (3 Bed) = 3 Spaces Total: 72 SPACES	Total: 73 SPACES
STALL SIZE		9'x19'	9'x19'
ELECTRIC CHARGING STATIONS			
1% of parking spaces to be EV ready. Min. 2 EV ready spaces for parking lots over 20 spaces. EV Ready defined as power be available at spaces in advanced.		Basement Parking: 51 * 0.01 = .5 Spaces Ground Floor Parking: 22 / 0.01 = 2 Spaces Total: 2 Min Spaces	Basement Parking: 2 Spaces Total: 2 Spaces
BIKE PARKING			
Residential Use: Short Term 0.5 space per unit min. 20 max. Public Use: 1 per 3,000 S.F. min. 20 max.		0.5 x 44 = 22 22 > 20 max. 20 SPACES 6,657 S.F. / 3000 = 3 SPACES TOTAL: 23 SPACES	20 SPACES 4 SPACES TOTAL: 24 SPACES

RESTAURANT: 4,114 S.F. + 2,543 S.F.

1 BEDROOM APARTMENTS: 17 UNITS
2 BEDROOM APARTMENTS: 25 UNITS
3 BEDROOM APARTMENTS: 2 UNITS

44 Spaces Designated for Residential Units in Lower Parking Level
7 Spaces Designated for Non-Residential Tenants in Lower Parking Level

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
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PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE:

ZONING SITE PLAN

SCALE: 1:20

DRAWN BY: DMZ

CHECKED BY: JAR

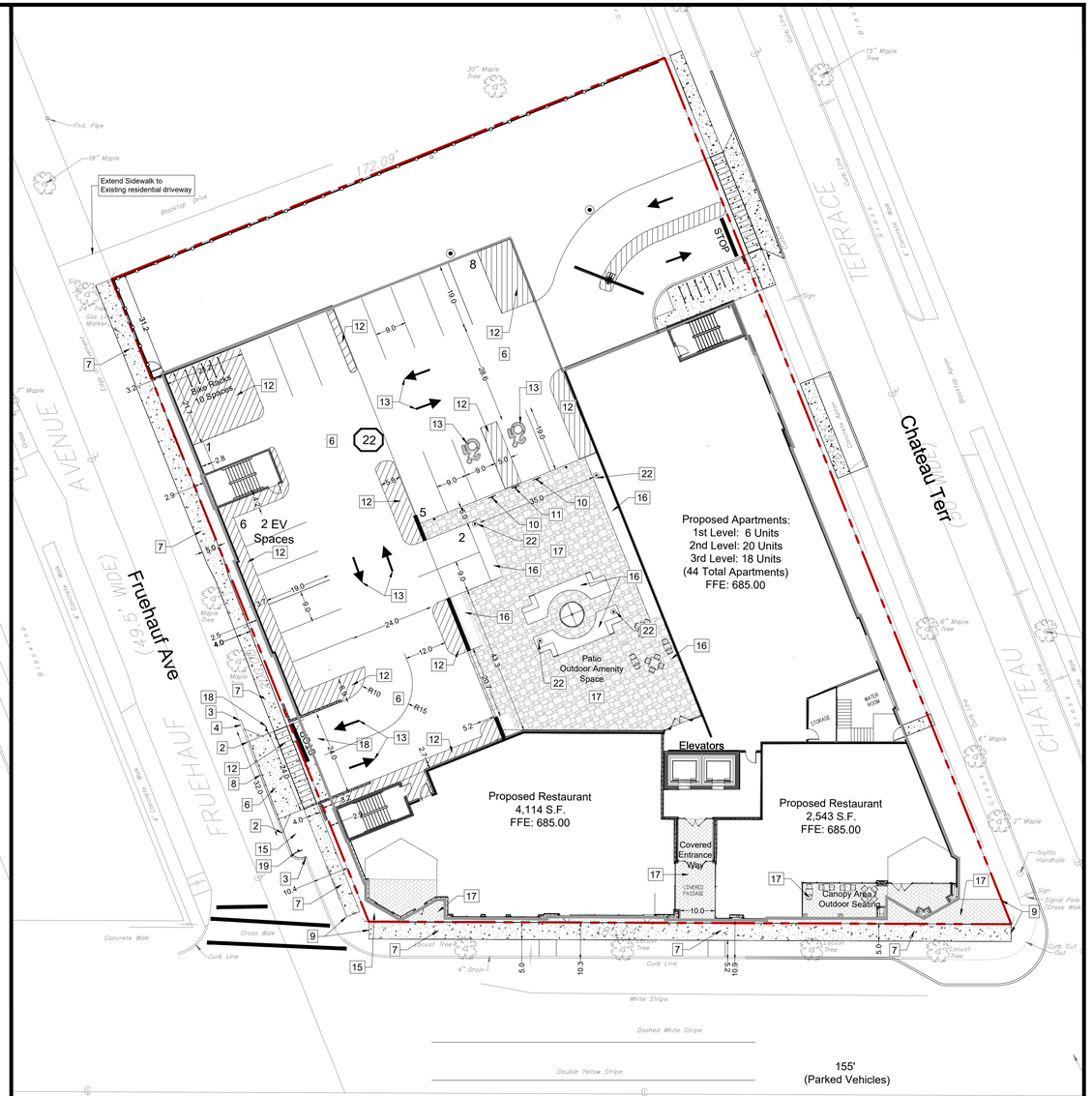
DATE: 05.05.2022

DRAWING NO. C4.0

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:
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2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
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9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN .
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
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12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SITE LEGEND:
- Property line
- 6" Curb (typ).
- Proposed sign & pole
- Proposed Concrete Pavement/Sidewalk (Concrete Floors/Deck not Hatched)
- Proposed Heavy Duty Pavement

* All curb radii are 3ft unless noted.
* Refer to General Notes, Concstruction Details and Architectural Plans for Concrete Sealer information.

SITE NOTES: [#]
1. Proposed 6" concrete Curb.
2. Proposed Flush Concrete Curb.
3. Match into Existing Curb or runout over 2'.
4. Transitional Curb.
5. Proposed Heavy Duty Asphalt Pavement
6. Proposed Concrete Pavement.
7. Proposed Concrete Sidewalk.
8. Match into Existing Pavement.
9. Match into Existing Sidewalk
10. Proposed "Handicapped Parking Only" sign.
11. Proposed "No Parking" sign.
12. 4" white Pavement Stripe (at 2' c-c in no parking zones).
13. Proposed White Pavement symbol (stop bar, accessibility symbol, text).
14. Proposed "Stop" Sign.
15. Proposed Landscape Area.
16. Proposed Raised Landscape Area.
17. Proposed Pavers.
18. Proposed Overhead Enter/Exit Signs/Traffic Mirror. Refer to Architectural Plans.
19. Relocated Existing Signage.
20. Proposed 6ft High Solid Board Fence
21. Proposed Security Gate
22. Proposed Light Pole Base

* All curb Radii to be 3' unless otherwise noted.
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(716) 886-0211

SEAL



TITLE:
DETAILED SITE PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C4.1

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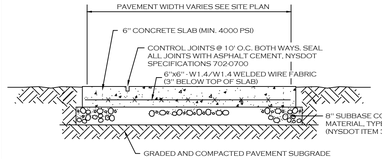

NOTE: CONCRETE PAVEMENT MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 502-3.

CONCRETE SIDEWALK SEALERS:
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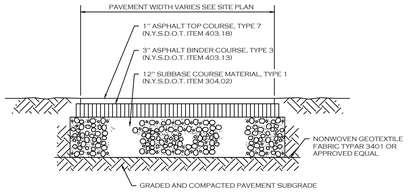
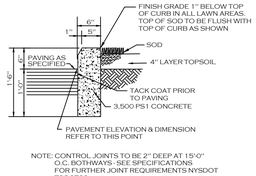
REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES FOR SIDEWALKS.

CONCRETE PAVEMENT (INC DUMPSTER)



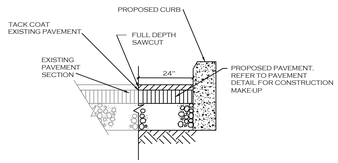
NOTE: CONSTRUCTION METHODS FOR ASPHALT PAVEMENT SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 401-3, WITH SUBBASE CONSTRUCTION METHODS CONFORMING TO NYSDOT STANDARD SPECIFICATION 304-3.

HEAVY DUTY ASPHALT SECTION

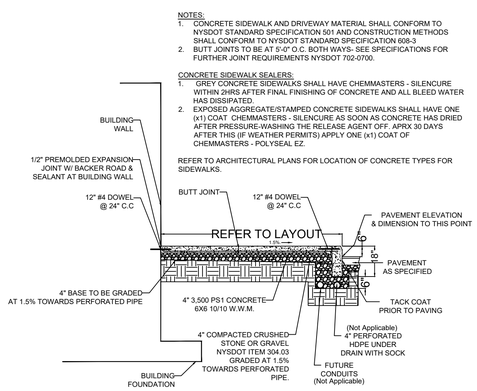


NOTE: CONTROL JOINTS TO BE 2" DEEP AT 15'-0" O.C. BOTHWAYS - SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700

TYPE "A" CONCRETE CURB



CURB AND PAVEMENT TRANISTION DETAIL



NOTES:
1. CONCRETE SIDEWALK AND DRIVEWAY MATERIAL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 501 AND CONSTRUCTION METHODS SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 608-3
2. BUTT JOINTS TO BE AT 5'-0" O.C. BOTH WAYS- SEE SPECIFICATIONS FOR FURTHER JOINT REQUIREMENTS NYSDOT 702-0700.

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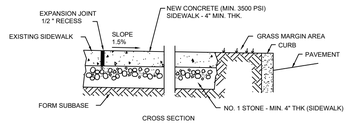
REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES FOR SIDEWALKS.

BUILDING SIDEWALK DETAIL

CONTRACTOR TO VERIFY WITH OWNER ON CURB DETAIL



CROSS SECTION

NOTES:
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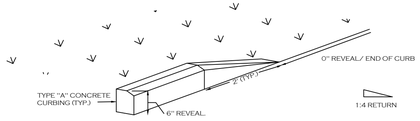
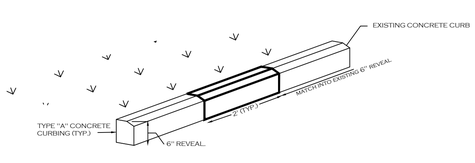
STANDARD CONCRETE SIDEWALK

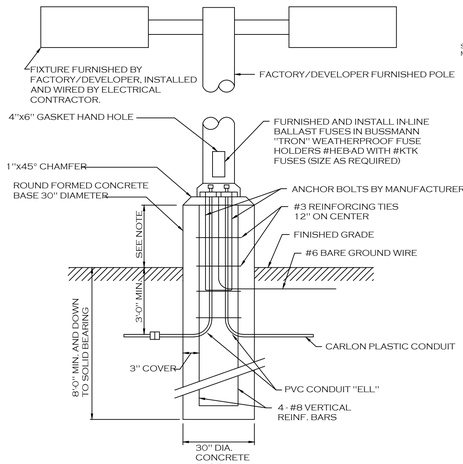


RUNOFF CURB



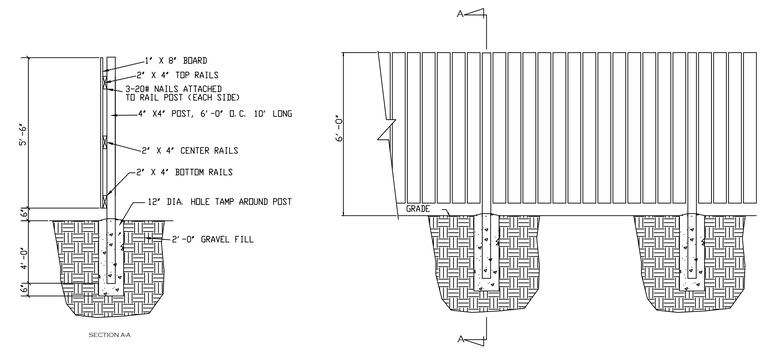
MATCH INTO EXISTING CURB

TRANSITIONAL CURBING

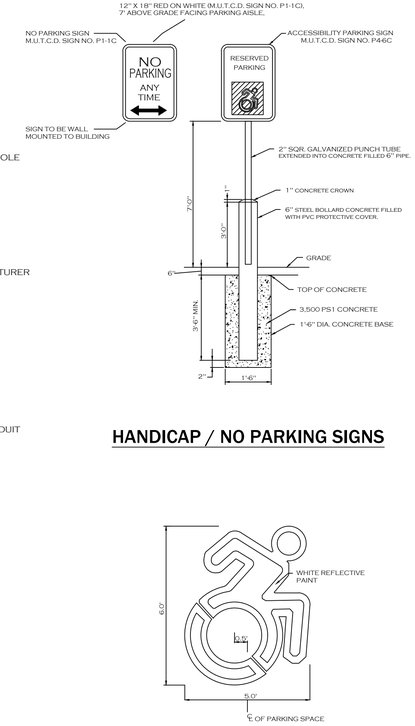


NOTES:
1. FOR LOCATIONS OF FOUNDATIONS SEE SITE PLAN
2. FOR LIGHT FIXTURE ORDERING INFORMATION SEE SITE LIGHTING PLAN
3. LIGHT POLE BASE EXPOSURE ABOVE GRADE SHALL BE:
IN CURBED ISLANDS: 6" ABOVE TOP OF CURB ELEVATION
IN PAVEMENT: 3' ABOVE GRADE
IN NON-CURBED GRASS AREAS: 6" ABOVE GRADE

LIGHT POLE FOUNDATION

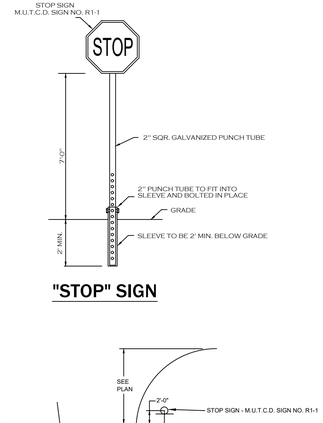


6FT SOLID BOARD FENCE DETAIL

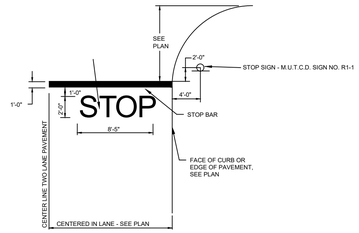


HANDICAP / NO PARKING SIGNS

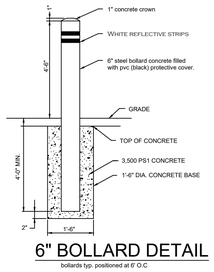
INTERNATIONAL ACCESSIBILITY SYMBOL



"STOP" SIGN

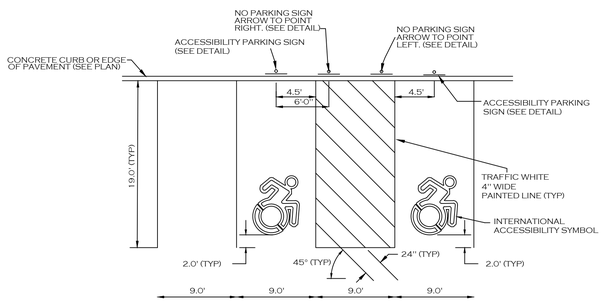


STOP BAR DETAIL



6" BOLLARD DETAIL

bollards typ. positioned at 6' O.C



ACCESSIBILITY PAVEMENT MARKINGS & SIGNAGE

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CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



TITLE:

CONSTRUCTION DETAILS

SCALE: -

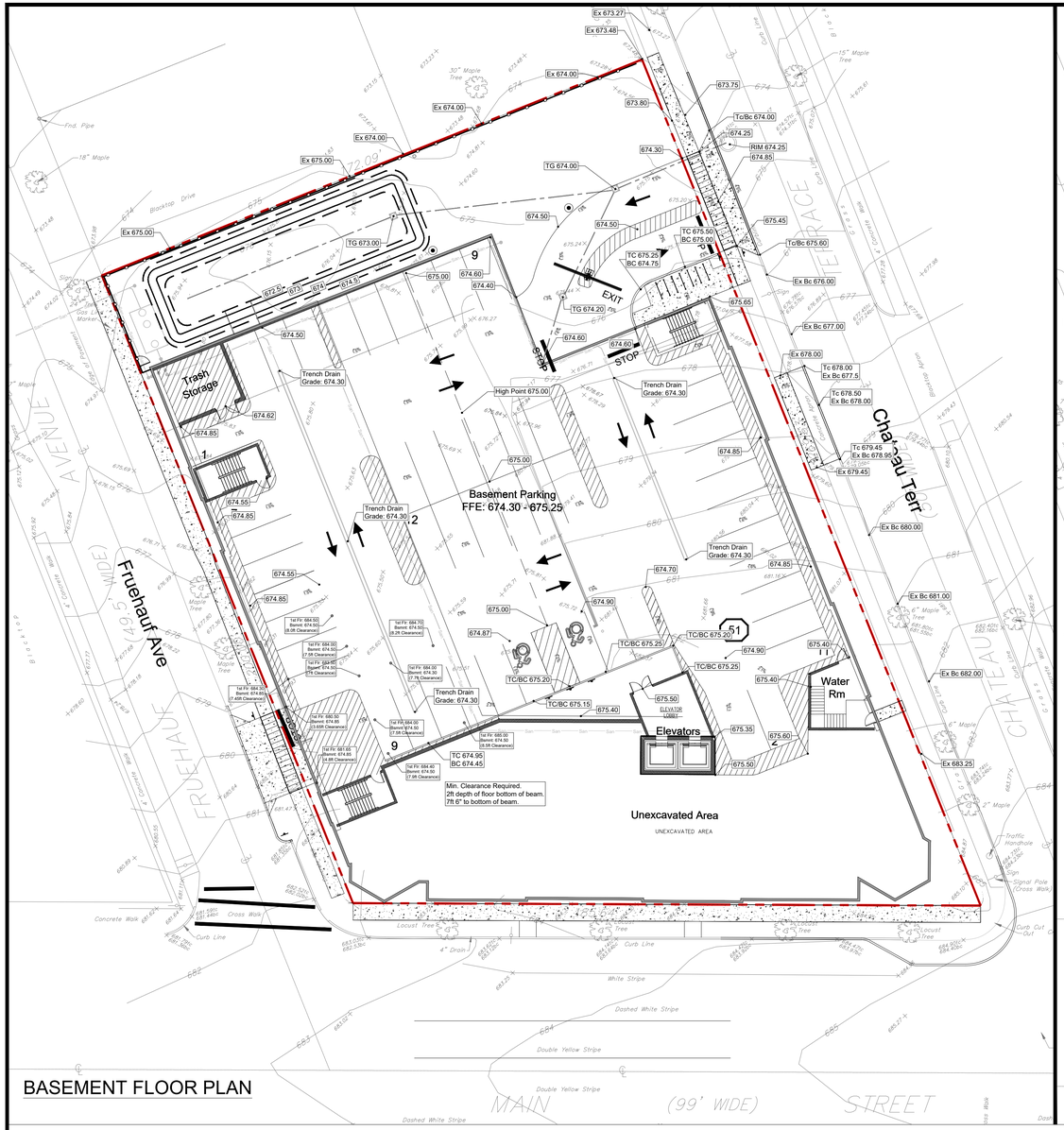
DRAWN BY: DMZ

CHECKED BY: JAR

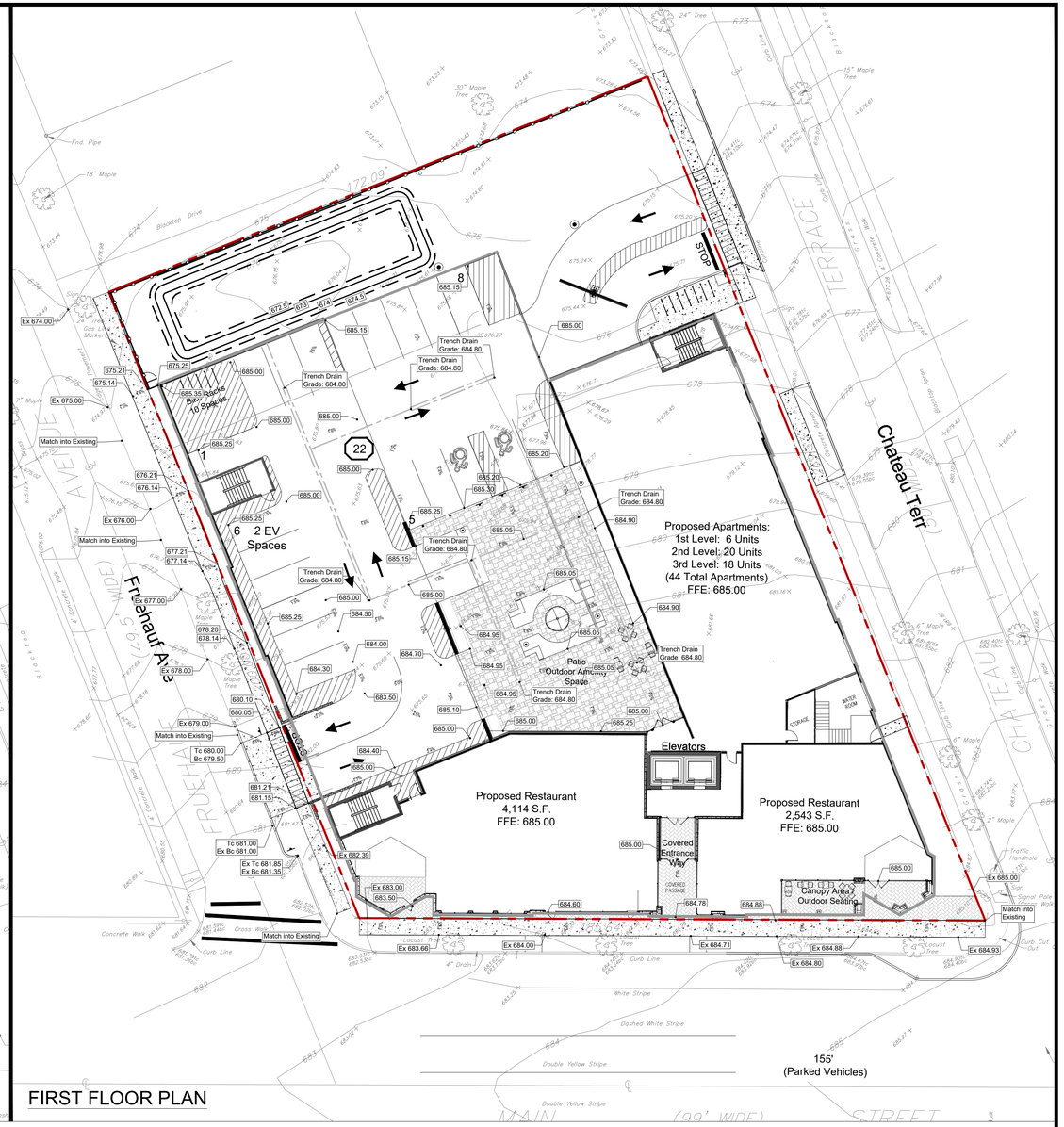
DATE: 05.05.2022

DRAWING NO. C4.2

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



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GRADING LEGEND:
- Property Line
- 6" Curb (typ).
- TG ## — Catch Basin - Top of Grade
- ### — Proposed Contour Line
- ##% — Slope Direction

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ARCHITECT
PREPARED FOR
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(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY 027709 STATE OF NEW YORK

TITLE:
GRADING PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C5.0

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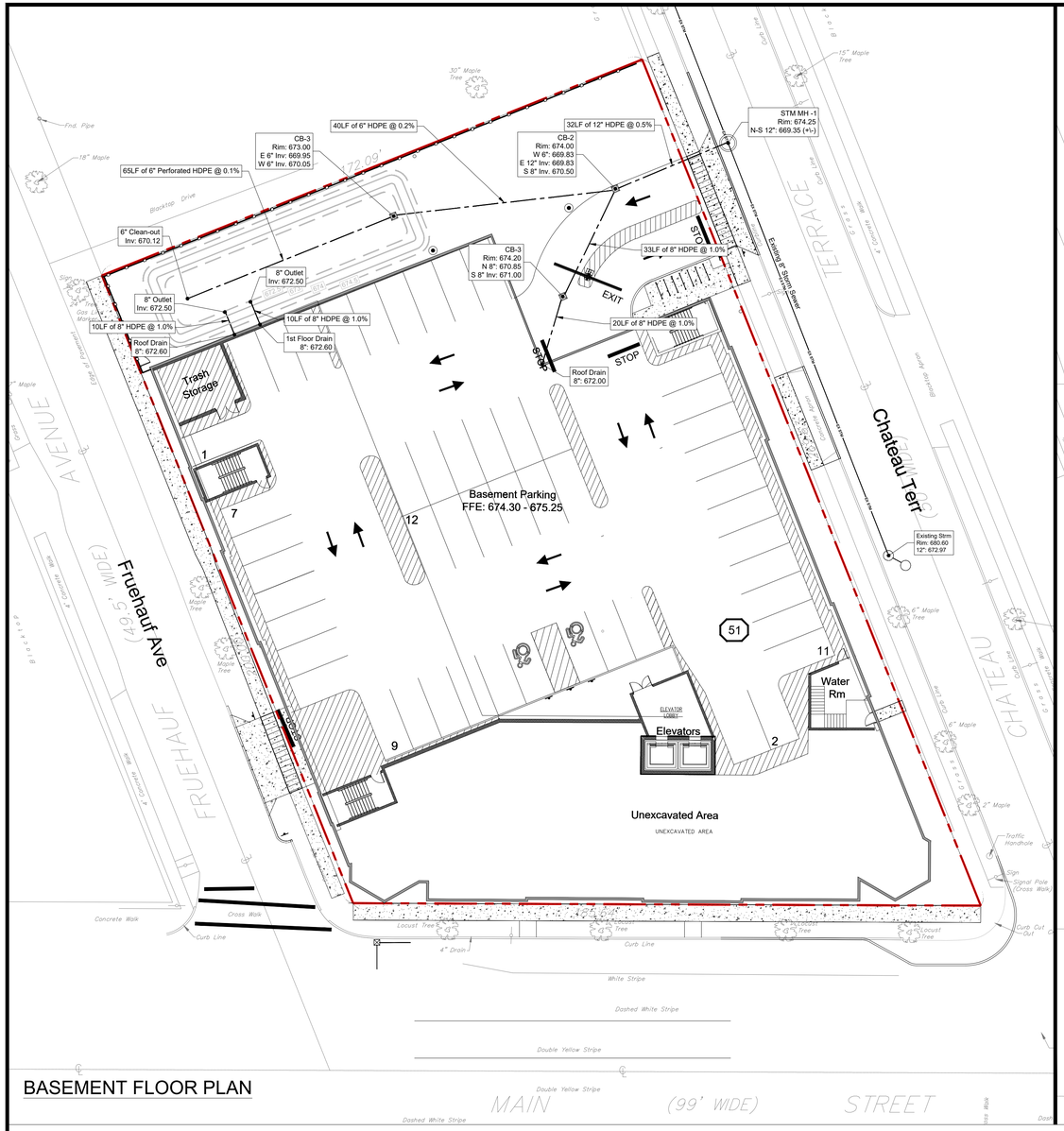
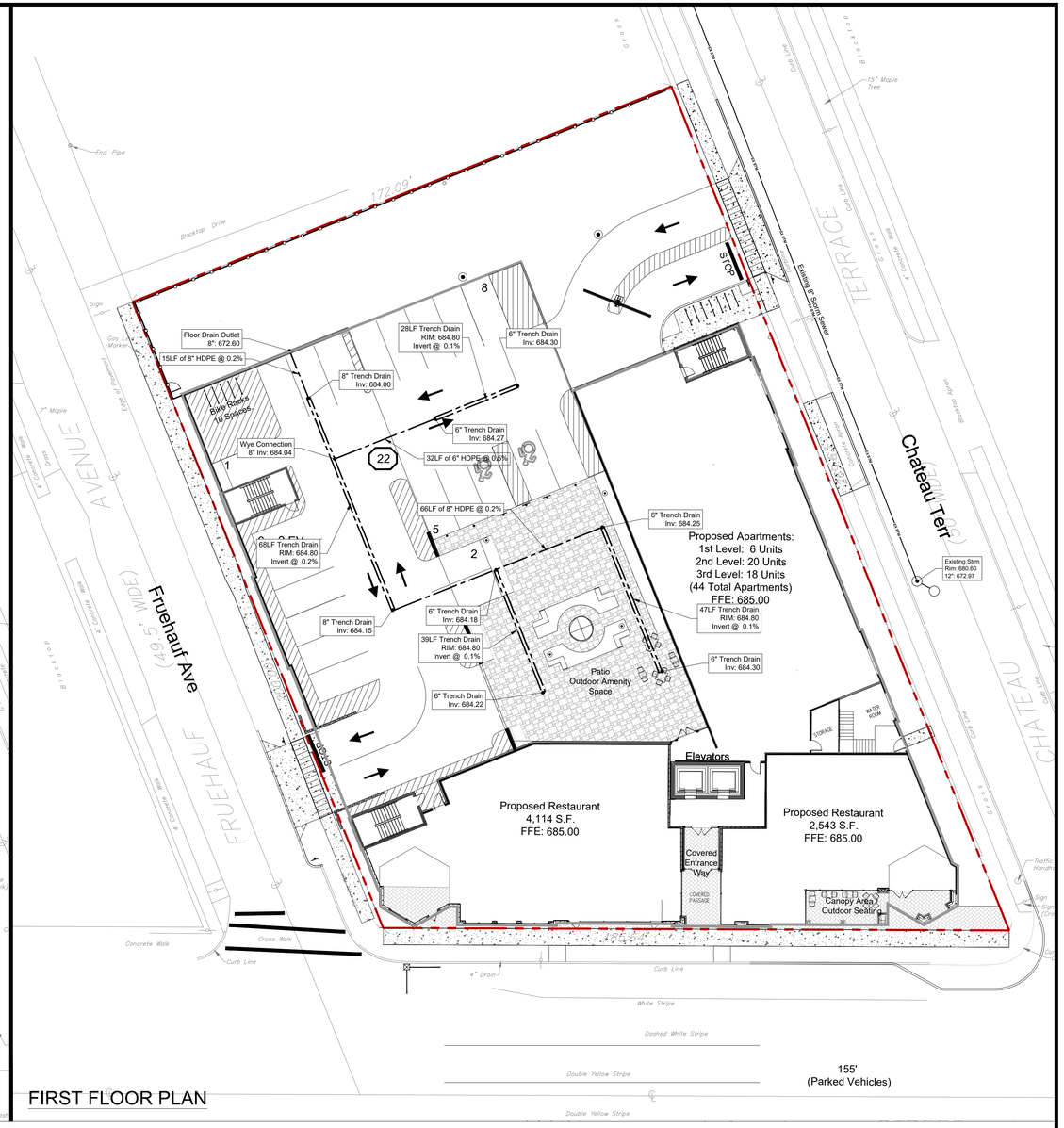


BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

GENERAL NOTES:
1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN .
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

DRAINAGE LEGEND:

- PROPERTY LINE
- PROPOSED STORMWATER
- 6" CURB TYP.
- CO / WC — PROPOSED STORM CLEAN OUT / WYE CONNECTION
- CB - # — PROPOSED CATCH BASIN

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
2	05.23.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments
4	01.27.2023	DZ	Town Comments
6	03.24.2023	DZ	Building Layout
7	03.28.2023	DZ	Building Layout

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PROPERTY NUMBER: # 5202

AREA: - -

4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY 026103 STATE OF NEW YORK

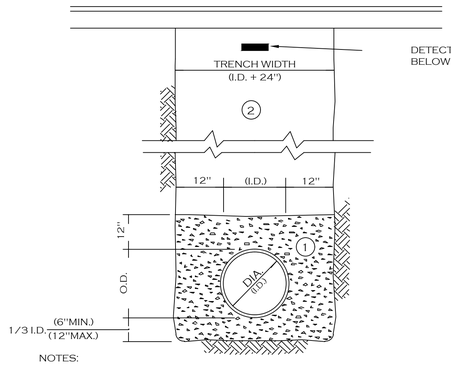
TITLE:

DRAINAGE PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022

DRAWING NO. C5.1

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



NOTES:

A. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

B. TRENCHING OPERATIONS SHALL INCLUDE ALL NECESSARY DEWATERING.

C. TRENCH DETAILS ARE ONLY SHOWN FOR PURPOSES OF MATERIAL PLACEMENT AND MAXIMUM PAY LIMITS.

D. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT 1985 EDITION)

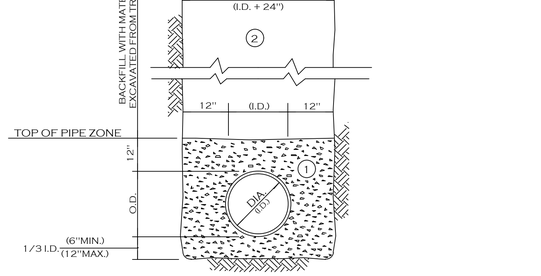
(1) NO. 1 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE MATERIAL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) TYPE 2 CRUSHED STONE OR CRUSHED GRAVEL WITH A GRADATION CONFORMING WITH NYSDOT SECTION 304-2.02 TYPE 2. THE MATERAIL SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN TWO INCHES AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER.

NO SLAG SHALL BE ALLOWED FOR MATERIAL (2)

TRENCH SECTION IN PAVED AREAS



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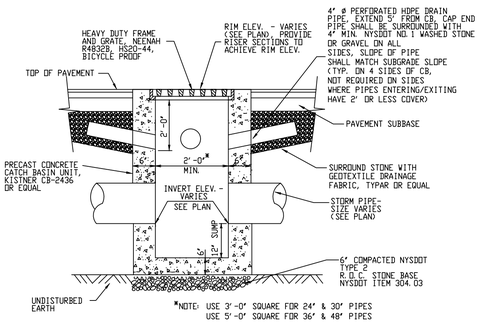
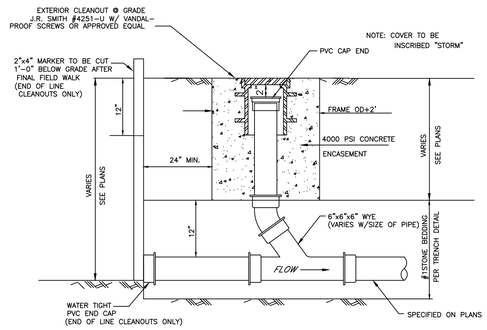
NO SLAG SHALL BE ALLOWED FOR MATERIAL (1)

(2) BACKFILL MATERIAL SHALL BE NATIVE SOIL CONTAINING NO UNSUITABLE MATERIAL COMPACTED IN 6" LIFTS.

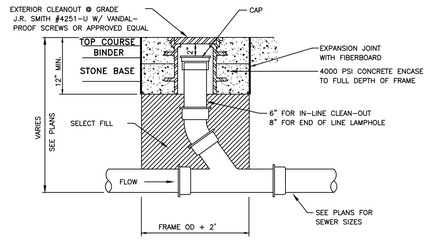
TRENCH SECTION IN UNPAVED AREAS



TYPICAL PRECAST CATCH BASIN

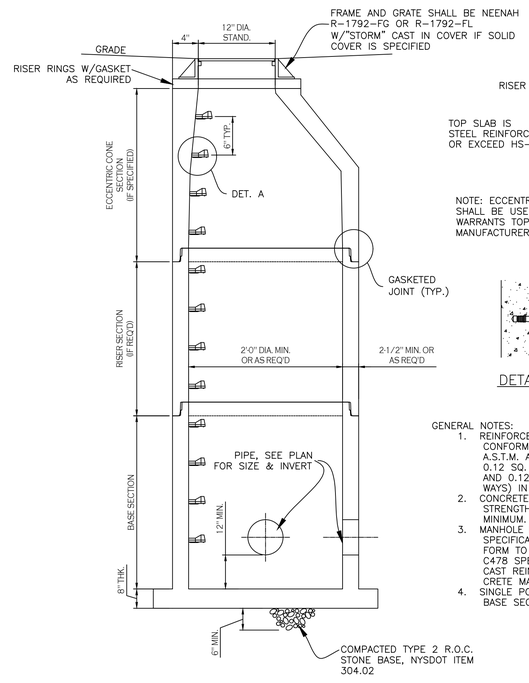


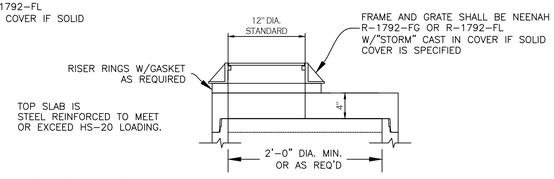
CLEANOUT IN LANDSCAPED AREAS
NOT TO SCALE



CLEANOUT IN PAVED AREAS
NOT TO SCALE

NOTE: WHERE FRAME & GRATE ARE INSTALLED IN NON-ASPHALT PAVED AREAS, A 4'X4'X6" THK CONCRETE APRON SHALL BE POURED AROUND THE RIM SLOPING TOWARDS THE GRATE





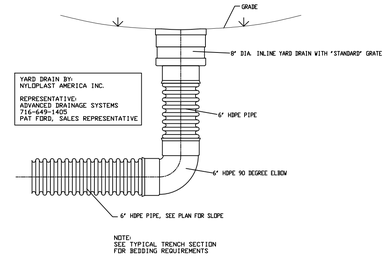
ALTERNATE TOP SLAB

NOTE: ECCENTRIC CONE SECTION SHALL BE USED UNLESS DEPTH WARRANTS TOP SLAB PER MANUFACTURER

DETAIL A

GENERAL NOTES:
1. REINFORCED STEEL TO CONFORM TO LATEST A.S.T.M. A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) IN BASE SLAB.
2. CONCRETE COMPRESSIVE STRENGTH – 4000 PSI MINIMUM.
3. MANHOLE DESIGN SPECIFICATIONS TO CONFORM TO LATEST A.S.T.M. C478 SPEC. FOR PRE-CAST REINFORCED CONCRETE MANHOLE SECTIONS.
4. SINGLE POUR MONOLITHIC BASE SECTION.

TYPICAL STORM MANHOLE DETAIL

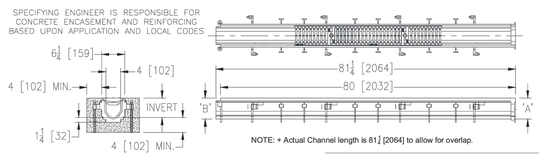


TYPICAL YARD DRAIN DETAIL

ZURN **Z886**
6-1/4 [159] WIDE REVEAL TRENCH DRAIN SYSTEM

SPECIFICATION SHEET
TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



NOTE: + Actual Channel length is 81¼ [2064] to allow for overlap.

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1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

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4548 - 4564 Main Street, Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:

DRAINAGE DETAILS

SCALE: -
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C5.2

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)

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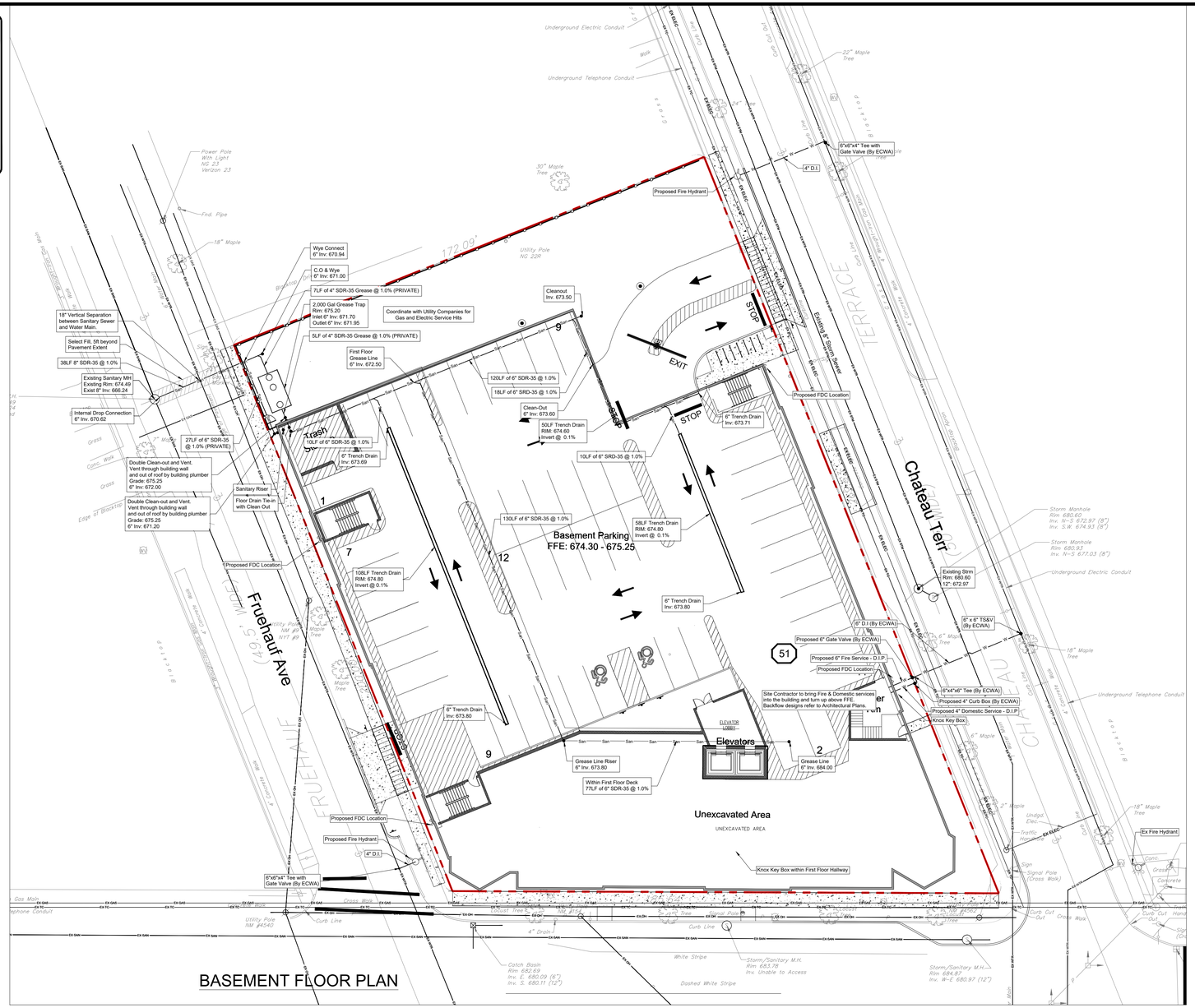
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

SANITARY SEWER NOTES:
1. THE CONTRACTOR IS ADVISED THAT A TRENCH SHIELD AND/OR SHORING DESIGNED IN ACCORDANCE WITH OSHA STANDARDS SHALL BE USED IN ALL OPEN TRENCH EXCAVATIONS.
2. ANY CONTRACTOR AND/OR PLUMBER PERFORMING WORKING IN A CONFINED SPACE (ie MANHOLES, WETWELLS, CHAMBERS) OWNED BY THE TOWN MUST CERTIFY TO THE TOWN THAT THEY HAVE THEIR OWN CONFINED SPACE ENTRY PROGRAM THAT MEETS OR EXCEEDS OSHA'S REGULATIONS. CERTIFICATION MUST BE NOTARIZED BY A NOTARY PUBLIC.
3. CONSTRUCTION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE TOWN AND NEW YORK STATE CODES.
4. IF ANY PROPOSED SEWER LATERAL RUNS UNDER PAVED AREA AND HAS LESS THAN 4' COVER, CONCRETE ENCASEMENT IS REQUIRED. IF MORE THAN 4' COVER IS PROVIDED IN PAVED AREAS SELECT FILL IS REQUIRED.
5. THE CONTRACTOR MUST NOTIFY THE TOWN ENGINEER OFFICE AND THE PLUMBING INSPECTOR 24 HOURS IN ADVANCE OF CONSTRUCTION.
6. CLEANOUTS ARE REQUIRED EVERY 100' AND AT CHANGE IN DIRECTION.
7. ABANDONED SANITARY SEWER CONNECTIONS FROM THE SITE, IF ANY, REQUIRE PROOF OF A DISTRICT PERMIT FOR DISCONNECTION PRIOR TO THE NEW CONNECTION BEING MADE.

UTILITY NOTES:
1. PROVIDE FITTINGS AND BLOCKING AS NECESSARY AT ALL BENDS IN WATER LINES.
2. WHERE UTILITIES ARE INSTALLED IN EXISTING PAVEMENT, LANDSCAPED AREA ETC. ANY ITEMS REMOVED/DAMAGED SHALL BE REPLACED IN KIND.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS NECESSARY: STATE, COUNTY, AND TOWN.
4. WATER MAINS TO HAVE MINIMUM 5FT COVER,

UTILITY LEGEND:

	PROPERTY LINE
G	PROPOSED GAS
W	PROPOSED WATER
E	PROPOSED ELECTRIC
San	PROPOSED SANITARY
TC	PROPOSED TELEPHONE
EX ELEC	EXISTING ELECTRIC
EX GAS	EXISTING GAS
EX WTR	EXISTING WATER
EX OH	EXISTING OVERHEAD UTILITY
EX SAN	EXISTING SANITARY
EX STM	EXISTING STORM
EX TC	EXISTING TELECOMS



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7	03.28.2023	DZ	Building Layout

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ARCHITECT
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BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

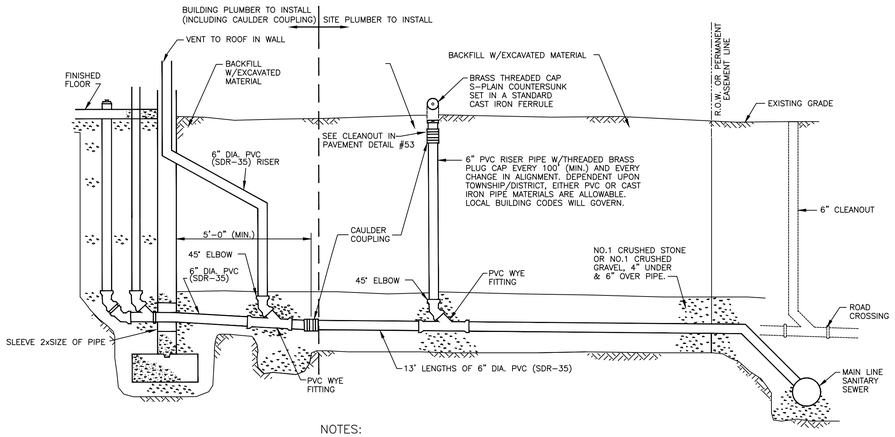
SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY 029709 STATE OF NEW YORK

TITLE:
UTILITY PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C6.0

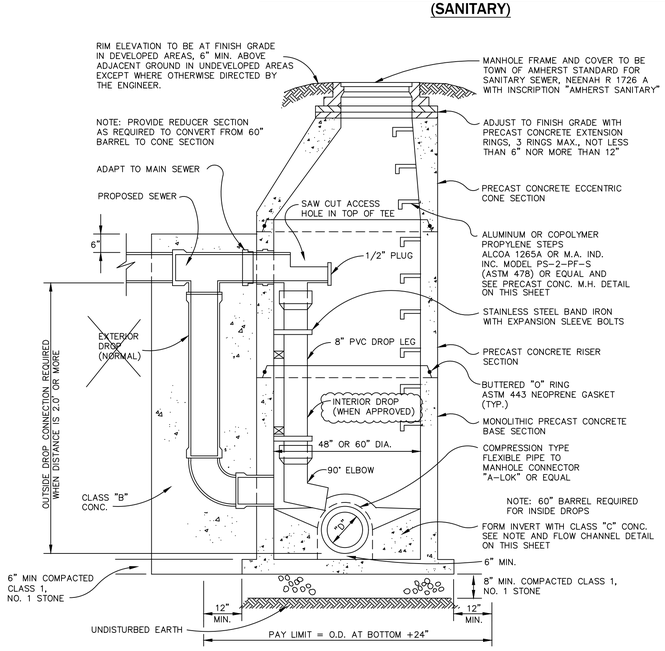
Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



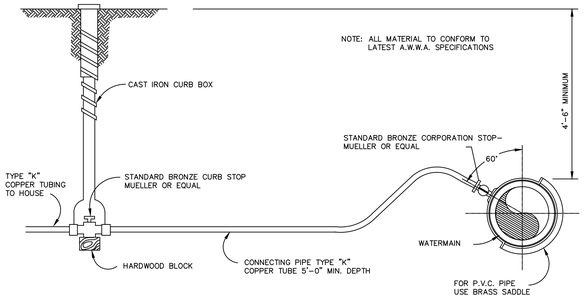
NOTES:

1. PVC PIPE MATERIAL SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ASTM SPECIFICATION D-3033/D-3034.
2. SELECT BACKFILL REQUIRED UNDER PAVED AREAS.
3. CONCRETE ENCASEMENT IF COVER DEPTH IS LESS THAN 4'-0" UNDER PAVED AREAS
4. MIN. DEPTH OF COVER 3'-0"
5. A GREASE SEPARATOR AND OIL SEPARATOR REQUIRED WHERE APPLICABLE.

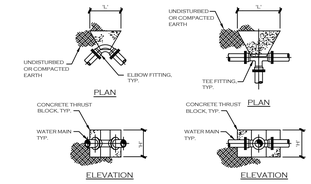
TYPICAL COMMERCIAL SERVICE WITHOUT BASEMENT DETAIL (SANITARY)



TOWN OF AMHERST TYPICAL PRECAST CONCRETE DROP MANHOLE (FOR DROP CONNECTION)



TYPICAL WATER SERVICE LINE INSTALLATION



DIMENSION SCHEDULE

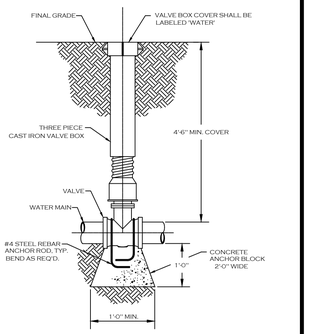
PIPE SIZE	90° ELBOW 'H'	90° ELBOW 'L'	45° ELBOW 'H'	45° ELBOW 'L'	22.5° ELBOW 'H'	22.5° ELBOW 'L'	11.25° ELBOW 'H'	11.25° ELBOW 'L'
4"	1.5'	2.0'	1.0'	2.0'	1.0'	1.0'	1.0'	1.0'
6"	2.0'	2.5'	1.5'	2.0'	1.0'	1.5'	1.0'	1.5'
8"	2.5'	3.5'	2.0'	2.5'	1.5'	1.5'	1.0'	2.0'
10"	3.0'	4.5'	2.5'	3.0'	1.5'	3.0'	1.0'	2.5'
12"	3.5'	5.0'	3.0'	3.5'	2.5'	2.5'	1.5'	2.5'

DIMENSION SCHEDULE

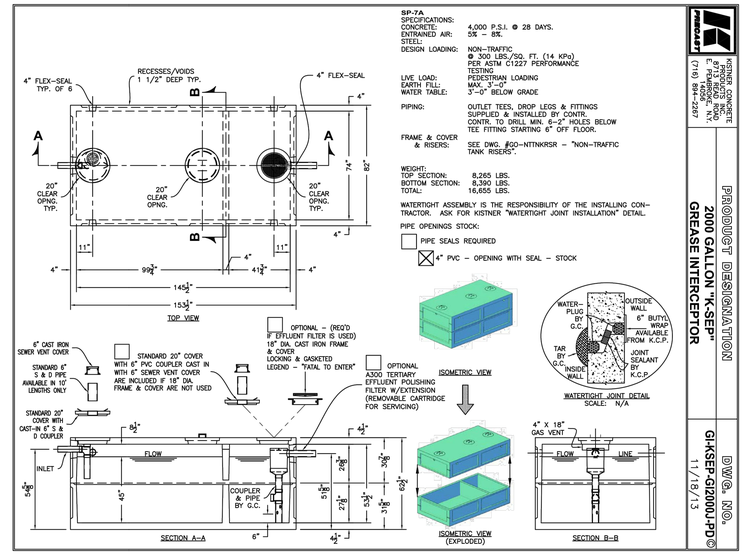
PIPE SIZE	TEE OR TAP SLEEVE 'H'	TEE OR TAP SLEEVE 'L'
—	1'-0"	1'-0"
4"	1.5'	1.0'
6"	1.5'	2.5'
8"	1.5'	3.5'
10"	2.5'	3.5'
12"	3.5'	3.5'

THRUST BLOCK SCHEDULE

WATER MAIN

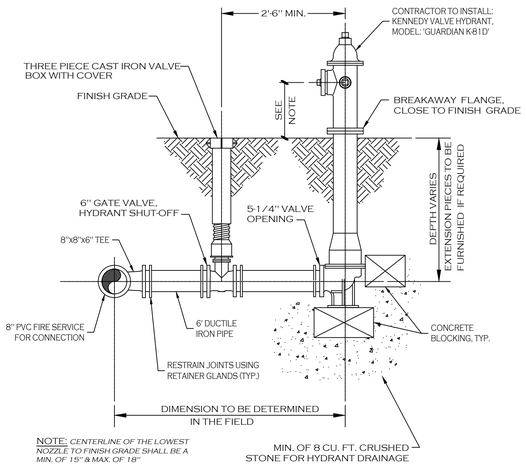


TYPICAL GATE VALVE DETAIL



NOTE: CONCRETE ENCASEMENT SHALL EXTEND TWO FEET IN EITHER DIRECTION (PERPENDICULAR TO WATERMAIN) FROM OUTSIDE DIAMETER OF WATERMAIN.

WATER CROSSING DETAIL CLEARANCE LESS THAN 18"



TYPICAL FIRE HYDRANT ASSEMBLY DETAIL

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4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

OFFICIAL TOWN USE ONLY

TITLE:

UTILITY DETAILS

SCALE: -

DRAWN BY: DMZ

CHECKED BY: JAR

DATE: 05.05.2022

DRAWING NO. C6.1

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)

GENERAL NOTES:
1. INSTALL ALL MATERIALS TO MANUFACTURER'S RECOMMENDATIONS AND BEST STANDARDS OF TRADE INVOLVED.
2. SUBSTITUTIONS SHALL BE MADE ONLY WITH OWNER'S APPROVAL AND BE OF EQUIVALENT QUALITY TO WHAT IS SPECIFIED.
3. WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND OSHA SAFETY RULES AND REGULATIONS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. NOTIFY OWNER & ENGINEER OF DISCREPANCIES IN CONDITIONS SHOWN ON DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY EXISTING STRUCTURES TO REMAIN AND ANY FINISH MATERIAL INSTALLED WHILE WORKING ON OTHER COMPONENTS.
6. CONTRACTOR SHALL KEEP JOB FREE OF DEBRIS AND MAKE FINAL CLEANUP TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINES AND/OR INSTALLATIONS EXCEPT AS DETAILED ON THE PLANS. COORDINATE ALL WORK WITH THE APPLICABLE UTILITY COMPANIES.
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS NECESSARY TO PERFORM THE WORK.
9. BUILDING DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR LAYOUT DIMENSIONS.
10. SIDEWALK DIMENSIONS ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR THE SIDEWALK PLAN.
11. CONCRETE SIDEWALK SEALERS: (REFER TO ARCHITECTURAL PLANS FOR LOCATION OF CONCRETE TYPES.)
    11.1. GREY CONCRETE SIDEWALKS SHALL HAVE CHEMMASTERS - SILENCURE WITHIN 2HRS AFTER FINAL FINISHING OF CONCRETE AND ALL BLEED WATER HAS DISSIPATED.
    11.2. EXPOSED AGGREGATE/STAMPED CONCRETE SIDEWALKS SHALL HAVE ONE (x1) COAT CHEMMASTERS - SILENCURE AS SOON AS CONCRETE HAS DRIED AFTER PRESSURE-WASHING THE RELEASE AGENT OFF. APRX 30 DAYS AFTER THIS (IF WEATHER PERMITS) APPLY ONE (x1) COAT OF CHEMMASTERS - POLYSEAL EZ.
12. LIGHTING FIXTURE ARROW SYMBOLS REFER TO THE DIRECTION THAT THE FIXTURES ARE REQUIRED TO FACE. SPECIFIC MOUNT BRACKETS WILL BE REQUIRED DEPENDING ON ORIENTATION AND FIXTURE COUNT.
13. CURB ISLAND DIMENSIONS ARE FROM INSIDE OF CURB TO INSIDE OF CURB.

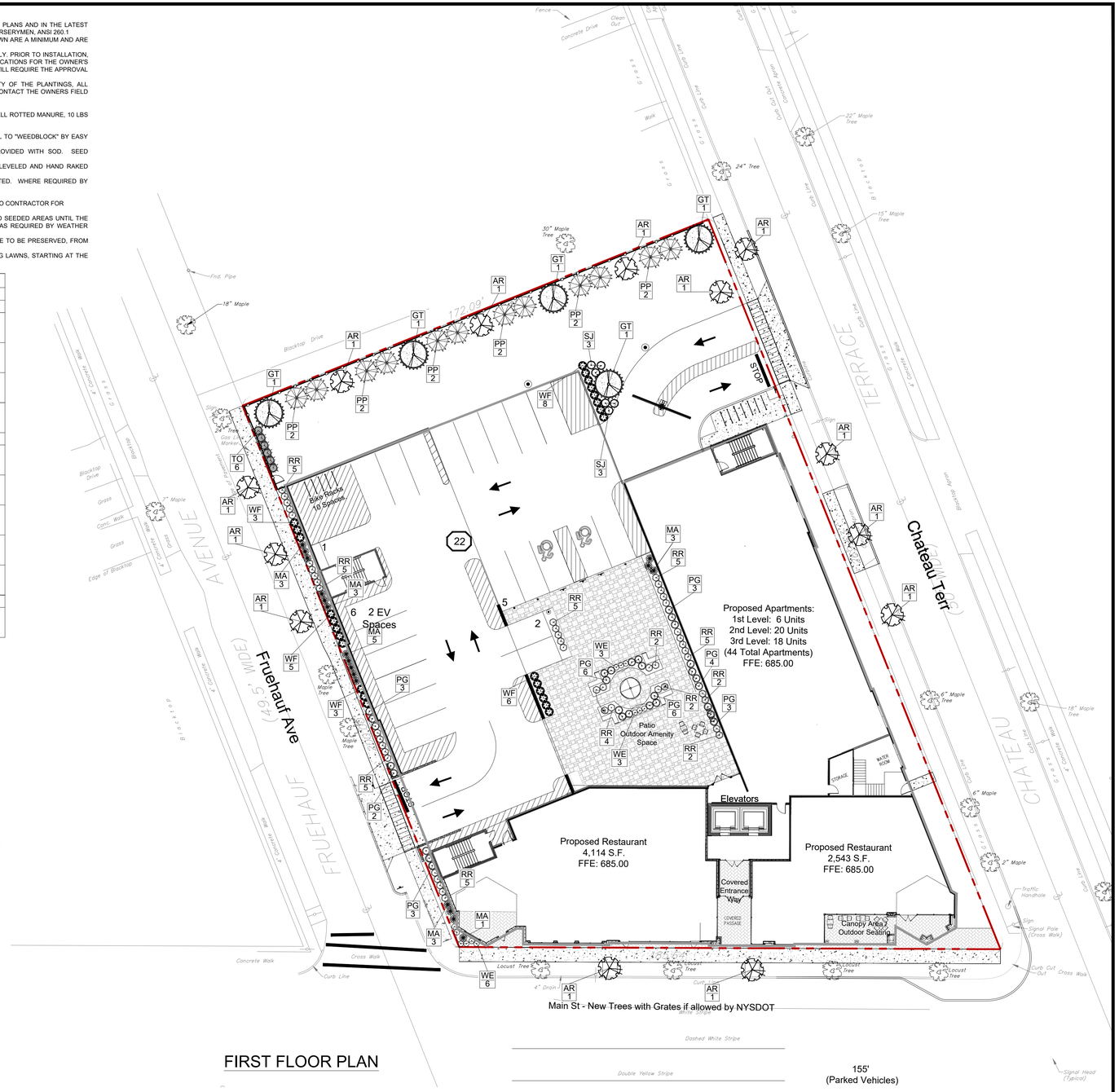
LANDSCAPE NOTES:
1. ALL PLANTS INSTALLED SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED ON THE PLANS AND IN THE LATEST EDITION ON THE AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF. THE QUANTITIES SHOWN ARE A MINIMUM AND ARE FOR REFERENCE ONLY.
3. PROPOSED PLANTING MATERIAL LOCATIONS IDENTIFIED ON THE PLANS CONVEY DESIGN INTENT ONLY. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL COMPLETE A FIELD STAKEOUT OF ALL PROPOSED PLANTING MATERIAL LOCATIONS FOR THE OWNER'S REPRESENTATIVE'S INITIAL REVIEW. THE FINAL LOCATION OF ALL PROPOSED PLANTING MATERIALS WILL REQUIRE THE APPROVAL OF THE OWNER'S REPRESENTATIVE AT THE TIME OF INSTALLATION.
4. THE CONTRACTOR IS HEREBY NOTIFIED THAT IF UNDERGROUND UTILITIES EXIST IN THE VICINITY OF THE PLANTINGS, ALL PROPOSED PLANTINGS SHALL BE INSTALLED A MINIMUM OF 5' FROM ANY UNDERGROUND UTILITY, CONTACT THE OWNERS FIELD REPRESENTATIVE IF PLANTINGS SHOWN ON THE PLANS VIOLATE THIS SITUATION.
5. ALL TREES SHALL BE INSTALLED A MINIMUM OF 20' FROM ANY OVERHEAD ELECTRIC LINES.
6. PLANTING BACKFILL MIXTURE SHALL CONSIST OF 4 PARTS TOPSOIL, 1 PART PEAT MOSS, ½ PART WELL ROTTED MANURE, 10 LBS 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
7. STAKE AND WRAP TREES IMMEDIATELY FOLLOWING INSTALLATION.
8. ALL PLANTED AREAS SHALL RECEIVE A MAX. 2" LAYER OF COCOA BROWN MULCH. WEED MAT EQUAL TO "WEEDBLOCK" BY EASY GARDENER OR DEWITT WEED BARRIER.
9. ALL DISTURBED AREAS NOT RECEIVING PLANTINGS (INCLUDING RIGHT-OF-WAYS) SHALL BE PROVIDED WITH SOD. SEED PERMITTED AT RETENTION POND IF PLANTED EARLY ENOUGH TO ESTABLISH.
10. THE AREAS ON THE PLAN TO BE SEEDED SHALL HAVE 4" MINIMUM OF TOPSOIL, DISK PLOWED, LEVELED AND HAND RAKED SMOOTH. SURFACE SHALL BE ROLLED TO REMOVE LUMPS.
11. ALL SEEDED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH THE SPECIFICATION INDICATED. WHERE REQUIRED BY CLIMATIC CONDITIONS, SLOPE OR SEASON OF PLANTING.
    HYDROSEED SPEC: 20% RYE, 20% BLUE GRASS, 60% TURF TYPE FESCUE.
    SOD MAY BE SUBSTITUTED FOR SEEDING IN ORDER TO ACHIEVE THE REQUIRED COVERAGE (REFER TO CONTRACTOR FOR SOD/SEED COVERAGE).
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING, MOWING AND OTHER MAINTENANCE TO SEEDED AREAS UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THIS SHALL INCLUDE WATERING DAILY FOR 15 DAYS OR AS REQUIRED BY WEATHER CONDITIONS AND RE-SEEDING OF THIN SPOTS FOLLOWING THE GERMINATION OF THE SEEDS.
13. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING TREES ONSITE AND OFFSITE, WHICH ARE TO BE PRESERVED, FROM ALL POSSIBLE TYPES OF ROOT, TRUNK, AND LIMB DAMAGE.
14. CONTRACTOR TO PROVIDE A ONE YEAR GUARANTEE ON ALL NEW PLANTING MATERIALS, INCLUDING LAWNS, STARTING AT THE DATE OF FINAL ACCEPTANCE.

PLANT LIST

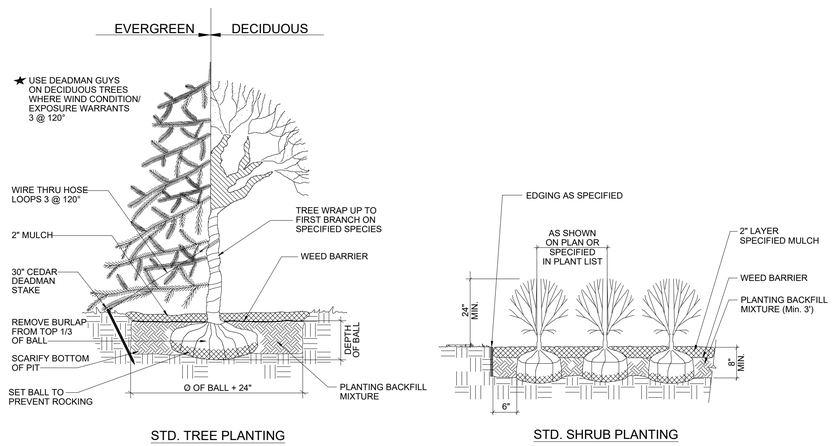
SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	CAL.	SIZE	ROOT	QTY.
TREES							
	AR	Acer x freemanii 'Armstrong'	ARMSTRONG MAPLE	2½"		B&B	13
	TO	Thija occidentalis 'Emerald'	EMERALD GREEN ARBORVITAE		5'	B&B	6
	GT	Gliditsia Triacanthos	HONEY LOCUST	3"		B&B	5
	PP	Picea pungens	COLORADO SPRUCE		5'	B&B	12
SHRUBS							
	PG	Picea pungens 'Glauca Globosa'	LOW GRAFT GLOBE BLUE SPRUCE		24"	3 GAL.	30
	RR	Rosa 'Radrazz'	KNOCK OUT SHRUB ROSE		24"	3 GAL.	47
	SJ	Spiraea japonica 'Gold Mound'	GOLD MOUND SPIRAEA		24"	3 GAL.	6
	WE	Weigela florida 'Elvera'	MIDNIGHT WINE WEIGELA		24"	3 GAL.	12
	WF	Weigela florida 'Alexandra'	WINE & ROSES WEIGELA		24"	3 GAL.	25
GRASSES							
	MA	Miscanthus sinensis 'Adagio'	ADAGIO MAIDEN GRASS		24"	3 GAL.	18

LANDSCAPE ANALYSIS

TYPE	REQUIRED	PROVIDED
STREET TREES	1 TREE / 35 L.F. §203-5A-2-4 K	
MAIN STREET	186 L.F. Frontage 186' / 35' = 6 trees required	6 Trees
CHATEAU TERRACE	269 L.F. Frontage 269' / 35' = 8 trees required	8 Trees
FRUEHAUF AVE	200 L.F. Frontage 200' / 35' = 6 trees required	6 Trees
DEEP LOT TRANSITION	20' MIN WIDTH	20'
Medium Impact Screen - Large Deciduous - Small Deciduous/ Ornamental - Evergreen	Screen 3 @ 172LF Length 1 Tree / 50 L.F. = 4 Trees 1 Tree / 60 L.F. = 3 Trees 1 Tree/ 15 L.F. = 12 Trees	 4 Trees 3 Trees 12 Trees



FIRST FLOOR PLAN



STD. TREE PLANTING

STD. SHRUB PLANTING

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.05.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments
4	01.27.2023	DZ	Town Comments
5	01.31.2023	DZ	Town Comments
6	03.24.2023	DZ	Building Layout
7	03.28.2023	DZ	Building Layout

SPECIAL INFORMATION:
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NOTICE
UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

Know what's below. Call before you dig.

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AREA: - -

4548 - 4564 Main Street, Amherst, NY 14226

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CONSULTANT

BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

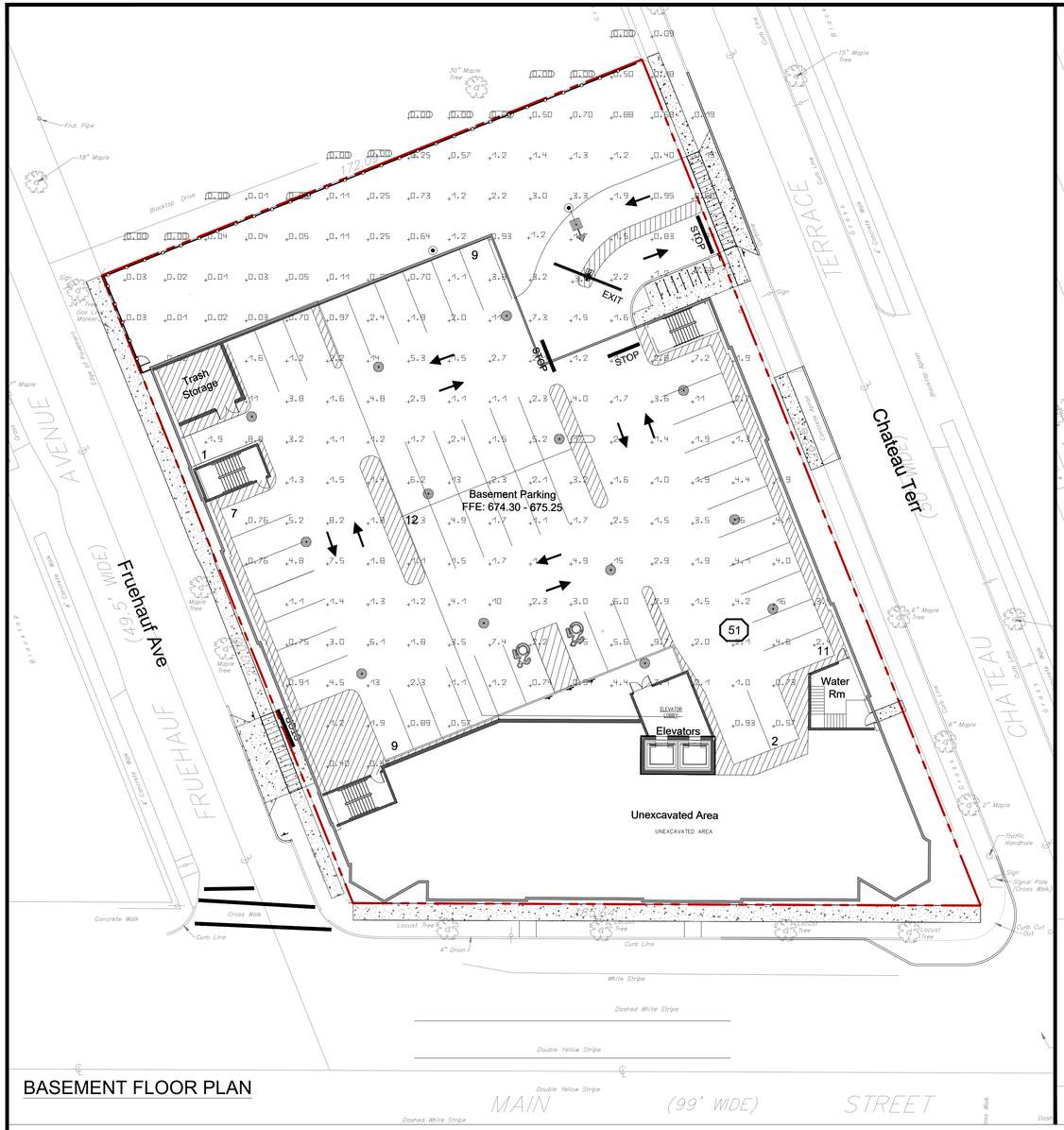
REGISTERED LANDSCAPE ARCHITECT · ROBERT J. TRYBULSKI · 001233 · STATE OF NEW YORK

Robert J. Trybulski
ROBERT J. TRYBULSKI
LANDSCAPE ARCHITECT

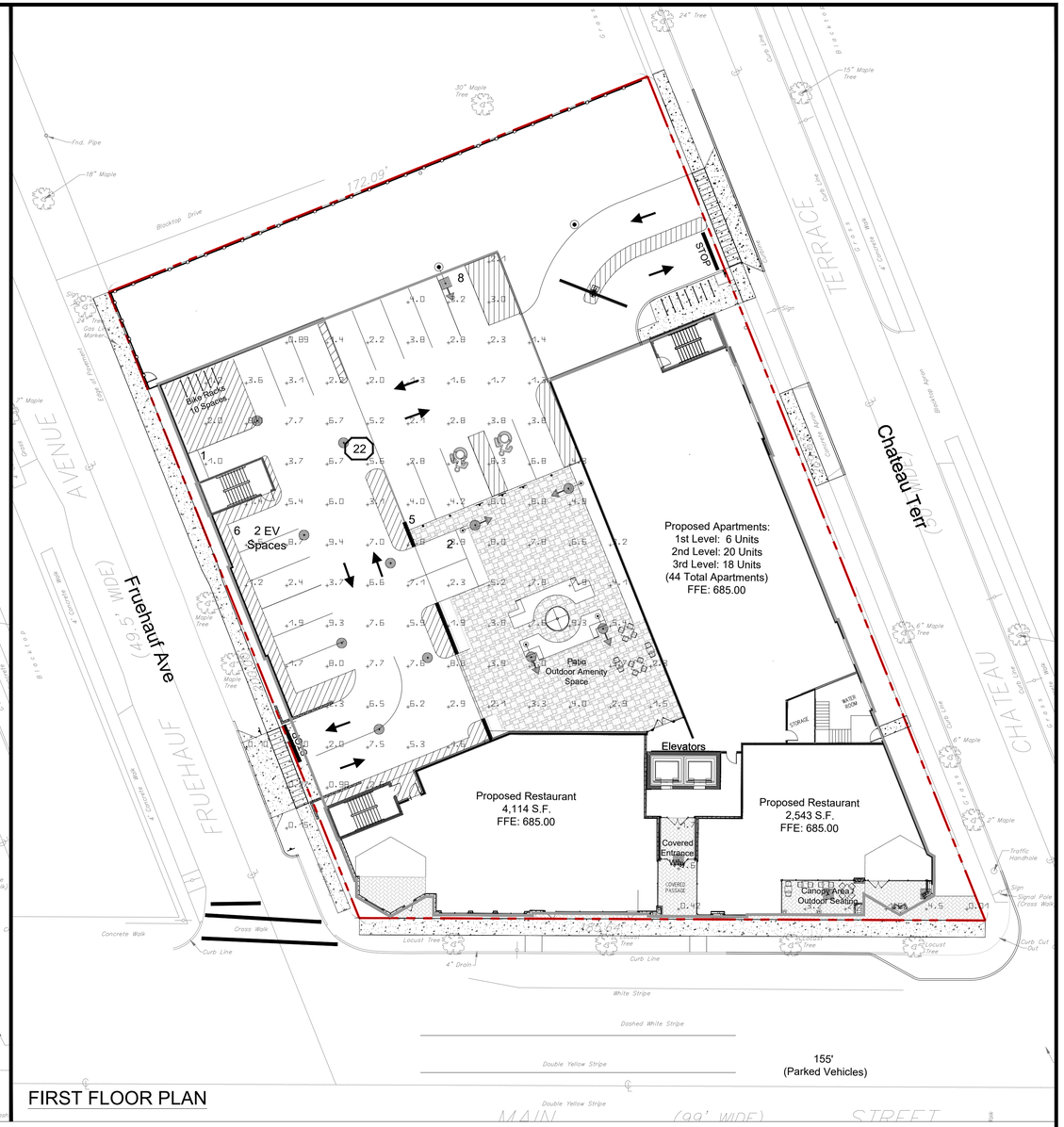
TITLE:
LANDSCAPE PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: RJT
DATE: 05.05.2022
DRAWING NO. C7.0

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

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Luminaire Schedule

Index	Manufacturer	Luminaire type	Item number	Luminous flux	Mounting Height	Connected load	Quantity
	Cree Inc	Cree OSQ Series Area Luminaire, Type III Medium, 11L Input Power Designator, 4000K	OSQM-B-11L-40K7 3M-UL-BK w/OSQ-BLSLF	8825 Lm	20 Ft	72 W	2
	Cree Inc.	Cree IG Series Parking Garage Luminaire, Type V , 7L Input Power Designator, 4000K	IG-B-NM-5S-7L-40K8-UL	7550 Lm	10 Ft	60 W	21
	Cree Inc	Cree THE EDGE Series Round Luminaire, 60x 525mA Power, 4000K	ARE-EDG-2M-R3-06-E-UL-BK-525	10527 Lm	15 Ft	101 W	4
	Cree Inc	Cree CPY Series - Version C Canopy Luminaire, 2L Power, Flat Lens, 4000K	CPY250-C-2L-40K9-F-UL-DM	1730 Lm	10 Ft	14 W	3

m	Name	Parameter	Min	Max	Average
1	Pavement Parking Area	Site FC	0.10 fc	16.6 fc	2.91 fc

OFFICIAL TOWN USE ONLY

DRAWING REVISIONS:

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(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY 026108 STATE OF NEW YORK

TITLE:

LIGHTING PLAN

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C8.0

Attachment: SP-2022-11 drawings, 042023 (26951 : Sp-2022-11)

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Rev. Date: V5 09/14/2021

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 4L lumen package is a suitable upgrade for HID applications up to 250 Watt, and the 11L lumen package is a suitable upgrade for HID applications up to 400 Watt. The 22L lumen package is a suitable upgrade for HID applications up to 750 Watts, and the 30L lumen package is a suitable upgrade for HID applications up to 1000 Watts.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: 4,000 - 30,000

Efficacy: Up to 173 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire; 13 years on Colorfast DeltaGuard® finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

*See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

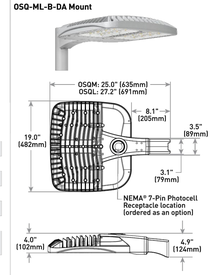
Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** OSQ-ML-B-AA-BK + **Luminaire:** OSQM-B-4L-30K7-2M-UL-NM-BK

Mount (Luminaire must be ordered separately)*	
OSQ-	
OSQ-ML-B-AA Adjustable Arm **OSQ-ML-B-DA** Direct Arm **OSQ-ML-B-TSP** Transportation Mount (stainless steel; do not specify color) **OSQ-ML-B-TM** Trunnion Mount	**Color Options:** **SV** Silver **BZ** Bronze **BK** Black **WH** White

* Reference EPA and pole configuration suitability data beginning on page 10

OSQ-ML-B-DA Mount



Luminaire	Weight
OSQM	28.9 lbs. (13.1kg)
OSQL	32.4 lbs. (14.7kg)

Note: Refer to page 11 for fixture mounting drill pattern. For additional mounts, refer to drawings beginning on page 19

Luminaire (Mount must be ordered separately)									
OSQ		B							
Family	**Size**	**Series**	**Lumen Package***	**CCT/CRI**	**Optic**	**Voltage**	**Mount**	**Color Options**	**Controls****	**Options**
OSQ	**M** Medium **L** Large	B	**Medium** **4L** 4,000 Lumens **6L** 6,000 Lumens **9L** 9,000 Lumens **11L** 11,000 Lumens **14L** 14,000 Lumens **Large** **22L** 22,000 Lumens **30L** 30,000 Lumens	**30K7** 3000K, 70 CRI **40K7** 4000K, 70 CRI **40K9** 4000K, 90 CRI **50K7** 5000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**Asymmetric** **2M*** Type II Medium **3M*** Type III Medium **4M*** Type IV Medium **Symmetric** **5M** Type V Medium **5N** Type V Narrow **5Q** Type V Square **N3** Narrow Flood **33** NEMA® 3x3 **44** NEMA® 4x4 **55** NEMA® 5x5 **66** NEMA® 6x6 **75** NEMA® 7x5	**UL** Universal 120-277V **UH** Universal 347-480V - Not available with 4L or 6L lumen packages	**NM** No Mount - Must specify mount from table above - Mount ships separately	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**PML Programmable Multi-Level, up to 40' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **PML2 Programmable Multi-Level, 10-30' Mounting Height** - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt **Q1/Q2/Q3/Q4/Q5/Q6/Q7/Q8/Q9/Q10/Q11/Q12/Q13/Q14/Q15/Q16/Q17/Q18/Q19/Q20/Q21** **Field Adjustable Output** - Must select Q9, Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range adjustability - Refer to pages 12-18 for power and lumen values - Not available with PML or PML2 options **XB/XT/XA/XS/XJ/XX/XZ/X1** **Locked Lumen Output** - Must select and XB, X7, XA, XS, XJ, X4, X3, XZ, or X1 - Not available with 22L or 30L lumen packages - Not available with PML or PML2 options - Lumen output is permanently locked to the setting selected - Refer to pages 12-18 for power and lumen values	**R**	**20KV 20kV/10kA Surge Suppression** - Replaces standard 10kV surge protection **F Fuse** - Compatible with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - Refer to PML spec sheet for availability with PML options - When code dictates fusing, use time delay fuse **NEMA® 7-Pin Photocell Receptacle** - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - 18" (457mm) seven-conductor cord exits luminaire - Requires photocell or shorting cap by others **RL Rotate Left** - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 19 for optic directionality - Not for use with symmetric optics **RR Rotate Right** - LED and optic are rotated to the right - Refer to RR/RL configuration diagram on page 19 for optic directionality - Not for use with symmetric optics

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values
* Available with Backlight Shield when ordered with field-installed accessory (see table above)
** Luminaire comes standard with 0-10V dimming

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

CPY Series - Version C

CPY250® LED Canopy/Soffit Luminaire

Rev. Date: V3 02/01/2022

Product Description

The CPY250® LED Canopy/Soffit Luminaire has an extremely thin profile constructed of rugged cast aluminum. It can be surface mounted easily from below the canopy deck and can be pendant mounted. Direct imaging of the LEDs is eliminated with a highly efficient patterned flat or 0.91" (23mm) drop glass lens.
Applications: Petroleum canopies, CNG fueling stations, soffits

Performance Summary

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 21,000

Efficacy: Up to 165 LPW

CRI: Minimum 70 CRI (40K, 50K, 57K); 80 CRI (30K); 90 CRI (40K, 50K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/5 years on PML sensor/1 year on field-installed accessories

IP66 Rated (select models only)

Class I, Division 2 Hazardous Location for select models

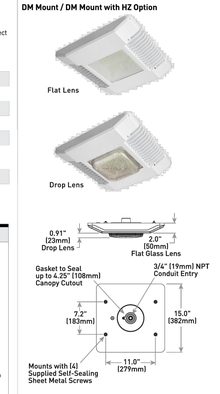
*See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed
Direct Mount Luminaires **Canopy Upgrade Kits (18 ga. steel, except where noted)** CPY-AP06/* - for use with Cree Lighting CAN-304 luminaires, 16 ga. 5052 aluminum XA-BXCCMW – for use with Jet-Philips, 21.40" (569mm) square, white XA-BXCCNW – for use with Elsco Franciscan, 22.06" (560mm) square, white XA-BXCCPW – for use with LSI Dakota or Masters, 22.50" (572mm) square, white XA-BXCCQW – for use with Whiteway Riviera or Rig-A-Lite, 20.40" (523mm) square, white XA-BXCCRW – for use with Elsco Merrit, 18.06" (459mm) square, white XA-BXCCSW – for use with LSI Richmond or Whiteway Civic, 23.00" (584mm) L x 13.00" (330mm) W, white **Direct Mount Junction Box/Stem Kit** XA-BXCCJBOX – 6.0" (152mm) H x 3/4" (19mm) NPT Stem - Watertight - Rated for feed-through 8 (4 in, 4 out) #12 AWG conductors **Direct Mount Beauty Plates** XA-BXCCBPW – 24.17" (665mm) Beauty Plate Only (18 ga. steel), white XA-BXCCBPB13W – 24.17" (665mm) Beauty Plate (18 ga. steel) w/13" (305mm) Backer Plate (16 ga. steel), white - For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 10.75" x 15" (183mm x 275mm) XA-BXCCBPB16W – 24.17" (665mm) Beauty Plate (18 ga. steel) w/16" (406mm) Backer Plate (16 ga. steel), white - For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 12" x 15" (305mm x 375mm)	**Pendant Mount Luminaires** **Pendant Mount Kits** XA-PS12KIT* – 5' (1219mm) pendant XA-PS18KIT* – 11' (2799mm) pendant XA-PS22KIT* – 15' (3861mm) pendant - Includes two conduit fittings and 3/4-14 NPT pipe threaded on two ends **Hand-Held Remote** XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required **Synapse® SimplySnap 10V Interface** DIM10-220F - 120V-277V - Requires other Synapse components to complete system - Refer to DIM10-220F spec sheet for details

* Must specify color: BK (Black), BZ (Bronze), SV (Silver) or WH (White)

DM Mount / DM Mount with HZ Option



Weight
12.5 lbs. (5.7kg)

Refer to Page 4 for additional mounts.

Ordering Information

Example: CPY250-C-13L-57K7-D-UL-DM-SV

CPY250	C							
Product	**Version**	**Lumen Package***	**CCT/CRI**	**Optic**	**Voltage**	**Mounting**	**Color Options**	**Controls**	**Options**
CPY250	C	**2L** 2,000 Lumens **4L** 4,000 Lumens **6L** 6,000 Lumens **9L** 9,000 Lumens **13L** 13,000 Lumens **21L** 21,000 Lumens	**30K8** 3000K, 80 CRI **40K7** 4000K, 70 CRI **40K8** 4000K, 80 CRI **50K7** 5000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**D** 0.91" (23mm) Drop Lens **F** Flat Lens	**UL** Universal 120-277V **UH** Universal 347-480V - Not available with 4L-21L lumen packages	**DM** Direct Mount **HC** Hook & Cord **PD** Pendant **R6** Car Wash	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**BLANK** Non-Dimming **10V** 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details **PML** Programmable Multi-Level - Available with UL voltage only - Refer to PML spec sheet for details	**10KV 10kV/5kA Surge Suppression** - Replaces standard 4kV/3kA surge suppression - Not for use with PML, as PML option includes10kV surge as standard **HZ Class I, Div 2 Hazardous Location** - Not available with DM and PD mounts only - Not available with PML control or K option **K NSF 2 Certification** - Luminaires include NSF certification mark - Suitable for DM mount only - Not available with PML control or HZ option

* Lumen Package codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

IG Series

LED Parking Garage Luminaire

Rev. Date: V6 09/17/2020

Product Description

Cree Lighting innovates again to reset the performance benchmark in parking garage applications with the IG Series featuring WaveMax® Technology, our innovative optical waveguide platform. Available in 33 watt and 60 watt, two lumen packages are offered to satisfy IES RP-8-18 and IES Security Zone 0-1-03 requirements for environments seeking higher light levels for improved safety and security. The streamlined design breaks away from dated traditional designs, blending form and function, to deliver superior low-glare illumination.

For enhanced performance and versatility, a range of optional integrated lighting controllers bring advanced capabilities and energy savings to the IG Series. From the stand-alone multi-level (PML) option to the full-featured Limelight by Lutron or Synapse® wireless control options, the IG Series provides the features and flexibility designed to meet the needs of today's most demanding parking garage applications.

Applications: Parking garages

Performance Summary

Utilizes WaveMax® Technology

Initial Delivered Lumens: 3,860 or 7,550 lumens

Input Power: 33 or 60 watts

Efficacy: Up to 126 LPW

Optic: Type V Short Distribution

Assembled in the USA of U.S. and imported parts

CCT: 3000K, 3500K, 4000K, 5700K

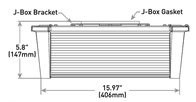
CRI: Minimum 80 CRI

Limited Warranty*: 10 years on luminaire; 5 years on PML and Limelight options; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

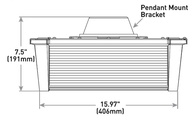
*See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.



JB Mount



PD Mount



Weight
10 lbs. (4.5kg)

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** IG-JBWH + **Luminaire:** IG-B-NM-5S-4L-40KB-UL-WH

Mount (Luminaire must be ordered separately)	
IG-	**WH**
IG-JB Junction Box **IG-PD** Pendant	**Color Options:** **WH** White

Luminaire (Mount must be ordered separately)								
IG	B	NM	5S				WH	
Product	**Version**	**Mounting**	**Optic**	**Lumen Package**	**CCT/CRI**	**Voltage**	**Color**	**Options**
IG	B	**NM** No Mount	**5S** Type V Short	**4L** 4,000 Lumens **7L** 7,000 Lumens	**30KB** 3000K, 80 CRI **35KB** 3500K, 80 CRI **40KB** 4000K, 80 CRI **57KB** 5700K, 80 CRI	**UL** 120-277V **UH** 347-480V	**WH** White	**L8F Limelight by Lutron Radio Module** - Not available with UH voltage or PML, SWC, SWS, LPL, or LPM options **LPL Limelight by Lutron Radio Module and PIR Sensor Assembly – Low Mounting Height (8-15' mounting height)** - Not available with UH voltage or PML, SWC, SWS, L8F, or LPM options **LPM Limelight by Lutron Radio Module and PIR Sensor Assembly – Medium Mounting Height (>15 to 30' mounting height)** - Not available with UH voltage or PML, SWC, SWS, LPL, or L8F options **PML Programmable Multi-Level** - Uses built-in occupancy sensing and field-adjustable ambient light sensitivity to independently control the light output of each luminaire - Refer to PML spec sheet for details - Not available with SWC, SWS, L8F, LPL or LPM options - XA-SENSREM hand-held remote required (see Accessory table on page 2) **SWC Synapse® Wireless Controller** - Provides real-time lighting control with utility-grade power monitoring (+/-2%) - Uses a highly reliable SimplySNAP mesh network - SimplySNAP Gateway is required (see Accessory table on page 2) -Not available with UH voltage or PML, SWS, L8F, LPL or LPM options **SWS Synapse® Wireless Controller with Network Sensor** - Adds customizable sensor for motion or ambient light detection with use of Daylight Harvesting Accessory (see Accessory table on page 2) - Sensor configured for motion sensing as factory default - SimplySNAP Gateway is required (see Accessory table on page 2) - Not available with UH voltage or PML, SWC, L8F, LPL or LPM options

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

THE EDGE® Series

LED Area Luminaire – Round

Rev. Date: V10 12/10/2021

Product Description

THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment, spun vented cover, high performance aluminum heat sinks and leaf/debris guard.
Applications: Auto Dealerships, parking lots, campuses, facade lighting and general site lighting applications

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 25,065

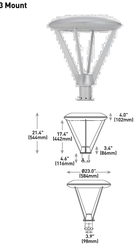
CRI: Minimum 70 CRI (4000K & 5700K); 80 CRI (3000K); 90 CRI (5000K)

CCT: Turtle Friendly Amber, 3000K (+/-300K), 4000K (+/-300K), 5000K (+/- 500K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish /1 year on accessories

*See http://creelighting.com/warranty for warranty terms

R3 Mount



Accessories

Field-Installed	
Bird Spikes XA-BRDSPK **Synapse® SimplySnap 10V Interface** DIM10-220F - 120V-277V - Requires other Synapse components to complete system - Refer to DIM10-220F spec sheet for details	**Backlight Control Shields** XA-20BLS-4 - Four-pack - Unpainted stainless steel - For use with SM and SS optics - Consult factory for shielding for use with 2M, 3M, and 4M optics

LED Count (x10)	Weight
04	33.8 lbs. (15.3kg)
06	35.2 lbs. (15.9kg)
08	37.0 lbs. (16.8kg)
10	40.7 lbs. (18.5kg)
12	42.4 lbs. (19.3kg)

R4/R5 Mount – see page 14 for weight & dimensions

Ordering Information

Example: ARE-EDR-2M-R3-12-E-UL-SV-350

ARE-EDR									
Product	**Optic**		**Mounting**	**LED Count (x10)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
ARE-EDR	**2M** Type II Medium **2MB** Type II Medium w/BLS **2MP** Type II Medium w/ Partial BLS **3MB** Type III Medium w/BLS	**3MP** Type III Medium w/Partial BLS **4M** Type IV Medium **4MB** Type IV Medium w/BLS **4MP** Type IV Medium w/Partial BLS **5M** Type V Medium **5S** Type V Short	**R3** Spider, Center Tenon, 2-3/8" to 3" OD **R4** Spider, Center Direct, 4" Square **R5** Spider, Center Direct, 5" Round	**04**** **06**** **08**** **10** **12**	**E**	**UL** Universal 120-277V **UH** Universal 347-480V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA **700** 700mA - Available with 40-60 LEDs	**DIM 0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current **F Fuse** - Compatible only with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - When code dictates fusing, use time delay fuse **HL HI/Low (Dual Circuit Input)** - Refer to HL spec sheet for details - Sensor not included **P Photocell** - Available with UL voltage only **30K 3000K Color Temperature** - Minimum 80 CRI - Color temperature per luminaire **40K 4000K Color Temperature** - Minimum 70 CRI - Color temperature per luminaire **50K 5000K Color Temperature** - Minimum 90 CRI - Color temperature per luminaire **TRL Amber Turtle Friendly LEDs** - Available only with 350mA - 600nm dominant wavelength - Additional shielding (by others) may be required for Florida Fish and Wildlife Conservation Commission compliance

* Reference EPA and pole configuration suitability data on page 14
** Consists of multiple 20 LED light bars. 40, 60, and 80 LED units use blanks as needed in place of populated light bars

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
1	05.16.2022	DZ	Site Update
3	12.14.2022	DZ	Town Comments

SPECIAL INFORMATION:

ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION #7209 OF THE STATE EDUCATION LAW.

811 Know what's below. Call before you dig.

PROPERTY NUMBER: # 5202

AREA: - -

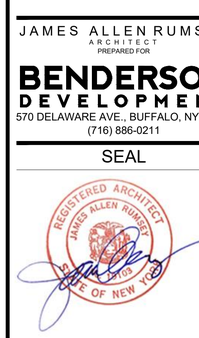
4548 - 4564 Main Street,
Amherst, NY 14226

PROPOSED SITE DEVELOPMENT

CONSULTANT

JAMES ALLEN RUMSEY ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL



OFFICIAL TOWN USE ONLY

TITLE: LIGHTING DETAILS

SCALE: 1:20
DRAWN BY: DMZ
CHECKED BY: JAR
DATE: 05.05.2022
DRAWING NO. C8.1

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)



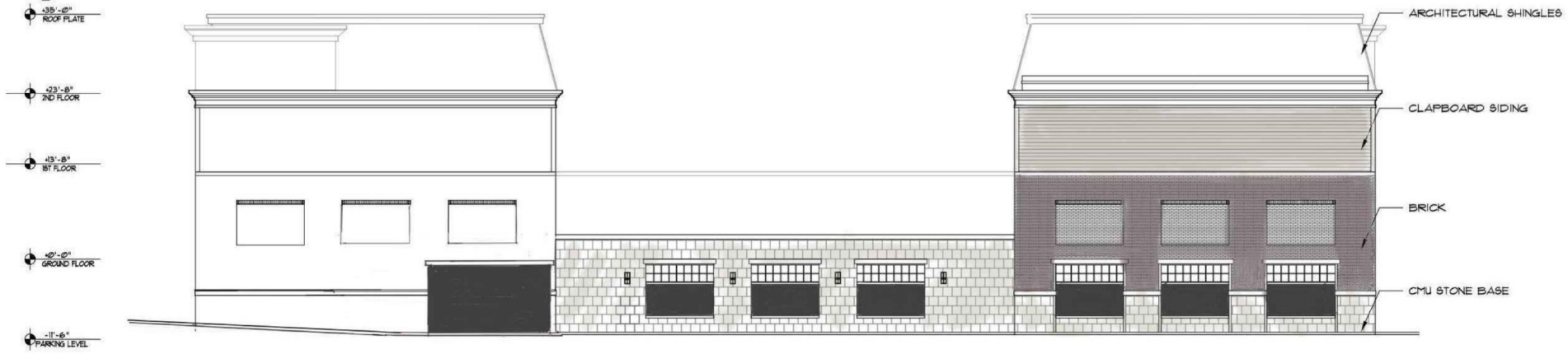
1 XXXX ELEVATION
SCALE: 3/32"=1'-0"

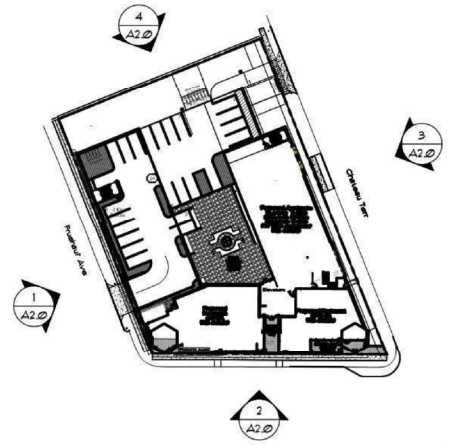


2 XXXX ELEVATION
SCALE: 3/32"=1'-0"



3 EAST ELEVATION
SCALE: 3/32"=1'-0"





KEY PLAN
SCALE: NTS

NORTH

DRAWING REVISIONS:

No.	DATE	BY	REMARKS
-	-	-	-

SPECIAL INFORMATION:

THIS DRAWING PREPARED FOR TENANT IMPROVEMENTS TO AN EXISTING BUILDING OR BUILDING CONSTRUCTED BY OTHERS IT IS UNDERSTOOD THAT ANY WARRANTY INFORMATION CONCERNING EQUIPMENT INSTALLED MUST BE FORWARDED TO THE OWNER AND THAT ANY AND ALL CONTRACTORS SHALL GUARANTEE THEIR WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNERS ACCEPTANCE.

NOTICE

UNAUTHORIZED ALTERATIONS OF THIS DOCUMENT ARE IN VIOLATION OF SECTION 7209 OF THE STATE EDUCATION LAW.

PROPERTY NUMBER: 5202

AREA: -

MAIN STREET
4548-4564 MAIN STREET
SNYDER, NY14226

2.5 STORY

CONSULTANT:

JAMES ALLEN RUMSEY
ARCHITECT
PREPARED FOR
BENDERSON DEVELOPMENT
570 DELAWARE AVE., BUFFALO, NY 14202
(716) 886-0211

SEAL

REGISTERED ARCHITECT JAMES ALLEN RUMSEY STATE OF NEW YORK

TITLE:
EXTERIOR ELEVATIONS

DRAWN BY: RKT

DRAWING NO.: A2.0

01.26.23

Packet Pg. 2411

7.m

Attachment: SP-2022-11_drawings_042023 (26951 : Sp-2022-11)

Amherst

Town of Amherst Planning Department *Erie County, New York*

Brian J. Kulpa
Supervisor

Daniel C. Howard,
Planning Direct

Daniel J. Ulatowski,
Assistant Planning D

April 27, 2023

James A. Boglioli, Esq.
Benderson Development Company, LLC
570 Delaware Avenue
Buffalo, New York 14202

SUBJECT: MAJOR SITE PLAN REVIEW, **SP-2022-11**; PROPOSED SNYDER MIXED USE BUILDING; PROPERTY LOCATED AT **4548 & 4564 MAIN STREET, 17 FRUEHAUF AVENUE, AND 22 CHATEAU TERRACE.**

Dear Mr. Boglioli:

At its meeting of April 20, 2023 the Planning Board voted to **adjourn** the subject site plan because a (SEQR) State Environmental Quality Review Act determination of significance cannot be made by the Planning Board at this time for the following reasons:

1. The Planning Department must coordinate with the NYS Office of Parks Recreation & Historic Preservation (SHPO) pursuant to section 617.6(b)(4)(ii) of the SEQR regulations. Based on their resource evaluation report created March 23, 2023, SHPO has now determined that the building at 4548 Main Street is eligible for inclusion on the State and National Register of Historic Places.
2. The Town of Amherst Historic Preservation Committee (HPC) has received a local landmark designation application for 4548 Main Street. Accordingly, the Planning Board requests a determination from the HPC regarding the designation of 4548 Main Street.
3. The property at 22 Chateau Terrace is identified in the 2011 Reconnaissance Level Survey of Historic Resources for the Town of Amherst as part of a potential local historic district. The HPC has received a landmark designation application for 22 Chateau Terrace. Accordingly, the Planning Board requests a determination from the HPC regarding the designation of 22 Chateau Terrace.

Should you have any questions regarding the Planning Board's decision, please do not hesitate to call us.

Very truly yours,

for Daniel C. Howard, AICP
Planning Director

DH/ac
X:\Current_Planning\Files\Site Plans\2022\SP-2022-11_(4548_4564_Main_St_17_Fruehauf_Ave_&_22_Chateau_Ter)_2022\SP-2022-11_Adjournment Letter_042023.doc

cc: James Allen Rumsey, Benderson Development Co., 570 Delaware Ave., Buffalo, NY 14202
Matthew J. Oates, Benderson Development Co., 570 Delaware Ave., Buffalo, NY 14202

Attachment: SP-2022-11_adjournment_042023 (26951 : Sp-2022-11)

Amherst

Town of Amherst Planning Department *Erie County, New York*

Brian J. Kulpa
Supervisor
Daniel C. Howard, AICP
Planning Director
Daniel J. Ulatowski, AICP
Assistant Planning Director

April 27, 2023

Patrick Sheedy
Carmina Wood Design
487 Main Street, Suite 500
Buffalo, NY 14203

SUBJECT: REQUEST FOR EXTENSION OF SITE PLAN APPROVAL, **SP-2016-04_B & SP-2016-04_C**; PROPOSED GURDWARA CULTURAL CENTER; PROPERTY LOCATED AT **6569 MAIN STREET**.

Dear Mr. Sheedy:

At its meeting of April 20, 2023 the Planning Board voted to adjourn the subject site plan until such time as an application is acted upon for the variances necessary to implement the site plan as presented.

Should you have any questions regarding the Planning Board's decision, please do not hesitate to call us.

Very truly yours,

for Daniel C. Howard, AICP
Planning Director

DH/ac
X:\Current_Planning\Files\Site Plans\2016\SP-2016-04_B_(6569_Main_St)_2023\SP-2016-04_B_SP-2016-04_C_Adjournment Letter_042023.doc

Attachment: SP-2016-04_B_&_SP-2016-04_C_Adjournment_042023 (27376 : Sp-2016-04B & Sp-2016-04C)