GUILDERLAND ZONING BOARD
ZONING BOARD OF APPEALS MEETING
P A C K E T
OCTOBER 20, 2021
07:00 PM

A G E N D A
GUILDERLAND ZONING BOARD
ZONING BOARD OF APPEALS MEETING
OCTOBER 20, 2021
07:00 PM

1.

Pursuant to legislation that suspended the open Meetings Law, the public may listen and view the meeting on Verizon channel 34, Spectrum channel 1303, and the Town website (https://www.townofguilderland.org/town-meeting-videos) and may provide comment during the meeting by dialing (929) 205-6099, and entering meeting ID: 813 9121 1886 and Passcode: 605688.

2. Chairman's Welcome
3. Cases
    1. 2 Van Buren Boulevard

        Decision for a special use permit to permit the construction of a major solar array in an industrial park

        A. Town Designated Engineer's Review

Delaware Engineeing Letter

Attachment: Delaware Engineering Letter

2. WITHDRAWN - 510 Townwood Drive

Public hearing for an area variance to permit the installation of a shed in a side yard

A. Application

Application, Narrative, Architectural Drawing and Existing Site Photos

Attachment: Application
Attachment: Narrative
Attachment: Architectural Drawing
Attachment: Existing Site Photos

B. Town Notice

Legal Notice & Mailing List

Attachment: Legal Notice
Attachment: Mailing List

3. 1516 Western Avenue

Public hearing for an area variance to permit the installation of an additional sign for Citizens Bank exceeding the allowable sign quantity

A. Application

Application, Narrative, Sign Rendering and Site Plan

Attachment: Application
Attachment: Narrative
Attachment: Sign Rendering
Attachment: Site Plan

B. Other Interested Agencies

Albany County Planning Board

Attachment: Albany County Planning Board

C. Town Notice

Legal Notice & Mailing List

Attachment: Legal Notice
Attachment: Mailing List

D. Public Comment

McKownville Improvement Assoc.

Attachment: McKownville Improvement Assoc.

4. 6120 Johnston Road Rear

Continuation of a public hearing for a special use permit to permit the construction of a major solar array on a vacant parcel

A. Application

Prime Subdivision Letter, Photo Simulations, Laz Acceptance Email, Glare Study, Coordination Narrative & Decommissioning Plan

Attachment: Prime Subdivision Letter
Attachment: Photo Simulations
Attachment: Laz Acceptance Email
Attachment: Glare Study
Attachment: Coordination Narrative
Attachment: Decommissioning Plan

B. Town Notice

Legal Notice & Mailing List

Attachment: Mailing List
Attachment: Legal Notice

C. Public Comment

Fran Gully & Borrego Response

Attachment: Fran Gully

5. Twenty West Drive

Continuation of a public hearing for a special use permit for a mixed use building on a parcel in an LB zone

A. Application

ABD Response to Insite, SWPPP Revised, Storwater Report Revised, Site Plan Revised

Attachment: ABD Response to Insite
Attachment: SWPPP Revised
Attachment: Stormwater Report Revised
Attachment: Site Plan Revised

B. Town Notice

Legal Notice & Mailing List

Attachment: Legal Notice
Attachment: Mailing List

C. Public Comment

Matt Hulihan

Attachment: Matt Hulihan

6. 6580 Dunnsville Road

Continuation of a public hearing for a special use permit for the construction of a solar array at an abandoned apple orchard in an Agricultural zone

A. Application

SWPPP, Ingalls Response to Delaware, Ag Data Statement, Glare Analysis, SHPO Letter, Visual Assessment, Arborist Report, LEAF, USACE Letter, O&M Manual

Attachment: SWPPP
Attachment: Ingalls Response to Delaware
Attachment: Ag Data Statement
Attachment: Glare Analysis
Attachment: SHPO Letter
Attachment: Visual Assessment
Attachment: Arborist Report
Attachment: LEAF
Attachment: USACE Letter
Attachment: O&M Manual

B. SEQRA Type I Coordinated Review

Lead Agency Request & Town Planning Board Response

Attachment: Lead Agency Request
Attachment: Town Planning Board Response

C. Town Notice

Legal Notice & Mailing List

Attachment: Legal Notice
Attachment: Mailing List

7. 70 Railroad Avenue

Public hearing for a special use permit for redevelopment for a 14,400sf

catalytic converter recycling facility

A. Application

Application, Short EAF, Narrative & Site Plan

Attachment: Application
Attachment: Short EAF
Attachment: Narrative
Attachment: Site plan

B. Other Interested Agencies

Albany County Planning Board & Town Planning Board

Attachment: Albany County Planning Board
Attachment: Town Planning Board

C. Town Notice

Legal Notice & Mailing List

Attachment: Legal Notice
Attachment: Mailing List

8. 2 Van Buren Boulevard

Public hearing for a special use permit for a distribution facility of argon gas with associated storage tanks at the Northeastern Industrial Park

A. Application

Application & Supplement

Attachment: Application
Attachment: Suplement

B. Other Interested Agencies

Albany County Planning Board & Town Planning Board

Attachment: Albany County Planning Board
Attachment: Town Planning Board

C. Town Notice

Legal Notice & Mailing List

Attachment: Mailing List
Attachment: Legal Notice

4. Others

1. 2390 Western Avenue

Request for a one year extension of a special use permit to convert an existing office building to a mixed use building

Attachment: Extension Request

General Attachments

- Agenda

TOWN OF GUILDERLAND
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339
Phone: (518) 356-1980
Fax: (518) 356-1990

PETER G. BARBER
SUPERVISOR

THOMAS REMMERT
CHAIRMAN
ZONING BOARD

ZONING BOARD

MEETING AGENDA

Wednesday, October 20, 2021

7:00 PM

2 Van Buren Boulevard – Special Use Permit – Yellow 5
- Decision for a special use permit to permit the construction of a major solar array in an industrial park

510 Townwood Drive – Area Variance – Donald Kirk
- **PENDING WITHDRAWL**

1516 Western Avenue – Area Variance – AJ Sign
- Public hearing for an area variance to permit the installation of an additional sign for Citizens Bank exceeding the allowable sign quantity

6120 Johnston Road Rear – Special Use Permit – Borrego Solar
- Continuation of a public hearing for a special use permit to permit the construction of a major solar array on a vacant parcel

Twenty West Drive – Special Use Permit – Michael Davidson
- Continuation of a public hearing for a special use permit for a mixed use building on a parcel in an LB zone

6580 Dunnsville Road – Special Use Permit – Helios Energy
- Continuation of a public hearing for a special use permit for the construction of a solar array at an abandoned apple orchard in an Agricultural zone

70 Railroad Avenue – Special Use Permit – YS Property
- Public hearing for a special use permit for redevelopment for a 14,400sf catalytic converter recycling facility

2 Van Buren Boulevard – Special Use Permit – Air Gas
- Public hearing for a special use permit for a distribution facility of argon gas with associated storage tanks at the Northeastern Industrial Park

Delaware Engineering, D.P.C.
28 Madison Avenue Extension
Albany, New York 12203
Tel: 518.452.1290
Fax: 518.452.1335

October 19, 2021

Ms. Jacqueline Coons, Chief Building and Zoning Inspector
Guilderland Town Hall
5209 Western Turnpike, P.O. Box 339
Guilderland, New York 12084

RE: Guilderland Solar Project
2 Van Buren Boulevard

Dear Ms. Coons:

Cipriani Energy Group and Yellow 5, LLC have submitted a Site Plan and Special Use Permit Application for the Guilderland Solar Project, located at 2 Van Buren Boulevard (±17.2 Acres), Guilderland, Albany County, New York. The proposed project consists of installing a 2.375-Megawatt solar array system.

The applicant has submitted a response letter and additional information. The applicant also submitted an existing landfill map for the Northeast Industrial Park, AOC 1.

Delaware Engineering has the following comments and questions.

1. The Visual assessment does not appear to include visual assessment of the interconnection poles, glare considerations, or line of site profile analysis.

   Response: The Visual Assessment does not include the interconnection poles because the locations of the visual assessment, chosen on the memorandum dated April 22, 2021, does not have the proposed utility poles in view. In addition, the interconnection poles are located internally on site and away from the adjacent roads. Also, the panels are designed to absorb as much light as possible; therefore, will not produce glare. A Line of Site Analysis from Stone Road through the site is included with this submission.

   Line of sight from Stone Road has been submitted.

2. Please provide a Site Operation and Maintenance Plan and Landscape Management Plan

   Response: The Site Operation and Maintenance Plan has been included in the Stormwater Management Report section of the SWPPP Report in Appendix R- 3.

55 South Main St, Oneonta, New York 13820 · Phone (607) 432-8073
16 East Market St, Red Hook, New York 12571 · Phone (518) 452-1290
548 Broadway, Monticello, New York 12701 · Phone (845) 791-7777
223 Main St, Suite 103, Goshen, New York 10924 · Phone (845) 615-9232

The Site Operation and Maintenance Plan should include specific site operation considerations dictated by the environmental site remediation/closed landfill. The Landscape Management Plan can be include in the O&M Plan generally follow the information included in Appendix R-3 of the SWPPP.

3. There is an agricultural district south of Depot Road. Please provide an Agricultural Data Statement if the project property boundary is within 500 feet of a farm operation located within the ag district.

   Response: The Agricultural Data Statement has been completed and is awaiting the developers and landowner's signature. This will be submitted under separate cover.

   The Agricultural Data Statement was received. Please provided a signed copy when available.

4. It appears that some of the solar arrays are located in or cross swales. Please verify that no supports will be installed in the limits of the swale or the supports are located to not impact flow.

   Response: The solar panels have been moved further away from the limits of the swales. Lines and labels that show the existing swales have been added to the Site Plan Set. It is clearer now that the solar panels and their supports are outside the limits of the cross swales.

   All panels/racking now appear to be outside the limits of any swales on site.

5. The pervious access road detail on sheet C011 indicates that the road will be built using subbase course Type 2 and that the subgrade will be compacted. The indicated aggregate and subgrade compaction typically will not allow the road to be considered pervious.

   Response: The label calling out Type 2 stone on the Limited Use Pervious Access Road is incorrect and that label has been deleted. The correct stone is described in Note #2 under Geogrid Material Notes:
   " GRAVEL FILL MATERIAL SHALL CONSIST OF 1 " -4" CLEAN, DURABLE, SHARP ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATION OF NYSDOT 703 -02, SIZE DESIGNATION 3-5 OF TABLE 703 -
   4. STONE MAY BE PLACED IN FRONT OF AND SPREAD WITH A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED." This material meets the requirements of the NYS DEC Limited Use Pervious Gravel.

The pervious access road appears to meet requirements necessary for the road to be considered pervious. However, decompaction/removal of the existing gravel road should be noted. Please also note the proposed depth of stone.

6. The NOI indicates that post construction stormwater management practices are not required. However, new impervious area is proposed, therefore post construction stormwater is required.

   Response: As described in question 39 on the NOI, this project does not require the development of a SWPPP that includes the post-construction stormwater management practice component according to the NYS Stormwater Management Design Manual Chapter 9.2.1 Section B. Also, this project meets Scenario 1 from the April 5, 2018 guidance from the DEC on " Solar Panel Construction Stormwater Permitting/ Guidance." This project reduces the impervious area on site and does not alter the hydrology from pre to post development conditions. The discrepancy about the proposed access road perviousness has been corrected by fixing the Limited Use Pervious Access Road detail. The detail has been corrected to properly show the NYS DEC approved stone.

   It appears that with the revised pervious road, the project will generally meet the Design Manual Chapter 9.2.1 Section B for redevelopment. Please provide additional details of the racking blocks. Size and material do not appear to be shown or labeled on the plans. The size should be consistent with impervious area calculations.

7. It appears that a section of the proposed road and the equipment pad drain to the existing northern most swale and not to Design Point 1. Please review.

   Response: The northernmost swale within Design Point 1 drains to the same NYSDEC / USACE Wetland as the southernmost swale also in Design Point 1; therefore, they both should be in the same Design Point #1. Also, both these swales ultimately drain to Black Creek, further solidifying that they should be in the same Design Point.

   The design point should be the channel that runoff enters as it leaves the project site. This is necessary to make sure the channel that enters the wetland remains stable. Due to the revised pervious access road, it is not anticipated that the channel will see an increase in runoff.

8. It appears that a filter strip is included on the plans to treat runoff from the concrete equipment pad, but a filter strip is not discussed in the Stormwater Management Report. Please provide additional filter strip details.

Response: The filter strip is not required to treat runoff from the concrete equipment pad because the Water Quality control requirements for the site have been satisfied. However, the filter strip has been provided in an effort to go above and beyond the minimum requirements to benefit the concrete equipment pad's direct runoff.

Response Noted.

9. The post construction BMP Operation and Maintenance Plan includes bioretention areas, however, it is not clear where bioretention areas are being proposed. Please review.

   Response: The Post Construction BMP Operations and Maintenance Plan has improved and bioretention items have been removed.

   Response Noted.

10. Item E.1.b in the FEAF indicates a reduction of impervious area. The proposed road and concrete equipment pad appear to be impervious. Please review.

    Response: The existing access road is considered impervious and will be replaced with a pervious limited use access road; therefore, there is a reduction of impervious area. The Limited Use Pervious Access Road detail has been corrected to properly show the NYS DEC approved stone.

    Response Noted.

11. Please provide an electrical diagram detailing the major solar energy system layout, solar collection installation, associated components, and electrical interconnection method, with all National Electric Code compliant disconnects and over-current devices.

    Response: The Electrical Three Line Diagram has been included in this submission.

    The submitted electrical site layout should have a three-line diagram added prior to construction.

12. Please provide preliminary equipment specification sheet that documents all proposed solar panels, significant components, mounting systems, and inverters that are to be installed.

    Response: Equipment specification sheets have been included in this submission.

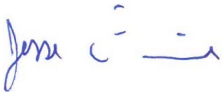
    Equipment specification information has been received.

The submitted Landfill Map shows that the majority of the proposed solar project is located on areas that are shown to be Landfill Cap or Landfill Soil Cover. According to 6 NYCRR Part

617.5(c)(14)(i), if the installation of solar energy arrays where such installation involves 25 acres or less of physical alteration and is located on a closed landfill, the project can be considered a SEQR Type II action.

Please do not hesitate to contact me with any questions or concerns at (518) 452-1290 x211 or via email at jfraine@delawareengineering.com.

Sincerely,



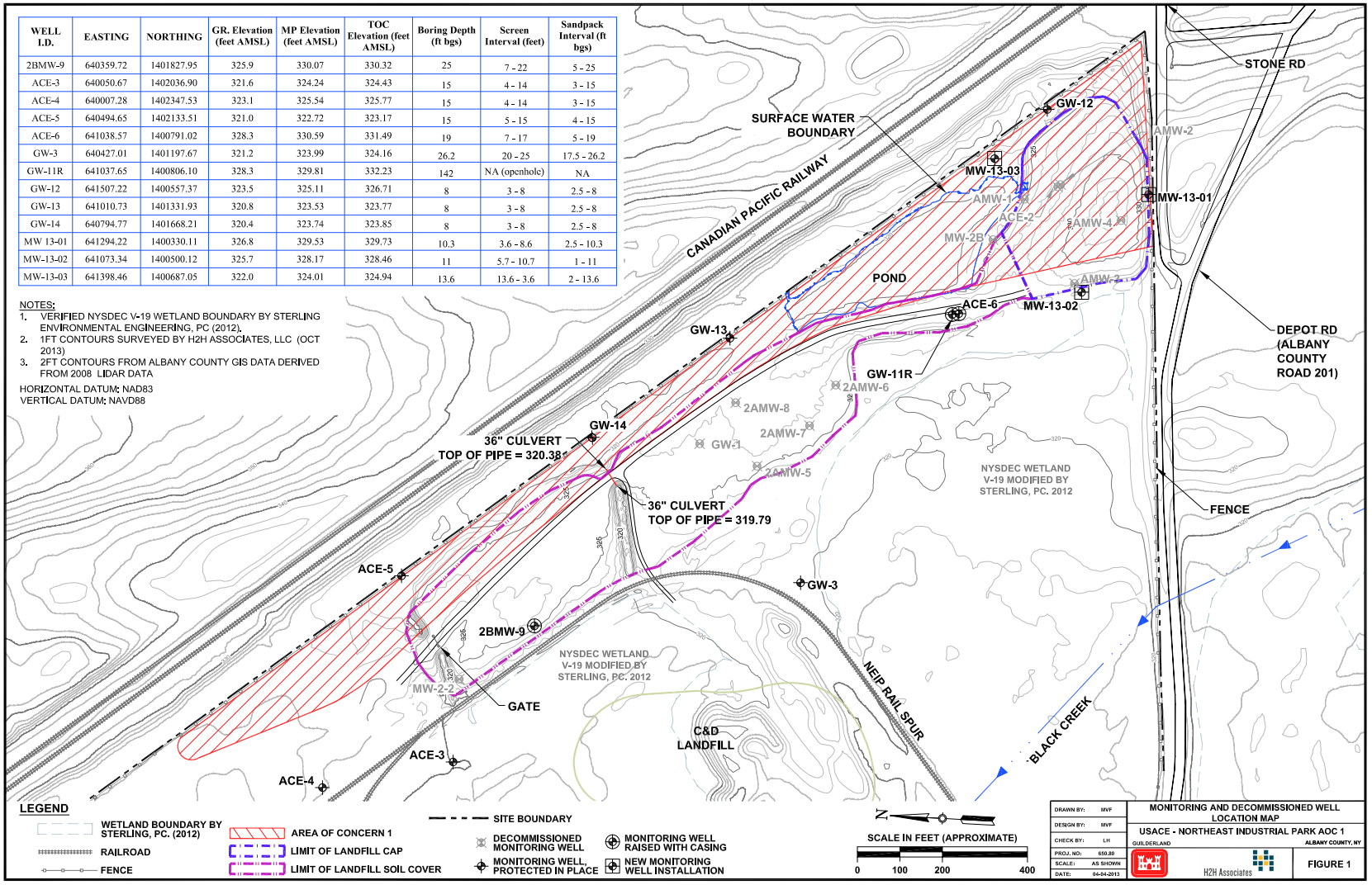
Jesse Fraine
Engineer

CC: Kenneth Kovalchik, AICP, Town Planner

WELL I.D.	EASTING	NORTHING	GR. Elevation (feet AMSL)	MP Elevation (feet AMSL)	TOC Elevation (feet AMSL)	Boring Depth (ft bgs)	Screen Interval (feet)	Sandpack Interval (ft bgs)
2BMW-9	640359.72	1401827.95	325.9	330.07	330.32	25	7 - 22	5 - 25
ACE-3	640050.67	1402036.90	321.6	324.24	324.43	15	4 - 14	3 - 15
ACE-4	640007.28	1402347.53	323.1	325.54	325.77	15	4 - 14	3 - 15
ACE-5	640494.65	1402133.51	321.0	322.72	323.17	15	5 - 15	4 - 15
ACE-6	641038.57	1400791.02	328.3	330.59	331.49	19	7 - 17	5 - 19
GW-3	640427.01	1401197.67	321.2	323.99	324.16	26.2	20 - 25	17.5 - 26.2
GW-11R	641037.65	1400806.10	328.3	329.81	332.23	142	NA (openhole)	NA
GW-12	641507.22	1400557.37	323.5	325.11	326.71	8	3 - 8	2.5 - 8
GW-13	641010.73	1401331.93	320.8	323.53	323.77	8	3 - 8	2.5 - 8
GW-14	640794.77	1401668.21	320.4	323.74	323.85	8	3 - 8	2.5 - 8
MW 13-01	641294.22	1400330.11	326.8	329.53	329.73	10.3	3.6 - 8.6	2.5 - 10.3
MW-13-02	641073.34	1400500.12	325.7	328.17	328.46	11	5.7 - 10.7	1 - 11
MW-13-03	641398.46	1400687.05	322.0	324.01	324.94	13.6	13.6 - 3.6	2 - 13.6

NOTES:
1. VERIFIED NYSDEC V-19 WETLAND BOUNDARY BY STERLING ENVIRONMENTAL ENGINEERING, PC (2012).
2. 1FT CONTOURS SURVEYED BY H2H ASSOCIATES, LLC (OCT 2013)
3. 2FT CONTOURS FROM ALBANY COUNTY GIS DATA DERIVED FROM 2008 LIDAR DATA

HORIZONTAL DATUM: NAD83
VERTICAL DATUM: NAVD88



4860

TOWN OF GUILDERLAND
CHECKLIST FOR VARIANCE

RETURN TO:
ZONING ADMINISTRATOR
PO BOX 339
GUILDERLAND, NY 12084
(518) 356-1980

FEES:
COMMERCIAL - $300
X **RESIDENTIAL - $50**
(payable at time of submittal to Town of Guilderland)

APPLICANT INFORMATION:
Name: Donnie J. Kirk Jr
Address: 510 Tamarack Dr
Alb NY **Zip:** 12203
Daytime Phone #: 518 479 9699
Date: 10/4/21
Email: Dun.kirk9@gmail.com

PROPERTY INFORMATION:
Owner:
Location:
Tax Map #: 63.12-7-16.6
Zoning: TH
Acreage: 0

TO BE SUBMITTED:

8 1) ~~12~~ copies of application
2) Copy of conditional purchase contract or rental agreement if applicable
8 3) ~~12~~ copies of the project narrative containing the following: reasons which necessitate the need for a variance including a brief detailed description of the project
4) Architectural drawings of proposed project (if applicable)
8 5) ~~12~~ copies of survey or plot plan showing proposed project with:
- side setback
- front and rear setbacks
- all existing buildings
- location of proposed construction
- total size of parcel
- all topographic elevations necessary to show proposed variance

picture

OTHER AGENCY APPROVALS OR RECOMMENDATIONS AS REQUIRED:

1) Town Water and Wastewater Management – 456-6474
2) Town Highway Department – 861-5108
3) NYS Department of Transportation – 765-2841
4) Albany County Health Department – 447-4631
5) Albany County Planning Board – 447-5660

APPLICATION AND APPEAL TO THE ZONING BOARD OF APPEALS FOR A VARIANCE, SPECIAL USE PERMIT OR AN INTERPRETATION OF THE ZONING ORDINANCE OR ZONING MAP.

To Zoning Administrative Officer
Of the Town of Guilderland

Date: _____

To the Zoning Board of Appeals
Of the Town of Guilderland

I, _____ of _____
hereby appeal from the decision of the Zoning Administration Officer on my application for zoning permit and hereby apply to the Zoning Board of Appeals for:

( ) An interpretation of the Zoning Ordinance or Zoning Map

( ) A Special Use Permit under the Zoning Ordinance or Zoning Map

(X) A Variance to the Zoning Ordinance or Zoning Map

1. Location of property

   Address: _____ Zoning: _____

2. Interpretation of the Zoning Ordinance is requested because:

3. Special Use Permit required for the following type of use:

* 4. Variance to the Zoning Ordinance is requested for:

Side Yard Shed

*** Applicant shall complete form outlining conditions from Section 267-b of New York State Town Law pertaining to area variances.**

The applicant hereby certifies that he is the owner of record of the above property or has been duly authorized in writing by the owner of record to make this application.

_____
Signature of applicant

AREA VARIANCE CONDITIONS

The Zoning Board of Appeals will not consider any application for an area variance complete until the following application is completed in full and submitted to the Zoning Department. The Zoning Board of Appeals will evaluate the applicant's responses and determine whether the applicant has adequately met the conditions for an area variance. The applicant is encouraged to attach additional sheets if necessary to fully answer the questions. The following conditions for an area variance are from Section 267-b of the New York State Town Law.

1) Whether an undesirable change will be produced in the character of the neighborhood or a detriment to nearby properties will be created by the granting of the area variance;

NO undesirable change because side yard sheds exist in the neighborhood

2) Whether the benefit sought by the applicant can be achieved by some method, feasible for the applicant to pursue, other than an area variance;

NO because there are woods And if I wanted to place the shed in my backyard I would have to have it brought in on neighbors lawns.

3) Whether the requested area variance is substantial;

NO it is a shed being placed 5' from line

4) Whether the proposed variance will have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district; and

NO Sideyard sheds exist in the neighborhood

5) Whether the alleged difficulty was self-created, which consideration shall be relevant to the decision of the Zoning Board of Appeals, but shall not necessarily preclude the granting of the area variance:

NO my townhouse is an end unit

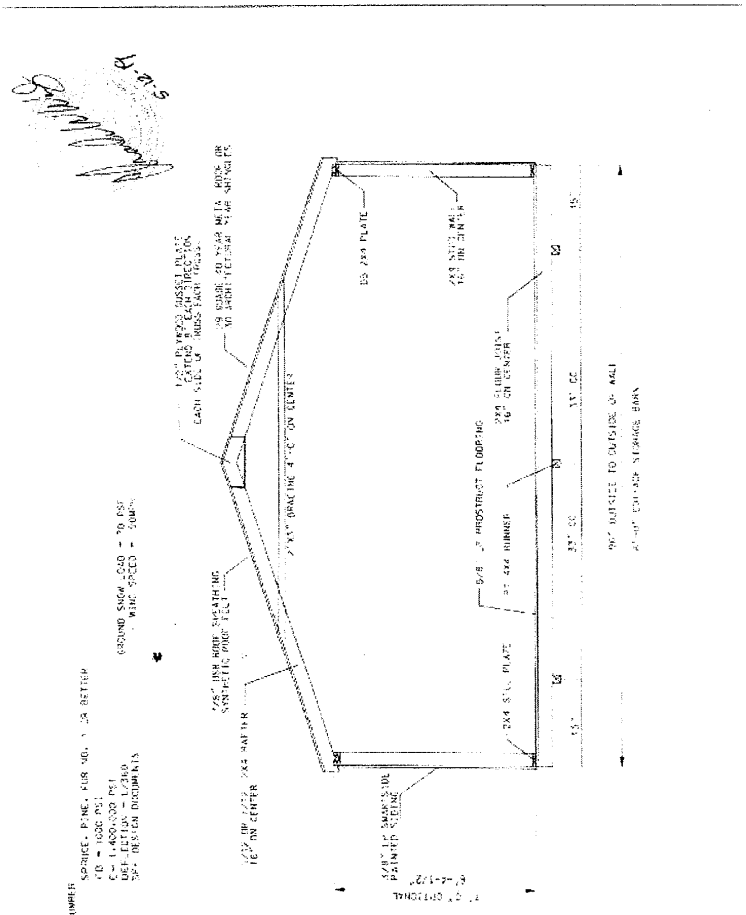
PROJECT NARRATIVE

Please describe the reasons which necessitate the need for a variance including a brief detailed description of the project:

A variance is needed for this side yard shed because woods and delivering the shed ~~to~~ to my backyard will cross neighbor lawns.

Signature

10/4/21
Date



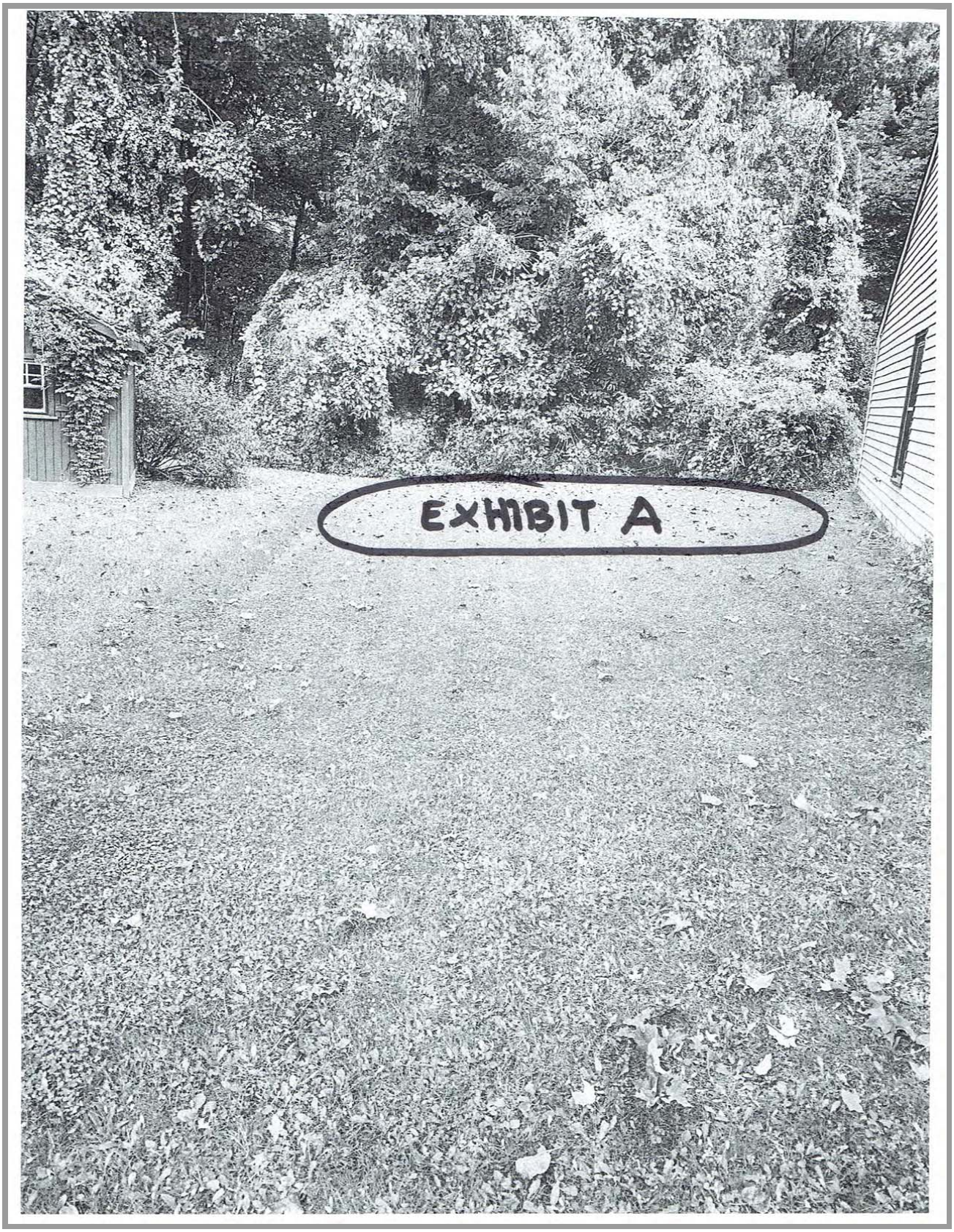


EXHIBIT A

See Exhibit A
Shed
Prop. Line
EXHIBIT A

Payne
EXHIBIT B

Town of Guilderland
ALBANY COUNTY, ROUTE 20
P.O. BOX 339
GUILDERLAND, N.Y. 12084-0339

PETER G. BARBER
SUPERVISOR

(518) 356-1980
FAX: (518) 356-1990

JACQUELINE M. COONS
CHIEF BUILDING AND ZONING INSPECTOR

Notice is hereby given that the Zoning Board of Appeals of the Town of Guilderland, New York, will hold a public hearing pursuant to Articles IV & V of the Zoning Law on the following proposition:

Variance Request No. 4860

Request of Donald Kirk for a Variance of the regulations under the Zoning Law to permit: the installation of a prefabricated shed in a side yard.

Per Articles IV & V Sections 280-24 and 280-51 respectively

For property owned by Donald Kirk
Situated as follows: 510 Townwood Drive Albany, NY 12203
Tax Map # 63.12-7-16.6 Zoned TH

Plans are available for public inspection at the Town Hall or on the Town website at https://www.townofguilderland.org/zoning-board-appeals . Said hearing will take place on October 20, 2021 at 7:00pm. Due to COVID-19 gathering precautions, the meeting will be virtual. Members of the public may listen and view the meeting live on the Town website, channel 34 on Verizon FiOS or channel 1303 on Spectrum. To participate in the public comment period join Zoom Meeting https://us02web.zoom.us/j/81391211886?pwd=TzFsbzQ1UUY4VVUvaUVrT3B2WXJlQT09 or dial 1-929-205-6099. Use Meeting ID: *813 9121 1886* and Passcode*: 605688*. For questions regarding the application, call the Building Department during regular business hours.

Dated: October 12, 2021

Jacqueline M. Coons
Chief Building & Zoning Inspector

SWIS	PRINT KEY	NAME	ADDRESS
013089	63.08-6-23	Drew M Wallsh	213 Woodscape Dr,Albany, NY 12203
013089	63.08-6-24	Margaret J Aumic	215 Woodscape Dr,Albany, NY 12203
013089	63.08-6-25	Dmytro O Tymoshenko	217 Woodscape Dr,Albany, NY 12203
013089	63.08-6-45	Erika Hanks	638 Top Ridge Dr,Albany, NY 12203
013089	63.08-6-55	Jaclyn Cahill	606 Top Ridge Dr,Albany, NY 12203
013089	63.08-6-56	James P Doellefeld	602 Top Ridge Dr,Albany, NY 12203
013089	63.08-6-58	Brian D Monahan	227 Woodscape Dr,Albany, NY 12203
013089	63.08-6-59	Joseph J Rabito	229 Woodscape Dr,Albany, NY 12203
013089	63.08-6-60	Mary Jane Marmo	231 Woodscape Dr,Albany, NY 12203
013089	63.08-6-61	Brian J McCabe	233 Woodscape Dr,Albany, NY 12203
013089	63.12-7-4.6	Megan L Lanzetta	415 Green Hill Ct,Albany, NY 12203
013089	63.12-7-5.1	Christine J Wagner	413 Green Hill Ct,Albany, NY 12203
013089	63.12-7-5.2	Mark Montgomery	75 Apple Blossom Dr,Waterbury Center, VT 05677
013089	63.12-7-5.3	Carroll Valachovic	409 Green Hill Ct,Albany, NY 12203
013089	63.12-7-5.4	Junchao Guo	407 Green Hill Ct,Albany, NY 12203
013089	63.12-7-5.5	David C Ragone	405 Green Hill Ct,Albany, NY 12203
013089	63.12-7-5.6	Manzie Myrie	403 Green Hill Ct,Albany, NY 12203
013089	63.12-7-6	Thomas Reimer	401 Green Hill Ct,Albany, NY 12203
013089	63.12-7-7	Dwane Grant	322 Ridgewood Cir,Albany, NY 12203
013089	63.12-7-8	Margaret M Addeo	214 Woodscape Dr,Albany, NY 12203
013089	63.12-7-9	Landi Mucllari	218 Woodscape Dr,Albany, NY 12203
013089	63.12-7-10	Jason S Warshowsky	220 Woodscape Dr,Albany, NY 12203
013089	63.12-7-11	Deborah A Mann	222 Woodscape Dr,Albany, NY 12203
013089	63.12-7-12	Vincent Prinzo	224 Woodscape Dr,Albany, NY 12203
013089	63.12-7-13	Jessica Ann Kumar	226 Woodscape Dr,Albany, NY 12203
013089	63.12-7-14	Ravi Bonam	228 Woodscape Dr,Albany, NY 12203
013089	63.12-7-15.1	Jon A Griffin	232 Woodscape Dr,Albany, NY 12203
013089	63.12-7-15.2	Chander Gandhi	234 Woodscape Dr,Albany, NY 12203
013089	63.12-7-15.3	Camille Chesley	236 Woodscape Dr,Albany, NY 12203
013089	63.12-7-15.4	Constantine J Ermides	238 Woodscape Dr,Albany, NY 12203
013089	63.12-7-15.5	Derrick Soscia	240 Woodscape Dr,Albany, NY 12203
013089	63.12-7-15.6	Naranzul Naidan	242 Woodscape Dr,Albany, NY 12203
013089	63.12-7-16.1	Julia A Vega	500 Townwood Dr,Albany, NY 12203
013089	63.12-7-16.2	Gustavo Santos	502 Townwood Dr,Albany, NY 12203
013089	63.12-7-16.3	Thea M Scalise	504 Townwood Dr,Albany, NY 12203
013089	63.12-7-16.4	Stephen M Peer	506 Townwood Dr,Albany, NY 12203
013089	63.12-7-16.5	Mary Jo McGraw	508 Townwood Dr,Albany, NY 12203
013089	63.12-7-16.6	Donald J Kirk Jr	510 Townwood Dr,Albany, NY 12203
013089	63.12-7-17.1	Laura H McWhinnie	512 Townwood Dr,Albany, NY 12203
013089	63.12-7-17.2	Howard Bernstein	514 Townwood Dr,Albany, NY 12203
013089	63.12-7-17.3	Catherine J Santangelo	516 Townwood Dr,Albany, NY 12203
013089	63.12-7-17.4	Kristin S Johnson	518 Townwood Dr,Albany, NY 12203
013089	63.12-7-18.1	Mary D Gross	520 Townwood Dr,Albany, NY 12203
013089	63.12-7-18.2	Domenico Marando	522 Townwood Dr,Albany, NY 12203
013089	63.12-7-18.3	The Three As of Albany Inc	43 Bobwhite Dr,Glenmont, NY 12077
013089	63.12-7-18.4	Robert F Maguire	526 Townwood Dr,Albany, NY 12203
013089	63.12-7-19.1	Hannah Farrell	528 Townwood Dr,Albany, NY 12203
013089	63.12-7-19.2	Wesley Slyke	530 Townwood Dr,Albany, NY 12203
013089	63.12-7-19.3	Kathleen A Tumbleson	532 Townwood Dr,Albany, NY 12203
013089	63.12-7-19.4	Donald J Kohn	534 Townwood Dr,Albany, NY 12203
013089	63.12-7-19.5	Valery Lyustikman	104 Iroquois Trl,Slingerlands, NY 12159
013089	63.12-7-19.6	Kathleen Russo	538 Townwood Dr,Albany, NY 12203
013089	63.12-7-20.1	Diane M Rowen	540 Townwood Dr,Albany, NY 12203
013089	63.12-7-20.2	Kimberly A Nies	542 Townwood Dr,Albany, NY 12203
013089	63.12-7-20.3	Sarah V Kresge-Brubaker	544 Townwood Dr,Albany, NY 12203
013089	63.12-7-20.4	Marilyn Mooney	546 Townwood Dr,Albany, NY 12203
013089	63.12-7-20.5	Lisa J Nally	548 Townwood Dr,Albany, NY 12203
013089	63.12-7-20.6	Marjory A Groark	550 Townwood Dr,Albany, NY 12203
013089	63.12-7-21.2	Barbara J Miller	554 Townwood Dr,Albany, NY 12203
013089	63.12-7-21.3	Mary E Bailey	556 Townwood Dr,Albany, NY 12203
013089	63.12-7-21.4	Dolores A Manderson	558 Townwood Dr,Albany, NY 12203
013089	63.12-7-22.1	Carol Bradwell	521 Townwood Dr,Albany, NY 12203
013089	63.12-7-22.2	Sandra Storfer	523 Townwood Dr,Albany, NY 12203
013089	63.12-7-22.3	Alan L Smith	525 Townwood Dr,Albany, NY 12203
013089	63.12-7-22.4	Judith Faith	527 Townwood Dr,Albany, NY 12203
013089	63.12-7-23.1	Susan A Munoz	519 Townwood Dr,Albany, NY 12203
013089	63.12-7-23.2	Frank Florio	29 Cedarcrest Dr,Saratoga Spring, NY 12866
013089	63.12-7-23.3	Barbara A Bonafide	515 Townwood Dr,Albany, NY 12203
013089	63.12-7-23.4	Jeanette Altarriba	513 Townwood Dr,Albany, NY 12203
013089	63.12-7-23.5	Barbara E Kearney	511 Townwood Dr,Albany, NY 12203

SWIS	PRINT KEY	NAME	ADDRESS
013089	63.12-7-23.6	Aldene S Hoghe Revocable Trust	509 Townwood Dr,Albany, NY 12203
013089	63.12-7-24.1	Raymond Tidball	507 Townwood Dr,Albany, NY 12203
013089	63.12-7-24.2	Wai-Cheng Chao	19105 NE 25th St,Vancouver, WA 98684
013089	63.12-7-24.3	Chan Wei	503 Townwood Dr,Albany, NY 12203
013089	63.12-7-24.4	George R Glowacki	17 Hillcrest Meadows,Rolling Hills Estates, CA 90274
013089	63.12-7-25.1	Stacy Marsh	18 Tudor Rd,Albany, NY 12203
013089	63.12-7-25.2	Jia Ren	246 Woodscape Dr,Albany, NY 12203
013089	63.12-7-25.3	C Elizabeth Rowe	248 Woodscape Dr,Albany, 12203
013089	63.12-7-25.4	Margaret Neiman	250 Woodscape Dr,Albany, NY 12203
013089	63.12-7-25.5	Alain Belasen	252 Woodscape Dr,Albany, NY 12203
013089	63.12-7-26.1	Jean Sovinsky	245 Woodscape Dr,Albany, NY 12203
013089	63.12-7-26.2	Mary Ellen Riek	243 Woodscape Dr,Albany, NY 12203
013089	63.12-7-27.1	Mala Boolchandani	821 Via Marchella,Schenectady, NY 12303
013089	63.12-7-27.2	Richard V Akullian	239 Woodscape Dr,Albany, NY 12203
013089	63.12-7-27.3	Kathleen M Tremont	237 Woodscape Dr,Albany, NY 12203
013089	63.12-7-27.4	Amanda Schemerhorn	235 Woodscape Dr,Albany, NY 12203
013089	63.12-7-28.1	Maryellen Flaxman	640 Top Ridge Dr,Albany, NY 12203
013089	63.12-7-28.2	Mary K Kelly	642 Top Ridge Dr,Albany, NY 12203
013089	63.12-7-28.3	Janice Link	644 Top Ridge Dr,Albany, NY 12203

TOWN OF GUILDERLAND
CHECKLIST FOR VARIANCE

RETURN TO:
ZONING ADMINISTRATOR
PO BOX 339
GUILDERLAND, NY 12084
(518) 356-1980

FEES:
COMMERCIAL - $300
RESIDENTIAL - $75
(payable at time of submittal to Town of Guilderland)

APPLICANT INFORMATION:
Name: AJ Signs
Address: 842 Saratoga Rd
Burnt Hills NY **Zip:** 12027
Daytime Phone #: (518)399-9291
Date: 8/26/21

PROPERTY INFORMATION:
Owner: Citizens Bank
Location: 1516 Western Ave
Tax Map #: 52.19-2-1
Zoning: LB
Acreage: _____

TO BE SUBMITTED:

1) 12 copies of application
2) Copy of conditional purchase contract or rental agreement if applicable
3) 12 copies of the project narrative containing the following: reasons which necessitate the need for a variance including a brief detailed description of the project
4) Architectural drawings of proposed project (if applicable)
5) 12 copies of survey or plot plan showing proposed project with:
   - side setback
   - front and rear setbacks
   - all existing buildings
   - location of proposed construction
   - total size of parcel
   - all topographic elevations necessary to show proposed variance

OTHER AGENCY APPROVALS OR RECOMMENDATIONS AS REQUIRED:

1) Town Water and Wastewater Management – 456-6474
2) Town Highway Department – 861-5108
3) NYS Department of Transportation – 765-2841
4) Albany County Health Department – 447-4631
5) Albany County Planning Board – 447-5660

APPLICATION AND APPEAL TO THE ZONING BOARD OF APPEALS FOR A VARIANCE, SPECIAL USE PERMIT OR AN INTERPRETATION OF THE ZONING ORDINANCE OR ZONING MAP.

To Zoning Administrative Officer
Of the Town of Guilderland

Date: 8/10/21

To the Zoning Board of Appeals
Of the Town of Guilderland

I, Jeffrey S. Gordon of 1516 Western Ave LLC
hereby appeal from the decision of the Zoning Administration Officer on my application for zoning permit and hereby apply to the Zoning Board of Appeals for:

( ) An interpretation of the Zoning Ordinance or Zoning Map

( ) A Special Use Permit under the Zoning Ordinance or Zoning Map

(X) A Variance to the Zoning Ordinance or Zoning Map

1. Location of property
   Address: 1516 Western Ave Zoning: _____
2. Interpretation of the Zoning Ordinance is requested because:

3. Special Use Permit required for the following type of use:

* 4. Variance to the Zoning Ordinance is requested for: Allowance for 2sided 50.2 sqft freestanding sign were 50sqft (100.4 sq total) total for all signs is allowed

*** Applicant shall complete form outlining conditions from Section 267-b of New York State Town Law pertaining to area variances.**

The applicant hereby certifies that he is the owner of record of the above property or has been duly authorized in writing by the owner of record to make this application.

By: 1516 Western Ave, LLC

Signature of applicant
Jeffrey S. Gordon, Authorized Person

AREA VARIANCE CONDITIONS

The Zoning Board of Appeals will not consider any application for an area variance complete until the following application is completed in full and submitted to the Zoning Department. The Zoning Board of Appeals will evaluate the applicant's responses and determine whether the applicant has adequately met the conditions for an area variance. The applicant is encouraged to attach additional sheets if necessary to fully answer the questions. The following conditions for an area variance are from Section 267-b of the New York State Town Law.

1) Whether an undesirable change will be produced in the character of the neighborhood or a detriment to nearby properties will be created by the granting of the area variance;

This is a commercial section of western ave and a heavily Trafficked intersection. The freestanding sign would not be detrimental to the neighborhood nor to surrounding properties. The bank needs to have a freestanding sign to make locating the branch easier for motorists/patrons

2) Whether the benefit sought by the applicant can be achieved by some method, feasible for the applicant to pursue, other than an area variance;

There is no other method to alert the public/motorists to this location other than the utilization of signage. This is a busy corner property and there is a need for additional sighage to be visible from western ave, schodhouse road, as well as IST traffic.

3) Whether the requested area variance is substantial;

We do not feel that the additional square footage needed to allow Citizen's Bank to have a freestanding sign in addition to the 2 wall signs permitted should be seen as substantial. Motorists need to be aware of the banks location for wayfinding purposes.

4) Whether the proposed variance will have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district; and

The freestanding sign will have minimal impact to the physical or environmental conditions of the area. Only the letters will light at night giving off a soft glow and will not be obtrusive to neighbors or motorists.

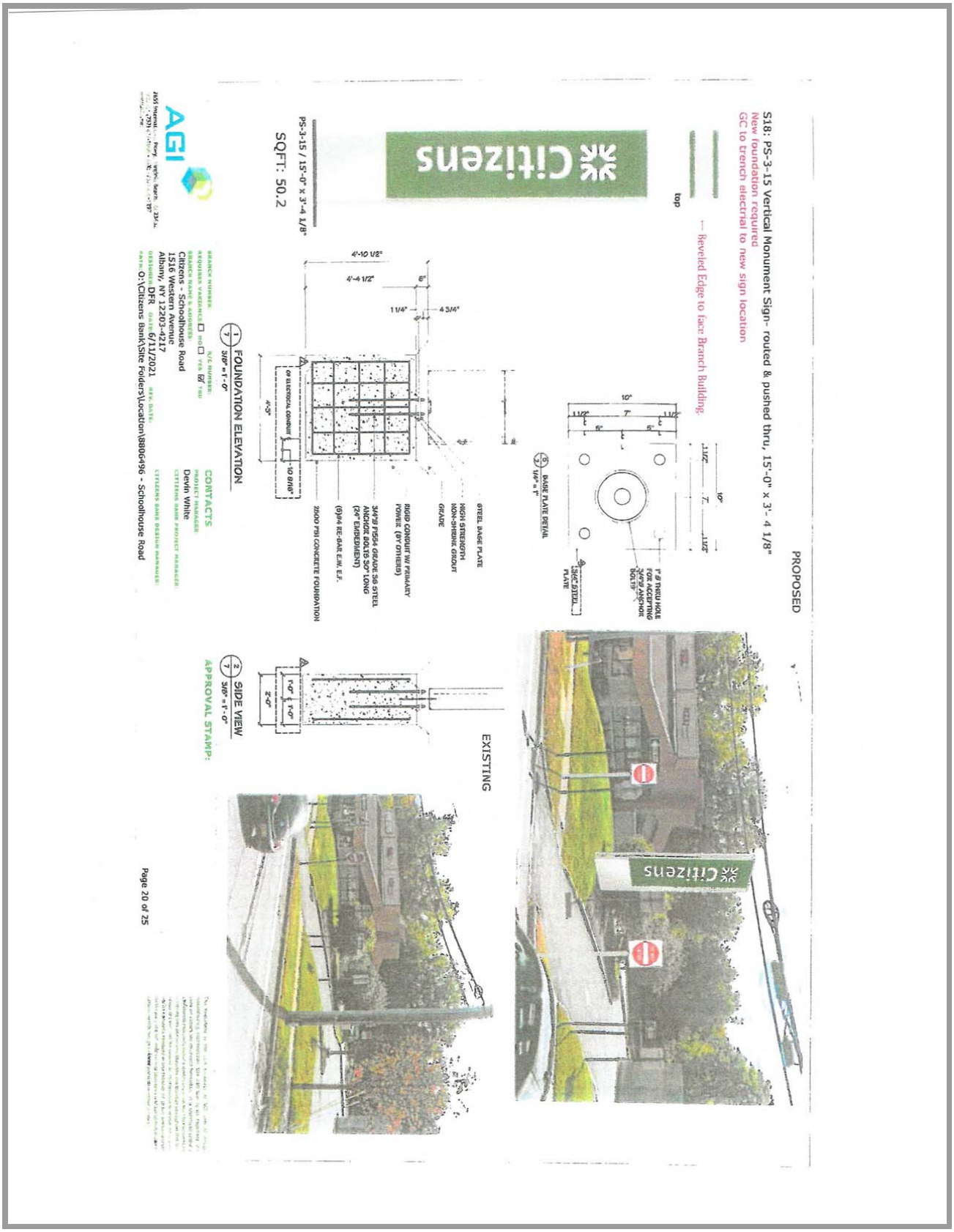
5) Whether the alleged difficulty was self-created, which consideration shall be relevant to the decision of the Zoning Board of Appeals, but shall not necessarily preclude the granting of the area variance:

The need for the free standing sign could be seen as self created however should not diminish the fact that motorists travelling on western ave need to be able to find their location.

Project Narrative

1516 Western Ave Citizens Bank

We propose to install a new 2 sided pylon sign for Citizens bank located at 1516 Western Ave. The bank is located at the corner of Schoolhouse Road and Western Ave. The bank currently have a set of channel letters on Schoolhouse road façade and the Western Ave façade. They do not currently have a freestanding sign needed for customers to find the bank's location. The proposed pylon sign will measure 15' x 3' 4". With an overall height of 15'. The base structure will be 3' x 3'4". The sign will have push thru white letters that will be internally lit with leds. The letters alone will light up at night and emit a soft glow.


S18: PS-3-15 Vertical Monument Sign- routed & pushed thru, 15'-0" x 3'- 4 1/8"
New foundation required
GC to trench electrial to new sign location
PROPOSED
Beveled Edge to face Branch Building
top
Citizens
PS-3-15 / 15'-0" x 3'-4 1/8"
SQFT: 50.2
4'-10 1/2"
4'-4 1/2"
6"
1 1/4"
4 3/4"
4'-3"
10 5/16"
6" STEEL BASE PLATE
HIGH STRENGTH NON-SHRINK GROUT GRADE
RIGID CONDUIT W/ PRIMARY POWER (BY OTHERS)
3/4"Ø F1554 GRADE 36 STEEL ANCHOR BOLTS 30" LONG (24" EMBEDMENT)
(9)#4 RE-BAR E.W. E.F.
3500 PSI CONCRETE FOUNDATION
(2) 1" ELECTRICAL CONDUIT
FOUNDATION ELEVATION
3/8" = 1'-0"
BASE PLATE DETAIL
1/4" = 1"
10"
7"
1 1/2"
5"
2" Ø THRU HOLE FOR ACCEPTING 3/4"Ø ANCHOR BOLTS
3/4" STEEL PLATE
EXISTING
SIDE VIEW
3/8" = 1'-0"
1'-0"
2'-0"
APPROVAL STAMP:
CONTACTS
Devin White
AGI
Citizens - Schoolhouse Road
1516 Western Avenue
Albany, NY 12203-4217
DESIGNER: DFR
DATE: 6/11/2021
PATH: O:\Citizens Bank\Site Folders\Location\8806496 - Schoolhouse Road
Page 20 of 25

SITE MAP & STREET VIEW
1516 Western Ave
N
CONTACTS
PROJECT MANAGER:
Devin White
CITIZENS BANK PROJECT MANAGER:
CITIZENS BANK DESIGN MANAGER:
APPROVAL STAMP:
BRANCH NUMBER:
R/C NUMBER:
REQUIRES VARIANCE: NO YES TBD
BRANCH NAME & ADDRESS:
Citizens - Schoolhouse Road
1516 Western Avenue
Albany, NY 12203-4217
DESIGNER: DFR
DATE: 6/11/2021
REV. DATE:
PATH: O:\Citizens Bank\Site Folders\Location\8806496 - Schoolhouse Road
AGI
Page 2 of 25

ALBANY COUNTY PLANNING BOARD
NOTIFICATION

RECOMMENDATION DATE: September 16, 2021

Case #:	**10-210903807**
Applicant:	**1516 Western Ave**
Project Location:	1516 Western Ave
Tax Map Number:	52.19-2-1
Referring Agency:	Town of Guilderland Zoning Board of Appeals
Considerations:	Area variance to permit a third sign and to exceed 50SF of sign area.
ACPB Recommendation:	Defer to local consideration
	1. This board has found that the proposed action will have no significant countywide or intermunicipal impact.
Advisory:	

Gopika Muddappa, Senior Planner
Albany County Planning Board

NOTE:

- This recommendation is rendered in compliance with applicable requirements of Section 239 of New York State General Municipal Law. Final determination on this matter rests with the appropriate municipal body.
- A recommendation of "APPROVE" or "MODIFY LOCAL APPROVAL" should not be interpreted as a recommendation by this body that the referring agency approve the matter referred. Such recommendation does not indicate that this body has reviewed all local concerns; rather the referral has met certain countywide considerations. Evaluation of local criteria is the responsibility of the referring agency.
- General Municipal Law Section 239 requires that the local agency notify the county within thirty days of its final action. Please use the OFFICIAL NOTICE OF LOCAL ACTION form that is attached for this purpose.
- General Municipal Law Section 239 sets forth the procedural requirements for taking local action contrary to the County Planning Board's recommendation of objection or conditional approval.
- Albany County is required to submit a Municipal Separate Storm Sewer System Permit (MS4) (No. GP-0-10-002) Notice of Intent (NOI) to comply with the NYS DEC permit for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Construction Activity Permit No. GP-0-1-001 issued by NYSDEC is also required for activity with soil disturbances of one acre or more. The law is required by the Clean Water Act to control point source discharges to ground water as well as surface waters.

449 New Salem Road, Voorheesville, NY 12186
TELEPHONE: (518) 655-7932 FAX: (518) 765-3459

In compliance with Article 12-B, Section 239 of New York State General Municipal Law, this serves as official notification to the Albany County Planning Board of the action taken on the application described above.

LOCAL ACTION ON ACPB RECOMMENDATION:

☐ AGREED WITH COUNTY PLANNING BOARD RECOMMENDATIONS TO MODIFY OR DISAPPROVE
☐ OVER-RULED COUNTY PLANNING BOARD RECOMMENDATIONS TO MODIFY OR DISAPPROVE

LOCAL DECISION ON PROJECT:

☐ PROJECT APPROVED
☐ PROJECT DISAPPROVED

VOTE RECORDED: _____ DATE OF LOCAL ACTION: _____

Set forth the reasons for any action contrary to the ACPB recommendations (use additional sheets if needed):

SIGNED: _____ TITLE: _____

Town of Guilderland
ALBANY COUNTY, ROUTE 20
P.O. BOX 339
GUILDERLAND, N.Y. 12084-0339

PETER G. BARBER
SUPERVISOR

(518) 356-1980
FAX: (518) 356-1990

JACQUELINE M. COONS
CHIEF BUILDING AND ZONING
INSPECTOR

Notice is hereby given that the Zoning Board of Appeals of the Town of Guilderland, New York, will hold a public hearing pursuant to Articles III & V of the Zoning Law on the following proposition:

Variance Request No. 4859

Request of A J Signs for a Variance of the regulations under the Zoning Law to permit: a total of 100sf of signage where 50sf is permitted and a third sign for Citizens Bank.

Per Articles IV & V Sections 280-26 & 280-51 respectively

For property owned by 1516 Western Ave
Situated as follows: 1516 Western Avenue Albany, NY 12203
Tax Map # 52.19-2-1 Zoned LB

Plans are available for public inspection at the Town Hall or on the Town website at https://www.townofguilderland.org/zoning-board-appeals . Said hearing will take place on October 20, 2021 at 7:00pm. Due to COVID-19 gathering precautions, the meeting will be virtual. Members of the public may listen and view the meeting live on the Town website, channel 34 on Verizon FiOS or channel 1303 on Spectrum. To participate in the public comment period join Zoom Meeting https://us02web.zoom.us/j/81391211886?pwd=TzFsbzQ1UUY4VVUvaUVrT3B2WXJlQT09 or dial 1-929-205-6099. Use Meeting ID: *813 9121 1886* and Passcode: *605688*. For questions regarding the application, call the Building Department during regular business hours.

Dated: October 12, 2021

Jacqueline M. Coons

Jacqueline M. Coons
Chief Building
& Zoning Inspector

SWIS	PRINT KEY	NAME	ADDRESS
013089	52.04-2-3	NiMo dba National Grid Company Code 132350	Real Estate Tax Dept, 300 Erie Blvd W,Syracuse, NY 13202-4718
013089	52.04-2-4	Guilderland Town of	P.O. Box 339,Guilderland, NY 12084-0339
013089	52.04-2-5	Stuyvesant Plaza Inc	4 Tower Pl Ste 101,Albany, NY 12203
013089	52.04-2-6	Fifteen Twenty Nine Western LLC	1529 Western Ave,Albany, NY 12203
013089	52.04-2-7	Reeves Associates Inc	1525 Western Ave,Albany, NY 12203
013089	52.19-2-1	Fifteen Sixteen Western AveLLC	50 State St Fl 6,Albany, NY 12220-2207
013089	52.19-2-2	Hada Guilderland LLC Five Guys	600 N Greenbush Rd,Rensselaer, NY 12144
013089	52.19-2-3	Romano-Marx LLC Albany Cnty Vet Hospital PLLC	1506 Western Ave,Albany, NY 12203
013089	52.19-2-4	Fifteen Sixteen Western AveLLC	50 State St Fl 6,Albany, NY 12220-2207
013089	52.19-2-5	Rosalind Gaines	36 Schoolhouse Rd,Albany, NY 12203
013089	52.19-2-6	Rosalind Gaines	36 Schoolhouse Rd,Albany, NY 12203
013089	52.19-2-7	Robert Kester	42 Schoolhouse Rd,Albany, NY 12203
013089	52.19-2-8	Kelly A Sullivan	44 Schoolhouse Rd,Albany, NY 12203
013089	52.19-2-9	Mei Ye Lin	853 Madison Ave Apt 2B,Albany, NY 12208
013089	52.19-2-10	Ellen A Fitzgerald	3099 Spawn Rd,Schenectady, NY 12303
013089	52.19-2-11	J Douglas Slezak	50 Schoolhouse Rd,Albany, NY 12203
013089	52.19-2-40	Thomas V Robert	47 E Highland Dr,Albany, NY 12203
013089	52.19-2-41	McKenzie Chainyk	49 E Highland Dr,Albany, NY 12203
013089	52.19-2-42	Jon Brower	20 Van Voast Ln,Scotia, NY 12302
013089	52.19-3-6	Olgert Mancellari	62 E Highland Dr,Albany, NY 12203
013089	52.19-4-42	Guilderland Town of	P.O. Box 339,Guilderland, NY 12084-0339
013089	52.19-4-43	New York State	,,

Ellen Manning
3 Norwood Street
Albany, NY 12203
(518) 482-3779
ellenmanning1114@verizon.net

October 20, 2021

Thomas Remmert, Chairman
Zoning Board of Appeals
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339

RE: 1516 Western Avenue (Sign area variance)

Dear Mr. Remmert and members of the ZBA:

Officers and members of the board of directors of the McKownville Improvement Association vigorously oppose the granting of a zoning variance to the applicant, AJ Signs, at the Citizens Bank property located at 1516 Western Avenue. This request is for a sign more than double the size permitted by the Town Code for properties located in Local Business zones. And this would be **in addition to the two existing wall signs currently located on the bank building.**

Not only should the ZBA deny the request on the basis of the proposed square footage, the 15' height should be deemed unacceptable as well. And, there is certainly no need for the sign to be visible from I87, as the applicant is seeking go achieve. Furthermore, considering that except for the ATM the bank is open from 9:00 am to 4:00 pm, it is all the more difficult to justify a need for this large illuminated sign.

Businesses along Western Avenue function well within the proscribed signage limits of 50 square feet. If granted, this variance will establish an unacceptable precedent that would undoubtedly prompt more businesses to apply for similar variances along Western Avenue, our "Main Street".

The October meeting of the McKownville Improvement Association is being held tonight so we will not be able to join your meeting. However, we ask that you to consider this letter of objection, and we urge you to deny the applicant's request.

Sincerely,

Ellen Manning
President
McKownville Improvement Association

Thomas Remmert, Chairman
Zoning Board of Appeals
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339

BORREGO SOLAR

February 9, 2021

Jeff Baker
Chairman & Member, Zoning Board
Town of New Scotland
Town Hall
2029 New Scotland Road
Slingerlands, NY 12159

ATTN: Douglas Lagrange, Supervisor

RE: 6120 Johnston Road Rear/555 Krumkill Road – Acknowledgement of Coordination
Slingerlands, NY 12203

Parcel ID: # 63.00-1-5 & 63.-4-9.2

Honorable Chairman Baker,

We are writing to you today in response to Douglas LaGrange's letter, dated December 29, 2020, pertaining to the proposed developments at 6120 Johnston Road rear and 555 Krumkill Road. For the sake of clarity, Borrego Solar Systems, Inc. is proposing two (2) community solar projects for a total of 8.83MWac at 6120 Johnston Road Rear (Parcel ID 63.00-1-5) in the Town of Guilderland. JL Development, LLC is proposing a 23-lot residential subdivision at 555 Krumkill Road (Parcel ID 63.-4-9.2). We wanted to take this time to update you on the status of both proposed developments, as well as confirm our coordinated efforts with the Town of New Scotland and the Guilderland Zoning Board.

Firstly, we would like to communicate the fact that JL Development, LLC still plans to continue the approval process in the Town of New Scotland for the 23-lot residential subdivision. The delay in additional progress with The Town of New Scotland on the subdivision application has been caused by elongated discussions between JL Development, LLC and the Town of Bethlehem regarding the water service, water district, town boundary and out of district water user to be provide public water to the subdivision. This, along with on-site sewer discussion with NYSDEC, ACOE wetland rules and regulation changing back and forth and market demand have all caused the project to be delayed at the Town for continuance of subdivision approval.

Attached as Exhibit A of this letter is a Site Plan Overlay which shows the previous submission of the residential subdivision overlayed on top of the proposed access driveway, utility easement, and electrical conduit of the solar project. Several items are worth noting to exhibit the coordination between the two developments:

- Access Driveway: The solar projects are planning to reuse the existing access road being used by the cell tower. There will only be minor improvements at the entrance to provide appropriate ingress and egress of large trucks and machinery to the solar project parcel during the construction period. It should be mentioned that this access driveway is a non-exclusive

30 Century Hill Drive, Suite 301
Latham, NY 12110

BORREGO SOLAR

easement that has been granted by JL Development, LLC to Borrego Solar. Once the solar project is constructed, and the residential subdivision is approved and ready for its own construction, the access driveway will be updated to the specifications of the subdivision's plans and the roadway will be turned over to the Town of New Scotland. The non-exclusive easement will then be abandoned and or modify to only include egress/ingress rights over lot 9 from Town of New Scotland right-or-way to Town of Guilderland boundary line and remain for the purposes of operation and maintenance of the solar project.

- Stub Driveway for Utility Equipment: In order to move the utility equipment away from what would become the main road of the subdivision plan, Borrego is proposing to build a stub driveway to the east of the current access road near the eastern property boundary. This will help screen the pole mounted equipment from the road since we would cut into the existing berm/hill in order to install the stub driveway. In addition, we will provide supplemental vegetative screening to preserve natural aesthetics.

- Electrical Conduit: Medium voltage electrical conduit will be placed along the eastern parcel boundary of the New Scotland parcel. The intent of the design is to mitigate any complications with the necessary infrastructure of the proposed residential subdivision that would be placed along or within the subdivision's upgraded road. The existing utility easement on the west side of the parcel is being utilized by the cell tower in the Guilderland parcel. Due to National Grid easement requirements, we cannot utilize the same easement as the cell tower.

- Removal of proposed subdivided parcels in the Town of Guilderland: To abide by the Town of Guilderland's zoning laws to the utmost extent, Borrego Solar Systems, Inc. designed the solar project in the open area as it appears in the norther and southern section of the Guilderland parcel. This was to avoid large tree clearing as it dictates in the Town's zoning laws that Borrego is limited to clear cutting of trees in a single contiguous area, less than 20,000 square feet. As a result of this design decision, Borrego has asked for JL Development to forego their proposed subdivisions in the Town of Guilderland in place of the solar project. Both parties have come to an agreement for this to take place.

- SEQRA Impacts of solar on proposed subdivision: JL Development, LLC is aware of the solar project's vicinity to the residential subdivision. However, topography of the wetland seen in the north west region of the New Scotland parcel, as well as proposed vegetative screening along the rear of proposed lots 9, 10, 11 and 12 will mitigate the visual impact of the project. With respect to potential glare from the panels due to their southern orientation, Borrego has performed a glare study to investigate the potential impact. Our findings concluded that yellow glare is limited without preventative screening, but will be entirely mitigated with proposed 8' natural vegetation along the southern boundary of the project.

We appreciate the comments that were provided as they brought to light the much needed coordination of these two projects. Both parties hope that this communication provides insight into the development stage of the residential subdivision, the coordination between both parties, and the details of the coordinated effort.

Cultivate Potential

BORREGO SOLAR

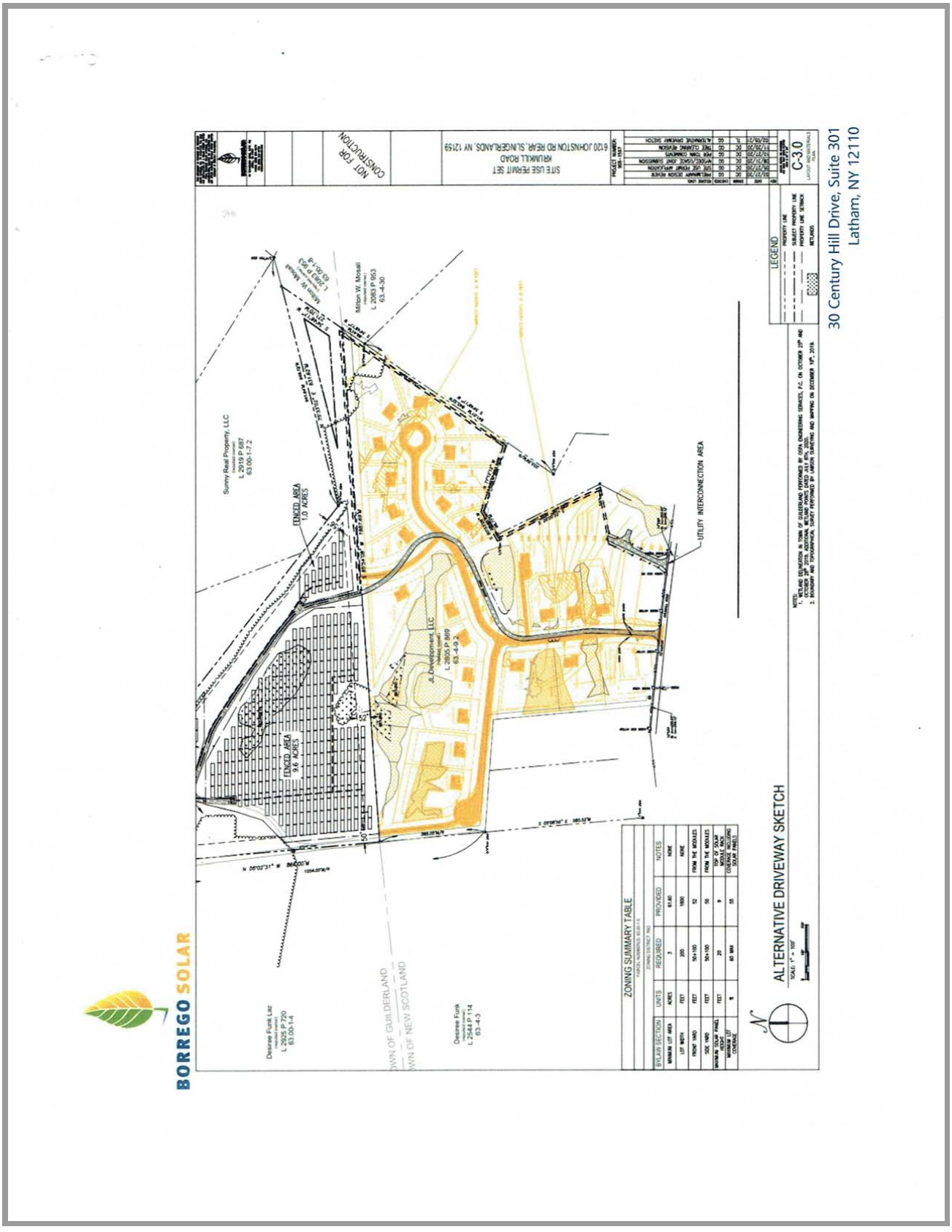
Thank you,

Jamie Easton
Engineer
Prime Companies
JL Development, LLC

James Kondrat
Project Developer
Borrego Solar Systems, Inc.

DocuSigned by:
James Kondrat
C9201FDB2F4943A...

Cultivate Potential


BORREGO SOLAR
30 Century Hill Drive, Suite 301
Latham, NY 12110
ALTERNATIVE DRIVEWAY SKETCH
SCALE: 1" = 100'
LEGEND
ZONING SUMMARY TABLE
FENCED AREA 1.0 ACRES
FENCED AREA 9.6 ACRES
UTILITY INTERCONNECTION AREA
Sunny Real Property, LLC L 2919 P 687 63.00-1-7.2
Milton W. Mosall L 2083 P 953 63.4-30
JL Development, LLC L 2805 P 869 63.-4-9.2
Desiree Funk Lez L 2925 P 720 63.00-1-4
Desiree Funk L 2544 P 114 63.-4-3
TOWN OF GUILDERLAND
TOWN OF NEW SCOTLAND
SITE USE PERMIT SET
6120 JOHNSTON RD REAR, SLINGERLANDS, NY 12159
NOT FOR CONSTRUCTION
C-3.0

Simulated Condition

VP04 - Adjacent Property

SARATOGA ASSOCIATES

Photograph Information			
Date:	July 1, 2020	Photo Location:	42° 40' 05.2619" N
Time:	4:15 PM		73° 51' 20.6099" W
Focal Length:	24 mm	Distance:	614 Feet
Camera:	Canon EOS 6D MarkII		

This photograph was taken using a 24mm lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.

Figure 4b
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
Krumkill Road
Albany, NY

PV Engineers

Existing Condition

VP04 - Adjacent Property

SARATOGA ASSOCIATES

Photograph Information			
Date:	July 1, 2020	Photo Location:	42° 40' 05.2619" N
Time:	4:15 PM		73° 51' 20.6099" W
Focal Length:	24 mm	Distance:	614 Feet
Camera:	Canon EOS 6D MarkII		

This photograph was taken using a 24mm lens. To appear at the correct scale this page is intended to be viewed approximately 11 inches from the reader's eye when printed on 11"x17" paper.

Figure 4a
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
Krumkill Road
Albany, NY

PV Engineers

Simulated Condition - with Landscape Mitigation, growth at year 5

VP03 - Krumkill Road

SARATOGA ASSOCIATES

Photograph Information			
Date:	June 19, 2020	Photo Location:	42° 39' 58.6380" N
Time:	10:07 AM		73° 51' 26.0760" W
Focal Length:	35 mm	Distance:	1070 Feet
Camera:	Canon EOS 6D MarkII		

This photograph was taken using a 35mm lens. To appear at the correct scale this page is intended to be viewed approximately 16 inches from the reader's eye when printed on 11"x17" paper.

Figure 3d
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
Krumkill Road
Albany, NY

PV Engineers

Simulated Condition - with Landscape Mitigation, growth at year 1

VP03 - Krumkill Road

SARATOGA ASSOCIATES

Photograph Information			
Date:	June 19, 2020	Photo Location:	42° 39' 58.6380" N 73° 51' 26.0760" W
Time:	10:07 AM		
Focal Length:	35 mm	Distance:	1070 Feet
Camera:	Canon EOS 6D MarkII		

This photograph was taken using a 35mm lens. To appear at the correct scale this page is intended to be viewed approximately 16 inches from the reader's eye when printed on 11"x17" paper.

Figure 3c
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
Krumkill Road
Albany, NY

PV Engineers

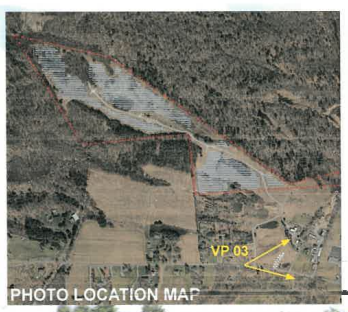
Simulated Condition
VP03 - Krumkill Road

SARATOGA ASSOCIATES

Photograph Information			
Date:	June 19, 2020	Photo Location:	42° 39' 58.6380" N
Time:	10:07 AM		73° 51' 26.0760" W
Focal Length:	35 mm	Distance:	1070 Feet
Camera:	Canon EOS 6D MarkII		

This photograph was taken using a 35mm lens. To appear at the correct scale this page is intended to be viewed approximately 16 inches from the reader's eye when printed on 11"x17" paper.

Figure 3b
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
PV Engineers
Krumkill Road
Albany, NY



Existing Condition
VP03 - Krumkill Road

SARATOGA ASSOCIATES

Photograph Information			
Date:	June 19, 2020	Photo Location:	42° 39' 58.6380" N
Time:	10:07 AM		73° 51' 26.0760" W
Focal Length:	35 mm	Distance:	1070 Feet
Camera:	Canon EOS 6D MarkII		

This photograph was taken using a 35mm lens. To appear at the correct scale this page is intended to be viewed approximately 16 inches from the reader's eye when printed on 11"x17" paper.

Figure 3a
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
Krumkill Road
Albany, NY

PV Engineers

Simulated Condition - 4 foot berm

VP07 - Adjacent Property

SARATOGA ASSOCIATES

Photograph Information			
Date:	December 10, 2020	Photo Location:	42° 40' 03.4860" N
Time:	Afternoon		73° 51' 41.9369" W
Focal Length:	28 mm	Distance:	730 Feet
Camera:	Google Pixel 3A		

This photograph was taken using a 28mm lens. To appear at the correct scale this page is intended to be viewed approximately 12.5 inches from the reader's eye when printed on 11"x17" paper.

Figure 2b
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
Krumkill Road
Albany, NY

PV Engineers

Existing Condition
VP07 - Adjacent Property

SARATOGA ASSOCIATES

Photograph Information			
Date:	December 10, 2020	Photo Location:	42° 40' 03.4860" N
Time:	Afternoon		73° 51' 41.9369" W
Focal Length:	28 mm	Distance:	730 Feet
Camera:	Google Pixel 3A		

This photograph was taken using a 28mm lens. To appear at the correct scale this page is intended to be viewed approximately 12.5 inches from the reader's eye when printed on 11"x17" paper.

Figure 2a
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
Krumkill Road
Albany, NY

PV Engineers

Simulated Condition
VP01 - Krumkill Road

SARATOGA ASSOCIATES

Photograph Information			
Date:	June 19, 2020	Photo Location:	42° 39' 59.1479" N
Time:	10:02 AM		73° 51' 51.1859" W
Focal Length:	50 mm	Distance:	1550 Feet
Camera:	Canon EOS 6D MarkII		

This photograph was taken using a 50mm lens. To appear at the correct scale this page is intended to be viewed approximately 22 inches from the reader's eye when printed on 11"x17" paper.

Figure 1b
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
Krumkill Road
Albany, NY

PV Engineers

Existing Condition
VP01 - Krumkill Road

SARATOGA ASSOCIATES

Photograph Information			
Date:	June 19, 2020	Photo Location:	42° 39' 59.1479" N
Time:	10:02 AM		73° 51' 51.1859" W
Focal Length:	50 mm	Distance:	1550 Feet
Camera:	Canon EOS 6D MarkII		

This photograph was taken using a 50mm lens. To appear at the correct scale this page is intended to be viewed approximately 22 inches from the reader's eye when printed on 11"x17" paper.

Figure 1a
Visual Resource Assessment
KRUMKILL ROAD SOLAR PROJECT
Krumkill Road
Albany, NY

PV Engineers

borrego

Gregory Gibbons <ggibbons@borregosolar.com>

RE: Krumkill Road Solar Project - Landscape Screening Plan

1 message

info@usaweddings.com <info@usaweddings.com> Thu, Feb 25, 2021 at 5:48 PM
To: Gregory Gibbons <ggibbons@borregosolar.com>

Hi there you two, Thank you for the teamwork, and the 4-5 foot berm which will block most or the solar panels. With the berm in place we'll have no objections to that 50 foot spacing on the back right side of the property. I'm out of the area and working off a mobile device so properly formatting a letter isn't easy at the moment. I'll be back on the 6th. Thanks again for the berm, Working with you two has been outstanding. Good luck with the project. Very best, T.R.

> -------- Original Message --------
> Subject: Re: Krumkill Road Solar Project - Landscape Screening Plan
> From: Gregory Gibbons <ggibbons@borregosolar.com>
> Date: Thu, February 25, 2021 1:51 pm
> To: info@usaweddings.com
> Cc: James Kondrat <jkondrat@borregosolar.com>
>
> Hi TR,
>
> Following up on our conversation, we're revised the berm/landscape design plan which now shows the berm being elevated to 5' on the western half (attached). Please let us know when you think you'll be able to provide your letter of acceptance.
>
> Thanks,
> Greg
>
> On Wed, Feb 17, 2021 at 6:54 PM Gregory Gibbons <ggibbons@borregosolar.com> wrote:
> > Hello TR,
> >
> > Attached please find revised plans and simulations which reflect the changes discussed on our call on January 8th. I've annotated the sheets to better show the changes which impact your view. We have changed the following:
> > -Removed the tree plantings from the berm per your request.
> > -Removed the panels to the west of the road on the hilly area which were previously visible in the simulation
> > -Kept the trees in the area which previously contained panels.
> >
> > As shown in the latest simulation, these changes completely screen the system from your view. If you are satisfied with these changes we would appreciate it if you would sign the attached form letter that James has drafted up so we can submit it to the Zoning Board. Feel free to suggest modification to the language if you prefer it worded differently.
> >
> > Thank you,
> > Greg
> >
> > On Thu, Jan 7, 2021 at 7:59 PM <info@usaweddings.com> wrote:
> >
> > > Great. Hoping it works - will give it a shot. Thanks.
> > >
> > > > ok that makes more sense. I'd prefer to do the video meeting and not in person. I will send you an email invite for 11:30am tomorrow right now. It will be a google link for the video and there will be a call-in number to dial in by phone for the sound.
> > > >
> > > > On Thu, Jan 7, 2021 at 7:48 PM <info@usaweddings.com> wrote:
> > > > > Greg - I thought you meant the phone/zoom/whatever test. 🙂
> > > > > Otherwise if you actually wanted to meet in person, 1130a if fine too.
> > > > > What ever works best for you.

T.R.

-------- Original Message --------
Subject: Re: Krumkill Road Solar Project - Landscape Screening Plan
From: Gregory Gibbons <ggibbons@borregosolar.com>
Date: Thu, January 07, 2021 6:51 pm
To: info@usaweddings.com

Tomorrow morning, correct? I can meet you at 11:30 if that works for you. By test do you mean one of us walks into the field and the other takes a photo?

On Thu, Jan 7, 2021 at 6:47 PM <info@usaweddings.com> wrote:
- Hi Greg
Later Friday morning, can you and I do a test to see it it will work,
and then bring Jim in if it works or do the 3 way meeting Friday afternoon
if our test works?
Thanks for you helpT.R.

-------- Original Message --------
Subject: Re: Krumkill Road Solar Project - Landscape Screening Plan
From: Gregory Gibbons <ggibbons@borregosolar.com>
Date: Thu, January 07, 2021 3:04 pm
To: info@usaweddings.com, James Kondrat <jkondrat@borregosolar.com>

TR,

Let me know if you think tomorrow will work. If not, we can find a time next week.

Thanks
Greg

On Wed, Jan 6, 2021 at 3:27 PM Gregory Gibbons <ggibbons@borregosolar.com> wrote:
Ok sounds good. Even if you don't have a computer with a mic or camera we could still present the materials to you on your screen and we would provide a call-in number you can use to communicate. Let me know, thanks!

On Wed, Jan 6, 2021 at 3:25 PM <info@usaweddings.com> wrote:
- Hi - my main computer that I use for zooming - I dropped it off at the shop to be worked on while I was away.
Let me see if they are done with it, or, if there is another computer here at the house that is zoom ready/capable.
T.R.

-------- Original Message --------
Subject: Re: Krumkill Road Solar Project - Landscape Screening Plan
From: Gregory Gibbons <ggibbons@borregosolar.com>
Date: Wed, January 06, 2021 2:27 pm
To: info@usaweddings.com
Cc: James Kondrat <jkondrat@borregosolar.com>

Hi TR,

It would be our preference to have a meeting via video if that is ok with you. With James in Connecticut and COVID in the area picking back up I think it would be safest. Please let me know if that works for you and if you are free on Friday.

Thanks
Greg

On Wed, Jan 6, 2021 at 2:24 PM <info@usaweddings.com> wrote:
Hi there you two.
Was actually away for a few weeks since we met. Back Today, Jan

6 and doing the mandatory quarantine etc. Looking forward to catching up in person, working out any details, and, offering our continued support of your project to town Planning and ZBA.
T.R.

---- Original Message --------

Subject: Krumkill Road Solar Project - Lanscape Screening Plan
From: Gregory Gibbons <ggibbons@borregosolar.com>
Date: Wed, January 06, 2021 10:53 am
To: info@usaweddings.com, James Kondrat <jkondrat@borregosolar.com>

Hello TR,

Hopefully you had a Merry Christmas and a Happy New Year! I called your home phone to set up a meeting to review our progress since we last spoke and was referred to your email.

Our landscape architect prepared a formal planting plan and analyzed your viewshed using the photo I took from your porch during our visit (see attached documents). As we discussed, they added tree plantings along the existing natural berm at time of planting and at 5 years growth (Photo Simulation Figures 2c and 2d). At 5 years growth they do an adequate job screening the system but at initial construction the system is still in view. Next, they added an additional 4' elevation to the berm at the location of the tree plantings (Figures 2e and 2f) and it screens the system even at the initial tree planting height! For reference the Landscape Plan attachment shows the specific location of the plantings, types and quantities as well as the berm design (3:1 embankments with a 12' wide crest).

James and I are very happy with the way this turned out and hopefully you are as well. Do you have a time that works for you to discuss these on a video call? We can be available anytime midday Friday (free 11:30am-2pm). Let me know and I can send a meeting invite.

Thanks,
Greg
--

borrego

Gregory Gibbons, P.E.
Civil Engineer
E: ggibbons@borregosolar.com | T: 315.378.9567

Borrego | Powering your growth.

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Technical Memorandum

To: Gregory Gibbons, Borrego Solar Systems
From: Stephen Barrett
Date: February 10, 2021
RE: UPDATED Glare Study, Solar PV Project at Krumkill Rd, Guilderland, New York

Executive Summary

Borrego Solar Systems (Borrego) is developing a ground-mounted solar photovoltaic (PV) project off of Krumkill Road in Guilderland, NY. Borrego has engaged Barrett Energy Resources Group (BERG) to analyze potential impacts of glare from the project on nearby sensitive receptors. This memo is an update to the previous report dated June 19, 2020.

BERG has utilized the Solar Glare Hazard Analysis Tool (SGHAT) which was developed by the US Department of Energy for the Federal Aviation Administration (FAA) to protect aviation sensitive receptors. For this project, SGHAT has been used to assess glare on motorist receptors traveling on Krumkill Road, and on representative residential and religious receptors in the area. Eleven receptors, which are representative of expected results from other residences nearby, were selected for analysis. In this update to the June 19, 2020 report, BERG has added 24 receptors associated with a proposed residential subdivision located south of the array. To avoid confusion with information that has been previously reported, these results are discussed separately on Page 11.

The modeling report, which is included as Attachment A, shows that the project registered a potential for glare on six of the eleven receptors analyzed. However, because the model does not consider terrain, vegetation or structures, a line-of-sight analysis was prepared for the six receptors to provide verification. The line-of-sight analysis presented in this report shows that four of the six receptors where glare is predicted cannot see the solar project due to terrain and, as a result, there will be no glare. For the other two receptors, existing trees will limit any potential view making glare impacts unlikely.

For the 24 receptors associated with the potential residential subdivision identified as #12-35, 16 of the 24 receptors recorded glare. The locations with glare are the residences that are located closest to the project. This Technical Memorandum describes the project, methodology, and results including the updates associated with the residential subdivision.

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Project Description

The Krumkill Solar Photovoltaic (PV) Project is located on undeveloped farm and woodland north of Krumkill Road in Guilderland as shown on **Figure 1**. The project is designed as a ground-mounted facility with a fixed tilt racking system.

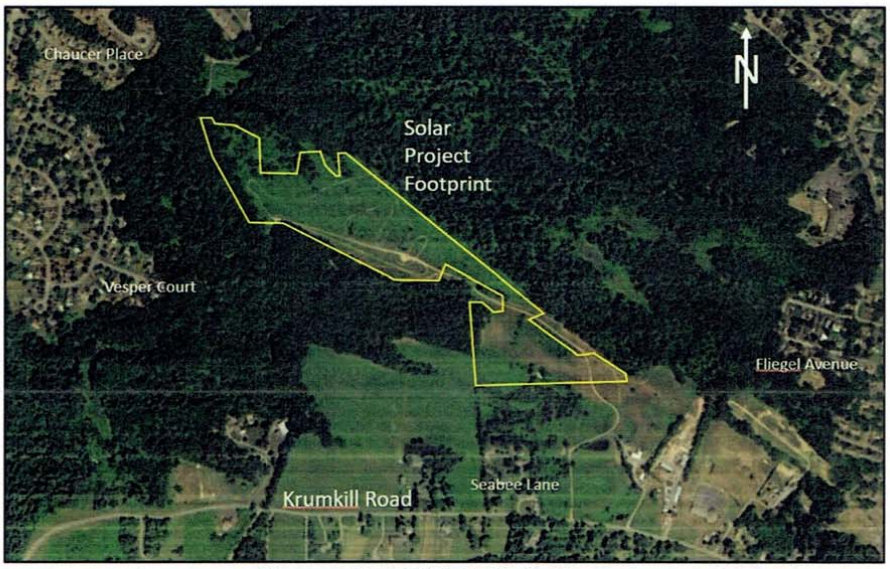

Figure 1. Krumkill Solar Project Locus

FAA Solar Policy

In 2013, the Federal Aviation Administration (FAA) published "Interim Policy, FAA Review of Solar Energy System Projects on Federally-Obligated Airport," which sets forth methods for assessing glare and the standards for determining impact for projects proposed on airport property. It also requires the use of modeling to assess glare and directs project proposers to the Solar Glare Hazard Analysis Tool (SGHAT) which was developed by the US Department of Energy at the request of the FAA. The US Department of Defense (DOD) has also adopted SGHAT and the associated requirements to analyze glare under Instruction (DODI) 4165.57. Given the critical safety issues associated with aviation, the model produces a highly credible result that is being used to evaluate other glare sensitive receptors.

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Glare Methodology and Standard of Impact

Determination of glare occurrence from a solar PV project requires knowledge of the sun position, observer location, and the characteristics of the solar panels (e.g. tilt, orientation, location, extent, etc.). Vector algebra is then used to determine if glare is visible from the prescribed observation points. **Figure 2** provides a simple representation of how the sun can produce glare on an automobile for a specific time and location. The angle of the light source from the sun must be equal to the angle of the reflection on a receptor. Therefore, when receptors are close to the ground (like a house or car), the reflection is only possible when the sun is also close to the ground (i.e., near sunrise or sunset). As the sun moves, the incidence of glare ends.

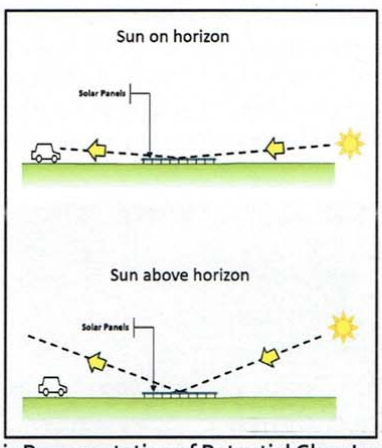

Figure 2. Geometric Representation of Potential Glare Impacts from the Sun

The SGHAT model is a credible tool for predicting glare based on the characteristics of the project and the identified receptor. It produces results including relative glare intensity identified by a color based on three categories: green (low potential for an after-image), yellow (potential for an after-image), and red (retinal burn). These categories apply to the FAA Policy and are not specifically relevant for glare assessment of other receptors. For non-aviation receptors, like those associated with the Krumkill Solar Project, the results are simply used to determine if glare is predicted or not.

SGHAT Model Setup for Proposed Project

Regardless of the receptor to be analyzed, the model set-up entails locating the solar project, inputting its design characteristics, and identifying sensitive receptors for analysis. The position and movement of the sun throughout the year is built into the model.

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For the Krumkill Solar Project, BERG used the PV project polygon tool to draw the footprint of the solar array on SGHAT's interactive google map. The specific attributes of the solar array were then input into the model. As the project proposes a fixed tilt system, SGHAT includes relevant fields for those elements including for this project design: fixed tilt with a tilt angle of 25° and an azimuth of 180°. The average panel height of 6 feet above ground level (agl), and a panel surface with no anti-reflective coating were input as a baseline.

For this project, eleven receptors, which are representative of expected results from other residences nearby, were selected for analysis. The sensitive receptors are motor vehicle receptors associated with Krumkill Road and residences and religious facilities nearby. The model's observation point tool was used to select individual points located on the Google map for glare assessment. Two motorist and nine residential/religious locations were analyzed as shown on **Figure 3**. For the motorist receptors, the driver's height above the roadway was set at 5 feet. For the residential, the viewpoint was set at 15 feet above ground level (agl) to represent the view of a person viewing from a second story location. For the two religious receptors (#9, #11), the receptors were identified as people standing outside of the facility with a viewpoint of 5 feet agl.

Figure 3. Motorist and Residential Receptors Analyzed for Glare

The glare analysis button was activated and the model evaluated glare from various sun angles at 1-minute intervals throughout the year to predict if glare could be observed by the sensitive receptors.

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Glare Model Results

The SGHAT Report with model results for the two motorist and nine residential and religious receptors are summarized in **Table 1** with the full output report included as Attachment A. The results show that glare could be observed from six of the eleven receptors based on the location and design of the solar project, the location of the receptor, and the path of the sun throughout the year.

Table 1. SGHAT Glare Results for the Krumkill Solar Project

Receptor #	Receptor Type	Glare?
1	Residence	No
2	Residence	No
3	**Residence**	**Yes**
4	**Residence**	**Yes**
5	**Motor Vehicle**	**Yes**
6	**Residence**	**Yes**
7	Residence	No
8	Motor Vehicle	No
9	Residence	No
10	**Residence**	**Yes**
11	**Residence**	**Yes**
12	Residence	No

The receptors that registered glare are highlighted in **Figure 4** and the months, times and duration are included for each. Receptors 3 through 6 located west of the project would experience glare in the morning when looking toward the east at the solar project. Receptors 10 and 11 located east of the project would observe glare in the evening when the sun is setting to the west. The duration presented is the maximum amount of time that glare could be seen in one day. Receptors shown on Figure 4 that are not highlighted did not register glare.

Because the SGHAT model was developed for airports (flat, open spaces) and does not account for terrain, vegetation or manmade structures, a line-of-sight analysis is required to validate the results for the six receptors where glare was registered.

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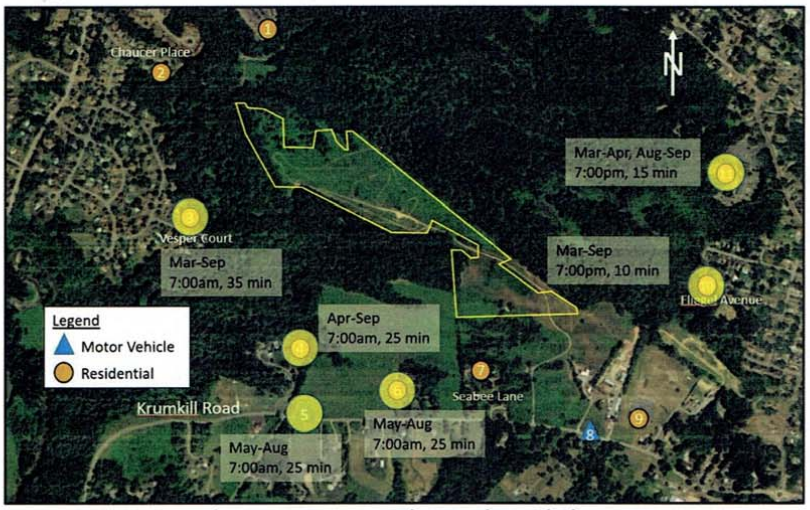

Figure 4. Receptors That Registered Glare

Line-of-Sight Analysis

To determine if topography and vegetation affect the ability to see glare from the receptors, a line-of-sight analysis was prepared. To maximize consistency among tools, an elevation profile feature in Google Earth was used providing the same basis for locations and elevations as the SGHAT model. Google Earth has a path tool that allows the user to select two points and analyze information along a path between the two points including distance and elevation. The user can generate an elevation profile that presents a cross-sectional view of the topography of the land between the two points. Through this simple analysis, one can evaluate whether the selected observer can see the solar project given the topography of land in between the two locations. As necessary, vegetation and manmade structures can then be layered into the cross-sectional view. It is important to note that the specific location of the solar array that is producing glare is included in the SGHAT modeling report which allows for accurate identification of which part of the array the line-of-sight analysis should be conducted.

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Figure 5 shows the location and direction of each line-of-sight analysis conducted. The view starts from the receptor location and is directed to that portion of the project where glare is most concentrated as shown in the glare report in Attachment A. For example, Receptors 3, 10, and 11 would only see glare from the northern portion of the solar array, whereas Receptors 4, 5, and 6 would view glare across the southern portion of the array.

Figure 5. Line-of-Sight Analyses Conducted for the Krumkill Solar Project

Table 2 includes the results for each of the receptors analyzed. If it is clear that terrain will obstruct the view of the solar project from the receptor, then it has been determined that there will be no impact. This is the conclusion for four of the six receptors. If there is existing vegetation between the receptor and the solar project that is high enough to obstruct the view, then it has been determined that glare is unlikely. This is the conclusion for the other two receptors.

Table 2. Line-of-Sight Analysis Results

Receptor #	Receptor Type	Result	Comment
3	Residence	No Glare Possible	Terrain Obstruction
4	Motor Vehicle	Glare Unlikely	Existing Vegetation
5	Residence	Glare Unlikely	Existing Vegetation
6	Residence	No Glare Possible	Terrain Obstruction
10	Residence	No Glare Possible	Terrain Obstruction
11	Religious	No Glare Possible	Terrain Obstruction

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Results for each line-of-sight analysis are described in the section below supported by a figure showing a cross-section of the receptor view, which was generated from Google Earth and uses its locational and terrain information. The viewer, vegetation (estimated conservatively as 30 feet high), and solar project have been superimposed on the cross-sectional view at scale.

Description of Individual Line-of-Sight Analyses

Figure 6 shows the line-of-sight analysis for Receptor 3, which is a residence on the cul-de-sac Vesper Court to the west of the project. The modeling report indicates that glare could be produced from the northern section of the solar array. The line-of-sight analysis shows that there is a forested hill between the receptor and the solar project that will block the view. Based on this information, it is concluded that there will be no glare impact on Receptor 3.

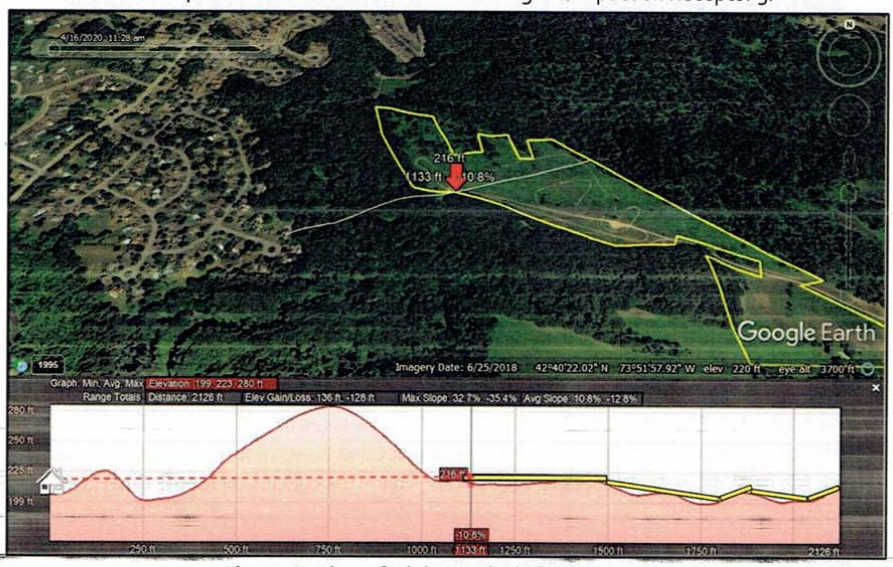

Figure 6. Line-of-Sight Analysis for Receptor 3

Figure 7 shows the line-of-sight analysis for Receptor 4, which is a residence southwest of the solar project off of Krumkill Road. The modeling report indicates that glare could be produced from the southern section of the solar array. There is no terrain in between the receptor and the solar project but there is a 300-foot thick section of forest near the receptor which will likely obstruct any view of glare. Based on this information, it is concluded that glare impacts are unlikely as long as the existing trees are not removed.

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Figure 7. Line-of-Sight Analysis for Receptor 4

Figure 8 shows the line-of-sight analysis for Receptor 5, which is a motor vehicle traveling eastbound on Krumkill Road. The modeling report indicates that glare could be produced from the far southern corner of the solar array. Like the previous receptor, there is existing vegetation between the receptor and the solar project that will likely obstruct the view. Based on this information, it is concluded that glare impacts are unlikely as long as the existing trees are not removed.

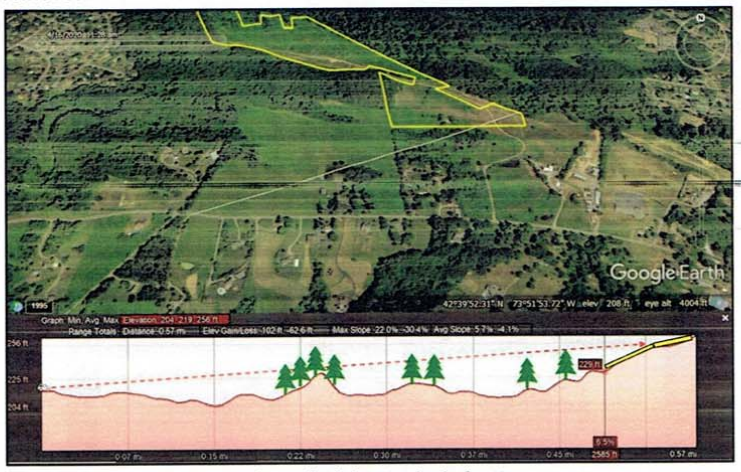

Figure 8. Line-of-Sight Analysis for Receptor 5

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Figure 9 shows the line-of-sight analysis for Receptor 6, which is a residence to the south of the solar project. The modeling report indicates that glare could be produced from the southeastern corner of the solar array. The line-of-sight analysis shows that there is a forested hill between the receptor and the solar project that will block the view. Based on this information, it is concluded that there will be no glare impact on Receptor 6.

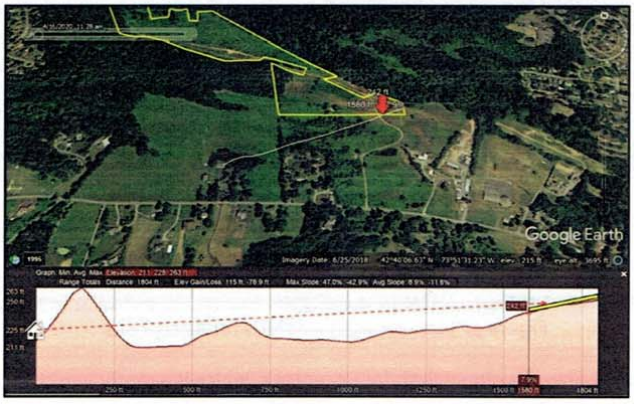

Figure 9. Line-of-Sight Analysis for Receptor 6

Figure 10 shows the line-of-sight analysis for Receptor 10, which is a house on Fliegel Avenue to the east of the project. The modeling report indicates that glare could be produced from the central section of the solar array. The line-of-sight analysis shows forested terrain between the receptor and the solar project that will block the view. Based on this information, it is concluded that there will be no glare impact on Receptor 10.

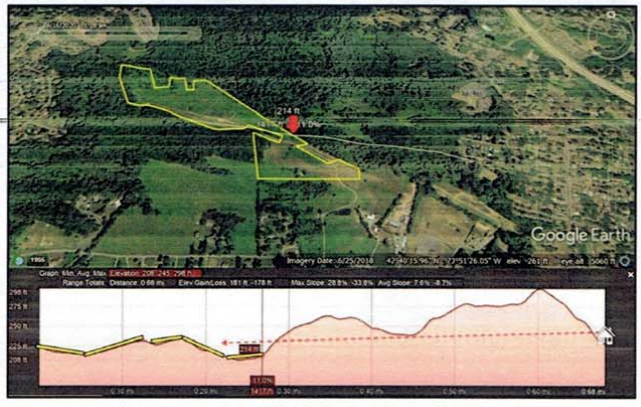

Figure 10. Line-of-Sight Analysis for Receptor 10

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Figure 11 shows the line-of-sight analysis for Receptor 11, which is a religious facility to the east of the project. The modeling report indicates that glare could be produced from the northern section of the solar array. The line-of-sight analysis shows forested terrain between the receptor and the solar project that will block the view. Based on this information, it is concluded that there will be no glare impact on Receptor 11.

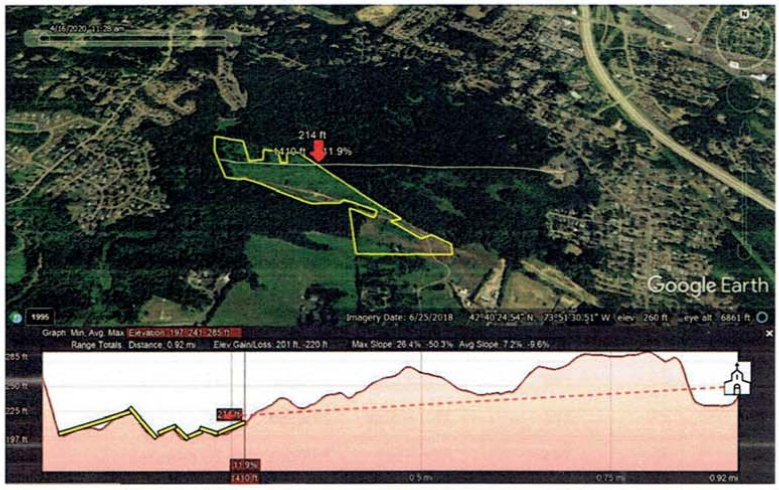

Figure 11. Line-of-Sight Analysis for Receptor 11

Residential Subdivision Receptors

This updated report has evaluated potential for glare on a proposed 24-lot residential subdivision which would be located adjacent to and south of the proposed solar project. The subdivision road would have a main stem entrance and two branches to the east and west, respectively. Each residence was modeled for glare with their identifier numbers following in sequence from the other receptors analyzed in this report (i.e., #12-35). These locations are shown on **Figure 12**.

The modeling results, provided in Attachment A and summarized below in **Table 3**, indicate that there is a potential for glare on 16 of the 24 receptors. Figure 12 highlights in yellow the receptors where glare was recorded. The impacted receptors are primarily associated with residences proposed along the eastern branch road ending with a cul-de-sac (Receptors #16-29) along with a few additional receptors along the western branch (#32 and 33). Glare could be seen spring through fall during a daily window of typically 15 to 25 minutes (#27 has 55 minutes). Glare would occur when the residents look across the solar array when the sun is setting in the west. Only receptors 27, 32 and 33 see glare looking east in the morning.

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Figure 15 shows a line-of sight analysis for the home at Receptor #33. It would look northeast across the solar project toward the rising sun. Figure 15 suggests that if evergreen trees of 10 feet in height such as arborvitae were planted along the property border with the solar project, then it would not obstruct the view of glare on the home at Receptor #33. Due to the low elevation between the home and the solar project, it would be difficult to provide vegetative landscaping as a screen unless it was placed inside the fence of the solar project.

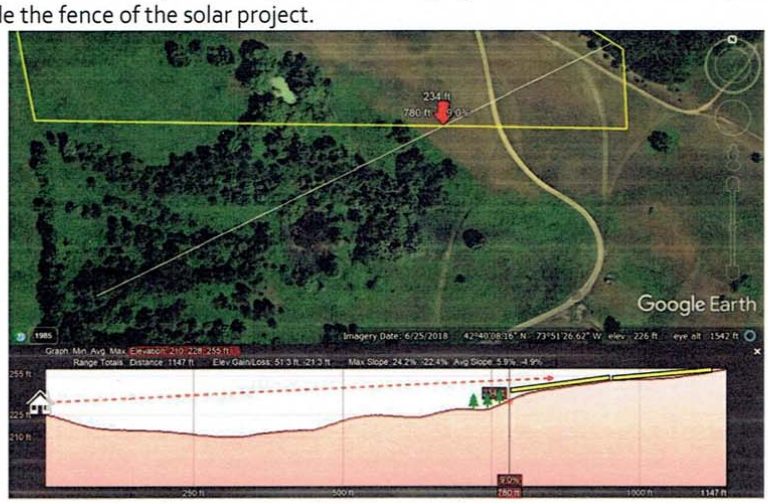

Figure 15. Line-of-Sight Analyses for Receptor #33

Conclusions

Barrett Energy Resources Group (BERG) has used the SGHAT modeling tool developed by the US Department of Energy to assess the potential effects of glare from a solar photovoltaic (PV) project on motorist, residential and religious receptors near Borrego's proposed project off of Krumkill Road in Guilderland, NY. Eleven receptors, which are representative of expected results from other residences nearby, were selected for analysis. The SGHAT model registered no glare for five of the eleven receptors analyzed, and potential glare for the remaining six. Because the model does not incorporate terrain and vegetation, a line-of-sight analysis was conducted in Google Earth to verify the modeling results of the six receptors where glare was registered. The line-of sight analysis shows that the view of the solar array for four of the six receptors will be blocked by landforms (terrain, hills) to the east and west of the project site preventing any view of glare. For the remaining two receptors, existing vegetation (forested areas, trees) will make the view of glare unlikely. Based on both the modeling and the line-of-sight analyses, it is concluded that there will be no glare impact from the project.

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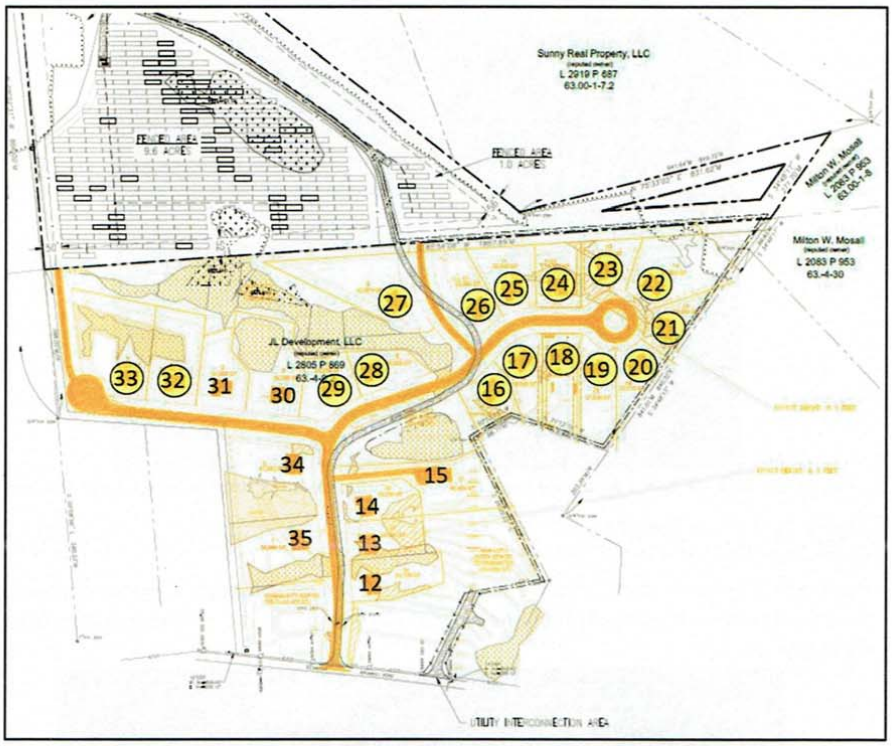

Figure 12. Proposed Residential Subdivision Krumkill Road Solar Project

A line-of-sight analysis has been prepared for two representative homes in the proposed 24-lot subdivision. The receptor numbers for the homes are #26 which will have a view of the solar array that will be similar to receptors #16-25, and #33, which is representative of #27 and #33. Their locations are shown in **Figure 13**.

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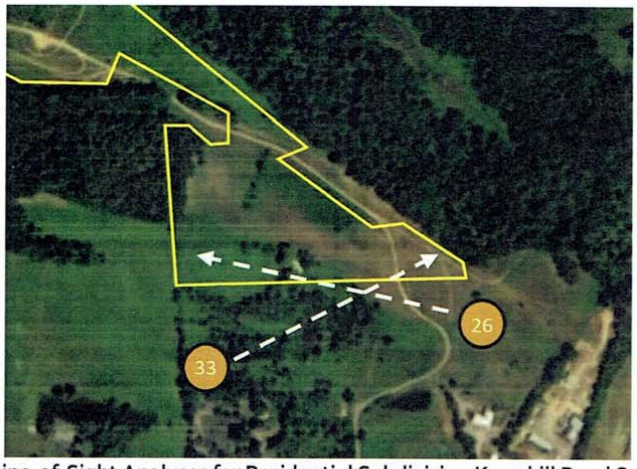

Figure 13. Line-of-Sight Analyses for Residential Subdivision Krumkill Road Solar Project

Figure 14 shows a line-of sight analysis for the home at Receptor #26. It would look northwest across the solar project toward the setting sun. Figure 14 indicates that if evergreen trees of 10 feet in height such as arborvitae were planted along the property border with the solar project, then the view of glare on the home at Receptor #26 may be mitigated.

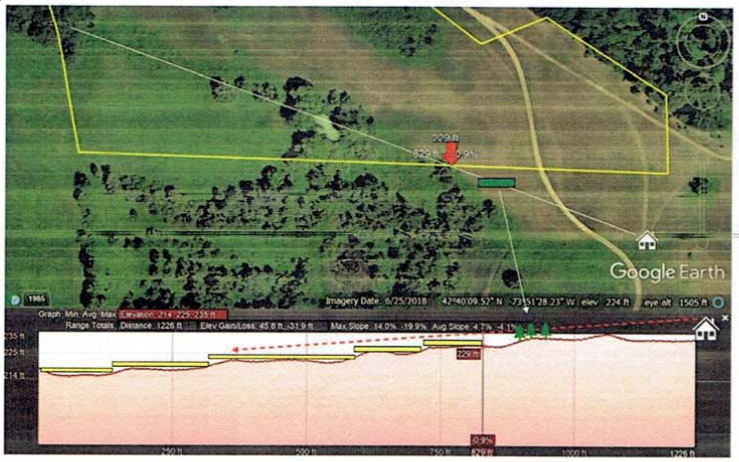

Figure 14. Line-of-Sight Analyses for Receptor #26

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This report provides an update on the June 19, 2020 report and includes modeling for 24 additional receptors associated with a proposed residential subdivision. Of the 24 receptors analyzed, 16 have the potential for glare when looking across the array towards the setting or rising sun. The majority of the residences are along the eastern branch road which ends in a cul-de-sac.

March 3, 2021

Town of Guilderland Zoning Board
Guilderland Town Hall
5209 Western Turnpike
PO Box 339
Guilderland, NY 12084
(518) 371-6651
ATTN: Jackie Coons,

RE: Krumkill Road Solar Review

To Whom it May Concern:

This document summarizes the outstanding items in our application and the actions taken to satisfy the Town of Guilderland Zoning Board as well as the Town of New Scotland as part of the coordinated review. The following topics are discussed below:

1. Coordination with abutting Laz property
2. Coordination with peer reviewer Jesse Fraine from Delaware Engineering
3. Town of New Scotland Comments
    - Pending Subdivision application
    - SEQRA Coordination of subdivision project and solar project
    - Utility Poles
    - Driveway Access Location

1. Coordination with abutting Laz property

After the December 2nd Zoning Board meeting, we met with TR Laz at his property to review his viewshed and discuss his concerns. Based on his feedback we have made several changes to our plans and received an email confirming he is happy with our efforts and will support the system as currently laid out. We have provided the following:

- Proposing a 4 ft to 5 ft earthen berm on their property which visually screens the system from home (see landscaping plan L-1)
- Relocated panels on the system to avoid the higher elevated area which would have been visible from their house (see plans)
- Revised visual simulations to confirm the reduced impact (See attached visual simulations
- February 25 Email from TR Laz agreeing to latest plan and visual screening iteration.

2. Coordination with peer reviewer Jesse Fraine from Delaware Engineering

We have responded to Mr. Fraine's email from January 5th regarding the remaining site stormwater design concerns. Our design team has coordinated on several phone calls,

conference calls and emails with Mr. Fraine over the past couple weeks to ensure that we are adequately meeting the Town's stormwater requirements for the site.

As of yesterday, March 2nd, Jesse stated that he will be reaching out to the Town to confirm that we are meeting the intent of his comments. We will continue working with Mr. Fraine to address any final comments and update the stormwater design accordingly. We have included 2 copies of the latest DRAFT SWPPP document for the Town's review.

3. Town of New Scotland Comments

We have spoken with Jeremy Cramer from the Town of New Scotland on several occasions with regard to scheduling a meeting with the Town to review their December 29th, 2020 comment letter. We had hoped to hold this meeting prior to sending this letter but fully expect to meet with them in the next few days. As discussed further below, we have made significant changes to our design in order to address each of their comments. See below:

- Pending Subdivision application

  Prime companies would like to keep the subdivision application open. They are continuing to work through various design aspects of their site but it is still in preliminary stages. We have worked through the coordination of the two projects and have summarized this within the attached "Acknowledgement of Coordination" letter.

- SEQRA Coordination of subdivision project and solar project

  As discussed in the "Acknowledgement of Coordination" document, the development and construction of two projects will be progressed separately. As shown in the latest plans, the solar project now has its own utility access driveway along the eastern side of the property. There will be an access and utility easement for the driveway and interconnection utility lines exclusive of the subdivision project. As part of the solar project, the existing gravel access road will be widened for construction and fire department access and appropriate stormwater controls will be installed. When the future subdivision project proceeds, they will be responsible for any and all stormwater design updates required for their project.

  Additionally, we have updated the glare study (see attached) to include the future subdivision houses. The study indicates that there is the potential for glare on 16 of the 24 houses. As suggested in the glare memo, the glare could be mitigated with tree plantings along the Town of Guilderland property line. As shown on the landscaping plan (L-1), a varied row of coniferous trees is proposed along the majority of the property line which will reduce the impact to properties #16-#27. For the remaining houses (#28,29, 32, 33) Existing vegetation within the wetland area will remain in place to provide adequate screening.

- Utility Poles

Our previous utility pole layout contained 12 additional utility poles (6 for each system) at the utility access driveway. This is the standard interconnect for Borrego projects across the State. After reviewing the existing utility interconnection at the New Scotland Road South project, it appears the customer-owned interconnection equipment (poles 4 through 6) were pad-mounted. Due to this, we have reviewed the options available to us and believe we may be able to do something similar (see attached plans for revised interconnection layout). We haven't done this on previous projects and will take on a considerable cost burden but we understand the sensitive visual nature of the corridor. Similar to the New Scotland Road S project, it is unlikely that the National Grid owned poles (#1 through #3) can be pad mounted due to National Grid requirements.

- Driveway Access Location

  After significant coordination with the subdivision project and National Grid we have relocated our utility interconnection equipment and driveway to the eastern side of the Krumkill Road property frontage. As previously designed, the utility lines through the middle of the site would not have met National Grid requirements for exclusive easements for both trenches and driveway once the subdivision project was constructed. Similarly, the western side of the property is already occupied by the infrastructure for the previously constructed cell phone tower project and would not be compatible with the exclusive National Grid utility easement requirements for the poles and medium voltage (MV) conduits.

  As shown in the revised visual simulations from Saratoga Associates (attached), the proposed driveway location is well screened from westbound traffic due to the large existing mound/berm. Additionally, significant landscaping will be planted on both sides of the driveway to provide a visual buffer for approaching traffic from each direction. The combination of these changes and the reduced number of utility poles creates a minimally obtrusive utility access driveway.

  As discussed above, the existing gravel access road will remain in place and will be widened for construction and fire department access to the site. When the future subdivision project proceeds, they will be responsible for any future improvements as shown on their subdivision plans while maintaining access to the solar site throughout construction.

Due to declining NYSERDA incentive block funding, it has become crucially important to us to keep things progressing forward. Please let us know if there is anything else we can do or information we can provide to satisfy your concerns.

Sincerely,
PV Engineers, P.C.

Decommissioning Estimate/Plan

Krumkill Road Project

Date: 09/16/2021

This Decommissioning Estimate has been prepared by Borrego Solar in an attempt to predict the cost associated with the removal of the proposed solar facility. The primary cost of decommissioning is the labor to dismantle and load as well as the cost of trucking and equipment. All material will be removed from the site, including the concrete equipment pads, which will be broken up at the site and hauled to the nearest transfer station.

No salvage values have been assumed in this calculation.

The following values were used in this Decommissioning Estimate:

System Specifications	
Number of Modules	24,822
Number of Racks	955
Number of Inverters	4
Number of Transformers	4
Electrical Wiring Length (ft)	7,481
Number of Foundation Screws	3,820
Length of Perimeter Fence (ft)	13,613
Number of Power Poles	-
Access Rd Material Volume (YD)	-
Total Disturbed Area (SF)	2,361
Total Fence Weight (lbs)	9,665
Total Racking Weight (lbs)	811,750
Total Foundation Screw Weight (lbs)	152,800

Equipment & Material Removal Rates	
Module Removal Rate (min/module)	0.5
Rack Wiring Rem. Rate (min/mod)	0.25
Racking Dismantling Rate (min/rack)	20
Inverter Removal Rate (hr/unit)	0.5
Transformer Removal Rate (hr/unit)	1
Rack Loading Rate (min/Rack)	10
Elect. Wiring Removal Rate (min/LF)	0.5
Screw Rem. Rate (screws/day)	600
Fence Removal Rate (min/LF)	1
Days req. to break up concrete pads	1
Days req. with Rough Grader	1
Days req. with Fine Grader	1
Total Truckloads Required	47
Round-Trip Dist. to Trans. Sta.(miles)	21.6
Round-Trip Time to Trans. Sta. (hr)	1

Labor and Equipment Costs		
Labor Rate ($/hr)	$	57.99
Operator Rate ($/hr)	$	74.72
Bobcat Cost ($/hr)	$	96.10
Front End Loader Cost ($/Day)	$	797.63
Excavator Cost ($/Day)	$	1,287.74
Trucking Cost ($/hr)	$	120.13
Backhoe Cost ($/hr)	$	96.10
Power Pole Removal Cost ($/pole)	$	1,500.00
Grader Cost ($/day)	$	1,249.30
Gravel Export Cost ($/YD)	$	8.00
Loam Import Cost ($/YD)	$	20.00
Seeding Cost ($/SF)	$	0.10
Fuel Cost ($/mile)	$	0.50

Labor, Material, and Equipment Costs

1. Remove Modules

The solar modules are fastened to racking with clamps. They slide in a track. A laborer needs only unclamp the module and reach over and slide the module out of the track.

Module Removal Rate • Total Number of Solar Modules • Labor Rate = Module Removal Cost

Total = $ 11,995.23

2. Remove Rack Wiring

The modules are plugged together in the same manner as an electrical cord from a light is plugged into a wall socket. The string wires are in a tray. A laborer needs only unplug the module, reach into the tray and remove the strands of wire.

Wire Removal Rate • Total Number of Solar Modules • Labor Rate = Rack Wiring Removal Cost

Total = $ 5,997.62

3. Dismantle Racks

The racking is supported by screw foundations. The racking will be disconnected from the foundation and removed seperately.

Number of Racks • Rack Dismantling Rate • Labor Rate = Rack Dismantling Cost

Total = $ 18,460.15

4. Remove and Load Electrical Equipment

Electrical equipment includes transformers and inverters.

(Number of Inverters • Inverter Removal Rate + Number of Transformers • Transformer Removal Rate) • (Operator Rate + Bobcat Cost) = Electrical Equipment Removal Cost

Total = $ 1,024.92

5. Break Up Concrete Pads

Concrede pads are broken up using an excavator and jackhammer.

Number of Demolition Days • (Excavator Cost + Operator Cost) = Total Concrete Pad Removal

Total = $ 1,395.39

6. Load Racks

Once the racks have been dismantled, they will be loaded onto trucks for removal from the site. The trucking cost associated with this line item represents the additional time a truck will be needed during loading. Please see item # 13 for additional trucking costs.

Number of Racks • Rack Loading Rate • (Operator Cost + Front End Loader Cost + Trucking Cost) = Total Rack Removal Cost

Total = $ 46,308.75

7. Remove Electrical Wiring

Electrical wiring will be removed from all underground conduits.

Cable Length • Cable Removal Rate • (Operator Cost + Backhoe Cost) = Total Cable Removal Cost

Total = $ 10,649.20

8. Remove Foundation Screws

Foundation screws will be backed out of the ground and loaded onto a truck to be removed from site.

(Total Number of Screws / Daily Screw Removal Rate) • (Operator Rate + Excavator Cost) = Total Screw Removal Cost

Total = $ 12,004.35

9. Remove Fencing

Fencing posts, mesh, and foundations will be loaded onto a truck and removed from site. Trucking costs included in this line item are for the removal process. Trucking to a recycling facility are included in item #13.

(Total Length of Fence • Fence Removal Rate) • (Operator Rate + Bobcat Cost + Trucking Cost) =

Total = $ 66,010.57

10. Remove Power Poles

Power poles will be removed and shipped off site.

Number of Power Poles • Pole Removal cost = Total Power Pole Removal Cost

Total = $ -

11. Gravel Road Reclamation

Reclamation of the gravel access road will entail removing the gravel material and exporting it off site. The area will then be backfilled with loam and graded.

(Days with Rough Grader + Days with Fine Grader) • (Grader Cost per Day+Operator Cost per Day) + [Roadway Material Volume • (Gravel Export Cost + Loam Import Cost)] = Gravel Road Reclamation Cost

Total = $ 3,694.12

12. Seed Disturbed Areas

Seeding cost includes labor and materials for reseeding all disturbed areas including the reclaimed gravel road area, former electrical areas, and areas disturbed by racking foundation removal.

Seeding Cost • Disturbed Area = Total Seeding Cost

Total = $ 236.13

13. Truck to Transfer Station

All material will be trucked to the nearest Transfer station that accepts construction material. The nearest transfer station is Town of New Scotland TS

(Total Truckloads • Roundtrip Distance • Fuel Cost) + (Total Truckloads • Round Trip Time • Trucking Cost) = Total Trucking Cost to Transfer Station

Total = $ 6,153.48

Salvage Values

Salvage Value Not Included

Krumkill Road Project

Summary of Decommissioning Costs and Salvage Values

Line Item	Task	Cost
1	Module Removal	$ 11,995.23
2	Rack Wiring Removal	$ 5,997.62
3	Rack Dismantling	$ 18,460.15
4	Electrical Equipment Loading and Removal	$ 1,024.92
5	Break Up Concrete Pads	$ 1,395.39
6	Load Racks	$ 46,308.75
7	Electrical Wiring Removal	$ 10,649.20
8	Foundation Screw Removal	$ 12,004.35
9	Fence Removal	$ 66,010.57
10	Power Pole Removal	$ -
11	Gravel Road Reclamation	$ 3,694.12
12	Seed Disturbed Areas	$ 236.13
13	Trucking to Transfer Station	$ 6,153.48
	Sub Total =	$ 183,929.90

Total = $ 183,929.90

6

SWIS	PRINT KEY	NAME	ADDRESS
013089	52.03-3-2.1	Canterbury Park Attn:Sentry Management	3 Lear Jet Ln Ste 202,Latham, NY 12210
013089	62.00-2-66.3	Guilderland Town of	P.O. Box 339,Guilderland, NY 12084-0339
013089	63.00-1-4	Desiree Funk Laz	611 Krumkill Rd,Albany, NY 12203
013089	63.00-1-5	JL Development LLC	621 Columbia St,Cohoes, NY 12047
013089	63.00-1-8	Milton W Mosall	283 Schoolhouse Rd,Albany, NY 12203
013089	63.11-1-53	Claudia G Huneau Estate	50 Fliegel Ave,Albany, NY 12203
013089	63.11-1-54	Mary E Bender	54 Fliegel Ave,Albany, NY 12203
013089	63.11-1-55	JL Development LLC	621 Columbia St,Cohoes, NY 12047
013089	63.11-1-34.2	Alida Hysenllari	51 Fletcher Rd,Albany, NY 12203

Town of Guilderland

ALBANY COUNTY, ROUTE 20
P.O. BOX 339
GUILDERLAND, N.Y. 12084-0339

PETER G. BARBER
SUPERVISOR

(518) 356-1980
FAX: (518) 356-1990

JACQUELINE M. COONS
CHIEF BUILDING AND ZONING INSPECTOR

Notice is hereby given that the Zoning Board of Appeals of the Town of Guilderland, New York, will *resume* a public hearing pursuant to Articles IV & V of the Zoning Law on the following proposition:

Special Use Permit/Variance Request No. 4816

Request of Borrego Solar for a Special Use Permit/Area Variance under the Zoning Law to permit: the development of an 8.84MW solar energy system on a vacant parcel. Variances are requested to permit (1) the removal of more than 20,000sf of existing trees and (2) to permit the panels to be setback 50ft from the property lines where a 150ft setback is required for the front and sides of the property and a 200ft setback is required for the rear.

Per Articles III, IV & V Sections 280-11, 280-30, 280-40, 280-51 & 280-52 respectively

For property owned by JL Development LLC
Situated as follows: 6120 Johnston Road Rear Slingerlands, NY 12159
Tax Map # 63.00-1-5 Zoned RA3

Plans are available for public inspection at the Town Hall or on the Town website at https://www.townofguilderland.org/zoning-board-appeals . Said hearing will take place on October 20, 2021 at 7:00pm. Due to COVID-19 gathering precautions, the meeting will be virtual. Members of the public may listen and view the meeting live on the Town website, channel 34 on Verizon FiOS or channel 1303 on Spectrum. To participate in the public comment period join Zoom Meeting https://us02web.zoom.us/j/81391211886?pwd=TzFsbzQ1UUY4VVUvaUVrT3B2WXJlQT09 or dial 1-929-205-6099. Use Meeting ID: *813 9121 1886* and Passcode: *605688*. For questions regarding the application, call the Building Department during regular business hours.

Dated: October 12, 2021

Jacqueline M. Coons

Jacqueline M. Coons
Chief Building & Zoning Inspector

Gmail

Jacqueline Coons <coonsj@togny.org>

Need info before meeting tomorrow night.

James Kondrat <jkondrat@borregosolar.com> Tue, Oct 19, 2021 at 11:53 AM
To: Jacqueline Coons <coonsj@togny.org>
Cc: Gregory Gibbons <ggibbons@borregosolar.com>, Jesse Fraine <JFraine@delawareengineering.com>

Hi Jacqui,

To answer Fran's questions, please see below for our responses in blue:

Leah gave me your e-mail address to answer some questions for me before tomorrow nights meeting. I would like to know how the development of JL Developers, LLC (555 Krumkill Rd. Parcel ID 63.4.9.2) and Borrogo Solar Systems (6120 Johnston Rd. Parcel ID 63.00.1.5) that want to go in on Johnston and Krumkill Rds, is going to affect Church Rd? This project will have no impact on Church Road. We will not be accessing the site via Church road, nor will there be a view of the project from Church Road.

1. They want a variance to build a development and put solar panels instead of 150 ft from property line to 50 ft from property line. Will that development and solar panel farm be seen or have another access from Church Rd? Will that include the property line on Church Rd? The residential subdivision plan is no longer being submitted - JL Development, LLC has pulled their application from the Town of New Scotland. We will not be accessing the site from Church Road, our project will have no road frontage on Church Road, and there will be no view of the project from that area.

2. What kind of homes is the developer building? Single? Townhomes? Apts? As stated previously, the residential development is no longer proceeding. There will only be solar panels, per the plans that we have submitted to the Town.

3. What tax incentives, rebates, exemptions are offered to the developer and solar farm? The solar farm will be receiving the Investment Tax Credit from the Federal Government (all businesses are eligible for this, the amount varies based on business type). Additionally, we have fully negotiated an Education Contribution Agreement with the Guilderland Central School District, as well as a PILOT (Payment in Lieu of Taxes) with the School District. The New York State Department of Taxation and Finance is finalizing an assessment calculator to determine the assessment of our solar project. This assessment would be applied to local millage rates for all local jurisdictional tax obligations.

Please let me know if there is additional information requested - we are happy to answer all questions.

We look forward to the meeting tomorrow night!

Best,
James Kondrat
[Quoted text hidden]
--

borrego

James Kondrat
Project Developer
E: jkondrat@borregosolar.com | T: 510-496-8709 | C: 718-710-8407

Borrego | Powering your growth.

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ABD ENGINEERS, LLP.
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Schenectady, NY 12305
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September 20, 2021

Re: Mixed Use Building
97-99 Twenty West Drive
Town of Guilderland
Project #5201A

Jacqueline Coons
Chief Building and Zoning Inspector
Guilderland Town Hall
5209 Western Turnpike
Guilderland, NY 12084

Dear Jacqueline:

In response to the comments (*in italics*) of Insite Northeast Engineering & Land Surveying, P.C. of August 17, 2021, we respond as follows (**in bold**):

Grading & Utilities Plan (Sheet 2 of 4)

1. Show roof leader and down spout locations to direct stormwater.
Roof leaders and down spout locations are now indicated on the revised site plans.

2. Provide some spot grading to ensure positive drainage of the patio areas are directed towards the parking.
Spot grades on patio areas and area drains directing stormwater runoff to the stormwater practice are now indicated on the plans.

Erosion & Sediment Control Plan (Sheet 3 of 4)

1. The proposed silt fence shall be extended along the southwestern boundary as well as the northwestern boundary. It is recommended to install silt fence around the perimeter of the project.
Silt fence has been extended around the property as requested.

Site Detail (Sheet 4 of 4)

1. Correct the outlet structure detail. The top of pipe elevation is assumed to be a typo (280.15'); it is shown as 281.15'.
Outlet structure detail is now corrected on the revised site plans.

Stormwater Management Report Notes:

1. The applicant has performed test pits, and the infiltration test rates are 10"/hr and 6"/hr. A rate of 3"/hr is utilized for NYSDEC WQv worksheet and the HydroCAD model calculations, providing a factor of safety of 2.
So noted.

2. The existing soils are well drained and observed to have a groundwater elevation approximately 5 feet below grade. The proposed infiltration basin has a bottom of 280, and the groundwater elevation is approximated at elevation 274.5'. Pursuant to NYSDEC Chapter 6.3 separation from groundwater table of at least three feet (four feet in sole source aquifers) is required. As such, sufficient separation distance is provided for this site.
So noted.

3. It is acknowledged that the impervious area within Post 1B (0.024 acres of 0.204 acre watershed) cannot be directed towards the proposed stormwater management system as designed. To mitigate, it is acceptable for the applicant to provide additional treatment volume within the stormwater management system.
So noted. The stormwater management practice has been designed to provide excess treatment volume to compensate for the portion of impervious area beyond the conveyance systems.

Stormwater Management Report Comments:

1. It is INE's opinion that the design discharge points should be reevaluated. The Pre-Development shows three discharge points and three watershed areas. Pre 1A discharges to the northwestern corner of the property, Pre 1B discharges to the south corner of the property and ultimately into the closed drainage system on Twenty West Drive, and Pre 2 discharges to the east towards Western Turnpike. The Pre vs Post development discharge rates shall be compared for each discharge point. The Post condition evaluates the cumulative peak discharges of Post 1A (1.422 acres) + Post 1B (0.204 acres) against the Pre 1A (0.795 acres) + Pre 1B (0.658 acres) whereas it should be compared to Pre 1B only as the Pre-Development watershed does not hydraulically link Pre-1A and Pre-1B. Refer to the attached figure for clarification.
The drainage areas have been renumbered for clarity and each discharge point is now labeled. Pre 1A is now Pre 3 which flows to design point #3. Pre 1B is now just Pre 1 and flows to design point #1. This does not change the overall stormwater design.

2. Pre-development time of concentration paths for Pre 1A and Pre 1B appear to start on impervious coverage, whereas the HydroCAD specifies that the sheet flow is on grass. This shall be corrected to be consistent. The Pre 1A time of concentration can also be extended to the discharge point for additional time.
The paths have been revised as requested. The slight changes in calculations do not affect the overall stormwater design.

3. In the Post-Development condition, Post 1A and Post 1B are both directed to the discharge point of Pre 1B. To determine the Pre vs Post condition, Post 1A and Post 1B shall be evaluated against the peak discharge rate of Pre 1B. The joining of Post 1A and Post 1B should be depicted in HydroCAD and shown to hydraulically connect on an associated figure.
See response above explaining drainage area renumbering. Post 1A and Post 1B are now evaluated against Pre 1. These areas drain to design point #1 and peak discharge rates are listed in the table on page 3.

4. The Post 2 area boundary may need to be revised if the patio areas are proposed to drain towards Western Turnpike. If the proposed drainage for the patio areas are intended to drain towards the rear of the site, details shall be provided.
Area drains have been added within the patio areas to be directed towards the stormwater practice.

5. The proposed infiltration basin provides provisions for pre-treatment in the form of a forebay area (1,174 cf of volume) contained by stone and a stone diaphragm located at the perimeter of the impervious area. The diaphragm is 2'x2' with a void space of 40%, which provides 624 cubic feet of pre-treatment. The cumulative volume of these pre-treatment volumes is 1,798 cubic feet which provide sufficient volume to meet the minimum requirement of 1,768 cubic feet. It should be noted however, that approximately 20,000 sf (approximately 33%) of the impervious area is draining to the forebay area where 1,174 cf of pre-treatment is provided while the remaining 40,000 sf (approximately 66%) is draining to the diaphragm where only 624 cf of pre-treatment is provided. The proposed pre-treatment shall be sized proportionally; if 33% of a watershed is draining to a pre-treatment practice, approximately 33% of the volume shall be provided for that practice. As such, design of the pre-treatment areas or site grading shall be revised to provide sufficient pre-treatment for the associated drainage area.
The pretreatment calculations have been revised to provide adequate volume for the contributing impervious areas. The stone diaphragm has been enlarged as indicated on the revised detail.

6. It appears that the outlet structure will provide 0.15' of ponding before stormwater runoff discharges. Due to the minimal depth of ponding, the inlet elevation of the outlet structure risks clogging from debris and sediment. It is recommended that a greater ponding depth at the inlet be provided and a trash rack or similar structure be provided to prevent debris from clogging the outlet.
The outlet control structure includes a stand pipe connected to the underdrain. This pipe is located within the structure and will not be directly in contact with ponding water or potential debris. The purpose of this pipe is to restrict flow out of the underdrain for small storm events and allow runoff to infiltrate within the basin.

7. Water quality volume and runoff reduction volumes were calculated for the watershed Post 1A (1.42 acres) only and includes 0.91 acres of impervious. All new impervious area shall be accounted for in the water quality volume and runoff reduction calculations.
The water quality volume worksheets have been revised to include the total new impervious areas. The infiltration practice provides excess capacity and treatment.

8. One item to note is that the southern most corner of the site, where five parking stalls are located, will flood during the 100 year storm event to an elevation of 281', but will secede as the infiltration basin discharges.
So noted. The grading plan has been revised to lift the elevations of the five parking stalls and eliminate any potential ponding on the pavement.

9. Add a statement in the report specifying Soil Restoration shall be performed on all disturbed pervious areas.
Soil restoration requirements are specified within the SWPPP. An additional statement has also been added to the Stormwater Management Report, as requested.

***Stormwater Pollution Prevention Plan Comments**:*
A draft NYSDEC Notice of Intent (NOI) was provided within the report
1. Question 5 states that there is 0.0 acres of impervious in the existing condition. Correct to state 0.119 acres for Pre 1A and 0.153 acres for Pre 1B for a total of 0.27 acres.
NOI has been revised accordingly.

2. Question 16 states that the drainage system that the proposed site connects to is owned by the NYSDOT, which may be in error. Applicant shall confirm or correct the owner of the drainage system on Twenty West Drive. If the NYSDOT is the owner of this system, the applicant shall coordinate with the NYSDOT to facilitate the connection to the closed conduit drainage system.
NOI has been revised. Twenty West Drive drainage system is owned by the Town of Guilderland.

3. The applicant shall revise the NOI as the calculations are updated.
NOI has been revised accordingly.

Please note the impervious surfaces within the parking lot have been reduced and green areas added per discussions with the Zoning Board of Appeals. All above responses have been addressed with the new revisions. Enclosed are the following:

1. Twelve (12) copies of the Site Plans Rev#3:9/20/21
2. Two (2) copies of the Stormwater Pollution Prevention Plan (9/20/21)
3. Two (2) copies of the Stormwater Management Report (9/20/21)

Should you require anything else or have any questions, please do not hesitate to contact me. We would greatly appreciate being scheduled for a presentation to the Planning Board on October 6, 2021 or as soon as possible.

Very truly yours,

ABD ENGINEERS, LLP

Luigi A. Palleschi, P.E.
Partner

LAP;clv
CC: Michael Davidson(via email)
Michael Roth (via email)
John Romeo (via email)
5201A-09202021

ABD ENGINEERS, LLP

STORMWATER POLLUTION PREVENTION PLAN

FOR

MIXED USE BUILDING
97-99 Twenty West Drive
Town of Guilderland
Albany County, New York

Prepared For:

Michael Davidson
42 Sweetie Lane
Altamont, NY 12009

April 9, 2021
Revised September 20, 2021

Project No. 5201A

Prepared By:

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STORMWATER POLLUTION PREVENTION PLAN

MIXED USE BUILDING
97-99 Twenty West Drive
Town of Guilderland
Albany County, New York

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APPENDICES

EXHIBIT 1- SITE LOCATION MAP & SOIL INFORMATION

APPENDIX A- SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY

APPENDIX B- MS4 ACCEPTANCE FORM, NOTICE OF INTENT (NOI), NOTICE OF TERMINATION (NOT) FORM

APPENDIX C- EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS

APPENDIX D- SWPPP DOCUMENTS

STORMWATER POLLUTION PREVENTION PLAN

MIXED USE BUILDING
97-99 Twenty West Drive
Town of Guilderland
Albany County, New York

1.0 SITE DESCRIPTION

1.1 PROJECT NAME AND LOCATION

MIXED USE BUILDING
97-99 Twenty West Drive
Town of Guilderland
Albany County, New York

1.2 OWNER NAME AND ADDRESS

Michael Davidson
42 Sweetie Lane
Altamont, NY 12009

1.3 PLANS AND REPORTS

Plans and additional reports to be used in conjunction with this Stormwater Pollution Prevention Plan (SWPPP) are as follows:

- Plans entitled "Mixed Use Building, 27-99 Twenty West Drive", prepared by ABD Engineers, LLP, dated November 2, 2020, as revised.
- Stormwater Management Report for "Mixed Use Building, 97-99 Twenty West Drive" prepared by ABD Engineers, LLP, 411 Union Street, Schenectady, NY 12305, dated April 9, 2021, as revised.

1.4 DESCRIPTION: (PURPOSE AND TYPES OF SOIL DISTURBING ACTIVITIES)

The proposed mixed use building is located at 97-99 Twenty West Drive in the Town of Guilderland, Albany County, New York (see Exhibit 1). The site is bordered on the north by Western Turnpike (Route 20), on the east by Twenty West Drive, on the south by a residential house, and on the west by a restaurant.

The applicant is proposing to redevelop the existing 1.8± acre parcel in order to construct one (1) mixed use building with associated pavement, utilities, and stormwater management practice for water quality treatment utilizing runoff reduction.

Access to the site will be provided off of Twenty West Drive via a new driveway and emergency cross access will also be provided to the adjacent restaurant lot to the west.

According to the Albany County NRCS, the primary hydrologic soil group is Type A loamy fine sand. The soils are generally well drained with a high-water table depth approximately 5 feet below existing grade. The existing site has a central high point and drains southeast toward Twenty West Drive, north toward Route 20, and west offsite.

Soil disturbing activities include cuts and fills to produce suitable grades for construction of the referenced components. An area of about 1.6± acres will be disturbed during construction.

According to the NYSDEC EAF Mapper, the site does not contain any species of plant or animal that is listed as endangered, threatened, or rare.

1.5 STORMWATER MANAGEMENT

See Stormwater Management Report.

1.5A STORMWATER MANAGEMENT & PLANNING PER CHAPTER 3&4 OF THE NYSDEC STORMWATER MANAGEMENT DESIGN MANUAL AUGUST 2015

a. *Site planning to preserve natural features and reduce impervious cover;* Impervious surfaces included in the proposed project are building rooftop and asphalt pavement. Infiltration is used to recharge the groundwater as in the pre-development condition.

b. *Calculation of the Water Quality Volume for the Site;* The water quality volume calculation has been provided in the referenced stormwater management report and meets NYSDEC stormwater regulations. The water quality volume has been provided based on RRV due to the soils and topography of the site. The onsite soil type is sandy Type A, which allows for the use of infiltration practices.

c. *Incorporation of Green Infrastructure Techniques and Standard SMP's with Runoff Reduction Volume (RRv) Capacity;* Stormwater from the developed area will be treated through the use of infiltration and meets WQv and RRV requirements. The design utilizes an infiltration basin for runoff reduction.

d. *Design of Volume and Peak Rate Control Practices;* This project meets or exceeds NYSDEC stormwater regulations. Calculations and further discussions are attached to the stormwater management report prepared for this project. Runoff draining to the stormwater practice will be treated and will infiltrate.

1.6 SEQUENCE OF MAJOR ACTIVITIES

The following is the general sequence of construction that will occur on the site:

1.61 **Site Preparation.** Silt fence will be installed all along the descending slopes of the limits of grading and at any other location where siltation may occur. The silt fence shall remain in place until all areas being served are stabilized. A temporary construction entrance shall be established to capture mud and debris from construction vehicles before they enter public roads. Clearing and earth disturbance shall be limited to that necessary to install temporary sediment control measures.

1.62 **Rough Grading.** Trees and other vegetation will be removed from areas to be disturbed. Some topsoil stripping and stockpiling will take place to be used later in landscaped areas. Earthmoving to grade the site to approved finish grades may then occur. Any additional required silt fence will be installed. There shall not be more than five (5) acres of disturbed soil at any one time without prior written approval from the Department of Environmental Conservation.

1.63 **Building Site Preparation.** The location of the building will be graded to establish the finished floor elevation. The construction of the building will occur concurrently with the remaining site work.

1.64 **Utility Installation.** Drainage facilities will be installed once subgrades are established and fills are compacted. Inlet protection measures shall be installed once any storm drains have been completed. All disturbed areas shall be restored in accordance with the soil restoration requirements listed in Table 5.3 of the NYS Stormwater Design Manual.

1.65 **Paving.** Driveway and parking will be paved.

1.66 **Landscaping.** Topsoil will be spread on areas to be landscaped and areas will be planted/seeded in accordance with the plans. All disturbed areas must be stabilized. 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.

1.7 NAME OF RECEIVING WATERS

The nearest surface body of water is a tributary of the Normans Kill. Stormwater from the proposed site infiltrates and recharges groundwater onsite.

2.0 CONTROLS

2.1 EROSION AND SEDIMENT CONTROLS. STABILIZATION PRACTICES.

Disturbed areas within the limits of grading will be stabilized by planting/seeding and mulching. Where seeding stabilization is needed, perennial rye grass applied at a rate of 150 pounds per acre may be used. All seeded areas are then to be mulched using straw mulch at a rate of 2 ton per acre. If anchoring of the straw mulch is needed, wood fiber mulch may then be applied at a rate of 500 pounds per acre.

2.2 STRUCTURAL PRACTICES.

Silt fence or straw bale dikes will be placed on the downhill side of exposed slopes and trenches before clearing or excavation take place. The silt fence shall be Marafi 100X geotextile fabric, or equal, attached to 2"x2" minimum wooden stakes as per manufacturer's recommendations and as specified in the "NYS Standards and Specifications for Erosion and Sediment Control". It shall remain and be inspected and maintained until the site is stabilized. Maintenance shall be performed as needed, and sediment material removed when "bulges" develop in the silt fence. Inspections of the straw bale dikes shall be frequent, and repair replacements shall be made promptly as needed. Silt barriers will also be installed in the flow line of drainage channels and ditches. Erosion control barriers will be supplemented as necessary during construction and will be maintained throughout the duration of site construction activity by the Contractor.

Runoff will be directed away from excavated areas, and temporary swales will be installed with a minimum grade of one percent. Stabilization shall occur as soon as practicable.

Watering of excavation and fill areas to minimize wind erosion during construction should be accomplished as required.

Stabilization in areas where soil disturbance has temporarily or permanently ceased must be initiated by the end of the next business day and completed within 14 days. During winter construction from November 15 to the following April 1, the application of soil stabilization measures should be initiated by the end of the next business day and completed within three (3) days, in areas where soil disturbance activity has temporarily or permanently ceased.

At any location where surface runoff from disturbed or graded areas may flow off the construction area, temporary sediment control measures must be installed to prevent sediment from traveling off site. No grading, filling, or other disturbance is allowed within existing drainage swales.

At the end of each workday during earthwork, operators shall grade all areas to temporary sediment trap(s). Temporary traps shall be dewatered after all rainfall events if captured water does not infiltrate within 24 hours after the end of rainfall. Traps should be dewatered to sediment bags located in relatively level areas, preferably undisturbed areas of native vegetation. At no time shall a trap be dewatered directly to a stream or wetland.

Every 7-calendar day, a qualified inspector will inspect all erosion control measures employed during construction activities to measure proper performance. The inspection will include taking digital photos of all E&SC measures needing corrective action as well as digital photos with date stamp of the corrected work. Any points of stormwater discharge from the site are also to be observed during the site inspections and condition reported.

In areas where construction would take place in “wet soils”, curtain drains or subsurface drainage will be installed to de-water the soils.

Construction vehicle traffic will be directed so as to avoid steep slopes and areas to remain vegetated to the maximum extent practicable. The Contractor will be held responsible for any soil exposure and/or erosion that occurs outside the defined limits of work and haul roads, and will immediately install erosion control measures and stabilize disturbed areas. Furthermore, any fines that could arise as a result of improper implementation of this Stormwater Pollution Prevention Plan (SWPPP) will be the responsibility of the Contractor. Only the owner or his designated representative will have the authority to authorize Contractor-requested disturbance beyond the limits on these plans. Any applicant-authorized changes will require Town approval prior to implementation.

To prevent sediment-laden water from entering the storm drain system through the inlets, all catch basins will be protected by the “fabric drop inlet protection” practice until the drainage areas served by these catch basins are stabilized. The fabric barrier shall be inspected after each rain event and repairs made as needed. Sediment shall be removed as necessary and disposed of properly.

Locate temporary topsoil stockpiles in areas, which do not receive direct runoff from swales or streams. The temporary topsoil stockpiles shall be protected with diversion swales if necessary.

Locate temporary topsoil stockpile areas beyond proposed grading activities.

To minimize erosion potential, enclose temporary topsoil stockpile areas with silt fencing.

Seed temporary topsoil stockpile areas to reduce erosion if stored for prolonged periods.

All temporary sediment traps and all drainage swales will be kept free of debris and litter, and the vegetation should be maintained to allow unobstructed flow of stormwater.

Any slopes or embankments, which have damaged vegetation, will be reseeded as necessary.

All grass swale areas will be mowed so as to facilitate unobstructed flow of stormwater.

2.3 OTHER CONTROLS

2.31 Waste Disposal

2.311 Waste Materials:

All waste materials generated during site preparation and construction will be disposed of at a suitable landfill, transfer station or C & D landfill. The contractors shall inspect for and have litter picked up on a daily basis.

2.312 Hazardous Waste

The project will not be a generator of hazardous waste and it is not anticipated that any hazardous waste will be generated during construction. If there are any materials generated, a licensed hazardous waste carrier will be contracted to dispose of the hazardous material in accordance with all local, state and federal regulations. If hazardous materials are discovered during construction, the work will be stopped until the issue is resolved.

2.313 Sanitary Waste

Portable sanitary facilities will be made available to construction personnel and will be serviced regularly.

2.32 Offsite Vehicle Tracking.

Earthwork equipment involved with the construction will remain on the project site and will not regularly egress or ingress the site. Any trucks used to bring in materials or remove materials will do so over a stabilized construction entrance so as to capture mud and debris before they enter the public highway. The stabilized construction entrance shall be 50 feet minimum in length by 24 feet minimum in width. Typar 3401, or equal, filter cloth will be placed over the entire area prior to the placement of 6 inches of 2" stone. The entrance shall be maintained in a condition that will prevent tracking, or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand. Periodic inspection and needed maintenance shall be provided after each rain. If significant off-site vehicle tracking begins to occur, the contractor will be directed to institute a regular street sweeping program in the vicinity of the site.

3.0 TIMING OF CONTROLS/MEASURES

Prior to commencement of construction activity, 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 within this SWPPP. Temporary structural erosion controls will be installed prior to earthwork as per the aforementioned plans.

The Owner shall have a qualified inspector conduct an assessment of the site prior to the commencement of construction, and certify in an inspection report that the appropriate erosion and sediment controls described in this SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

The Owner shall maintain a record of all inspection reports in a site logbook. The site logbook shall be maintained on site and made available upon request. Prior to the commencement of construction, the Owner shall certify in the site logbook that the SWPPP meets all federal, state and local erosion and sediment control requirements.

The Owner shall also prepare and submit to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity during which coverage under the permit exists. The summary should address the status of achieving each component of the SWPPP. The summary shall be certified, signed, retained on site, and made available to the Department of Environmental Conservation and/or any local agency having jurisdiction.

Signatory Requirements – All NOIs, NOTs, SWPPPs, reports, certifications or information required by this permit or submitted pursuant to this permit, shall be signed as follows:

1. All NOIs and NOTs shall be signed as follows:
    a. For a corporation: by (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person authorized to and who performs similar policy or decision-making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25,000,000 (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
    b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively: or
    c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) 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 all reports required by the permit and other information requested by the Department or local agency shall be signed by a person described above 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 above and submitted to the Department.
    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 manager, operator, superintendent, or 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 named individual or any individual occupying a named position).

c. Certification – Except for NOIs and NOTs, any person signing documents in accordance with this Part shall make the following certification:
"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 the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law."

Structural erosion controls and non-stabilized areas shall be inspected every 7-calendar day by a qualified inspector. Copies of the Weekly Inspection Form shall be completed in full for every inspection performed. Completed inspection forms shall be retained on site and copies to the Town MS4.

To prevent sediment-laden water from entering the storm drain system through the inlets, all catch basins will be protected by the "fabric barrier drop inlet protection" practice until the drainage areas served by these catch basins are stabilized. The fabric barrier shall be inspected after each rain event and repairs made as needed. Sediment shall be removed as necessary and disposed of properly.

All temporary sediment traps shall be pumped out within 24 hours of the end of all rainfall events if stormwater has not drained or infiltrated.

Temporary erosion control devices will not be removed until the growth of vegetation or other erosion control measures stabilizes the area served.

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.

The Owner and Contractor shall retain copies of the Stormwater Pollution Prevention Plan, all reports, and data for a minimum of five years following final stabilization of the site.

During construction of the project, all inspection, maintenance, and repair procedures as stated in this Stormwater Pollution Prevention Plan are the ultimate responsibility of The Owner, his heirs or assigns.

All temporary measures that were installed in accordance with this Stormwater Pollution Prevention Plan shall remain the ultimate responsibility of The Owner, his heirs or assigns until such time as all areas being served are stabilized. Only after this stabilization occurs may these temporary measures be removed. 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 80% 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 stormwater associated with construction activities, and a Notice of Termination (NOT) form has been filed by the Owner(s) with the NYSDEC. 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 long term post-construction inspection, maintenance, and repair procedures as stated in this Stormwater Pollution Prevention Plan will be performed by the Owner, his heirs or assigns.

The Owner, his heirs or assigns will have the ultimate responsibility of the long-term maintenance, and repair procedures for all of the entire stormwater system as shown on the plans. An operations and maintenance manual for the Stormwater Management Control Practices will be given to The Owner, his heirs or assigns, which will include the inspection checklist from the "New York State Stormwater Management Design Manual."

4.0 CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

The Owner has petitioned the NYSDEC for the stormwater 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) (using the form required by the federal, state, and/or local permitting agency) to be covered under this permit has been filed by the Owner. The SWPPP must be prepared prior to submittal of the NOI form. The Contractor is a co-permittee with the owner.

The NYSDEC requires that certifications of knowledge of the contents of this SWPPP and agreement to follow the SWPPP be made by the Owner and the Contractor. The terms of the General Permit also require that each Contractor sign the SWPPP, thereby making them co-permittees and acknowledging their responsibility for certain operational aspects of the plan. These certifications should be signed before the Contractor begins activities and should be filed with the site's SWPPP at the jobsite. These certifications are provided within this document.

The Stormwater Pollution Prevention Plan was prepared in accordance with the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activities that are classified as "Associated with Construction Activity" pursuant to Article 17, Titles 7, 8 and Article 70 of the Environmental Conservation Law. This SPDES General Permit implements the Federal Clean Water Act pertaining to stormwater discharges. Construction will begin only after the requirements of SEQRA are met and local permits issued.

The Contractor will obtain copies of any and all local and state regulations, which are applicable to stormwater 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 Owner or any agent of a regulatory body. The Contractor will comply with all conditions of the NYSDEC General Permit for Construction Activities, including the conditions related to maintaining the Stormwater Pollution Prevention Plan (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.

5.0 MAINTENANCE/INSPECTION PROCEDURES

5.1 Erosion and Sediment Control Inspection and Maintenance Practices

These are the inspections and maintenance practices that will be used to maintain erosion and sediment controls:

- A trained individual, appointed by the Contractor's construction manager, will supervise day to day activities on the site during soil disturbing activities. A qualified inspector, appointed by the Owner, will make at least one weekly inspection every 7-calandar days of erosion control devices, as well as inspections with site photographs.
- All measures will be maintained in good working order and be fully operational. If repair is necessary, it will be initiated within 24 hours of discovery.
- A qualified inspector must look for evidence of the soil erosion on the site, potential of pollutants entering drainage systems, problems at discharge points (such as turbidity in receiving water), and signs of soil and mud transport from the site to the public road at the entrance.
- Silt fence maintenance shall be performed as needed, and sediment material removed when "bulges" develop in the silt fence.

- Built up sediment will be removed from silt fence and straw bales if it ever reaches one-third the height of the structural control.
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- All temporary sediment traps should be inspected for stability and integrity once a week and after any storm event. Any structural failure in sediment traps or trenches that serve them will be repaired within 24 hours after detection.
- All temporary sediment traps shall be pumped dry after all rainfall events that cause water to accumulate. Basins shall be dewatered to an undisturbed upland area.
- All temporary sediment traps shall be cleaned out when one half the design depth of the trap has accumulated. All spoils shall be removed to a stabilized upland area.
- The "fabric barrier drop inlet protection", put in at any catch basins to keep sediment from entering the storm drain system, shall be inspected after each rain event and repairs made as needed. Sediment shall be removed as necessary and disposed of properly.
- Stabilized construction entrance inspection and needed maintenance shall be provided after each rain.
- The trained individual shall inspect for and have litter picked up on a daily basis.
- Where seeding stabilization is needed, perennial ryegrass applied at a rate of 150 pounds per acre may be used. All seeded areas are then to be mulched using straw mulch at a rate of 2 ton per acre. If anchoring of the straw mulch is needed, wood fiber mulch may then be applied at a rate of 500 pounds per acre.
- Seeded and planted areas will be inspected for bare spots, washouts and healthy growth. If necessary, replanting, reseeding or sodding will be implemented.
- A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is attached. Reports should be compiled and maintained on site.

5.2 NON-STORMWATER DISCHARGES

Any water collected in excavated areas will be pumped to a sediment bag located in an upland area or a sediment trap. All temporary sediment traps will be dewatered to sediment bags. Once the material is dewatered, sediment will be removed to an upland area.

6.0 INVENTORY FOR POLLUTION PREVENTION PLAN: SPILL PREVENTION

6.1 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 storm water runoff.

6.11 Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project:

- An effort will be made to store only enough product required to do the job.
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers, and if possible, under a roof or other enclosure.
- Products will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer,
- Whenever possible, all of a product will be used up before disposal.
- Manufacturer's recommendations for proper use and disposal will be followed.
- The trained individual will inspect daily to ensure proper use and disposal of materials onsite.
- The contractor shall prohibit washing of tools, equipment and machinery in or within 100 feet of any watercourse or wetland and install sediment traps to filter runoff from washing operations that could enter any watercourse.

6.12 Hazardous Products

These practices are used to reduce the risks associated with hazardous materials:

- Products will be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets will be retained; they contain important product information.
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

6.2 PRODUCT SPECIFIC PRACTICES

The following product specific practices will be followed onsite:

6.21 Petroleum Products

- Construction personnel should be made aware that emergency telephone numbers are located in this SWPPP
- The contractor shall immediately contact NYSDEC in the event of a spill, and shall take all appropriate steps to contain the spill including constructing a dike around the spill and placing absorbent material over this spill.
- The contractor shall instruct personnel that spillage of fuels, oils, and similar chemicals must be avoided.
- Fuels, oils and chemicals will be stored in appropriate and tightly capped containers. Containers shall not be disposed of on the project site.
- Store fuels, oils, chemicals, material and equipment and locate sanitary facilities away from trees and at least 100 feet from streams, wells, wet areas, and other environmentally sensitive sites.
- Dispose of chemical containers and surplus chemicals off the project site in accordance with label directions.
- Use tight connections and hoses with appropriate nozzles in all operations involving fuels, lubricating materials or chemicals.
- Use funnels when pouring fuels, lubricating materials or chemicals.
- Refueling and cleaning of construction equipment will take place from access roads, in staging areas along roadside areas whenever practical to provide rapid response to emergency situations.
- All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Any vehicle leaking fuel or hydraulic fuel will be immediately removed from the site.

6.22 Fertilizer

Fertilizer will be stored in original containers and on pallets. Proper delivery scheduling will minimize storage time. Any damaged containers will be repaired immediately upon discovery and any released fertilizer recovered to the fullest extent practicable.

6.23 Paints

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm water or wastewater system, but will be properly disposed of according to manufacturers' instructions or State and local regulations.

6.24 Concrete Trucks

Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site except in a designated upland area.

Concrete truck washout will not be allowed to discharge into waters or wetlands at any time.

6.25 Asphalt Trucks

Asphalt trucks shall not discharge surplus asphalt on the site.

6.3 SPILL CONTROL PRACTICES

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be implemented for spill prevention and cleanup:

- Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies. Any spill in excess or suspected to be in excess of two gallons will be reported to the NYSDEC Spill Response Unit. Notification to NYSDEC (1-800-457-7362) must be completed within two hours of the discovery of the spill.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to: absorbent pads, brooms, dust pans, mops, rags, gloves, goggles, litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with spilled substance.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size.
- The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring, and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
- The contractor/trained individual will be the spill prevention and cleanup coordinator. He will designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area on the onsite construction office or trailer.
- A *Spill Response Report* is contained in the SWPPP Documents.

7.0 LONG TERM POST-CONSTRUCTION INSPECTION AND MAINTENANCE

After the site is completely stabilized, inspections will be performed at least twice a year (after the spring thaw and in the fall). Inspections shall also occur after major rain events. All swales and stormwater management systems will be inspected on a regular basis. Sediments will be removed based on the monthly inspection. It will be the responsibility of The Owner, his heirs or assigns, for documenting these inspections and clean out work.

Post-construction regularly scheduled inspections and maintenance will be necessary to ensure the permanent structural features remain optimally functional and continue to reduce the risk of sediment loading of surface water bodies.

The Owner shall overtake responsibility of inspecting and maintaining drainage and erosion control features over the lifetime of the structures and stormwater components. Maintenance personnel, employed by the Owner, must be aware of the SWPPP and should be trained to recognize signs that stabilization measures may not be performing optimally or are failing. The inspection of onsite stabilization measures will become part of routine preventative maintenance practiced by the Owner and his employees. Inspection and maintenance should be performed as described below.

All disturbed grass areas shall be restored in accordance with the soil restoration requirements listed in Table 5.3 of the NYS Stormwater Design Manual. Ongoing maintenance shall be carried out per Section 5.1.6 of the Manual to ensure lasting results of decompaction.

Inspection

Overall Site Inspection

The overall site, embankments, and vegetation should be inspected regularly after every major rain event and at least twice a year (after the spring thaw and in the fall). The inspection should include but are not limited to:

1. Density and condition of vegetation and ground cover.
2. Erosion, differential settlement or cracking of embankment.
3. Bulging or sliding of toe of embankments.
4. Sedimentation of onsite or downstream water bodies.
5. Sedimentation of culverts or swales.
6. Sedimentation of lawn areas, paved areas.
7. Accumulation of pollutants, including oils or grease.
8. Damage of fatigue of storm associated components.

Maintenance

Overall Site Maintenance
Maintenance of vegetative and structural measures for soil protection is necessary to keep the storm water system functioning properly. Maintenance should occur on a regular basis and should include but is not limited to:

Seasonal Maintenance

1. Vegetated areas should be maintained to promote vigorous and dense growth. Lawn areas should be mowed at least three times a year but may require more frequent mowing depending on the growth rate.
2. Paved areas should be swept at least twice a year and in the early spring for removal of deicing materials.
3. Accumulation of litter and debris should be removed during each mowing or sweep operation.
4. Structural components of the storm system should be addressed immediately following identification.
5. Cleanout of accumulated sediments and debris should occur.
6. Signs of scour should be repaired. Weeds and brush growth should be controlled as needed.
7. Sediment buildup within the pretreatment area is removed when 25% of the volume has been exceeded.

Winter Maintenance

1. Remove snow and ice away from catch basins.
2. Use of deicing materials should be limited to sand and environmentally friendly chemical products. Use of salt mixtures should be kept to a minimum.
3. Sand used for deicing should be clean, course material free of fines, silt, and clay.
4. Materials used for deicing should be removed during the early spring by sweeping and/or vacuuming.

Stormwater Management Facility Maintenance

1. Accumulation of litter and debris should be removed during each mowing or sweep operation.
2. Structural components of the system which require repair or replacement should be addressed immediately following identification.
3. Stormwater management areas should be monitored periodically for sediment accumulation. Sediments should be removed after becoming clogged or restricted.

4. Inlet/outlet damage due to scour should be repaired.
5. Stormwater Management Facilities shall be inspected and maintained at a minimum as specified in the NYSDEC Stormwater Management Design Manual.

8.0 POLLUTION PREVENTION PLAN CERTIFICATION

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 the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Signed: _____

Name: **Luigi A. Palleschi, P.E.**

Title: **Professional Engineer, ABD Engineers, LLP**

Date: _____

9.0 OWNER'S CERTIFICATION

MIXED USE BUILDING
97-99 Twenty West Drive
Town of Guilderland
Albany County, New York

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 the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.
The Owner also certifies that all appropriate stormwater control measures will be in place before commencement of construction of any segment of the project that requires such measures.

Signature: _____

Name (printed): _____

Company Name: _____

Address: _____

_____

Telephone No: _____

Title/Responsible For: _____

Certification Date: _____

10.0 CONTRACTOR'S CERTIFICATION

_____	NYR_____	_____
Name of Construction Site	DEC Permit ID	Municipality (MS4)

"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 the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges 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"

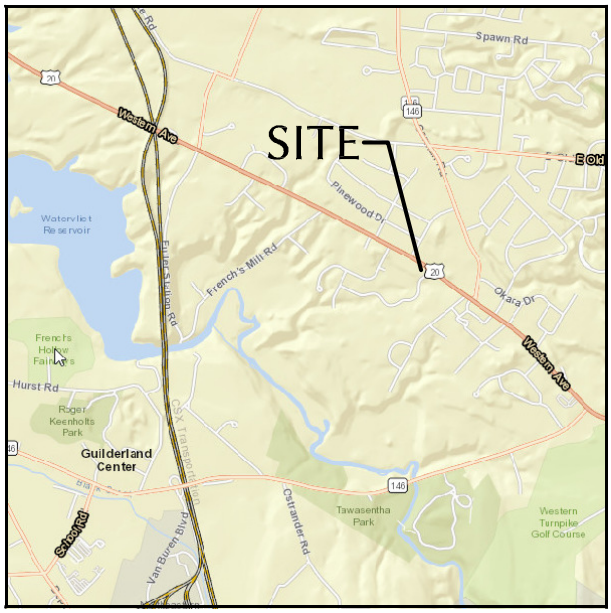
_____	_____
Responsible Corporate Officer/Partner Signature	Date
_____	_____
Name of above Signatory	Name of Company
_____	_____
Title of above Signatory	Mailing Address
_____	_____
Telephone of Company	City, State and Zip

Identify the specific elements of the SWPPP, the contractor or subcontractor is responsible for:

'TRAINED CONTRACTOR' FOR THE CERTIFIED CONTRACTOR OR SUBCONTRACTOR

_____	_____	_____
Name of Trained Employee	Title of Trained Employee	NYSDEC SWT#

EXHIBIT 1
SITE LOCATION MAP
& SOIL INFORMATION


SITE
Spawn Rd
Western Ave
Pinewood Dr
Watervliet Reservoir
French's Mill Rd
Fuller Station Rd
Okara Dr
Hurst Rd
Roger Keenholts Park
Guilderland Center
Tawasentha Park
Western Turnpike Golf Course
Schoolhouse Rd
Van Buren Blvd
Coutrander Rd
20
146

Soil Map—Albany County, New York

Map Scale: 1:941 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84

USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

4/5/2021
Page 1 of 3

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: Albany County, New York
Survey Area Data: Version 18, 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: Apr 16, 2009—Oct 19, 2017

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CoB	Colonie loamy fine sand, 3 to 8 percent slopes	0.0	0.5%
EnB	Elnora loamy fine sand, 3 to 8 percent slopes	1.4	88.7%
Gr	Granby loamy fine sand	0.0	0.0%
St	Stafford loamy fine sand	0.2	10.8%
Totals for Area of Interest		**1.6**	**100.0%**

Albany County, New York

EnB—Elnora loamy fine sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9pfp
Elevation: 80 to 440 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Elnora and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elnora

Setting

Landform: Beach ridges, deltas
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Sandy glaciofluvial, eolian, or deltaic deposits

Typical profile

H1 - 0 to 11 inches: loamy fine sand
H2 - 11 to 27 inches: fine sand
H3 - 27 to 65 inches: loamy fine sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: A/D
Ecological site: F144AY027MA - Moist Sandy Outwash
Hydric soil rating: No

Minor Components

Colonie
Percent of map unit: 5 percent
Hydric soil rating: No

Stafford
Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils
Percent of map unit: 4 percent

Granby
Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Albany County, New York
Survey Area Data: Version 18, Jun 11, 2020

Albany County, New York

St—Stafford loamy fine sand

Map Unit Setting

National map unit symbol: 9phr
Elevation: 130 to 430 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Stafford and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Stafford

Setting

Landform: Beach ridges, deltas
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Sandy glaciofluvial or glaciolacustrine deposits

Typical profile

H1 - 0 to 12 inches: loamy fine sand
H2 - 12 to 30 inches: loamy fine sand
H3 - 30 to 60 inches: fine sand

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): High to very high (1.98 to 19.98 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Hydric soil rating: No

Minor Components

Colonie
Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils
Percent of map unit: 5 percent

Elnora
Percent of map unit: 5 percent
Hydric soil rating: No

Granby
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Albany County, New York
Survey Area Data: Version 18, Jun 11, 2020

APPENDIX A

SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES

FROM CONSTRUCTION ACTIVITY

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

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.**

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

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 *discharges*, 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

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;

   (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.

(Part I.C.2.a.ii)

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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(Part I.C.2.b.i)

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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(Part I.C.2.c)

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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(Part I.C.2.d)

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 *discharges*; 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 *discharges* 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. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharges* 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*

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 *discharges* 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 *discharges* 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.

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:

      (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. *Discharges* 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.

(Part II.B)

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

(Part II.C.2.b)

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.

(Part II.C.3.b)

   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*

(Part II.D.3)

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

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*

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;

   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

   the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* 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

(Part III.B.1.b)

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

(Part III.B.1.i)

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;

(Part III.B.2.b)

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.

(Part III.B.3)

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

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

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.

   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:

   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

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;

   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,

   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

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.

(Part VII.E)

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:

(Part VII.H.1.a)

   (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,

(Part VII.H.2.b)

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

(Part VII.K.1)

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

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.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

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

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

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.

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.

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 .

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

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.

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

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.

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

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

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

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

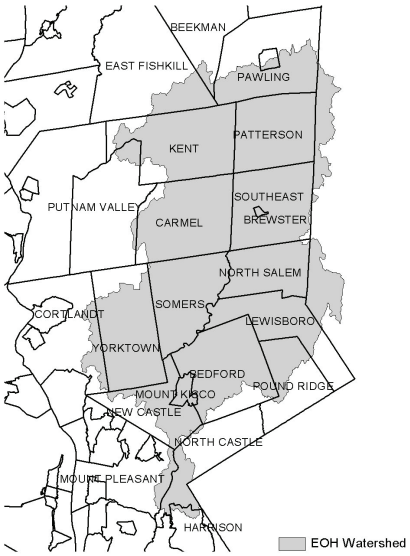
APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

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

Appendix C

Figure 1 - New York City Watershed East of the Hudson



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Appendix C

Figure 2 - Onondaga Lake Watershed

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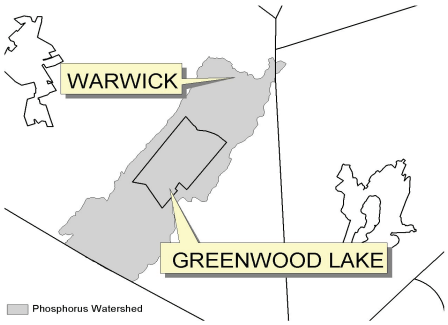
Appendix C

Figure 3 - Greenwood Lake Watershed



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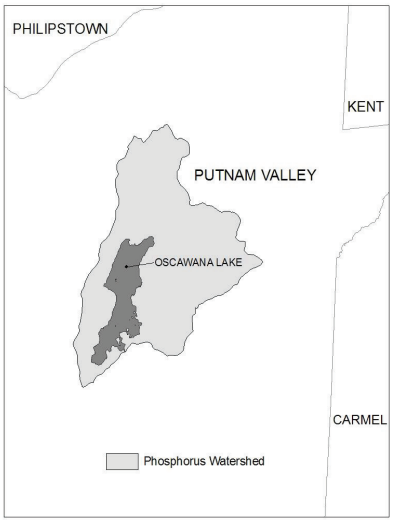
Appendix C

Figure 4 - Oscawana Lake Watershed



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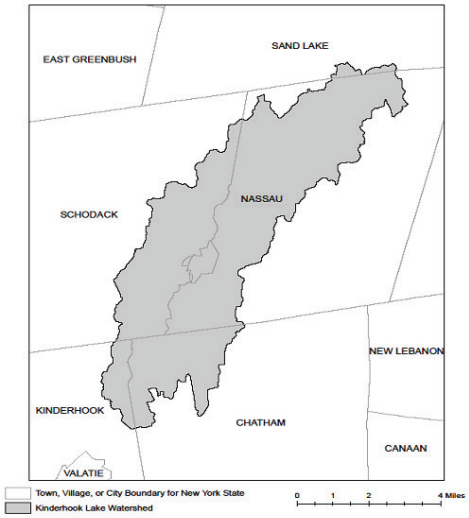
Appendix C

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

APPENDIX B
MS4 ACCEPTANCE FORM,
NOTICE OF INTENT (NOI),
NOTICE OF TERMINATION (NOT) FORM

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: Michael Davidson
2. Contact Person: Michael Davidson
3. Street Address: 42 Sweetie Lane
4. City/State/Zip: Altamont, NY 12009
II. Project Site Information
5. Project/Site Name: Mixed Use Building
6. Street Address: 97-99 Twenty West Drive
7. City/State/Zip: Altamont, NY 12009
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by: Kenneth A D'Arpino
9. Title/Position: MS4
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4: Town of Guilderland
12. MS4 SPDES Permit Identification Number: NYR20A 211
13. Contact Person: Kenneth A D'Arpino
14. Street Address: 5209 Western Turnpike
15. City/State/Zip: Guilderland, NY 12084
16. Telephone Number: 518-356-1980

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)

NOI for coverage under Stormwater General Permit for Construction Activity

version 1.31

(Submission #: HP7-TJK4-3K1RM, version 1)

Details

Submission Alias	97-99 Twenty West Drive
Originally Started By	ABD Engineers
Submission ID	HP7-TJK4-3K1RM
Submission Reason	New
Status	Draft
Active Steps	Form Submitted

Form Input

Owner/Operator Information

Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)
Michael Davidson

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Davidson

Owner/Operator Contact Person First Name
Michael

Owner/Operator Mailing Address
42 Sweetie Lane

City
Altamont

State
NY

Zip
12009

Phone
NONE PROVIDED

Email
NONE PROVIDED

Federal Tax ID
NONE PROVIDED

Project Location

Project/Site Name
Mixed Use Building

Street Address (Not P.O. Box)
97-99 Twenty West Drive

Side of Street
West

City/Town/Village (THAT ISSUES BUILDING PERMIT)
Guilderland

State
NY

Zip
12009

DEC Region
4

County
ALBANY

Name of Nearest Cross Street
Western Avenue

Distance to Nearest Cross Street (Feet)
100

Project In Relation to Cross Street
South

Tax Map Numbers Section-Block-Parcel
39.00-2-103

Tax Map Numbers
NONE PROVIDED

1. Coordinates

Provide the Geographic Coordinates for the project site. The two methods are:
- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.
- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

Navigate to your location and click on the map to get the X,Y coordinates
42.71673656540994,-73.93722259807703

Project Details

2. What is the nature of this project?
New Construction

3. Select the predominant land use for both pre and post development conditions.

Pre-Development Existing Landuse
Pasture/Open Land

Post-Development Future Land Use
Commercial

3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots.
NONE PROVIDED

4. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage)within the disturbed area.

*** ROUND TO THE NEAREST TENTH OF AN ACRE. ***

Total Site Area (acres)
1.8

Total Area to be Disturbed (acres)
1.6

Existing Impervious Area to be Disturbed (acres)
0.3

Future Impervious Area Within Disturbed Area (acres)
0.9

5. Do you plan to disturb more than 5 acres of soil at any one time?
No

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6. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)
100

B (%)
0

C (%)
0

D (%)
0

7. Is this a phased project?
No

8. Enter the planned start and end dates of the disturbance activities.

Start Date
11/1/2021

End Date
5/1/2022

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
Tributary of Normans Kill

9a. Type of waterbody identified in question 9?
Stream/Creek Off Site

Other Waterbody Type Off Site Description
NONE PROVIDED

9b. If "wetland" was selected in 9A, how was the wetland identified?
NONE PROVIDED

10. Has the surface waterbody(ies in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001?
No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001?
No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters?
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?
NONE PROVIDED

If Yes, what is the acreage to be disturbed?
NONE PROVIDED

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?
No

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?
Yes

16. What is the name of the municipality/entity that owns the separate storm sewer system?
Town of Guilderland

17. Does any runoff from the site enter a sewer classified as a Combined Sewer?
No

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?
No

19. Is this property owned by a state authority, state agency, federal government or local government?
No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)
No

Required SWPPP Components

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

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

If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.

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

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:
Professional Engineer (P.E.)

SWPPP Preparer
ABD Engineers, LLP

Contact Name (Last, Space, First)
Palleschi, Luigi

Mailing Address
411 Union Street

City
Schenectady

State
NY

Zip
12305

Phone
5183770315

Email
luigi@abdeng.com

Download SWPPP Preparer Certification Form
Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form
3) Scan the signed form
4) Upload the scanned document
Download SWPPP Preparer Certification Form

Please upload the SWPPP Preparer Certification
NONE PROVIDED
Comment
NONE PROVIDED

Erosion & Sediment Control Criteria

25. Has a construction sequence schedule for the planned management practices been prepared?
Yes

26. Select all of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural
Silt Fence
Stabilized Construction Entrance

Biotechnical
None

Vegetative Measures
Mulching
Seeding
Topsoiling

Permanent Structural
Land Grading
Rock Outlet Protection

Other
NONE PROVIDED

Post-Construction Criteria

*** 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.
Sidewalk Reduction
Reduction of Clearing and Grading

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).

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet)
0.083

29. Post-construction SMP Identification
Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing 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 the Post-Construction SMP Identification section 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.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet)
0.083

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)?
Yes

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)] (acre-feet)
NONE PROVIDED

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?
NONE PROVIDED

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; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. SMPs
Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section 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. (acre-feet)
NONE PROVIDED

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 - 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).
NONE PROVIDED

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?
NONE PROVIDED

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, 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 (acre-feet)
NONE PROVIDED

CPv Provided (acre-feet)
NONE PROVIDED

36a. The need to provide channel protection has been waived because:
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.

Overbank Flood Control Criteria (Qp)

Pre-Development (CFS)
0.99

Post-Development (CFS)
0.36

Total Extreme Flood Control Criteria (Qf)

Pre-Development (CFS)
3.13

Post-Development (CFS)
0.88

37a. The need to meet the Qp and Qf criteria has been waived because:
NONE PROVIDED

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?
Yes

If Yes, Identify the entity responsible for the long term Operation and Maintenance
Michael Davidson

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.
NONE PROVIDED

Post-Construction SMP Identification

Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs
Identify the Post-construction SMPs to be used by providing 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.

RR Techniques (Area Reduction)

Round to the nearest tenth

Total Contributing Acres for Conservation of Natural Area (RR-1)
NONE PROVIDED

Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)
NONE PROVIDED

Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)
NONE PROVIDED

Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)
NONE PROVIDED

Total Contributing Acres for Tree Planting/Tree Pit (RR-3)
NONE PROVIDED

Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3)
NONE PROVIDED

Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4)
NONE PROVIDED

RR Techniques (Volume Reduction)

Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)
NONE PROVIDED

Total Contributing Impervious Acres for Vegetated Swale (RR-5)
NONE PROVIDED

Total Contributing Impervious Acres for Rain Garden (RR-6)
NONE PROVIDED

Total Contributing Impervious Acres for Stormwater Planter (RR-7)
NONE PROVIDED

Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)
NONE PROVIDED

Total Contributing Impervious Acres for Porous Pavement (RR-9)
NONE PROVIDED

Total Contributing Impervious Acres for Green Roof (RR-10)
NONE PROVIDED

Standard SMPs with RRv Capacity

Total Contributing Impervious Acres for Infiltration Trench (I-1)
NONE PROVIDED

Total Contributing Impervious Acres for Infiltration Basin (I-2)
0.92

Total Contributing Impervious Acres for Dry Well (I-3)
NONE PROVIDED

Total Contributing Impervious Acres for Underground Infiltration System (I-4)
NONE PROVIDED

Total Contributing Impervious Acres for Bioretention (F-5)
NONE PROVIDED

Total Contributing Impervious Acres for Dry Swale (O-1)
NONE PROVIDED

Standard SMPs

Total Contributing Impervious Acres for Micropool Extended Detention (P-1)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Pond (P-2)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Extended Detention (P-3)
NONE PROVIDED

Total Contributing Impervious Acres for Multiple Pond System (P-4)
NONE PROVIDED

Total Contributing Impervious Acres for Pocket Pond (P-5)
NONE PROVIDED

Total Contributing Impervious Acres for Surface Sand Filter (F-1)
NONE PROVIDED

Total Contributing Impervious Acres for Underground Sand Filter (F-2)
NONE PROVIDED

Total Contributing Impervious Acres for Perimeter Sand Filter (F-3)
NONE PROVIDED

Total Contributing Impervious Acres for Organic Filter (F-4)
NONE PROVIDED

Total Contributing Impervious Acres for Shallow Wetland (W-1)
NONE PROVIDED

Total Contributing Impervious Acres for Extended Detention Wetland (W-2)
NONE PROVIDED

Total Contributing Impervious Acres for Pond/Wetland System (W-3)
NONE PROVIDED

Total Contributing Impervious Acres for Pocket Wetland (W-4)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Swale (O-2)
NONE PROVIDED

Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Total Contributing Impervious Area for Hydrodynamic
NONE PROVIDED

Total Contributing Impervious Area for Wet Vault
NONE PROVIDED

Total Contributing Impervious Area for Media Filter
NONE PROVIDED

"Other" Alternative SMP?
NONE PROVIDED

Total Contributing Impervious Area for "Other"
NONE PROVIDED

Provide the name and manufaturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

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.

Manufacturer of Alternative SMP
NONE PROVIDED

Name of Alternative SMP
NONE PROVIDED

Other Permits

40. Identify other DEC permits, existing and new, that are required for this project/facility.
None

If SPDES Multi-Sector GP, then give permit ID
NONE PROVIDED

If Other, then identify
NONE PROVIDED

41. Does this project require a US Army Corps of Engineers Wetland Permit?
No

If "Yes," then indicate Size of Impact, in acres, to the nearest tenth
NONE PROVIDED

42. 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.
NONE PROVIDED

MS4 SWPPP Acceptance

43. Is this project subject to the requirements of a regulated, traditional land use control MS4?
Yes - Please attach the MS4 Acceptance form below

If No, skip question 44

44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?
Yes

MS4 SWPPP Acceptance Form Download
Download form from the link below. Complete, sign, and upload.
MS4 SWPPP Acceptance Form

MS4 Acceptance Form Upload
NONE PROVIDED
Comment
NONE PROVIDED

Owner/Operator Certification

Owner/Operator Certification Form Download
Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF, 45KB)

Upload Owner/Operator Certification Form
NONE PROVIDED
Comment
NONE PROVIDED

Status History

	User	Processing Status
4/8/2021 9:47:00 AM	ABD Engineers	Draft

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted		
Under Review	DAVID GASPER	

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: Michael Davidson

2. Street Address: 42 Sweetie Lane

3. City/State/Zip: Altamont, NY 12009

4. Contact Person: Michael Davidson | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name: Mixed Use Building

6. Street Address: 97-99 Twenty West Drive

7. City/Zip: Altamont, NY 12009

8. County: Albany

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)?

_____

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:

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)

APPENDIX C
EROSION AND SEDIMENT CONTROL
STANDARDS AND SPECIFICATIONS

STANDARD AND SPECIFICATIONS FOR CONCRETE TRUCK WASHOUT

Definition & Scope

A temporary excavated or above ground lined constructed pit where concrete truck mixers and equipment can be washed after their loads have been discharged, to prevent highly alkaline runoff from entering storm drainage systems or leaching into soil.

Conditions Where Practice Applies

Washout facilities shall be provided for every project where concrete will be poured or otherwise formed on the site. This facility will receive highly alkaline wash water from the cleaning of chutes, mixers, hoppers, vibrators, placing equipment, trowels, and screeds. Under no circumstances will wash water from these operations be allowed to infiltrate into the soil or enter surface waters.

Design Criteria

Capacity: The washout facility should be sized to contain solids, wash water, and rainfall and sized to allow for the evaporation of the wash water and rainfall. Wash water shall be estimated at 7 gallons per chute and 50 gallons per hopper of the concrete pump truck and/or discharging drum. The minimum size shall be 8 feet by 8 feet at the bottom and 2 feet deep. If excavated, the side slopes shall be 2 horizontal to 1 vertical.

Location: Locate the facility a minimum of 100 feet from drainage swales, storm drain inlets, wetlands, streams and other surface waters. Prevent surface water from entering the structure except for the access road. Provide appropriate access with a gravel access road sloped down to the structure. Signs shall be placed to direct drivers to the facility after their load is discharged.

Liner: All washout facilities will be lined to prevent leaching of liquids into the ground. The liner shall be plastic sheeting with a minimum thickness of 10 mils with no holes or tears, and anchored beyond the top of the pit with an earthen berm, sand bags, stone, or other structural appurtenance except at the access point.

If pre-fabricated washouts are used they must ensure the capture and containment of the concrete wash and be sized based on the expected frequency of concrete pours. They shall be sited as noted in the location criteria.

Maintenance

- All concrete washout facilities shall be inspected daily. Damaged or leaking facilities shall be deactivated and repaired or replaced immediately. Excess rainwater that has accumulated over hardened concrete should be pumped to a stabilized area, such as a grass filter strip.
- Accumulated hardened material shall be removed when 75% of the storage capacity of the structure is filled. Any excess wash water shall be pumped into a containment vessel and properly disposed of off site.
- Dispose of the hardened material off-site in a construction/demolition landfill. On-site disposal may be allowed if this has been approved and accepted as part of the projects SWPPP. In that case, the material should be recycled as specified, or buried and covered with a minimum of 2 feet of clean compacted earthfill that is permanently stabilized to prevent erosion.
- The plastic liner shall be replaced with each cleaning of the washout facility.
- Inspect the project site frequently to ensure that no concrete discharges are taking place in non-designated areas.

STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ACCESS

Definition & Scope

A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of stabilized construction access is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

Conditions Where Practice Applies

A stabilized construction access shall be used at all points of construction ingress and egress.

Design Criteria

See Figure 2.1 on page 2.31 for details.

Aggregate Size: Use a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.

Thickness: Not less than six (6) inches.

Width: 12-foot minimum but not less than the full width of points where ingress or egress occurs. 24-foot minimum if there is only one access to the site.

Length: As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).

Geotextile: To be placed over the entire area to be covered with aggregate. Filter cloth will not be required on a single-family residence lot. Piping of surface water under entrance shall be provided as required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.

Criteria for Geotextile: The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

Fabric Properties[3]	Light Duty[1] Roads Grade Subgrade	Heavy Duty[2] Haul Roads Rough Graded	Test Method
Grab Tensile Strength (lbs)	200	220	ASTM D1682
Elongation at Failure (%)	50	60	ASTM D1682
Mullen Burst Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 Modified
Equivalent	40-80	40-80	US Std Sieve
Opening Size			CW-02215
Aggregate Depth	6	10	-

[1]Light Duty Road: Area sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Acceptable materials are Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

[2]Heavy Duty Road: Area sites with only rough grading, and where most travel would be multi-axle vehicles. Acceptable materials are Trevira Spunbond 1135, Mirafi 600X, or equivalent.

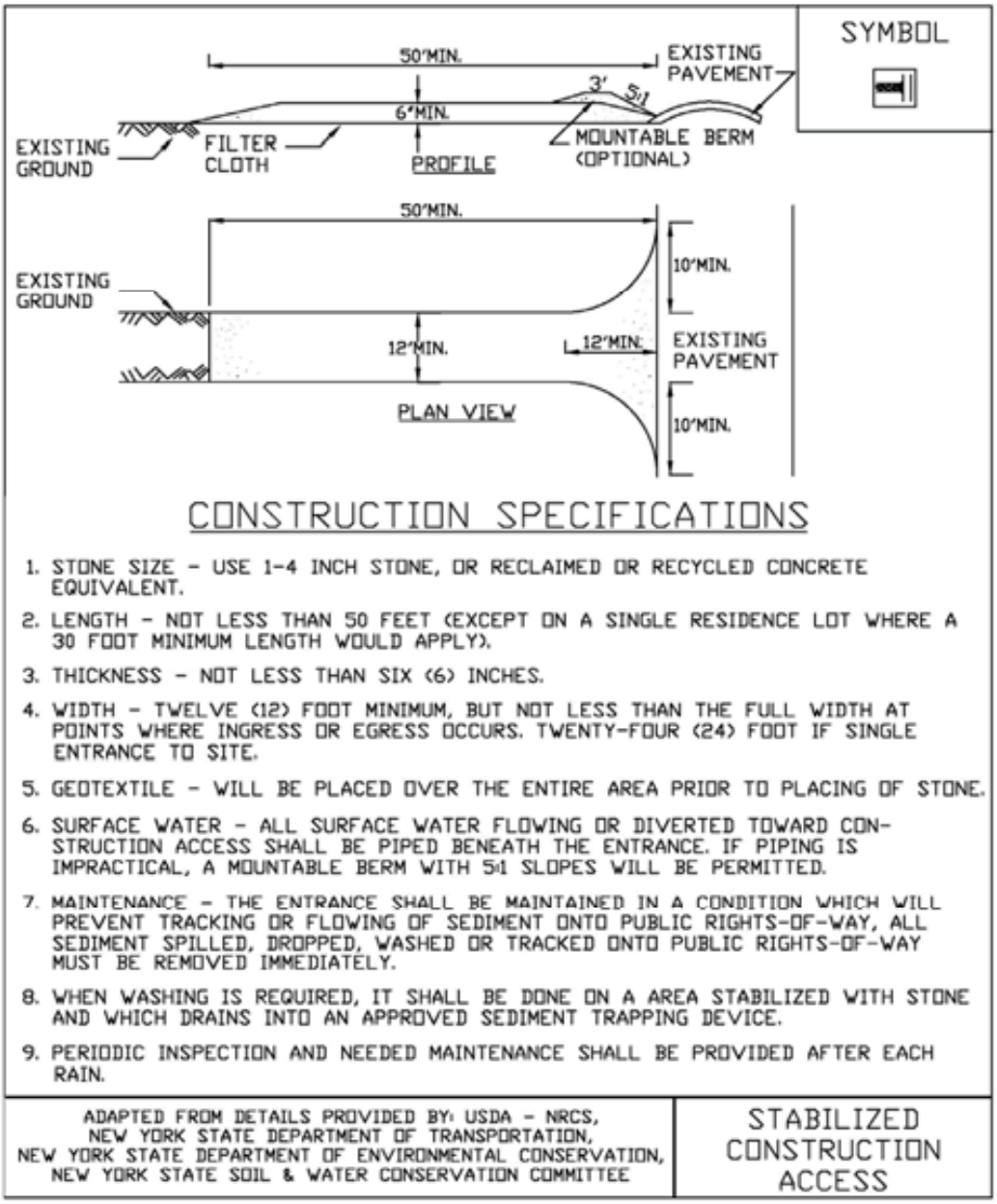
[3]Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

Maintenance

The access shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

Figure 2.1
Stabilized Construction Access



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1-4 INCH 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. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH 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 TRACKED 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.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STABILIZED CONSTRUCTION ACCESS

STANDARD AND SPECIFICATIONS FOR MULCHING

Definition and Scope

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch can also be used alone for temporary stabilization in non-growing months. Use of stone as a mulch could be more permanent and should not be limited to non-growing months.

Conditions Where Practice Applies

On soils subject to erosion and on new seedings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

Criteria

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Hay mulch shall not be used in wetlands or in areas of permanent seeding. Clean straw mulch is preferred alternative in wetland application. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/ acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 – 750 lbs./acre (11 – 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.

Table 4.2
Guide to Mulch Materials, Rates, and Uses

Mulch Material	Quality Standards	per 1000 Sq. Ft.	per Acre	Depth of Application	Remarks
Wood chips or shavings	Air-dried. Free of objectionable coarse material	500-900 lbs.	10-20 tons	2-7"	Used primarily around shrub and tree plantings and recreation trails to inhibit weed competition. Resistant to wind blowing. Decomposes slowly.
Wood fiber cellulose (partly digested wood fibers)	Made from natural wood usually with green dye and dispersing agent	50 lbs.	2,000 lbs.	—	Apply with hydromulcher. No tie down required. Less erosion control provided than 2 tons of hay or straw.
Gravel, Crushed Stone or Slag	Washed, Size 2B or 3A—1 1/2"	9 cu. yds.	405 cu. yds.	3"	Excellent mulch for short slopes and around plants and ornamentals. Use 2B where subject to traffic. (Approximately 2,000 lbs./cu. yd.). Frequently used over filter fabric for better weed control.
Hay or Straw	Air-dried; free of undesirable seeds & coarse materials	90-100 lbs. 2-3 bales	2 tons (100-120 bales)	cover about 90% surface	Use small grain straw where mulch is maintained for more than three months. Subject to wind blowing unless anchored. Most commonly used mulching material. Provides the best micro-environment for germinating seeds.
Jute twisted yarn	Undyed, unbleached plain weave. Warp 78 ends/yd., Weft 41 ends/yd. 60-90 lbs./roll	48" x 50 yds. or 48" x 75 yds.	—	—	Use without additional mulch. Tie down as per manufacturers specifications. Good for center line of concentrated water flow.
Excelsior wood fiber mats	Interlocking web of excelsior fibers with photodegradable plastic netting	4' x 112.5' or 8' x 112.5'.	—	—	Use without additional mulch. Excellent for seeding establishment. Anchor as per manufacturers specifications. Approximately 72 lbs./roll for excelsior with plastic on both sides. Use two sided plastic for centerline of waterways.
Straw or coconut fiber, or combination	Photodegradable plastic net on one or two sides	Most are 6.5 ft. x 3.5 ft.	81 rolls	—	Designed to tolerate higher velocity water flow, centerlines of waterways, 60 sq. yds. per roll.

Table 4.3
Mulch Anchoring Guide

Anchoring Method or Material	Kind of Mulch to be Anchored	How to Apply
1. Peg and Twine	Hay or straw	After mulching, divide areas into blocks approximately 1 sq. yd. in size. Drive 4-6 pegs per block to within 2" to 3" of soil surface. Secure mulch to surface by stretching twine between pegs in criss-cross pattern on each block. Secure twine around each peg with 2 or more tight turns. Drive pegs flush with soil. Driving stakes into ground tightens the twine.
2. Mulch netting	Hay or straw	Staple the light-weight paper, jute, wood fiber, or plastic nettings to soil surface according to manufacturer's recommendations. Should be biodegradable. Most products are not suitable for foot traffic.
3. Wood cellulose fiber	Hay or straw	Apply with hydroseeder immediately after mulching. Use 500 lbs. wood fiber per acre. Some products contain an adhesive material ("tackifier"), possibly advantageous.
4. Mulch anchoring tool	Hay or straw	Apply mulch and pull a mulch anchoring tool (blunt, straight discs) over mulch as near to the contour as possible. Mulch material should be "tucked" into soil surface about 3".
5. Tackifier	Hay or straw	Mix and apply polymeric and gum tackifiers according to manufacturer's instructions. Avoid application during rain. A 24-hour curing period and a soil temperature higher than 45^0 Fahrenheit are required.

STANDARD AND SPECIFICATIONS FOR SOIL RESTORATION

Definition & Scope

The decompaction of areas of a development site or construction project where soils have been disturbed to recover the original properties and porosity of the soil; thus providing a sustainable growth medium for vegetation, reduction of runoff and filtering of pollutants from stormwater runoff.

Conditions Where Practice Applies

Soil restoration is to be applied to areas whose heavy construction traffic is done and final stabilization is to begin. This is generally applied in the cleanup, site restoration, and landscaping phase of construction followed by the permanent establishment of an appropriate ground cover to maintain the soil structure. Soil restoration measures should be applied over and adjacent to any runoff reduction practices to achieve design performance.

Design Criteria

1. Soil restoration areas will be designated on the plan views of areas to be disturbed.
2. Soil restoration will be completed in accordance with Table 4.6 on page 4.53.

Specification for Full Soil Restoration

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following Soil Restoration steps applied:

1. Apply 3 inches of compost over subsoil. The compost shall be well decomposed (matured at least 3 months), weed-free, organic matter. It shall be aerobically composted, possess no objectionable odors, and contain less than 1%, by dry weight, of man-made foreign matter. The physical parameters of the compost shall meet the standards listed in Table 5.2 - Compost Standards Table, except for "Particle Size" 100% will pass the 1/2" sieve. **Note: All biosolids compost produced in New York State (or approved for importation) must meet NYS DEC's 6 NYCRR Part 360 (Solid Waste Management Facilities) requirements. The Part 360 requirements are equal to or more stringent than 40 CFR Part 503 which ensure safe standards for pathogen reduction and heavy metals content.**

2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor mounted disc, or tiller, to mix and circulate air and compost into the subsoil.
3. Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site.
4. Apply topsoil to a depth of 6 inches.
5. Vegetate as required by the seeding plan. Use appropriate ground cover with deep roots to maintain the soil structure.
6. Topsoil may be manufactured as a mixture or a mineral component and organic material such as compost.

At the end of the project an inspector should be able to push a 3/8" metal bar 12 inches into the soil just with body weight. This should not be performed within the drip line of any existing trees or over utility installations that are within 24 inches of the surface.

Maintenance

Keep the site free of vehicular and foot traffic or other weight loads. Consider pedestrian footpaths.

Table 4.6
Soil Restoration Requirements

Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only - no change in grade	HSG A&B	HSG C&D	Protect area from any ongoing construction activities.
	Apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A&B	HSG C&D	
	Aerate* and apply 6 inches of topsoil	Apply full Soil Restoration**	
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (decompaction and compost enhancement)		
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

* Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.
** Per "Deep Ripping and De-compaction, DEC 2008".

STANDARD AND SPECIFICATIONS FOR TEMPORARY CONSTRUCTION AREA SEEDING

Definition & Scope

Providing temporary erosion control protection to disturbed areas and/or localized critical areas for an interim period by covering all bare ground that exists as a result of construction activities or a natural event. Critical areas may include but are not limited to steep excavated cut or fill slopes and any disturbed, denuded natural slopes subject to erosion.

Conditions Where Practice Applies

Temporary seedings may be necessary on construction sites to protect an area, or section, where final grading is complete, when preparing for winter work shutdown, or to provide cover when permanent seedings are likely to fail due to mid-summer heat and drought. The intent is to provide temporary protective cover during temporary shutdown of construction and/or while waiting for optimal planting time.

Criteria

Water management practices must be installed as appropriate for site conditions. The area must be rough graded and slopes physically stable. Large debris and rocks are usually removed. Seedbed must be seeded within 24 hours of disturbance or scarification of the soil surface will be necessary prior to seeding.

Fertilizer or lime are not typically used for temporary seedings.

IF: Spring or summer or early fall, then seed the area with ryegrass (annual or perennial) at 30 lbs. per acre (Approximately 0.7 lb./1000 sq. ft. or use 1 lb./1000 sq. ft.).

IF: Late fall or early winter, then seed Certified 'Aroostook' winter rye (cereal rye) at 100 lbs. per acre (2.5 lbs./1000 sq. ft.).

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.

Mulch the area with hay or straw at 2 tons/acre (approx. 90 lbs./1000 sq. ft. or 2 bales). 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 manufacturers' specification. Caution is advised when using nylon or other synthetic products. They may be difficult to remove prior to final seeding and can be a hazard to young wildlife species.

STANDARD AND SPECIFICATIONS FOR TOPSOILING

Definition & Scope

Spreading a specified quality and quantity of topsoil materials on graded or constructed subsoil areas to provide acceptable plant cover growing conditions, thereby reducing erosion; to reduce irrigation water needs; and to reduce the need for nitrogen fertilizer application.

Conditions Where Practice Applies

Topsoil is applied to subsoils that are droughty (low available moisture for plants), stony, slowly permeable, salty or extremely acid. It is also used to backfill around shrub and tree transplants. This standard does not apply to wetland soils.

Design Criteria

1. Preserve existing topsoil in place where possible, thereby reducing the need for added topsoil.
2. Conserve by stockpiling topsoil and friable fine textured subsoils that must be stripped from the excavated site and applied after final grading where vegetation will be established. Topsoil stockpiles must be stabilized. Stockpile surfaces can be stabilized by vegetation, geotextile or plastic covers. This can be aided by orientating the stockpile lengthwise into prevailing winds.
3. Refer to USDA Natural Resource Conservation Service soil surveys or soil interpretation record sheets for further soil texture information for selecting appropriate design topsoil depths.

Site Preparation

1. As needed, install erosion and sediment control practices such as diversions, channels, sediment traps, and stabilizing measures, or maintain if already installed.
2. Complete rough grading and final grade, allowing for depth of topsoil to be added.
3. Scarify all compact, slowly permeable, medium and fine textured subsoil areas. Scarify at approximately right angles to the slope direction in soil areas that are steeper than 5 percent. Areas that have been overly compacted shall be decompacted in accordance with the Soil Restoration Standard.
4. Remove refuse, woody plant parts, stones over 3 inches in diameter, and other litter.

Topsoil Materials

1. Topsoil shall have at least 6 percent by weight of fine textured stable organic material, and no greater than 20 percent. Muck soil shall not be considered topsoil.
2. Topsoil shall have not less than 20 percent fine textured material (passing the NO. 200 sieve) and not more than 15 percent clay.
3. Topsoil treated with soil sterilants or herbicides shall be so identified to the purchaser.
4. Topsoil shall be relatively free of stones over 1 1/2 inches in diameter, trash, noxious weeds such as nut sedge and quackgrass, and will have less than 10 percent gravel.
5. Topsoil containing soluble salts greater than 500 parts per million shall not be used.
6. Topsoil may be manufactured as a mixture of a mineral component and organic material such as compost.

Application and Grading

1. Topsoil shall be distributed to a uniform depth over the area. It shall not be placed when it is partly frozen, muddy, or on frozen slopes or over ice, snow, or standing water puddles.
2. Topsoil placed and graded on slopes steeper than 5 percent shall be promptly fertilized, seeded, mulched, and stabilized by “tracking” with suitable equipment.
3. Apply topsoil in the amounts shown in Table 4.7 below:

Table 4.7 - Topsoil Application Depth		
Site Conditions	**Intended Use**	**Minimum Topsoil Depth**
1. Deep sand or loamy sand	Mowed lawn	6 in.
	Tall legumes, unmowed	2 in.
	Tall grass, unmowed	1 in.
2. Deep sandy loam	Mowed lawn	5 in.
	Tall legumes, unmowed	2 in.
	Tall grass, unmowed	none
3. Six inches or more: silt loam, clay loam, loam, or silt	Mowed lawn	4 in.
	Tall legumes, unmowed	1 in.
	Tall grass, unmowed	1 in.

STANDARD AND SPECIFICATIONS FOR SILT FENCE

Definition & Scope

A **temporary** barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil by temporarily ponding the sediment laden runoff allowing settling to occur. The maximum period of use is limited by the ultraviolet stability of the fabric (approximately one year).

Conditions Where Practice Applies

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope length and fence length will not exceed the limits shown in the Design Criteria for the specific type of silt fence used ; and
2. Maximum ponding depth of 1.5 feet behind the fence; and
3. Erosion would occur in the form of sheet erosion; and
4. There is no concentration of water flowing to the barrier; and
5. Soil conditions allow for proper keying of fabric, or other anchorage, to prevent blowouts.

Design Criteria

1. Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff.
2. All silt fences shall be placed as close to the disturbed area as possible, but at least 10 feet from the toe of a slope steeper than 3H:1V, to allow for maintenance and roll down. The area beyond the fence must be undisturbed or stabilized.
3. The type of silt fence specified for each location on the plan shall not exceed the maximum slope length and maximum fence length requirements shown in the following table:

		Slope Length/Fence Length (ft.)		
Slope	Steepness	Standard	Reinforced	Super
<2%	< 50:1	300/1500	N/A	N/A
2-10%	50:1 to 10:1	125/1000	250/2000	300/2500
10-20%	10:1 to 5:1	100/750	150/1000	200/1000
20-33%	5:1 to 3:1	60/500	80/750	100/1000
33-50%	3:1 to 2:1	40/250	70/350	100/500
>50%	> 2:1	20/125	30/175	50/250

Standard Silt Fence (SF) is fabric rolls stapled to wooden stakes driven 16 inches in the ground.
Reinforced Silt Fence (RSF) is fabric placed against welded wire fabric with anchored steel posts driven 16 inches in the ground.
Super Silt Fence (SSF) is fabric placed against chain link fence as support backing with posts driven 3 feet in the ground.

4. Silt fence shall be removed as soon as the disturbed area has achieved final stabilization.

The silt fence shall be installed in accordance with the appropriate details. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. Butt joints are not acceptable. A detail of the silt fence shall be shown on the plan. See Figure 5.30 on page 5.56 for Reinforced Silt Fence as an example of details to be provided.

Criteria for Silt Fence Materials

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	110	ASTM D 4632
Elongation at Failure (%)	20	ASTM D 4632
Mullen Burst Strength (PSI)	300	ASTM D 3786
Puncture Strength (lbs)	60	ASTM D 4833
Minimum Trapezoidal Tear Strength (lbs)	50	ASTM D 4533
Flow Through Rate (gal/min/sf)	25	ASTM D 4491
Equivalent Opening Size	40-80	US Std Sieve ASTM D 4751
Minimum UV Residual (%)	70	ASTM D 4355

2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.5 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot. Posts for super silt fence shall be standard chain link fence posts.

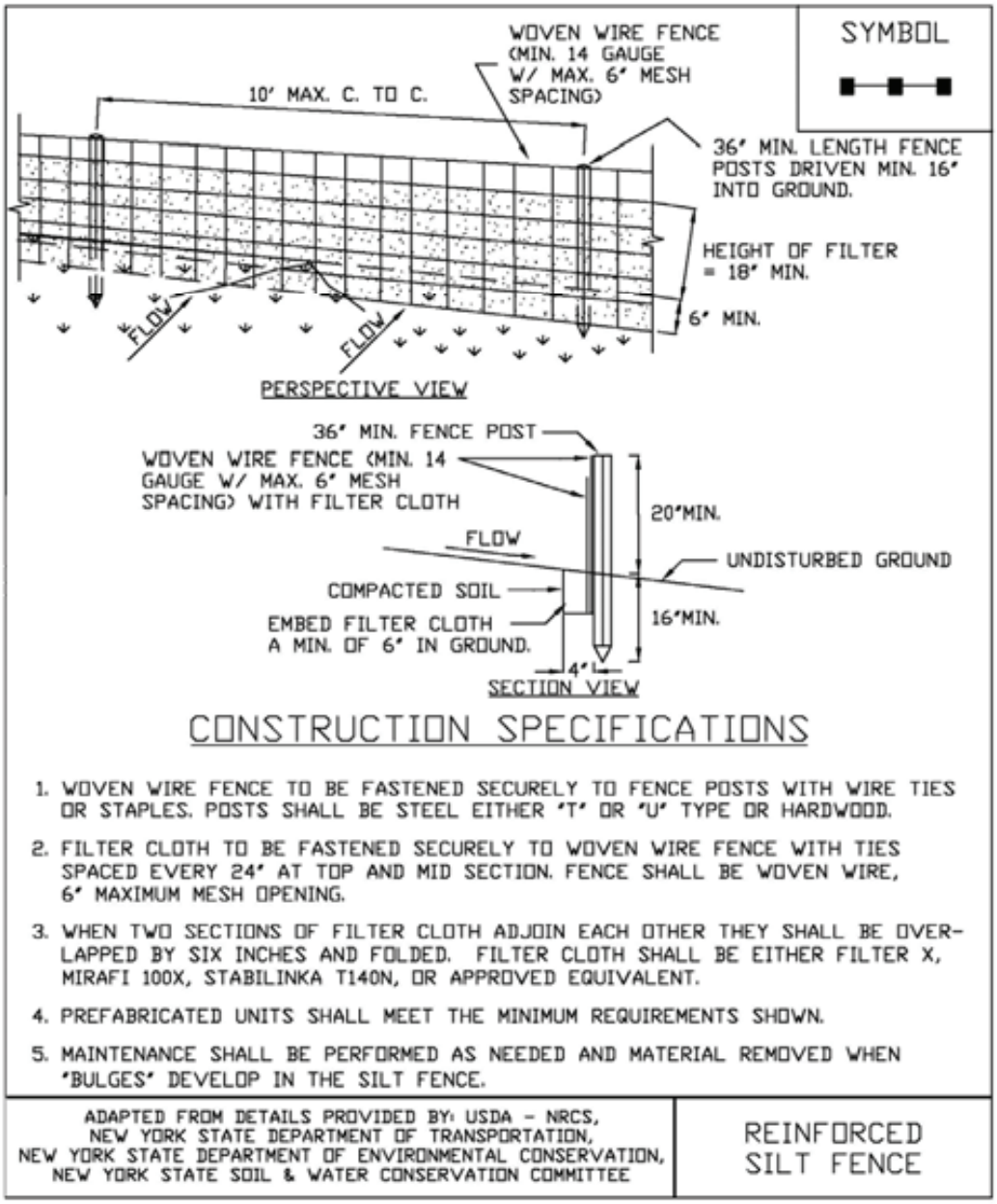
3. Wire Fence for reinforced silt fence: Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.

4. Prefabricated silt fence is acceptable as long as all material specifications are met.

Super Silt Fence

Reinforced Silt Fence

Figure 5.30
Reinforced Silt Fence



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER 'T' OR 'U' TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL MEET THE MINIMUM REQUIREMENTS SHOWN.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE.

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

REINFORCED SILT FENCE

APPENDIX D
SWPPP DOCUMENTS

STORMWATER POLLUTION PREVENTION PLAN
SPILL RESPONSE REPORT

Within 1 hour of a spill discovery less than 2 gallons in volume the following must be notified:

1. **Michael Davidson**
2. **ABD Engineers, LLP, 518-377-0315**
3. **Town of Guilderland, 518-356-1980**

Within 1 hour of a spill discovery greater than 2 gallons in volume the following must be notified:

1. **NYSDEC Spill Response Hotline 800-457-7362**
2. **Michael Davidson**
3. **ABD Engineers, LLP, 518-377-0315**
4. **Spill Response Contractor, *e.g.* Kleen Resources, 518-462-0400 or others by contractor.**
5. **Town of Guilderland, 518-356-1980**

Please complete following information:

1. **Material Spilled:** _____
2. **Approximate Volume:** _____
3. **Location:** _____
4. **Distance to nearest down gradient drainage way:** _____
5. **Distance to nearest down gradient open water:** _____
6. **Temporary control measures in place:** _____

SIGNATURE OF PERSON REPORTING SPILL AND COMPLETING FORM:

_____

PRINT NAME, TITLE AND COMPANY:

_____

DATE AND TIME OF SPILL:

_____

DATE AND TIME REPORTED:

_____

STORMWATER MANAGEMENT REPORT

FOR

MIXED USE BUILDING
97-99 Twenty West Drive
Town of Guilderland
Albany County, New York

Prepared For:

Michael Davidson
42 Sweetie Lane
Altamont, NY 12009

April 9, 2021
Revised September 20, 2021

Project No. 5201A

Prepared By:

Luigi A. Palleshi, P.E.
ABD Engineers, LLP
411 Union Street
Schenectady, NY 12305
(518) 377-0315

STORMWATER MANAGEMENT REPORT

MIXED USE BUILDING
97-99 Twenty West Drive
Town of Guilderland
Albany County, New York

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EXHIBIT 2: PRE-DEVELOPMENT DRAINAGE MAP	Attached
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APPENDIX A: STORMWATER CALCULATIONS	Attached

STORMWATER MANAGEMENT REPORT

MIXED USE BUILDING
97-99 Twenty West Drive
Town of Guilderland
Albany County, New York

PROJECT LOCATION

The proposed mixed use building is located at 97-99 Twenty West Drive in the Town of Guilderland, Albany County, New York (see Exhibit 1). The site is bordered on the north by Western Turnpike (Route 20), on the east by Twenty West Drive, on the south by a residential house, and on the west by a restaurant.

GENERAL SITE DEVELOPMENT

The applicant is proposing to redevelop the existing 1.8± acre parcel in order to construct one (1) mixed use building with associated pavement, utilities, and stormwater management practice for water quality treatment utilizing runoff reduction. Access to the site will be provided off of Twenty West Drive via a new driveway and emergency cross access will also be provided to the adjacent restaurant lot to the west.

SOIL TYPES, GROUNDWATER & TOPOGRAPHY

According to the Albany County NRCS, the primary hydrologic soil group is Type A loamy fine sand. The soils are generally well drained with a high-water table depth approximately 5 feet below existing grade. The existing site has a central high point and drains southeast toward Twenty West Drive, north toward Route 20, and west offsite. All disturbed grass areas shall be restored in accordance with the soil restoration requirements listed in Table 5.3 of the NYS Stormwater Design Manual. Ongoing maintenance shall be carried out per Section 5.1.6 of the Manual to ensure lasting results of decompaction.

STORMWATER MANAGEMENT PLAN

The stormwater management plan for the proposed project will utilize surface sheet flow across pavement for conveyance to the infiltration basin. Roof drains are also

proposed to collect stormwater from the building and provide conveyance to the basin. Stormwater runoff in the front of the site will continue to drain towards Route 20 as in the pre-development condition.

An infiltration basin practice will be utilized to achieve water quality volume (WQv) and runoff reduction volume (RRv) per NYSDEC Phase 2 Stormwater Regulations. Excess capacity for treatment is provided within the practice based on the overall new impervious surfaces proposed onsite. The total water quality treatment volume (WQv) required is 3,599± cubic feet and the minimum Runoff Reduction Volume (RRv) required is 1,924± cubic feet. The entire WQv of 3,599± cubic feet is provided via RRv which meets the treatment requirements. Refer to the WQv and RRv calculations in Appendix A. Pretreatment of runoff is provided via stone diaphragms along the edge of pavement and a sedimentation forebay prior to infiltration.

ANALYSIS

HydroCAD was utilized for the stormwater analysis. Stormwater calculations for the pre and post-development conditions are presented in Appendix A.

In the **pre-development condition**, the existing site consists of three drainage areas totaling 1.86± acres (refer to Exhibit 2).

Pre Area 1 is 0.66± acres and consists of existing gravel and grass areas. An area weighted CN value of 52 is used for the calculation. Runoff drains south to Twenty West Drive. The peak discharge rates for the 1, 10, and 100-year storm events are 0.00± cfs, 0.50± cfs, and 1.34± cfs respectively

Pre Area 2 is 0.41± acres and consists of existing concrete, gravel, and grass areas. An area weighted CN value of 47 is used for the calculation. Runoff drains north to Route 20. The peak runoff rates for the 1, 10, and 100-year storm events are 0.00± cfs, 0.13± cfs, and 0.55± cfs respectively.

Pre Area 3 is 0.79± acres and consists of existing gravel and grass areas. An area weighted CN value of 48 is used for the calculation. Runoff drains west offsite. The peak discharge rates for the 1, 10, and 100-year storm events are 0.00± cfs, 0.33± cfs, and 1.20± cfs respectively.

In the **post-development condition**, there are two drainage areas as in the pre-development condition (refer to Exhibit 3).

Post Area 1A is 1.43± acres and consists of proposed rooftop, pavement, and grass areas. An area weighted CN value of 75 is used for the calculation. Runoff is conveyed to the infiltration basin. The peak runoff rates generated for the 1, 10 and 100-year storm events are 1.41± cfs, 5.05± cfs, and 8.04± cfs respectively. A stone-lined underdrain system is provided within the bottom of the basin which outlets to the existing Twenty West Drive system. The peak discharge rates for the 1, 10 and 100-year storm events are reduced to 0.00± cfs, 0.18± cfs, and 0.25± cfs respectively. An emergency overflow spillway is provided in the event of a storm event exceeding the 100-year event.

Post Area 1B is reduced to 0.17± acres and consists of a portion of asphalt pavement and grass areas. An area weighted CN value of 47 is used for the calculation. Runoff flows to Twenty West Drive as in the pre-development condition. The peak discharge rates for the 1, 10 and 100-year storm events are 0.00± cfs, 0.06± cfs, and 0.24± cfs respectively.

Post Area 2 is reduced to 0.23± acres and consists of existing concrete sidewalk, a portion of proposed sidewalk, and grass areas. An area weighted CN value of 49 is used for the calculation. Runoff drains north to Route 20 as in the pre-development condition. The peak discharge rates for the 1, 10, and 100-year storm events are 0.00± cfs, 0.12± cfs, and 0.38± cfs respectively.

Post Area 3 is reduced to 0.02± acres and consists of grass areas. An area weighted CN value of 39 is used for the calculation. Runoff drains west offsite as in the pre-development condition. The peak discharge rates for the 1, 10, and 100-year storm events are reduced to 0.00± cfs, 0.00± cfs, and 0.01± cfs respectively.

SUMMARY

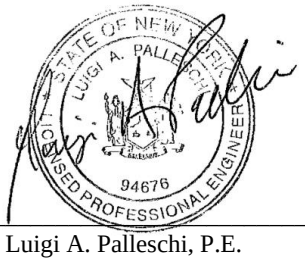
After performing the HydroCAD analysis, the results are summarized as follows:

Area 1	Peak Runoff Generated (cfs)			Peak Discharge (cfs)		
	1-Year	10-Year	100-Year	1-Year	10-Year	100-Year
Total Pre	**0.00**	**0.53**	**1.38**	**0.00**	**0.53**	**1.38**
Post 1A	1.41	5.05	8.04	0.00	0.18	0.25
Post 1B	0.00	0.06	0.24	0.00	0.06	0.24
Total Post	**1.41**	**5.11**	**8.28**	**0.00**	**0.24**	**0.49**
Net Change	*1.41*	*4.58*	*6.90*	*0.00*	*-0.29*	*-0.89*

Area 2	Peak Runoff Generated (cfs)			Peak Discharge (cfs)		
	1-Year	10-Year	100-Year	1-Year	10-Year	100-Year
Total Pre	**0.00**	**0.13**	**0.55**	**0.00**	**0.13**	**0.55**
Total Post	**0.00**	**0.12**	**0.38**	**0.00**	**0.12**	**0.38**
Net Change	*0.00*	*-0.01*	*-0.17*	*0.00*	*-0.01*	*-0.17*

Area 3	Peak Runoff Generated (cfs)			Peak Discharge (cfs)		
	1-Year	10-Year	100-Year	1-Year	10-Year	100-Year
Total Pre	**0.00**	**0.33**	**1.20**	**0.00**	**0.33**	**1.20**
Total Post	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.01**
Net Change	*0.00*	*-0.33*	*-1.19*	*0.00*	*-0.33*	*-1.19*

The peak discharge rates for the post-development condition are reduced to below the pre-development rates. The stormwater management plan is in accordance with the NYSDEC Stormwater Management Design Manual standards and will meet the needs of the project and the Town of Guilderland. The stormwater management plan will function adequately and will not adversely affect adjacent or downstream properties.



Luigi A. Palleschi, P.E.

EXHIBIT 1:

SITE LOCATION MAP

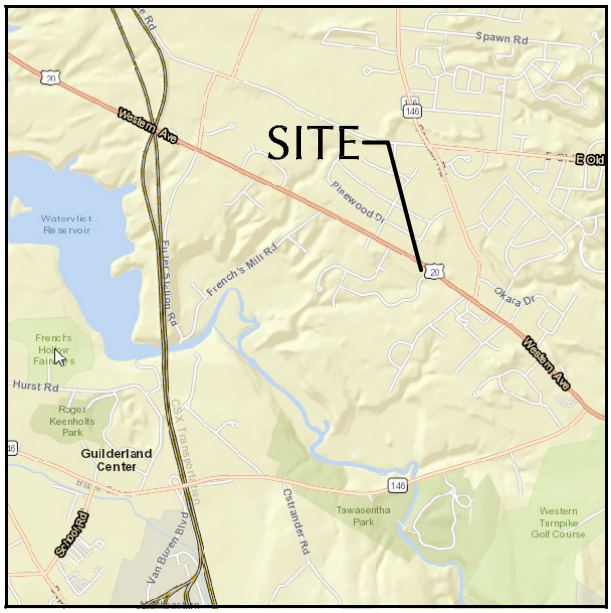

SITE
Spawn Rd
Western Ave
Pinewood Dr
French's Mill Rd
Fuller Station Rd
Okara Dr
Watervliet Reservoir
Hurst Rd
Roger Keenholts Park
Guilderland Center
Schoolhouse Rd
Van Buren Blvd
Coutrander Rd
Tawasentha Park
Western Turnpike Golf Course
20
146

EXHIBIT 2:

PRE-DEVELOPMENT DRAINAGE MAP

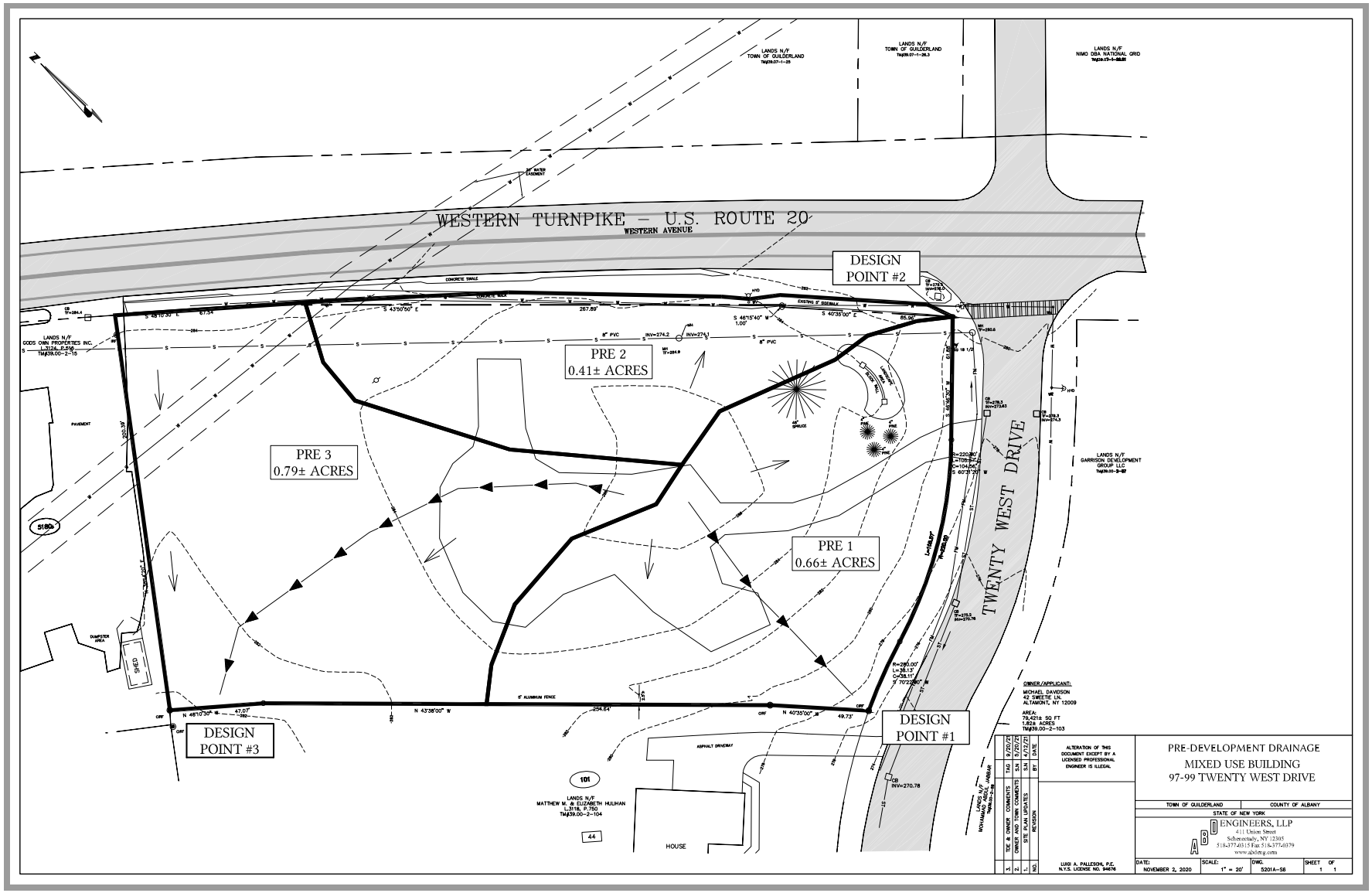
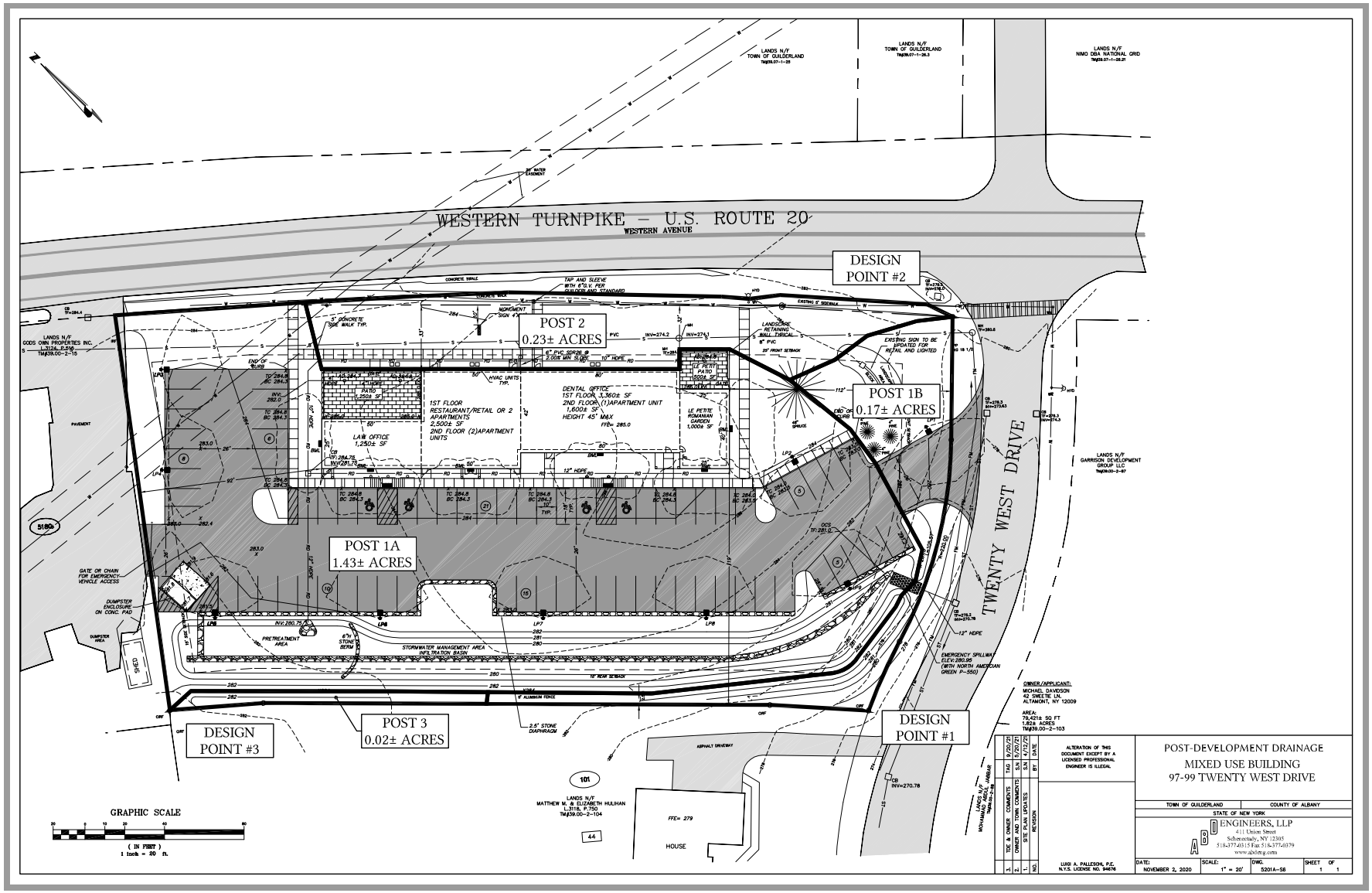

WESTERN TURNPIKE – U.S. ROUTE 20
WESTERN AVENUE
DESIGN POINT #2
PRE 2
0.41± ACRES
PRE 3
0.79± ACRES
PRE 1
0.66± ACRES
TWENTY WEST DRIVE
DESIGN POINT #3
DESIGN POINT #1
LANDS N/F TOWN OF GUILDERLAND
LANDS N/F NIMO DBA NATIONAL GRID
LANDS N/F GODS OWN PROPERTIES INC.
LANDS N/F GARRISON DEVELOPMENT GROUP LLC
LANDS N/F MATTHEW M. & ELIZABETH HULIHAN
HOUSE
SHED
DUMPSTER AREA
ASPHALT DRIVEWAY
6' ALUMINUM FENCE
OWNER/APPLICANT:
MICHAEL DAVIDSON
42 SWEETIE LN.
ALTAMONT, NY 12009
AREA:
78,421± SQ.FT
1.82± ACRES
TM#39.00-2-103
PRE-DEVELOPMENT DRAINAGE
MIXED USE BUILDING
97-99 TWENTY WEST DRIVE
TOWN OF GUILDERLAND
COUNTY OF ALBANY
STATE OF NEW YORK
ABD ENGINEERS, LLP
411 Union Street
Schenectady, NY 12305
518-377-0315 Fax 518-377-0379
www.abdeng.com
LUIGI A. PALLESCHI, P.E.
N.Y.S. LICENSE NO. 94676
ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER IS ILLEGAL
DATE: NOVEMBER 2, 2020
SCALE: 1" = 20'
DWG. 5201A-S6
SHEET OF 1 1

EXHIBIT 3:

POST-DEVELOPMENT DRAINAGE MAP


WESTERN TURNPIKE – U.S. ROUTE 20
WESTERN AVENUE
TWENTY WEST DRIVE
DESIGN POINT #2
POST 2
0.23± ACRES
POST 1B
0.17± ACRES
POST 1A
1.43± ACRES
POST 3
0.02± ACRES
DESIGN POINT #3
DESIGN POINT #1
1ST FLOOR RESTAURANT/RETAIL OR 2 APARTMENTS 2,500± SF
2ND FLOOR (2)APARTMENT UNITS
DENTAL OFFICE 1ST FLOOR 3,360± SF
2ND FLOOR (1)APARTMENT UNIT 1,600± SF
HEIGHT 45' MAX
LAW OFFICE 1,250± SF
LANDS N/F GODS OWN PROPERTIES INC.
LANDS N/F TOWN OF GUILDERLAND
LANDS N/F NIMO DBA NATIONAL GRID
LANDS N/F GARRISON DEVELOPMENT GROUP LLC
LANDS N/F MATTHEW M. & ELIZABETH HULIHAN
STORMWATER MANAGEMENT AREA INFILTRATION BASIN
PRETREATMENT AREA
EMERGENCY SPILLWAY ELEV.280.95 (WITH NORTH AMERICAN GREEN P-550)
GATE OR CHAIN FOR EMERGENCY VEHICLE ACCESS
DUMPSTER ENCLOSURE ON CONC. PAD
HOUSE
GRAPHIC SCALE
1 inch = 20 ft.
OWNER/APPLICANT:
MICHAEL DAVIDSON
42 SWEETIE LN.
ALTAMONT, NY 12009
AREA:
79,421± SQ.FT
1.82± ACRES
TM#39.00-2-103
POST-DEVELOPMENT DRAINAGE
MIXED USE BUILDING
97-99 TWENTY WEST DRIVE
TOWN OF GUILDERLAND
COUNTY OF ALBANY
STATE OF NEW YORK
ABD ENGINEERS, LLP
411 Union Street
Schenectady, NY 12305
518-377-0315 Fax 518-377-0379
www.abdeng.com
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DWG. 5201A-S6
SHEET OF 1 1

APPENDIX A:

STORMWATER CALCULATIONS

Version 1.8 Total Water Quality Volume Calculation
Last Updated: 11/09/2015 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)?.....	
Design Point:	
P=	1.10 *inch*

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description
1	1.43	0.92	65%	0.63	3,599	Inf Basin (Total Imp)
2						
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	1.43	0.92	65%	0.63	**3,599**	**Subtotal 1**
Total	1.43	0.92	65%	0.63	**3,599**	**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	0.00	0.00	*Up to 100 sf directly connected impervious area may be subtracted per tree*
Total	**0.00**	**0.00**	

Recalculate WQv after application of Area Reduction Techniques

	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Runoff Coefficient Rv	WQv *(ft^3)*
"<<Initial WQv"	1.43	0.92	65%	0.63	3,599
Subtract Area	0.00	0.00			
WQv adjusted after Area Reductions	**1.43**	**0.92**	65%	0.63	3,599
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	1.43	0.92	65%	0.63	**3,599**

Minimum RRv

Enter the Soils Data for the site		
Soil Group	Acres	S
A	1.43	55%
B		40%
C		30%
D		20%
Total Area	1.43	
Calculate the Minimum RRv		
S =	**0.55**	
Impervious =	0.92	*acre*
Precipitation	1.1	*in*
Rv	0.95	
Minimum RRv	**1,924**	***ft3***
	0.04	af

NOI QUESTIONS

#	NOI Question	Reported Value	
		cf	af
28	Total Water Quality Volume (WQv) Required	3599	*0.083*
30	Total RRV Provided	3599	*0.083*
31	Is RRv Provided ≥WQv Required?	Yes	
32	Minimum RRv	1924	*0.044*
32a	Is RRv Provided ≥ Minimum RRv Required?	Yes	
33a	Total WQv Treated	0	*0.000*
34	Sum of Volume Reduced & Treated	3599	*0.083*
34	Sum of Volume Reduced and Treated	3599	*0.083*
35	Is Sum RRv Provided and WQv Provided ≥WQv Required?	Yes	

Apply Peak Flow Attenuation			
36	Channel Protection	*Cpv*	
37	Overbank	*Qp*	
37	Extreme Flood Control	*Qf*	
	Are Quantity Control requirements met?		

Infiltration Basin Worksheet

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	1.43	0.92	0.65	0.63	3598.69	1.10	Inf Basin (Total Imp)
Enter Impervious Area Reduced by Disconnection of Rooftops			65%	0.63	3,599	<<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	

Pretreatment Techniques to Prevent Clogging			
Infiltration Rate	3.00	*in/hour*	*Okay*
Pretreatment Sizing	50	*% WQv*	*25% minimum; 50% if >2 in/hr 100% if >5in/hour*
Pretreatment Required Volume	1,799	ft^3	
Pretreatment Provided	2,211	ft^3	
Pretreatment Techniques utilized			

Size An Infiltration Basin			
Design Volume	3,599	ft^3	WQv
Basal Area Required	1,799	ft^2	*Infiltration practices shall be designed to exfiltrate the entire WQv through the floor of each practice.*
Basal Area Provided	4,010	ft^2	
Design Depth	2.00	*ft*	
Volume Provided	8,020	ft^3	*Storage Volume provided in infiltration basin area (not including pretreatment.*

Determine Runoff Reduction			
RRv	**3,599**	**ft^3**	***90% of the storage provided in the basin or WQv whichever is smaller***
Volume Treated	0	ft^3	*This is the portion of the WQv that is not reduced/infiltrated*
Sizing √	OK		*The infiltration basin must provide storage equal to or greater than the WQv of the contributing area.*

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411 Union Street
Schenectady, NY 12305
518-377-0315 Fax 518-377-0379
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COMP BY____TAG____ SHEET__1__OF__1__

CHECK BY____LAP____ DATE__9/20/2021__

PROJECT NAME & LOCATION____Mixed Use Building – 97-99 Twenty West Drive_____ PROJ. NO.__5201A__

SUBJECT____Stormwater Pretreatment Volume_____

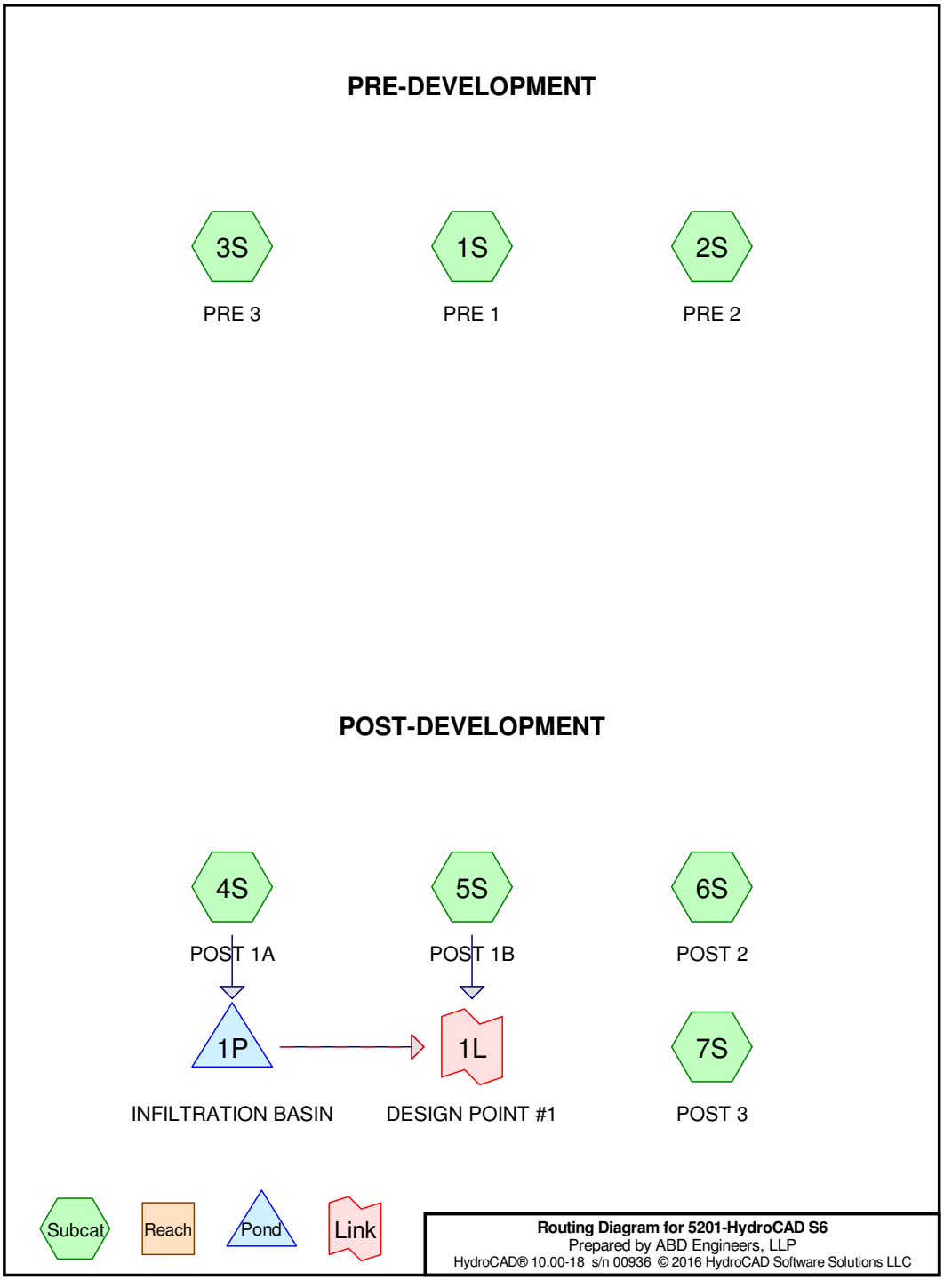
Area 1A Pretreatment Volume Required (Per NYSDEC GI Worksheet):

$Total\ Area = 1.43\ acres$
$Impervious\ Area = 0.92\ acres$
$WQv = 3{,}599\ ft^3$
$Pretreatment = 50\%\ WQv = 1{,}800\ ft^3$

Area 1A Pretreatment Volume Provided:

$[45\%\ Contributing]\ Pea\ Gravel\ Diaphragm = (299\ ft)(3\ ft)(2.5\ ft)(0.40) = 897\ ft^3$
$[55\%\ Contributing]\ Forebay = (2{,}135\ ft^2)(0.5\ ft) = 1{,}068\ ft^3$
$Pea\ Gravel\ Diaphragm = (82\ ft)(3\ ft)(2.5\ ft)(0.40) = 246\ ft^3$

$Total = (897\ ft^3) + (1{,}068\ ft^3) + (246\ ft^3) = 2{,}211\ ft^3\ > 1{,}800\ ft^3\ \ \therefore OK$


PRE-DEVELOPMENT
3S
PRE 3
1S
PRE 1
2S
PRE 2
POST-DEVELOPMENT
4S
POST 1A
5S
POST 1B
6S
POST 2
1P
INFILTRATION BASIN
1L
DESIGN POINT #1
7S
POST 3
Subcat
Reach
Pond
Link
Routing Diagram for 5201-HydroCAD S6
Prepared by ABD Engineers, LLP
HydroCAD® 10.00-18 s/n 00936 © 2016 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: PRE 1

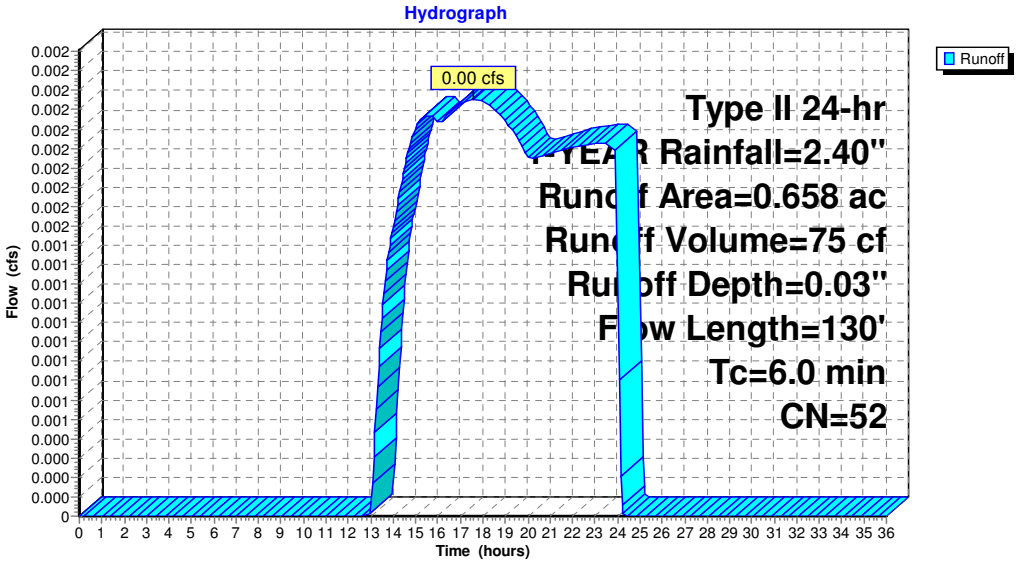
Runoff = 0.00 cfs @ 17.57 hrs, Volume= 75 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.40"

Area (ac)	CN	Description
0.153	96	Gravel surface, HSG A
0.505	39	>75% Grass cover, Good, HSG A
0.658	52	Weighted Average
0.658		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	25	0.0650	1.56		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.80"
5.2	75	0.0650	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.80"
0.3	30	0.0670	1.81		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.8	130	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1S: PRE 1



Summary for Subcatchment 2S: PRE 2

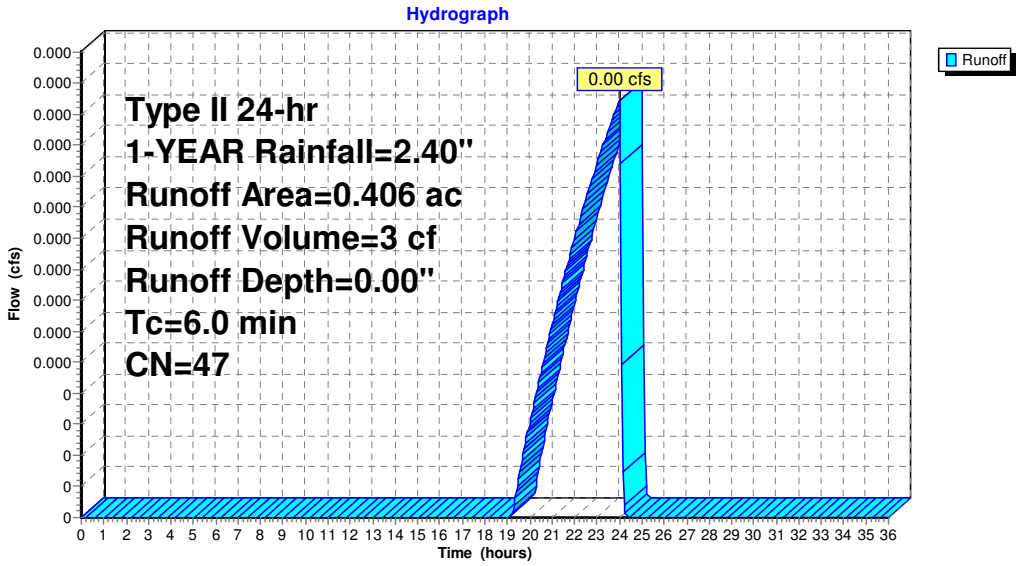
Runoff = 0.00 cfs @ 24.00 hrs, Volume= 3 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.40"

Area (ac)	CN	Description
0.028	98	Paved parking, HSG A
0.026	96	Gravel surface, HSG A
0.352	39	>75% Grass cover, Good, HSG A
0.406	47	Weighted Average
0.378		93.10% Pervious Area
0.028		6.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2S: PRE 2



Summary for Subcatchment 3S: PRE 3

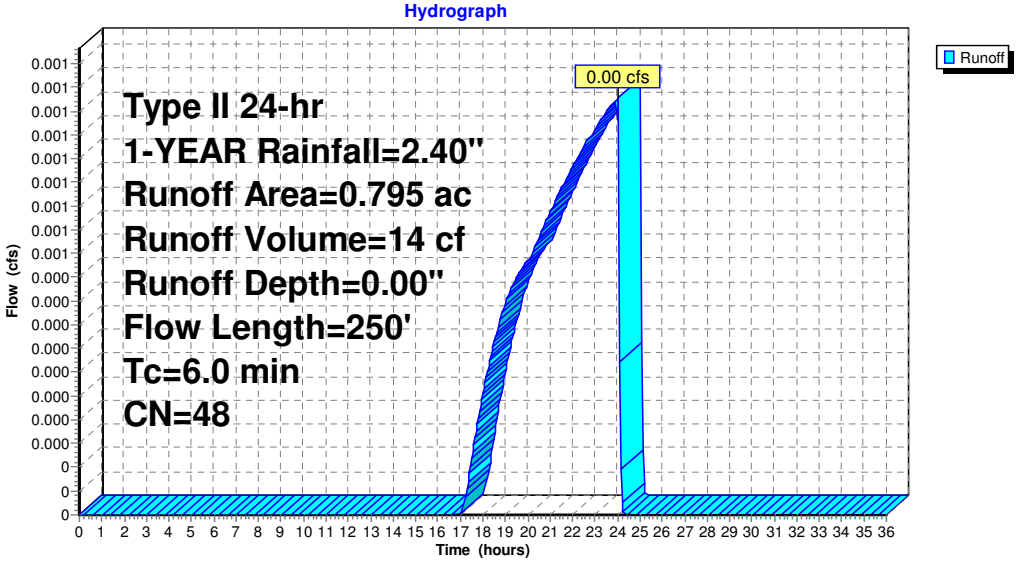
Runoff = 0.00 cfs @ 24.00 hrs, Volume= 14 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.40"

Area (ac)	CN	Description
0.119	96	Gravel surface, HSG A
0.676	39	>75% Grass cover, Good, HSG A
0.795	48	Weighted Average
0.795		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0200	1.29		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.80"
2.7	150	0.0180	0.94		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	250	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 3S: PRE 3



Summary for Subcatchment 4S: POST 1A

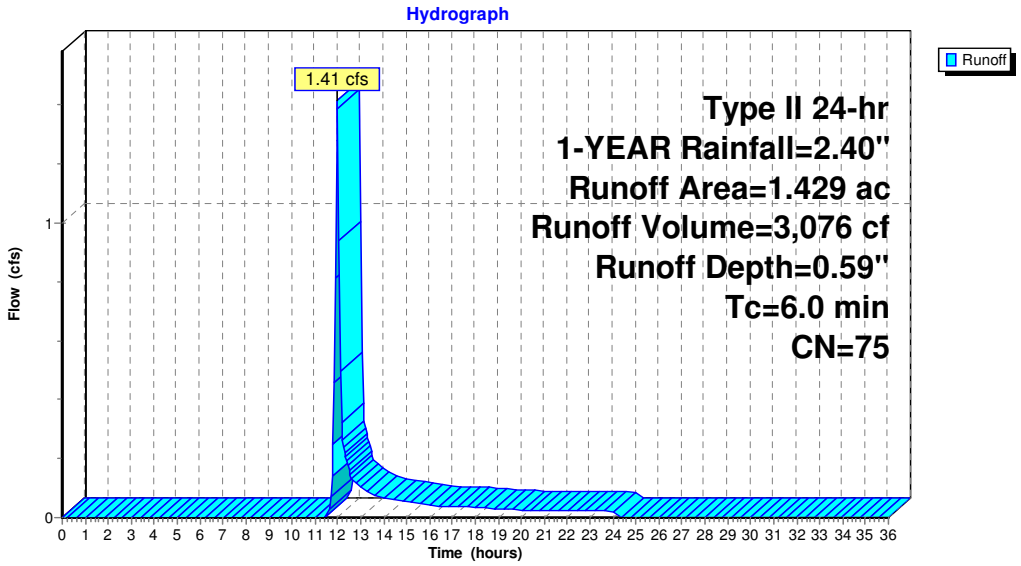
Runoff = 1.41 cfs @ 11.98 hrs, Volume= 3,076 cf, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.40"

Area (ac)	CN	Description
0.694	98	Paved parking, HSG A
0.186	98	Roofs, HSG A
0.549	39	>75% Grass cover, Good, HSG A
1.429	75	Weighted Average
0.549		38.42% Pervious Area
0.880		61.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4S: POST 1A



Summary for Subcatchment 5S: POST 1B

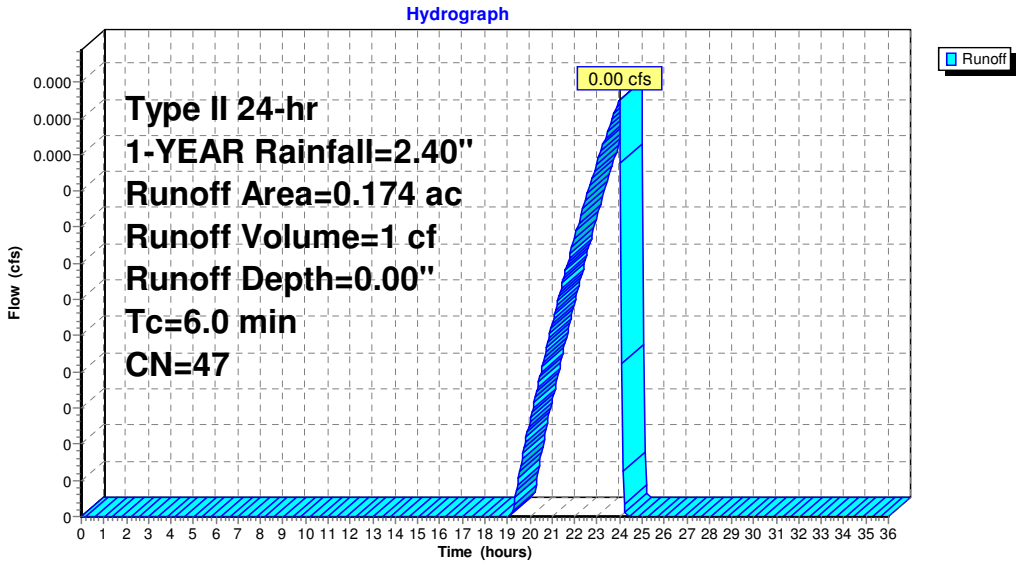
Runoff = 0.00 cfs @ 24.00 hrs, Volume= 1 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.40"

Area (ac)	CN	Description
0.024	98	Paved parking, HSG A
0.150	39	>75% Grass cover, Good, HSG A
0.174	47	Weighted Average
0.150		86.21% Pervious Area
0.024		13.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 5S: POST 1B



Summary for Subcatchment 6S: POST 2

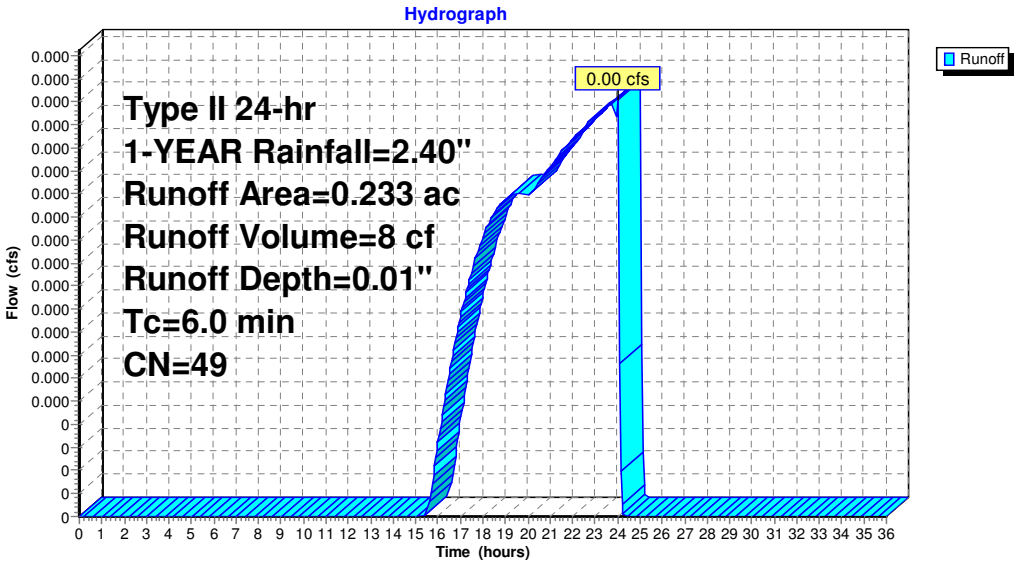
Runoff = 0.00 cfs @ 24.00 hrs, Volume= 8 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.40"

Area (ac)	CN	Description
0.041	98	Paved parking, HSG A
0.192	39	>75% Grass cover, Good, HSG A
0.233	49	Weighted Average
0.192		82.40% Pervious Area
0.041		17.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 6S: POST 2



Summary for Subcatchment 7S: POST 3

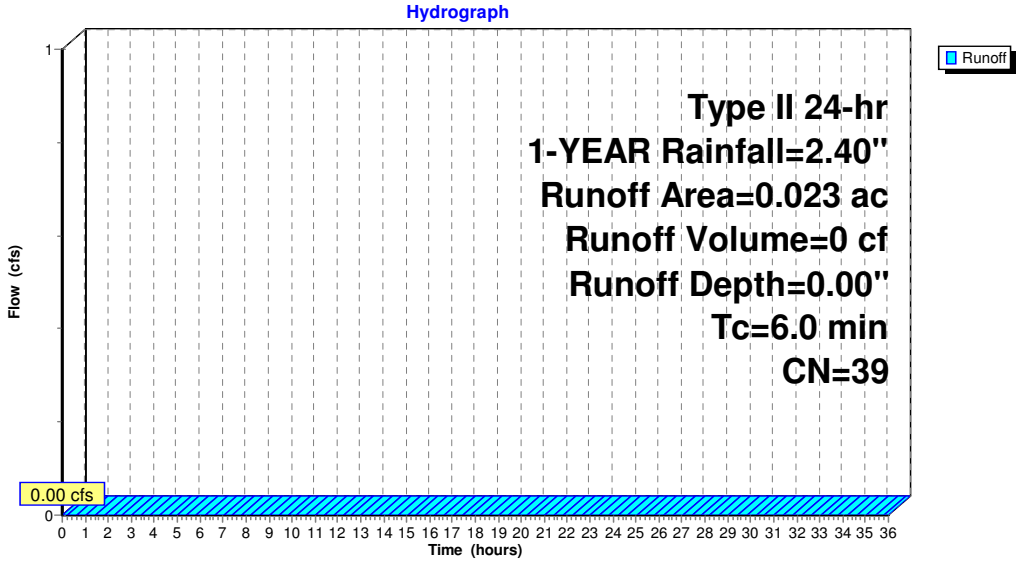
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.40"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.023		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 7S: POST 3



Summary for Pond 1P: INFILTRATION BASIN

Inflow Area = 62,247 sf, 61.58% Impervious, Inflow Depth = 0.59" for 1-YEAR event
Inflow = 1.41 cfs @ 11.98 hrs, Volume= 3,076 cf
Outflow = 0.44 cfs @ 12.12 hrs, Volume= 3,076 cf, Atten= 69%, Lag= 8.1 min
Discarded = 0.44 cfs @ 12.12 hrs, Volume= 3,076 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 280.09' @ 12.12 hrs Surf.Area= 6,362 sf Storage= 565 cf

Plug-Flow detention time= 7.8 min calculated for 3,076 cf (100% of inflow)
Center-of-Mass det. time= 7.7 min (883.2 - 875.5)

Volume	Invert	Avail.Storage	Storage Description
#1	280.00'	11,913 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
280.00	6,145	0	0
281.00	8,550	7,348	7,348
281.50	9,710	4,565	11,913

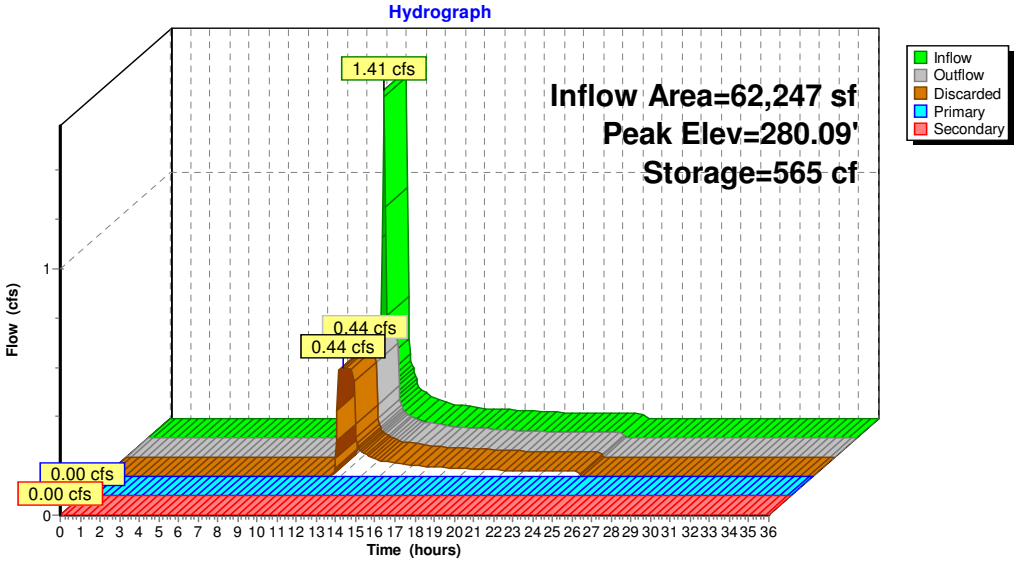
Device	Routing	Invert	Outlet Devices
#1	Discarded	280.00'	**3.000 in/hr Exfiltration over Surface area**
#2	Primary	277.00'	**12.0" Round Outlet Pipe** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 277.00' / 272.00' S= 0.1429 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	280.15'	**6.0" Horiz. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Device 3	279.00'	**6.0" Round Underdrain** L= 360.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 279.00' / 278.50' S= 0.0014 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#5	Secondary	280.95'	**10.0' long x 8.0' breadth Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Discarded OutFlow Max=0.44 cfs @ 12.12 hrs HW=280.09' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=280.00' (Free Discharge)
└**2=Outlet Pipe** (Passes 0.00 cfs of 5.98 cfs potential flow)
  └**3=Orifice** (Controls 0.00 cfs)
    └**4=Underdrain** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=280.00' (Free Discharge)
└**5=Spillway** (Controls 0.00 cfs)

Pond 1P: INFILTRATION BASIN

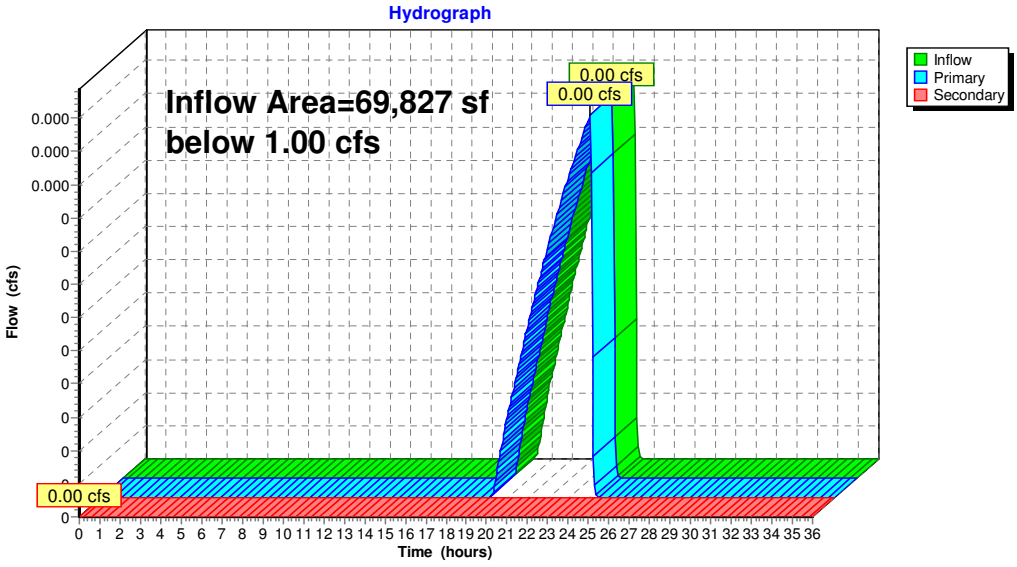


Summary for Link 1L: DESIGN POINT #1

Inflow Area = 69,827 sf, 56.39% Impervious, Inflow Depth = 0.00" for 1-YEAR event
Inflow = 0.00 cfs @ 24.00 hrs, Volume= 1 cf
Primary = 0.00 cfs @ 24.00 hrs, Volume= 1 cf, Atten= 0%, Lag= 0.0 min
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Primary outflow = Inflow below 1.00 cfs, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link 1L: DESIGN POINT #1



Summary for Subcatchment 1S: PRE 1

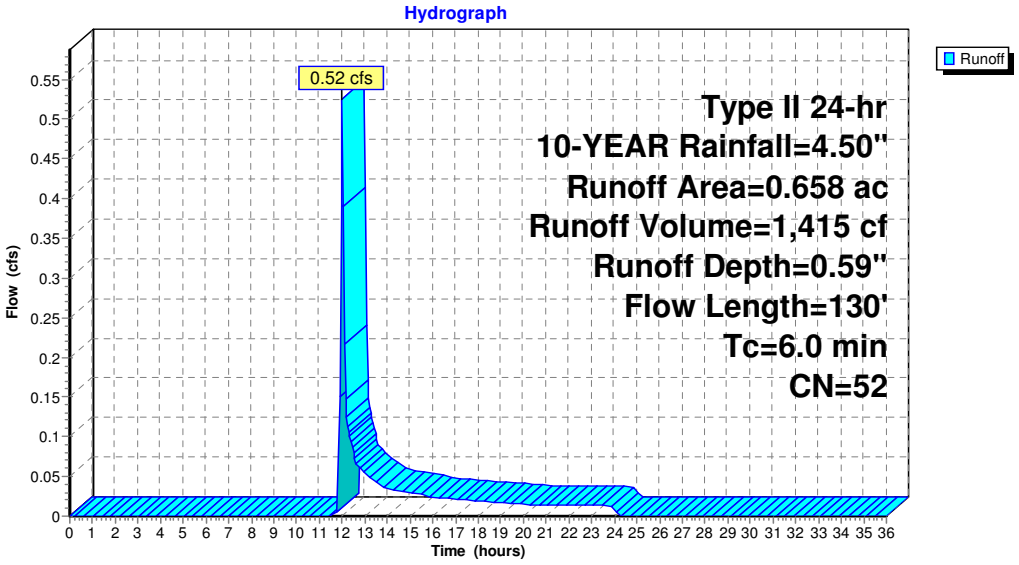
Runoff = 0.52 cfs @ 12.00 hrs, Volume= 1,415 cf, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.50"

Area (ac)	CN	Description
0.153	96	Gravel surface, HSG A
0.505	39	>75% Grass cover, Good, HSG A
0.658	52	Weighted Average
0.658		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	25	0.0650	1.56		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.80"
5.2	75	0.0650	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.80"
0.3	30	0.0670	1.81		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.8	130	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1S: PRE 1



Summary for Subcatchment 2S: PRE 2

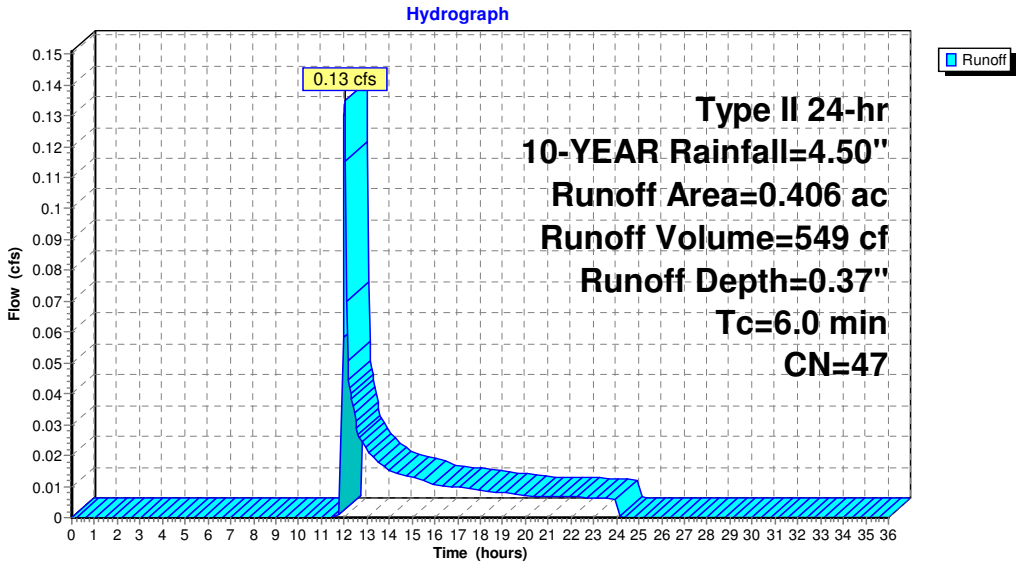
Runoff = 0.13 cfs @ 12.02 hrs, Volume= 549 cf, Depth= 0.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.50"

Area (ac)	CN	Description
0.028	98	Paved parking, HSG A
0.026	96	Gravel surface, HSG A
0.352	39	>75% Grass cover, Good, HSG A
0.406	47	Weighted Average
0.378		93.10% Pervious Area
0.028		6.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2S: PRE 2



Summary for Subcatchment 3S: PRE 3

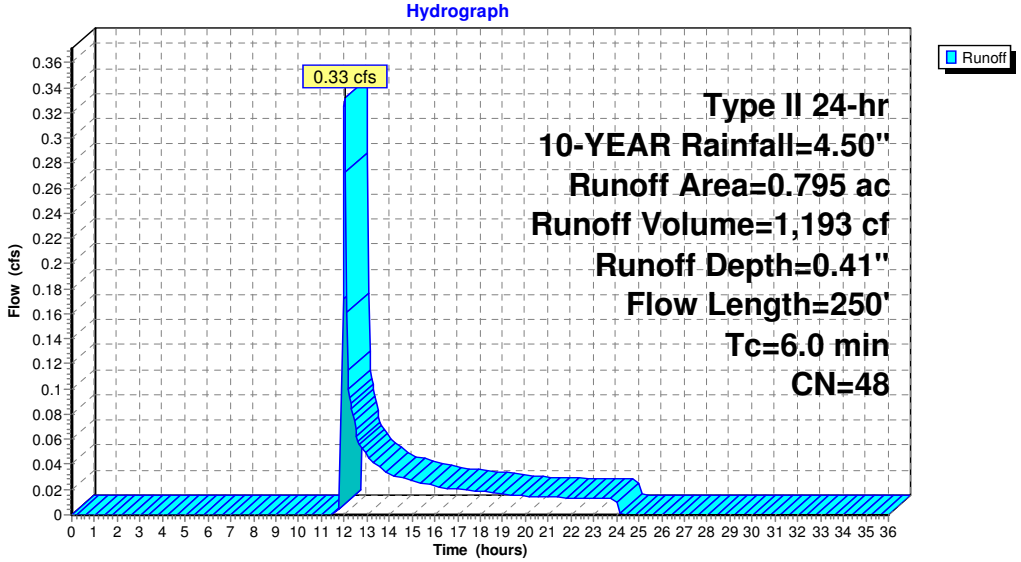
Runoff = 0.33 cfs @ 12.01 hrs, Volume= 1,193 cf, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.50"

Area (ac)	CN	Description
0.119	96	Gravel surface, HSG A
0.676	39	>75% Grass cover, Good, HSG A
0.795	48	Weighted Average
0.795		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0200	1.29		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.80"
2.7	150	0.0180	0.94		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	250	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 3S: PRE 3



Summary for Subcatchment 4S: POST 1A

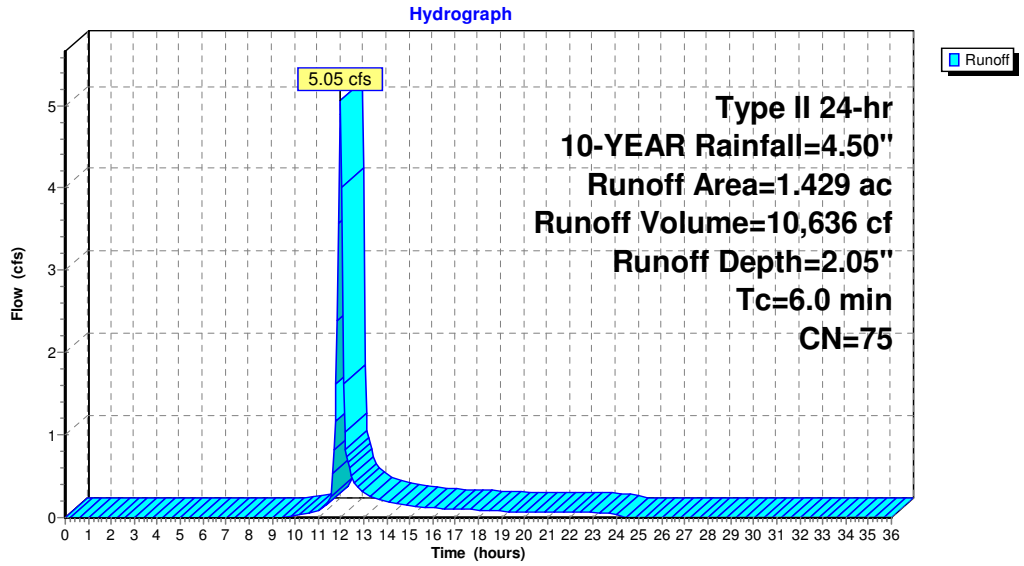
Runoff = 5.05 cfs @ 11.97 hrs, Volume= 10,636 cf, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.50"

Area (ac)	CN	Description
0.694	98	Paved parking, HSG A
0.186	98	Roofs, HSG A
0.549	39	>75% Grass cover, Good, HSG A
1.429	75	Weighted Average
0.549		38.42% Pervious Area
0.880		61.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4S: POST 1A



Summary for Subcatchment 5S: POST 1B

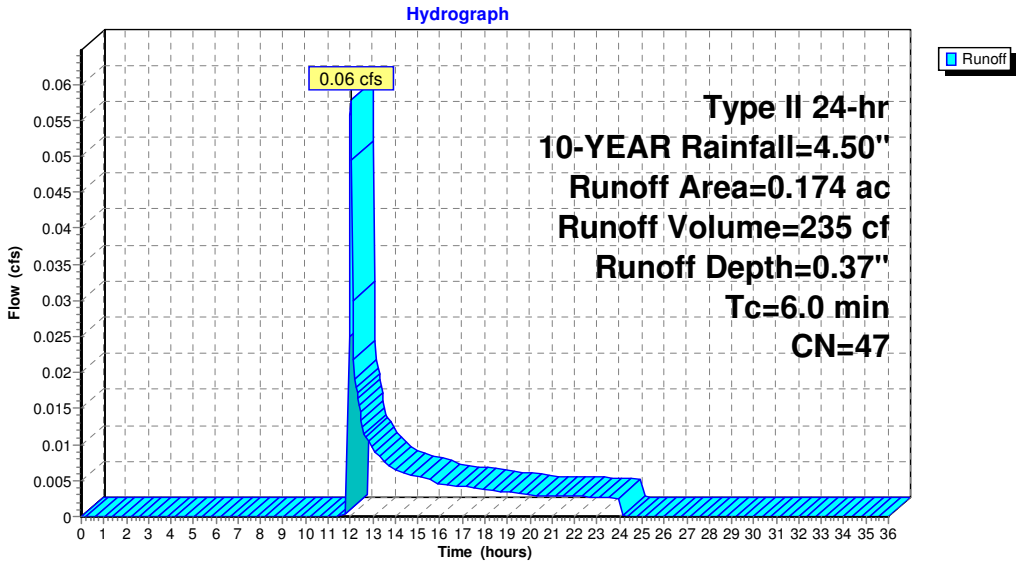
Runoff = 0.06 cfs @ 12.02 hrs, Volume= 235 cf, Depth= 0.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.50"

Area (ac)	CN	Description
0.024	98	Paved parking, HSG A
0.150	39	>75% Grass cover, Good, HSG A
0.174	47	Weighted Average
0.150		86.21% Pervious Area
0.024		13.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 5S: POST 1B



Summary for Subcatchment 6S: POST 2

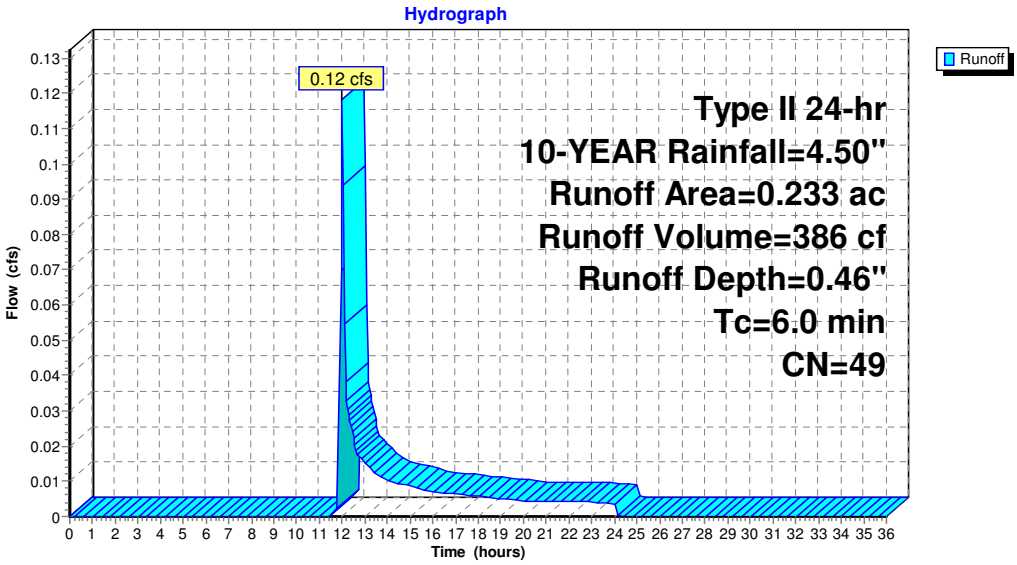
Runoff = 0.12 cfs @ 12.01 hrs, Volume= 386 cf, Depth= 0.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.50"

Area (ac)	CN	Description
0.041	98	Paved parking, HSG A
0.192	39	>75% Grass cover, Good, HSG A
0.233	49	Weighted Average
0.192		82.40% Pervious Area
0.041		17.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 6S: POST 2



Summary for Subcatchment 7S: POST 3

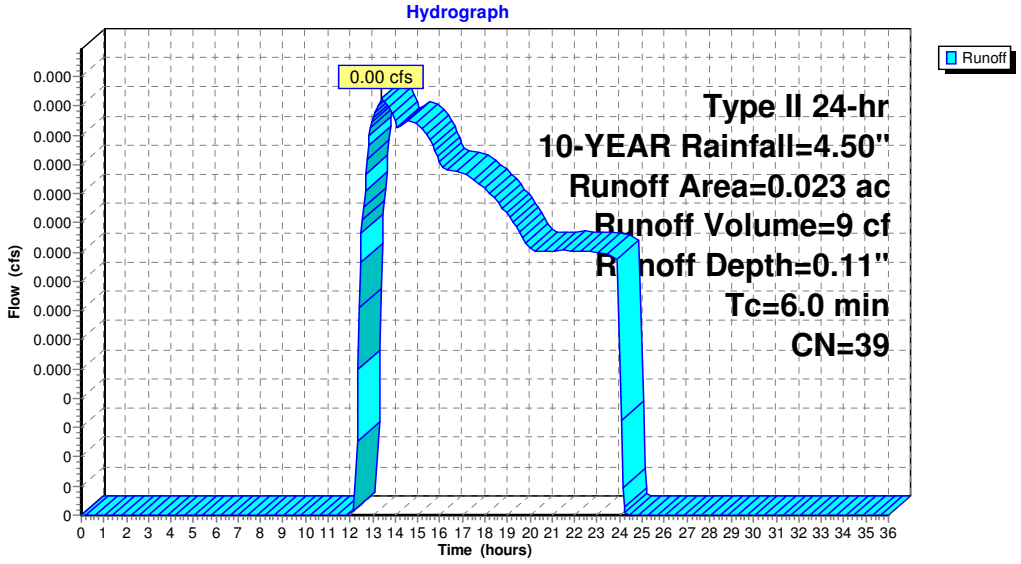
Runoff = 0.00 cfs @ 13.40 hrs, Volume= 9 cf, Depth= 0.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.50"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.023		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 7S: POST 3



Summary for Pond 1P: INFILTRATION BASIN

Inflow Area = 62,247 sf, 61.58% Impervious, Inflow Depth = 2.05" for 10-YEAR event
Inflow = 5.05 cfs @ 11.97 hrs, Volume= 10,636 cf
Outflow = 0.70 cfs @ 12.28 hrs, Volume= 10,636 cf, Atten= 86%, Lag= 18.2 min
Discarded = 0.52 cfs @ 12.28 hrs, Volume= 9,422 cf
Primary = 0.18 cfs @ 12.28 hrs, Volume= 1,214 cf
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 280.54' @ 12.28 hrs Surf.Area= 7,440 sf Storage= 3,656 cf

Plug-Flow detention time= 41.5 min calculated for 10,621 cf (100% of inflow)
Center-of-Mass det. time= 41.4 min (878.2 - 836.8)

Volume	Invert	Avail.Storage	Storage Description
#1	280.00'	11,913 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
280.00	6,145	0	0
281.00	8,550	7,348	7,348
281.50	9,710	4,565	11,913

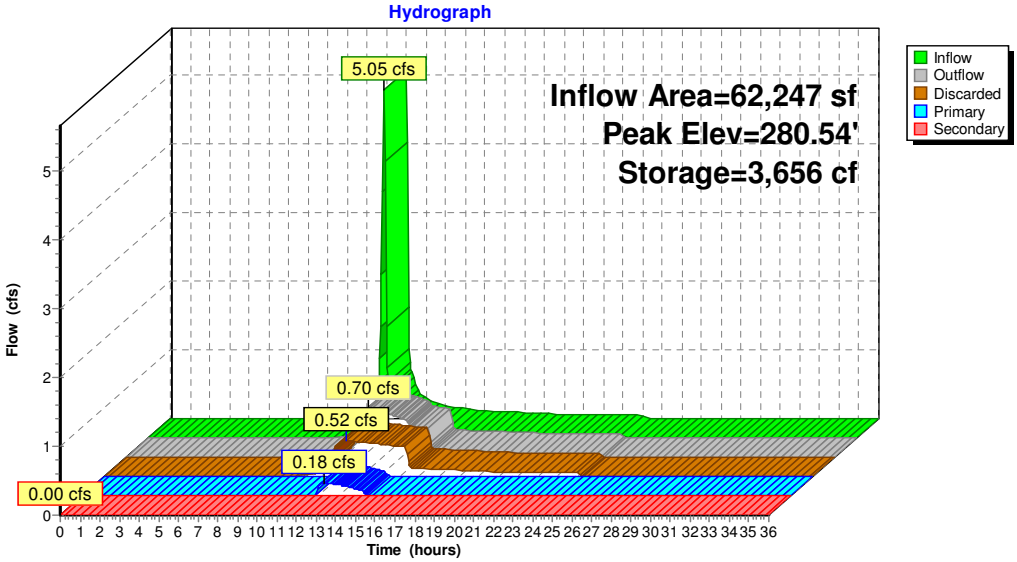
Device	Routing	Invert	Outlet Devices
#1	Discarded	280.00'	**3.000 in/hr Exfiltration over Surface area**
#2	Primary	277.00'	**12.0" Round Outlet Pipe** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 277.00' / 272.00' S= 0.1429 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	280.15'	**6.0" Horiz. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Device 3	279.00'	**6.0" Round Underdrain** L= 360.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 279.00' / 278.50' S= 0.0014 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#5	Secondary	280.95'	**10.0' long x 8.0' breadth Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Discarded OutFlow Max=0.52 cfs @ 12.28 hrs HW=280.54' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.52 cfs)

Primary OutFlow Max=0.18 cfs @ 12.28 hrs HW=280.54' (Free Discharge)
└**2=Outlet Pipe** (Passes 0.18 cfs of 6.59 cfs potential flow)
└**3=Orifice** (Passes 0.18 cfs of 0.59 cfs potential flow)
└**4=Underdrain** (Outlet Controls 0.18 cfs @ 0.91 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=280.00' (Free Discharge)
└**5=Spillway** (Controls 0.00 cfs)

Pond 1P: INFILTRATION BASIN

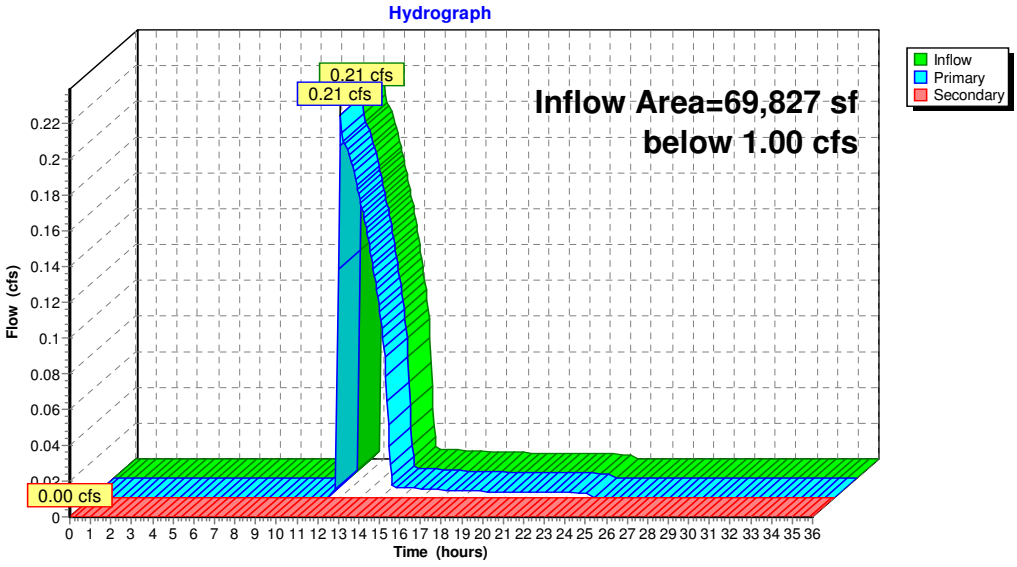


Summary for Link 1L: DESIGN POINT #1

Inflow Area = 69,827 sf, 56.39% Impervious, Inflow Depth = 0.25" for 10-YEAR event
Inflow = 0.21 cfs @ 12.06 hrs, Volume= 1,449 cf
Primary = 0.21 cfs @ 12.06 hrs, Volume= 1,449 cf, Atten= 0%, Lag= 0.0 min
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Primary outflow = Inflow below 1.00 cfs, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link 1L: DESIGN POINT #1



Summary for Subcatchment 1S: PRE 1

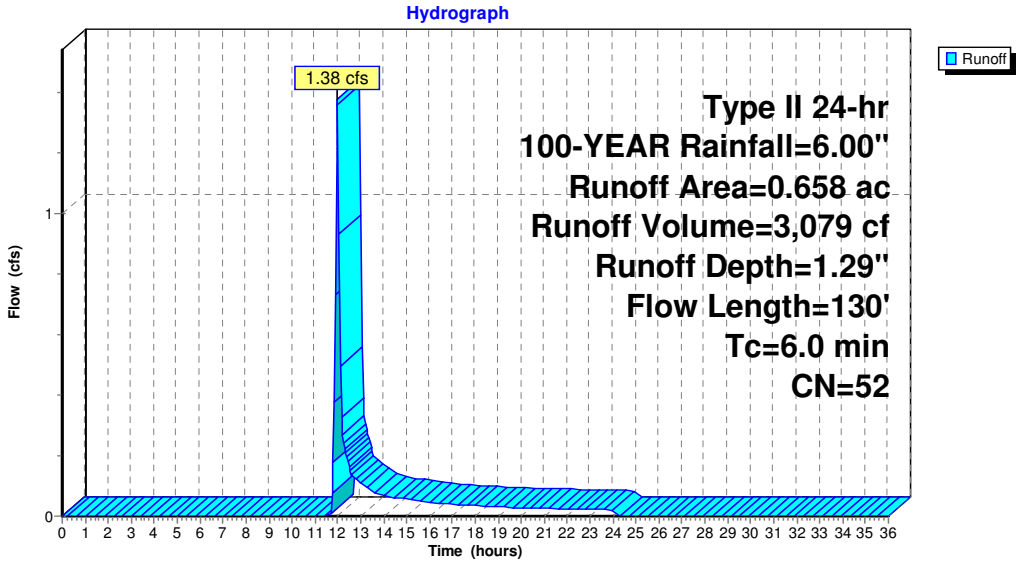
Runoff = 1.38 cfs @ 11.99 hrs, Volume= 3,079 cf, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=6.00"

Area (ac)	CN	Description
0.153	96	Gravel surface, HSG A
0.505	39	>75% Grass cover, Good, HSG A
0.658	52	Weighted Average
0.658		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	25	0.0650	1.56		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.80"
5.2	75	0.0650	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.80"
0.3	30	0.0670	1.81		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
5.8	130	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1S: PRE 1



Summary for Subcatchment 2S: PRE 2

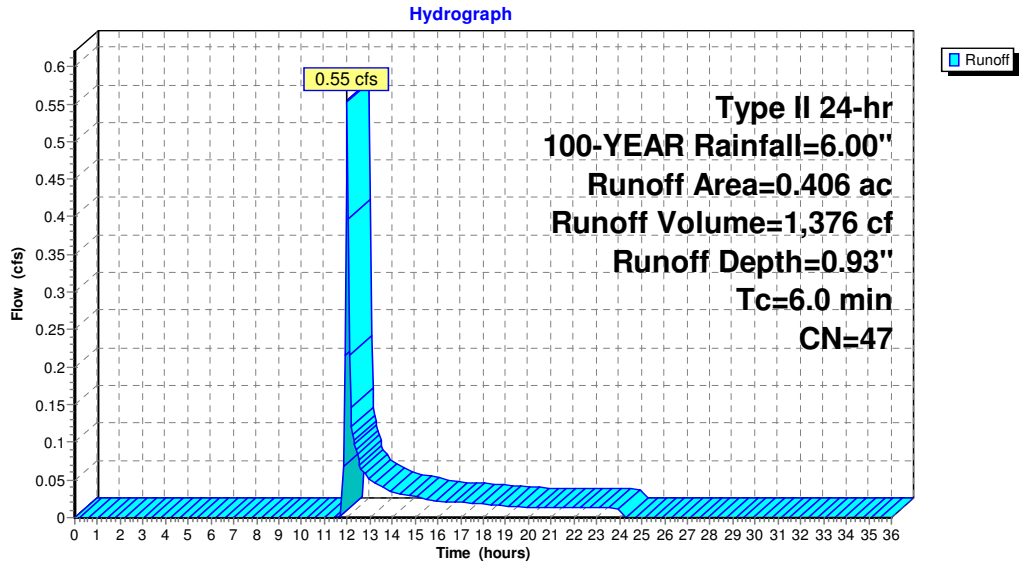
Runoff = 0.55 cfs @ 12.00 hrs, Volume= 1,376 cf, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=6.00"

Area (ac)	CN	Description
0.028	98	Paved parking, HSG A
0.026	96	Gravel surface, HSG A
0.352	39	>75% Grass cover, Good, HSG A
0.406	47	Weighted Average
0.378		93.10% Pervious Area
0.028		6.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2S: PRE 2



Summary for Subcatchment 3S: PRE 3

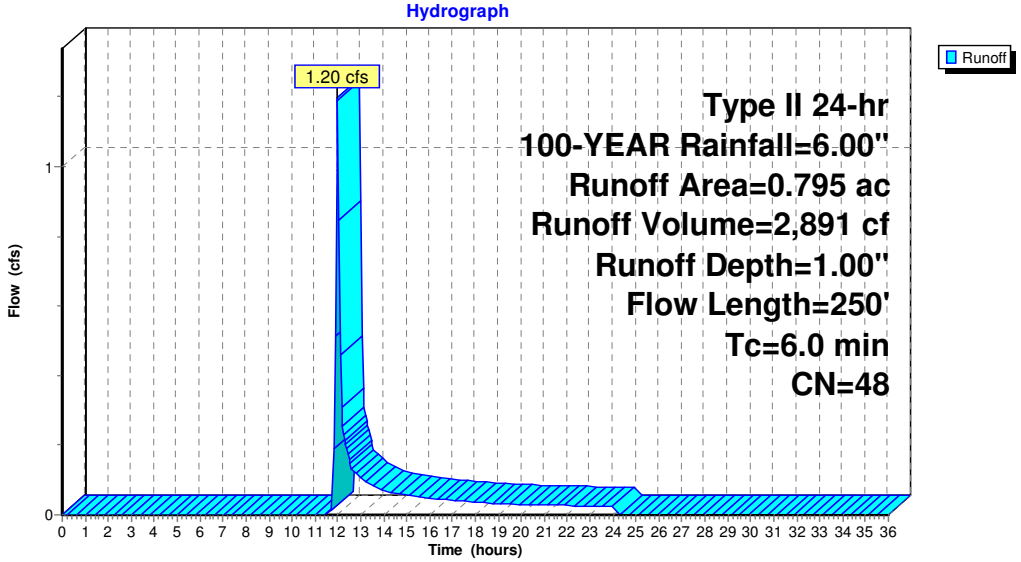
Runoff = 1.20 cfs @ 11.99 hrs, Volume= 2,891 cf, Depth= 1.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=6.00"

Area (ac)	CN	Description
0.119	96	Gravel surface, HSG A
0.676	39	>75% Grass cover, Good, HSG A
0.795	48	Weighted Average
0.795		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0200	1.29		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.80"
2.7	150	0.0180	0.94		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.0	250	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 3S: PRE 3



Summary for Subcatchment 4S: POST 1A

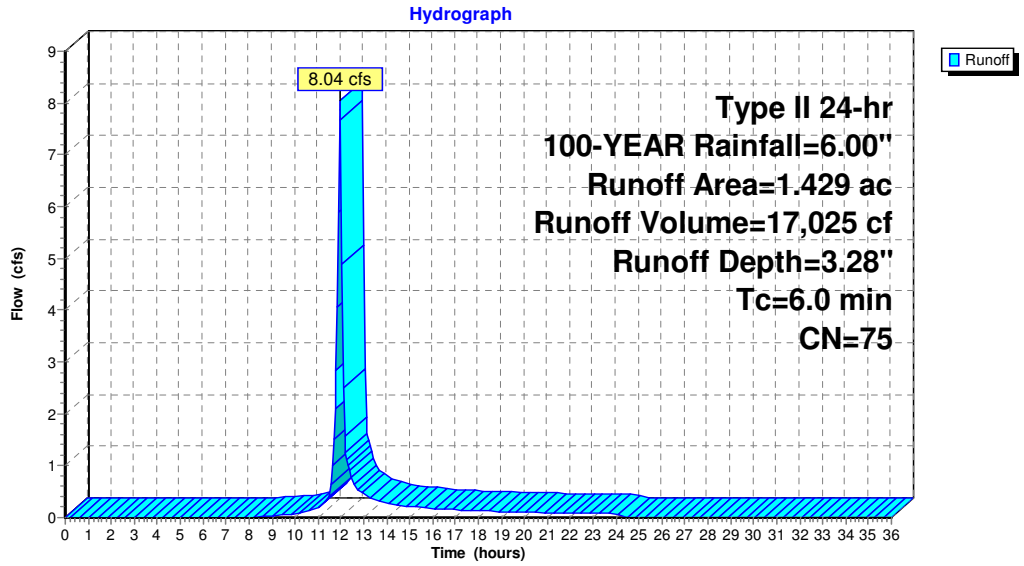
Runoff = 8.04 cfs @ 11.97 hrs, Volume= 17,025 cf, Depth= 3.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=6.00"

Area (ac)	CN	Description
0.694	98	Paved parking, HSG A
0.186	98	Roofs, HSG A
0.549	39	>75% Grass cover, Good, HSG A
1.429	75	Weighted Average
0.549		38.42% Pervious Area
0.880		61.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4S: POST 1A



Summary for Subcatchment 5S: POST 1B

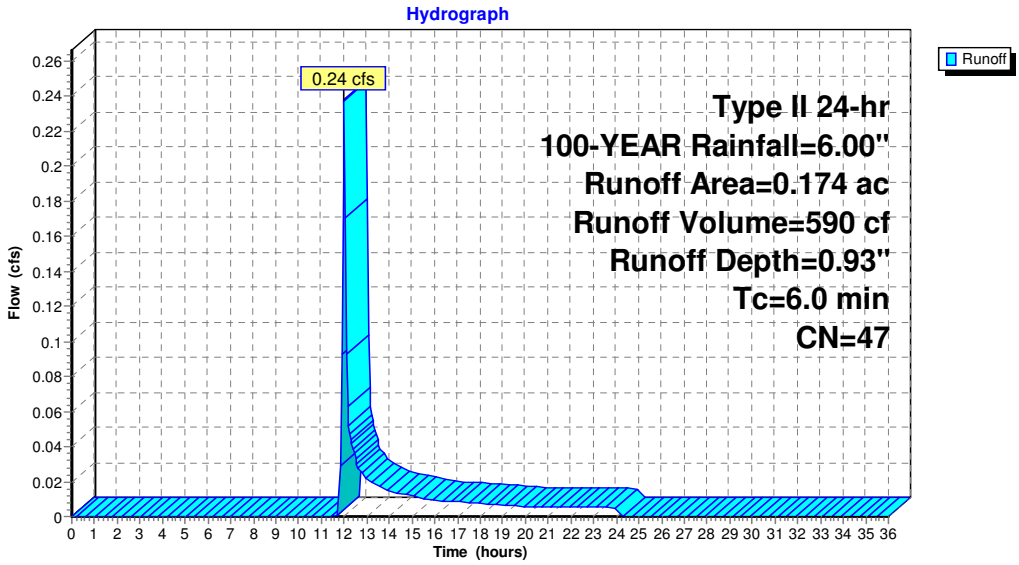
Runoff = 0.24 cfs @ 12.00 hrs, Volume= 590 cf, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=6.00"

Area (ac)	CN	Description
0.024	98	Paved parking, HSG A
0.150	39	>75% Grass cover, Good, HSG A
0.174	47	Weighted Average
0.150		86.21% Pervious Area
0.024		13.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 5S: POST 1B



Summary for Subcatchment 6S: POST 2

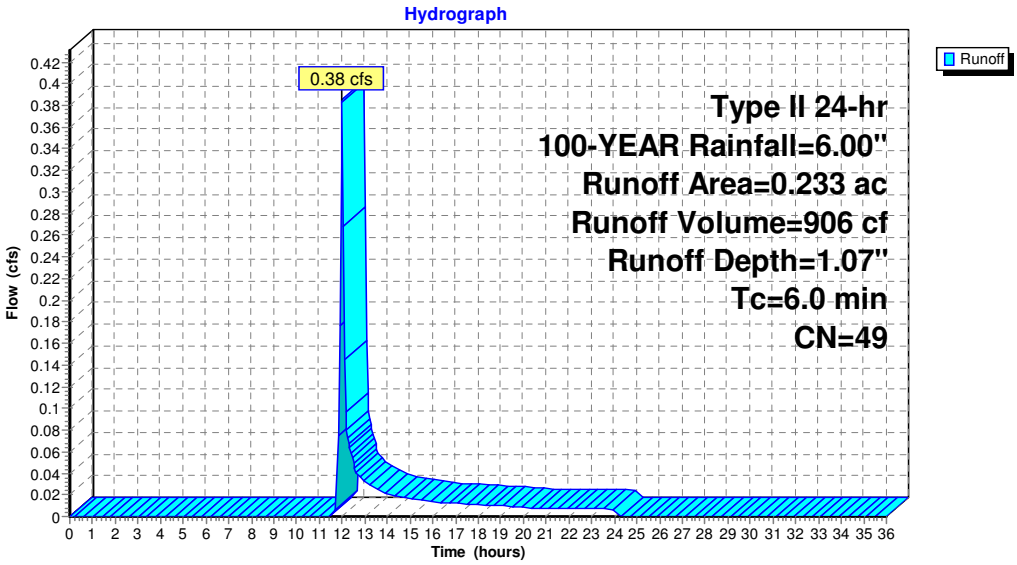
Runoff = 0.38 cfs @ 11.99 hrs, Volume= 906 cf, Depth= 1.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=6.00"

Area (ac)	CN	Description
0.041	98	Paved parking, HSG A
0.192	39	>75% Grass cover, Good, HSG A
0.233	49	Weighted Average
0.192		82.40% Pervious Area
0.041		17.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 6S: POST 2



Summary for Subcatchment 7S: POST 3

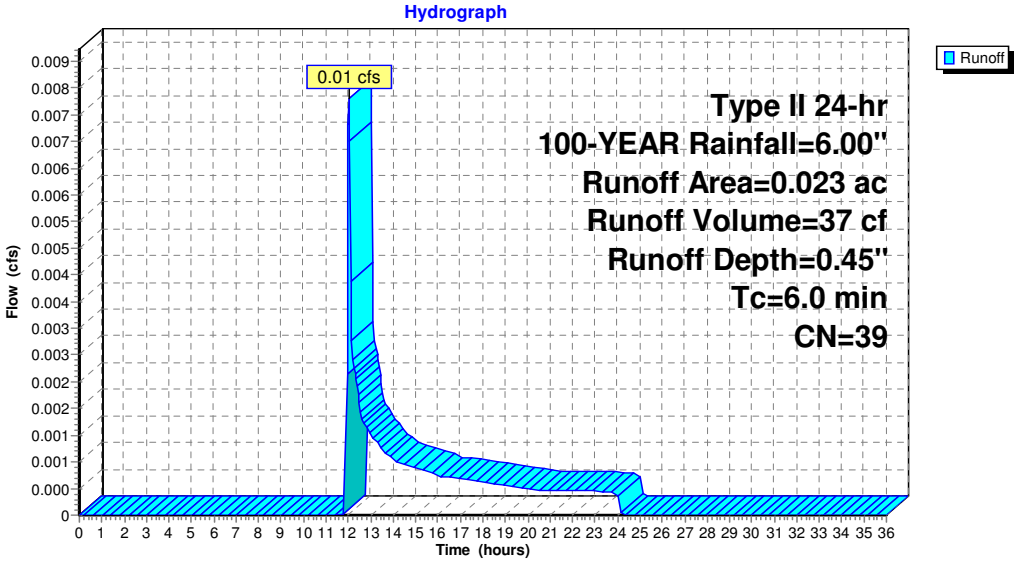
Runoff = 0.01 cfs @ 12.02 hrs, Volume= 37 cf, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=6.00"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.023		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 7S: POST 3



Summary for Pond 1P: INFILTRATION BASIN

Inflow Area = 62,247 sf, 61.58% Impervious, Inflow Depth = 3.28" for 100-YEAR event
Inflow = 8.04 cfs @ 11.97 hrs, Volume= 17,025 cf
Outflow = 0.83 cfs @ 12.43 hrs, Volume= 17,025 cf, Atten= 90%, Lag= 27.4 min
Discarded = 0.58 cfs @ 12.43 hrs, Volume= 14,101 cf
Primary = 0.25 cfs @ 12.43 hrs, Volume= 2,924 cf
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 280.92' @ 12.43 hrs Surf.Area= 8,348 sf Storage= 6,638 cf

Plug-Flow detention time= 68.4 min calculated for 17,001 cf (100% of inflow)
Center-of-Mass det. time= 68.3 min (891.6 - 823.3)

Volume	Invert	Avail.Storage	Storage Description
#1	280.00'	11,913 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
280.00	6,145	0	0
281.00	8,550	7,348	7,348
281.50	9,710	4,565	11,913

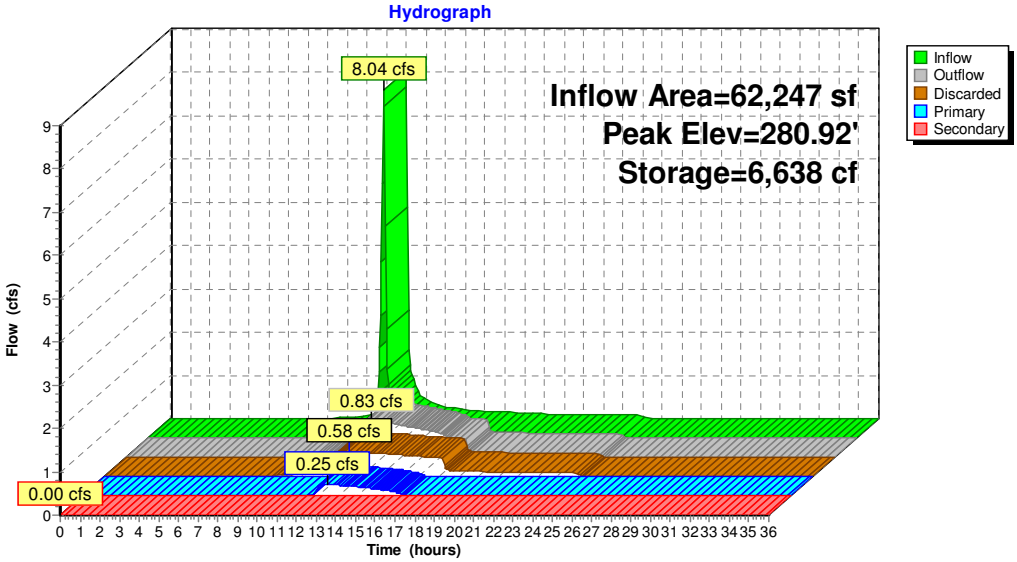
Device	Routing	Invert	Outlet Devices
#1	Discarded	280.00'	**3.000 in/hr Exfiltration over Surface area**
#2	Primary	277.00'	**12.0" Round Outlet Pipe** L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 277.00' / 272.00' S= 0.1429 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	280.15'	**6.0" Horiz. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Device 3	279.00'	**6.0" Round Underdrain** L= 360.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 279.00' / 278.50' S= 0.0014 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#5	Secondary	280.95'	**10.0' long x 8.0' breadth Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Discarded OutFlow Max=0.58 cfs @ 12.43 hrs HW=280.92' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.58 cfs)

Primary OutFlow Max=0.25 cfs @ 12.43 hrs HW=280.92' (Free Discharge)
└**2=Outlet Pipe** (Passes 0.25 cfs of 6.99 cfs potential flow)
└**3=Orifice** (Passes 0.25 cfs of 0.83 cfs potential flow)
└**4=Underdrain** (Outlet Controls 0.25 cfs @ 1.28 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=280.00' (Free Discharge)
└**5=Spillway** (Controls 0.00 cfs)

Pond 1P: INFILTRATION BASIN

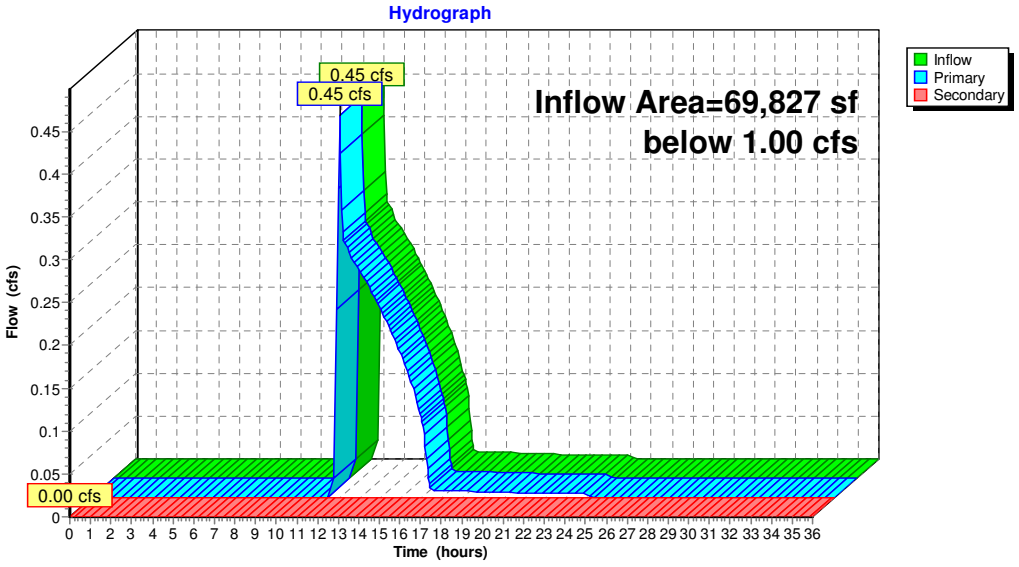


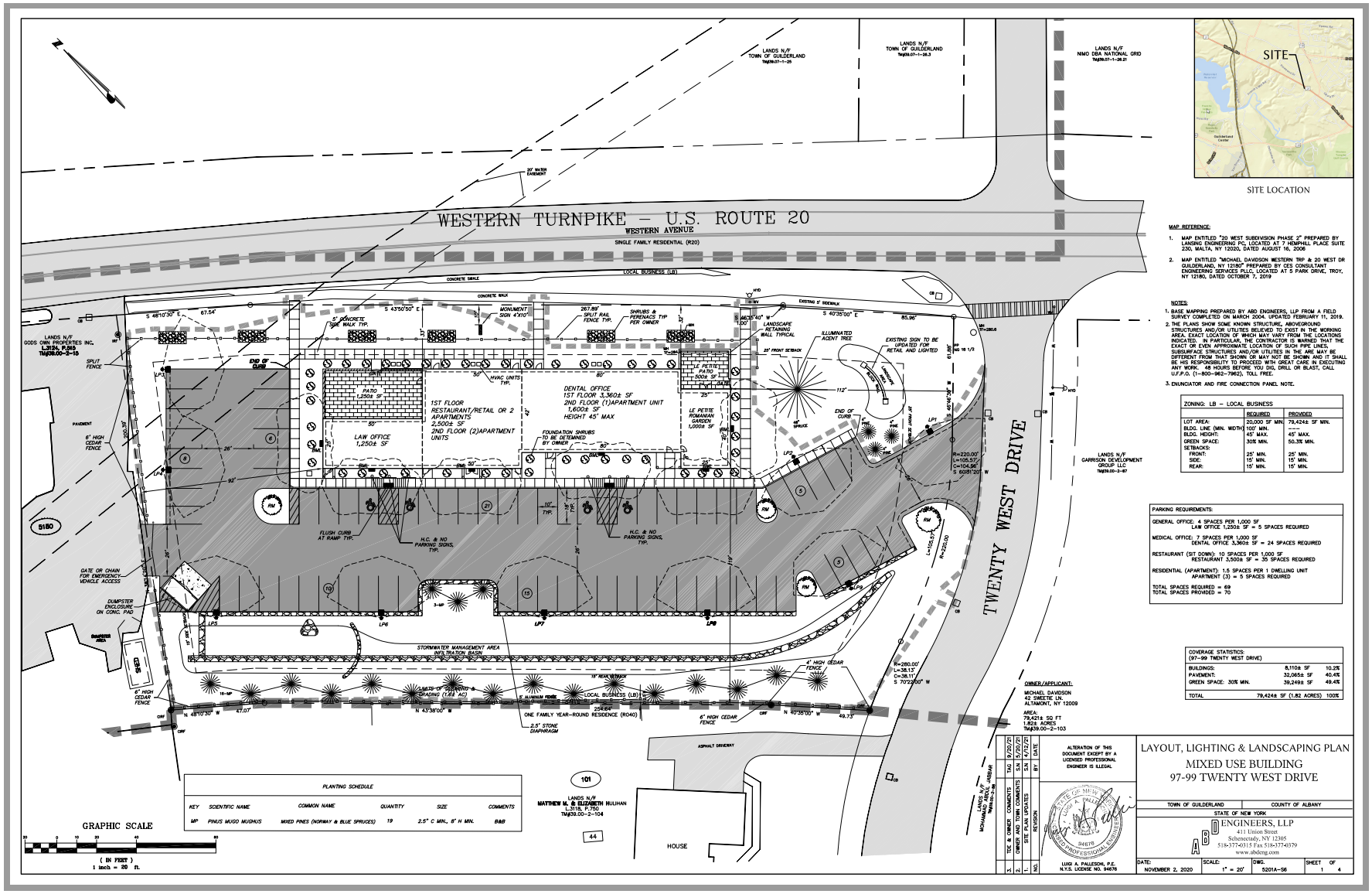
Summary for Link 1L: DESIGN POINT #1

Inflow Area = 69,827 sf, 56.39% Impervious, Inflow Depth = 0.60" for 100-YEAR event
Inflow = 0.45 cfs @ 12.01 hrs, Volume= 3,513 cf
Primary = 0.45 cfs @ 12.01 hrs, Volume= 3,513 cf, Atten= 0%, Lag= 0.0 min
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Primary outflow = Inflow below 1.00 cfs, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link 1L: DESIGN POINT #1




WESTERN TURNPIKE – U.S. ROUTE 20
WESTERN AVENUE
TWENTY WEST DRIVE
SITE
SITE LOCATION
DENTAL OFFICE
1ST FLOOR 3,360± SF
2ND FLOOR (1)APARTMENT UNIT
1,600± SF
HEIGHT 45' MAX
1ST FLOOR
RESTAURANT/RETAIL OR 2 APARTMENTS
2,500± SF
2ND FLOOR (2)APARTMENT UNITS
LAW OFFICE
1,250± SF
PATIO
1,250± SF
LE PETITE ROMANIAN GARDEN
1,000± SF
PATIO
500± SF
ONE FAMILY YEAR-ROUND RESIDENCE (R040)
HOUSE
STORMWATER MANAGEMENT AREA
INFILTRATION BASIN
GRADING (1.82 AC)
GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.
PLANTING SCHEDULE
KEY SCIENTIFIC NAME COMMON NAME QUANTITY SIZE COMMENTS
MP PINUS MUGO MUGHUS MIXED PINES (NORWAY & BLUE SPRUCES) 19 2.5" C MIN., 5' H MIN. B&B
MAP REFERENCE:
1. MAP ENTITLED "20 WEST SUBDIVISION PHASE 2" PREPARED BY LANSING ENGINEERING PC, LOCATED AT 7 HEMPHILL PLACE SUITE 230, MALTA, NY 12020, DATED AUGUST 16, 2006
2. MAP ENTITLED "MICHAEL DAVIDSON WESTERN TRP & 20 WEST DR GUILDERLAND, NY 12180" PREPARED BY CES CONSULTANT ENGINEERING SERVICES PLLC, LOCATED AT 5 PARK DRIVE, TROY, NY 12180, DATED OCTOBER 7, 2019
NOTES:
1. BASE MAPPING PREPARED BY ABD ENGINEERS, LLP FROM A FIELD SURVEY COMPLETED ON MARCH 2004. UPDATED FEBRUARY 11, 2019.
2. THE PLANS SHOW SOME KNOWN STRUCTURE, ABOVEGROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA. EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPE LINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE ARE MAY BE DIFFERENT FROM THAT SHOWN OR MAY NOT BE SHOWN AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. 48 HOURS BEFORE YOU DIG, DRILL OR BLAST, CALL U.F.P.O. (1–800–962–7962), TOLL FREE.
3. ENUNCIATOR AND FIRE CONNECTION PANEL NOTE.
ZONING: LB – LOCAL BUSINESS
REQUIRED PROVIDED
LOT AREA: 20,000 SF MIN. 79,424± SF MIN.
BLDG. LINE (MIN. WIDTH) 100' MIN. ----
BLDG. HEIGHT: 45' MAX. 45' MAX.
GREEN SPACE: 30% MIN. 50.3% MIN.
SETBACKS:
FRONT: 25' MIN. 25' MIN.
SIDE: 15' MIN. 15' MIN.
REAR: 15' MIN. 15' MIN.
PARKING REQUIREMENTS:
GENERAL OFFICE: 4 SPACES PER 1,000 SF
LAW OFFICE 1,250± SF = 5 SPACES REQUIRED
MEDICAL OFFICE: 7 SPACES PER 1,000 SF
DENTAL OFFICE 3,360± SF = 24 SPACES REQUIRED
RESTAURANT (SIT DOWN): 10 SPACES PER 1,000 SF
RESTAURANT 3,500± SF = 35 SPACES REQUIRED
RESIDENTIAL (APARTMENT): 1.5 SPACES PER 1 DWELLING UNIT
APARTMENT (3) = 5 SPACES REQUIRED
TOTAL SPACES REQUIRED = 69
TOTAL SPACES PROVIDED = 70
COVERAGE STATISTICS:
(97–99 TWENTY WEST DRIVE)
BUILDINGS: 8,110± SF 10.2%
PAVEMENT: 32,085± SF 40.4%
GREEN SPACE: 30% MIN. 39,249± SF 49.4%
TOTAL 79,424± SF (1.82 ACRES) 100%
OWNER/APPLICANT:
MICHAEL DAVIDSON
42 SWEETIE LN
ALTAMONT, NY 12009
AREA:
79,424± SQ FT
1.82± ACRES
TM#59.00–2–103
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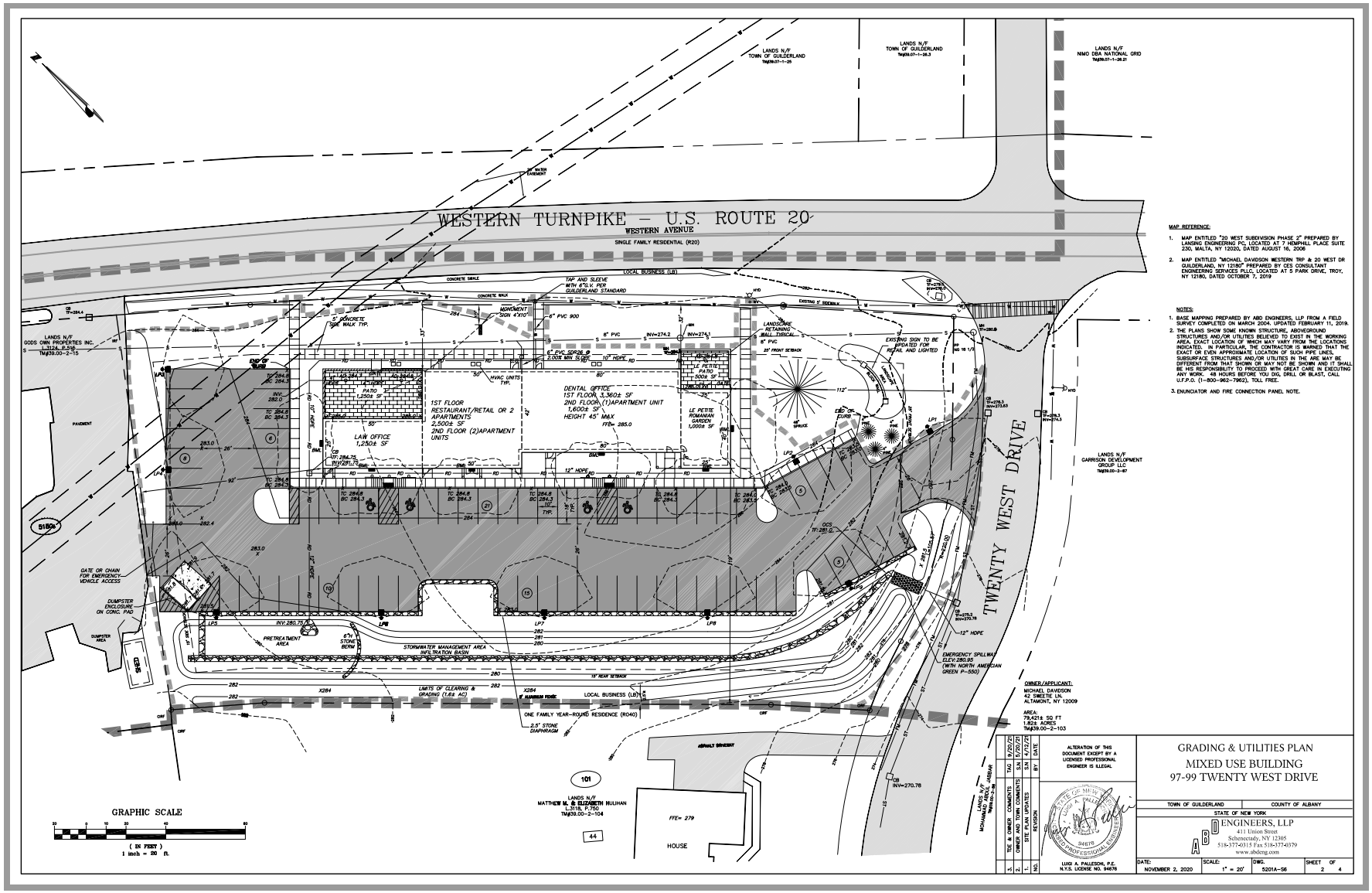
LUIGI A. PALLESCHI, P.E.
N.Y.S. LICENSE NO. 94676
LAYOUT, LIGHTING & LANDSCAPING PLAN
MIXED USE BUILDING
97-99 TWENTY WEST DRIVE
TOWN OF GUILDERLAND
COUNTY OF ALBANY
STATE OF NEW YORK
ABD ENGINEERS, LLP
411 Union Street
Schenectady, NY 12305
518-377-0315 Fax 518-377-4379
www.abdeng.com
DATE: NOVEMBER 2, 2020
SCALE: 1" = 20'
DWG. 5201A–S6
SHEET OF 1 4



MAP REFERENCE:

1. MAP ENTITLED "20 WEST SUBDIVISION PHASE 2" PREPARED BY LANSING ENGINEERING PC, LOCATED AT 7 HEMPHILL PLACE SUITE 230, MALTA, NY 12020, DATED AUGUST 16, 2006
2. MAP ENTITLED "MICHAEL DAVIDSON WESTERN TRP & 20 WEST DR GUILDERLAND, NY 12180" PREPARED BY CES CONSULTANT ENGINEERING SERVICES PLLC, LOCATED AT 5 PARK DRIVE, TROY, NY 12180, DATED OCTOBER 7, 2019

NOTES:

1. BASE MAPPING PREPARED BY ABD ENGINEERS, LLP FROM A FIELD SURVEY COMPLETED ON MARCH 2004. UPDATED FEBRUARY 11, 2019.
2. THE PLANS SHOW SOME KNOWN STRUCTURE, ABOVEGROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA. EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPE LINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE ARE MAY BE DIFFERENT FROM THAT SHOWN OR MAY NOT BE SHOWN AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. 48 HOURS BEFORE YOU DIG, DRILL OR BLAST, CALL U.F.P.O. (1-800-962-7962), TOLL FREE.
3. ENUNCIATOR AND FIRE CONNECTION PANEL NOTE.

OWNER/APPLICANT:
MICHAEL DAVIDSON
42 SWEETE LN
ALTAMONT, NY 12009

AREA:
79,421± SQ FT
1.82± ACRES
TM§59.00-2-103

NO.	REVISION	BY	DATE
1	TOE & OWNER COMMENTS	TAG	9/20/20
2	OWNER PLAN UPDATES	SJH	4/20/20
3			
4			
5			

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LUIGI A. PALLESCHI, P.E.
N.Y.S. LICENSE NO. 94676

GRADING & UTILITIES PLAN
MIXED USE BUILDING
97-99 TWENTY WEST DRIVE

TOWN OF GUILDERLAND | COUNTY OF ALBANY
STATE OF NEW YORK

ABD ENGINEERS, LLP
411 Union Street
Schenectady, NY 12305
518-377-0315 Fax 518-377-4379
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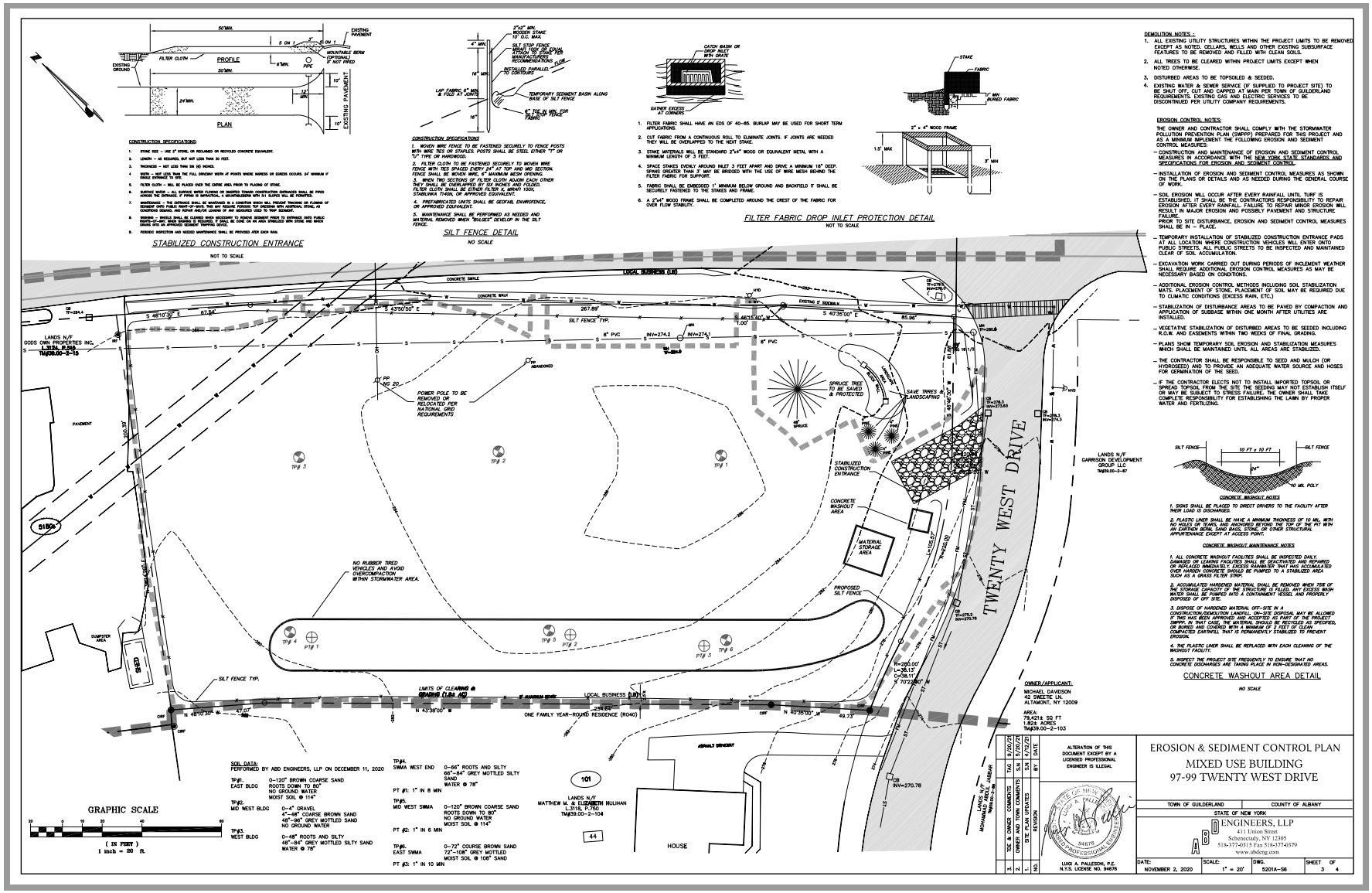
DATE:	SCALE:	DWG.	SHEET OF
NOVEMBER 2, 2020	1" = 20'	5201A-S6	2 4


STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE
SILT FENCE DETAIL
NO SCALE
FILTER FABRIC DROP INLET PROTECTION DETAIL
NOT TO SCALE
CONCRETE WASHOUT AREA DETAIL
NO SCALE
DEMOLITION NOTES :
1. ALL EXISTING UTILITY STRUCTURES WITHIN THE PROJECT LIMITS TO BE REMOVED EXCEPT AS NOTED. CELLARS, WELLS AND OTHER EXISTING SUBSURFACE FEATURES TO BE REMOVED AND FILLED WITH CLEAN SOILS.
2. ALL TREES TO BE CLEARED WITHIN PROJECT LIMITS EXCEPT WHEN NOTED OTHERWISE.
3. DISTURBED AREAS TO BE TOPSOILED & SEEDED.
4. EXISTING WATER & SEWER SERVICE (IF SUPPLIED TO PROJECT SITE) TO BE SHUT OFF, CUT AND CAPPED AT MAIN PER TOWN OF GUILDERLAND REQUIREMENTS. EXISTING GAS AND ELECTRIC SERVICES TO BE DISCONTINUED PER UTILITY COMPANY REQUIREMENTS.
EROSION CONTROL NOTES:
THE OWNER AND CONTRACTOR SHALL COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT AND AS A MINIMUM IMPLEMENT THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES:
– CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
– INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS OR DETAILS AND AS NEEDED DURING THE GENERAL COURSE OF WORK.
– SOIL EROSION WILL OCCUR AFTER EVERY RAINFALL UNTIL TURF IS ESTABLISHED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR EROSION AFTER EVERY RAINFALL. FAILURE TO REPAIR MINOR EROSION WILL RESULT IN MAJOR EROSION AND POSSIBLY PAVEMENT AND STRUCTURE FAILURE.
PRIOR TO SITE DISTURBANCE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN – PLACE.
– TEMPORARY INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE PADS AT ALL LOCATION WHERE CONSTRUCTION VEHICLES WILL ENTER ONTO PUBLIC STREETS. ALL PUBLIC STREETS TO BE INSPECTED AND MAINTAINED CLEAR OF SOIL ACCUMULATION.
– EXCAVATION WORK CARRIED OUT DURING PERIODS OF INCLEMENT WEATHER SHALL REQUIRE ADDITIONAL EROSION CONTROL MEASURES AS MAY BE NECESSARY BASED ON CONDITIONS.
– ADDITIONAL EROSION CONTROL METHODS INCLUDING SOIL STABILIZATION MATS. PLACEMENT OF STONE. PLACEMENT OF SOIL MAY BE REQUIRED DUE TO CLIMATIC CONDITIONS (EXCESS RAIN, ETC.)
– STABILIZATION OF DISTURBANCE AREAS TO BE PAVED BY COMPACTION AND APPLICATION OF SUBBASE WITHIN ONE MONTH AFTER UTILITIES ARE INSTALLED.
– VEGETATIVE STABILIZATION OF DISTURBED AREAS TO BE SEEDED INCLUDING R.O.W. AND EASEMENTS WITHIN TWO WEEKS OF FINAL GRADING.
– PLANS SHOW TEMPORARY SOIL EROSION AND STABILIZATION MEASURES WHICH SHALL BE MAINTAINED UNTIL ALL AREAS ARE STABILIZED.
– THE CONTRACTOR SHALL BE RESPONSIBLE TO SEED AND MULCH (OR HYDROSEED) AND TO PROVIDE AN ADEQUATE WATER SOURCE AND HOSES FOR GERMINATION OF THE SEED.
– IF THE CONTRACTOR ELECTS NOT TO INSTALL IMPORTED TOPSOIL OR SPREAD TOPSOIL FROM THE SITE THE SEEDING MAY NOT ESTABLISH ITSELF OR MAY BE SUBJECT TO STRESS FAILURE. THE OWNER SHALL TAKE COMPLETE RESPONSIBILITY FOR ESTABLISHING THE LAWN BY PROPER WATER AND FERTILIZING.
LOCAL BUSINESS (LB)
TWENTY WEST DRIVE
LANDS N/F GODS OWN PROPERTIES INC. L.3194, P.945 TM#39.00-2-15
LANDS N/F GARRISON DEVELOPMENT GROUP LLC TM#39.00-3-67
LANDS N/F MOHAMED ABDUL AMBAR
LANDS N/F MATTHEW M. & ELIZABETH MULHAN L.3118, P.750 TM#39.00-2-104
ONE FAMILY YEAR-ROUND RESIDENCE (R040)
HOUSE
POWER POLE TO BE REMOVED OR RELOCATED PER NATIONAL GRID REQUIREMENTS
SAVE TREES & LANDSCAPING
SPRUCE TREE TO BE SAVED & PROTECTED
STABILIZED CONSTRUCTION ENTRANCE
CONCRETE WASHOUT AREA
MATERIAL STORAGE AREA
NO RUBBER TIRED VEHICLES AND AVOID OVERCOMPACTION WITHIN STORMWATER AREA.
PROPOSED SILT FENCE
SILT FENCE TYP.
LIMITS OF CLEARING & GRADING (LOD) AS SHOWN
DUMPSTER AREA
ASPHALT DRIVEWAY
SOIL DATA:
PERFORMED BY ABD ENGINEERS, LLP ON DECEMBER 11, 2020
TP#1. EAST BLDG 0–120" BROWN COARSE SAND ROOTS DOWN TO 80" NO GROUND WATER MOIST SOIL @ 114"
TP#2. MID WEST BLDG 0–4" GRAVEL 4"–48" COARSE BROWN SAND 48"–96" GREY MOTTLED SAND NO GROUND WATER
TP#3. WEST BLDG 0–48" ROOTS AND SILTY 48"–84" GREY MOTTLED SILTY SAND WATER @ 78"
TP#4. SWMA WEST END 0–66" ROOTS AND SILTY 66"–84" GREY MOTTLED SILTY SAND WATER @ 78"
PT #1: 1" IN 8 MIN
TP#5. MID WEST SWMA 0–120" BROWN COARSE SAND ROOTS DOWN TO 80" NO GROUND WATER MOIST SOIL @ 114"
PT #2: 1" IN 6 MIN
TP#6. EAST SWMA 0–72" COURSE BROWN SAND 72"–108" GREY MOTTLED MOIST SOIL @ 108" SAND
PT #3: 1" IN 10 MIN
GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.
OWNER/APPLICANT:
MICHAEL DAVIDSON
42 SWEETE LN
ALTAMONT, NY 12009
AREA:
79,421± SQ FT
1.82± ACRES
TM#39.00–2–103
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LUIGI A. PALLESCHI, P.E.
N.Y.S. LICENSE NO. 94676
EROSION & SEDIMENT CONTROL PLAN
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TOWN OF GUILDERLAND
COUNTY OF ALBANY
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ABD ENGINEERS, LLP
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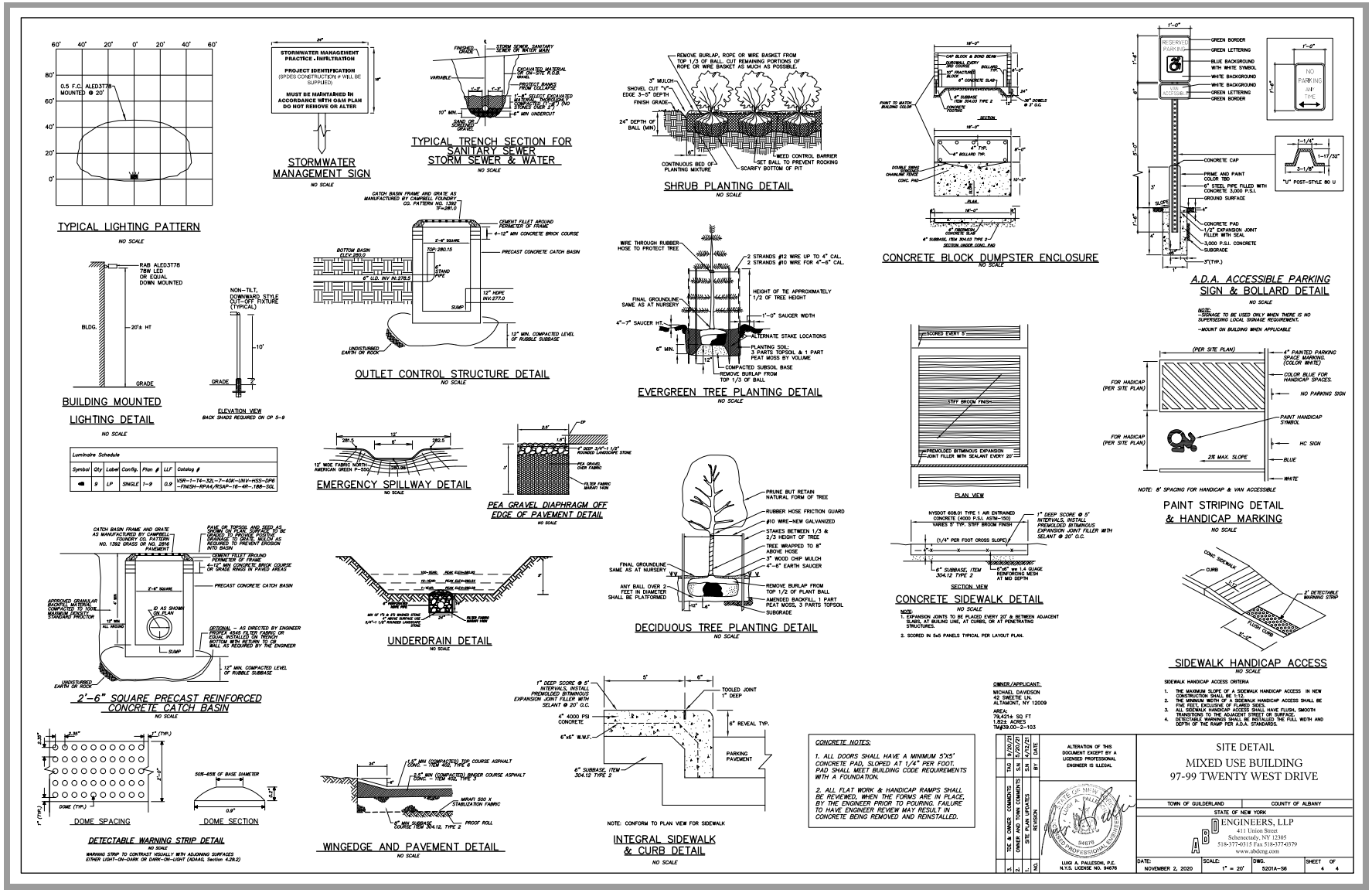
DATE: NOVEMBER 2, 2020
SCALE: 1" = 20'
DWG. 5201A–S6
SHEET OF 3 4
5 TOE & OWNER COMMENTS TAG 9/20/21
4 OWNER PLAN UPDATES SLN 4/12/21
3 SITE PLAN UPDATES SLN 3/17/21
2 REVISION BY DATE
1 NO.


TYPICAL LIGHTING PATTERN
NO SCALE
STORMWATER MANAGEMENT PRACTICE - INFILTRATION
PROJECT IDENTIFICATION
(SPDES CONSTRUCTION # WILL BE SUPPLIED)
MUST BE MAINTAINED IN ACCORDANCE WITH O&M PLAN DO NOT REMOVE OR ALTER
STORMWATER MANAGEMENT SIGN
NO SCALE
TYPICAL TRENCH SECTION FOR SANITARY SEWER STORM SEWER & WATER
NO SCALE
SHRUB PLANTING DETAIL
NO SCALE
CONCRETE BLOCK DUMPSTER ENCLOSURE
NO SCALE
A.D.A. ACCESSIBLE PARKING SIGN & BOLLARD DETAIL
NO SCALE
BUILDING MOUNTED LIGHTING DETAIL
NO SCALE
OUTLET CONTROL STRUCTURE DETAIL
NO SCALE
EVERGREEN TREE PLANTING DETAIL
NO SCALE
EMERGENCY SPILLWAY DETAIL
NO SCALE
PEA GRAVEL DIAPHRAGM OFF EDGE OF PAVEMENT DETAIL
NO SCALE
CONCRETE SIDEWALK DETAIL
NO SCALE
PAINT STRIPING DETAIL & HANDICAP MARKING
NO SCALE
2'-6" SQUARE PRECAST REINFORCED CONCRETE CATCH BASIN
NO SCALE
UNDERDRAIN DETAIL
NO SCALE
DECIDUOUS TREE PLANTING DETAIL
NO SCALE
SIDEWALK HANDICAP ACCESS
NO SCALE
DETECTABLE WARNING STRIP DETAIL
NO SCALE
WINGEDGE AND PAVEMENT DETAIL
NO SCALE
INTEGRAL SIDEWALK & CURB DETAIL
NO SCALE
CONCRETE NOTES:
1. ALL DOORS SHALL HAVE A MINIMUM 5'X5' CONCRETE PAD, SLOPED AT 1/4" PER FOOT. PAD SHALL MEET BUILDING CODE REQUIREMENTS WITH A FOUNDATION.
2. ALL FLAT WORK & HANDICAP RAMPS SHALL BE REVIEWED, WHEN THE FORMS ARE IN PLACE, BY THE ENGINEER PRIOR TO POURING. FAILURE TO HAVE ENGINEER REVIEW MAY RESULT IN CONCRETE BEING REMOVED AND REINSTALLED.
OWNER/APPLICANT:
MICHAEL DAVIDSON
42 SWEETIE LN.
ALTAMONT, NY 12009
AREA:
79,421± SQ FT
1.82± ACRES
TM@39.00-2-103
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SITE DETAIL
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SHEET OF 4 4

Town of Guilderland
ALBANY COUNTY, ROUTE 20
P.O. BOX 339
GUILDERLAND, N.Y. 12084-0339

PETER G. BARBER
SUPERVISOR

(518) 356-1980
FAX: (518) 356-1990

JACQUELINE M. COONS
CHIEF BUILDING AND ZONING INSPECTOR

Notice is hereby given that the Zoning Board of Appeals of the Town of Guilderland, New York, will *resume* a public hearing pursuant to Articles IV & V of the Zoning Law on the following proposition:

Special Use Permit/Variance Request No. 4768

Request of Michael Davidson for a Special Use Permit under the Zoning Law to permit: the construction of a 9,960sf Local Mixed-Use Building on a vacant parcel. A variance is requested to permit the development of more than 125% of the required parking.

Per Articles IV & V Sections 280-26, 280-40, 280-51 & 280-52 respectively

For property owned by Michael Davidson
Situated as follows: Twenty West Drive (future address 97-99) Altamont NY 12009

Plans are available for public inspection at the Town Hall or on the Town website at https://www.townofguilderland.org/zoning-board-appeals . Said hearing will take place on October 20, 2021 at 7:00pm. Due to COVID-19 gathering precautions, the meeting will be virtual. Members of the public may listen and view the meeting live on the Town website, channel 34 on Verizon FiOS or channel 1303 on Spectrum. To participate in the public comment period join Zoom Meeting https://us02web.zoom.us/j/81391211886?pwd=TzFsbzQ1UUY4VVUvaUVrT3B2WXJlQT09 or dial 1-929-205-6099. Use Meeting ID: *813 9121 1886* and Passcode*: 605688*. For questions regarding the application, call the Building Department during regular business hours.

Dated: October 12, 2021

Jacqueline M. Coons

Jacqueline M. Coons
Chief Building & Zoning Inspector

PAGE # 1

SWIS	PRINT KEY	NAME	ADDRESS
013089	39.00-2-14	Rehabilitation Support	5172 Western Tpke,Altamont, NY 12009
013089	39.00-2-15	Gods Own Properties Inc	5180 Western Tpke,Altamont, NY 12009
013089	39.00-2-17	Larry E Noyes	1657 Helderberg Ave,Schenectady, NY 12306
013089	39.00-2-18	Milagro Delgado Irrevocable Trust	5220 Western Tpke,Alamont, NY 12009
013089	39.06-3-21	Hae Young Oh-Lee	22 Morningside Dr,Schenectady, NY 12303
013089	39.06-3-22	Francis Aziz	24 Morningside Dr,Schenectady, NY 12303
013089	39.06-3-23	Sonia E Fox	5173 Western Tpke,Altamont, NY 12009
013089	39.06-3-24	Margaret M Evon Estate	5171 Western Tpke,Altamont, NY 12009
013089	39.06-3-25	Jan Malina	5163 Western Tpke,Altamont, NY 12009
013089	39.07-1-22	Nancy A Davis	19 Morningside Dr,Schenectady, NY 12303
013089	39.07-1-23	Gaetane E Richard	23 Morningside Dr,Schenectady, NY 12303
013089	39.07-1-24	James W Rose	25 Morningside Dr,Schenectady, NY 12303
013089	39.07-1-25	Guilderland Town of	P.O. Box 339,Guilderland, NY 12084-0339
013089	39.07-1-26.21	NiMo dba National Grid Property Tax, D-Mezz	300 Erie Blvd West,Syracuse, NY 13202
013089	39.07-1-26.22	Guilderland Town of	P.O. Box 339,Guilderland, NY 12084-0339
013089	39.00-2-87	Garrison Development Group LLC	395 Mariaville Rd,Schenectady, NY 12306
013089	39.00-2-88	Abdul Jabbar Mohammad	100 Twenty West Dr,Altamont, NY 12009
013089	39.00-2-103	Michael J Davidson	42 Sweetie Ln,Altamont, NY 12009
013089	39.00-2-104	Matthew M Hulihan	101 Twenty West Dr,Altamont, NY 12009
013089	39.00-2-105	Patrick Chatigny	103 Twenty West Dr,Altamont, NY 12009
013089	39.00-2-106	Michael Collins	105 Twenty West Dr,Altamont, NY 12009
013089	39.00-2-134	Mark Phelan	200 Landbridge Dr,Altamont, NY 12009
013089	39.00-2-135	Dwayne Robinson	7 Hammerstone Ln,Altamont, NY 12009
013089	39.00-2-136	Donnial K Hinds	5 Hammerstone Ln,Altamont, NY 12009

Matt Hulihan <matt@hulihan.com>

FW: Intended Mitigation of Objections to Proposed Rooftop Restaurant Seating

Matt Hulihan <matt@hulihan.com> Wed, Jun 9, 2021 at 3:16 PM
To: Michael Davidson <michael@davidsonlawcenter.net>
Cc: Luigi Palleschi <Luigi@abdeng.com>, RothM@srgarch.com, coonsj@togny.org

Hi Michael:

I'm writing in follow up to your April 22nd email below to me and others, including one Town of Guilderland employee/ZBA member, and to place on record some responses to your points below. I also note for the others on this email that you and I met in-person on the Twenty West Drive property on Saturday April 24th. That Saturday meeting occurred two days after you wrote the April 22nd email below, which itself was sent the day after the April 21st ZBA meeting referred to below.

Initially, I'll reiterate the primary concern I've had, and continue to have, with your proposal for development. It is, as I voiced during the April 21st ZBA meeting, the line-of-sight and privacy intrusion into my backyard property stemming primarily from the outdoor eating area proposed for the second-story of the southwest corner of your building. I noted specific concerns regarding the ability of patrons of the proposed restaurant/entertainment space to peer directly into my backyard with an unobstructed view. For clarity, and in contrast to the characterization you give below of my concerns, the scope of my concerns do not extend merely to barbeques on my deck and dinners with my family or where my children play. It includes the prospect of strangers peering into any exposed portion of the backyard from an elevated vantage point and proximate my house to view any activity occurring within any portion of my fenced-in area across. This would be possible any time the second-story dining area is open to patrons, which I assume would be near-daily for at least 2/3 of the year. It includes the ability to see directly into the downstairs half of our house, particularly at night when it is dark outside and inside lights are on. I assume evening time in warmer months is prime time for usage of your proposed second-story outdoor dining/hangout area. I think it a fair assumption that the second-story space would be used as much as possible and to seat as many patrons as possible in warmer months, lending frequent opportunities for such intrusions.

You previously (during the ZBA meeting and Saturday meeting) proposed some items that you believe address the above-noted concerns, specifically to construct an 8ft fence along the South property line, to plant an unspecified number of 8ft tall pine trees on a 2-3 berm located on the South side of the property, and (in your email below) to plant 2 or 3 additional 10ft pine trees on a diagonal line running from the rooftop dining area to my backyard deck. I appreciate your willingness to adjust your plans in an attempt to address my concerns. I'm sincere when I say that. The issue is that, given the topology of the land extending from your lot to my lot and the positioning of your proposed rooftop dining area relative to areas of my backyard, there is nothing that we or the Board has in front of it to support an assertion that your proposed measures actually address the concerns that I voiced, including and in particular the concern of rooftop patrons peering directly into my backyard. 8-10ft. trees at 20ft. spacing, an 8ft. high fence – these do not address the concern if the reality is that blocking the line of sight requires (as examples) a 16 ft. high obstruction along a 50 ft. wide swath. What would be required to block all, or even any, of the view into the backyard is unknown at this point because it is not easily discernible from any plans that you have provided to me or others.

When we met on your lot on Saturday 4/24, I suggested that we examine the true line of sight from your proposed rooftop area toward my yard. I suggested that it would be fairly straightforward for your designers to present a 3D model or something similar that shows different angles of the vantage point and lines of sight into my backyard, and the heights and positions needed for obstructions to provide adequate blockage to address the concerns that I voiced. My takeaway from our Saturday meeting is that you agreed it would be helpful to have those illustrations because you stated that you would have such illustrations prepared. If you have had them prepared, you have not shared them with me but I think they would be beneficial for all.

I also want to raise the following: During our Saturday meeting, you showed me the position of the building and constituent components including the proposed rooftop dining area. Attached to this email and embedded immediately below is a photograph ("view.jpg") that I took from the position of that rooftop area. I note that the view clearly shows an existing tree line formed by trees on my property. When looking South from the position of the proposed second story patio, the tree line completely blocks the view to the Helderberg mountains. This picture was taken at a height of approximately 10 feet above the existing grade. If the line of sight from individuals on your second story patio is ~4 ft higher (as a guess), the view to the mountains is still blocked. I raise this because presumably at least part of the motivation for including a second proposed dining area (i.e. additional to the outdoor seating area proposed for the front/North side of the building) on the second story in the back/South side of the proposed building is the desire to provide patrons a view of the Helderberg mountains and sunset to the Southwest. To the extent that this presumption is

accurate, the motivation is nullified by the fact that there is no such view provided from that vantage point. The view of patrons looking Southwest would instead include (i) trees, (ii) a parking lot, and (iii) my backyard. I raise this because I think it substantiates my concern about frequent intrusions and informs that blockage of the vantage point, or even perhaps heightened scrutiny of the proposal for a second story dining area altogether, is warranted. While there may be other legitimate reasons to place a dining area on the second story in the back of the structure, I feel it is necessary for everyone to be aware that, perhaps, a primary motivation for the second-story dining area in the back of the structure rests on a false assumption.

-Matt Hulihan
matt@hulihan.com

On Thu, Apr 22, 2021 at 5:19 PM Michael Davidson <michael@davidsonlawcenter.net> wrote:
>
>
>
>
>
> Sent from Mail for Windows 10
>
>
>
> From: Michael Davidson
> Sent: Thursday, April 22, 2021 6:59 AM
> To: mat.hulihan@hrfmlaw.com; Luigi Palleschi; Mike Roth; Jacqueline Coons
> Subject: Intended Mitigation of Objections to Proposed Rooftop Restaurant Seating
>
>
>
>
>
> Dear Mr. Hulihan:
>
>
>
> Thank you for your phone call to me yesterday and also for your clarifying comments last night at the Town of

Guilderland Zoning Board of Appeals meeting regarding your concerns about rooftop restaurant dining in my planned mixed use building which I propose to be constructed on my Twenty West Drive Property later this summer. Given that you have not provided me with a written statement of your concerns, I will try to summarize the matter as best as I can accurately do, based on my memory of your statements and my notes.
>
>
>
> Your home and yard are located immediately adjacent and directly South of my presently vacant lot.
>
>
>
> Your property is topographically at an elevation of perhaps 10 feet or less lower than mine.
>
>
>
> The back slider door of your home providing ingress/egress to your backyard deck is approximately 210 feet Southeast from the rooftop of my proposed law office where rooftop restaurant dining would occur.
>
>
>
> It was mentioned during the meeting last night that loud music from the restaurant rooftop may be a concern to adversely affect the “quiet” enjoyment of your home or other neighbors. As a mitigative measure, I would suggest that the distance of 210 feet from your home will naturally dissipate the travel of sound. Also the cedar fencing will dissipate sound as well as the numerous pine trees which will be planted all along the Southern boundary of my property at a spacing of approximately 20’ apart. Also, and of more significance, the only music which will be utilized on the rooftop dining area will be low volume background music, to facilitate normal dining conversations of patrons of the restaurant. Like you, we hope to enjoy the scenic view of the mountains to the South of our respective properties.
>
>
>
> It was also mentioned in our phone-call and at the meeting that you are concerned about privacy for your family and friends with rooftop diners peering into your backyard where you barbeque on your deck and dine with your family and where your children play. I am committing to the following mitigative measures and offer the following additional pragmatic suggestions. Rather than construct a required 6’tall cedar fence, I will commit to constructing an 8’ tall cedar fence along the Southern property line of my property running East to West. The height of the fence will step down to 4’ as the fence approaches the East end of my lot, so as not to interfere with safe ingress and egress of cars entering and leaving your driveway. The pine trees that will be planted on the South side of my property will be 8’ tall to start and will be planted on top of a berm of approximately 2’ to 3’ in height so as to further screen line of sight privacy concerns from the rooftop dining into your back yard. Finally, as an additional mitigative measure, on a diagonal line running from the Southeast corner of the rooftop dining toward the Northwest corner of your back yard deck, I will voluntarily eliminate 2 or 3 presently proposed parking spaces along the Sothern side of my parking lot and replace those parking spaces with a planting area with 2 or 3 additional pine trees to be planted there at a minimum height of 10’, with fast growing pine trees.
>
>
>
> As an additional mitigative suggestion which was raised at the meeting last night, I recognize of course that I may not impose on you any requirement for lot screening. I do think, however, that the objective for being good neighbors is a two-way street. Accordingly, I constructively suggest that if you desire even more backyard privacy from my property or even from your neighbor to the South, at minimal cost to you, the purchase of a few fast growing arbovirus trees planted along your North or South property lines inside your fence would greatly alleviate your stated privacy concerns. Also at further small cost to you, a framed lattice corner screen placed on the Northwest corner of your existing deck would provide even more privacy for your family and friends enjoying summer barbeque on your deck. (these are just practical low-cost remedies for your stated privacy concerns)
>
>
>
> I welcome additional constructive, pragmatic dialogue with you to address your concerns and I appreciate your ongoing cooperation in addressing those concerns and my commercial property development interests.
>
>
>
>
>
> Sincerely,
>

>
>
> Michael Davidson
>
> 509 366-1325
>
> Sent from Mail for Windows 10
>
>
>
>

view.jpg
3714K

Gmail

Jacqueline Coons <coonsj@togny.org>

[Town of Guilderland NY] Twenty West Dr lot development (Davidson project) (Sent by Matt Hulihan, matt@hulihan.com)

1 message

Contact form at Town of Guilderland NY <cmsmailer@civicplus.com> Tue, Oct 19, 2021 at 10:03 PM
Reply-To: matt@hulihan.com
To: ZoningBoard@togny.org

Hello Zoning Board,

Matt Hulihan (matt@hulihan.com) has sent you a message via your contact form (https://www.townofguilderland.org/user/7681/contact) at Town of Guilderland NY.

If you don't want to receive such e-mails, you can change your settings at https://www.townofguilderland.org/user/7681/edit.

Message:

I'm writing in advance of the ZBA's Weds Oct 20th, 2021 meeting, which places back on the agenda the proposed development of the Twenty West lot on the corner of Western and Twenty West Drive, directly across from the town hall. I live at 101 Twenty West Dr, the residential lot to the immediate South. The last ZBA meeting to deal with this case was back on April 21st, 2021.I will attend the Oct. 20th meeting via Zoom.

I'm attaching an email chain between (i) Michael Davidson, the applicant and owner of the Twenty West lot proposed for development and (ii) myself, among others including Jackie Coons. I encourage the Board to read the email chain in advance of the meeting at least because it provides a rough summary of the discussions around this development and viewpoints held by us. Perhaps more importantly, I also want to highlight this in view of the Board's preference expressed at the April 2021 meeting that the parties (Michael and I) try to resolve this amicably and without Board involvement. Michael has been unresponsive in this regard. You'll see in the latest message of this email chain, from early June, and sent by me, a fairly straight-forward request by me (reiterating what I had already requested of him both at the April 21st meeting and in an April 24th discussion) that Michael provide some depiction/rendering of the site plan and line-of-sight from the 2nd story patio t
o my
back yard. I requested this to evaluate whether any of his purported mitigative measures would be in any way be effective to address any of my concerns about line-of-sight privacy from his 2nd story patio directly into the actively used areas of my backyard.

I have received no substantive communication from Michael responsive to this – what I consider to be – simple request. He is basically ignoring my question about whether anything he has proposed makes a difference. I also note that he conveniently omits any mention of a second story patio on the plans he submits for Board approval, despite mentioning plans for other portions of the 2nd story. The 2nd story patio remains part of his plan, however, which he confirmed via text message to me this past weekend after I reached out to him. I reached out expressing that it looks like the 2nd story patio is not part of the plan anymore (on account that there is no mention of it on the updated site plan) and offering to discuss with him the updated plan and iron out any potential hiccups in advance of the meeting so he can obtain the approval he seeks. He informed me the patio is still on and, in substance, that he hasn't modified what he presented prior.

Lastly, I want to emphasize the last paragraph of my email and corresponding picture that I provided therein, which depicts the view looking South from his proposed patio position to the Helderberg mountains, shows that the view is blocked by existing foliage, and presents my position as to the relevance of this fact.

I look forward to the meeting tomorrow night and appreciate the time and work you put into consideration and disposition of this matter and all matters that you handle for the Town.

-Matt Hulihan

101 Twenty West Dr
518-598-8000
matt@hulihan.com

hulihan_email_-_101_twenty_west_dr.pdf
403K

STORMWATER POLLUTION PREVENTION PLAN

For

Helios Guilderland Solar Project

6580 Dunnsville Road
Parcel ID 37-2-4
Town of Guilderland
County of Albany
State of New York

Prepared By:

Ingalls & Associates, LLP
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Applicant:
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Birmingham, MI 48009

Prepared:
June 18, 2021

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I. PROJECT BACKGROUND INFORMATION

The Helios Guilderland Solar Project is a proposed 5 MWAC ground mounted solar array project located at 6580 Dunnsville Road in the Town of Guilderland, New York. The project is proposed by Helios Energy New York 13 LCC. The project site is identified by Tax/Map Account # 37-2-4 and is comprised primarily of an old agricultural orchard with a forested perimeter.

Per NYSDEC GP-0-20-001, construction activities that disturb more than one acre of land and include new impervious surface area are required to prepare a Stormwater Pollution Prevention Plan that includes post-construction stormwater controls. Due to the pervious nature of the proposed gravel access drive for the solar facility, supported by documentation from NYSDEC included in Appendix H, the only new impervious area associated with this project is two (2) 200± SF equipment pads.

Site Characteristics

The existing 56.7± acre property is primarily comprised of an old agricultural orchard. The majority of the site drains towards the Bozen Kill at the southern end of the site with a smaller portion draining towards Dunnsville Road. The north-western location where the runoff drains towards Dunnsville Road is identified as analysis point A. The western subcatchment location that drains toward the creek is identified as analysis point B. The eastern subcatchment that also drains towards the creek is identified as analysis point C.

The Albany County Soils Map (Appendix C) identifies site soils to be Burdett silt loam, 0 to 3 percent slopes (BuA), Burdett silt loam, 3 to 8 percent loam (BuB), Burdett silt loam, 8 to 15 percent slopes (BuC), Castile gravelly loam, 0 to 3 percent slopes (CeA), Chenango gravelly silt loam, loamy substratum, 3 to 8 percent slopes (ChB), Chenango channery silt loam, fan, 3 to 8 percent slopes (CkB), Fluvaquents-Udifluvents complex, frequently flooded (Fx), Ilion silt loam (In), Nunda silt loam, 3 to 8 percent slopes (NuB), Nunda silt loam, 8 to 15 percent slopes (NuC), Nunda silt loam, 15 to 25 percent slopes (NuD), Nunda silt loam, 25 to 35 percent slopes (NuE), Rhinebeck silty clay loam, 0 to 3 percent slopes (RhA), Scio silt loam, 3 to 8 percent slopes (ScB), Teel silt loam (Te), Udorthents, loamy (Ug), Valois gravelly loam, 3 to 8 percent slopes (VaB), Water (W). Burdett silt loam, 0 to 3 percent slopes is classified as hydrologic soil group C/D, Burdett silt loam, 3 to 8 percent loam is classified as hydrologic soil group C/D, Burdett silt loam, 8 to 15 percent slopes is classified as hydrologic soil group C/D, Castile gravelly loam, 0 to 3 percent slopes is classified as hydrologic soil group A/D, Chenango gravelly silt loam, loamy substratum, 3 to 8 percent slopes is classified as hydrologic soil group A, Chenango channery silt loam, fan, 3 to 8 percent slopes is classified as hydrologic soil group A, Fluvaquents-Udifluvents complex, frequently flooded is classified as hydrologic soil group A/D, Ilion silt loam is classified as hydrologic soil group C/D, Nunda silt loam, 3 to 8 percent slopes is classified as hydrologic soil group C/D, Nunda silt loam, 8 to 15 percent slopes is classified as hydrologic soil group C/D, Nunda silt loam, 15 to 25

percent slopes is classified as hydrologic soil group C/D, Nunda silt loam, 25 to 35 percent slopes is classified as hydrologic soil group C/D, Rhinebeck silty clay loam, 0 to 3 percent slopes is classified as hydrologic soil group C/D, Scio silt loam, 3 to 8 percent slopes is classified as hydrologic soil group B/D, Teel silt loam is classified as hydrologic soil group B/D, Udorthents, loamy is classified as hydrologic soil group B/C, Valois gravelly loam, 3 to 8 percent slopes is classified as hydrologic soil group B.

Endangered or Threatened Species

The New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper on the NYSDEC website and the United States Fish and Wildlife Service (USFWS) website were reviewed to determine the likelihood of state or federally listed Threatened & Endangered (T&E) species or critical habitat areas existing within the project parcel. The NYSDEC website was reviewed for the potential of State-Regulated Freshwater Wetlands, Rare Plants, Rare Animals, and/or Significant Natural Communities on-site. The New York Natural Heritage Program was also consulted.

Review by the USFWS identified the site to be potential habitat for the Northern Long-Eared Bat. To accommodate the Northern Long-Eared Bat the project will abide by the clearing window outlined by the USFW 4(d) rule, therefore impacts to the Northern Long-Eared Bat are anticipated to be minimal.

Cultural Resources

Through coordination with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) the project site was determined not to be in an historically sensitive area. OPRHP concluded that the project would not have any impact on any historic properties. (See Appendix H for "Letter of No Effect" from OPRHP).

II. STORMWATER MANAGEMENT OBJECTIVES

This Stormwater Pollution Prevention Plan (SWPPP) incorporates erosion and sediment control measures to prevent sediment-laden stormwater from leaving the project site.

The primary stormwater management objective is to maintain water quality during construction phases and to ensure reestablishment of proper cover in the developed area to lessen the impacts to downstream water channels and properties.

Sources of water pollution during construction typically include erosion, siltation, and debris transport from excavated site areas, accidental spillage or leakage of motor fuels, lubrication oils, and other fluids from construction equipment, and other potential releases of construction related debris.

Stormwater quality and erosion control during construction will utilize temporary measures including installation of silt fencing, vegetation protection barriers, and if needed, stone check dams to minimize soil erosion and water pollution.

The proposed project involves installation of ground mounted solar arrays on cleared areas. The arrays, which will be laid out in rows, consist of solar panels mounted on racks supported by driven posts. Permanent vegetative ground cover will be established through the planting of native pollinator seed mixtures comprised of a variety of fescues, wildflowers and ryegrass. This low growing vegetation will provide ground stabilization, water quality treatment, limit stormwater runoff and a supporting habitat for pollinators. The array rows will be spaced to allow runoff from the impervious panels to be filtered through the pervious vegetated surface below. Per NYSDEC guidelines, any array rows placed on slopes over 5% grade shall have gravel level spreaders installed along the drip line of the solar panels.

Any proposed grading will be limited to the following items: grading for the newly installed porous stone road segments, stone turnarounds, equipment pads, trenching for underground conduits, and grubbing areas within the tree removal portion of the project. The porous stone access road and turnarounds will be constructed with washed #2 stone over filter fabric allowing for infiltration of rainfall. The remainder of the fenced in portion of the array has been included in the limits of disturbance to account for any incidental disturbed areas during construction. Any locations where existing vegetation is disturbed or where compaction appears to have occurred shall be restored in accordance the the NYS Standards and Specifications for Erosion and Sediment Control (Blue Book). These locations include areas of internal traffic during construction, staging areas, and trenching limits.

For the purpose of modeling stormwater runoff in HydroCAD, rainfall intensity amounts specified in the NYSDEC Stormwater Design Manual were used. These values are as follows: a 1-year rainfall intensity amount of 2.3 inches, a 10-year rainfall intensity amount of 4.0 inches, and a 100-year rainfall intensity amount of 7.0 inches. Three subcatchments were used for modeling predevelopment conditions (SC-101, SC-102, SC-103) and postdevelopment conditions (SC-201, SC-202, SC-203). These subcatchments are identical in size and encompass the area under development. The overall subcatchments remain the same for both pre and post development conditions, including flowpaths and time of concentration. Generally, stormwater flows to the south and east, where it meets the Bozen Kill. This stream transports runoff to the northeast corner of the property, where it continiues to flow offsite. HydroCAD modeling results and drainage plans can be found in Appendix B.

As Table 1 below demonstrates, the proposed development will not negatively alter hydrology of the site, but will result in additional water quality treatment through the pollinator and grass mixes. The introduction of additional vegetative ground

cover will result in a maintenance of the same peak flow rates for the developed conditions when compared to the pre-development conditions due to the relatively small size of the impervious area compared to the overall size of the property.

Table 1: Pre vs. Post-Development Runoff Rate Comparison

Analysis Point	1-YR (CPV-ED)		10-YR (Q_p)		100-YR (Q_f)	
	Pre	***Post***	**Pre**	***Post***	**Pre**	***Post***
A	*1.63 cfs*	*1.03 cfs*	*4.27 cfs*	*3.36 cfs*	*9.31 cfs*	*8.21 cfs*
B	*23.21 cfs*	*20.90 cfs*	*80.86 cfs*	*73.83 cfs*	*195.63 cfs*	*186.20 cfs*
C	*11.25 cfs*	*10.21 cfs*	*37.94 cfs*	*36.22 cfs*	*94.12 cfs*	*91.79 cfs*

Water Quality

In accordance with the New York State Stormwater Design Manual and conditions of GP-0-20-001, 100% of the required Water Quality Volumes (WQv) are reduced by the application of approved Green Infrastructure Practices and SMP's with runoff reduction capacity. To meet the minimum required RRv for the impervious areas associated with the two (2) concrete equipment pads vegetative filter strips will be used. No other impervious areas are proposed. See Appendix G for calculations and sizing of stormwater treatment practices.

Below is a summary of the green practices applied for runoff reduction:

Vegetative Filter Strips – Stormwater runoff from each of the two (2) 200± SF equipment pads for a total of 400± SF will be treated by level spreader and vegetative filter strips located downslope of the equipment pads.

III. EROSION & SEDIMENT CONTROL

Temporary Controls during Construction

During the project's construction phase the site will be the most susceptible to erosion and sedimentation. To prevent erosion during the construction phase, the following temporary erosion control measures will be used.

- Silt fencing will be placed around the down gradient perimeter of the proposed development area.
- Tracking pads (Stabilized Construction Entrance(s)) shall be constructed at site entrance(s).
- Silt fence shall be constructed around all temporary stockpiles of fill, topsoil, and excavated overburden. Silt fence shall be maintained in good condition until such time as said stockpiles are removed and stockpiling areas are brought to final grade and permanently stabilized.
- Seeding/mulch shall be used to stabilize inactive areas of topsoil and fill that is to remain stockpiled on-site for periods greater than 14 days. Prior

to the seeding operation, the stockpiled material shall be graded as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and mulch anchoring.

- If applicable, all disturbed slopes greater than 3:1 shall receive biodegradable fabric to protect slopes from erosion.
- Water trucks will be used for dust control on roadways.
- Site debris and rubbish shall be properly disposed of daily.
- Stockpiled construction materials shall be covered, contained and elevated.
- The contractor shall avoid the use of toxic products and materials to the maximum extent.
- Spill control supplies and Material Safety Data Sheets (MSDS) shall be stocked and maintained in readily accessible locations.

All temporary controls must be functioning and left in-place until the entire contributing area treated by the practice reaches final stabilization. Per GP-20-001, at no time shall this project exceed five (5) acres of disturbed soil at any one time. In the event that construction requires more that five (5) acres of active disturbed soil, NYSDEC shall be contacted and a 5-acre waiver shall be obtained.

Site Assessment and Inspections

All contractors involved in earthwork operations are required to review and understand the Stormwater Pollution Prevention Plan and certify in writing such knowledge.

The Contractor will maintain erosion control devices on a daily basis. As established in the General Permit, *"Each contractor is responsible for providing at least one trained individual from their company that will be responsible for implementation of the SWPPP. The Owner/Operator shall ensure that at least one trained individual is on site on a daily basis when soil disturbance activities are being performed."*

In addition, a Qualified Inspector must conduct a site inspection at least once every (7) days. This inspection is performed to inspect that all erosion and sediment control practices are installed properly, all post-construction stormwater management practices are installed in accordance with the SWPPP, all disturbed areas that have not achieved final stabilization, and all points of discharge from the site. The Inspector will complete an inspection report after each site inspection and this form is to be kept in the on-site SWPPP binder. Should the Inspector identify any deficiencies on the inspection report, he/she will notify the Owner/Operator of such deficiencies within one business day of the inspection. The contractor/subcontractor will initiate the corrective measures within one business day of the notification and will be completed within a reasonable time.

Stabilization

The operator shall initiate stabilization measures as soon as practical in portions of the site where construction activities have 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. While soil disturbances are over 5 acres, soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days. The soil stabilization measures selected shall be in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." As referenced above a pollinator mix has been selected for final site stabilization.

Winter Stabilization

While not anticipated for the subject project, the following measures shall apply for construction activities involved with land disturbance and exposure between November 15th and April 1st:

- Ensure adequate storage is provided for cleared snow and control of melt water in a manner not affecting ongoing construction activities.
- Enlarge and stabilize access points for snow management and stockpiling. Snow management activities must not destroy or degrade installed erosion and sediment control practices.
- A minimum 25 foot buffer shall be maintained from all perimeter controls such as silt fence. Mark silt fence with tall stakes that are visible above the snow pack.
- Sediment barriers must be installed at all appropriate perimeter and sensitive locations. As applicable silt fence and other practices requiring earth disturbance shall be installed before the ground freezes.
- Soil stockpiles must be protected by the use of established vegetation, anchored straw mulch, rolled stabilization matting, or other durable covering. A barrier must be installed at least 15 feet from the toe of the stockpile to prevent soil migration and to capture loose soil.
- In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures should be initiated by the end of the next business day and completed within three (3) days. Rolled erosion control blankets must be used on all slopes 3 horizontal to 1 vertical or steeper.
- If straw mulch alone is used for temporary stabilization, it shall be applied at double the standard rate of 2 tons per acre, making the application rate 4 tons per acre. Other manufactured mulches should be applied at double the manufacturer's recommended rate.
- To ensure adequate stabilization of disturbed soil in advance of a melt event, areas of disturbed soil should be stabilized at the end of each work day unless:
    - work will resume within 24 hours in the same area and no precipitation is forecast or;

- the work is in disturbed areas that collect and retain runoff, such as open utility trenches, foundation excavations, or water management areas.

Maintenance

The owner/operator shall inspect the integrity and function of all temporary erosion control measures to ensure they are always being maintained in effective operating condition. To assure proper function, siltation barriers shall be maintained in good condition and reinforced, extended, repaired, re-seeded and protected from further erosion. All accumulated sediment shall be removed and contained in appropriate spoil areas. Water shall be applied to newly seeded areas as needed until grass cover is well established.

Sediment control measures shall be monitored to ensure proper functionality. The following items shall be routinely inspected by the owner.

- Silt fencing shall be inspected regularly for undermining and deterioration.
- Seeded/mulched areas shall be inspected regularly to see that a good stand is maintained. Areas shall be repaired as necessary.
- The construction entrance(s) shall be maintained in a condition which will prevent tracking or flowing of sediment onto public R.O.W. All sediment spilled, dropped, washed or tracked onto public R.O.W. must be removed immediately.
- The site shall be visually inspected for residues, stains or traces of pollutants on paved surfaces and around structures or valves.

Erosion control devices must be cleaned when sediment reaches 50% of the practice capacity.

APPENDIX A

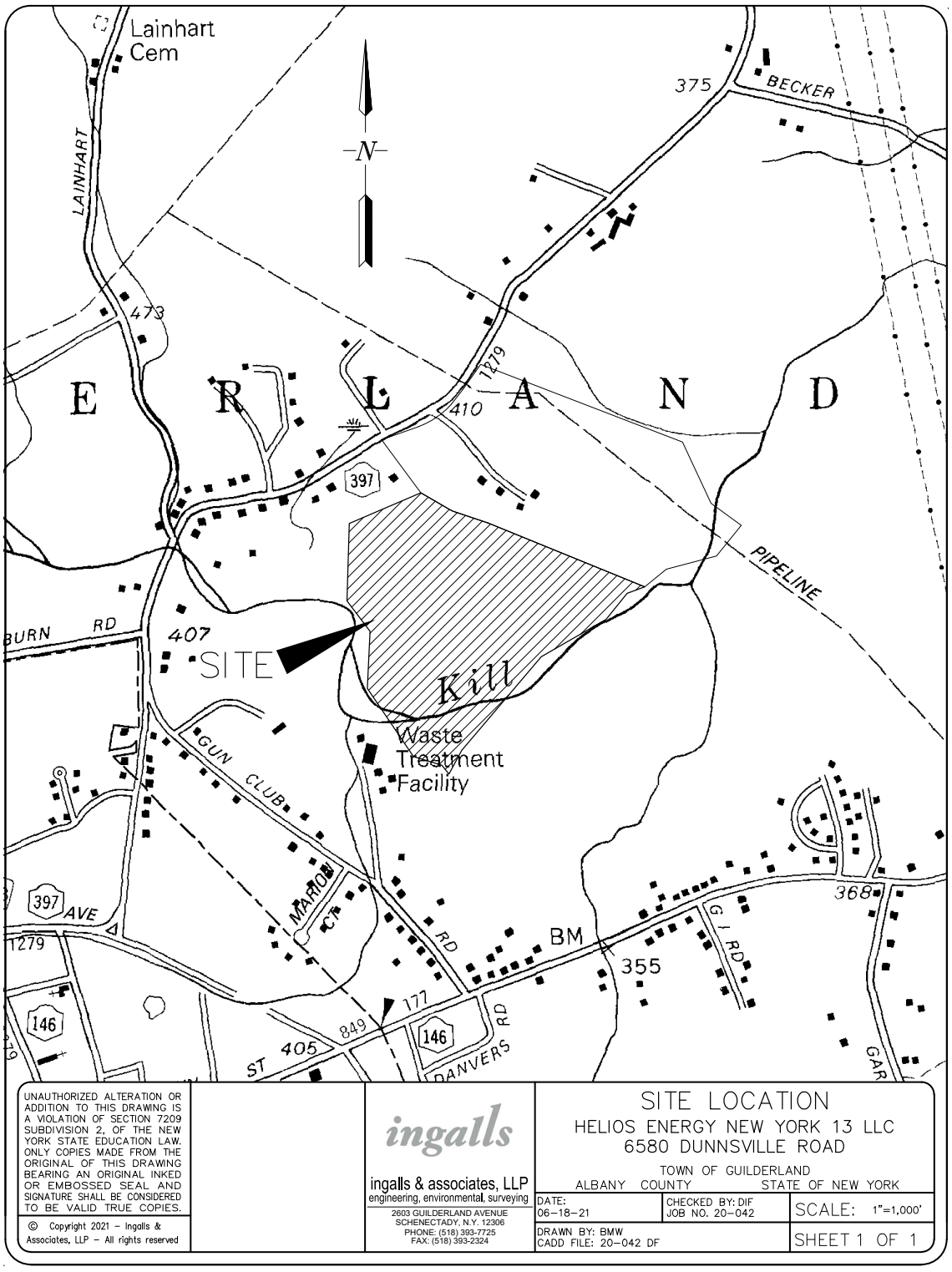
NYSDEC ACKNOWLEDGMENT LETTER

APPENDIX B

GP-0-20-001 PERMIT

APPENDIX C

SITE LOCATION MAP AND USGS SOILS REPORT



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SITE LOCATION

HELIOS ENERGY NEW YORK 13 LLC
6580 DUNNSVILLE ROAD
TOWN OF GUILDERLAND
ALBANY COUNTY STATE OF NEW YORK

DATE: 06–18–21	CHECKED BY: DIF JOB NO. 20–042	SCALE: 1"=1,000'
DRAWN BY: BMW CADD FILE: 20–042 DF		SHEET 1 OF 1

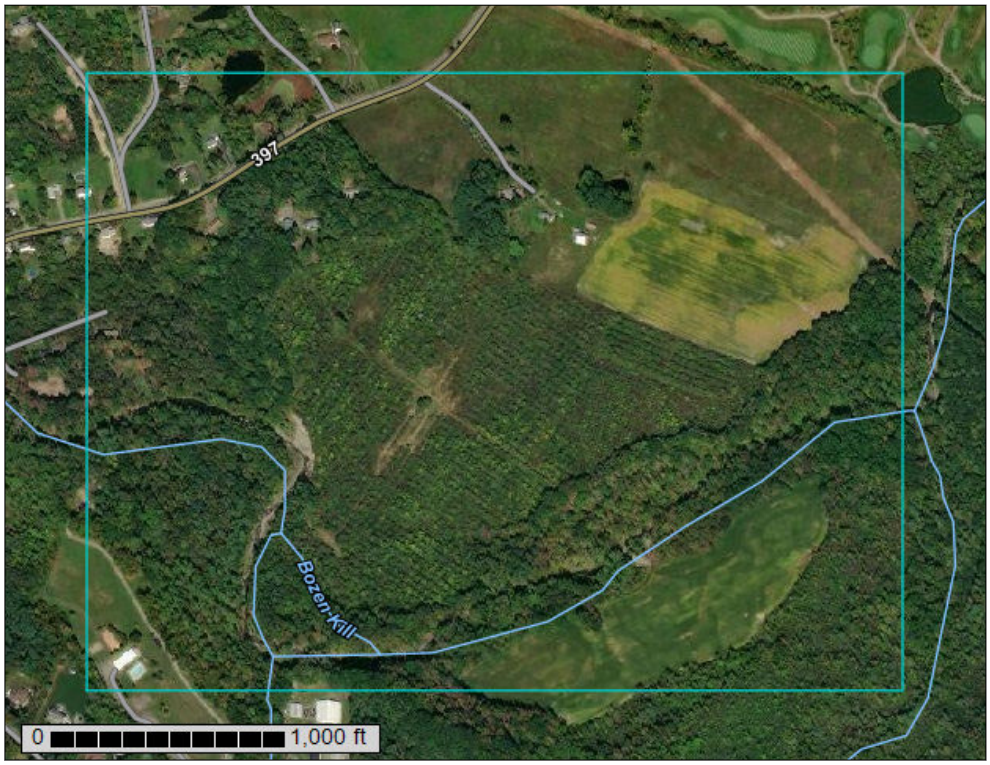
United States Department of Agriculture

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 Albany County, New York



June 8, 2021

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

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.

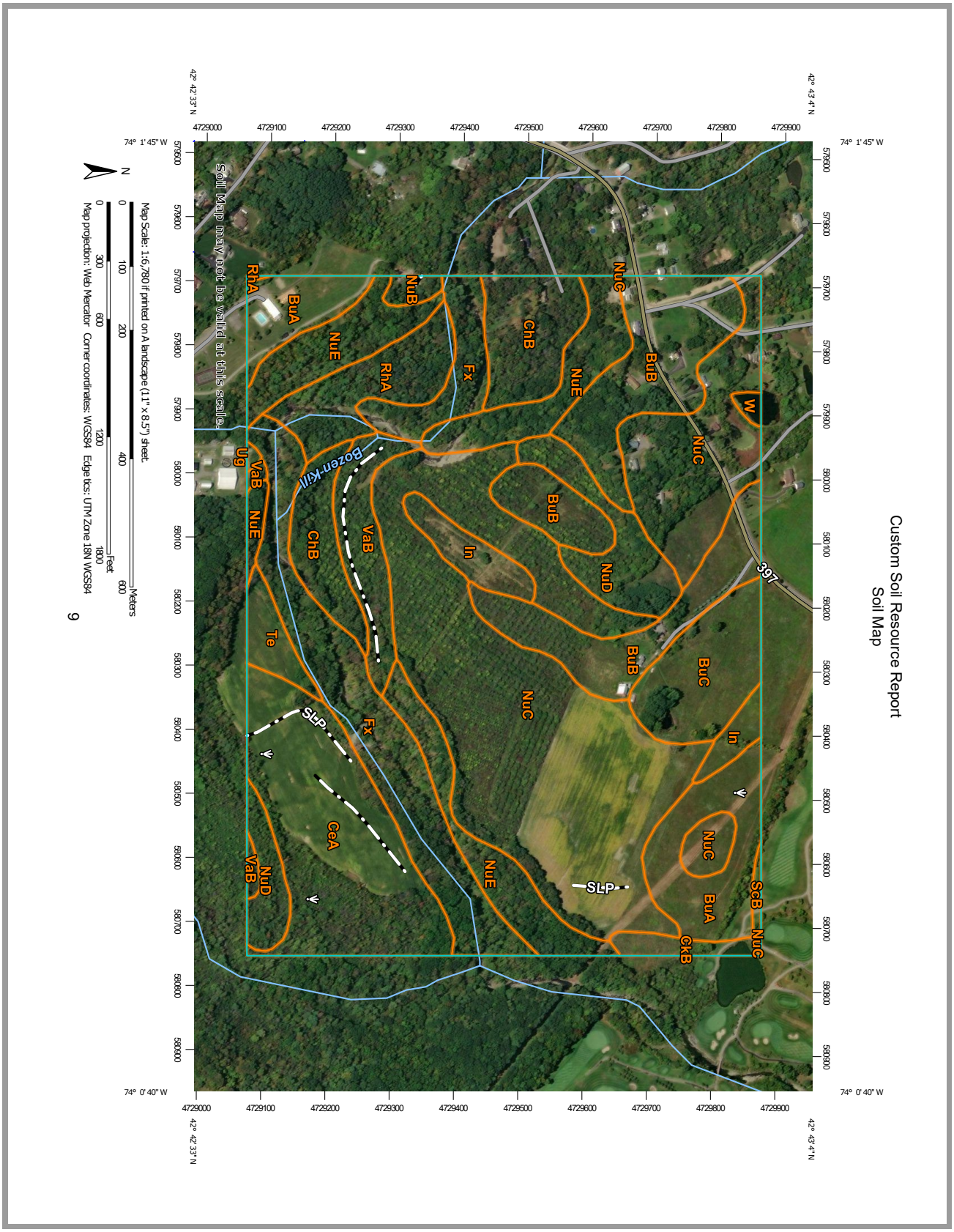
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree 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

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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.


Custom Soil Resource Report
Soil Map
Soil Map may not be valid at this scale.
Map Scale: 1:6,780 if printed on A landscape (11" x 8.5") sheet.
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84
N
Feet
Meters
74° 1' 45" W
74° 0' 40" W
42° 43' 4" N
42° 42' 33" N
397
Bozen Kill
SLP
BuA
BuB
BuC
CeA
ChB
CkB
Fx
In
NuB
NuC
NuD
NuE
RhA
ScB
Te
Ug
VaB
W

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: Albany County, New York
Survey Area Data: Version 18, 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: Apr 16, 2009—Oct 19, 2017

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.

Custom Soil Resource Report

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuA	Burdett silt loam, 0 to 3 percent slopes	12.5	5.9%
BuB	Burdett silt loam, 3 to 8 percent slopes	24.6	11.7%
BuC	Burdett silt loam, 8 to 15 percent slopes	8.2	3.9%
CeA	Castile gravelly loam, 0 to 3 percent slopes	20.8	9.9%
ChB	Chenango gravelly silt loam, loamy substratum, 3 to 8 percent slopes	11.4	5.4%
CkB	Chenango channery silt loam, fan, 3 to 8 percent slopes	1.6	0.8%
Fx	Fluvaquents-Udifluvents complex, frequently flooded	21.1	10.0%
In	Ilion silt loam	4.5	2.2%
NuB	Nunda silt loam, 3 to 8 percent slopes	0.9	0.4%
NuC	Nunda silt loam, 8 to 15 percent slopes	60.3	28.6%
NuD	Nunda silt loam, 15 to 25 percent slopes	8.8	4.2%
NuE	Nunda silt loam, 25 to 35 percent slopes	19.1	9.1%
RhA	Rhinebeck silty clay loam, 0 to 3 percent slopes	7.1	3.4%
ScB	Scio silt loam, 3 to 8 percent slopes	0.4	0.2%
Te	Teel silt loam	2.4	1.2%
Ug	Udorthents, loamy	0.2	0.1%
VaB	Valois gravelly loam, 3 to 8 percent slopes	6.3	3.0%
W	Water	0.4	0.2%
Totals for Area of Interest		**210.7**	**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, 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.

Custom Soil Resource Report

Albany County, New York

BuA—Burdett silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9pds
Elevation: 400 to 1,600 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Burdett and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Burdett

Setting

Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: A thin silt mantle overlying till that is strongly influenced by shale

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 13 inches: silt loam
H3 - 13 to 43 inches: gravelly silty clay loam
H4 - 43 to 68 inches: gravelly silty clay loam

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 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Ilion

Percent of map unit: 5 percent

Landform: Depressions
Hydric soil rating: Yes

Nunda
Percent of map unit: 5 percent
Hydric soil rating: No

Madalin
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

BuB—Burdett silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 9pdt
Elevation: 400 to 1,600 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Burdett and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Burdett

Setting
Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: A thin silt mantle overlying till that is strongly influenced by shale

Typical profile
H1 - 0 to 8 inches: silt loam
H2 - 8 to 13 inches: silt loam
H3 - 13 to 43 inches: gravelly silty clay loam
H4 - 43 to 68 inches: gravelly silty clay loam

Properties and qualities
Slope: 3 to 8 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 18 inches
Frequency of flooding: None

Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Ilion

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Madalin

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Nunda

Percent of map unit: 5 percent
Hydric soil rating: No

BuC—Burdett silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9pdv
Elevation: 400 to 1,600 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Burdett and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Burdett

Setting

Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: A thin silt mantle overlying till that is strongly influenced by shale

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 13 inches: silt loam
H3 - 13 to 43 inches: gravelly silty clay loam
H4 - 43 to 68 inches: gravelly silty clay loam

Properties and qualities

Slope: 8 to 15 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 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Nunda

Percent of map unit: 10 percent
Hydric soil rating: No

Ilion

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

CeA—Castile gravelly loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9pf0
Elevation: 110 to 1,670 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Castile and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Custom Soil Resource Report

Description of Castile

Setting

Landform: Valley trains, terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Gravelly loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, derived mainly from sandstone, shale, and siltstone

Typical profile

H1 - 0 to 5 inches: gravelly loam
H2 - 5 to 28 inches: gravelly loam
H3 - 28 to 60 inches: very gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well 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 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: A/D
Ecological site: F140XY022NY - Moist Outwash
Hydric soil rating: No

Minor Components

Chenango

Percent of map unit: 8 percent
Hydric soil rating: No

Busti

Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils

Percent of map unit: 2 percent

ChB—Chenango gravelly silt loam, loamy substratum, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9pf5
Elevation: 200 to 1,000 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Chenango, loamy substratum, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chenango, Loamy Substratum

Setting

Landform: Valley trains, terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Gravelly loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, derived mainly from sandstone, shale, and siltstone

Typical profile

H1 - 0 to 11 inches: gravelly silt loam
H2 - 11 to 57 inches: gravelly silt loam
H3 - 57 to 74 inches: very gravelly silt loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well 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: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water capacity: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Ecological site: F140XY021NY - Dry Outwash
Hydric soil rating: No

Minor Components

Castile
Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils
Percent of map unit: 2 percent

Rhinebeck
Percent of map unit: 1 percent
Hydric soil rating: No

Carlisle
Percent of map unit: 1 percent
Landform: Marshes, swamps
Hydric soil rating: Yes

Palms
Percent of map unit: 1 percent
Landform: Swamps, marshes
Hydric soil rating: Yes

CkB—Chenango channery silt loam, fan, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 9pf8
Elevation: 110 to 1,900 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Chenango, fan, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chenango, Fan

Setting
Landform: Alluvial fans
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Gravelly loamy glaciofluvial deposits over sandy and gravelly glaciofluvial deposits, derived mainly from sandstone, shale, and siltstone

Typical profile
H1 - 0 to 11 inches: channery silt loam

H2 - 11 to 57 inches: channery silt loam
H3 - 57 to 74 inches: very channery silt loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well 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 36 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water capacity: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Ecological site: F140XY021NY - Dry Outwash
Hydric soil rating: No

Minor Components

Castile

Percent of map unit: 8 percent
Hydric soil rating: No

Unnamed soils

Percent of map unit: 7 percent

Fx—Fluvaquents-Udifluvents complex, frequently flooded

Map Unit Setting

National map unit symbol: 9pfw
Elevation: 100 to 3,000 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Fluvaquents, frequently flooded, and similar soils: 45 percent
Udifluvents, frequently flooded, and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fluvaquents, Frequently Flooded

Setting

Landform: Flood plains

Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium with highly variable texture

Typical profile
H1 - 0 to 5 inches: gravelly silt loam
H2 - 5 to 70 inches: very gravelly sand

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 19.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: FrequentNone
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 6.1 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: A/D
Hydric soil rating: Yes

Description of Udifluvents, Frequently Flooded

Setting
Landform: Flood plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Alluvium with a wide range of texture

Typical profile
H1 - 0 to 4 inches: loam
H2 - 4 to 70 inches: gravelly loam

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 24 to 72 inches
Frequency of flooding: FrequentNone
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 6.0 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Unnamed soils
Percent of map unit: 10 percent

Medihemists
Percent of map unit: 5 percent
Landform: Swamps, marshes
Hydric soil rating: Yes

Hydraquents
Percent of map unit: 4 percent
Landform: Marshes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Unnamed soils, shallow
Percent of map unit: 1 percent

In—Ilion silt loam

Map Unit Setting
National map unit symbol: 9pg9
Elevation: 600 to 1,800 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Ilion and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ilion

Setting
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy till derived from calcareous dark shale

Typical profile
H1 - 0 to 12 inches: silt loam

H2 - 12 to 32 inches: silty clay loam
H3 - 32 to 60 inches: gravelly silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: 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 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Ecological site: F101XY014NY - Wet Till Depression
Hydric soil rating: Yes

Minor Components

Madalin

Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Unnamed soils

Percent of map unit: 4 percent

Burdett

Percent of map unit: 2 percent
Hydric soil rating: No

NuB—Nunda silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9ph2
Elevation: 400 to 1,600 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Nunda and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Custom Soil Resource Report

Description of Nunda

Setting

Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: A silty mantle over loamy till derived from calcareous shale and siltstone

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 20 inches: silt loam
2B/E - 20 to 28 inches: silt loam
2Bt - 28 to 44 inches: silty clay loam
2C - 44 to 64 inches: clay loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.03 to 0.20 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 5 percent

Burdett

Percent of map unit: 5 percent
Hydric soil rating: No

Angola

Percent of map unit: 3 percent
Hydric soil rating: No

Ilion

Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

NuC—Nunda silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9ph3
Elevation: 400 to 1,600 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Nunda and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nunda

Setting

Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: A silty mantle over loamy till derived from calcareous shale and siltstone

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 20 inches: silt loam
2B/E - 20 to 28 inches: silt loam
2Bt - 28 to 44 inches: silty clay loam
2C - 44 to 64 inches: clay loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.03 to 0.20 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: F101XY013NY - Moist Till

Hydric soil rating: No

Minor Components

Burdett
Percent of map unit: 5 percent
Hydric soil rating: No

Angola
Percent of map unit: 3 percent
Hydric soil rating: No

Unnamed soils
Percent of map unit: 1 percent

Ilion
Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

NuD—Nunda silt loam, 15 to 25 percent slopes

Map Unit Setting
National map unit symbol: 9ph4
Elevation: 400 to 1,600 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition
Nunda and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nunda

Setting
Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: A silty mantle over loamy till derived from calcareous shale and siltstone

Typical profile
H1 - 0 to 10 inches: silt loam
H2 - 10 to 20 inches: silt loam
2B/E - 20 to 28 inches: silt loam
2Bt - 28 to 44 inches: silty clay loam
2C - 44 to 64 inches: clay loam

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.03 to 0.20 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 8 percent

Arnot

Percent of map unit: 5 percent
Hydric soil rating: No

Ilion

Percent of map unit: 2 percent
Landform: Depressions
Hydric soil rating: Yes

NuE—Nunda silt loam, 25 to 35 percent slopes

Map Unit Setting

National map unit symbol: 9ph5
Elevation: 400 to 1,600 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Nunda and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nunda

Setting

Landform: Hills, till plains, drumlinoid ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: A silty mantle over loamy till derived from calcareous shale and siltstone

Typical profile

H1 - 0 to 10 inches: silt loam
H2 - 10 to 20 inches: silt loam
2B/E - 20 to 28 inches: silt loam
2Bt - 28 to 44 inches: silty clay loam
2C - 44 to 64 inches: clay loam

Properties and qualities

Slope: 25 to 35 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.03 to 0.20 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Unnamed soils, eroded soils

Percent of map unit: 10 percent

Unnamed soils, moderately deep

Percent of map unit: 10 percent

Unnamed soils, shallow

Percent of map unit: 5 percent

RhA—Rhinebeck silty clay loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9phh
Elevation: 80 to 1,000 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Rhinebeck and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rhinebeck

Setting

Landform: Lake plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Clayey and silty glaciolacustrine deposits

Typical profile

H1 - 0 to 7 inches: silty clay loam
H2 - 7 to 34 inches: silty clay
H3 - 34 to 64 inches: silty clay

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 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F144AY018NY - Moist Lake Plain
Hydric soil rating: No

Minor Components

Raynham
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Madalin
Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

ScB—Scio silt loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 9php
Elevation: 100 to 1,000 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Scio and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Scio

Setting
Landform: Lake plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Glaciolacustrine deposits, eolian deposits, or old alluvium, comprised mainly of silt and very fine sand

Typical profile
H1 - 0 to 8 inches: silt loam
H2 - 8 to 65 inches: silt loam

Properties and qualities
Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None

Frequency of ponding: None
Available water capacity: High (about 11.4 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B/D
Ecological site: F144AY026CT - Moist Silty Outwash
Hydric soil rating: No

Minor Components

Unadilla
Percent of map unit: 5 percent
Hydric soil rating: No

Elmridge
Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils
Percent of map unit: 5 percent

Raynham
Percent of map unit: 5 percent
Hydric soil rating: Yes

Te—Teel silt loam

Map Unit Setting
National map unit symbol: 9phv
Elevation: 600 to 1,800 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Teel and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Teel

Setting
Landform: Flood plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Silty alluvium

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 29 inches: silt loam
H3 - 29 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: OccasionalNone
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Available water capacity: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: F101XY002NY - Low Floodplain
Hydric soil rating: No

Minor Components

Wakeland

Percent of map unit: 5 percent
Landform: Flood plains
Hydric soil rating: No

Hamlin

Percent of map unit: 5 percent
Hydric soil rating: No

Scio

Percent of map unit: 3 percent
Hydric soil rating: No

Raynham

Percent of map unit: 3 percent
Landform: Depressions
Hydric soil rating: Yes

Unnamed soils

Percent of map unit: 2 percent

Wayland

Percent of map unit: 1 percent
Landform: Flood plains
Hydric soil rating: Yes

Rhinebeck

Percent of map unit: 1 percent
Hydric soil rating: No

Ug—Udorthents, loamy

Map Unit Setting

National map unit symbol: 9pj1
Elevation: 0 to 1,640 feet
Mean annual precipitation: 36 to 41 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, loamy, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Loamy

Typical profile

H1 - 0 to 4 inches: loam
H2 - 4 to 70 inches: channery loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 36 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Low (about 5.5 inches)

Minor Components

Unnamed soils

Percent of map unit: 10 percent

VaB—Valois gravelly loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9pjc
Elevation: 600 to 1,750 feet
Mean annual precipitation: 36 to 41 inches

Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Valois and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Valois

Setting

Landform: Valley sides, end moraines, lateral moraines
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till derived mainly from sandstone, siltstone, and shale

Typical profile

H1 - 0 to 8 inches: gravelly loam
H2 - 8 to 30 inches: gravelly loam
H3 - 30 to 46 inches: gravelly loam
H4 - 46 to 60 inches: very gravelly loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Available water capacity: Low (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Chenango

Percent of map unit: 10 percent
Hydric soil rating: No

Unnamed soils

Percent of map unit: 5 percent

Nunda

Percent of map unit: 5 percent
Hydric soil rating: No

W—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

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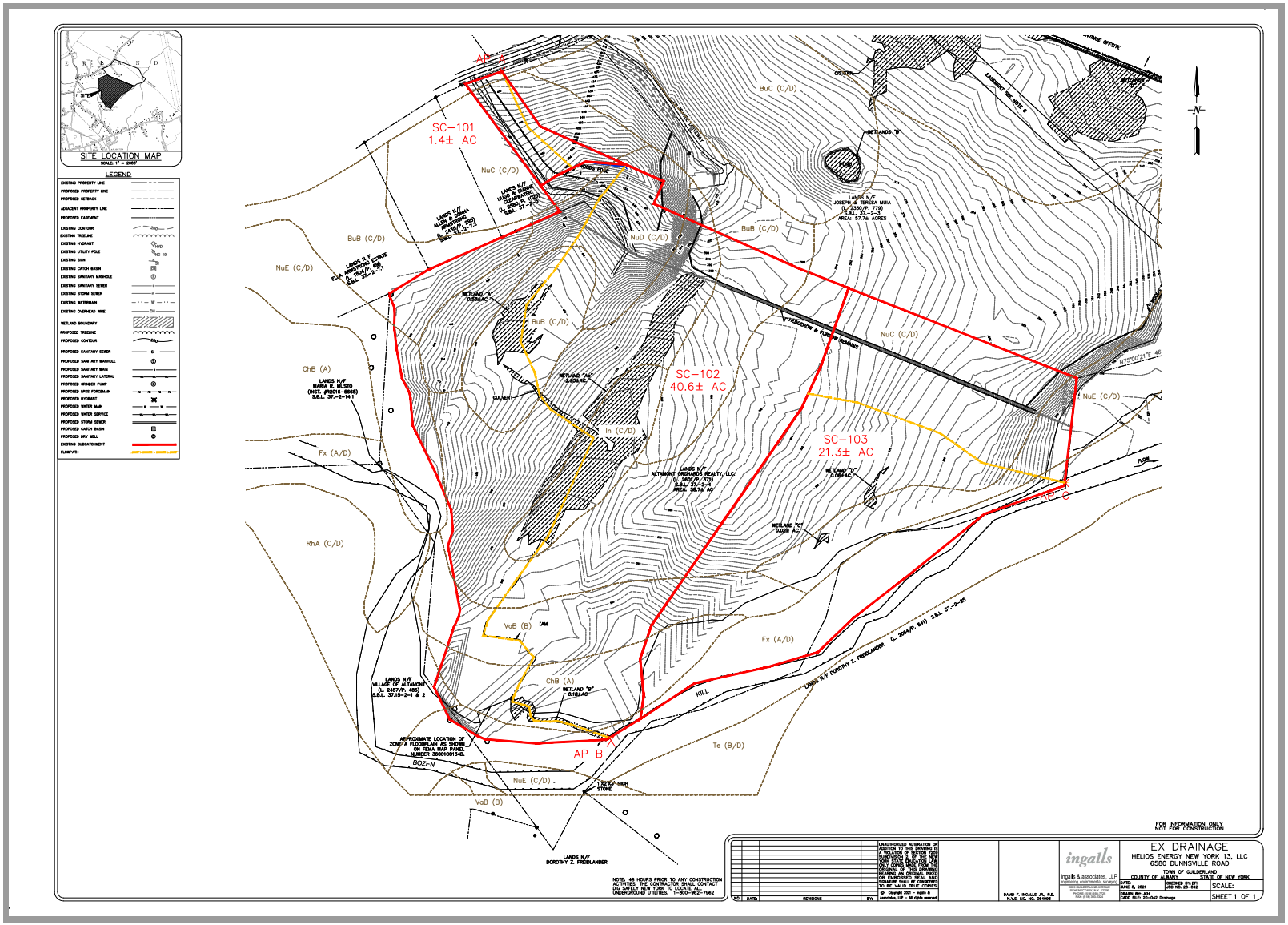
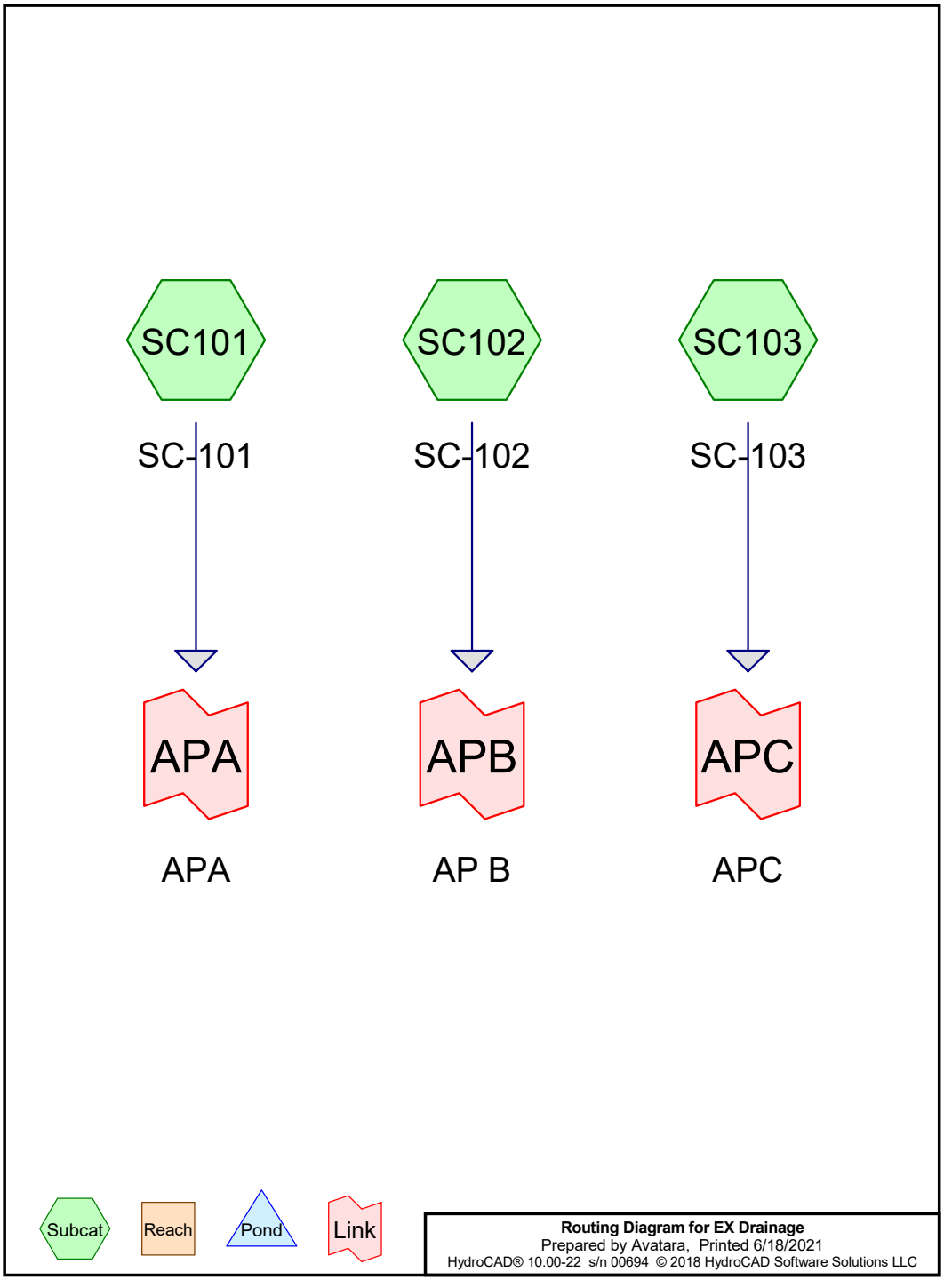
APPENDIX D

DRAINAGE ANALYSIS


SITE LOCATION MAP
SCALE: 1" = 2000'
LEGEND
SC-101
1.4± AC
SC-102
40.6± AC
SC-103
21.3± AC
AP A
AP B
AP C
BuC (C/D)
NuC (C/D)
BuB (C/D)
NuE (C/D)
NuD (C/D)
ChB (A)
Fx (A/D)
In (C/D)
RhA (C/D)
VoB (B)
Te (B/D)
WETLAND "A" 0.53±AC
WETLAND "B" 0.15±AC
WETLAND "C" 0.02± AC
WETLAND "D" 0.05±AC
CULVERT
KILL
FOR INFORMATION ONLY
NOT FOR CONSTRUCTION
EX DRAINAGE
HELIOS ENERGY NEW YORK 13, LLC
6580 DUNNSVILLE ROAD
TOWN OF GUILDERLAND
COUNTY OF ALBANY
STATE OF NEW YORK
SCALE:
SHEET 1 OF 1


SC101
SC102
SC103
SC-101
SC-102
SC-103
APA
APB
APC
APA
AP B
APC
Subcat
Reach
Pond
Link
Routing Diagram for EX Drainage
Prepared by Avatara, Printed 6/18/2021
HydroCAD® 10.00-22 s/n 00694 © 2018 HydroCAD Software Solutions LLC

EX Drainage *Type II 24-hr 1-YR Rainfall=2.30"*
Prepared by Avatara Printed 6/18/2021
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Time span=1.00-40.00 hrs, dt=0.01 hrs, 3901 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 SC101: SC-101 Runoff Area=1.400 ac 0.00% Impervious Runoff Depth=0.85"
Flow Length=604' Tc=13.0 min CN=82 Runoff=1.63 cfs 0.100 af

Subcatchment SC102: SC-102 Runoff Area=40.600 ac 0.00% Impervious Runoff Depth=0.62"
Flow Length=2,678' Tc=20.2 min CN=77 Runoff=25.21 cfs 2.091 af

Subcatchment SC103: SC-103 Runoff Area=21.300 ac 0.00% Impervious Runoff Depth=0.58"
Flow Length=914' Tc=22.5 min CN=76 Runoff=11.25 cfs 1.024 af

Link APA: APA Inflow=1.63 cfs 0.100 af
Primary=1.63 cfs 0.100 af

Link APB: AP B Inflow=25.21 cfs 2.091 af
Primary=25.21 cfs 2.091 af

Link APC: APC Inflow=11.25 cfs 1.024 af
Primary=11.25 cfs 1.024 af

Total Runoff Area = 63.300 ac Runoff Volume = 3.215 af Average Runoff Depth = 0.61"
100.00% Pervious = 63.300 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment SC101: SC-101

Runoff = 1.63 cfs @ 12.06 hrs, Volume= 0.100 af, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.30"

Area (ac)	CN	Description
1.400	82	Woods/grass comb., Fair, HSG D
1.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.1300	0.15		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
2.1	504	0.0600	3.94		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
13.0	604	Total			

Summary for Subcatchment SC102: SC-102

Runoff = 25.21 cfs @ 12.14 hrs, Volume= 2.091 af, Depth= 0.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.30"

Area (ac)	CN	Description
3.900	43	Woods/grass comb., Fair, HSG A
3.200	65	Woods/grass comb., Fair, HSG B
31.700	82	Woods/grass comb., Fair, HSG D
1.800	78	Meadow, non-grazed, HSG D
40.600	77	Weighted Average
40.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.2200	0.19		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
11.4	2,578	0.0550	3.78		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
20.2	2,678	Total			

Summary for Subcatchment SC103: SC-103

Runoff = 11.25 cfs @ 12.18 hrs, Volume= 1.024 af, Depth= 0.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.30"

Area (ac)	CN	Description
1.100	43	Woods/grass comb., Fair, HSG A
0.800	65	Woods/grass comb., Fair, HSG B
0.500	55	Woods, Good, HSG B
6.800	77	Woods, Good, HSG D
2.500	78	Meadow, non-grazed, HSG D
9.500	82	Woods/grass comb., Fair, HSG D
0.100	30	Woods, Good, HSG A
21.300	76	Weighted Average
21.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.5	100	0.0300	0.09		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
3.0	814	0.0800	4.55		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
22.5	914	Total			

Summary for Link APA: APA

Inflow Area = 1.400 ac, 0.00% Impervious, Inflow Depth = 0.85" for 1-YR event
Inflow = 1.63 cfs @ 12.06 hrs, Volume= 0.100 af
Primary = 1.63 cfs @ 12.06 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APB: AP B

Inflow Area = 40.600 ac, 0.00% Impervious, Inflow Depth = 0.62" for 1-YR event
Inflow = 25.21 cfs @ 12.14 hrs, Volume= 2.091 af
Primary = 25.21 cfs @ 12.14 hrs, Volume= 2.091 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APC: APC

Inflow Area = 21.300 ac, 0.00% Impervious, Inflow Depth = 0.58" for 1-YR event
Inflow = 11.25 cfs @ 12.18 hrs, Volume= 1.024 af
Primary = 11.25 cfs @ 12.18 hrs, Volume= 1.024 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

EX Drainage *Type II 24-hr 10-YR Rainfall=4.00"*
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Time span=1.00-40.00 hrs, dt=0.01 hrs, 3901 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 SC101: SC-101 Runoff Area=1.400 ac 0.00% Impervious Runoff Depth=2.20"
Flow Length=604' Tc=13.0 min CN=82 Runoff=4.27 cfs 0.257 af

Subcatchment SC102: SC-102 Runoff Area=40.600 ac 0.00% Impervious Runoff Depth=1.81"
Flow Length=2,678' Tc=20.2 min CN=77 Runoff=80.86 cfs 6.130 af

Subcatchment SC103: SC-103 Runoff Area=21.300 ac 0.00% Impervious Runoff Depth=1.74"
Flow Length=914' Tc=22.5 min CN=76 Runoff=37.94 cfs 3.086 af

Link APA: APA Inflow=4.27 cfs 0.257 af
Primary=4.27 cfs 0.257 af

Link APB: AP B Inflow=80.86 cfs 6.130 af
Primary=80.86 cfs 6.130 af

Link APC: APC Inflow=37.94 cfs 3.086 af
Primary=37.94 cfs 3.086 af

Total Runoff Area = 63.300 ac Runoff Volume = 9.473 af Average Runoff Depth = 1.80"
100.00% Pervious = 63.300 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment SC101: SC-101

Runoff = 4.27 cfs @ 12.05 hrs, Volume= 0.257 af, Depth= 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.00"

Area (ac)	CN	Description
1.400	82	Woods/grass comb., Fair, HSG D
1.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.1300	0.15		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
2.1	504	0.0600	3.94		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
13.0	604	Total			

Summary for Subcatchment SC102: SC-102

Runoff = 80.86 cfs @ 12.14 hrs, Volume= 6.130 af, Depth= 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.00"

Area (ac)	CN	Description
3.900	43	Woods/grass comb., Fair, HSG A
3.200	65	Woods/grass comb., Fair, HSG B
31.700	82	Woods/grass comb., Fair, HSG D
1.800	78	Meadow, non-grazed, HSG D
40.600	77	Weighted Average
40.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.2200	0.19		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
11.4	2,578	0.0550	3.78		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
20.2	2,678	Total			

Summary for Subcatchment SC103: SC-103

Runoff = 37.94 cfs @ 12.17 hrs, Volume= 3.086 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.00"

Area (ac)	CN	Description
1.100	43	Woods/grass comb., Fair, HSG A
0.800	65	Woods/grass comb., Fair, HSG B
0.500	55	Woods, Good, HSG B
6.800	77	Woods, Good, HSG D
2.500	78	Meadow, non-grazed, HSG D
9.500	82	Woods/grass comb., Fair, HSG D
0.100	30	Woods, Good, HSG A
21.300	76	Weighted Average
21.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.5	100	0.0300	0.09		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
3.0	814	0.0800	4.55		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
22.5	914	Total			

Summary for Link APA: APA

Inflow Area = 1.400 ac, 0.00% Impervious, Inflow Depth = 2.20" for 10-YR event
Inflow = 4.27 cfs @ 12.05 hrs, Volume= 0.257 af
Primary = 4.27 cfs @ 12.05 hrs, Volume= 0.257 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APB: AP B

Inflow Area = 40.600 ac, 0.00% Impervious, Inflow Depth = 1.81" for 10-YR event
Inflow = 80.86 cfs @ 12.14 hrs, Volume= 6.130 af
Primary = 80.86 cfs @ 12.14 hrs, Volume= 6.130 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APC: APC

Inflow Area = 21.300 ac, 0.00% Impervious, Inflow Depth = 1.74" for 10-YR event
Inflow = 37.94 cfs @ 12.17 hrs, Volume= 3.086 af
Primary = 37.94 cfs @ 12.17 hrs, Volume= 3.086 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

EX Drainage *Type II 24-hr 100-YR Rainfall=7.00"*
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Time span=1.00-40.00 hrs, dt=0.01 hrs, 3901 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 SC101: SC-101 Runoff Area=1.400 ac 0.00% Impervious Runoff Depth=4.92"
Flow Length=604' Tc=13.0 min CN=82 Runoff=9.31 cfs 0.574 af

Subcatchment SC102: SC-102 Runoff Area=40.600 ac 0.00% Impervious Runoff Depth=4.37"
Flow Length=2,678' Tc=20.2 min CN=77 Runoff=195.63 cfs 14.771 af

Subcatchment SC103: SC-103 Runoff Area=21.300 ac 0.00% Impervious Runoff Depth=4.26"
Flow Length=914' Tc=22.5 min CN=76 Runoff=94.12 cfs 7.557 af

Link APA: APA Inflow=9.31 cfs 0.574 af
Primary=9.31 cfs 0.574 af

Link APB: AP B Inflow=195.63 cfs 14.771 af
Primary=195.63 cfs 14.771 af

Link APC: APC Inflow=94.12 cfs 7.557 af
Primary=94.12 cfs 7.557 af

Total Runoff Area = 63.300 ac Runoff Volume = 22.901 af Average Runoff Depth = 4.34"
100.00% Pervious = 63.300 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment SC101: SC-101

Runoff = 9.31 cfs @ 12.05 hrs, Volume= 0.574 af, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=7.00"

Area (ac)	CN	Description
1.400	82	Woods/grass comb., Fair, HSG D
1.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.1300	0.15		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
2.1	504	0.0600	3.94		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
13.0	604	Total			

Summary for Subcatchment SC102: SC-102

Runoff = 195.63 cfs @ 12.12 hrs, Volume= 14.771 af, Depth= 4.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=7.00"

Area (ac)	CN	Description
3.900	43	Woods/grass comb., Fair, HSG A
3.200	65	Woods/grass comb., Fair, HSG B
31.700	82	Woods/grass comb., Fair, HSG D
1.800	78	Meadow, non-grazed, HSG D
40.600	77	Weighted Average
40.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.2200	0.19		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
11.4	2,578	0.0550	3.78		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
20.2	2,678	Total			

Summary for Subcatchment SC103: SC-103

Runoff = 94.12 cfs @ 12.15 hrs, Volume= 7.557 af, Depth= 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=7.00"

Area (ac)	CN	Description
1.100	43	Woods/grass comb., Fair, HSG A
0.800	65	Woods/grass comb., Fair, HSG B
0.500	55	Woods, Good, HSG B
6.800	77	Woods, Good, HSG D
2.500	78	Meadow, non-grazed, HSG D
9.500	82	Woods/grass comb., Fair, HSG D
0.100	30	Woods, Good, HSG A
21.300	76	Weighted Average
21.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.5	100	0.0300	0.09		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
3.0	814	0.0800	4.55		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
22.5	914	Total			

Summary for Link APA: APA

Inflow Area = 1.400 ac, 0.00% Impervious, Inflow Depth = 4.92" for 100-YR event
Inflow = 9.31 cfs @ 12.05 hrs, Volume= 0.574 af
Primary = 9.31 cfs @ 12.05 hrs, Volume= 0.574 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APB: AP B

Inflow Area = 40.600 ac, 0.00% Impervious, Inflow Depth = 4.37" for 100-YR event
Inflow = 195.63 cfs @ 12.12 hrs, Volume= 14.771 af
Primary = 195.63 cfs @ 12.12 hrs, Volume= 14.771 af, Atten= 0%, Lag= 0.0 min

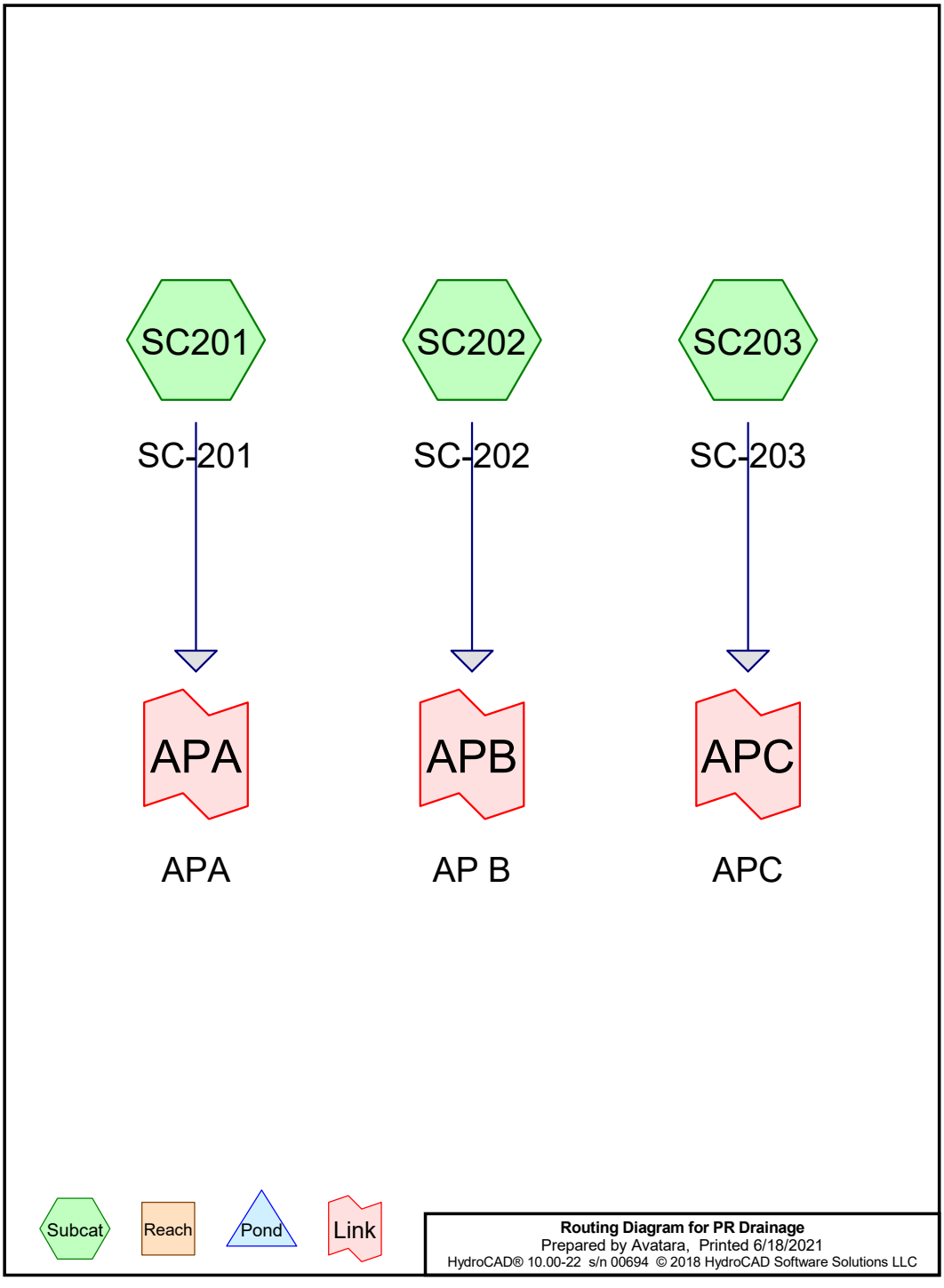
Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APC: APC

Inflow Area = 21.300 ac, 0.00% Impervious, Inflow Depth = 4.26" for 100-YR event
Inflow = 94.12 cfs @ 12.15 hrs, Volume= 7.557 af
Primary = 94.12 cfs @ 12.15 hrs, Volume= 7.557 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

SITE LOCATION MAP
SCALE: 1" = 2000'
LEGEND
SC-201
1.4± AC
SC-202
40.6± AC
SC-203
21.4± AC
BuB (C/D)
BuC (C/D)
NuC (C/D)
NuD (C/D)
NuE (C/D)
ChB (A)
Fx (A/D)
In (C/D)
RhA (C/D)
VoB (B)
Te (B/D)
KILL
BOZEN
LANDS N/F DOROTHY Z. FREDLANDER
LANDS N/F VILLAGE OF ALTAMONT
LANDS N/F MARRA R. MUSTO
LANDS N/F JOSEPH & TERESA MIJA
WETLAND "B"
WETLAND "C"
APPROXIMATE LOCATION OF ZONE A FLOODPLAIN AS SHOWN ON FEMA MAP PANEL NUMBER 36001C0134D.
NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONTACT DIG SAFELY NEW YORK FOR LOCATION OF UNDERGROUND UTILITIES. 1-800-962-7962
FOR INFORMATION ONLY
NOT FOR CONSTRUCTION
PROPOSED DRAINAGE
HELIOS ENERGY NEW YORK 13, LLC
6580 DUNNSVILLE ROAD
TOWN OF GUILDERLAND
COUNTY OF ALBANY
STATE OF NEW YORK
SCALE: 1"=100'
SHEET 1 OF 1
ingalls & associates, LLP


SC201
SC202
SC203
SC-201
SC-202
SC-203
APA
APB
APC
APA
AP B
APC
Subcat
Reach
Pond
Link
Routing Diagram for PR Drainage
Prepared by Avatara, Printed 6/18/2021
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PR Drainage *Type II 24-hr 1-YR Rainfall=2.30"*
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Time span=1.00-40.00 hrs, dt=0.01 hrs, 3901 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 SC201: SC-201 Runoff Area=1.400 ac 0.00% Impervious Runoff Depth=0.58"
Flow Length=604' Tc=13.0 min CN=76 Runoff=1.03 cfs 0.067 af

Subcatchment SC202: SC-202 Runoff Area=40.600 ac 0.02% Impervious Runoff Depth=0.54"
Flow Length=2,678' Tc=20.2 min CN=75 Runoff=20.90 cfs 1.817 af

Subcatchment SC203: SC-203 Runoff Area=21.300 ac 0.00% Impervious Runoff Depth=0.54"
Flow Length=914' Tc=22.5 min CN=75 Runoff=10.21 cfs 0.953 af

Link APA: APA Inflow=1.03 cfs 0.067 af
Primary=1.03 cfs 0.067 af

Link APB: AP B Inflow=20.90 cfs 1.817 af
Primary=20.90 cfs 1.817 af

Link APC: APC Inflow=10.21 cfs 0.953 af
Primary=10.21 cfs 0.953 af

Total Runoff Area = 63.300 ac Runoff Volume = 2.838 af Average Runoff Depth = 0.54"
99.98% Pervious = 63.290 ac 0.02% Impervious = 0.010 ac

Summary for Subcatchment SC201: SC-201

Runoff = 1.03 cfs @ 12.06 hrs, Volume= 0.067 af, Depth= 0.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.30"

Area (ac)	CN	Description
0.500	82	Woods/grass comb., Fair, HSG D
0.900	73	Brush, Good, HSG D
1.400	76	Weighted Average
1.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.1300	0.15		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
2.1	504	0.0600	3.94		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
13.0	604	Total			

Summary for Subcatchment SC202: SC-202

Runoff = 20.90 cfs @ 12.15 hrs, Volume= 1.817 af, Depth= 0.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.30"

Area (ac)	CN	Description
5.700	82	Woods/grass comb., Fair, HSG D
28.990	78	Meadow, non-grazed, HSG D
2.700	58	Meadow, non-grazed, HSG B
0.800	30	Meadow, non-grazed, HSG A
0.600	65	Woods/grass comb., Fair, HSG B
1.800	43	Woods/grass comb., Fair, HSG A
0.010	98	Paved parking, HSG A
40.600	75	Weighted Average
40.590		99.98% Pervious Area
0.010		0.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.2200	0.19		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
11.4	2,578	0.0550	3.78		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
20.2	2,678	Total			

Summary for Subcatchment SC203: SC-203

Runoff = 10.21 cfs @ 12.18 hrs, Volume= 0.953 af, Depth= 0.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-YR Rainfall=2.30"

Area (ac)	CN	Description
1.100	43	Woods/grass comb., Fair, HSG A
0.600	58	Meadow, non-grazed, HSG B
0.200	65	Woods/grass comb., Fair, HSG B
6.800	77	Woods, Good, HSG D
7.400	78	Meadow, non-grazed, HSG D
2.100	82	Woods/grass comb., Fair, HSG D
2.500	78	Meadow, non-grazed, HSG D
0.500	55	Woods, Good, HSG B
0.100	30	Woods, Good, HSG A
21.300	75	Weighted Average
21.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.5	100	0.0300	0.09		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
3.0	814	0.0800	4.55		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
22.5	914	Total			

Summary for Link APA: APA

Inflow Area = 1.400 ac, 0.00% Impervious, Inflow Depth = 0.58" for 1-YR event
Inflow = 1.03 cfs @ 12.06 hrs, Volume= 0.067 af
Primary = 1.03 cfs @ 12.06 hrs, Volume= 0.067 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APB: AP B

Inflow Area = 40.600 ac, 0.02% Impervious, Inflow Depth = 0.54" for 1-YR event
Inflow = 20.90 cfs @ 12.15 hrs, Volume= 1.817 af
Primary = 20.90 cfs @ 12.15 hrs, Volume= 1.817 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APC: APC

Inflow Area = 21.300 ac, 0.00% Impervious, Inflow Depth = 0.54" for 1-YR event
Inflow = 10.21 cfs @ 12.18 hrs, Volume= 0.953 af
Primary = 10.21 cfs @ 12.18 hrs, Volume= 0.953 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

PR Drainage *Type II 24-hr 10-YR Rainfall=4.00"*
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Time span=1.00-40.00 hrs, dt=0.01 hrs, 3901 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 SC201: SC-201 Runoff Area=1.400 ac 0.00% Impervious Runoff Depth=1.74"
Flow Length=604' Tc=13.0 min CN=76 Runoff=3.36 cfs 0.203 af

Subcatchment SC202: SC-202 Runoff Area=40.600 ac 0.02% Impervious Runoff Depth=1.67"
Flow Length=2,678' Tc=20.2 min CN=75 Runoff=73.83 cfs 5.639 af

Subcatchment SC203: SC-203 Runoff Area=21.300 ac 0.00% Impervious Runoff Depth=1.67"
Flow Length=914' Tc=22.5 min CN=75 Runoff=36.22 cfs 2.958 af

Link APA: APA Inflow=3.36 cfs 0.203 af
Primary=3.36 cfs 0.203 af

Link APB: AP B Inflow=73.83 cfs 5.639 af
Primary=73.83 cfs 5.639 af

Link APC: APC Inflow=36.22 cfs 2.958 af
Primary=36.22 cfs 2.958 af

Total Runoff Area = 63.300 ac Runoff Volume = 8.800 af Average Runoff Depth = 1.67"
99.98% Pervious = 63.290 ac 0.02% Impervious = 0.010 ac

Summary for Subcatchment SC201: SC-201

Runoff = 3.36 cfs @ 12.06 hrs, Volume= 0.203 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.00"

Area (ac)	CN	Description
0.500	82	Woods/grass comb., Fair, HSG D
0.900	73	Brush, Good, HSG D
1.400	76	Weighted Average
1.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.1300	0.15		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
2.1	504	0.0600	3.94		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
13.0	604	Total			

Summary for Subcatchment SC202: SC-202

Runoff = 73.83 cfs @ 12.14 hrs, Volume= 5.639 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.00"

Area (ac)	CN	Description
5.700	82	Woods/grass comb., Fair, HSG D
28.990	78	Meadow, non-grazed, HSG D
2.700	58	Meadow, non-grazed, HSG B
0.800	30	Meadow, non-grazed, HSG A
0.600	65	Woods/grass comb., Fair, HSG B
1.800	43	Woods/grass comb., Fair, HSG A
0.010	98	Paved parking, HSG A
40.600	75	Weighted Average
40.590		99.98% Pervious Area
0.010		0.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.2200	0.19		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
11.4	2,578	0.0550	3.78		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
20.2	2,678	Total			

Summary for Subcatchment SC203: SC-203

Runoff = 36.22 cfs @ 12.17 hrs, Volume= 2.958 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-YR Rainfall=4.00"

Area (ac)	CN	Description
1.100	43	Woods/grass comb., Fair, HSG A
0.600	58	Meadow, non-grazed, HSG B
0.200	65	Woods/grass comb., Fair, HSG B
6.800	77	Woods, Good, HSG D
7.400	78	Meadow, non-grazed, HSG D
2.100	82	Woods/grass comb., Fair, HSG D
2.500	78	Meadow, non-grazed, HSG D
0.500	55	Woods, Good, HSG B
0.100	30	Woods, Good, HSG A
21.300	75	Weighted Average
21.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.5	100	0.0300	0.09		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
3.0	814	0.0800	4.55		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
22.5	914	Total			

Summary for Link APA: APA

Inflow Area = 1.400 ac, 0.00% Impervious, Inflow Depth = 1.74" for 10-YR event
Inflow = 3.36 cfs @ 12.06 hrs, Volume= 0.203 af
Primary = 3.36 cfs @ 12.06 hrs, Volume= 0.203 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APB: AP B

Inflow Area = 40.600 ac, 0.02% Impervious, Inflow Depth = 1.67" for 10-YR event
Inflow = 73.83 cfs @ 12.14 hrs, Volume= 5.639 af
Primary = 73.83 cfs @ 12.14 hrs, Volume= 5.639 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APC: APC

Inflow Area = 21.300 ac, 0.00% Impervious, Inflow Depth = 1.67" for 10-YR event
Inflow = 36.22 cfs @ 12.17 hrs, Volume= 2.958 af
Primary = 36.22 cfs @ 12.17 hrs, Volume= 2.958 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

PR Drainage *Type II 24-hr 100-YR Rainfall=7.00"*
Prepared by Avatara Printed 6/18/2021
HydroCAD® 10.00-22 s/n 00694 © 2018 HydroCAD Software Solutions LLC

Time span=1.00-40.00 hrs, dt=0.01 hrs, 3901 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 SC201: SC-201 Runoff Area=1.400 ac 0.00% Impervious Runoff Depth=4.26"
Flow Length=604' Tc=13.0 min CN=76 Runoff=8.21 cfs 0.497 af

Subcatchment SC202: SC-202 Runoff Area=40.600 ac 0.02% Impervious Runoff Depth=4.15"
Flow Length=2,678' Tc=20.2 min CN=75 Runoff=186.20 cfs 14.039 af

Subcatchment SC203: SC-203 Runoff Area=21.300 ac 0.00% Impervious Runoff Depth=4.15"
Flow Length=914' Tc=22.5 min CN=75 Runoff=91.79 cfs 7.365 af

Link APA: APA Inflow=8.21 cfs 0.497 af
Primary=8.21 cfs 0.497 af

Link APB: AP B Inflow=186.20 cfs 14.039 af
Primary=186.20 cfs 14.039 af

Link APC: APC Inflow=91.79 cfs 7.365 af
Primary=91.79 cfs 7.365 af

Total Runoff Area = 63.300 ac Runoff Volume = 21.901 af Average Runoff Depth = 4.15"
99.98% Pervious = 63.290 ac 0.02% Impervious = 0.010 ac

Summary for Subcatchment SC201: SC-201

Runoff = 8.21 cfs @ 12.05 hrs, Volume= 0.497 af, Depth= 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=7.00"

Area (ac)	CN	Description
0.500	82	Woods/grass comb., Fair, HSG D
0.900	73	Brush, Good, HSG D
1.400	76	Weighted Average
1.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.1300	0.15		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
2.1	504	0.0600	3.94		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
13.0	604	Total			

Summary for Subcatchment SC202: SC-202

Runoff = 186.20 cfs @ 12.13 hrs, Volume= 14.039 af, Depth= 4.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=7.00"

Area (ac)	CN	Description
5.700	82	Woods/grass comb., Fair, HSG D
28.990	78	Meadow, non-grazed, HSG D
2.700	58	Meadow, non-grazed, HSG B
0.800	30	Meadow, non-grazed, HSG A
0.600	65	Woods/grass comb., Fair, HSG B
1.800	43	Woods/grass comb., Fair, HSG A
0.010	98	Paved parking, HSG A
40.600	75	Weighted Average
40.590		99.98% Pervious Area
0.010		0.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.2200	0.19		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
11.4	2,578	0.0550	3.78		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
20.2	2,678	Total			

Summary for Subcatchment SC203: SC-203

Runoff = 91.79 cfs @ 12.15 hrs, Volume= 7.365 af, Depth= 4.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-YR Rainfall=7.00"

Area (ac)	CN	Description
1.100	43	Woods/grass comb., Fair, HSG A
0.600	58	Meadow, non-grazed, HSG B
0.200	65	Woods/grass comb., Fair, HSG B
6.800	77	Woods, Good, HSG D
7.400	78	Meadow, non-grazed, HSG D
2.100	82	Woods/grass comb., Fair, HSG D
2.500	78	Meadow, non-grazed, HSG D
0.500	55	Woods, Good, HSG B
0.100	30	Woods, Good, HSG A
21.300	75	Weighted Average
21.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.5	100	0.0300	0.09		**Sheet Flow, 1 - Sheet Flow** Woods: Light underbrush n= 0.400 P2= 2.80"
3.0	814	0.0800	4.55		**Shallow Concentrated Flow, 2 - SCF** Unpaved Kv= 16.1 fps
22.5	914	Total			

Summary for Link APA: APA

Inflow Area = 1.400 ac, 0.00% Impervious, Inflow Depth = 4.26" for 100-YR event
Inflow = 8.21 cfs @ 12.05 hrs, Volume= 0.497 af
Primary = 8.21 cfs @ 12.05 hrs, Volume= 0.497 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APB: AP B

Inflow Area = 40.600 ac, 0.02% Impervious, Inflow Depth = 4.15" for 100-YR event
Inflow = 186.20 cfs @ 12.13 hrs, Volume= 14.039 af
Primary = 186.20 cfs @ 12.13 hrs, Volume= 14.039 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

Summary for Link APC: APC

Inflow Area = 21.300 ac, 0.00% Impervious, Inflow Depth = 4.15" for 100-YR event
Inflow = 91.79 cfs @ 12.15 hrs, Volume= 7.365 af
Primary = 91.79 cfs @ 12.15 hrs, Volume= 7.365 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-40.00 hrs, dt= 0.01 hrs

APPENDIX E

NOTICE OF INTENT

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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)
Helios Energy New York 13, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Losia

Owner/Operator Contact Person First Name
Michael

Owner/Operator Mailing Address
411 South Old Woodward, Suite 807

City
Birmingham

State
MI

Zip
48009-

Phone (Owner/Operator)
248-408-4898

Fax (Owner/Operator)
0 - 0 -

Email (Owner/Operator)
michael@helioseng.com

FED TAX ID
0 - (not required for individuals)

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Project Site Information

Project/Site Name
Helios Energy Guilderland Solar Farm

Street Address (NOT P.O. BOX)
6580 Dunsville Road

Side of Street
○ **North** ● **South** ○ **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)
Town of Guilderland

State: NY | Zip: 12009- | County: Albany | DEC Region:

Name of Nearest Cross Street
Gun Club Road

Distance to Nearest Cross Street (Feet)
1300

Project In Relation to Cross Street
● **North** ○ **South** ○ **East** ○ **West**

Tax Map Numbers
Section-Block-Parcel
37-2-4

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)
-74.0225
Ex. -73.749

Y Coordinates (Northing)
42.7167
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	Post-Development Future Land Use
○ FOREST	○ SINGLE FAMILY HOME
○ PASTURE/OPEN LAND	○ SINGLE FAMILY SUBDIVISION (Number of Lots:)
○ CULTIVATED LAND	○ TOWN HOME RESIDENTIAL
○ SINGLE FAMILY HOME	○ MULTIFAMILY RESIDENTIAL
○ SINGLE FAMILY SUBDIVISION	○ INSTITUTIONAL/SCHOOL
○ TOWN HOME RESIDENTIAL	○ INDUSTRIAL
○ MULTIFAMILY RESIDENTIAL	○ COMMERCIAL
○ INSTITUTIONAL/SCHOOL	○ MUNICIPAL
○ INDUSTRIAL	○ ROAD/HIGHWAY
○ COMMERCIAL	○ RECREATIONAL/SPORTS FIELD
○ ROAD/HIGHWAY	○ BIKE PATH/TRAIL
○ RECREATIONAL/SPORTS FIELD	○ LINEAR UTILITY (water, sewer, gas, etc.)
○ BIKE PATH/TRAIL	○ PARKING LOT
○ LINEAR UTILITY	○ CLEARING/GRADING ONLY
○ PARKING LOT	○ DEMOLITION, NO REDEVELOPMENT
● OTHER: Orchard	○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
	● OTHER: Solar Farm

***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
056.7	037.7	00.0	00.01

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
7 %	7 %	0 %	86 %

7. Is this a phased project? ● **Yes** ○ **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date 08/01/2021 – **End Date** 12/01/2021

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9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

Bozen Kill

Federal Wetlands

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?

NYSDOT

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
INGALLS & ASSOCIATES, LLP

Contact Name (Last, Space, First)
INGALLS, DAVID F

Mailing Address
2603 GUILDERLAND AVE

City
SCHENECTADY

State NY Zip 12306-

Phone 518-393-7725

Fax 518-393-2324

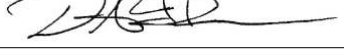
Email
dingalls@ingallsllp.com

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 David **MI** F

Last Name Ingalls

Signature 

Date 06/18/2021

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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

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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		.	0	0	1	**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)	0.	and/or	0.
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)	00.01	and/or	00.01
○ Tree Planting/Tree Pit (RR-3)	0.	and/or	0.
○ Disconnection of Rooftop Runoff (RR-4)	0.	and/or	0.
RR Techniques (Volume Reduction)			
○ Vegetated Swale (RR-5)			0.
○ Rain Garden (RR-6)			0.
○ Stormwater Planter (RR-7)			0.
○ Rain Barrel/Cistern (RR-8)			0.
○ Porous Pavement (RR-9)			0.
○ Green Roof (RR-10)			0.
Standard SMPs with RRv Capacity			
○ Infiltration Trench (I-1)			0.
○ Infiltration Basin (I-2)			0.
○ Dry Well (I-3)			0.
○ Underground Infiltration System (I-4)			0.
○ Bioretention (F-5)			0.
○ Dry Swale (O-1)			.
Standard SMPs			
○ Micropool Extended Detention (P-1)			0.
○ Wet Pond (P-2)			0.
○ Wet Extended Detention (P-3)			0.
○ Multiple Pond System (P-4)			0.
○ Pocket Pond (P-5)			0.
○ Surface Sand Filter (F-1)			0.
○ Underground Sand Filter (F-2)			0.
○ Perimeter Sand Filter (F-3)			0.
○ Organic Filter (F-4)			0.
○ Shallow Wetland (W-1)			0.
○ Extended Detention Wetland (W-2)			0.
○ Pond/Wetland System (W-3)			0.
○ Pocket Wetland (W-4)			0.
○ Wet Swale (O-2)			0.

Page 9 of 14

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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**	0 .
○ **Wet Vault**	0 .
○ **Media Filter**	0 .
○ **Other** [ ]	0 .

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 0 . 0 0 1 **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

[ ] . [ ] **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

[ ][ ][ ].[ ][ ][ ] **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). [ ][ ][ ].[ ][ ][ ]

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

[ ][ ][ ].[ ][ ][ ] **acre-feet**

CPv Provided

[ ][ ][ ].[ ][ ][ ] **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

1 2 3 . 0 7 [ ] **CFS**

Post-development

1 1 3 . 4 1 [ ] **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

2 9 9 . 0 6 [ ] **CFS**

Post-development

2 8 6 . 2 0 [ ] **CFS**

1310089822

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

Facility Manager

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.

100% RRv provided

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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 NYR
- ○ Other
- ○ None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ **Yes** ● **No**
If Yes, Indicate Size of Impact. . SF

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. NYR

3547089826

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: Michael

MI:

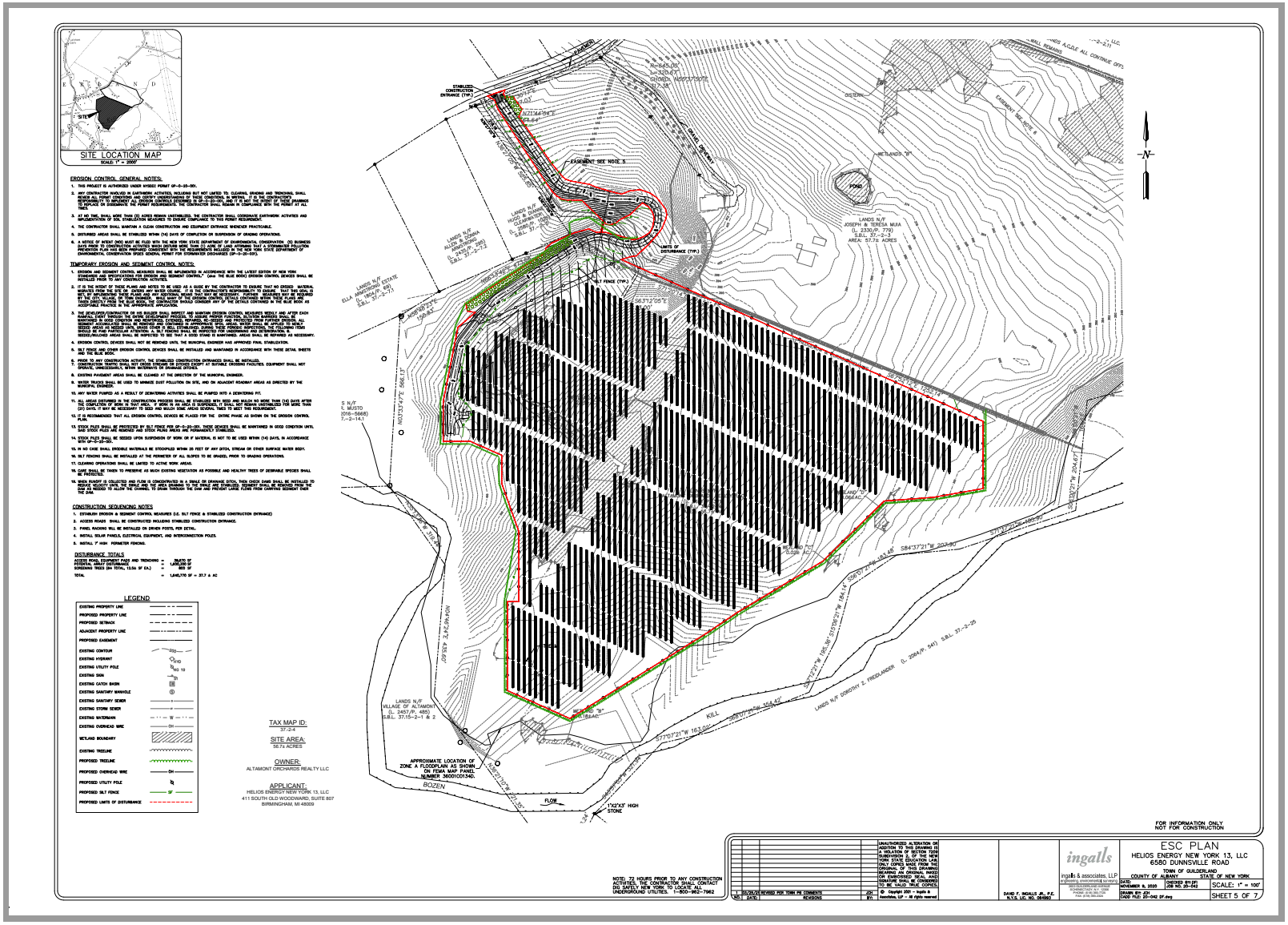
Print Last Name: Losia

Owner/Operator Signature:

Date: 0 / 0 /

APPENDIX F

EROSION & SEDIMENT CONTROL PLAN


SITE LOCATION MAP
SCALE: 1" = 2000'
EROSION CONTROL GENERAL NOTES:
TEMPORARY EROSION AND SEDIMENT CONTROL NOTES:
CONSTRUCTION SEQUENCING NOTES
DISTURBANCE TOTALS
LEGEND
TAX MAP ID:
37-2-4
SITE AREA:
56.7± ACRES
OWNER:
ALTAMONT ORCHARDS REALTY LLC
APPLICANT:
HELIOS ENERGY NEW YORK 13, LLC
411 SOUTH OLD WOODWARD, SUITE 807
BIRMINGHAM, MI 48009
APPROXIMATE LOCATION OF ZONE A FLOODPLAIN AS SHOWN ON FEMA MAP PANEL NUMBER 36001C0134D.
BOZEN
1'X2'X3' HIGH STONE
LIMITS OF DISTURBANCE (TYP.)
SILT FENCE (TYP.)
STABILIZED CONSTRUCTION ENTRANCE (TYP.)
EASEMENT SEE NOTE 5
WETLANDS "B"
POND
LANDS N/F JOSEPH & TERESA MIJA (L. 2330/P. 779) S.B.L. 37.-2-3 AREA: 57.7± ACRES
LANDS N/F ELLA ARMSTRONG ESTATE (L. 1803/P. 69) S.B.L. 37.-2-1
LANDS N/F HUGO & DIANE KLEINBERG (L. 2430/P. 950) S.B.L. 37.-2-1.2
LANDS N/F VILLAGE OF ALTAMONT (L. 2457/P. 485) S.B.L. 37.15-2-1 & 2
LANDS N/F DOROTHY Z. FRIEDLANDER (L. 2094/P. 540) S.B.L. 37.-2-25
KILL
FOR INFORMATION ONLY
NOT FOR CONSTRUCTION
NOTE: 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONTACT DIG SAFELY NEW YORK TO LOCATE EXISTING UNDERGROUND UTILITIES. 1-800-962-7962
ingalls
ingalls & associates, LLP
ESC PLAN
HELIOS ENERGY NEW YORK 13, LLC
6580 DUNNSVILLE ROAD
TOWN OF GUILDERLAND
COUNTY OF ALBANY
STATE OF NEW YORK
DATE: NOVEMBER 9, 2020
SCALE: 1" = 100'
SHEET 5 OF 7

APPENDIX G

GREEN INFRASTRUCTURE WORKSHEETS

Version 1.4 — Total Water Quality Volume Calculation
Last Updated: 01/23/2014 — 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)?.....								
P=	1.20	*inch*						

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description		
1	0.01	0.01	100%	0.95	41	Filter Strips		
2								
3								
4								
5								
6								
7								
8								
9								
10								
Subtotal (1-30)	0.01	0.01	100%	0.95	**41**	**Subtotal 1**		
Total	0.01	0.01	100%	0.95	**41**	**Initial WQv**	**0.00**	**af**

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	0.01	0.01	
Tree Planting	0.00	0.00	*Up to 100 sf directly connected impervious area may be subtracted per tree*
Total	**0.01**	**0.01**	

Recalculate WQv after application of Area Reduction Techniques

	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Runoff Coefficient	WQv *(ft^3)*		
"<<Initial WQv"	0.01	0.01	100%	0.95	41		
Subtract Area	-0.01	-0.01					
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**	**0.00**	**af**
WQv reduced by Area Reduction techniques					41	**0.00**	**af**

Filter Strip

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	0.01	0.01	1.00	0.95	41.38	1.20	Filter Strips

Design Elements			
Is another area based practice applied to this area?	*No*	*Y/N*	
Amended Soils & Dense Turf Cover?	*Yes*	*Y/N*	
Is area protected from compaction from heavy equipment during construction?	*Yes*	*Y/N*	
Small Area of Impervious Area & close to source?	*Yes*	*Y/N*	
Composte Amendments?	*No*	*Y/N*	
Boundary Spreader?	*Yes*	*Y/N*	*Gravel Diaphram at top*
Boundary Zone?	*No*	*Y/N*	*25 feet of level grass*
Specify how sheet flow will be ensured.	Level Spreader		*level spreader shall be used for buffer slopes ranging from 3-15%*
Average contributing slope	2	*%*	*3% maximum unless a level spreader is*
Slope of first 10 feet of Filter Strip	2	*%*	*2% maximum*
Overall Slope	6	*%*	*8% maximum*
Contributing Length of Pervious Areas (PC)	0	*ft*	*150 ft maximum*
Contributing Length of Impervious areas (IC)	20	*ft*	*75 ft maximum*
Maximum PC Contributing Length for combination of PC & IC	130	*ft*	
Soil Group (HSG)	D		
Filter Strip Width	60	*ft*	*50 ft minimum for slopes 0-8%* *75 ft minimum for slopes 8-12%* *100 ft minimum for slopes 12-15%* *HSG C or D increase by 15-20%*
Are All Criteria for Filter Strips in Section 5.3.2 met?	*Yes*		

Area Reduction Adjustments		
Subtract	**0.01**	***Acres from total Area***
Subtract	**0.01**	***Acres from total Impervious Area***

TRUE

APPENDIX H

SUPPORTING DOCUMENTATION

Environmental Resource Mapper

The coordinates of the point you clicked on are:

UTM 18	**Easting:**	580181.3018738289	**Northing:**	4729413.640782924
Longitude/Latitude	**Longitude:**	-74.02083101144073	**Latitude:**	42.713045855665854

The approximate address of the point you clicked on is:
12009, Altamont, New York

County: Albany
Town: Guilderland
USGS Quad: ALTAMONT

DEC Region

Region 4:
(Capital Region/Northern Catskills) Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie counties. For more information visit **http://www.dec.ny.gov/about/611.html**.

Rare Plants and Rare Animals

This location is in the vicinity of Bats Listed as Endangered or Threatened -- Contact NYSDEC Regional Office

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

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Location

Albany County, New York

Local office

New York Ecological Services Field Office

(607) 753-9334
(607) 753-9699

3817 Luker Road
Cortland, NY 13045-9385

http://www.fws.gov/northeast/nyfo/es/section7.htm

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

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Indiana Bat Myotis sodalis — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/5949

Northern Long-eared Bat Myotis septentrionalis — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9045

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the

Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

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Prairie Warbler Dendroica discolor — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wood Thrush Hylocichla mustelina — Breeds May 10 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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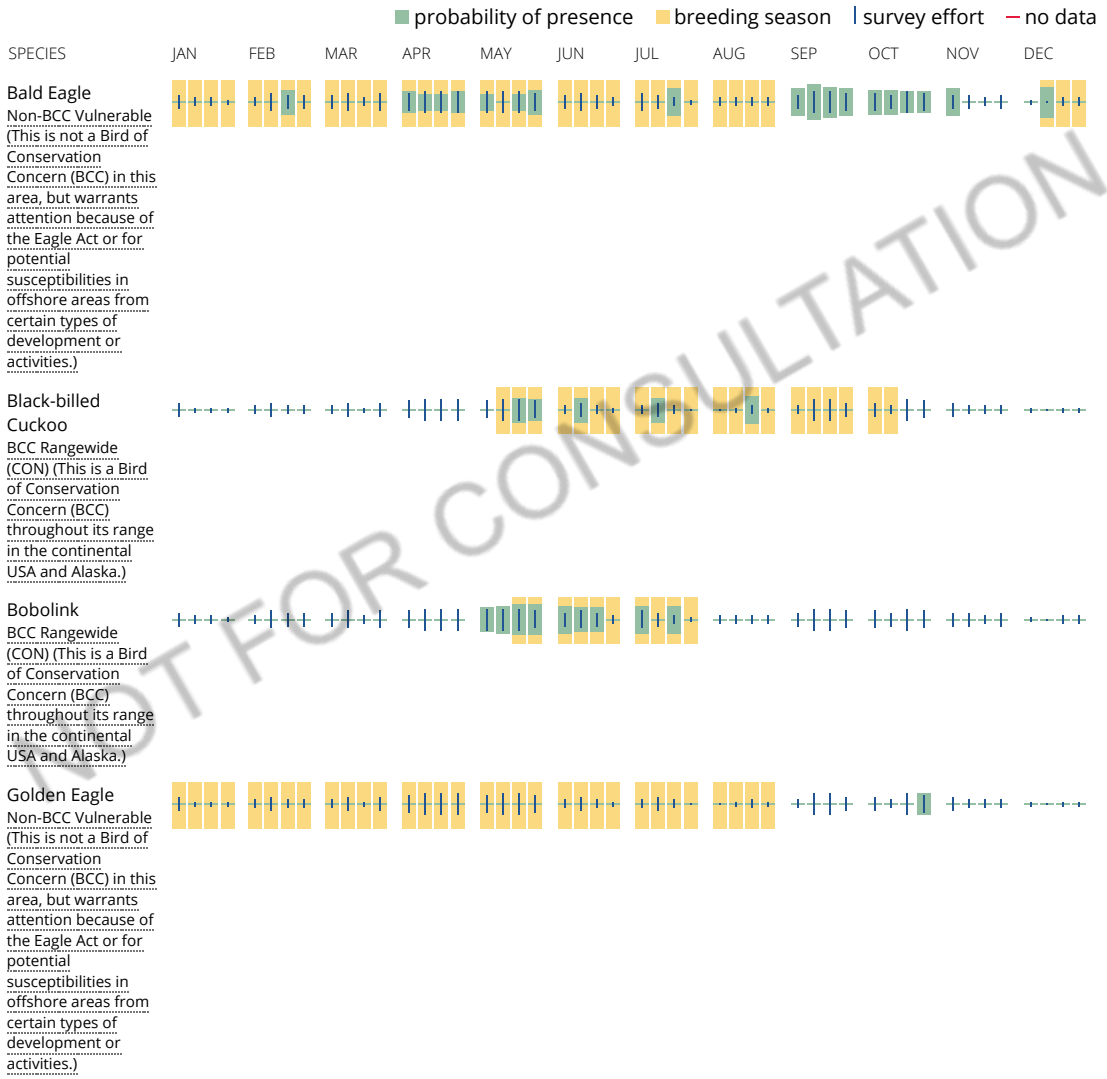
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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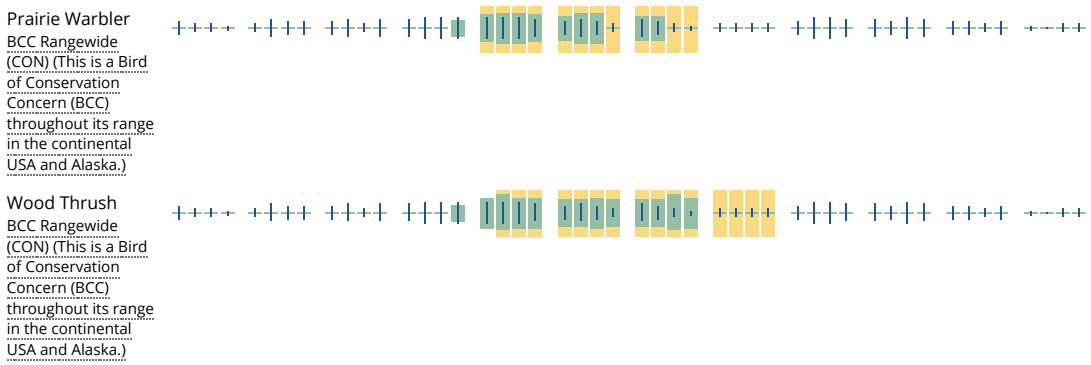

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds

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guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or

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minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

Riverine

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error

NOT FOR CONSULTATION

is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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APPENDIX I

SAMPLE INSPECTION FORM

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES General Permit for Stormwater Discharges from Construction Activity

Permit Number GP 0-15-002

Site Assessment and Inspection Report

Name of Permitted Facility:		Date of Inspection:
Location:		Time of Inspection:
Purpose of Inspection:		Permit Identification Number:
Weather:	Soil Conditions:	Inspector:

General Recordkeeping:		
1.	Has a site map been attached with the limits of disturbance, areas of stabilization and current working areas marked?	☐ Yes ☐ No ☐ N/A
2.	Will the inspection report be forwarded to NYSDEC?	☐ Yes ☐ No ☐ N/A

General Housekeeping:		
1.	Is there an increase in turbidity that will cause a substantial visible contrast to natural conditions?	☐ Yes ☐ No ☐ N/A
2.	Is there residue from oil, visible oil film or globules of grease?	☐ Yes ☐ No ☐ N/A
3.	Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly placed?	☐ Yes ☐ No ☐ N/A
4.	Is construction impacting adjacent properties?	☐ Yes ☐ No ☐ N/A
5.	Is dust adequately controlled?	☐ Yes ☐ No ☐ N/A

Adverse Impacts or Off-Site Degradation:		
1.	Is work within the limits of the approved plans, including clearing and blasting?	☐ Yes ☐ No ☐ N/A
2.	Adverse impacts – ponds, streams, wetlands and sinkholes are free from sediment from site.	☐ Yes ☐ No ☐ N/A
3.	Off-site degradation – sediment is kept out of roadways, adjacent properties, storm sewers and air (dust).	☐ Yes ☐ No ☐ N/A

Site Discharge:		
Discharge Point	**Noted:**	**Description**
1.	☐ Yes ☐ No ☐ N/A	
2.	☐ Yes ☐ No ☐ N/A	

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2603 Guilderland Ave.
Schenectady NY 12306
518-393-7725

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Corrected Areas/General Observations	

Practices in Need of Repair/Maintenance:	

Project Notes

Modifications to the SWPPP:		
Date of Modification	Description of Modification:	Reason for Modification:

_____ _____

Signature of Qualified Inspector Date

Ingalls & Associates LLP
2603 Guilderland Ave.
Schenectady NY 12306
518-393-7725

APPENDIX J

Notice of Termination

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)? _____	

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:

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)

APPENDIX K

SWPPP Certification Forms

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2603 Guilderland Avenue
Schenectady
New York 12306

t.518.393.7725
f.518.393.2324

info@ingallsllp.com
www.ingallsllp.com

September 17, 2021

Guilderland Town Hall
5209 Western Turnpike, P.O. Box 339
Guilderland, New York 12084

Attn: Jacqueline Coons
Chief Building and Zoning Inspector

Re: Helios Energy New York 13 LLC
Response to Questions
6580 Dunnsville Road in the Town of Guilderland, Albany County, NY

Dear Ms. Coons:

Please find the below responses to a comment letter from Town Designated Engineer Delaware Engineering dated August 3, 2021 regarding the proposed solar project located on Dunnsville Road in the Town of Guilderland.

Comment 1. It appears that the project is located in an area included in the Town of Guilderland – Rural Guilderland: Open Space and Farmland Protection Plan and the Albany County Agriculture and Farmland Protection Plan. Please review item C.2.c of the FEAF.

Response:

Item C.2.c of the FEAF has been reviewed and revised to state that the project is located in the Town of Guilderland – Rural Guilderland: Open Space and Farmland Protection Plan and the Albany County Agriculture and Farmland Protection Plan. A revised FEAF is enclosed with this submission.

Comment 2. It appears the project is within Ag District ALBA003. Please provide an Agricultural Data Statement.

Response:

An Agricultural Data Statement has been prepared and is enclosed with this submission.

Comment 3. It appears that the project is located in an archaeological sensitive area. Please provide correspondence with SHPO.

Response:

A Letter of No Effect from NYSOPRHP, dated 4/26/2021, was received and is enclosed as well as included in Appendix H of the SWPPP.

Comment 4. Please provide correspondence with ACOE regarding apparent jurisdictional wetlands onsite.

Response:

A No Permit Letter dated 6/14/2021 was received and is enclosed with this submission.

Comment 5. Please provide a Landscape Management Plan. Pesticide use is proposed in the FEAF. Pesticide/Herbicide may not be permitted in wetlands.

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Response:

A Landscape Management Plan has been prepared and it is noted that Pesticide/Herbicide may not be permitted in wetlands. on the Landscape Management Plan.

Comment 6. The Visual Assessment should include further analysis from locations south and east of the site as well as John Boyd Thatcher State Park and the Helderberg Escarpment.

Response:

Two photos were added to the Visual Assessment showing views from the south and east. Views from John Boyd Thatcher State Park and the Helderberg Escarpment are now included in the Visual Assessment.

Comment 7. Please submit a Glare Analysis.

Response:

A Glare Analysis is enclosed, which shows no glare is predicted.

Comment 8. Per Town Code 280-40 U. (3) (g), "clear cutting native and noninvasive trees in a single contiguous area exceeding 20,000 square feet shall be prohibited, except for agricultural and farm management practices as shown in a submitted arborist's report." Please submit an arborist's report.

Response:

An arborist's report was provided to the ZBA in September 2020 and is enclosed with this submission.

Comment 9. Due to the occurrence of endangered or threatened species, tree clearing may be limited to a certain time of the year.

Response:

Tree clearing will occur in accordance with the 4(d) rule of the Endangered Species Act.

Comment 10. Please provide a SWPPP that meets the requirements of NYS DEC GP-0-20-001.

Response:

A SWPPP is enclosed in accordance with the requirements of NYS DEC GP-0-20-001.

Comment 11. Please provide an Operations and Maintenance Plan.

Response:

An Operation and Maintenance Plan is enclosed.

Comment 12. Please provide an electrical diagram detailing the major solar energy system layout, solar collection installation, associated components, and electrical interconnection method, with all National Electrical Code compliant disconnects and over-current devices.

Response:

An electrical diagram detailing the solar system is enclosed.

Comment 13. Please provide preliminary equipment specification sheet that documents all proposed solar panels, significant components, mounting systems, and inverters that are to be installed.

Response:

A preliminary equipment specification sheet is enclosed.

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Thank you for your review of the responses above and the enclosed documents. If you have any questions, please feel free to contact me at 518-393-7725 ext. 125.

Sincerely,
Ingalls & Associates, LLP

Joseph Hens
Design Engineer

Enclosed:

Cc: Helios Energy
Delaware Engineering

AGRICULTURAL DATA STATEMENT

Per § 305-a of the New York State Agriculture and Markets Law, any application for a special use permit, site plan approval, use variance, or subdivision approval requiring municipal review and approval that would occur on property within a New York State Certified Agricultural District containing a farm operation or property with boundaries within 500 feet of a farm operation located in an Agricultural District shall include an Agricultural Data Statement.

A. Name of applicant: Helios Energy LLC
Mailing address: 411 S. Old Woodward #807
Birmingham, MI 48009

B. Description of the proposed project: the installation of a ground mounted solar array, fire access road, and appurtenant structures.

C. Project site address: 6580 Dunnsville Road Town: Guilderland

D. Project site tax map number: 37.00-2-4

E: The project is located on property:
☑ within an Agricultural District containing a farm operation, or
☐ with boundaries within 500 feet of a farm operation located in an Agricultural District.

F. Number of acres affected by project: 37.4 acres

G. Is any portion of the project site currently being farmed?
☑ Yes. If yes, how many acres 56.7 or square feet ----- ?
☐ No.

H. Name and address of any owner of land containing farm operations within the Agricultural District and is located within 500 feet of the boundary of the property upon which the project is proposed.

Altamont Orchards Reality LLC, 6604 Dunnsville Rd, Altamont, NY 12009

James J Drzymala, 6597 Dunnsville Rd, Altamont, NY 12009

Barbara Murphy, 6625 Dunnsville Rd, Altamont, NY 12009

I. Attach a copy of the current tax map showing the site of the proposed project relative to the location of farm operations identified in Item H above.

FARM NOTE

Prospective residents should be aware that farm operations may generate dust, odor, smoke, noise, vibration and other conditions that may be objectionable to nearby properties. Local governments shall not unreasonably restrict or regulate farm operations within State Certified Agricultural Districts unless it can be shown that the public health or safety is threatened.

Benjamin Willson - Design Engineer — Name and Title of Person Completing Form

09/17/21 — Date

Location of Farming Operations

6604 Dunnsville Rd

ForgeSolar

ForgeSolar

Site Configuration: Site Config 1

Project site configuration details and results.

Created **Oct. 21, 2020 7:30 p.m.**
Updated **Nov. 9, 2020 11:18 a.m.**
DNI **varies** and peaks at **1,000.0 W/m^2**
Analyze every **1** minute(s)
0.5 ocular transmission coefficient
0.002 m pupil diameter
0.017 m eye focal length
9.3 mrad sun subtended angle
Timezone **UTC-5**
Site Configuration ID: 44730.8079

Summary of Results No glare predicted!

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced
	deg	deg	min	min	kWh
PV array 1	SA tracking	SA tracking	0	0	-

Component Data

PV Array(s)

Name: PV array 1
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0 deg
Tracking axis tilt: 0.0 deg
Tracking axis panel offset: 0.0 deg
Maximum tracking angle: 60.0 deg
Resting angle: 60.0 deg
Rated power: -
Panel material: Smooth glass with AR coating
Vary reflectivity with sun position? Yes
Correlate slope error with surface type? Yes
Slope error: 8.43 mrad
Approx. area: 934,248 sq-ft

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.714666	-74.021081	417.25	10.00	427.25
2	42.713546	-74.016532	360.45	10.00	370.45
3	42.713294	-74.016896	361.36	10.00	371.36
4	42.712727	-74.018870	390.10	10.00	400.10
5	42.712112	-74.020673	379.35	10.00	389.35
6	42.712017	-74.022604	363.38	10.00	373.38
7	42.712916	-74.023033	411.31	10.00	421.31
8	42.714382	-74.021789	408.89	10.00	418.89

Route Receptor(s)

Name: Route 1
Route type Two-way
View angle: 50.0 deg

Vertex	Latitude	Longitude	Ground elevation	Height above ground	Total elevation
	deg	deg	ft	ft	ft
1	42.715030	-74.028660	388.17	3.50	391.67
2	42.715298	-74.027694	407.94	3.50	411.44
3	42.715582	-74.025506	416.71	3.50	420.21
4	42.716544	-74.023446	421.04	3.50	424.54
5	42.716812	-74.022373	421.52	3.50	425.02
6	42.717080	-74.021450	406.29	3.50	409.79
7	42.718436	-74.019862	367.40	3.50	370.90
8	42.719208	-74.019326	363.70	3.50	367.20

Discrete Observation Receptors

Number	Latitude	Longitude	Ground elevation	Height above ground	Total Elevation
	deg	deg	ft	ft	ft
OP 1	42.715233	-74.023462	452.96	5.50	458.46
OP 2	42.715632	-74.022531	472.41	5.50	477.91

PV Array Results

Summary of PV Glare Analysis PV configuration and predicted glare

PV Name	Tilt	Orientation	"Green" Glare	"Yellow" Glare	Energy Produced	Data File
	deg	deg	min	min	kWh	
PV array 1	SA tracking	SA tracking	0	0	-	-

Click the name of the PV array to scroll to its results

PV & Receptor Analysis Results detailed results for each PV array and receptor

PV array 1 no glare found

Component	Green glare (min)	Yellow glare (min)
OP: OP 1	0	0
OP: OP 2	0	0
Route: Route 1	0	0

No glare found

Assumptions

- Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
- Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.
- Detailed system geometry is not rigorously simulated.
- The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual values and results may vary.
- The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
- Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.
- The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
- Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
- Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
- Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.
- Glare analysis methods used: OP V1, FP V1, Route V1
- Refer to the **Help page** for assumptions and limitations not listed here.

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

April 26, 2021

Mr. Mark Kiburz
Senior Environmental Specialist
Ingalls & Associates, LLP
2803 Guilderland Ave
Schenectady, NY 12306

Re: USACE
Guilderland Solar Farm
Town of Guilderland, Albany County, NY
19PR00630

Dear Mr. Kiburz:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

The Archaeology Unit has reviewed the Addendum Phase IB Archaeological Survey report entitled "Phase IB Cultural Resources Survey, Helios Energy New York 13 LLC, 6604 Dunnsville Road, Town of Guilderland, Albany County, NY" prepared by Birchwood Archaeological Services, Inc. (February 2021; 21SR00252). No archaeological sites were identified by the survey and the SHPO recommends that no additional archaeological work is necessary.

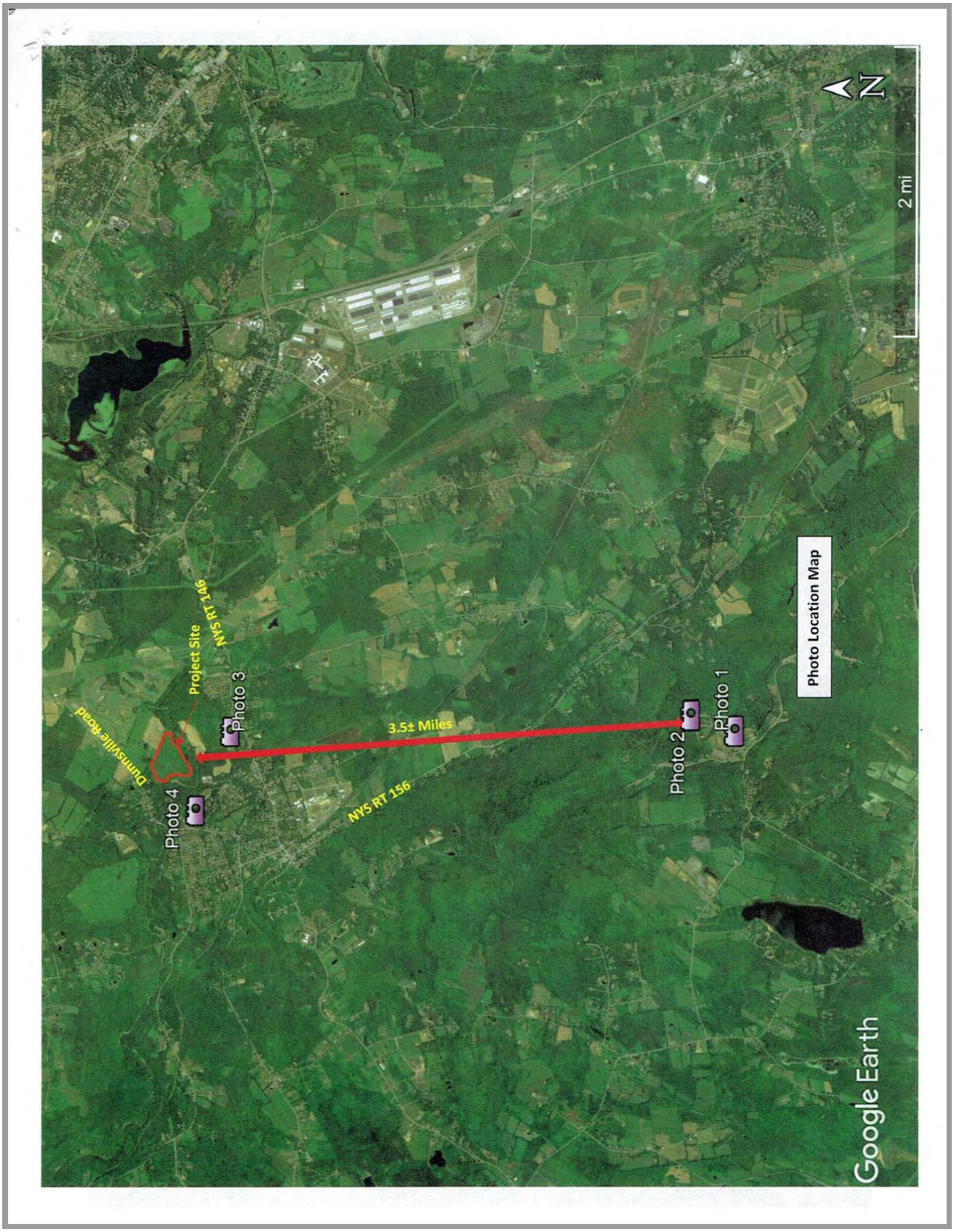
Please note that these comments pertain only to archaeological resources. Please continue to consult with James Carter in the Survey and National Register Unit at James.Carter@parks.ny.gov. If you have any questions, I can be reached at Jessica.Schreyer@parks.ny.gov.

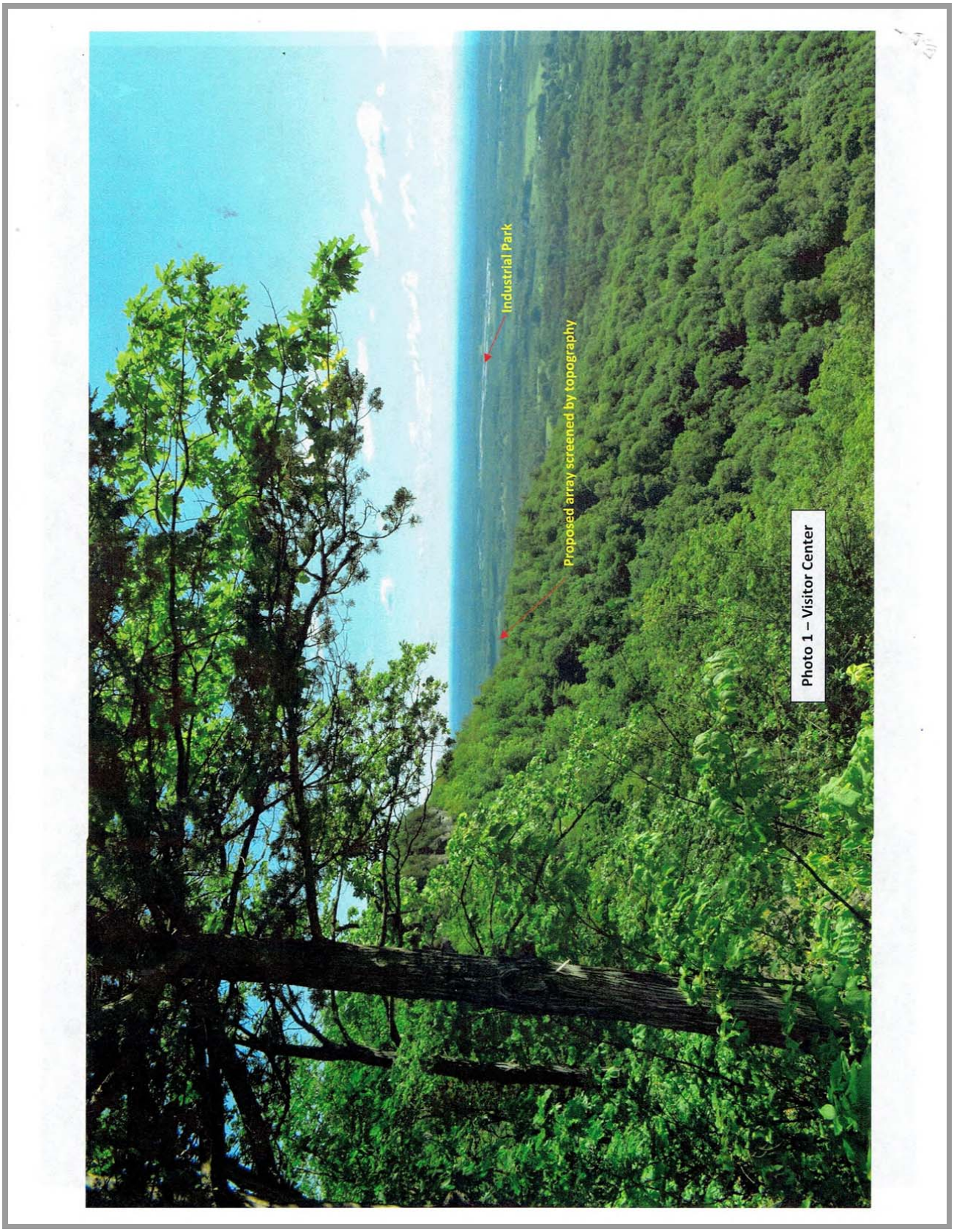
Sincerely,

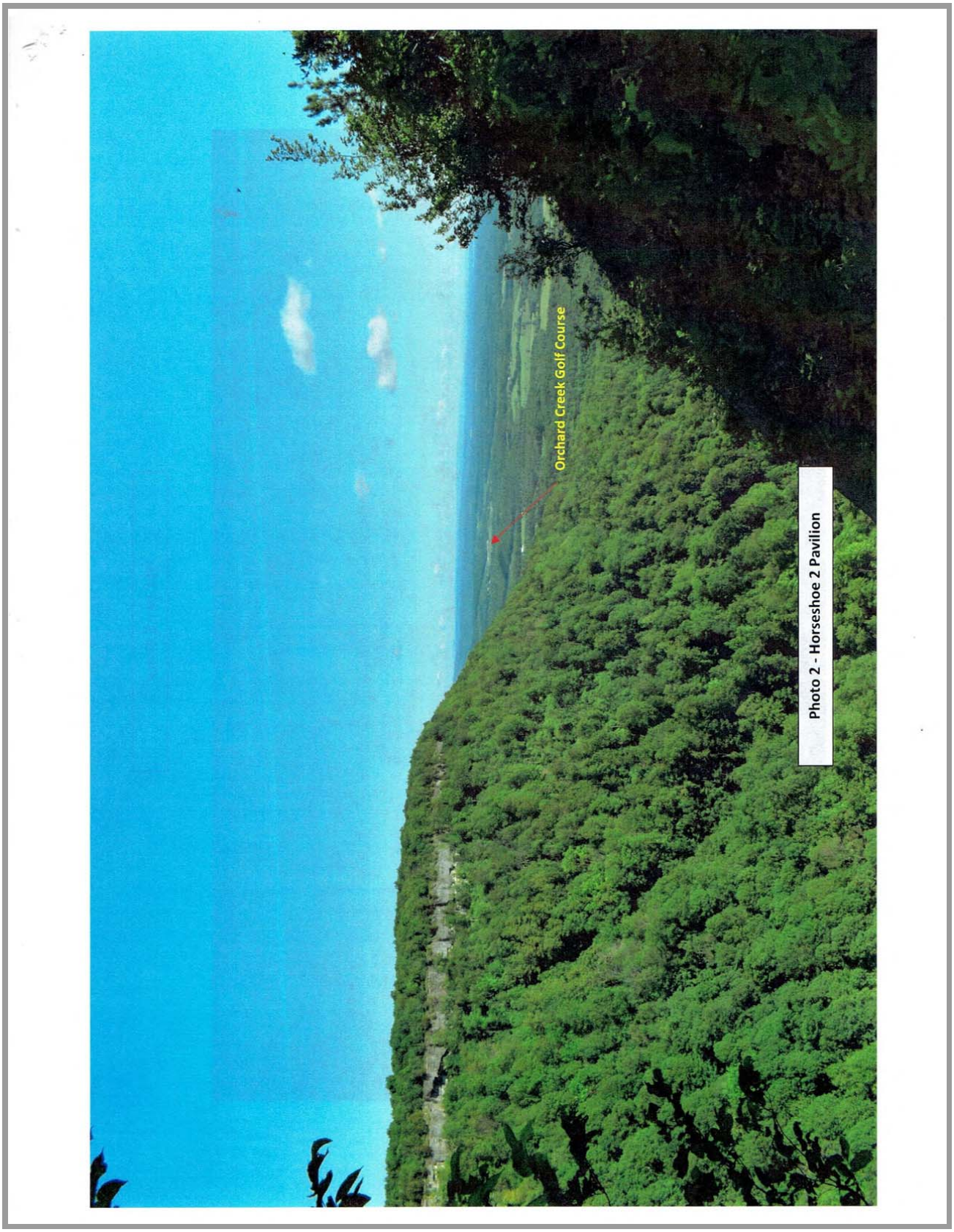
Jessica E. Schreyer

Jessica Schreyer
Scientist Archaeology

Division for Historic Preservation
P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • parks.ny.gov


N
2 mi
Photo Location Map
Project Site
NYS RT 146
Dunnsville Road
Photo 3
Photo 4
3.5± Miles
NYS RT 156
Photo 2
Photo 1
Google Earth


Industrial Park
Proposed array screened by topography
Photo 1 – Visitor Center


Orchard Creek Golf Course
Photo 2 - Horseshoe 2 Pavilion

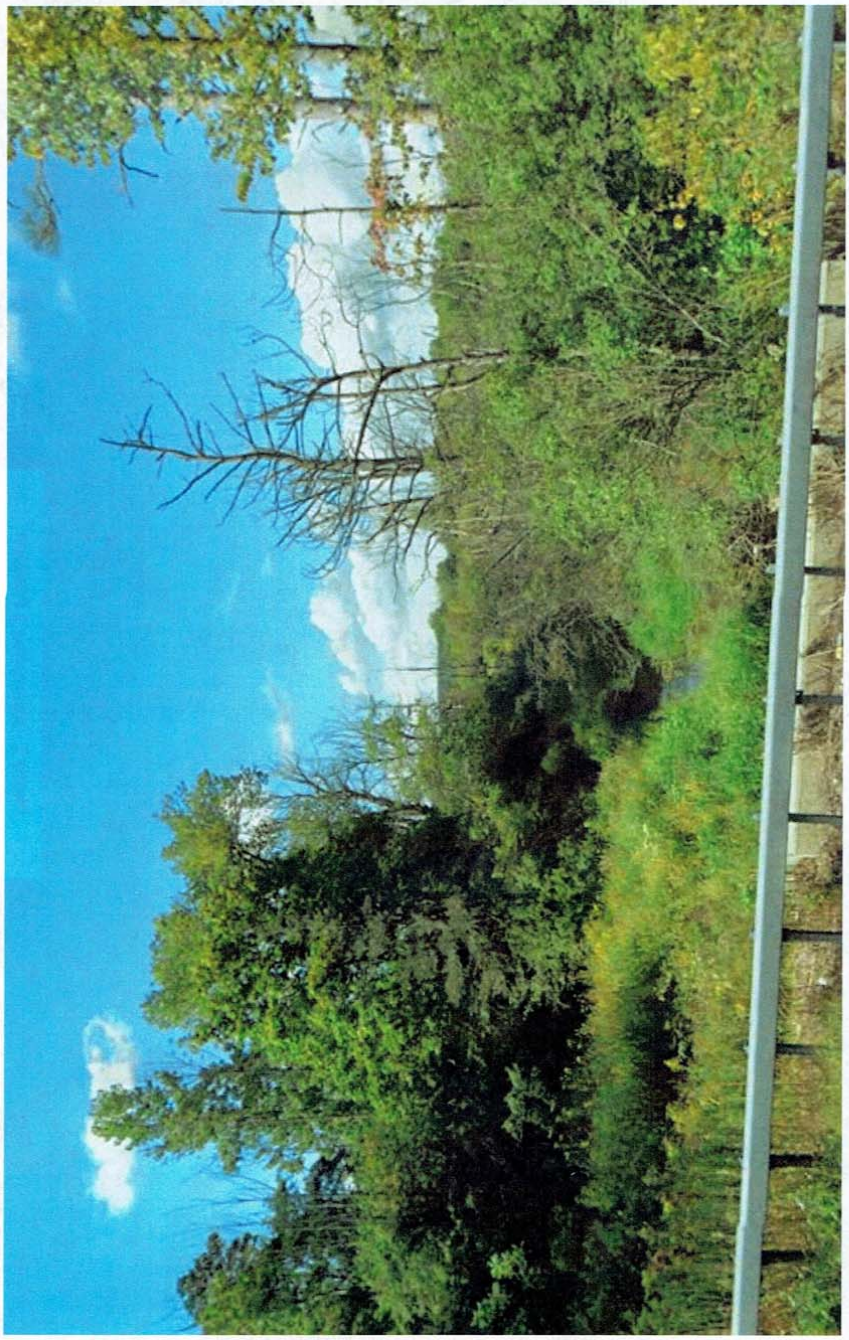


Photo 3 – RT 146

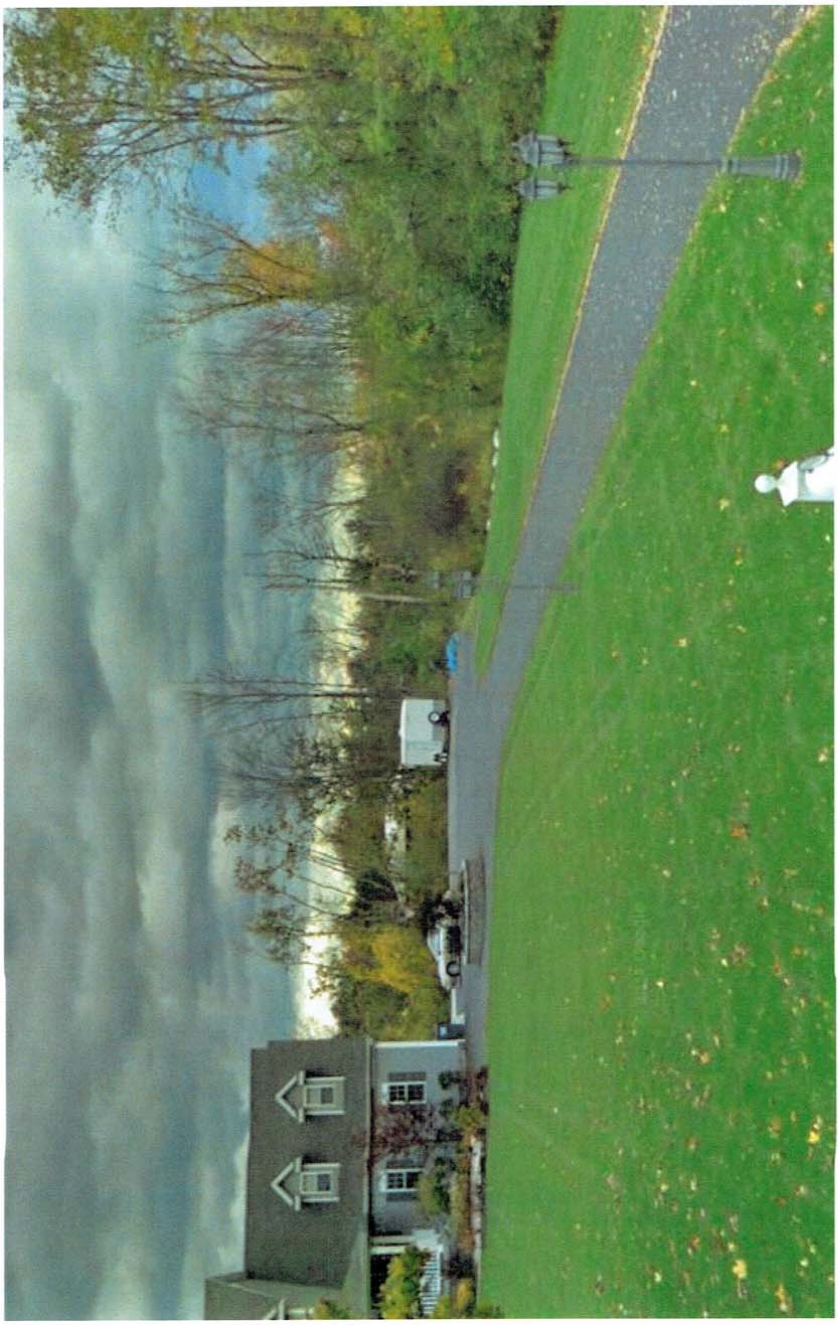


Photo 4 – Gun Club Road

Magai Arboriculture

221 Tenth Street
Troy, New York 12180-2927
518-274-5138
518-428-2848 cell
magaijack@gmail.com

jackmagai.com

CERTIFIED ISA ARBORIST
International Society of Arboriculture
Certification #PN-1157

Inspection of Abandoned Orchard at 6580 Dunnsville Rd, Altamont, NY

At 3:00 PM on May 10, 2020, at the request of owners of Helios Energy New York 13 LLC, I visited an old orchard at 6580 Dunnsville Rd. in Altamont, New York to inspect the trees. What follows are my observations. I also took a number of photographs of examples of the trees, which I will share upon request.

Narrative of Site visit: From an opening in the trees near the center of the property, I walked west to the Bozen Kill, thence south along the creek, east through the southern portion of the orchard, northeast to the open cornfield that borders the orchard to the north, and west along this northern border. The way, once open and mowed, was congested by vines, thorny growth and young trees. In addition to restricting my passage, the new growth prevented me from seeing most of the orchard. Ascending a free-standing deer stand in the northeast part of the property, I was able to see over some of the landscape.

Species composition:
In addition to the mature apple trees on the site I observed seedling Apples and these other non-native woody plants: Multiflora Rose, Bittersweet, Asian Honeysuckle, and Buckthorne. Native woody plants I observed were Black Birch, Sumac, Red Osier, Grape, Red Oak, Box Elder, Black Walnut, American Elm, Green Ash, Sugar Maple, Cottonwood Big Leaf Aspen and Bur Oak.

Age of plants:
The planted apple trees that constitute the orchard were at least fifty years old. With the exception of a few older specimens, all of the other species mentioned above were younger than 20 years old, many only about 10.

Condition of plants:
Many of the old orchard apples, though alive, are in poor condition, having dead and broken scaffold limbs, and having been overgrown by vines and faster-growing trees. The young trees are in mostly fine condition, not yet having to face the competition from one another of a forest ecosystem. Excluding Ash because of its impending demise from the Emerald Ash Borer, I only observed four species in the old orchard characteristic of a mature forest -- Black Birch, Red and Bur Oak, and Sugar Maple.

Conclusions:
The collection of plants I observed speak of a once-managed commercial orchard abandoned fifteen or more years ago. Maintaining this property as a place of trees could take two avenues – as an orchard or as a woodlot. As an orchard, my passing familiarity with commercial orchard practices indicate that it probably would make sense to remove all of the woody vegetation and plant new trees. Revitalizing the old orchard trees, while possible, does not strike me as being commercially viable. As a woodlot, here too, killing-off low-value plants to give valuable trees precedence probably would be advisable.

Sincerely,

May 13, 2002

Jack Magai

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 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: Helios Energy Guilderland Solar Farm		
Project Location (describe, and attach a general location map): 6580 Dunnsville Road, Guilderland NY		
Brief Description of Proposed Action (include purpose or need): The applicant, Helios Energy New York 13, LLC, is proposing the construction of a 5 MWAC community solar farm at 6580 Dunnsville Road. The solar facility includes a new pervious stone access road connection to Dunnsville Road, appurtenant electrical equipment, and a 7' fixed know woven wire fence surrounding the entire array.		
Name of Applicant/Sponsor: Helios Energy New York 13, LLC	Telephone: 248-408-4898 E-Mail: michael@heliosen.com	
Address: 411 South Old Woodward, Suite 807		
City/PO: Birmingham	State: MI	Zip Code: 48009
Project Contact (if not same as sponsor; give name and title/role): Michael Lossia	Telephone: 248-4084898 E-Mail: michael@heliosen.com	
Address: 411 South Old Woodward, Suite 807		
City/PO: Birmingham	State: MI	Zip Code: 48009
Property Owner (if not same as sponsor): Altamont Orchards Realty, LLC	Telephone: 518-861-6515 E-Mail: info@altamontorchards.com	
Address: 6654 Dunnsville Road		
City/PO: Altamont	State: NY	Zip Code: 12009

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		
b. City, Town or Village Planning Board or Commission ☑Yes ☐ No	Town of Guilderland Planning Board, SIte Plan Approval	11/09/2020
c. City, Town or Village Zoning Board of Appeals ☑Yes ☐ No	Town of Guilderland ZBA, SUP	11/09/2020
d. Other local agencies ☑Yes ☐ No	Village of Altamont referral	Upon Referral
e. County agencies ☑Yes ☐ No	Albany County Planning Board 239-M	Upon Referral
f. Regional agencies ☐Yes☐No		
g. State agencies ☑Yes ☐ No	NYSERDA Grant	Upon Town approval
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:Mohawk Valley Heritage 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):
Rural Guilderland Open Space and Farmland Protection Plan and Albany County Agricultural and Farmland Protection Plan

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?
RA3

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? Guilderland Central School District

b. What police or other public protection forces serve the project site?
Town of Guilderland Police Department, Albany County Sheriff, NYS Police

c. Which fire protection and emergency medical services serve the project site?
Guilderland Volunteer Fire Department

d. What parks serve the project site?
Bozenkill Park

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)? Community Solar Farm

b. a. Total acreage of the site of the proposed action? 56.7 acres
b. Total acreage to be physically disturbed? 37.7 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 121.6 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 line adjustment to create larger commercial solar lot
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? 2
iv. Minimum and maximum proposed lot sizes? Minimum 50.8 Maximum 65.6

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 4 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: _____

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				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 17,914

ii. Dimensions (in feet) of largest proposed structure: 10 height; 6.4 width; and 3.2 length

iii. Approximate extent of building space to be heated or cooled: 0 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): _____

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: _____ 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: _____
- 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: _____ 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): _____

_____

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐Yes☐No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of 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

- 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?

400 Square feet or _____ acres (impervious surface)

_____ Square feet or 65.6 acres (parcel size)

ii. Describe types of new point sources. Runoff from (2) new concrete equipment pads

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 will be directed to grass filter strips and then off-site to existing waters.

- If to surface waters, identify receiving water bodies or wetlands: Bozen Kill
- 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)

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 am - 6 pm
- Saturday: As needed
- Sunday: _____
- Holidays: _____

ii. During Operations:
- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

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:

During construction noise levels will be above ambient due to the use of equipment and other activities. During operation the inverters will create a noise of approximately 55 dB, which is equivalent to a running refridgerator and will not be discernable off site.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: Applicant is proposing the removal of approximetly 38 acres of old orchard trees. however, perimeter vegetation will be maintained.

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:

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):

Applicant is proposing the occaisional use of EPA approved pesticides to maintain native pollinator meadow.

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: 10 tons per month (unit of time)
- Operation : 0 tons per month (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: Waste (wooden pallets, cardboard) will be recycled to the maximum extent practicable.
- Operation: NA

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Local waste hauler / recycler
- Operation: NA

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): _____

ii. If mix of uses, generally describe:

There is a mix of rural / residential homes and farms adjoining the project site.

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			
• Forested	51.7	12.7	-39.0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	38.0	+38.0
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)	1.5	1.5	0
• Wetlands (freshwater or tidal)	3.5	3.5	0
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: Pervious Access Road	0	1.0	+1.0

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:
_____
_____

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):
_____
_____

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? 6.5'+ 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:

NuC	60 %
NuE	20 %
BuB	20 %

d. What is the average depth to the water table on the project site? Average: 2 feet

e. Drainage status of project site soils:
☐ Well Drained: ____ % of site
☑ Moderately Well Drained: 80 % of site
☑ Poorly Drained 20 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 25 % of site
☑ 10-15%: 50 % of site
☑ 15% or greater: 25 % 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 863-668, 863-677 Classification C
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Waters, Federal Waters, Federal Waters,... Approximate Size 3.5
- 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: Principal Aquifer

m. Identify the predominant wildlife species that occupy or use the project site:
White-Tailed Deer, Grey Squirrel

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):
Northern Long-eared Bat

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: ALBA003

b. Are agricultural lands consisting of highly productive soils present? ☑Yes ☐ No
i. If Yes: acreage(s) on project site? 29.8
ii. Source(s) of soil rating(s): USGS Soil Mapper

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:

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: _____

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: John Boyd Thatcher 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.): State Park

iii. Distance between project and resource: 4.7 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.

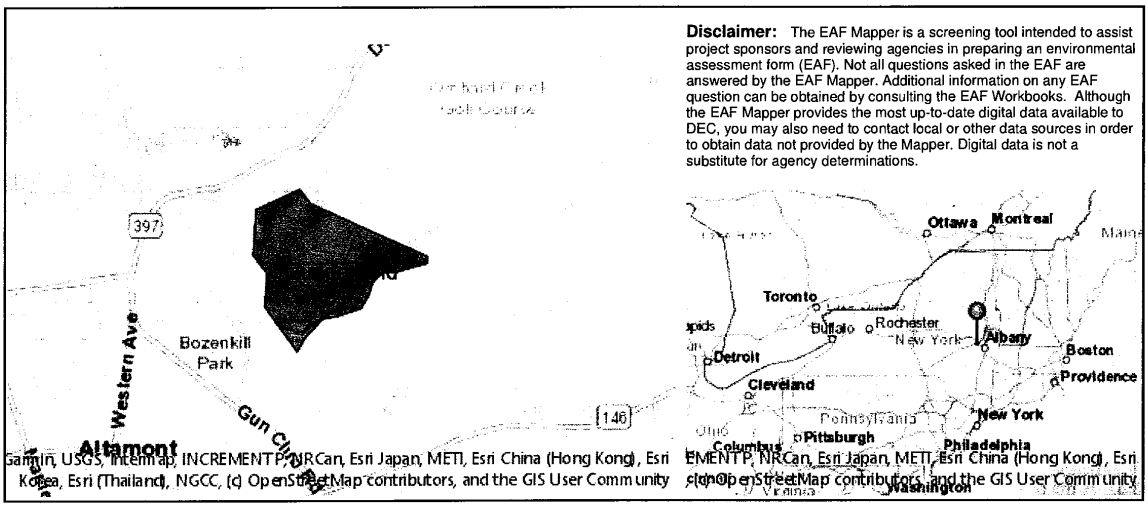
Applicant/Sponsor Name Joseph Hens Date 11-09-2020 Revised 09-17-21

Signature Joe Hens Title Engineer for Applicant

PRINT FORM

EAF Mapper Summary Report

Monday, November 9, 2020 12:12 PM



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:Mohawk Valley Heritage 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]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	863-668, 863-677
E.2.h.iv [Surface Water Features - Stream Classification]	C
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	Yes

E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Northern Long-eared Bat
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	ALBA003
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]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Full Environmental Assessment Form - EAF Mapper Summary Report 2

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers, ATTN: CENAN-OP-RU
Upstate Regulatory Field Office
1 Buffington St., Building 10, 3rd Fl. North
Watervliet, New York 12189-4000

Upstate New York Section June 14, 2021

SUBJECT: Permit Application Number NAN-2021-00337-USH
by Helios Energy New York 13, LLC
Town of Guilderland, Albany County, New York

Michael Lossia
Helios Energy New York, LLC
411 S. Old Woodward #807
Birmingham, MI 48009

Dear Mr. Lossia:

On June 8, 2021, this office received additional information regarding your request for a No Permit Required Letter dated March 30, 2021, including the attached drawings entitled "Site Plan" and "Details", Sheets 4 and 7 of 7, both prepared by Ingalls and Associates, LLP, dated November 9, 2020, and last revised June 8, 2021, "ESC Plan", Sheet 5 of 7, prepared by Ingalls and Associates, LLP, dated November 9, 2020, and last revised March 25, 2021, and "Access Road Profile", Sheet 6 of 7, prepared by Ingalls and Associates, LLP, dated March 25, 2021. The submitted information describes a proposal that would consist of the following:

The installation and construction of a proposed solar array project with attendant features located at 6580 Dunnsville Road, and to be known as "Helios Guilderland Solar Farm". None of the work associated with the installation of the solar arrays, the surrounding fencing, or access driveway, as detailed in the above referenced submittal and drawings, will be done in a manner that is regulated under the jurisdiction of this office.

Based solely on a review of the information provided, it appears that a Department of the Army permit, in accordance with 33 CFR 320-332, will not be required for your proposal. Care should be taken so that any fill or other construction materials, including debris, do not enter any waterbody or wetland to become a drift or pollution hazard.

The Department of the Army regulates construction activities in and over navigable waterways and discharges of dredged or fill material into waters of the United States, including intermittent and perennial streams and coastal and inland wetlands regardless of their size. If your proposal would involve such work, and has not been portrayed as such in the drawing you provided, you should contact this office immediately so that a project-specific determination can be made as to whether a Department of the Army permit will be required.

PLEASE USE THE ABOVE 18-CHARACTER FILE NUMBER ON ALL CORRESPONDENCE WITH THIS OFFICE

Please note that this determination does not eliminate the need to obtain any other Federal, State, or local authorizations required by law for the above-described work, including any required permit from the NYSDEC.

In order for us to better serve you, please complete our Customer Service Survey located at:

http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx

Any inquiries can be directed to the undersigned at (518) 266-6355 or Brad.Sherwood@usace.army.mil.

Sincerely,

Brad Sherwood
Project Manager
Upstate New York Section

Cf: Gabriel, T. - NYSDEC, Region 4, Schenectady
Town of Guilderland
Akins, N. - Ingalls and Associates, LLP

HELIOS ENERGY GUILDERLAND OPERATIONS & MAINTENANCE MANUAL

Helios Energy New York 13, LLC

Helios Energy Guilderland Solar Farm

6580 Dunnsville Road

Town of Guilderland

Albany County New York

Prepared August 30, 2021

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TABLE OF CONTENTS

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APPENDIX C SAMPLE INCIDENT REPORT

APPENDIX D SAMPLE SECURITY INCIDENT REPORT

APPENDIX E VEGETATION MANAGEMENT PLAN

PROJECT DESCRIPTION

The proposed Helios Energy Guilderland Solar Farm project is a photo-voltaic solar energy farm located at 6580 Dunnsville Road in the Town of Guilderland, Albany County, New York. The solar farm consists of a 5 MWAC tracker solar array mounted on driven steel posts. Upon completion the array will be owned and operated by Helios Energy New York 13, LLC. In addition to operating and maintaining the array and electrical equipment, Helios Energy will also maintain the 7.0' high chain-link fence with green privacy slats, proposed screening trees and a native pollinator meadow.

O&M SCOPE OF SERVICES

Helios Energy will provide a scope of services based on the best industry practices and the latest technology and methodologies for preventative and predictive maintenance.

PV Operations

- **Administration of Operations:**
  - Effective implementation and control of O&M activities including document management, equipment inventories, owners and operating manuals, and warranties
- **Conducting Operations:**
  - Reliable process operations to achieve the optimum balance between cost of scheduled maintenance, yield, and cash flow through the life of the system
- **Directing Performance of Work:**
  - Specification of rules and provisions to ensure that maintenance is performed safely and efficiently
- **Monitoring:**
  - Closely monitor the day-to-day operation of plants through remote DAS monitoring systems
  - Data analysis of underperforming systems
  - Manage and refine DAS alerts across all plants
  - Aid field technicians with system troubleshooting (via DAS)
  - Create monthly operability and major issue/downtime reports
  - Predict future issues via data analytics and trends
  - Create monthly and annual system performance reports for asset management and project finance teams

- **Analytics:**
  - Optimization of condition-based O&M, such as identification of blown fuses and under-performing sub-systems
- **Operator Knowledge, Protocols, Documentation:**
  - Thorough operator knowledge, training, and performance to support safe and reliable plant operation
- **Workmanship Warranties:**
  - Thorough operator knowledge, training, and performance to support safe and reliable plant operation
- **Product Warranties:**
  - Thorough operator knowledge, training, and performance to support safe and reliable plant operation

PV Maintenance

- **Administration of Maintenance**:
  - Ensuring the effective implementation, control, and documentation of maintenance activities and quality results
- **Preventative Maintenance:**
  - Focus on maximizing system output, preventing expensive failures from occurring, and maximizing the life of a PV system
  - Maintain a schedule for routine maintenance, service, trouble shooting and repair of equipment at solar photovoltaic facilities
- **Corrective Maintenance:**
  - Focus on rapid response times and execution of work required to repair damage or replace failed components in a timely and cost-effective manner

- **Predictive Maintenance:**
    - Use of real-time information and historic data to schedule preventative measures such as fuse replacements, or to head off corrective maintenance problems by anticipating failures or catching them early
- **People:**
    - We have a team of highly qualified managers, service technicians and electricians with extensive experience in solar PV O&M
- **Vehicle Fleet:**
    - Technicians have trucks fully stocked with essential tools and commonly used spare parts for rapid repair
- **Tools:**
    - Use of industry leading tools and testing equipment
- **Spare Parts:**
    - Spare parts management and inventory control at centralized warehouse/s and on-site storage solutions
- **Systems and Software/CMMS:**
    - Enterprise Grade Asset Management and O&M Platform with comprehensive Service Ticket Management, Vendor Management and Contract Management System
- **Protocols and Procedures:**
    - Use and improvement of O&M Industry Best Practices

Vegetation Maintenance

Helios Energy approaches every local solar site as an opportunity to provide local renewable energy, as well as to maintain or improve upon the local ecosystem. From a vegetation perspective, our goal is to stabilize the soil to add strength and durability for the long-term success of the generation facility and health of the land.

In many cases, there is a need to re-seed the portions of the property that have been impacted by large construction equipment. When selecting the appropriate coverage solution many different factors are considered, including:

- Preventing runoff
- Carbon sequestration
- Pollination and other insect services
- Air quality concerns
- Invasive species resistance
- Viable wildflower areas
- Rate of fescue growth

One of the most important considerations for the vegetation plan is the maintenance requirements for the site, which will vary tremendously given the local terrain and microclimates. Helios Energy employs many different strategies to minimize the use of mechanical and herbicidal treatments. For the Guilderland site, a native pollinator mix was selected due to potential benefits to the surrounding agricultural community. A detailed plan showing the locations to be seeded with the pollinator mix is attached in Appendix E, "Vegetation Management Plan."

Helios Energy understands the value of sustainable long-term management practices and will continue to develop solutions to enhance these techniques and promote healthy biodiversity within local ecosystems.

EMERGENCY MANAGEMENT

In case of emergencies, the following authorities will be contacted:

- **Helios Energy Remote Site Monitoring:**
  - The site will be monitored 24/7 using a DAS system.
  - A local site contractor will be dispatched in case of any alarms or other maintenance issues.
  - In the case of emergencies threatening loss of public property or life, local emergency services shall be contacted.
- **Local Contractor:**
  - Helios Energy
  - Phone Number – (248) 408-4898
- **Local Fire Department**
  - Altamont Volunteer Fire Department
  - 115 Main St, Altamont, NY 12009
    - 1.5 miles from Project Site
  - For Emergencies Dial 911
  - Non-Emergency Line – (518) 861-8171

Prior to the commissioning of the solar site, representatives from Helios Energy will meet with the Fire Department and other local agencies to review emergency procedures.

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O&M MAINTENACE SCHEDULE

Helios Energy Guilderland Solar Farm

Item #	Service	Service Description	Frequency
1. Monitoring, Reporting, and Inventory			
1.1	Active Site Monitoring	Monitor inverters and meter output data for issues and alarms.	Daily
1.2	Annual Maintenance Plan (See Appendix A)	Provision of Annual Maintenance Plan, including baseline schedule for all maintenance services contemplated to occur in such year.	Annually
1.3	Monthly Reporting (See Appendix B)	Provide monthly operating report for the project including a summary of (i) operations; (ii) weather data, power and environmental attributes; (iii) Project performance; (iv) reports of any environmental or Site disturbances; (v) safety/accident reports; (vi) Non-Agreed Services; (vii) maintenance and inspection reporting; and (viii) any proposal of recommended maintenance for the upcoming month.	Monthly
1.4	Annual Reporting (See Appendix C)	Provide annual maintenance/inspection reports for the project for the preceding calendar year.	Annually
1.5	Incident and Maintenance Reporting (See Appendix D)	Provide written report (in .pdf format) on any event involving unplanned Services, personnel injury associated with the project or material damage to the project or any part thereof.	No later than five (5) business days after the occurrence, or immediately for OSHA recordable events, but no later than 24 hours.
1.6	Security Incident Reporting (See Appendix C)	Notify Company following provider receiving information indicative of a security issue on site.	Immediately, but no later than 24 hours.

Item #	Service	Service Description	Frequency
1.7	Maintain Spare Parts	Store, maintain, and replenish spare parts inventory at Company's expense. Inventory will be stored either on-site in an O&M storage structure or off-site at a centralized storage facility or warehouse.	As Needed
2. Site Property Inspection/Maintenance			
2.1	Vegetation Management (See appendix E)	Maintain vegetation and debris removal/control and landscaping, for all property within the fence line and all property immediately surrounding fencing (within the 15' buffer area shown on Appendix E), specifically ensuring vegetation does not encroach on modules. All landscaping shall be warrantied for the life of the facility, and any dead or dying trees shall be replaced.	3 X per year, April, July, and October
2.1.1	Screening Vegetation Maintenance	Inspect condition of proposed screening trees, and replace any dead trees during growing season (April-October)	3 X per year, April, July, and October
2.2	Weed Abatement	Remove all invasive weeds and spray where necessary to prevent future growth	3 X per year, April, July, and October
2.3	Perimeter and Fence Inspection	Inspect all fencing for signs of damage, intrusion, and overgrowth of vegetation. Inspect signage to ensure all originally installed signs are present and legible	4 X per year, January, April, July, and October
2.4	Roads	Inspect all roads for soil erosion concerns	3 X per year, April, July, and October
2.41	Roads	All access roads shall be plowed during the winter to allow for continued site access.	As Needed
2.5	Site Security	Inspect entire site for general vandalism or other signs of security related issues.	Monthly
2.6	Wildlife and Pest Management	Maintain site to address problematic wildlife matters including but not limited to nest and hive removal	As Needed
3. DC Systems			
3.1	Racking Inspection	Inspect all racking, racking mounts and conduits on racking for damage, corrosion, settling and stability	1 X per year

Item #	Service	Service Description	Frequency
3.2	Module Inspections	Visually inspect 25% sampling of modules for soiling, breakage, delamination, discoloring, hot spots (only via aerial thermal audits), rotating sample areas annually to achieve 100% inspection every 4 years. Inspections may be done either on the ground or via aerial visual analysis and aerial thermal imaging. If systemic issues are identified, notify Company and propose a corrective action plan to be implemented as needed.	1 X per year
3.3	Broken Module Replacement	Replace modules that have previously been identified as broken (within reason) or identified as broken at the time of inspection. The cost of replacement modules (either for immediate use or to replenish spare parts) will be paid for by the Company as needed. The procurement of replacement modules is conditional to Company approval.	As Needed
3.4	Wire Inspection	Visually inspect for proper wire management and any possible damage on exposed conductors.	2 X per year
3.5	Combiner Box and Re-Combiner Inspections	Electrical/mechanical inspection of combiners & disconnects. Visually inspect bonding bushings and grounding, check for wire damage especially at entrance/exit locations, terminal corrosion, any discoloration, and inspect fuses for proper functionality. Remove insects/pest's debris from all enclosures.	2 X per year
3.6	Combiner Box and Re-Combiner Torque Inspections	Confirm and correct terminal torque settings for both sides of all fuse holders, grounded (negative) terminal bar, grounding bar, PV output circuit and DC Disconnects.	1 X per year
4. AC Systems			
4.1	Inverters	Perform annual inverter preventative maintenance work for all inverters per manufacturer's recommendations and manufacturer's warranty requirements.	Per Manufacturer's Recommendations and Manufacturer's Warranty Requirements

Item #	Service	Service Description	Frequency
4.2	Inverter Air Filters and Transformer heat sinks	Inspect inverter air-filters and heat sinks, and clean or replace air filters if applicable.	4 X per year or Per Manufacturers Recommendations, whichever is more frequent.
4.3	Transformers	Visually inspect and clean all transformers per manufacturer recommendations, including but not limited to oil level measurement and clearing heat sink of debris.	1 X per year
4.4	AC Disconnect (if applicable)	Inspection of latches and seals on enclosure, verify proper operation of disconnect, visually inspect terminations and confirm and correct terminal torque settings. Check for signs of arcing.	1 X per year
5. DAS/SCADA Inspections			
5.1	General DAS Inspection	Perform monitoring system maintenance per manufacturer's specifications; verify orientation and attachment of pyranometers and module temperature sensors and MET station and verify back up power supply functionality.	1 X per year
5.2	Pyranometers	Clean pyranometer domes with a soft cloth.	All scheduled & unscheduled site visits
5.3	Pyranometer Calibration	Coordinate with Company to cause calibration of pyranometers per manufacturer's specifications.	Per manufacturer specifications
5.4	Data/Instrument Accuracy and Communications Verification	Test MET station sensors (GHI and POA pyranometers, ambient temperature, back-of-module, anemometer, Revenue Grade Meter (including current transducers), and inverter direct	1 X per year
6. Testing			
6.1	IV Curve String Testing or Module Level Thermal Audits	100% IV Curve Testing on strings, or 100% Module Level Thermal Audits	1 X per year

Item #	Service	Service Description	Frequency
6.2	Thermal Imaging	Thermal imaging of all: overcurrent protection devices (OCPD) and bolted electrical connections including terminations in combiners and all disconnects, inverters and transformers	1 X per year
6.3	Transformer Oil Testing	Conduct transformer oil sampling and testing per nationally and/or internationally recognized testing standards	1 X per two years
6.4	Point-to-Point Testing	For 5% random sampling of combiner boxes, inspect grounding from modules & rack to combiners for wear, corrosion, and secure connections, and test the point-to-point resistance between modules, rack and EGC per NETA-ATS 2013 Section 7.13; document location, measure resistance and record results. Investigate point-to-point resistance readings that exceed 0.5 ohms. Notify Company of any issues identified and propose a corrective action plan to be implemented as needed.	1 X per year

APPENDIX A
SAMPLE MONTHLY REPORT

A

Monthly Operations and Maintenance Report

Site Name
Portfolio Name
Month, Year

Site Information	
System Size (kWdc):	
System Size (kWac):	
Final Completion Date:	
PTO Date:	
Inverter Type:	
Inverter Qty:	

Actual vs Expected Production

Meter Production (kWh)	P50 Production (kWh)	Weather Adj. Expected Production (kWh)	Obs vs P50 Production (% Diff)	Estimated Production Loss (kWh)	Observed Insolation (kWh/m²)	P50 Insolation (kWh/m²)	Obs vs P50 Insolation (% Diff)	Inverter Availability (%)	O&M Availability (%)	NREL Weather Adjusted OPR (%)

Completed Work Orders

Work Order	Device	Date	Est. Loss (kWh)	Remarks	Fix

Open Work Orders

Work Order	Device	Date Entered	Scheduled Date	Problem Description

Health, Safety, Security & Environmental Events

Type	Device	Date	Status	Incident Description

Monthly Operations and Maintenance Report

Site Name
Portfolio Name
Month, Year

YTD Summary

Month	Meter Production (kWh)	P50 Production (kWh)	Weather Adj. Expected Production (kWh)	Obs vs P50 Production (% Diff)	Estimated Production Loss (kWh)	Observed Insolation (kWh/m^2)	P50 Insolation (kWh/m^2)	Obs vs P50 Insolation (% Diff)	Inverter Availability (%)	O&M Availability (%)	NREL Weather Adjusted OPR (%)
January											
February											
March											
April											
May											
June											
July											
August											
September											
October											
November											
December											
YTD	0	0	0	-	0	0.00	0.00	-	-	-	-

* Site Availability is calculated at inverter level and excludes DAS/utility outages

** The NREL Weather Adjusted Operational Performance Ratio (OPR) is the measured energy compared to the modelled energy adjusted for weather conditions

APPENDIX B
SAMPLE ANNUAL REPORT

B

Annual Operations and Maintenance Report

Site Name
Portfolio Name
YEAR

YTD Summary											
Month	Meter Production (kWh)	P50 Production (kWh)	Weather Adj. Expected Production (kWh)	Obs vs P50 Production (% Diff)	Estimated Production Loss (kWh)	Observed Insolation (kWh/m^2)	P50 Insolation (kWh/m^2)	Obs vs P50 Insolation (% Diff)	Inverter Availability (%)	O&M Availability (%)	NREL Weather Adjusted OPR (%)
January											
February											
March											
April											
May											
June											
July											
August											
September											
October											
November											
December											
YTD	0	0	0	-	0	0.00	0.00	-	-	-	-

* Site Availability is calculated at inverter level and excludes DAS/utility outages

** The NREL Weather Adjusted Operational Performance Ratio (OPR) is the measured energy compared to the modelled energy adjusted for weather conditions

APPENDIX C
SAMPLE INCIDENT REPORT

C

INCIDENT REPORT FORM

Date & Time

Incident Date:	
Incident Time:	
Statement Date:	
Time Reported:	

Location

Incident Loaction:	
Contractor:	

Incident Class

Incident Class:	Test
Incident Type:	N/A
Affected Area:	N/A

Investigation Affiliates **Postion**

Investigation Leader:		
Supervisor:		
Employee:		
Interviewees:		

Accident Class

Accident Class:	N/A
Accident Type:	N/A
Damage/Injury:	N/A

Incident Summary

Incident Detail

Accident/Incident Cause

Corrective Actions

Root Casue

Other

Contributing Factors

Other

Additional Factors

Other

APPENDIX D
SAMPLE SECURITY INCIDENT REPORT

D

SECURITY INCIDENT REPORT FORM

Date & Time

Incident Date:	
Incident Time:	
Statement Date:	
Time Reported:	

Location

Incident Loaction:	
Contractor:	

Incident Class

Incident Class:	Test
Incident Type:	N/A
Affected Area:	N/A

Investigation Affiliates **Postion**

Investigation Leader:		
Supervisor:		
Employee:		
Interviewees:		

Accident Class

Accident Class:	N/A
Accident Type:	N/A
Damage/Injury:	N/A

Incident Summary

Incident Detail

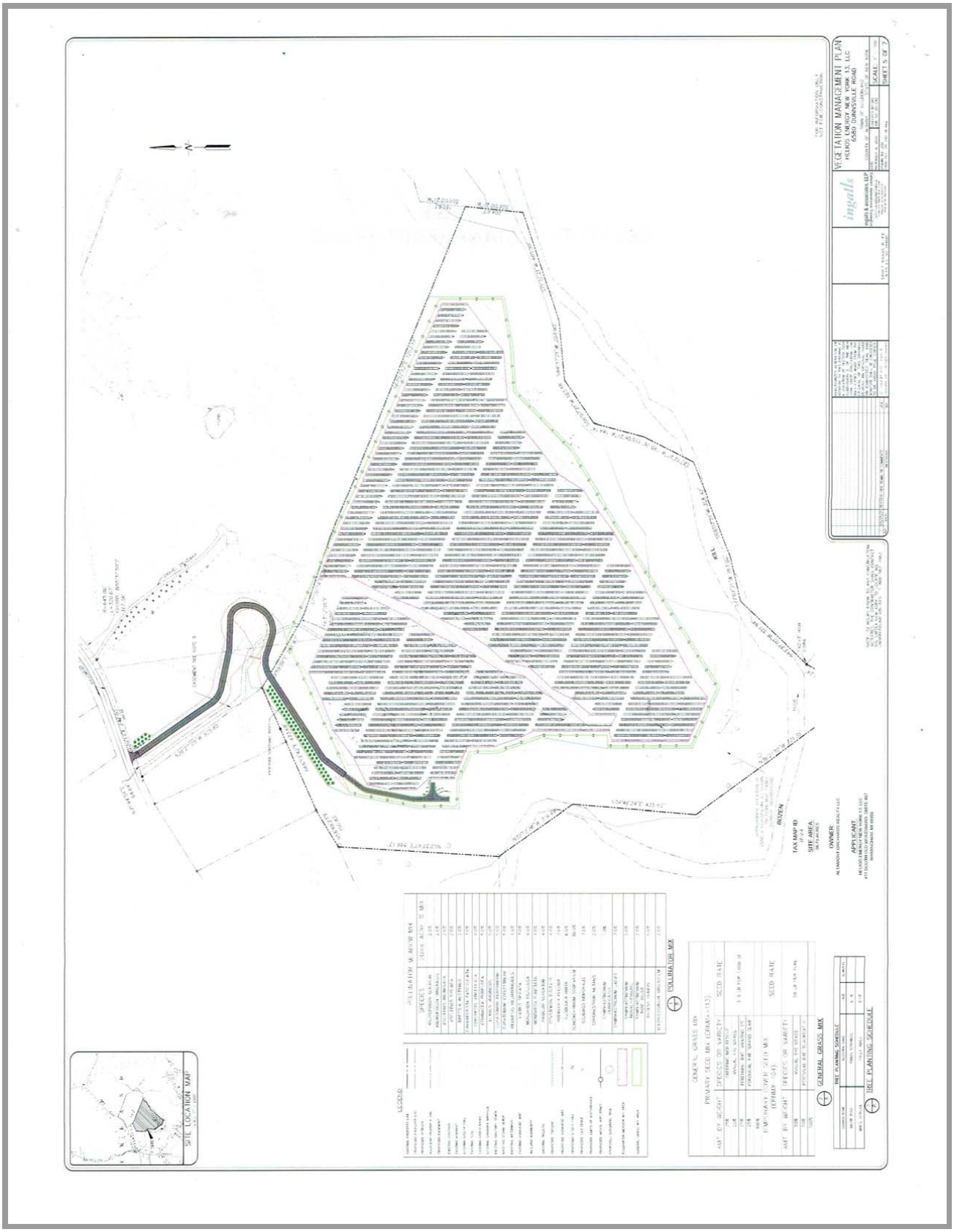
Accident/Incident Cause

Corrective Actions

Root Casue	Contributing Factors	Additional Factors
Other	Other	Other

APPENDIX E
VEGETATION MANAGEMENT PLAN

E


VEGETATION MANAGEMENT PLAN
HILKUS ENERGY NEW YORK 15, LLC
6380 DRAWSVILLE ROAD
SITE LOCATION MAP
TREE PLANTING SCHEDULE
GENERAL GRASS MIX
PRIMARY SEED MIX (ZONE 1-15)
SECONDARY SEED MIX (ZONE 16)
TEMPORARY SEED MIX (ZONE 1-16)
COLLINATOR MIX
LEGEND
TAX MAP ID
SITE AREA
OWNER
APPLICANT

The Town of
GUILDERLAND

RE: LEAD AGENCY REQUEST – Helios Solar Development – 6580 Dunnsville Road

Dear Sir/Madam,

The purpose of this request is to determine under Article 8 (State Environmental Quality Review) of the Environmental Conservation Law and 6 NYCRR Part 617 of the following:

- your jurisdiction in the action described below; and
- issues of concern which you believe should be evaluated.

Proposed Action: installation of a 5MW ground-mounted, solar photovoltaic system on a 56 AC± parcel.

SEQR Classification: Undetermined

Town Position: The Town of Guilderland Zoning Board wishes to assume lead agency status for this action.

The lead agency will determine if this project is an unlisted or Type I action. If you have any comments or concerns, then please contact this office within 30 days of the date of this letter. If no response is received, it will be assumed that your agency has no concerns.

Please feel free to contact me for further information or discussion.

Sincerely,

Jacqueline Coons

Jacqueline Coons
Chief Building & Zoning Inspector

Village of Altamont
P.O. Box 643, 115 Main St
Altamont, NY 12009

Albany County Planning Board
449 New Salem Road
Voorheesville, NY 12186

NYS Department of Transportation
Main Office
50 Wolf Road
Albany, NY 12232

OPRHP
P.O. Box 189
Waterford, NY 12188

U.S. Army Corps of Engineers
Jacob K. Javits Federal Building
26 Federal Plaza, Room 17-302
New York, NY 10278-0090

New York State Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399

New York Natural Heritage Program
625 Broadway, 5th Floor
Albany, NY 12233-4757

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-0001

TOWN OF GUILDERLAND PLANNING BOARD

TOWN OF GUILDERLAND

Planning Department
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339
Phone: (518) 356-1980 x 1061
Fax: (518) 356-5514
Email: kovalchikk@togny.org

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

MEMORANDUM

TO: Thomas Remmert, Chairman
& Town Zoning Board of Appeals

FROM: Kenneth Kovalchik, AICP, Town Planner

Date: September 30, 2021

SUBJ: **Planning Board SEQR Lead Agency Coordination – 6580 Dunnsville Road**
Helios Solar Development

At their September 22, 2021 meeting, the Planning Board considered the SEQR Lead Agency request for the proposed Helios Solar development at 6580 Dunnsville Road for a 5MW ground mounted solar facility. The Planning Board voted not to assume lead agency for the proposed solar facility.

Town of Guilderland

ALBANY COUNTY, ROUTE 20
P.O. BOX 339
GUILDERLAND, N.Y. 12084-0339

PETER G. BARBER
SUPERVISOR

(518) 356-1980
FAX: (518) 356-1990

JACQUELINE M. COONS
CHIEF BUILDING AND ZONING INSPECTOR

Notice is hereby given that the Zoning Board of Appeals of the Town of Guilderland, New York, will *resume* a public hearing pursuant to Articles IV & V of the Zoning Law on the following proposition:

Special Use Permit Request No. 4650

Request of Helios Energy N.Y. for a Special Use Permit/Variance under the Zoning Law to permit: the development of a 5MW photovoltaic solar array.

Per Articles IV & V Sections 280-40 & 280-52 respectively

For property owned by the Altamont Orchards Realty
Situated as follows: 6580 Dunnsville Road Altamont, NY 12009
Tax Map # 37.00-2-4 Zoned RA3

Plans are available for public inspection at the Town Hall or on the Town website at https://www.townofguilderland.org/zoning-board-appeals . Said hearing will take place on October 20, 2021 at 7:00pm. Due to COVID-19 gathering precautions, the meeting will be virtual. Members of the public may listen and view the meeting live on the Town website, channel 34 on Verizon FiOS or channel 1303 on Spectrum. To participate in the public comment period join Zoom Meeting https://us02web.zoom.us/j/81391211886?pwd=TzFsbzQ1UUY4VVUvaUVrT3B2WXJlQT09 or dial 1-929-205-6099. Use Meeting ID: *813 9121 1886* and Passcode: *605688*. For questions regarding the application, call the Building Department during regular business hours.

Dated: October 12, 2021

Jacqueline M. Coons
Chief Building & Zoning Inspector

013089 37.00-2-4
Altamont Orchards Realty LLC
6654 Dunnsville Rd
Altamont, NY 12009

013089 37.00-2-5
Wade Coton
1046 DiBella Dr
Schenectady, NY 12303

013089 37.00-2-7.1
Ella Armstrong Estate
6560 Dunnsville Rd
Altamont, NY 12009

013089 37.00-2-7.2
Allen W Armstrong
6572 Dunnsville Rd
Altamont, NY 12009

013089 37.00-2-14.1
Maria R Musto
3172 Spawn Rd
Schenectady, NY 12303

TOWN OF GUILDERLAND
CHECKLIST FOR SPECIAL USE PERMIT

RETURN TO:
ZONING ADMINISTRATOR
PO BOX 339
GUILDERLAND, NY 12084
(518) 356-1980

FEES:
COMMERCIAL - $300
RESIDENTIAL - $75
(payable at time of submittal to Town of Guilderland)

APPLICANT INFORMATION:
Name: Sergey Sandul (YS Property Holding II, LLC)
Address: 60 Dott Avenue
Albany, NY **Zip:** 12205
Daytime Phone #: 518-779-9275
Date: 7/9/2021

PROPERTY INFORMATION:
Owner: Sergey Sandul (YS Property Holding II, LLC)
Location: 60 Dott Avenue
Tax Map #: 53.05-1-10
Zoning: I - Industrial
Acreage: 1.99±

TO BE SUBMITTED:

1. 12 copies of application form
2. 12 copies of SEQRA form
3. Copy of conditional purchase contract or rental agreement if applicable
4. 12 copies of the project narrative containing the following: detailed description of the use, hours of operation, # of employees, type of deliveries, etc.
5. 12 copies of plat plan FOLDED which should include: side, front and rear setbacks, all existing buildings, location of proposed construction, total size of parcel, elevations, parking layout, lighting layout, sidewalks and monuments, street and curb cuts, sanitary system and water course, drainage system, delineated wetlands, planting and green area plans including fencing/buffer area boundaries.

OTHER AGENCY APPROVALS AS REQUIRED:

1. Town Water and Wastewater Management – 456-6474
2. Town Highway Department – 861-5108
3. NYS Department of Transportation – 765-2841
4. Albany County Health Department – 447-4631
5. Albany County Planning Board – 447-5660
6. NYS DEC Region IV – 357-2044
7. Pine Bush Commission – 464-6496

APPLICATION AND APPEAL TO THE ZONING BOARD OF APPEALS
FOR A VARIANCE, SPECIAL USE PERMIT OR AN INTERPRETATION
OF THE ZONING ORDINANCE OR ZONING MAP

To Zoning Administrative Officer
Of the Town of Guilderland

Date: 7/9/2021

To the Zoning Board of Appeals
Of the Town of Guilderland

I, Sergey Sandul of YS Property Holding II, LLC
hereby appeal from the decision of the Zoning Administration Officer on my application for zoning permit and hereby apply to the Zoning Board of Appeals for:

( ) An interpretation of the Zoning Ordinance or Zoning Map
(X) A Special Use Permit under the Zoning Ordinance or Zoning Map
( ) A Variance to the Zoning Ordinance or Zoning Map

1. Location of property
   Address: 70 Railroad Avenue Zoning: I - Industrial

2. Interpretation of the Zoning Ordinance is requested because:
   N/A

3. Special Use Permit required for the following type of use:
   Handling and recycling of catalytic converters

* 4. Variance to the Zoning Ordinance is requested for:
   N/A

*** Applicant shall complete form outlining conditions from Section 267-b of New York State Town Law pertaining to area variances.**

The applicant hereby certifies that he is the owner of record of the above property or has been duly authorized in writing by the owner of record to make this application.

Signature of applicant

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

Project Location (describe, and attach a location map):
70 Railroad Avenue, Guilderland, NY

Brief Description of Proposed Action:
Construction of a 14,400 SF warehouse for the handling and warehousing of catalytic converters, including parking, utilities, and landscaping.

Name of Applicant or Sponsor:	Telephone: 518-779-9275
Sergey Sandul (YS Property Holdings II, LLC)	E-Mail: sergey@yscatalytic.com

Address:
60 Dott Avenue

City/PO:	State:	Zip Code:
Albany	NY	12205

	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: Albany County Planning Board, Town of Colonie - Water & Sewer	☐	☑

3. a. Total acreage of the site of the proposed action? 1.99 acres
   b. Total acreage to be physically disturbed? 2± acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.99 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

	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?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
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?	☑	☐

	NO	YES
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: _____ _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☐	☑

	NO	YES
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?	☐	☑

	NO	YES
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: _____ _____ _____		

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 drainage to existing system. New retention basin for new runoff.		
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: Nearby 136 Fuller Road (Site Code: C401055) and Former Paulsen - Holbrook (Site Code: 401046), not adjacent to project site		

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

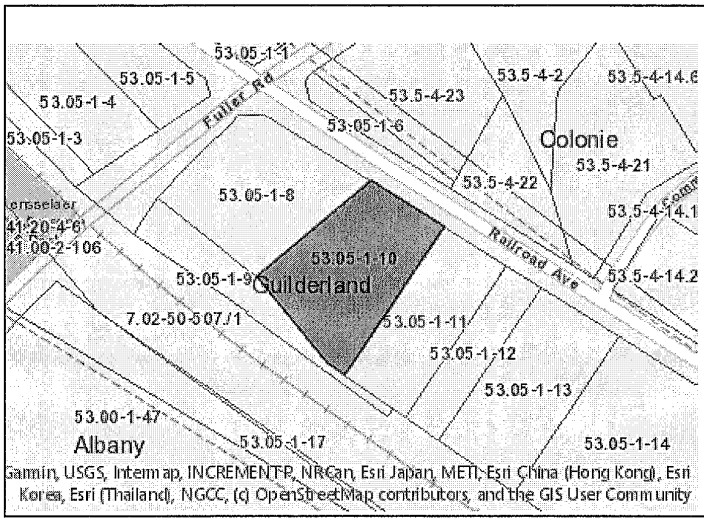
Applicant/sponsor/name: Joseph J. Bianchine, P.E. (ABD Engineers, LLP) Date: 7/9/2021

Signature: _____ Title: Professional Engineer

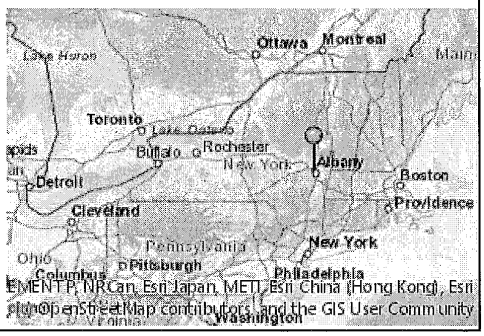
PRINT FORM

EAF Mapper Summary Report

Monday, May 10, 2021 4:35 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]	Yes

Short Environmental Assessment Form - EAF Mapper Summary Report

1

PROJECT NARRATIVE

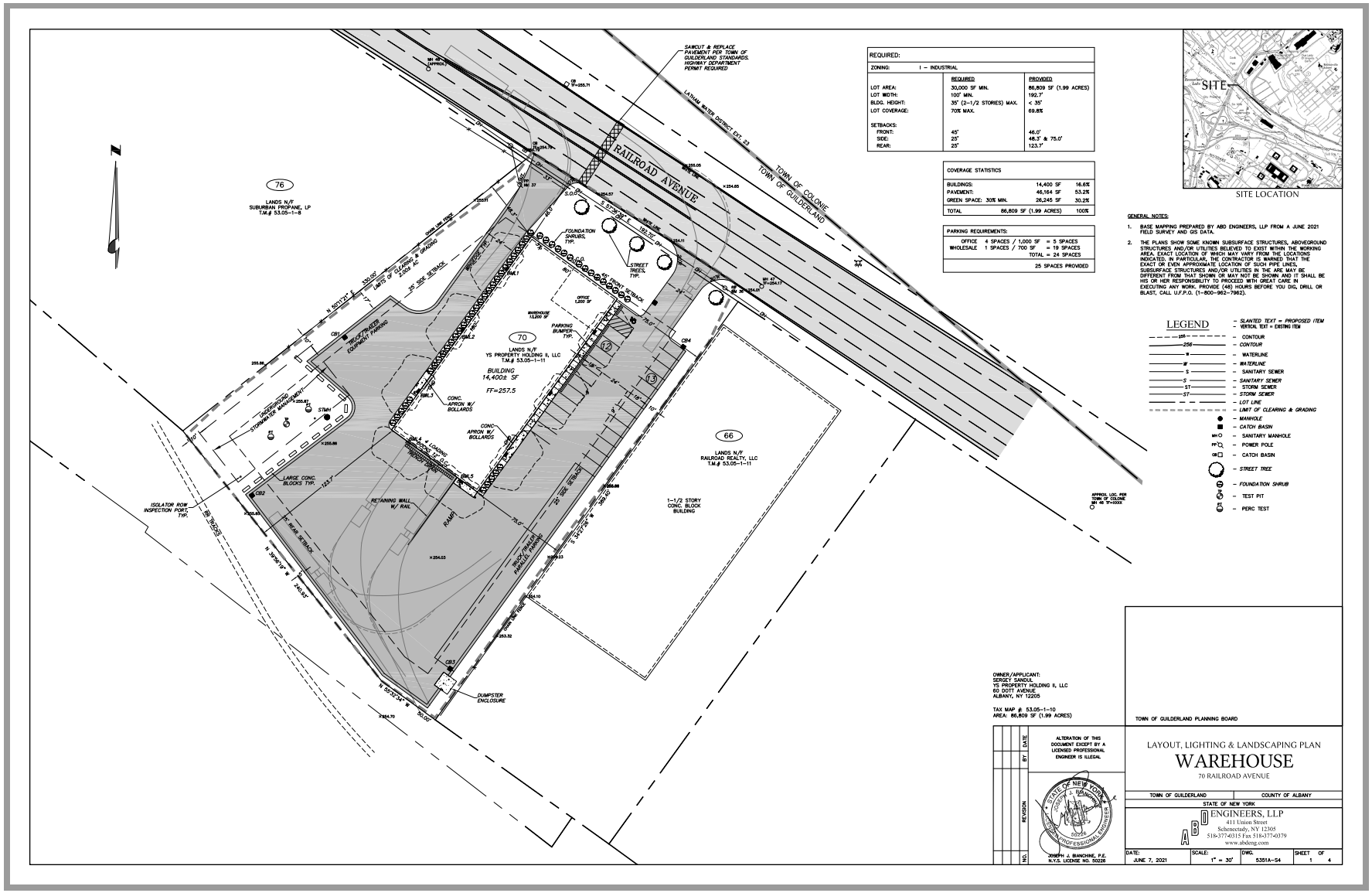
Proposed Warehouse
70 Railroad Avenue
Town of Guilderland
Albany County, New York

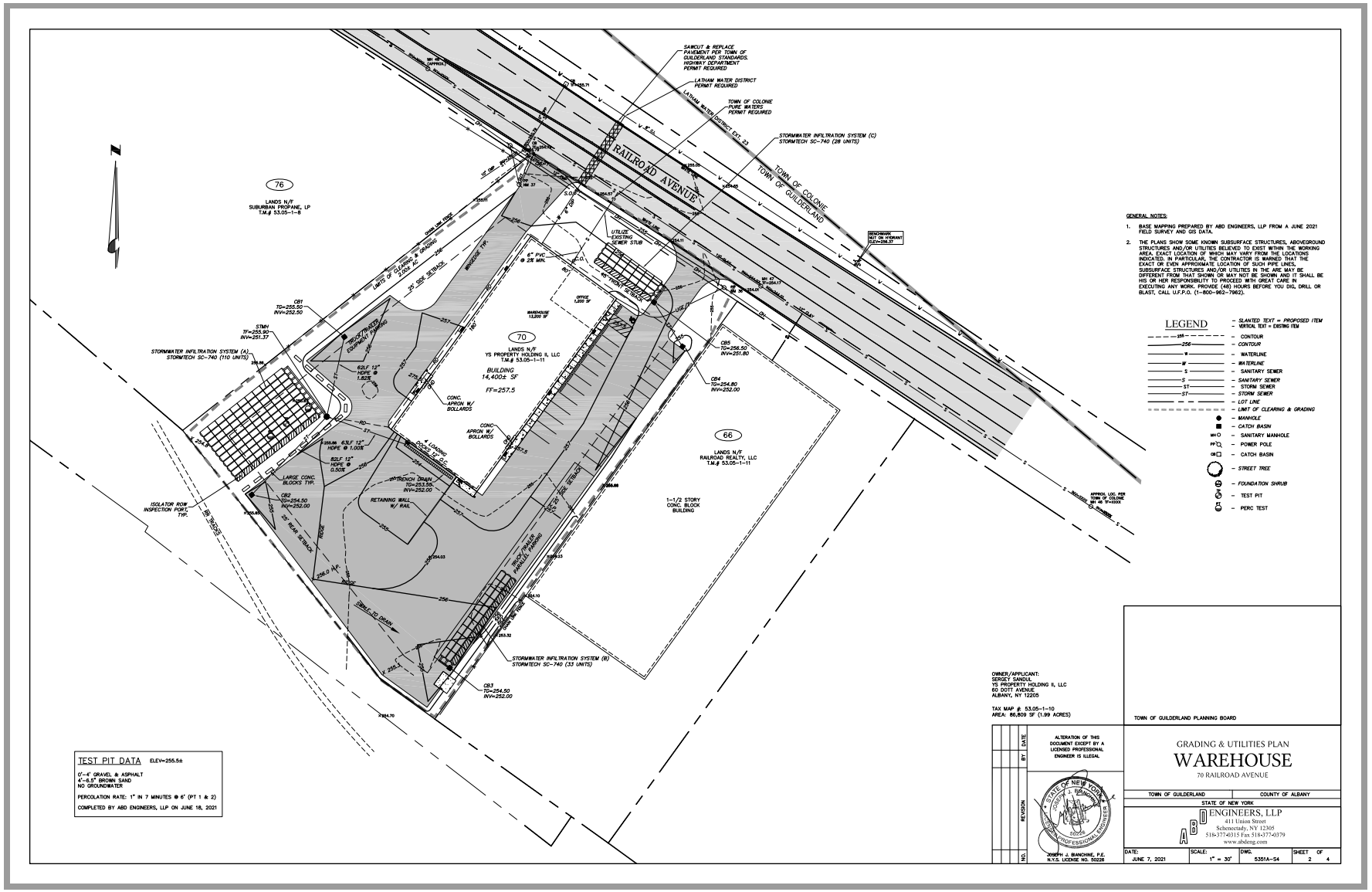
Sergey Sandul (YS Property Holding II, LLC), the applicant, is seeking to expand his catalytic converter recycling business by developing the 1.99-acre property at 70 Railroad Avenue. This parcel is located in the Industrial Zone; the majority of the lot is covered in gravel and deteriorating pavement, and is used for outdoor storage of trailers and vehicles, although there are two small (1,000± SF) storage buildings on-site.

The applicant is planning to clear the site of all existing structures and construct a 14,400± SF warehouse building for the handling and warehousing of catalytic converters. Twenty-five (25) parking spaces will be provided for employees and customers, and loading docks in the rear will accommodate tractor-trailers. The operation will be similar to the applicant's nearby business at 60 Dott Avenue, and the facility will be open from 8AM to 4PM, Monday-Friday, with limited hours on Saturday. Landscaping will be provided around the building foundation, and new street trees will be planted along Railroad Avenue to enhance the aesthetic appeal of the site.

Water and sanitary service will be provided by connecting to the existing water and sewer mains on Railroad Avenue; These mains are owned by the Town of Colonie, and an amendment to the Guilderland/Colonie municipal agreement will be required. All added stormwater runoff will be handled on-site by the installation of three underground stormwater management areas on site. The proposed stormwater practices will comply with Town and NYSDEC regulations, and a SWPPP will be prepared.

The project will be built in a single phase; starting with temporary erosion control facilities, clearing and grading, building construction, utility installation, and paving. Approximately 2± Acres will be disturbed by this project.


RAILROAD AVENUE
TOWN OF COLONIE
TOWN OF GUILDERLAND
SAWCUT & REPLACE PAVEMENT PER TOWN OF GUILDERLAND STANDARDS. HIGHWAY DEPARTMENT PERMIT REQUIRED
LATHAM WATER DISTRICT EXT. 23
SITE
SITE LOCATION
REQUIRED:
ZONING: I – INDUSTRIAL
LOT AREA: REQUIRED 30,000 SF MIN. PROVIDED 86,809 SF (1.99 ACRES)
LOT WIDTH: 100' MIN. 192.7'
BLDG. HEIGHT: 35' (2-1/2 STORIES) MAX. < 35'
LOT COVERAGE: 70% MAX. 69.8%
SETBACKS:
FRONT: 45' 46.0'
SIDE: 25' 48.3' & 75.0'
REAR: 25' 123.7'
COVERAGE STATISTICS
BUILDINGS: 14,400 SF 16.6%
PAVEMENT: 46,164 SF 53.2%
GREEN SPACE: 30% MIN. 26,245 SF 30.2%
TOTAL 86,809 SF (1.99 ACRES) 100%
PARKING REQUIREMENTS:
OFFICE 4 SPACES / 1,000 SF = 5 SPACES
WHOLESALE 1 SPACES / 700 SF = 19 SPACES
TOTAL = 24 SPACES
25 SPACES PROVIDED
GENERAL NOTES:
1. BASE MAPPING PREPARED BY ABD ENGINEERS, LLP FROM A JUNE 2021 FIELD SURVEY AND GIS DATA.
2. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVEGROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST WITHIN THE WORKING AREA. EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPE LINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE ARE MAY BE DIFFERENT FROM THAT SHOWN OR MAY NOT BE SHOWN AND IT SHALL BE HIS OR HER RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. PROVIDE (48) HOURS BEFORE YOU DIG, DRILL OR BLAST, CALL U.F.P.O. (1-800-962-7962).
LEGEND
SLANTED TEXT = PROPOSED ITEM VERTICAL TEXT = EXISTING ITEM
CONTOUR
WATERLINE
SANITARY SEWER
STORM SEWER
LOT LINE
LIMIT OF CLEARING & GRADING
MANHOLE
CATCH BASIN
SANITARY MANHOLE
POWER POLE
CATCH BASIN
STREET TREE
FOUNDATION SHRUB
TEST PIT
PERC TEST
76
LANDS N/F SUBURBAN PROPANE, LP T.M.# 53.05-1-8
70
LANDS N/F YS PROPERTY HOLDING II, LLC T.M.# 53.05-1-11
BUILDING 14,400± SF
FF=257.5
66
LANDS N/F RAILROAD REALTY, LLC T.M.# 53.05-1-11
1-1/2 STORY CONC. BLOCK BUILDING
TREE-IN-WATER EQUIPMENT PARKING
CONC. APRON W/ BOLLARDS
RETAINING WALL W/ RAIL
RAMP
LARGE CONC. BLOCKS TYP.
ISOLATION ROW INSPECTION PORT, TYP.
DUMPSTER ENCLOSURE
FOUNDATION SHRUBS, TYP.
STREET TREES, TYP.
PARKING BUMPER, TYP.
OWNER/APPLICANT:
SERGEY SANDUL
YS PROPERTY HOLDING II, LLC
60 DOTT AVENUE
ALBANY, NY 12205
TAX MAP #: 53.05-1-10
AREA: 86,809 SF (1.99 ACRES)
TOWN OF GUILDERLAND PLANNING BOARD
ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER IS ILLEGAL.
JOSEPH J. BIANCHINE, P.E.
N.Y.S. LICENSE NO. 50226
LAYOUT, LIGHTING & LANDSCAPING PLAN
WAREHOUSE
70 RAILROAD AVENUE
TOWN OF GUILDERLAND
COUNTY OF ALBANY
STATE OF NEW YORK
ABD ENGINEERS, LLP
411 Union Street
Schenectady, NY 12305
518-377-0315 Fax 518-377-0379
www.abdeng.com
DATE: JUNE 7, 2021
SCALE: 1" = 30'
DWG. 5351A-S4
SHEET OF 1 4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LANDS N/F RAILROAD REALTY, LLC T.M.# 53.05-1-11
1-1/2 STORY CONC. BLOCK BUILDING
WAREHOUSE 13,200 SF
OFFICE 1,200 SF
STORMWATER INFILTRATION SYSTEM (A) STORMTECH SC-740 (110 UNITS)
STORMWATER INFILTRATION SYSTEM (B) STORMTECH SC-740 (33 UNITS)
STORMWATER INFILTRATION SYSTEM (C) STORMTECH SC-740 (28 UNITS)
SAWCUT & REPLACE PAVEMENT PER TOWN OF GUILDERLAND STANDARDS. HIGHWAY DEPARTMENT PERMIT REQUIRED
LATHAM WATER DISTRICT PERMIT REQUIRED
TOWN OF COLONIE PUBLIC WATERS PERMIT REQUIRED
UTILIZE EXISTING SEWER STUB
CB1 TC=255.50 INV=252.50
STMH TF=255.90 INV=251.37
CB2 TG=254.50 INV=252.00
CB3 TG=254.50 INV=252.00
CB4 TG=254.80 INV=252.00
CB5 TG=256.50 INV=251.80
TRENCH DRAIN TG=253.55 INV=252.00
RETAINING WALL W/ RAIL
CONC. APRON W/ BOLLARDS
LARGE CONC. BLOCKS TYP.
ISOLATION ROW INSPECTION PORT, TYP.
TRUE NORTH
GRADE TO DRAIN
25' REAR SETBACK
25' SIDE SETBACK
LIMIT OF CLEARING & GRADING 2.28± AC.
BENCHMARK SET ON HYDRANT ELEV=256.37
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MANHOLE
CATCH BASIN
SANITARY MANHOLE
POWER POLE
STREET TREE
FOUNDATION SHRUB
TEST PIT
PERC TEST
TEST PIT DATA ELEV=255.5±
0'-4' GRAVEL & ASPHALT
4'-8.5' BROWN SAND
NO GROUNDWATER
PERCOLATION RATE: 1" IN 7 MINUTES @ 6' (PT 1 & 2)
COMPLETED BY ABD ENGINEERS, LLP ON JUNE 18, 2021
OWNER/APPLICANT:
SERGEY SANDUL
YS PROPERTY HOLDING II, LLC
60 DOTT AVENUE
ALBANY, NY 12205
TAX MAP #: 53.05-1-10
AREA: 86,609 SF (1.99 ACRES)
TOWN OF GUILDERLAND PLANNING BOARD
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NO. REVISION BY DATE
JOSEPH J. BIANCHINE, P.E. N.Y.S. LICENSE NO. 50226
GRADING & UTILITIES PLAN
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411 Union Street
Schenectady, NY 12305
518-377-0315 Fax 518-377-0379
www.abdeng.com
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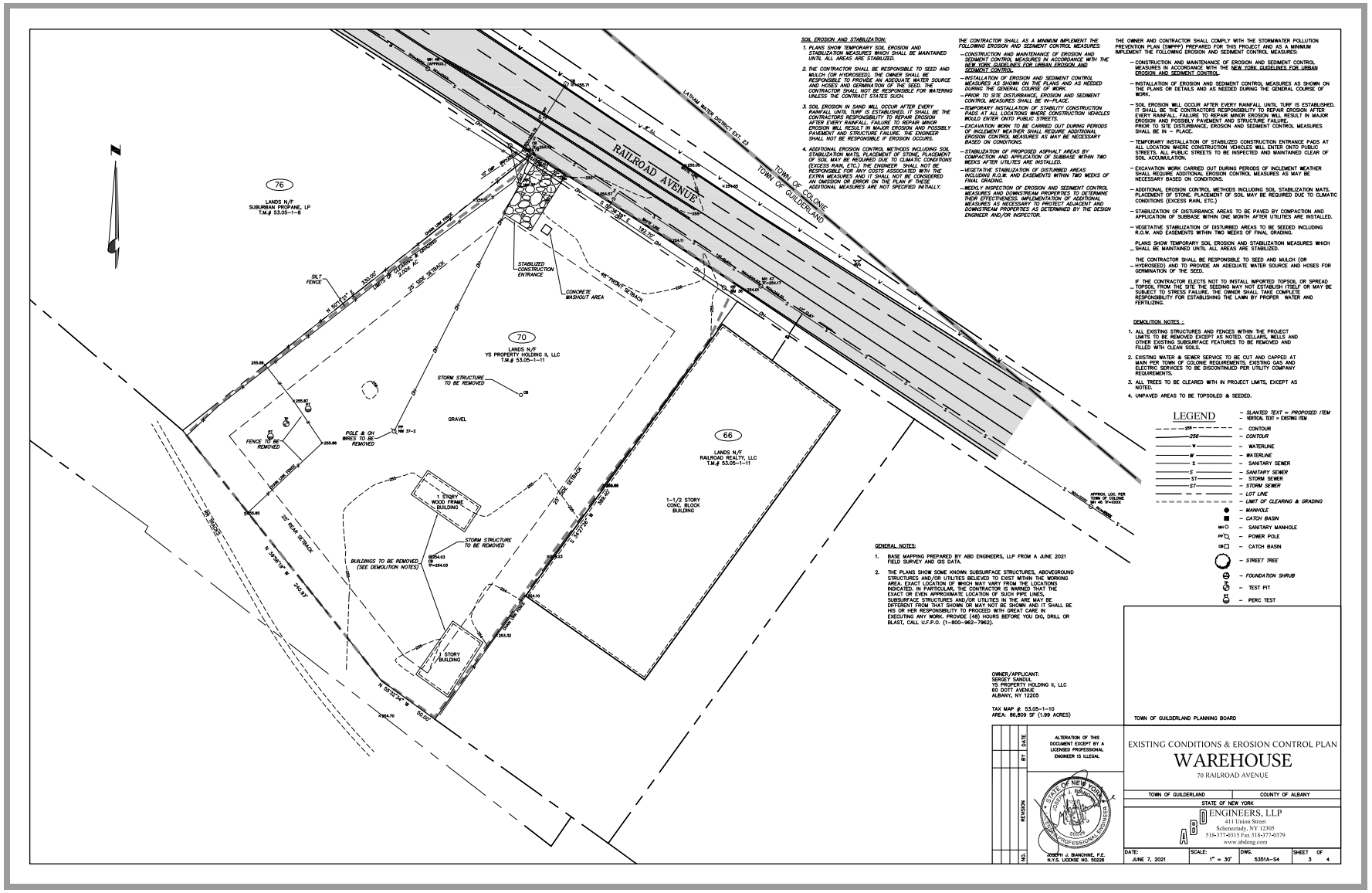


SOIL EROSION AND STABILIZATION:

1. PLANS SHOW TEMPORARY SOIL EROSION AND STABILIZATION MEASURES WHICH SHALL BE MAINTAINED UNTIL ALL AREAS ARE STABILIZED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO SEED AND MULCH (OR HYDROSEED). THE OWNER SHALL BE RESPONSIBLE TO PROVIDE AN ADEQUATE WATER SOURCE AND HOSES AND GERMINATION OF THE SEED. THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR WATERING UNLESS THE CONTRACT STATES SUCH.
3. SOIL EROSION IN SAND WILL OCCUR AFTER EVERY RAINFALL UNTIL TURF IS ESTABLISHED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR EROSION AFTER EVERY RAINFALL. FAILURE TO REPAIR MINOR EROSION WILL RESULT IN MAJOR EROSION AND POSSIBLY PAVEMENT AND STRUCTURE FAILURE. THE ENGINEER SHALL NOT BE RESPONSIBLE IF EROSION OCCURS.
4. ADDITIONAL EROSION CONTROL METHODS INCLUDING SOIL STABILIZATION MATS, PLACEMENT OF STONE, PLACEMENT OF SOIL MAY BE REQUIRED DUE TO CLIMATIC CONDITIONS (EXCESS RAIN, ETC.) THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE EXTRA MEASURES AND IT SHALL NOT BE CONSIDERED AN OMISSION OR ERROR ON THE PLAN IF THESE ADDITIONAL MEASURES ARE NOT SPECIFIED INITIALLY.

THE CONTRACTOR SHALL AS A MINIMUM IMPLEMENT THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES:

- CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL.
- INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS AND AS NEEDED DURING THE GENERAL COURSE OF WORK.
- PRIOR TO SITE DISTURBANCE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN-PLACE.
- TEMPORARY INSTALLATION OF STABILITY CONSTRUCTION PADS AT ALL LOCATIONS WHERE CONSTRUCTION VEHICLES WOULD ENTER ONTO PUBLIC STREETS.
- EXCAVATION WORK TO BE CARRIED OUT DURING PERIODS OF INCLEMENT WEATHER SHALL REQUIRE ADDITIONAL EROSION CONTROL MEASURES AS MAY BE NECESSARY BASED ON CONDITIONS.
- STABILIZATION OF PROPOSED ASPHALT AREAS BY COMPACTION AND APPLICATION OF SUBBASE WITHIN TWO WEEKS AFTER UTILITIES ARE INSTALLED.
- VEGETATIVE STABILIZATION OF DISTURBED AREAS INCLUDING R.O.W. AND EASEMENTS WITHIN TWO WEEKS OF FINAL GRADING.
- WEEKLY INSPECTION OF EROSION AND SEDIMENT CONTROL MEASURES AND DOWNSTREAM PROPERTIES TO DETERMINE THEIR EFFECTIVENESS, IMPLEMENTATION OF ADDITIONAL MEASURES AS NECESSARY TO PROTECT ADJACENT AND DOWNSTREAM PROPERTIES AS DETERMINED BY THE DESIGN ENGINEER AND/OR INSPECTOR.

THE OWNER AND CONTRACTOR SHALL COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT AND AS A MINIMUM IMPLEMENT THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES:

- CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL.
- INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS OR DETAILS AND AS NEEDED DURING THE GENERAL COURSE OF WORK.
- SOIL EROSION WILL OCCUR AFTER EVERY RAINFALL UNTIL TURF IS ESTABLISHED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR EROSION AFTER EVERY RAINFALL. FAILURE TO REPAIR MINOR EROSION WILL RESULT IN MAJOR EROSION AND POSSIBLY PAVEMENT AND STRUCTURE FAILURE. PRIOR TO SITE DISTURBANCE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN - PLACE.
- TEMPORARY INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE PADS AT ALL LOCATION WHERE CONSTRUCTION VEHICLES WILL ENTER ONTO PUBLIC STREETS. ALL PUBLIC STREETS TO BE INSPECTED AND MAINTAINED CLEAR OF SOIL ACCUMULATION.
- EXCAVATION WORK CARRIED OUT DURING PERIODS OF INCLEMENT WEATHER SHALL REQUIRE ADDITIONAL EROSION CONTROL MEASURES AS MAY BE NECESSARY BASED ON CONDITIONS.
- ADDITIONAL EROSION CONTROL METHODS INCLUDING SOIL STABILIZATION MATS, PLACEMENT OF STONE, PLACEMENT OF SOIL MAY BE REQUIRED DUE TO CLIMATIC CONDITIONS (EXCESS RAIN, ETC.)
- STABILIZATION OF DISTURBANCE AREAS TO BE PAVED BY COMPACTION AND APPLICATION OF SUBBASE WITHIN ONE MONTH AFTER UTILITIES ARE INSTALLED.
- VEGETATIVE STABILIZATION OF DISTURBED AREAS TO BE SEEDED INCLUDING R.O.W. AND EASEMENTS WITHIN TWO WEEKS OF FINAL GRADING.
- PLANS SHOW TEMPORARY SOIL EROSION AND STABILIZATION MEASURES WHICH SHALL BE MAINTAINED UNTIL ALL AREAS ARE STABILIZED.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO SEED AND MULCH (OR HYDROSEED) AND TO PROVIDE AN ADEQUATE WATER SOURCE AND HOSES FOR GERMINATION OF THE SEED.
- IF THE CONTRACTOR ELECTS NOT TO INSTALL IMPORTED TOPSOIL OR SPREAD TOPSOIL FROM THE SITE THE SEEDING MAY NOT ESTABLISH ITSELF OR MAY BE SUBJECT TO STRESS FAILURE. THE OWNER SHALL TAKE COMPLETE RESPONSIBILITY FOR ESTABLISHING THE LAWN BY PROPER WATER AND FERTILIZING.

DEMOLITION NOTES :

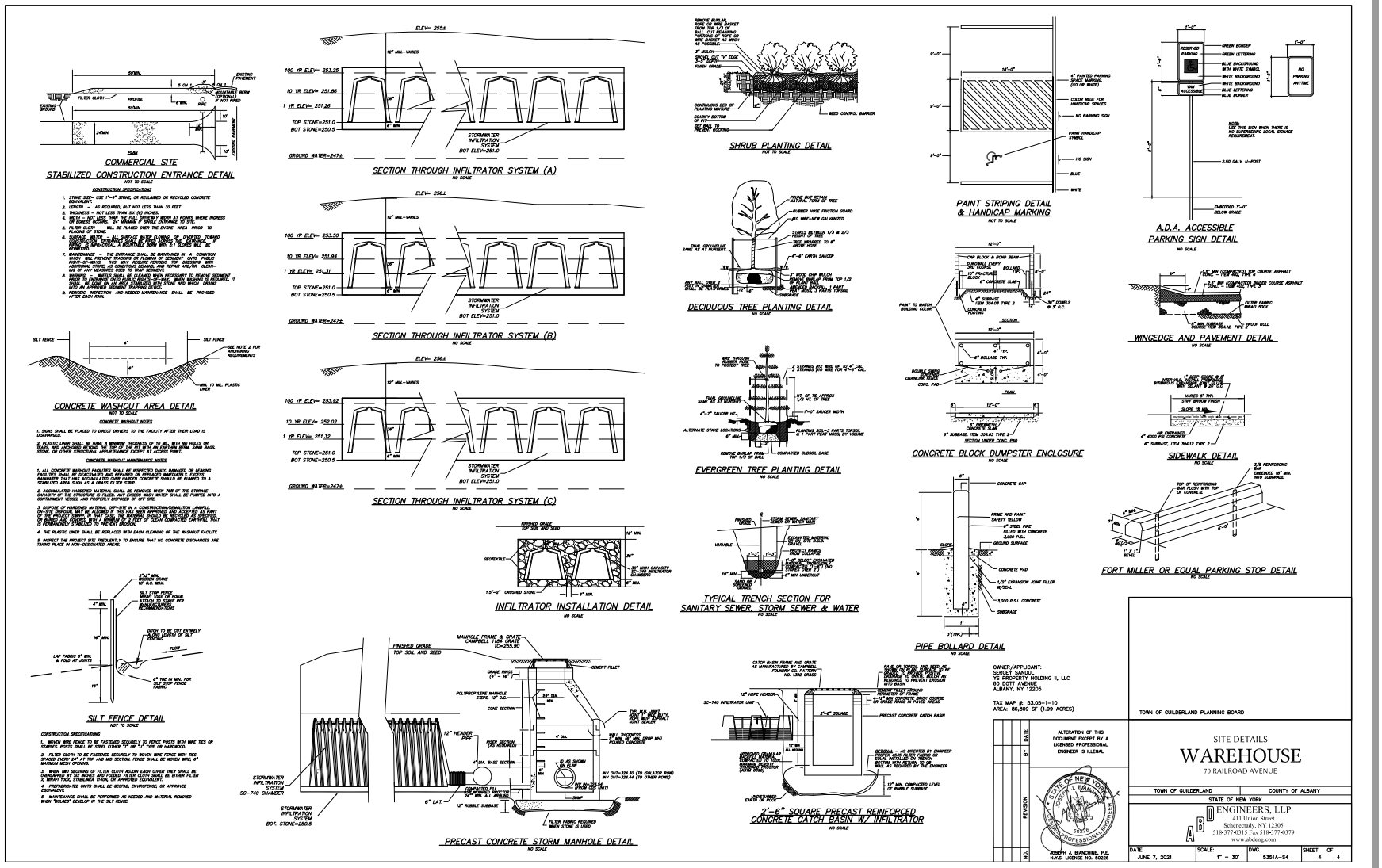
1. ALL EXISTING STRUCTURES AND FENCES WITHIN THE PROJECT LIMITS TO BE REMOVED EXCEPT AS NOTED. CELLARS, WELLS AND OTHER EXISTING SUBSURFACE FEATURES TO BE REMOVED AND FILLED WITH CLEAN SOILS.
2. EXISTING WATER & SEWER SERVICE TO BE CUT AND CAPPED AT MAIN PER TOWN OF COLONIE REQUIREMENTS. EXISTING GAS AND ELECTRIC SERVICES TO BE DISCONTINUED PER UTILITY COMPANY REQUIREMENTS.
3. ALL TREES TO BE CLEARED WITH IN PROJECT LIMITS, EXCEPT AS NOTED.
4. UNPAVED AREAS TO BE TOPSOILED & SEEDED.

GENERAL NOTES:

1. BASE MAPPING PREPARED BY ABD ENGINEERS, LLP FROM A JUNE 2021 FIELD SURVEY AND GIS DATA.
2. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVEGROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST WITHIN THE WORKING AREA. EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPE LINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE ARE MAY BE DIFFERENT FROM THAT SHOWN OR MAY NOT BE SHOWN AND IT SHALL BE HIS OR HER RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. PROVIDE (48) HOURS BEFORE YOU DIG, DRILL OR BLAST, CALL U.F.P.O. (1-800-962-7962).

LEGEND

- SLANTED TEXT = PROPOSED ITEM
- VERTICAL TEXT = EXISTING ITEM
- CONTOUR
- CONTOUR
- WATERLINE
- WATERLINE
- SANITARY SEWER
- SANITARY SEWER
- STORM SEWER
- STORM SEWER
- LOT LINE
- LIMIT OF CLEARING & GRADING
- MANHOLE
- CATCH BASIN
- SANITARY MANHOLE
- POWER POLE
- CATCH BASIN
- STREET TREE
- FOUNDATION SHRUB
- TEST PIT
- PERC TEST


COMMERCIAL SITE
STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE
CONSTRUCTION SPECIFICATIONS
1. STONE SIZE:- USE 1"-4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 30 FEET
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – NOT LESS THAN THE FULL PROJECT WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. MINIMUM 10 FOOT WIDTH AT ONE WAY 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. THIS MAY REQUIRE PERIODIC TOP DRESSING OF ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN 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.
CONCRETE WASHOUT AREA DETAIL
NOT TO SCALE
CONCRETE WASHOUT NOTES
1. SIGNS SHALL BE PLACED TO DIRECT DRIVERS TO THE FACILITY AFTER THEIR LOAD IS DISCHARGED.
2. PLASTIC LINER SHALL BE HAVE A MINIMUM THICKNESS OF 10 MIL. WITH NO HOLES OR TEARS, AND ANCHORED BEYOND THE TOP OF THE PIT WITH AN EARTHEN BERM, SAND BAGS, STONE, OR OTHER STRUCTURAL APPURTENANCE EXCEPT AT ACCESS POINT.
CONCRETE WASHOUT MAINTENANCE NOTES
1. ALL CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED DAILY. DAMAGED OR LEAKING FACILITIES SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY. EXCESS HARDENED CONCRETE THAT HAS ACCUMULATED OVER HARDEN CONCRETE SHOULD BE PUMPED TO A STABILIZED AREA SUCH AS A GRASS FILTER STRIP.
2. ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 75% OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED. ANY LIQUID WASTE SHALL BE PUMPED INTO A CONTAINMENT STRUCTURE AND DISPOSED OF AT A LOCATION APPROVED BY DEC.
3. DISPOSE OF HARDENED MATERIAL OFF-SITE IN A CONSTRUCTION/DEMOLITION LANDFILL OR NEW PROPOSAL MAY BE ALLOWED IF THE HAS BEEN APPROVED AND ACCEPTED AS FILL MATERIAL BY THE OWNER OF THE SITE. THE HARDENED MATERIAL SHALL BE BROKEN UP AND GRADED OR BURIED AND COVERED WITH A MINIMUM OF 2 FEET OF CLEAN COMPACTED EARTHFILL THAT IS PERMANENTLY STABILIZED TO PREVENT EROSION.
4. THE PLASTIC LINER SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.
5. INSPECT THE PROJECT SITE FREQUENTLY TO ENSURE THAT NO CONCRETE DISCHARGES ARE TAKING PLACE IN NON-DESIGNATED AREAS.
SILT FENCE DETAIL
NOT TO SCALE
CONSTRUCTION SPECIFICATIONS
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "L" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
SECTION THROUGH INFILTRATOR SYSTEM (A)
NO SCALE
SECTION THROUGH INFILTRATOR SYSTEM (B)
NO SCALE
SECTION THROUGH INFILTRATOR SYSTEM (C)
NO SCALE
INFILTRATOR INSTALLATION DETAIL
NO SCALE
PRECAST CONCRETE STORM MANHOLE DETAIL
NO SCALE
SHRUB PLANTING DETAIL
NOT TO SCALE
DECIDUOUS TREE PLANTING DETAIL
NO SCALE
EVERGREEN TREE PLANTING DETAIL
NO SCALE
TYPICAL TRENCH SECTION FOR SANITARY SEWER, STORM SEWER & WATER
NO SCALE
2'-6" SQUARE PRECAST REINFORCED CONCRETE CATCH BASIN W/ INFILTRATOR
NO SCALE
PAINT STRIPING DETAIL & HANDICAP MARKING
NOT TO SCALE
CONCRETE BLOCK DUMPSTER ENCLOSURE
NO SCALE
PIPE BOLLARD DETAIL
NO SCALE
A.D.A. ACCESSIBLE PARKING SIGN DETAIL
NO SCALE
WINGEDGE AND PAVEMENT DETAIL
NO SCALE
SIDEWALK DETAIL
NO SCALE
FORT MILLER OR EQUAL PARKING STOP DETAIL
NO SCALE
OWNER/APPLICANT:
SERGEY SANDUL
YS PROPERTY HOLDING II, LLC
60 DOTT AVENUE
ALBANY, NY 12205
TAX MAP #: 53.05-1-10
AREA: 86,809 SF (1.99 ACRES)
TOWN OF GUILDERLAND PLANNING BOARD
ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL ENGINEER IS ILLEGAL.
JOSEPH J. BIANCHINE, P.E.
N.Y.S. LICENSE NO. 50226
SITE DETAILS
WAREHOUSE
70 RAILROAD AVENUE
TOWN OF GUILDERLAND
COUNTY OF ALBANY
STATE OF NEW YORK
ABD ENGINEERS, LLP
411 Union Street
Schenectady, NY 12305
518-377-0315 Fax 518-377-0379
www.abdeng.com
DATE: JUNE 7, 2021
SCALE: 1" = 30'
DWG. 5351A-S4
SHEET OF 4 4

ALBANY COUNTY PLANNING BOARD
NOTIFICATION

RECOMMENDATION DATE: August 20, 2021

Case #:	**10-210803785**
Applicant:	**YS Catalytic**
Project Location:	70 Railroad Ave
Tax Map Number:	53.05-1-10
Referring Agency:	Town of Guilderland Planning Board
Considerations:	Special use permit for the construction of a 14,400 SF warehouse for handling of catalytic converters.
ACPB Recommendation:	Modify local approval to include 1. A Notice of Intent filed with the New York State Department of Environmental Conservation affirming that a Stormwater Pollution Prevention Plan has been prepared and is being implemented, or submission of a Stormwater Pollution Prevention Plan (SWPPP) that is consistent with the requirements included in the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges (GP-0-15-003, May 1, 2015) for construction activities that disturb more than one acre of land. 2. Notification of the application should be sent to the Town of Colinie and City of Albany, including all required notices pursuant to GML §239-nn.
Advisory:	

Gopika Muddappa, Senior Planner
Albany County Planning Board

NOTE:

- This recommendation is rendered in compliance with applicable requirements of Section 239 of New York State General Municipal Law. Final determination on this matter rests with the appropriate municipal body.
- A recommendation of "APPROVE" or "MODIFY LOCAL APPROVAL" should not be interpreted as a recommendation by this body that the referring agency approve the matter referred. Such recommendation does not indicate that this body has reviewed all local concerns; rather the referral has met certain countywide considerations. Evaluation of local criteria is the responsibility of the referring agency.
- General Municipal Law Section 239 requires that the local agency notify the county within thirty days of its final action. Please use the OFFICIAL NOTICE OF LOCAL ACTION form that is attached for this purpose.
- General Municipal Law Section 239 sets forth the procedural requirements for taking local action contrary to the County Planning Board's recommendation of objection or conditional approval.
- Albany County is required to submit a Municipal Separate Storm Sewer System Permit (MS4) (No. GP-0-10-002) Notice of Intent (NOI) to comply with the NYS DEC permit for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Construction Activity Permit No. GP-0-1-001 issued by NYSDEC is also required for activity with soil disturbances of one acre or more. The law is required by the Clean Water Act to control point source discharges to ground water as well as surface waters.

449 New Salem Road, Voorheesville, NY 12186
TELEPHONE: (518) 655-7932 FAX: (518) 765-3459

In compliance with Article 12-B, Section 239 of New York State General Municipal Law, this serves as official notification to the Albany County Planning Board of the action taken on the application described above.

LOCAL ACTION ON ACPB RECOMMENDATION:

☐ AGREED WITH COUNTY PLANNING BOARD RECOMMENDATIONS TO MODIFY OR DISAPPROVE
☐ OVER-RULED COUNTY PLANNING BOARD RECOMMENDATIONS TO MODIFY OR DISAPPROVE

LOCAL DECISION ON PROJECT:

☐ PROJECT APPROVED
☐ PROJECT DISAPPROVED

VOTE RECORDED: _____ DATE OF LOCAL ACTION: _____

Set forth the reasons for any action contrary to the ACPB recommendations (use additional sheets if needed):

SIGNED: _____ TITLE: _____

TOWN OF GUILDERLAND

Planning Department
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339
Phone: (518) 356-1980 x 1061
Fax: (518) 356-5514
Email: kovalchikk@togny.org

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

MEMORANDUM

To: Thomas Remmert, Chairman
& Town Zoning Board

FROM: Kenneth Kovalchik, AICP, Town Planner

DATE: September 23, 2021

SUBJ: YS Property Holdings II, LLC – 70 Railroad Avenue
Planning Board Site Plan Report to Zoning Board for a Catalytic Converter Recycling Business

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Background

The applicant is proposing to construct a 14,400 square feet warehouse building on a 2.0 acre site in the Industrial (I) District. The business would consist of a catalytic converter recycling business. The existing condition of the site consists of gravel and deteriorating pavement. The site is currently used for outdoor storage of trailers and vehicles. There are two small storage buildings on the site, approximately 1,000 square feet in size. The applicant is proposing to install 25 parking spaces, including one accessible space. Two loading docks will be located at the rear of the building to accommodate tractor-trailers. Landscaping will consist of shrubs around the perimeter of the building and street trees placed adjacent to Railroad Avenue. No species name was indicated for the street trees. Hours of operation will be 8:00AM to 4:00PM M-F, with limited hours on Saturday. The design of the stormwater management system will include installation of three underground management areas. A dumpster is proposed at the southeast corner of the site.

Planning Board Recommendation

The Planning Board reviewed the application at their September 22, 2021 meeting and provide the following recommendations to the Zoning Board of Appeals on the site plan:

1. Include a landscape plan table depicting the proposed tree species and shrub species.
2. Highway Department approval for any work to be done in the Railroad Avenue right-of-way.
3. The Zoning Board should appoint a Town Designated Engineer to review the stormwater management plan (SWPPP). The SWPPP will need sign off by the NYSDEC.

cc: J. Coons

Town of Guilderland
ALBANY COUNTY, ROUTE 20
P.O. BOX 339
GUILDERLAND, N.Y. 12084-0339

PETER G. BARBER
SUPERVISOR

(518) 356-1980
FAX: (518) 356-1990

JACQUELINE M. COONS
CHIEF BUILDING AND ZONING INSPECTOR

Notice is hereby given that the Zoning Board of Appeals of the Town of Guilderland, New York, will hold a public hearing pursuant to Articles III & V of the Zoning Law on the following proposition:

Special Use Permit Request No. 4859

Request of YS Holding for a Special Use Permit under the Zoning Law to permit: the construction of a 14,400sf catalytic converter recycling facility warehouse.

Per Articles III & V Sections 280-22 & 280-52 respectively

For property owned by YS Holding
Situated as follows: 70 Railroad Avenue Albany, NY 12205
Tax Map #s 53.05-1-10 Zoned IN

Plans are available for public inspection at the Town Hall or on the Town website at https://www.townofguilderland.org/zoning-board-appeals . Said hearing will take place on October 20, 2021 at 7:00pm. Due to COVID-19 gathering precautions, the meeting will be virtual. Members of the public may listen and view the meeting live on the Town website, channel 34 on Verizon FiOS or channel 1303 on Spectrum. To participate in the public comment period join Zoom Meeting https://us02web.zoom.us/j/81391211886?pwd=TzFsbzQ1UUY4VVUvaUVrT3B2WXJlQT09 or dial 1-929-205-6099. Use Meeting ID: *813 9121 1886* and Passcode*: 605688*. For questions regarding the application, call the Building Department during regular business hours.

Dated: October 12, 2021

Jacqueline M Coons

Jacqueline M. Coons
Chief Building & Zoning Inspector

SWIS	PRINT KEY	NAME	ADDRESS
013089	53.05-1-6	Eight Hundred Eighty-Six	1245 Central Ave,Albany, NY 12205
013089	53.05-1-8	Suburban Propane LP	One Suburban Plaza, 240 Rt 10 W,Whippany, NJ 07981-0206
013089	53.05-1-9	Suburban Propane LP	One Suburban Plaza, 240 Rt 10 W,Whippany, NJ 07981-0206
013089	53.05-1-10	YS Property Holding II LLC	60 Dott Ave,Albany, NY 12205
013089	53.05-1-11	Railroad Realty LLC	5 Palisades Dr Ste 315,Albany, NY 12205
013089	53.05-1-12	Sixty Four Railroad Ave LLC	3445 Winton Rd Ste 103,Rochester, NY 14623
013089	53.05-1-13	Julie Miron	84 Business Park Dr Ste 208,Armonk, NY 10504

WHITEMAN OSTERMAN & HANNA LLP
Attorneys at Law
www.woh.com

Charles J. Gottlieb
Partner
518.487.7612 phone
cgottlieb@woh.com

One Commerce Plaza
Albany, New York 12260
518.487.7600 phone
518.487.7777 fax

August 4, 2021

VIA HAND DELIVERY AND EMAIL
Chairman Remmert and Members
Zoning Board of Appeals
Guilderland Town Hall
209 Western Tpk.
Guilderland, NY 12084

Re: Airgas USA, LLC – Proposed Distribution Facility
Special Use Permit and Area Variance Application
Project Site: Northeastern Industrial Park (Rt. 146), Town of Guilderland

Dear Chairman Remmert and Members of the Zoning Board of Appeals:

On behalf of Airgas USA, LLC ("Airgas" or "Applicant"), we respectfully submit this letter and attachments seeking a special use permit and related height area variance for a proposed storage and distribution facility, with related accessory uses, on property located along Route 146 in the Town of Guilderland, known as the Northeastern Industrial Park (the "Industrial Park") (SBL: 50.00-1-14.21). *See* **Exhibit A** [Application Forms] and **Exhibit B** [Building Inspector Determination]. Airgas is the leading national supplier of gases for industry and health facilities throughout the United States, including oxygen, nitrogen, argon, hydrogen, and carbon dioxide. These gases are used for a wide range of applications, including breathing assistance (oxygen), welding (argon), and food freezing (nitrogen and carbon dioxide), spanning many different sectors of the economy. The Project Site is within the Town's Industrial "I" zoning district.

The Airgas proposal will be on an approximately 3-acre site within the Industrial Park, which is completely paved and currently used for storage and other industrial uses (the "Project Site"). *See* **Exhibit C** [Aerial Image]. Airgas is proposing a distribution facility on the Project Site that would include ten (10) storage/distribution tanks for argon, which will be serviced by the existing rail line (the "Facility"). The Facility will also include the use of an existing building within the Industrial Park for a 2-bay truck garage, offices, restrooms, and other accessory uses to accommodate the Facility. *See* **Exhibit D** [Airgas Project Narrative and Tank Example]. While the proposed storage/distribution tanks will be for argon, the Facility will be available to all Airgas

operations, which will include but is not limited to the direct transfer (rail to truck) of carbon dioxide without storage of the same. For additional information related to the Project, see Airgas's Project narrative annexed hereto as **Exhibit D**.

After a review of locations in the Capital Region, Airgas identified the Project Site within the Industrial Park as a prime location for the Facility as it is located near an existing rail line servicing the already developed and permitted Industrial Park. *See* **Exhibit C** [Aerial Image]. With this location, the Facility is expected to improve the industrial gas supply reliability and customer service, while significantly reducing over-the-road transportation miles and associated emissions by the rail car service, in line with Airgas' climate objectives.

Pursuant to the Town of Guilderland Zoning Code ("Zoning Code"), and as determined by the Town's Building Inspector, the Facility requires a special use permit and area variance related to the height of the proposed storage/distribution tanks. This would also include a referral to the Town of Guilderland Planning Board ("Planning Board") for site review pursuant to Zoning Code § 280-52(C).[1] As discussed in more detail below, the ZBA has previously granted a height area variance for storage silos related to Fishabch NY, which contains pellets for its caulking tube manufacturing facility. *See* **Exhibit E** [Fishabch Approvals]. The below analysis demonstrates that the requested area variance and special use permit meets all review standards and will not result in any significant adverse impact to the environment or the surrounding neighborhood.

Area Variance Request

- Airgas is seeking an area variance to permit ten (10) storage/distribution tanks, which are 46' 9" feet in height, where 20 feet is permitted for accessory structures under Zoning Code § 280-24(A)(2). Accordingly, a 26' 9" height variance is requested.

The Project's Request for a Height Variance Meets the Applicable Area Variance Standards

In determining whether to grant the requested area variances, a ZBA must evaluate whether or not the benefit to the applicant if the variance is granted outweighs the detriment to the health, safety and welfare of the neighborhood or community by such grant. If so, the area variance shall be granted. *See* N.Y. Town Law § 267-b(3)(b). The ZBA is tasked with evaluating five (5) factors which is a balancing test—i.e. not one of which is dispositive on whether the variance should be granted.

Here, in short, the benefit to the Applicant by granting the height variance far outweighs any detriment to the community because the requested height variance for the storage/distribution tanks is within an improved industrial park and is consistent with previously granted height variance for storage silos nearby the Project Site (Fishabch) within the Industrial Park. Accordingly, we respectfully submit that the area variances sought here should be granted by your Board.

[1] We have provided a site plan application form, Exhibit A, with this application in the event that such an application is necessary.

1) Whether an undesirable change will be produced in the character of the neighborhood or a detriment to nearby properties will be created by the granting of the area variance;

The Facility is proposed on a small portion of the larger Industrial Park, which is completely developed with similar industrial uses. *See* **Exhibit C** [Aerial Image]. When permitted, the Industrial Park went through an exhaustive environmental review process and resulted in a finding by the Town that the Industrial Park, with proposed mitigation, would not result in unmitigated environmental impacts. *See* **Exhibit E** [Industrial Park GEIS Findings Statement]. The Industrial Park has since been fully constructed with all required mitigation measures (e.g. traffic, stormwater, etc.).

The Facility and the related storage/distribution tanks will be located on a mere 3 acres of the larger Industrial Park, which is approximately 550 acres in size. Therefore, the location of the Facility and the related storage/distribution tanks will not result in an undesirable change in the character of the neighborhood or cause a detriment to nearby properties.

In addition to the above, the ZBA previously approved an area variance for the Fishabch silos at a height of 59 feet where 20 feet is permitted. *See* **Exhibit E** [Fishabch Area Variance]. The Fishabch facility is nearby the Project Site within the Industrial Park. *See* **Exhibit C** [Aerial Image]. In that case, the ZBA granted a 39-foot area variance, which is much larger than the 26-foot 9-inch area variance requested herein. In making its determination, the ZBA found that the Fishabch area variance would "not create an adverse impact upon surrounding properties." *See* **Exhibit E** [Fishabch Area Variance]. Here, the proposed area variance being requested is for storage/distribution tanks that are 16 feet shorter than the Fishabch silos and therefore will not have an impact on the surrounding environment.[2]

Further, the Zoning Code permits principal structures within the Industrial Park at a building height 45-feet. *See* Zoning Code § 280-24(A)(1). Here, the requested area variance is only 1-foot 9-inches over the permitted height for a principle structure and therefore insignificant and will not result in an undesirable change in the neighborhood.

Accordingly, we respectfully submit that the reduction in height between the Fishabch silos and the proposed storage/distribution tanks, coupled with the existing vegetation along the western boarder of the Industrial Park and the distance between the Project Site and the nearest residences ensures that no undesirable changes will occur.

2) Whether the benefit sought by the applicant can be achieved by some method, feasible to the applicant to pursue, other than the area variance;

Airgas has chosen the Project Site because of its location within an existing and fully developed Industrial Park with access to an existing rail line, which will reduce truck trips. The storage/distribution tanks are essential to the operation of the Facility and the height of the proposed storage/distribution tanks are used by Airgas at other similar facilities. Reducing the

[2] *See Knight v. Amelkin,* 68 N.Y.2d 975, 977, 503 N.E.2d 106, 106 (1986) (holding that "[a] decision of an administrative agency which neither adheres to its own prior precedent nor indicates its reason for reaching a different result on essentially the same facts is arbitrary and capricious").

height of the proposed tanks would increase the number of tanks on the Project Site to ensure that the appropriate amount of Argon is available at the Facility to meet the demand.

To this end, as demonstrated by the Facility site plans, annexed hereto as **Exhibit F**, Airgas has designed the Project Site to include ten (10) storage tanks adjacent the rail line extension and the truck pick up area to ensure efficient loading and unloading of the argon product. The Facility has been designed to ensure efficient loading and unloading and to eliminate any congestion on the Project Site. To comply with the Zoning Code's height requirements, Airgas would be required to increase the number of storage/distribution tanks on the Project Site to ensure an adequate supply. This would adversely impact the efficient use of the Project Site and therefore would eliminate the benefit to the Applicant.

Therefore, no other alternatives exist that would eliminate or lessen the area variance requested herein. Any alternative would be a departure from the current Facility design and reduce the efficiency of the Facility. We respectfully submit that any alternative considered cannot be a "profound departure" from, or substantially more costly than, the design proposed herein.[3]

3) Whether the requested area variance is substantial;

The ZBA examines the totality of the circumstances for an application to determine whether the area variance requested is substantial.[4] Here, we submit that the height variance is not substantial because it is smaller than the Fishabch area variance that was granted for the construction of storage silos nearby to the Project Site within the Industrial Park.

Further, larger area variance is required because the storage/distribution tanks were determined to be an accessory use. Within the Industrial Park, principle buildings may be 45 feet in height. *See* Zoning Code § 280-24(A)(1). Here, the requested area variance is only 1-foot 9-inches over the permitted height for a principle structure and is therefore ***insignificant***.

Accordingly, we submit that the requested area variance is not substantial under a totality of the circumstances.[5]

4) Whether the proposed variance will have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district; and

As noted above, the Industrial Park is fully constructed with existing infrastructure (drainage, traffic, utilities, etc.) that was permitted by the Town pursuant to a comprehensive environmental review. *See* **Exhibit E [**Industrial Park GEIS Findings Statement]. In addition to the Environmental Assessment Form annexed hereto as **Exhibit A**, we submit the following:

---

[3] *See Corporation of Presiding Bishop of Church of Jesus Christ of LatterDay Saints v. ZBA of Town/Village of Harrison,* 296 A.D.2d 460 (2d Dept. 2002).

[4] *See Friends of Shawangunks, Inc. v. Zoning Bd. of Appeals of Town of Gardiner*, 56 A.D.3d 883, 886, 867 N.Y.S.2d 238, 241 (3d Dep't 2008)(although variances were substantial the ZBA properly determined area variances will not have a substantial impact on the community.); *see also Schaller v. New Paltz Zoning Bd. of Appeals*, 108 A.D.3d 821, 824, 968 N.Y.S.2d 702, 705 (3rd Dep't 2013)(upholding ZBA determination that an area variance was not substantial when compared to the nearby buildings).

[5] *Id.*

1) The Facility will only generate 10-12 trucks a day;
2) No on-site fueling of vehicles will be performed;
3) Argon, and other gases distributed by Airgas, are normally present in ambient air in various concentrations and diffuses quickly in the atmosphere; and
4) The operation produces no residual hazardous waste.

See **Exhibit D** [Project Narrative].

Further, with this location, the Facility is expected to significantly reduce over-the-road transportation miles and associated emissions by the rail car service. Lastly, we note that the requested area variance is less than one previously granted for the Fishabch silos, is screened from uses west of the Industrial Park, and is only slightly higher (1-foot 9-inches) than the Zoning Code permits for principle structures on the Project Site.

Accordingly, the proposed variance will not have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district.

5) Whether the alleged difficulty was self-created.

The primary reason for the height of the proposed storage/distribution tanks is to ensure the efficiency of the Project Site and provide the amount of argon as the market demands. That said, even if the Board finds the difficulty to be self-created, this factor is not dispositive of the Applicant's variance request.[6]

Special Use Permit Standards

The Facility is also compliant with the Town's special use permit standards set forth in the Zoning Code. We respectfully submit the following, which demonstrates compliance with Zoning Code § 280-52(E):

(a) The use will not be detrimental to or endanger public health, safety, or the general welfare of the community.

The Industrial Park is fully constructed with existing infrastructure (drainage, traffic, utilities, etc.) that was permitted by the Town pursuant to a comprehensive environmental review. See **Exhibit E** [Industrial Park GEIS Findings Statement]. Accordingly, all environmental impacts related to the Industrial Park (traffic, stormwater, etc.) have been mitigated. In addition, as noted above, the Facility will not cause an increase in traffic, trucks will not re-fuel at the facility, and no hazardous wastes will result from the facility.

Importantly, the Facility is expected to significantly reduce over-the-road transportation miles and associated emissions by the rail car service, in line with Airgas' climate objectives.

[6] *See* N.Y. Town Law § 267-b(3)(b)(5); *Daneri v Zoning Bd. of Appeals of Town of Southold*, 98 AD3d 508 (2d Dept 2012) (self-created nature of difficulty is not preclusive of the ability to obtain an area variance).

Accordingly, the Facility will not be detrimental to or endanger public health, safety, or the general welfare of the community.

(b) The use will not compromise the use and enjoyment of other property in the immediate vicinity, nor substantially diminish and/or impair property values within the neighborhood.

The Facility will be located within an existing fully constructed Industrial Park that is comprised of several similar industrial uses. The Facility does not extend past the boundaries of the Industrial Park. Therefore, the mere improvement of the 3-acre Project Site within the existing 550-acre Industrial Park will not compromise the use and enjoyment of other property in the immediate vicinity, nor substantially diminish and/or impair property values within the neighborhood.

(c) The use will not hinder the normal and orderly development and improvement of surrounding properties.

See (b) above.

(d) Adequate utilities, access roads, drainage accommodations, and other necessary facilities are provided to serve the use.

The Project Site is within the existing fully developed Industrial Park, which has already been approved with adequate utilities, access roads, drainage accommodations, and other necessary facilities. The Facility is an improvement within the existing Industrial Park, which, as demonstrated by the Environmental Assessment Form, will not result in the need for additional significant infrastructure within the Industrial Park. The Facility will be serviced by the existing access drive, stormwater management facilities, and utilities.

(e) Ingress and egress to and from the site are provided in such a manner that no undue traffic congestion or hazard will be created.

The Facility will experience 2-6 trucks a day. Further, the Facility will include 1 full time employee with up to 6 truck drivers utilizing the site per day. Therefore, the Facility will not result in an increase in traffic demand that would result in the need for any improvements to the existing access drives within the Industrial Park.

(f) The use shall conform in all other respects with the provisions of this chapter and be consistent with the Comprehensive Plan.

The proposed uses is permitted in the Industrial Park by special use permit. It is well settled in New York that, "[w]hen a zoning law enumerates a use as allowed by special use permit, it 'is tantamount to a legislative finding that the permitted use is in harmony with the general zoning plan and will not adversely affect the neighborhood.'" *See Blanchfield v. Town of Hoosick*, 149 A.D.3d 1380, 1383 (3rd Dep't 2017).

The Town of Guilderland Comprehensive Plan suggests that the Industrial Park should "market desired tenants especially those that rely on rail rather than truck transport". *See* Comprehensive Plan IV-23. The Facility advances the Comprehensive Plan because it will increase the Town's tax base by developing within the Industrial Park and includes a use that is dependent on the existing rail line to reduce truck traffic.

Accordingly, aside from the requested area variance, the Facility complies with the Zoning Code and is consistent with the Comprehensive Plan.

Conclusion

In accordance with the above, we submit that the proposed Facility warrants the requested special use permit and area variance. In furtherance of this application, we respectfully submit twelve (12) copies of the instant letter with the following exhibits:

Exhibit A: Owner Authorization,[7] Application Forms and SEQRA EAF;
Exhibit B: Building Inspector's Determination;
Exhibit C: Aerial Image;
Exhibit D: Airgas Project Narrative/Tank Example;
Exhibit E: Fishabch NY Area Variance Materials and Industrial Park GEIS Findings; and
Exhibit F: Site plans prepared by Bohler and dated August 3, 2021.

In addition, we have submitted two checks for the related applications: 1) $300 special use permit fee, and 2) $300 area variance fee. We understand that Planning Board site review will be a part of the special use permit application. Please advise if additional copies are required.

We look forward to working with the Town to advance the Facility. Please do not hesitate to contact my office with any questions.

Very Truly Yours,

/s/ *Charles J. Gottlieb*

Charles J. Gottlieb

Enclosures

cc: Steve Vukas, Bolher Engineering (*via email*)
Susan R. Miller, Esq., Airgas, Inc. (*via email*)
David R. Everett, Esq., Whiteman, Osterman & Hanna, LLP (*via email*)

[7] In lieu of the executed lease between Airgas and the owner of the Industrial Park, Airgas has secured an owner authorization for the applications sought herein.

Exhibit A

AFFIDAVIT OF OWNERSHIP

State of New York)ss.
County of Schenectady)

David M. Buicko, President of Northeastern IP Holdings, Inc. being duly sworn, deposes and says that Northeastern IP Holdings, Inc. owns property at the Northeastern Industrial Park, 2 Van Buren Blvd., in the Town of Guilderland, New York, in the County of Albany, in the State of New York and that ((s)he/it) is the owner in fee of all that piece or parcel of land situated and lying in the Town of Guilderland aforesaid and known and designated Parcel ID numbers 50.00-1-14.21, and that ((s)he/it) hereby authorizes Airgas to make the attached application(s), attached hereto as Exhibit A in his/her (its) behalf.

David M. Buicko, President and
Chief Executive Officer

Sworn to me before this 4th
Day of August 2021

LAURENE A. SMITH
Notary Public, State of New York
Qualified in Rensselaer County
No. 01SM4826017
Commission Expires June 30, 2022

EXHIBIT A

4828-8954-2868, v. 1

TOWN OF GUILDERLAND
CHECKLIST FOR VARIANCE

RETURN TO:
ZONING ADMINISTRATOR
PO BOX 339
GUILDERLAND, NY 12084
(518) 356-1980

FEES:
COMMERCIAL - $300
RESIDENTIAL - $75
(payable at time of submittal to Town of Guilderland)

APPLICANT INFORMATION:
Name: Airgas USA, LLC
Address: 259 Radnor Chester Rd., Suite 100
Radnor, PA **Zip:** 19087
Daytime Phone #: 610-902-6251
Date: July 20, 2021

PROPERTY INFORMATION:
Owner: Northeastern Ip Holdings Inc.
Location: Rt. 146, Guilderland, NY
Tax Map #: 50.00-1-14.21
Zoning: Industrial
Acreage: +/- 3 acres

TO BE SUBMITTED:

1) **12 copies of application**
2) **Copy of conditional purchase contract or rental agreement if applicable**
3) **12 copies of the project narrative containing the following: reasons which necessitate the need for a variance including a brief detailed description of the project**
4) **Architectural drawings of proposed project (if applicable)**
5) **12 copies of survey or plot plan showing proposed project with:**
   - **side setback**
   - **front and rear setbacks**
   - **all existing buildings**
   - **location of proposed construction**
   - **total size of parcel**
   - **all topographic elevations necessary to show proposed variance**

OTHER AGENCY APPROVALS OR RECOMMENDATIONS AS REQUIRED:

1) **Town Water and Wastewater Management – 456-6474**
2) **Town Highway Department – 861-5108**
3) **NYS Department of Transportation – 765-2841**
4) **Albany County Health Department – 447-4631**
5) **Albany County Planning Board – 447-5660**

APPLICATION AND APPEAL TO THE ZONING BOARD OF APPEALS FOR A VARIANCE, SPECIAL USE PERMIT OR AN INTERPRETATION OF THE ZONING ORDINANCE OR ZONING MAP.

To Zoning Administrative Officer
Of the Town of Guilderland

Date: July 20, 2021

To the Zoning Board of Appeals
Of the Town of Guilderland

I, Julian Sion of ARCAS
hereby appeal from the decision of the Zoning Administration Officer on my application for zoning permit and hereby apply to the Zoning Board of Appeals for:

( ) An interpretation of the Zoning Ordinance or Zoning Map

( ) A Special Use Permit under the Zoning Ordinance or Zoning Map

(X) A Variance to the Zoning Ordinance or Zoning Map

1. Location of property
   Address: Rt. 146, Guilderland, NY Zoning: Industrial

2. Interpretation of the Zoning Ordinance is requested because:

3. Special Use Permit required for the following type of use:

* 4. Variance to the Zoning Ordinance is requested for: 46' 9"
Proposed accessory structure height of ~~45 ft~~. where 20 ft. is permitted pursuant to Zoning Code Section 280-24(A)(2).

*** Applicant shall complete form outlining conditions from Section 267-b of New York State Town Law pertaining to area variances.**

The applicant hereby certifies that he is the owner of record of the above property or has been duly authorized in writing by the owner of record to make this application.

Julian Sion
Signature of applicant DIR. PROJECTS

AREA VARIANCE CONDITIONS

The Zoning Board of Appeals will not consider any application for an area variance complete until the following application is completed in full and submitted to the Zoning Department. The Zoning Board of Appeals will evaluate the applicant's responses and determine whether the applicant has adequately met the conditions for an area variance. The applicant is encouraged to attach additional sheets if necessary to fully answer the questions. The following conditions for an area variance are from Section 267-b of the New York State Town Law.

1) Whether an undesirable change will be produced in the character of the neighborhood or a detriment to nearby properties will be created by the granting of the area variance;

See cover letter.

2) Whether the benefit sought by the applicant can be achieved by some method, feasible for the applicant to pursue, other than an area variance;

See cover letter.

3) Whether the requested area variance is substantial;

See cover letter.

4) Whether the proposed variance will have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district; and

See cover letter.

5) Whether the alleged difficulty was self-created, which consideration shall be relevant to the decision of the Zoning Board of Appeals, but shall not necessarily preclude the granting of the area variance:

See cover letter.

TOWN OF GUILDERLAND
CHECKLIST FOR SPECIAL USE PERMIT

RETURN TO:
ZONING ADMINISTRATOR
PO BOX 339
GUILDERLAND, NY 12084
(518) 356-1980

FEES:
COMMERCIAL - $300
RESIDENTIAL - $75
(payable at time of submittal to Town of Guilderland)

APPLICANT INFORMATION:
Name: Airgas USA, LLC
Address: 259 Radnor Chester Rd., Suite 100
Radnor, PA **Zip:** 19087
Daytime Phone #: 610-902-6251
Date: July 20, 2021

PROPERTY INFORMATION:
Owner: Northeastern Ip Holdings Inc.
Location: Rt. 146, Guilderland, NY
Tax Map #: 50.00-1-14.21
Zoning: Industrial
Acreage: +/- 3 acres

TO BE SUBMITTED:

1. 12 copies of application form
2. 12 copies of SEQRA form
3. Copy of conditional purchase contract or rental agreement if applicable
4. 12 copies of the project narrative containing the following: detailed description of the use, hours of operation, # of employees, type of deliveries, etc.
5. 12 copies of plat plan FOLDED which should include: side, front and rear setbacks, all existing buildings, location of proposed construction, total size of parcel, elevations, parking layout, lighting layout, sidewalks and monuments, street and curb cuts, sanitary system and water course, drainage system, delineated wetlands, planting and green area plans including fencing/buffer area boundaries.

OTHER AGENCY APPROVALS AS REQUIRED:

1. Town Water and Wastewater Management – 456-6474
2. Town Highway Department – 861-5108
3. NYS Department of Transportation – 765-2841
4. Albany County Health Department – 447-4631
5. Albany County Planning Board – 447-5660
6. NYS DEC Region IV – 357-2044
7. Pine Bush Commission – 464-6496

APPLICATION AND APPEAL TO THE ZONING BOARD OF APPEALS
FOR A VARIANCE, SPECIAL USE PERMIT OR AN INTERPRETATION
OF THE ZONING ORDINANCE OR ZONING MAP

To Zoning Administrative Officer
Of the Town of Guilderland

Date: 07/28/2024

To the Zoning Board of Appeals
Of the Town of Guilderland

I, Julian Sorn of Airgas.
hereby appeal from the decision of the Zoning Administration Officer on my application for zoning permit and hereby apply to the Zoning Board of Appeals for:

( ) An interpretation of the Zoning Ordinance or Zoning Map
(X) A Special Use Permit under the Zoning Ordinance or Zoning Map
( ) A Variance to the Zoning Ordinance or Zoning Map

1. Location of property
   Address: Rt. 146, Guilderland, NY Zoning: Industrial

2. Interpretation of the Zoning Ordinance is requested because:

3. Special Use Permit required for the following type of use:

   Airgas distribution facility pursuant to Zoning Code Section 280-22(D).

* 4. Variance to the Zoning Ordinance is requested for:

*** Applicant shall complete form outlining conditions from Section 267-b of New York State Town Law pertaining to area variances.**

The applicant hereby certifies that he is the owner of record of the above property or has been duly authorized in writing by the owner of record to make this application.

Signature of applicant

TOWN OF GUILDERLAND

CHECKLIST FOR SITE PLAN REVIEW

RETURN TO:
ZONING DEPARTMENT
PO BOX 339
GUILDERLAND, NY 12084
(518) 356-1980

FEES:
COMMERCIAL - $300
RESIDENTIAL - $50
(Payable at time of submittal to Town of Guilderland Credit Cards not Accepted)

APPLICANT INFORMATION:
Name: Airgas USA, LLC
Address: 259 Radnor Chester Rd., Suite 100
Radnor, PA **Zip:** 19087
Daytime Phone #: 610-902-6251
Date: July 20, 2021

PROPERTY INFORMATION:
Owner: Northeastern Ip Holdings Inc.
Location: Rt. 146, Guilderland, NY
Tax Map #: 50.00-1-14.21
Zoning: Industrial
Acreage: +/- 3 acres

TO BE SUBMITTED:

1. **10 copies of application form**
2. **10 copies of SEQRA form**
3. **Copy of conditional purchase contract or rental agreement if applicable**
4. **10 copies of plat plan FOLDED which should include: side, front and rear setbacks, all existing buildings, location of proposed construction, total size of parcel, elevations, parking layout, lighting layout, sidewalks and monuments, street and curb cuts, sanitary system and water course, drainage system, delineated wetlands, planting and green area plans including fencing/buffer area boundaries.**

OTHER AGENCY APPROVALS IF REQUIRED:

1. **Town Water and Wastewater Management – 456-6474**
2. **Town Highway Department – 861-5108**
3. **NYS Department of Transportation – 765-2841**
4. **Albany County Health Department – 447-4631**
5. **Albany County Planning Board – 447-5660**
6. **NYS DEC Region IV – 357-2069**
7. **Pine Bush Commission – 464-6496**

APPLICATION AND APPEAL TO THE PLANNING BOARD
FOR A SITE PLAN REVIEW

To Zoning Administrative Offcer
Of the Town of Guilderland

Date: 07/28/2021

I, _____ of _____
hereby apply to the Planning Board for a Site Plan Review under the Zoning Ordinance for:

Location of property
Address: Rt. 146, Guilderland, NY Zoning: Industrial

Site Plan Review is requested for:

1. Construction of:

Airgas distribution facility (see cover letter) with related Argon Nodes.

And/or
2. Change of Use to:

The applicant hereby certifes that he is the owner of record of the above property or has been duly authorized in writing by the owner of record to make this application.

Signature of applicant

PROJECT NARRATIVE

Please provide a detailed description of the proposed construction site plan, landscaping plan, lighting plan, stormwater management plan, property use, hours of operation, number of employees, type of deliveries, etc.:

See cover letter.

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:
Airgas Facility

Project Location (describe, and attach a location map):
2 Van Buren Boulvard

Brief Description of Proposed Action:
Airgas is proposing a storage and distribution facility, which will include storage / distribution tanks for argon and nitrogen, which will be serviced by the existing rail line. The facility will also include the use of an existing building within the Industrial Park for a 2-bay truck garage, offices, restrooms, and other accessory uses.

Name of Applicant or Sponsor:	Telephone: 610-902-6251
Airgas USA, LLC	E-Mail:

Address:
259 N. Radnor Chester Road

City/PO:	State:	Zip Code:
Radnor	PA	19087

	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: - Area Variance (height) and Special Use Permit from ZBA, site plan from Planning Board and economic benefits Town IDA.	☐	☑

3. a. Total acreage of the site of the proposed action? 3.0 acres
   b. Total acreage to be physically disturbed? 0.49 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 289 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

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations? Special Use Permit	☐	☑	☐
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?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
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?	☑	☐

	NO	YES
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: _____ _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☐	☑

	NO	YES
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?	☐	☑

	NO	YES
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: _____ _____ _____		

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? Northern Long-eared Bat	☐	☑
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 catch basins and underground storm piping.		
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: Airgas USA LLC c/o Bohler Engineering - Steve Vultas Date: 7/30/21

Signature: _____ Title: Design Engineer

PRINT FORM

Exhibit B

Town of Guilderland
ALBANY COUNTY, ROUTE 20
P.O. BOX 339
GUILDERLAND, N.Y. 12084-0339

PETER G. BARBER
SUPERVISOR

(518) 356-1980
FAX: (518) 356-1990

JACQUELINE M. COONS
CHIEF BUILDING AND ZONING INSPECTOR

October 29, 2020

Mr. Jesse Carter
12800 W. Little York Road
Houston, Texas 77041

RE: ***2 Van Buren Boulevard***
Operation of an Airgas facility
Altamont, N.Y. 12009

Dear Mr. Carter;

The Town of Guilderland has reviewed your conceptual plan to lease a portion of the Northeastern Industrial Park at 2 Van Buren Boulevard for the operation of an Airgas distribution facility. This correspondence confirms that the use is allowed in the zone with the issuance of a Special Use Permit by the Zoning Board of Appeals. Based on the conceptual plan for the storage of the materials, an area variance would need to be approved for the installation of storage tanks 43ft high.

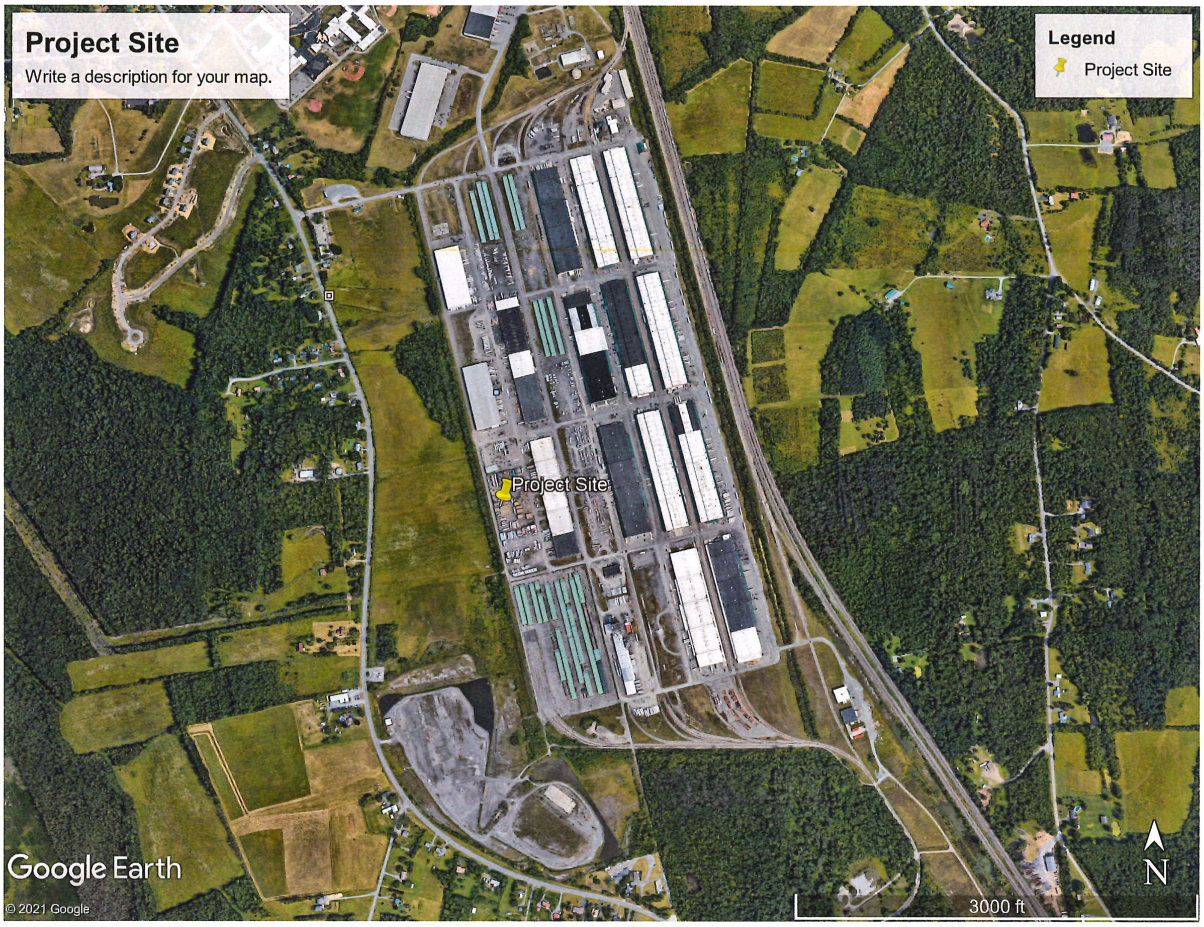
Based on precedent set by the granting of a similar variance to another tenant within the industrial park, your organization could show that your project can meet the five criteria required for the Board to grant said variance.

If questions should arise please feel free to contact me at 518.356.1980, x.1033.

Sincerely,

Jacqueline Coons
Chief Building & Zoning Inspector

Exhibit C


Project Site
Write a description for your map.
Legend
Project Site
Project Site
Google Earth
© 2021 Google
3000 ft
N

Northeastern Industrial Park

Exhibit D

Airgas
an Air Liquide company

Airgas, an Air Liquide Company
12800 West Little York Road
Houston, TX 77041

September 30, 2020

Contact: Jesse Carter
Title: Business Developer
Email: jesse.carter@airgas.com
Phone: 765-524-4469

Argon Node Project

PROJECT DESCRIPTION

Project Overview
Airgas, a leading national supplier of gases for industry and health, is seeking a location in the Albany area to construct an industrial gas depot as described below. Industrial gases include oxygen, nitrogen, argon, hydrogen, and carbon dioxide. These gases are used for a wide range of applications, including breathing assistance (oxygen), welding (argon), and food freezing (nitrogen and carbon dioxide), spanning many different sectors of the economy. This project is specifically focused on argon but would also be used as a terminal for industrial gas distribution. A brief description of these two facets of the project -

Argon Node
To better utilize Airgas' liquid argon (LAR) railcar fleet and distribute argon more efficiently overall, Airgas desires to install a LAR storage and distribution facility in Albany. The operation will involve

- Railing LAR to the site
- Transferring LAR to a fixed storage facility
- Hauling out LAR by truck to serve customers and increasing demand throughout the Northeast

The project is expected to improve argon supply reliability and customer service, while significantly reducing over-the-road transportation miles and associated emissions, in line with Airgas' climate objectives.

Airgas' would also use the facility in Albany for the purpose of railing in, from time to time, liquid carbon dioxide, which would also be hauled out by truck. Plans do not call for the product to be stored in tanks at the site, and use for this purpose is expected to be intermittent at this time for transloading only.

Industrial Gas Depot
Airgas distributes liquid oxygen, nitrogen, argon, hydrogen, and carbon dioxide within Albany from local and regional sources currently and would use the Albany site as a base to domicile staff and transportation equipment associated with distribution of these gases, including the LAR related to the Node. Required facilities include a 2-bay truck garage, offices, restrooms and other such facilities for administration, terminal management, professional drivers, maintenance, and operating personnel for the Argon Node.

The gases, all of which are stored and transported in liquid form at cryogenic temperatures, quickly diffuse in the atmosphere and leave no trace (no residual hazardous waste). In fact, ambient air is naturally composed almost entirely of nitrogen, oxygen, argon, water, and carbon dioxide.

Site

A rail-served, fully paved but otherwise undeveloped, 3-acre parcel within the **Northeastern Industrial Park in Guilderland, NY**, has been identified as a favorable location for the Argon Node. An adjacent, vacant portion of a building (identified as #19) is also suitable for the Industrial Gas Depot. Airgas would like to confirm that the intended development and operation is consistent with the property zoning and use requirements of the Town of Guilderland and that the project is a good fit for the community.

Key Project Parameters

Project Description	
Estimated Capital Investment	~$4MM
Employment	1 production, up to 20 distribution
Site Size	3 acres + separate depot building
Zoning	Industrial
Rail Access	Existing spurs, capable of accommodating up to 6 railcars
Rail Traffic - In/Outbound	3-6 rail cars per week
Truck Access	Drive thru access
Truck Traffic - In/Outbound	Argon: 2-4 per day Oxygen: 1 per day Nitrogen: 2 per day Hydrogen: 5-6 long haul (based out of Albany)
Total Parking	Up to 15 (personal and tractor/trailer)
Electrical Service	480 VAC
Natural Gas	Existing for building heat only
Potable Water/Sewer	Existing for building restrooms
Industrial Wastewater	None
Residual Hazardous Waste	None
Emissions	None

1) **Electrical:**
   a) This is the only notable required utility for the Project and will be used in the transfer of LAR from rail cars to storage tank(s) and from storage tank(s) to trucks
   b) Voltages used within facility: low voltage($\leq$ 480 V)
2) **General Operating Conditions:**
   a) The Project will operate 7 days per week, 24 hours a day, 365 days per year
   b) No on-site fueling of vehicles will be performed
3) **General Ownership and Site Characteristics**
   a) Site will be leased long term
4) **Workforce:**
   a) Up to 10 construction related jobs during construction period
   b) Staffing per above table (skilled cryogenic delivery and operating personnel)

5) **Height**

   a) Height of proposed tanks is ~43 feet

6) **Noise**

   a) The facility consists of gas transfer equipment (e.g. pumps) and from time to time will vent industrial gases (argon). Industrial noise will be present on the site, typically < 85 db at fence line.

   b) Rail cars and semi-trucks will enter and leave the facility 24/7

7) **Environmental:**

   a) Gases distributed by Airgas from the site are normally present in ambient air in various concentrations and diffuse quickly in the atmosphere

   b) The operation produces no residual, hazardous waste

If the above operation is consistent with the allowed use of the property under Town of Guilderland requirements, Airgas respectfully requests a letter confirming the same in order to finalize development work and begin land use and permitting work per the Town's requirements.

Jesse Carter

Best regards,

Jesse D. Carter

Airgas, an Air Liquide company

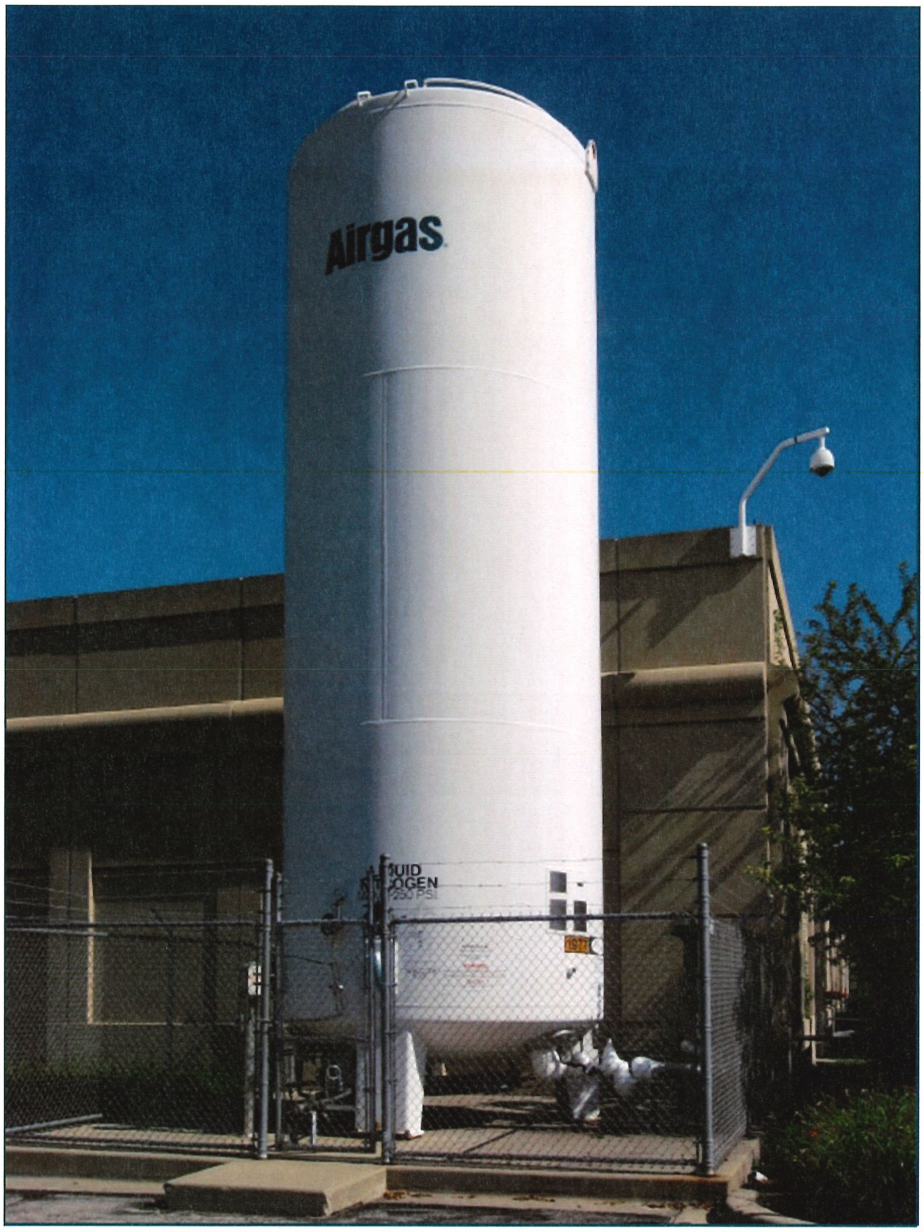

Airgas

Exhibit E

SPECIAL USE PERMIT **TOWN OF GUILDERLAND** **NUMBER 03-10**
VARIANCE **ZONING BOARD OF APPEALS**

APPLICANT: FISCHBACH, USA, INC.
ADDRESS: NORTHEAST INDUSTRIAL PARK GUILDERLAND CENTER NY
GRANTED: FEBRUARY 3, 2010

WHEREAS, a public hearing to consider the applicant's request was duly noticed and held before the Zoning Board of Appeals to consider:

Special Use Permit Request No. 4185

Request of **Russ Elster of Fischbach, USA, Inc.** for a Special Use Permit under the Zoning Law to permit: **the use of 47,000sf of an existing industrial building (warehousing) as a manufacturing plant for caulking tubes. Said building is located within an existing industrial park.**

Per Articles **III & V** Sections **280-23 and 280-52** respectively
and

Variance Request No. 4179
Request of **Russ Elster** for a Variance of the regulations under the Zoning Law to permit: **the installation of two 12' diameter, 59' high silos for the storage of pellitized high-density polyethylene (HDPE). A height variance of 39' is requested.**

Per Articles **III & V** Sections **280-23 and 280-51** respectively

For property **under lease agreement between Northeastern Industrial Park, Inc. and Fischbach, USA, Inc.**
Situated as follows: **Bldg. 11 Bay 3 Northeastern Industrial Park Guilderland Center, NY 12085** Zoned: **IND**

In rendering this decision, the Board makes the following findings of fact:

- A public hearing was duly noticed and held. Comments were received both at the prior hearing and again this evening from two residents expressing concerns regarding the activity at the Industrial Park.
- This Board adopted a negative declaration under SEQRA by a unanimous vote.
- The Albany County Planning Board's recommendation was to required review by the local fire department.

1

- The Town Planning Board recommended approval with no conditions or suggestions.
- The Town Planner also had no objections.
- The Board further finds that with regard to the special use permit that the manufacturing is an allowed use in this Industrial zone. The listing of that use is tantamount to a finding by the Town Board that the proposed use is consistent with the character of the surrounding properties.
- According to the application, the vacuum pumps for this pelletized material will be located within an enclosed structure to minimize the noise impacts and also act as sound abatement.
- The MSDS which was submitted with the application indicated that this polyethylene is odorless and is not listed as a hazardous substance by OSHA and no special firefighting equipment or measures are required.
- The pellets will be arriving by rail delivery and that it appears at the start the employment will be roughly 25 individuals and that within a 3 year it may possibly go to as high as 50.
- Therefore, the Board finds that the conditions at the Industrial Park are adequate to handle the proposed use and will not have a negative impact upon the surrounding properties.
- As for the variance, it appears that the variance is self-created and that the applicant did purchase the 59' high silos before obtaining the Board's approval. It appears, however that the variance will not create an adverse impact upon surrounding properties. The silo is bordered on three sides by warehouses and by other industrial uses. As indicated by the Town Planner, it will be barely visible from neighboring properties.
- The proposed use is consistent with other industrial uses that are already in operation at the Industrial Park.

Therefore, I move that the variance should be granted.

In ***granting*** this request, the Board imposes the following conditions:

- Adherence to the plans as submitted.
- There shall be no odors from the use of this facility that will be discernable beyond the property line of the Industrial Park.
- Compliance with the Town's Noise Ordinance.
- Fire department review and approval of the proposed use at the Industrial Park.

- Hours shall be as stated in the application.
- Approval of the Water and Wastewater Department; final approval as to the proposed water use and sanitary use.
- The Industrial Park shall cooperate once the Town Board adopts the Guilderland Center Hamlet Plan in terms of working with the Town and school district if necessary potentially dealing with some of the traffic issues arising out of the bus usage of the intersection.
- Because our decision is based in part upon the baseline in the GEIS, prior to the issuance of the Certificate of Occupancy the Board asks that the applicant provide information to Don Cropsey to establish a baseline so we can determine whether the thresholds are being met in the GEIS.

The Zoning Administrative Office is hereby authorized to issue the permits necessary to implement this decision.

If this Special Use Permit/Variance is not exercised within one year of date of issuance, it is hereby declared to be null and void and revoked in its entirety.

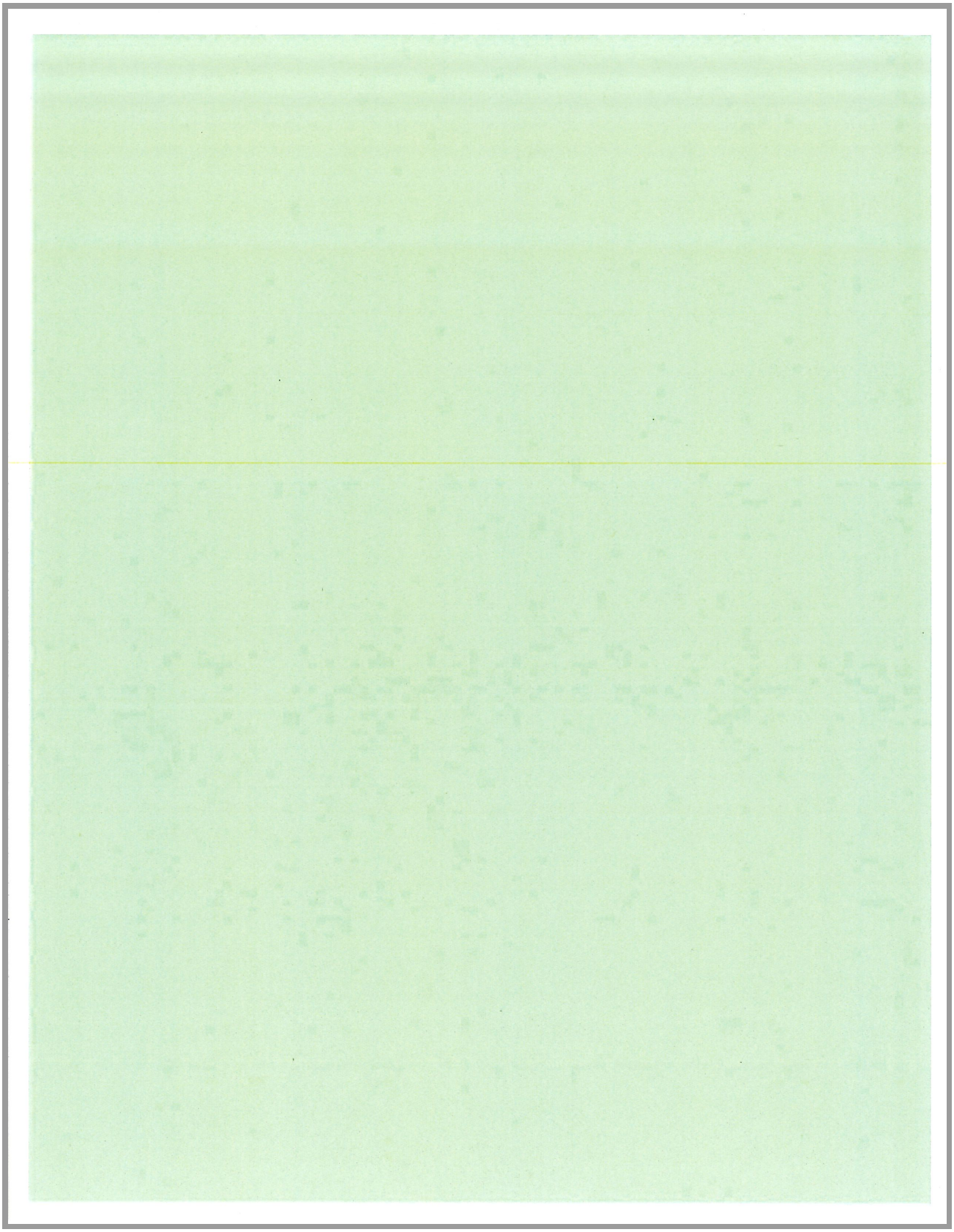
Upon compliance with all other requirements of the Town law and other applicable laws and regulations, the resolution was adopted by a 7 – 0 (Maikels absent, Cahill alternate) vote of the Zoning Board of Appeals.

BY ORDER OF THE ZONING BOARD OF APPEALS

Dated: 2/21/10

Peter Barber (db)
CHAIRMAN

ATTEST: Dawn Beroschuyer
SECRETARY



TOWN OF GUILDERLAND

PLANNING BOARD

SITE PLAN REVIEW

APPLICANT: Fischbach (NEIP)

PURPOSE: manufacturing operation

DATE OF APPEARANCE: 1 27 10

☐ WAIVED

☐ NOT RECOMMENDED for the following reasons:

☑ RECOMMENDED with the following: ☐ suggestions ☐ conditions

Planning Board Chairman

MEMORANDUM

TO: Zoning Board members

FROM: Jan Weston, Town Planner

SUBJECT: February 3, 2010 ZBA agenda

DATE: January 26, 2010

Westmere Fire District - 1741 Western Avenue
The applicant is requesting a special use permit for a two phase construction plan that would demolish the existing fire station and accessory structures and replace them with updated structures with slightly larger footprints. No significant site plan changes are proposed. NO planning objections.

Eschbach USA, Inc. - Northeastern Industrial Park
The applicant has requested a special use permit a portion of building 11 as a facility that will be used in the manufacture of calking tubes. The business will also require the construction of two 59 ft. silos. I have the following comments:

- the silos will require a variance from the height requirements. Due to the location of the proposed structures, it appears they will barely be visible from the Industrial Park perimeter.

- One recommendation of the Guilderland Center master plan is to have a route through the northern section of the NEIP to allow school busses to get from the bus garage out to Van Buren Blvd. An easement to allow this should be considered a condition of approval.

No planning objections.

NYISO - 3890 Carman Road
Disclosure: I reside directly across the street from this property.

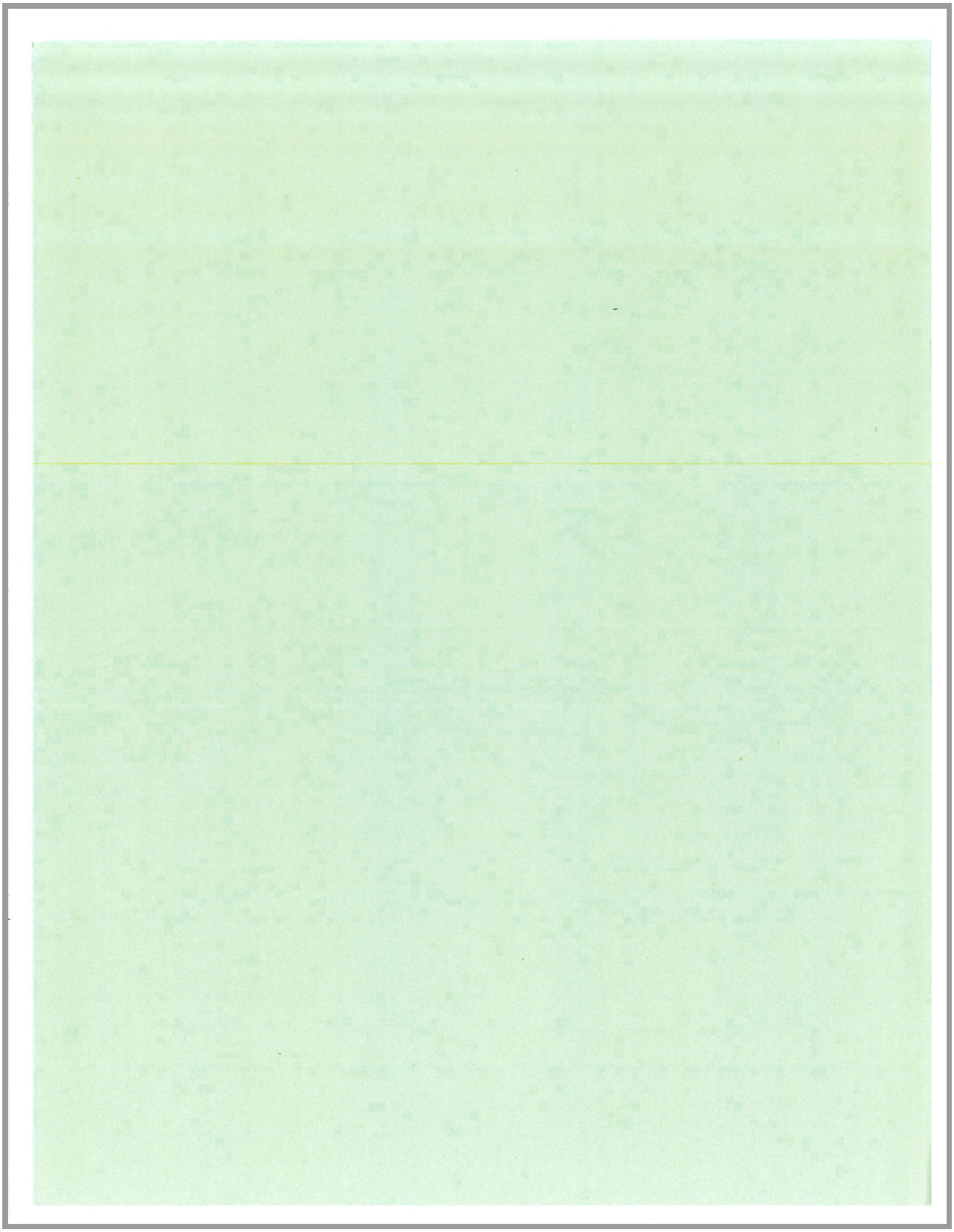
The applicant has applied for a special use permit to remove the temporary office building in the rear and construct a 13,000 sq. ft. permanent addition to the existing office building. I have the following comments:

- Because of the restructuring of this use, many people will be relocated to another facility. The addition will be mostly used for equipment and will not create the need for additional parking.

- New emergency generators will be located in the rear of the building. The applicant states that they will meet the levels of our noise ordinance, which should be part of the conditions of approval.

- The construction of a sidewalk from this parcel to Morningside Drive was a condition of their last special use permit but never constructed. This condition should be reiterated and executed before any Certificates of Occupancy are issued.

No changes will be made to the existing parking or curbcuts. No planning objections.



NARRATIVE
FISCHBACH USA, INC.
2 VAN BUREN BOULEVARD
NORTHEAST INDUSTRIAL PARK

The applicant Fischbach USA, Inc. is proposing a manufacturing facility at 2 Van Buren Boulevard (Building 11 bay 3) in the Northeast Industrial Park where they will manufacture calking tubes from pelletized high-density polyethylene (HDPE). The manufacturing process will employ 25 people with employment hopefully reaching 50 people in about three years. The facility will be open 24hrs/day – 7 days/week.

Pelletized HDPE will be received in bulk by railroad cars (1-2 shipments per month). They propose to store the pelletized HDPE in two 12 feet diameters silos that will be 59 feet high. The two silos are needed to store and supply the volume of HDPE needed for the operation. The silos will be relocated from another facility and erected at this site between the building and the railroad tracks. The silos require a height variance of 39 feet (59-20 required). However as can be seen by the enclosed photographs the silos will not be noticeable, as the silos will be shielded on three sided by existing buildings and there are no nearby residential neighbors.

The pelletized HDPE will be pumped by vacuum pumps into silos from the railroad cars. The vacuum pumps will be located inside an enclosure to contain noise. The silos will be equipped with vents to let air out as the silos are filled. Pelletized HDPE contains very little dust (any shipment with excessive dust will be rejected) therefore filters are not necessary. HDPE is a relatively inert material (see attached MSDS sheet) and does not have any odor, (it is used for milk cartons and many other food containers). Fischbach KY is a similar facility that is located only 100 feet from residential properties and has never received any complaints regarding noise or odor. The pelletized HDPE is heated to about 500°F and then it is pumped and extruded to form the calking tubes. The process does not produce odors or noise. The manufactured caulking tubes will be shipped by trucks (1-2 per day) from this facility.

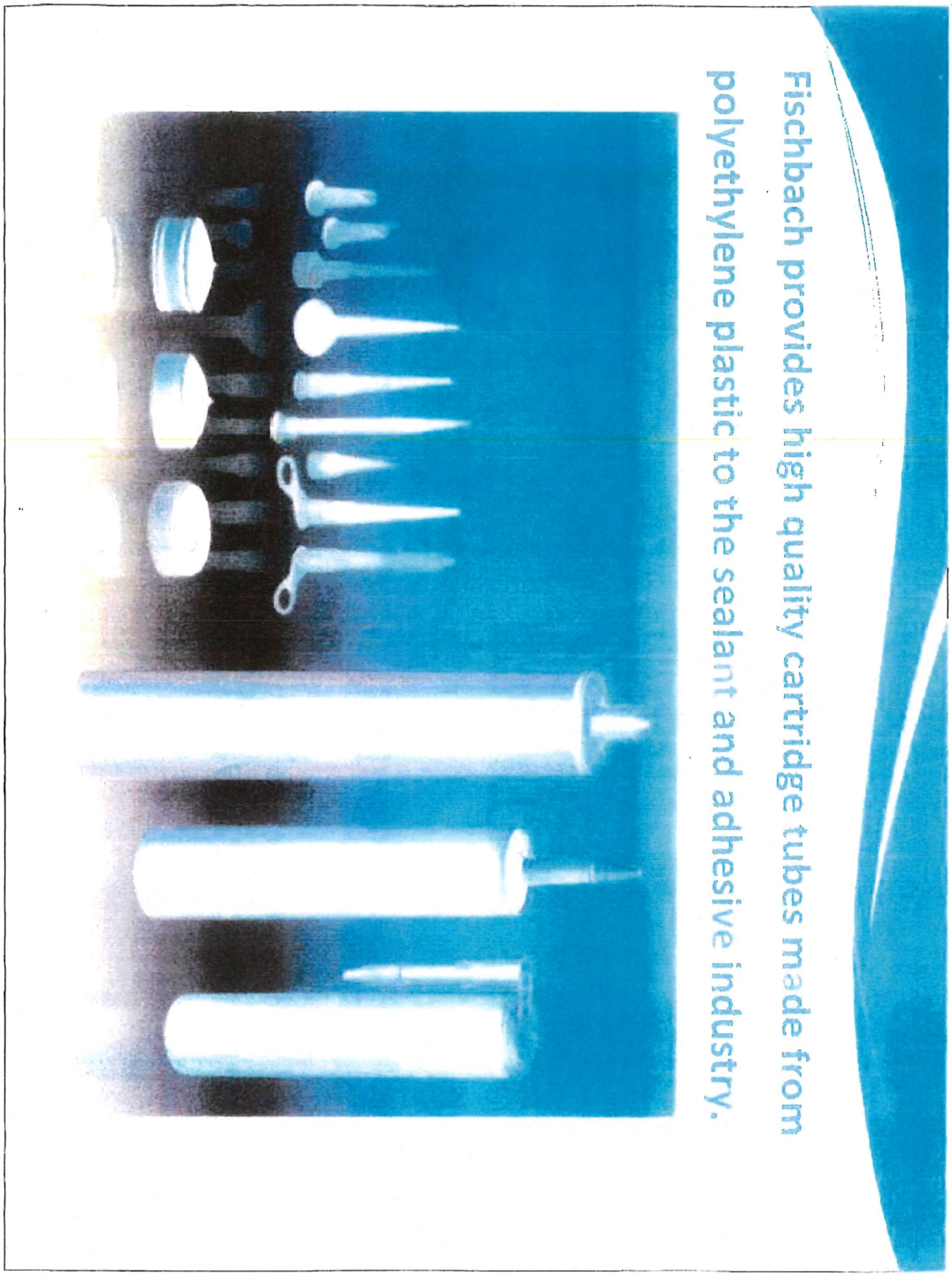
ABD Engineers & Surveyors
4018A-122309

Fischbach
Global Leader in Sealant and Adhesive Cartridges

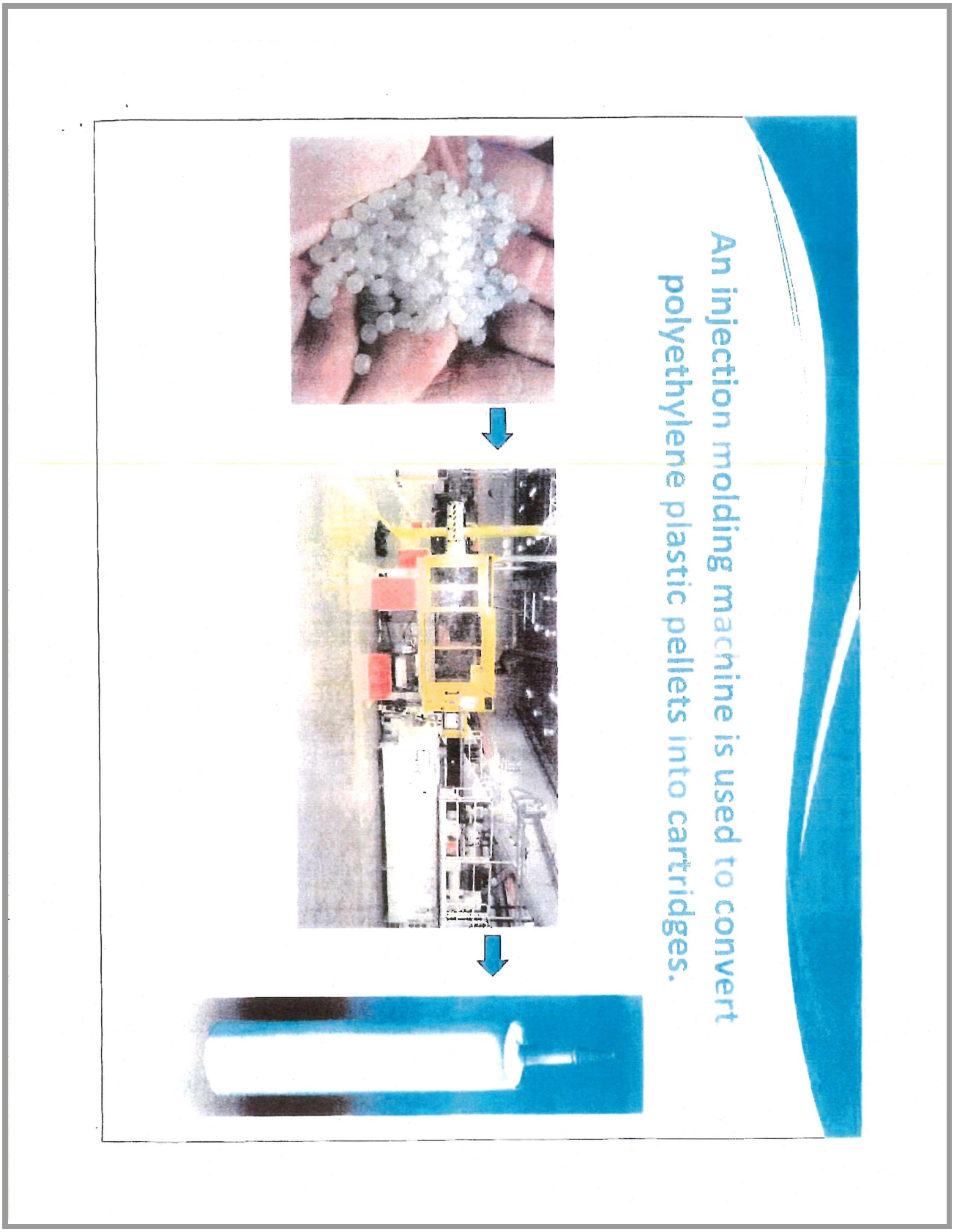
Fischbach is a Global Company

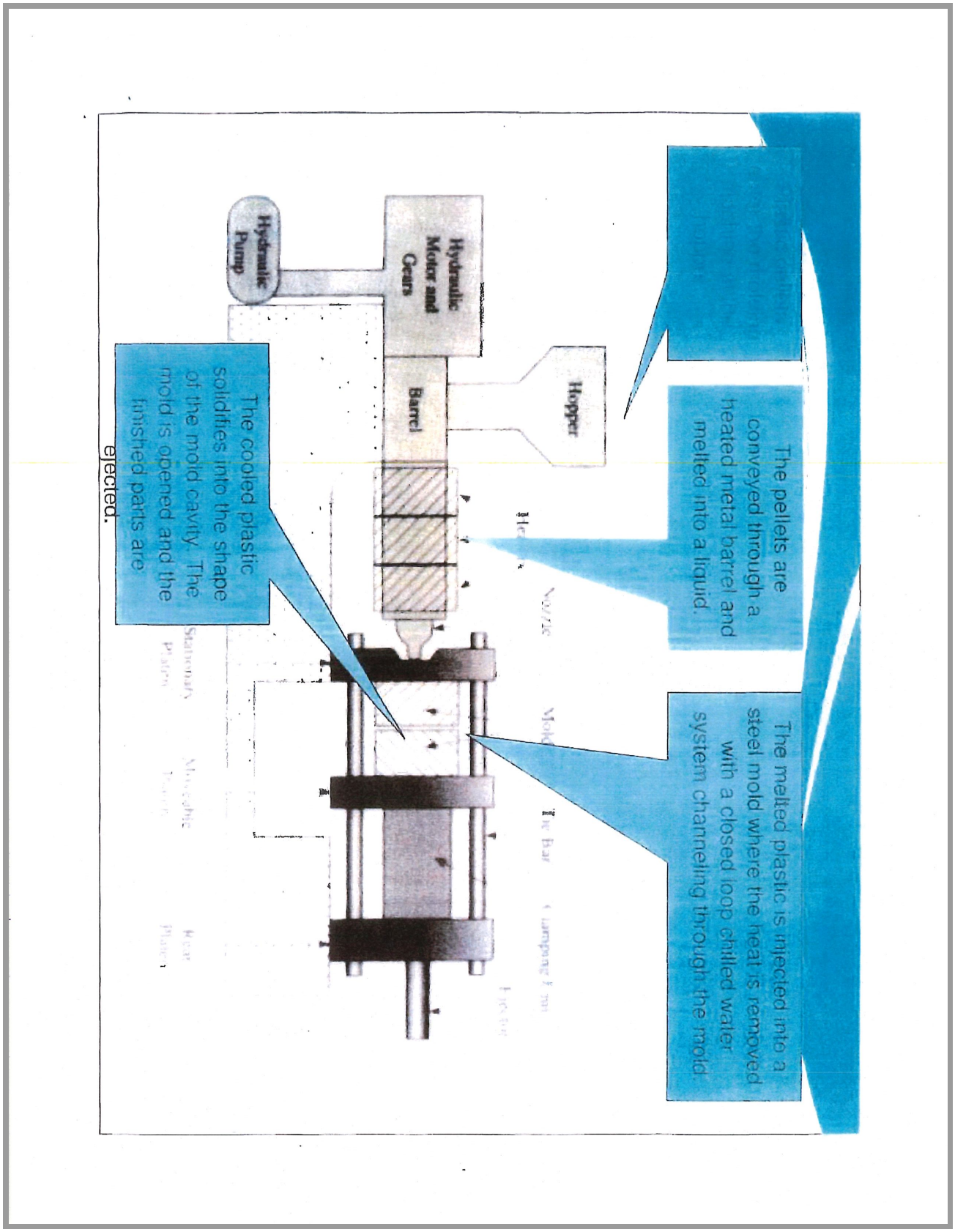
- Manufacturing cartridges in 7 countries
  - Germany
  - Spain
  - Belgium
  - England
  - South Korea
  - China
  - USA

Headquarters in Germany


Fischbach provides high quality cartridge tubes made from
polyethylene plastic to the sealant and adhesive industry.

Polyethylene is used to manufacture many household containers such as gasoline, laundry detergent, and plastic milk jugs. Fischbach uses polyethylene to produce cartridges.


An injection molding machine is used to convert polyethylene plastic pellets into cartridges.


Hydraulic Pump
Hydraulic Motor and Gears
Barrel
Hopper
The pellets are conveyed through a heated metal barrel and melted into a liquid.
The melted plastic is injected into a steel mold where the heat is removed with a closed loop chilled water system channeling through the mold.
The cooled plastic solidifies into the shape of the mold cavity. The mold is opened and the finished parts are ejected.

Fischbach Leaves a Small Footprint

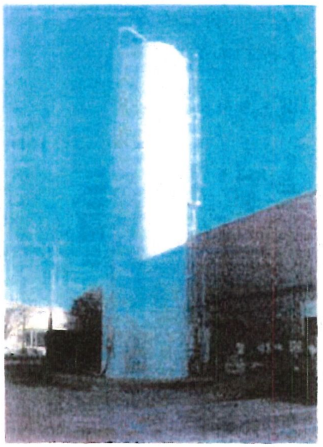
- Any scrap from the manufacturing operations is either re-ground and re-used in the molding process or sold to a regrind broker who in turn sells the scrap to another molder to use in their products.
- Ninety percent of all parts shipped from the Guilderland site will be shipped in reusable returnable plastic totes saving countless trees normally used to package with cardboard.
- Bulk deliveries of plastic by rail reduces the number of trucks on the road and means no waste from plastic packaging material will end up in the local landfill.
- Injection molding machines used to manufacture the plastic parts produce sound levels less than 85 decibels. (Conversations at the molding machine can be carried on with normal voice levels)

Raw material and finished goods traffic

- **Rail car deliveries to the park will increase by less than 1 percent.**
  - Approximately two rail cars per month will bring the polyethylene pellets to the Fischbach manufacturing building.
  - The bulk polyethylene will be unloaded from the rail cars during daylight hours. The material will be transferred using a vacuum pump from the railcar into two silos, each measuring 59 feet tall and 12 feet in diameter.
- **Finished goods trucking will be less than 3 trucks per day.**
  - Trailers will be staged and loaded in advance of shipment. The loaded trailers are picked up during Fischbach's normal shipping hours (8am to 4pm).

Silo Variance Request

- **Fischbach is requesting a variance to erect two silos on site, each measuring 59 feet tall and 12 feet in diameter.**
  - The silos will be used to hold polyethylene pellets used to manufacture the cartridges.
  - Shorter silos were considered but due to engineering issues involving the silo pad (foundation) requirements and site restriction this idea was dismissed.
  - The Fischbach silo site is located in the middle of the park. Viewing the silos from outside the park will be difficult and there is no apparent view degradation from their addition to the facility.

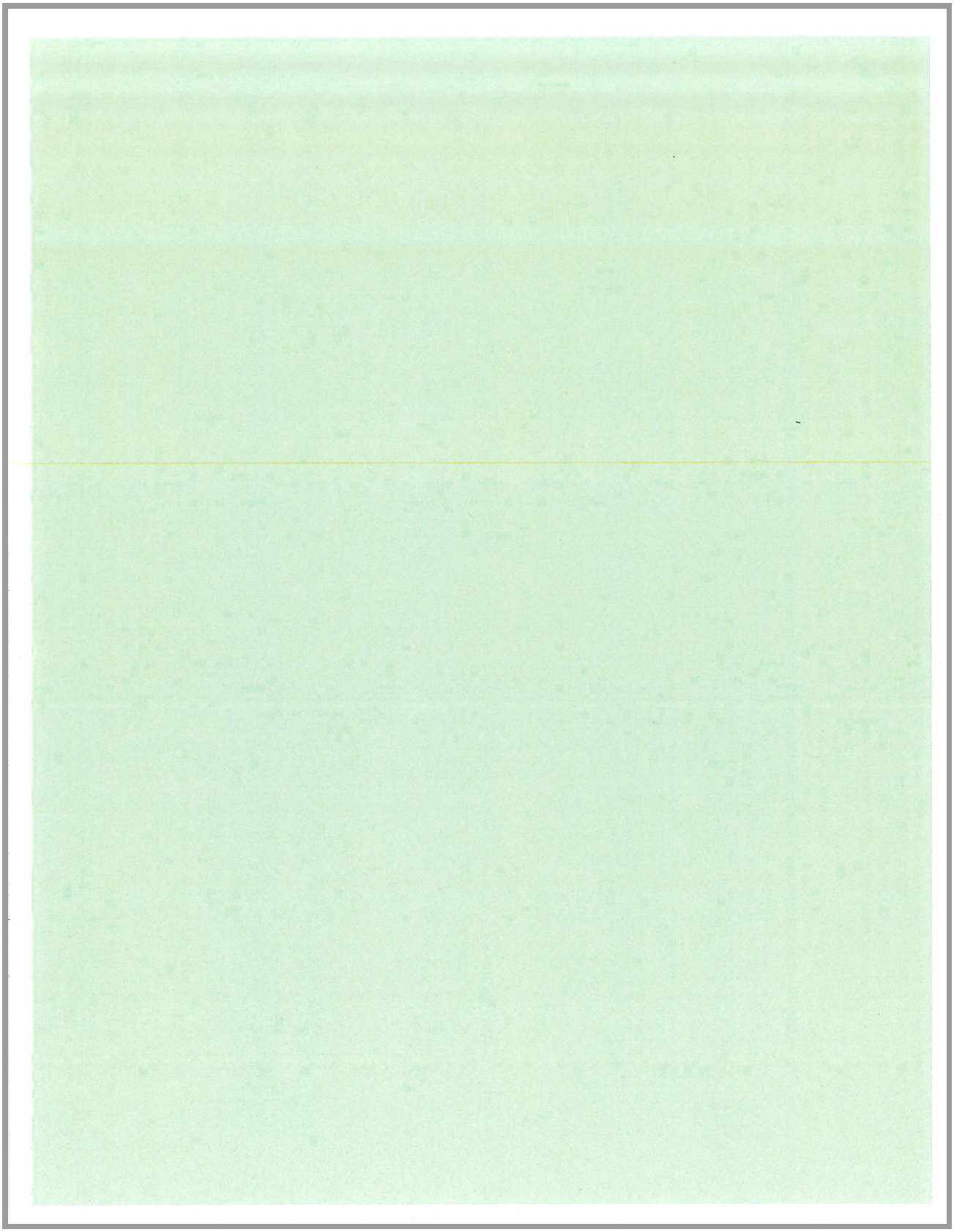


Fischbach will bring 50 new jobs to Guilderland Center at full ramp-up with an average salary of around $18.00/hr.

- **Employee benefits include:**
  - Health Insurance
  - Matching 401k plan
  - Paid holidays
  - Paid vacation

Why Fischbach Chose Guilderland Center For It's Next Manufacturing Site

- **Guilderland Center was selected for:**
  - Its large and diverse workforce
  - Rail access to reduce costs of incoming raw material and reduce the number of trucks on the road which would be required to transport the material
  - Proximity to its customers in Canada and the northeastern US
- **While other sites had some of these assets, only Guilderland Center offers the complete package.**



Statement of Findings

Northeastern Industrial Park GEIS

Town of Guilderland, Albany County, New York

Adopted XXXXX, 2007

GENERAL

The Northeastern Industrial Park (NEIP) comprises approximately 550 acres of land along NYS Route 146 and County Route 201 (CR 201) in the Town of Guilderland. The site was originally constructed as the Voorheesville Area of the Schenectady Army Depot. It has operated as an industrial park since approximately 1969 and currently contains approximately 2.9 million square feet of warehouse space. At this time, principal vehicular access to the site is provided from the main entrance on NYS Route 146 at Van Buren Road. Railroad access borders the eastern boundary of the site.

The Master Plan proposes approximately 1.6 million square feet (SF) of industrial use, 160,000 SF of office use and 190,000 SF of research and development use with related amenities such as parking, site circulation and landscaping in addition to the existing development at the site. The Master Plan also proposes a truck stop consisting of a 16 unit motel, convenience store, diner, fuel station, restrooms and showers and 30 tractor trailer spaces with hook-ups.

Pursuant to the State Environmental Quality Review Act (SEQR), the Town of Guilderland Town Board prepared a Generic Environmental Impact Statement (GEIS) for the purpose of evaluating the cumulative impacts of future development on community resources including land use, infrastructure and the environment and to identify appropriate mitigation to ensure orderly and equitable growth. The completion of a Master Plan and GEIS is consistent with the Town of Guilderland Zoning Board resolution of December 1999, which stated, in part, "...that the Guilderland Zoning Board of Appeals believes that any further development at NEIP without a prepared master plan and generic environmental impact statement would violate the spirit and intent of the Guilderland Zoning Law..."

The GEIS evaluated the cumulative impacts of future development in the study area and identified appropriate mitigation to minimize the potential environmental and social-cultural impacts.

Pursuant to the requirements of SEQR, the Draft Generic Environmental Impact Statement (DGEIS) was prepared and determined complete on July 12, 2005 and subsequently filed along with a Notice of Completion and Hearing Notice pursuant to 6 NYCRR 617.8(d). A public hearing was held on September 6, 2005. The comment period for the DGEIS closed on September 16, 2005. A Final

Generic Environmental Impact Statement (FGEIS) was prepared and deemed complete on June 6, 2006.

CERTIFICATION

The Town of Guilderland Town Board, as Lead Agency, is issuing this Statement of Findings pursuant to 6NYCRR Part 617.11 of SEQR. Specifically, the Town Board hereby finds:

a. The requirements of 6 NYCRR 617 have been met.

b. Consistent with social, economic and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable,

c. Adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigation measures that were identified as practicable.

d. The GEIS is comprehensive and contains the facts and conclusions relied upon to support the Town Board's Statement of Findings and indicates the social, economic and other factors, which formed the basis of its findings.

Pursuant to 6NYCRR Part 617.10, the Northeastern Industrial Park FGEIS assessed the environmental impacts that may occur as a result of future development at NEIP. This Statement of Findings lists the specific conditions or criteria under which future projects may be undertaken or approved, including requirements for any subsequent SEQR compliance. To the extent that certain impacts may require further analysis, it is recognized that the Final GEIS may be supplemented pursuant to 6 NYCRR Part 617.10(d).

The FGEIS and Statement of Findings are applicable to all future development projects that are subject to SEQR review (Type I or Unlisted Actions) and involve land uses identified in the Master Plan.

FUTURE SEQR ACTIONS

This Statement of Findings, together with the FGEIS, sets forth specific conditions under which future actions (i.e. site-specific projects) associated with the proposed action can be undertaken, including requirements for any subsequent SEQR compliance.

No further SEQR review will be necessary if a future action associated with development at NEIP is undertaken in conformance with the baseline conditions established in this FGEIS or the Lead Agency's Findings Statement.

In instances where a future action associated with development at NEIP is not in conformance with the conditions and thresholds established in this FGEIS, an environmental assessment form (EAF)

will be completed to assist the lead agency in the evaluation of conformance with the FGEIS and Findings Statement, as well as potential adverse impacts related to such action. Thereafter, one of the following SEQR compliance steps will be carried out:

1. Amended Findings Statement: If the future action was found to be adequately addressed in the FGEIS but was not addressed or inadequately addressed in the Findings Statement, an amended Findings Statement will be prepared; or
2. Negative Declaration: If the future action was not addressed or was not adequately addressed in the FGEIS and the subsequent action will not result in any significant environmental impacts, a negative declaration will be prepared; or
3. Supplemental EIS: If the future action was not addressed or was not adequately addressed in the FGEIS, and such action may have one or more significant adverse environmental impact, a Supplemental EIS will be prepared.

The above process provides flexibility that allows the Town to consider site specific environmental protection issues and to modify requirements based on the results of the supplemental SEQR analysis.

FACTS & CONCLUSIONS

A. Geology, Topography & Soils

A.1 Slopes throughout the site generally range from 0 to 8% and are gradual throughout the site based on USGS topographic mapping.

A.2 Soils vary throughout the site however; the general soil constraint for development is hydric soils. Soil types, depth to groundwater and any constraints need to be identified for each new project at NEIP. Construction in the Angola, Nunda, and Burdett soils may require foundation water proofing below grade and special drainage considerations given the high ground water table.

A.3 Any future development that involves land disturbance would require compliance with the State Pollution Discharge Elimination System (SPDES) since development within the NEIP represents a larger common plan of development. Compliance requires the preparation of a Stormwater Pollution Prevention Plan and Erosion and Sedimentation Control Plan. These plans would generally require:

- Post construction stormwater quality/quantity control practices including specific locations and sizes, dimensions, material specifications and installation details. Installation of silt fence or silt fences in combination with staked hay bales at the toe of slopes around construction areas
- Utilization of temporary drainage swales with hay bale check dams to direct water away from the construction area
- Seeding all areas with a quick germinating grass or other similar cover species upon completion of final grading
- Staging site development to minimize disturbed areas

B. Surface and Groundwater

B.1 In May 2001, Parsons Engineering Science, Inc. prepared the Draft Final *Remedial Investigation Report, Former Schenectady Army Depot-Voorheesville Area* for the U.S. Army Corps of Engineers. The 2001 report characterized the presence or absence of contamination at seven specific areas of concern (AOC) that had been identified at the site. Work proposed under the Master Plan includes construction at locations noted within the report as being areas of concern.

B.2 The site contains various surface water resources including Black Creek, a small pond and NYS DEC Wetland V19. Currently, the entire developed portion of the site

drains to a series of catch basins and a closed drainage system. The closed drainage system discharges at several locations into the Black Creek.

B.3 A Stormwater Pollution Prevention Plan will be prepared and implemented for each proposed construction project to specify construction operation control practices and to reduce the generation of pollutants and contact of rainfall with pollutants.

B.4 Any proposed storage tanks must comply with applicable state and local requirements, including applicable spill prevention controls.

B.5 Remediation of existing groundwater contamination related to the previous use of the site by the Army is being pursued by the Army Corps of Engineers ("ACOE"). Work planned for fiscal year 2006 is anticipated to include, subject to available funds, a Draft Feasibility Study/Proposed Plan for AOC #1.

B.6 Stormwater management for new construction and redevelopment activities will be in accordance with the most current edition of the New York State Stormwater Management Design Manual. Design of the stormwater practices will take into consideration land use, physical feasibility, watershed factors and stormwater management capability. Direct discharge of new development to the Black Creek will not be allowed in excess of that permitted under the regulations.

B.7 Erosion and sedimentation control plans for each new facility will be prepared in accordance with the SPDES General Permit Program (Permit No. GP-02-01, effective January 8, 2003) and *"New York Standards and Specifications for Erosion and Sediment Control"* published by the Empire State Chapter of the Soil and Water Conservation Society or the most current regulations in effect at the time of development.

B.8 Development within the limits of the 100-year floodplain will be minimized to the greatest extent possible. Any work within an area of special flood hazard will be completed in accordance with Chapter 177 of the Town Code, entitled "Flood Damage Prevention", including the filing of a Flood Development Permit and implementation of special design practices or other applicable regulation in effect at the time.

C. Air Quality

C.1 According to the United States Environmental Protection Agency (U.S. EPA) Green Book, the Albany-Schenectady-Troy area, in Region II, is classified as a marginal ozone non-attainment area. Therefore, Albany County, which includes the Town of Guilderland, does not meet the national primary or secondary ambient air quality standards for ozone.

C.2 The air quality impact analysis for NEIP focused on localized impacts in the vicinity of the project site related to traffic generation. To assess air quality impacts, procedures outlined in the New York State Department of Transportation (NYSDOT) Environmental Procedures Manual (EPM) (Revised January 2001) were used. Based on this evaluation, an air quality analysis is not necessary for the proposed expansion at NEIP.

C.3 The particular impacts to air quality resulting from development within the Park would depend upon the specific businesses/activities that ultimately occupy the site. The impact from areas designated for industrial use can not fully be determined until specific industries with specific sources are proposed.

D. Terrestrial and Aquatic Ecology

D.1 NEIP consists of a mixture of upland deciduous forests, mowed and maintained lawn/landscape area and upland meadow/field. The diversity of vegetative communities within the NEIP site provides opportunity for a diverse wildlife component.

D.2 There is a NYSDEC Freshwater wetland (V-19) in the southeast corner of the site and the Black Creek runs along the eastern boundary of NEIP. A drainage swale is located along the western boundary of the existing warehouse area which drains into Black Creek.

D.3 The FEMA map indicates there is a 100-year floodplain and areas between the 100-year and 500-year floodplain limits associated with both the Black Creek and the drainage swale.

D.4 Contact with the NYSDEC Natural Heritage Program revealed that the blunt-lobe grape fern (*Botrychium oneidense)* may occur on or in the vicinity of the NEIP site. A field investigation was conducted by CHA on September 7, 2004 when the blunt-lobe grape fern was in fruit and it was not identified during the field investigation. Although it may occur in the moist forested areas or stream corridors on the site, the current layout of the Master Plan will not impact any moist forested areas or stream corridors. Therefore, impacts to the blunt-lobe grape fern or its habitat are not anticipated.

D.5 A response from the U.S. Fish & Wildlife Service (USFWS) revealed the potential presence of the state and federally endangered Indiana bat (*Myotis sodalis*) and the small-footed bat *(Myotis leibeii)* in the vicinity of the site. The Indiana bat is typically associated with cave habitats and trees with exfoliating bark for roosting. The small footed bat is associated with caves, mines, crevices in rocks, buildings and

forested areas. Based on the field investigation conducted by CHA on September 7, 2004 it is not anticipated the Indiana bat or the small footed bat or their habitats will be impacted by the project since the current layout does not propose the development of forested areas that contain suitable potential habitat and the NEIP site does not contain any caves, mines or crevices in rocks.

D.6 Methods for mitigating the impacts to wildlife include protecting open space and incorporating significant habitat into the development plan as preserved lands. Efforts to concentrate development in two portions of a site, one being central to the existing warehouse, and avoiding fragmentation of habitat are important concepts in the maintenance of wildlife populations. The following are recommendations for preserving and mitigating wildlife habitat:

- Encourage cluster development to preserve a greater portion of the site as open space.
- Discourage fragmentation of habitat, both internally and relative to adjacent parcels.
- If the proposed Master Plan is revised to impact forested areas and/or the habitats of the blunt-lobe grape fern, the Indiana bat or the small-footed bat, the site will be further evaluated for the presence of those species.

D.7 Wetland delineations will be required pursuant to State and federal regulations, as appropriate. The project sponsor will be responsible for confirming the wetland boundaries with USACE and NYSDEC prior to site plan approval.

E. Transportation

E.1 The proposed Master Plan development of the NEIP is anticipated to occur over a 10-year period and will provide an additional 1.978 million square feet of building area for mixed industrial, office and R&D uses. The analyses of the characteristics of existing and proposed uses for the site indicate that this development would generate 845 new vehicle trips during the a.m. peak hour and 922 vehicle trips during the p.m. peak hour.

E.2 The additional truck traffic generated by the build-out of the Master Plan will not change the overall characteristics of traffic flow on the adjacent roadway network; the proportion of truck traffic within the peak hour traffic flows will be comparable to the existing percentage (5%).

E.3 The operations of the transportation system were analyzed for existing conditions and for a future planning horizon (2015) with and without the Master Plan development.

The GEIS identified that the overall operations of this intersection will be within the same LOS thresholds as would occur in the projected No-Build condition. This analysis shows that the intersection geometry will generally be sufficient to accommodate the traffic flow at LOS D in this future condition. The change in LOS conditions on specific intersection approaches is a result of signal timing adjustments that occur to reflect changes in the volume distributions of traffic at the intersection. The GEIS also identified that the issue related to future operations at this intersection is the high volume of left turn traffic from Route 20 onto Route 146 during the AM peak hour. The operation of this movement is currently congested and will be exacerbated by a combination of general background growth and future site traffic.

What:

1. Consider construction of an additional left-turn lane on the northbound approach of Route 20
2. Consider widening NY Route 146 to provide a second westbound travel lane to accept the double left-turn movement from Route 20 with a lane merge to the existing single westbound lane.
3. It should be noted that the Guilderland Hamlet Study included a long-term recommendation to reconstruct this intersection to provide a modern roundabout to address long-term (20 year) operations needs and establish a gateway for the hamlet area. This option may be considered in lieu of recommendation 1 and 2 above.

When:

Based on a threshold analysis of the operations at this intersection, it is recommended that the improvements be implemented at 50% of the new trips generated by the build-out of the NEIP master plan (excluding trips generated by re-use of existing vacant industrial space) if traffic conditions at the time warrant. The level of service of the intersection during the critical AM peak hour (considered in the context of the 2015 design year) will be LOS D and all approach LOS will also be LOS C or D with this level of development.

It is noted that the Office/R&D component of the master plan represents approximately 60% of the traffic generated by the proposed new development at the site during the AM peak hour and approximately 50% of the new traffic at the site during the PM peak hour. Since there is a significant difference in the trip generation and distribution characteristics of the industrial uses and the Office/R&D uses, the actual amount of development at the site could vary significantly before the

These operations analyses were used to identify the impacts associated with the projected site traffic. A review of the existing roadway operations indicates that current conditions are generally within acceptable level-of-service (LOS) thresholds. The peak hour operations at the study intersections indicate overall LOS C or better. The level of service on NY Route 146 between the site and US Route 20 is LOS D during the peak hours.

E.4 The projected No-Build conditions for the 2015 planning horizon considered general regional growth based on historic volume trends in the study area roadways, and also considered changes in activity at the existing unused facilities within the NEIP. The traffic generated by the build-out of the proposed NEIP Master Plan was combined with this background growth to represent the future Build condition.

E.5 Analyses of the traffic operations for the future No-Build and Build conditions indicate that the LOS on NY Route 146 would change from a LOS D to a LOS E. This LOS is representative of dense vehicle platoons, which limits passing opportunities and reduces vehicle speeds. The operations of this roadway in the Build condition will be within the same LOS E threshold as in the No-Build condition.

E.6 *A supplemental traffic study will be required as each site specific project is proposed to determine the existing conditions at the time and whether improvements will be required to mitigate impacts. The re-use of the existing vacant industrial space and traffic associated with it are considered background growth and will not require additional traffic studies. The recommendations oulined below are general guidelines for implementation based on the generic nature of the Master Plan and must be evaluated based on existing traffic conditions at the time when construction is proposed.*

E.7 Analyses of traffic operations indicate that improvements are recommended at several intersections to accommodate **the cumulative effects of area-wide traffic conditions as well as the traffic generated by the NEIP Master Plan.** The "fair share" contribution of the NEIP master plan development toward these improvements was estimated using CDTC's Congestion Management procedures, which consider the contribution of background growth, site generated traffic and the reserve capacity created by the improvements. Public-sector and private-sector participation in their implementation is recommended. These recommended improvements are as follows:

NYS Route 146 and US Route 20:

improvements would need to be implemented at this intersection. As an example, the trips generated by all of the proposed industrial space at the site accounts for 39% of the total new trips NEIP trips at this intersection in the AM peak hour and 48% of the new NEIP site trips in the PM peak hour, indicating that all of the industrial uses could be constructed before the improvements are needed.

NYS Route 146 and CR 202:

What:

1. Consider modification of the geometry of the westbound approach (Route 146) to change the lane use from a shared left-turn/through lane and separate right-turn-only lane to provide a separate left-turn lane and shared through/right-turn lane. This will also involve some minor reconstruction to provide the transition of through traffic to the right lane and to carry this alignment across the intersection and back to the existing alignment of Route 146.
2. Implement Travel Demand Management programs to promote employee ride-sharing, and work shifts at the NEIP that do not coincide with school peak hours.
3. Implement similar TDM ride-sharing programs for staff and students at the public High School.

When:

The need for this improvement is associated with the future Office/R&D development at NEIP. The threshold analysis indicates that this improvement should be implemented when the Office/R&D development reaches 40% occupancy. The overall LOS during the critical AM peak hour will be LOS D at this development threshold and all intersection approaches will also operate at LOS D. It is recommended that site traffic generated by initial phases of the Office/R&D development be monitored to verify the trip generation and distribution characteristics to confirm the need/timing for this improvement. The traffic generated by the industrial uses of the NEIP site does not have a significant impact on the operations of this intersection.

NYS Route 158 and US Route 20:

What:

1. Consider construction of a separate left-turn-lane on the southbound approach of NYS Route 158.

2. Consider traffic signal timing adjustments (note: the construction of the left-turn lane will also involve modification and/or replacement of traffic signal equipment)

When:

The threshold for construction of the recommended improvements at this intersection is at 20% of the build out of the master plan (excluding trips generated by re-use of existing vacant industrial space).

NYS Route 158 and NYS Route 146:

What:

1. Improvements at this intersection are recommended to be constructed to address the operations of the projected future background traffic condition. The conditions at this area should be monitored by the Town as development progresses in the area. Improvements may be warranted as a result of background growth regardless of the development proposed at NEIP.
2. The construction of a roundabout at this location would provide ample capacity to address future background and build conditions and would provide reserve capacity to accommodate other future growth in the area.
3. Another alternative would be to consider construction of a separate left-turn-lane on the eastbound approach of NYS Route 146 and install a traffic signal. The cost for this alternative is anticipated to be comparable to the roundabout alternative, if not higher due to the impact to a bridge structure crossing a stream west of the intersection. The turn lane/signal alternative also does not provide the same level of reserve capacity as the roundabout.

When:

A warrant analysis would be conducted when the cumulative projects at NEIP will generate 100 or more peak hour trips at this intersection.

E.8 The costs for the improvements noted above cannot be determined exactly at this time given the generic nature of the site master plan, the unknown timing for future development at the site and future projects that may be proposed within the Town which may have an impact on background growth and reserve capacity and therefore other "fair share" funding contributions. However, for general Town planning purposes and CDTC TIP planning, the following general costs, in 2007 dollars, and the "fair share" contribution by NEIP, based on the development scenarios outlined above, are as follows. It should be noted that the cost of these improvements, timing of the improvement and

"fair share" contribution will be determined based on future traffic studies referenced in Finding E6.

NYS Route 146 and US Route 20:

Improvement: Construction of a roundabout – 2 million

Possible NEIP Fair Share: 38% ($750,000) based on CDTC's Congestion Management procedures

NYS Route 146 and CR 202:

Improvement: Modify Route 146 westbound approach geometry - $475,000

Possible NEIP Fair Share: 100% ($475,000) based on CDTC's Congestion Management procedures

NYS Route 158 and US Route 20:

Improvement: Construct southbound left turn lane, modify traffic signal equipment – 325,000

Possible NEIP Fair Share: 20% ($65,000) based on CDTC's Congestion Management procedures

NYS Route 158 and NYS Route 146:

Improvement: Construction of a roundabout – 1 million

Possible NEIP Fair Share: 24% ($240,000) based on CDTC's Congestion Management procedures

It is noted that the improvement cost estimates are general planning level estimates and do not reflect engineering evaluations of site conditions, ROW, utilities or other factors that may affect the actual construction costs resulting from a detailed design.

The estimate of the private share cost for the NEIP master plan is based on the assumed build out of the master plan. Since the development of the site will be dependent on market opportunities, it is recommended that an ongoing monitoring program be implemented to assess the progress of development, and the appropriate level of private share contribution to the off site improvements at each milestone.

E.9 The improvements noted below **are directly associated** with the traffic generated by build-out of the NEIP Master Plan **exclusively:**

NYS Route 146 and Van Buren Boulevard:

What:

1. Consider widening the Van Buren Boulevard approach to provide a separate left-turn lane.

2. Monitor traffic conditions for future traffic signal control subject to satisfaction of NYSMUTCD signal warrant criteria and the approval of NYSDOT.

When: .

The threshold for constructing the recommended left turn lane on VanBuren Boulevard for traffic exiting the NEIP site is when the average PM peak hour volume of this movement reaches 100 vehicles per hour. It is also noted that this threshold is predicated on the assumptions of background traffic growth on Route 146 that is not associated with the development activity at NEIP. It is estimated that this threshold could be reached at the point when the existing vacant space at the site is fully utilized.

Based on a threshold analysis of traffic operations at this location, it is recommended that the conditions be monitored at the intersection for traffic signal control when the average peak hour volume on the VanBuren Boulevard approach to the intersection (exiting the site) reaches 350 vehicles. This represents traffic conditions when approximately 40% of the NEIP site master plan is developed, based on the estimated directional distribution of site traffic during peak hours.

CR 201 and CR 202:

What:

1. Consider installation of All-Way Stop Sign Control from the existing two-way stop control as an interim solution to address the existing congestion during school peak hours while plans are developed by the County for their proposal to construct a roundabout at this location. If, when the R&D/Office development occurs along CR 201, there is a capital improvement plan in place to support the construction of a roundabout, NEIP will contribute a "fair share" in lieu of the recommended four way stop.

When:

Monitor the intersection for installation of All-Way stop signs when new office development begins to occur which accesses onto CR 201 if traffic conditions warrant. The GEIS and subsequent analyses conducted to respond to comments from the Albany County DPW identified that the impacts of the project at this location are associated with the Office/R&D components of the master plan. These analyses show that the major issues at this intersection relate to the operations associated with the

heavy surges of school related traffic at the beginning and end of school, and safety issues related to inexperienced school age drivers. The traffic analyses at this location identified that the peak periods of commuter traffic to and from the NEIP Office/R&D facilities will not generally occur during the same peak periods of school traffic. These analyses indicate that the NEIP site will not have a significant impact on the operations of this intersection.

CR 201 and NEIP Site Access:

What:

1. Monitor traffic conditions for installation of a future left-turn lane on CR 201 for left-turn traffic entering the NEIP site.
2. Consider installation of a Stop sign on the NEIP driveway approach.

When:

Construct left turn lane at 50% build-out of new construction if traffic conditions warrant.

CR 201 and NEIP Office/R&D Site Access:

What:

1. Monitor traffic conditions for installation of a future left-turn lane on CR 201 for left-turn traffic entering the NEIP Office site.
2. Consider installation of a Stop sign on the NEIP Office driveway approach.

When:

Construct left turn lane at 25% build-out of office and/or R&D new construction (essentially with the first phase of the development of these uses) if traffic conditions warrant.

F. Land Use & Zoning

F.1 The uses proposed in the Master Plan for NEIP, office, research and development and industrial, are consistent with the specially permitted uses currently allowed within the Industrial zone. The one exception is the "truck stop" which is proposed to contain a 16 unit motel, a diner, convenience store, restroom and showers, a fuel station and 30 tractor trailer spaces with hook-ups. Approval of a truck stop on site would serve to mitigate existing impacts to noise and traffic along Route 146.

F.2 The Master Plan defines the overall development density and uses proposed at NEIP and the findings statement discusses and mitigates the potential impacts resulting

from development. The existing Industrial zoning will be amended to allow the uses at NEIP as principal uses without requiring a special use permit from the Zoning Board of Appeals. Buildings may be constructed, in certain circumstances, as of right subject to site plan approval.

F.3 Amending the zoning will mitigate concerns regarding land use from surrounding land owners since some of the more noxious uses in the existing Industrial zone will be prohibited or require a special use permit prior to construction at NEIP. In addition to the current list of prohibited uses in the Industrial zone, fuel, gasoline, and oil bulk storage; laundry, dry cleaning plant, any use permitted by special use permit in the LI- Light Industrial District and commercial recreational facilities would be deleted from permitted uses at NEIP. Uses that would be permitted as principal uses in the NEIP zone will be more in keeping with those currently allowed in the Light Industrial zone, which supports "the construction of research and development oriented industries and other manufacturing uses which utilize high technology without adverse effects from smoke, noise, odors, dust and dirt". It is anticipated that such uses will be less environmentally intense than those presently allowed.

F.4 The recommended uses for NEIP will include:

- Scientific research or experimental development of materials, methods or products including engineering and laboratory research
- Manufacture of electric, electronic or optical instruments or devices
- Light manufacturing, assembling, fabricating or packaging of products from previously prepared materials such as cloth, plastic, leather, precious or semiprecious metals or stones
- Regional or district offices of various types of companies, such as insurance companies
- Manufacturing, fabrication, extraction, assembly, warehousing and other handling of materials except for those prohibited in §280-23C.
- Truck stop including fuel (a new definition would be added to §280-5 – Definitions)

F.5 The construction of a truck stop on-site with electric hook-ups will eliminate trucks idling along Route 146 thereby mitigating noise impacts and will also reduce parking on the shoulder.

G. Community Services

G.1 Letters were sent to the Guilderland Center Fire Department and the Altamont Rescue Squad outlining the proposed Master Plan development and requesting input however no responses were received from either agency. Since the type of tenants related to future development is unknown at this time, fire protection and emergency services requirements will be evaluated for each individual proposal.

G.2 Measures which will be considered on a case by case basis will include sprinklers and/or specialized alarms, additional training, equipment or emergency planning for emergency service providers and providing a "walk-through" of each new facility. A procedure could be developed for notifying emergency service providers of the arrival of a new tenant, the presence of potentially hazardous conditions and other relevant factors such as installation of sprinklers. The need for a written Emergency Plan will be determined based on specific tenants and uses.

G.3 The wastewater flow generated by the NEIP and transmitted to the Town's WWTP is limited to 100,000 gallons per day. There have been exceedences which are attributed to inflow and infiltration (I/I) into the existing system after a storm event or period of snowmelt.

G.4 NEIP currently averages 29,900 gallons per day (gpd) according to Town records and 32,300 gpd according to NEIP records as opposed to 86,000 gpd based on NYSDEC computations. Based on NYSDEC guidelines, development in accordance with the Master Plan would generate approximately 46,880 gpd of wastewater.

G.5 The amount of water and wastewater flow will be determined for each project as it is proposed at NEIP. If wastewater flows will exceed the total 100,000 gpd limit mitigation of impacts on the Towns system will be necessary.

G.6 Repair and/or replacement of manholes and sewer lines which may be a source of I/I at NEIP will be continued and the amount of wastewater generated at NEIP monitored by both the Town and NEIP.

G.7 All uses will be required to discharge wastewater that meets the standards of the Town of Guilderland. If the composition of the wastewater does not meet the Town's standards, pre-treatment will be required on the site before being released into the public sewage system.

G.8 Water for domestic use and fire fighting purposes at the NEIP is provided by the Town's municipal system. In discussions with Town personnel there are no problems with supply or the distribution of water in the vicinity of the NEIP site at this time.

G.9 The existing municipal water supply appears sufficient to meet the projected demand at full build out; however, to ensure adequate supply for both domestic use and fire

fighting purposes, hydrant flow tests will be performed as each new facility is proposed. This will provide information relative to the flows available and the impacts of the proposed development on the water distribution system and those already receiving service.

G.10 Electric service and natural gas are currently supplied to NEIP by National Grid. A new substation was built several years ago on CR 201 with the intent that it would be able to serve the future electric demands at NEIP. The estimated demands of each of the buildings will be necessary prior to addressing National Grid's ability to serve each project. The utility will be contacted during the site plan approval process to address each facilities utility needs once an end user is more clearly defined.

H. Cultural Resources

H.1 A Visual Impact Assessment (VIA) was completed within a five mile radius of NEIP. The VIA assumed a maximum building height of 30 feet at NEIP and based on this information a digital viewshed analysis map was developed using only topography, without obstructions from vegetation, to allow the maximum number of theoretical views to the site. The computer program indicated areas of potential visibility that would require field verification.

H.2 Potential aesthetic resources were identified through the National Register of Historic Places website and a review of local maps. There were 59 potential resources identified and when located on the viewshed map, 18 had a potential of visibility to NEIP. After field verification, only six had views of the site: the Guilderland High School, John Boyd Thacher State park, the Long Path, and three homes on Leesome Lane. Due to their distance from NEIP, there are no significant visual impacts to the potential resources except the high school. The high school is in close proximity to NEIP however it is next to an area which has previously been developed. No new development is proposed in this area so there will be no significant visual impacts.

H.3 The master plan contemplates the installation of a 100 foot deep planted buffer along CR 201 which will mitigate views into the site. The buffer will be installed when the first building is constructed along CR 201. Buildings constructed along CR 201 will be earth tone colors.

H.4 New site lighting will consist of 400 watt (max) metal halide fixtures mounted on 30 foot high poles to eliminate light trespass and uplighting onto adjoining properties. Building mounted lighting on new construction will have cut-offs to direct the lighting downward and not out to adjoining properties.

H.5 A Phase 1A Cultural Resource Survey was conducted to investigate the potential occurrence of historic and prehistoric cultural resources at NEIP. Based on environmental considerations and the nature of development within the NEIP site after 1940, much of the NEIP property is considered to have a low sensitivity for the presence of archeological sites with regard to areas 1 and 2 as shown on the Master Plan. Areas 3 and 4 have had less soil disturbance and are considered sensitive for the presence of archeological sites due to the better drained soils, the proximity of map documented structures and the lack of Areas of Concern as identified by the Army Corps of Engineers.

H.6 Considered by soil types, Phase 1B surveys will be performed in potential impact areas with soil types AnB, BuA, In, NuB, ScA and VaB (see Figure II-Q in the DGEIS) as each site specific project is submitted for review and approval. No Phase 1B survey is recommended for soil types Ug, Uk, Ur, Ut and Wo.

H.7 A field analysis was completed to determine existing noise levels. Based on the existing and proposed land uses and additional anticipated traffic, the predicted noise levels were determined. Using the NYS DEC general guidance document titled *Assessing and Mitigating Noise Impacts* it was determined that the proposed development at NEIP will generate additional noise classified as unnoticed to tolerable at the high school athletic fields and a noise level classified as non-perceptible at the two residences closest to the site on Route 146 and CR 201 respectively. The noise levels will be within the daytime limits identified in the Town of Guilderland Noise Ordinance.

H.8 Since there is a potential for considerable construction that would include many phases over a period of several years, construction noise could become a nuisance. The following mitigation measures will be considered on a site specific basis:

- Avoidance or minimization nighttime construction of the proposed facilities in the vicinity of the residential properties adjacent to County Route 201.
- Regular equipment maintenance on all construction equipment.
- Placement of stationary equipment as far away as possible from particularly sensitive receptors. For example: generators should be placed at the farthest point away from these receptors or in a position shielded by an existing building while operating.
- Notify the public of construction operations prior to starting construction.

H.9 Remediation of contaminated areas within NEIP related to previous use of the site by the Army is being pursued by the Army Corps of Engineers. Due to the nature of the environmental concerns within the areas of concern, work within the areas of concern are overseen by the NYSDEC and coordinated with the NYSDOH. Work planned for fiscal year 2006 is anticipated to include a Draft Feasibility Study/Proposed Plan for AOC #1. Remediation measures required for AOC #1 should be outlined in this proposed plan. Construction within areas of concern will be coordinated with efforts of the Army Corp of Engineers.

I. Economic Resources

I.1 Expansion at NEIP will be a revenue generator for the school district as there are no children on site attending schools but the assessed value of the property would continue to rise as development occurs thereby generating greater tax revenue for the school district.

I.2 NEIP is within an Empire Zone and each building within the zone pays its full amount of school and property taxes upon completion. The incentives are designed to insure that taxing jurisdictions received full tax payments with the State funding the incentives.

I.3 The Fiscal Analysis (Appendix A, Town of Guilderland Final Comprehensive Plan dated August 2001) evaluated six different development scenarios for future growth in the Town and the potential tax implications based on varying development rates for residential, industrial, recreation and retail and office development between 2000 and 2015.

The findings of these six scenarios was that residential growth, with school age children, does not pay for itself due to the disproportionate impact of the school budget and that residential growth has a disproportionate impact on Guilderland taxes. The analysis concluded that the most reasonable scenario was Scenario 3 with a steady residential growth rate and the complete build out of the Guilderland portion of NEIP. This would allow for spending on resource protection and amenities with the smallest tax impact.

Exhibit F

PROPOSED SITE PLAN DOCUMENTS

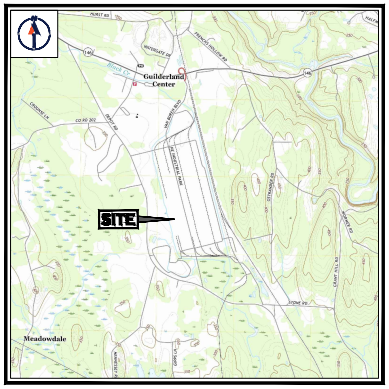
FOR

Airgas

PROPOSED

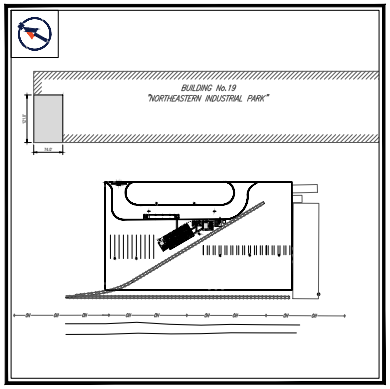
STORAGE AND DISTRIBUTION FACILITY

LOCATION OF SITE:
2 VAN BUREN BOULEVARD, TOWN OF GUILDERLAND
ALBANY COUNTY, NEW YORK
MAP 50, BLOCK 1, LOT 14.21



USGS MAP

SCALE: 1" = 2,000'
SOURCE: USGS



SITE MAP

SCALE: 1" = 120'

DRAWING SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	C-101
GENERAL NOTES SHEET	C-102
PROJECT PLAN	C-301
SITE LAYOUT PLAN	C-302
GRADING AND DRAINAGE PLAN	C-401
LIGHTING PLAN	C-501
DETAIL SHEET	C-901
ALTA / ACSM LAND TITLE SURVEY (BY OTHERS)	1 OF 1
ALTA / NSPS LAND TITLE SURVEY (BY OTHERS)	1 OF 1

PREPARED BY

BOHLER

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND DEVELOPMENT
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
FEASIBILITY STUDIES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	ISSUED BY

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PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS NOTED OTHERWISE.

PROJECT No.: B210173
DRAWN BY: SC
CHECKED BY: SMV
DATE: 08/03/2021
CAD I.D.: B210173SSS

PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
Airgas
STORAGE & DISTRIBUTION FACILITY
MAP 50, BLOCK 1, LOT 14.21
2 VAN BUREN BOULEVARD
GUILDERLAND CENTER
ALBANY COUNTY, NEW YORK

BOHLER
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com

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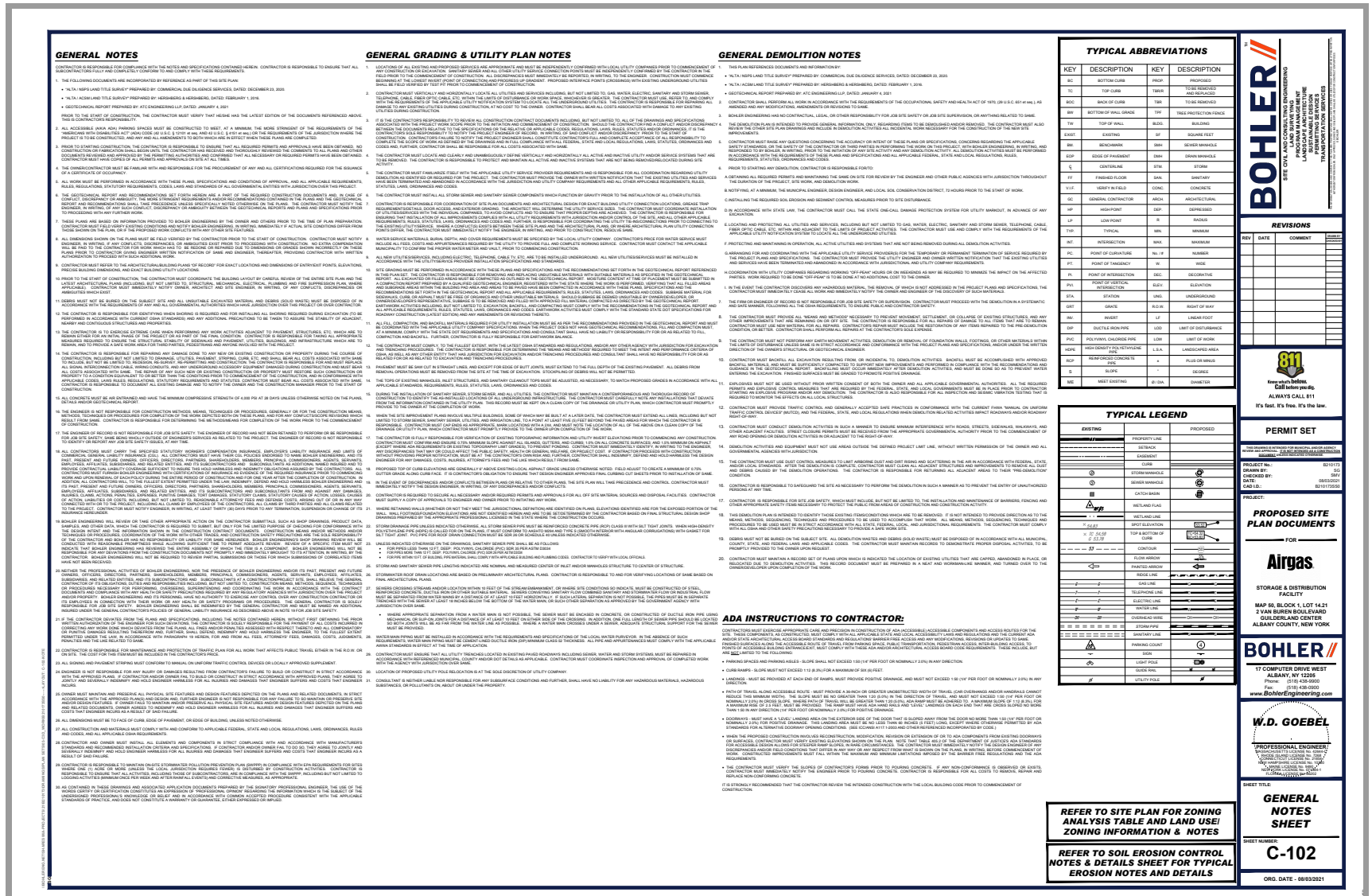
NEW HAMPSHIRE LICENSE No. 13240
NEW YORK LICENSE No. 102441
NEW JERSEY LICENSE No. 24GE04641400
FLORIDA LICENSE No. 86000

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
C-101

ORG. DATE - 08/03/2021



GENERAL NOTES

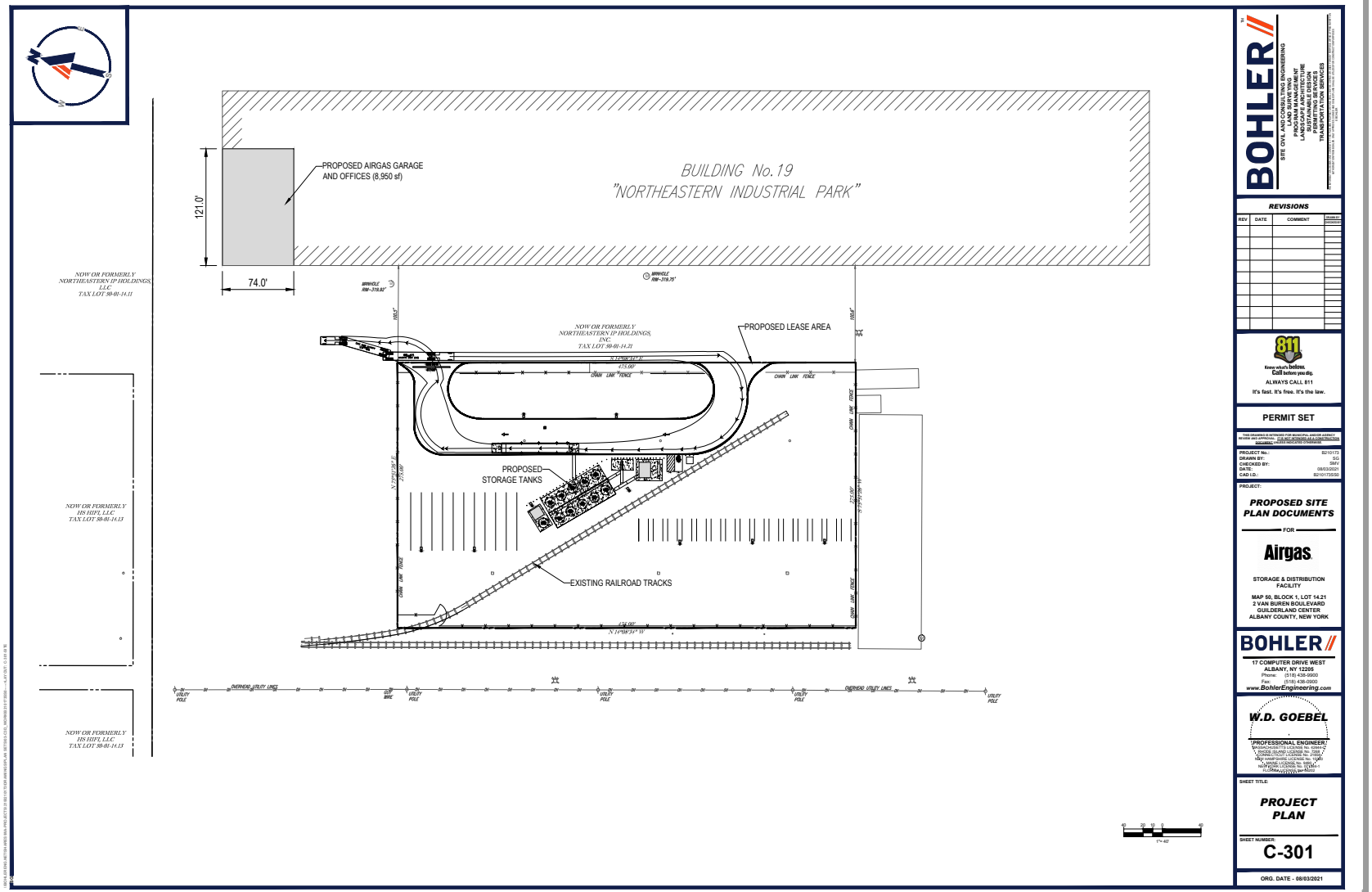
CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS.

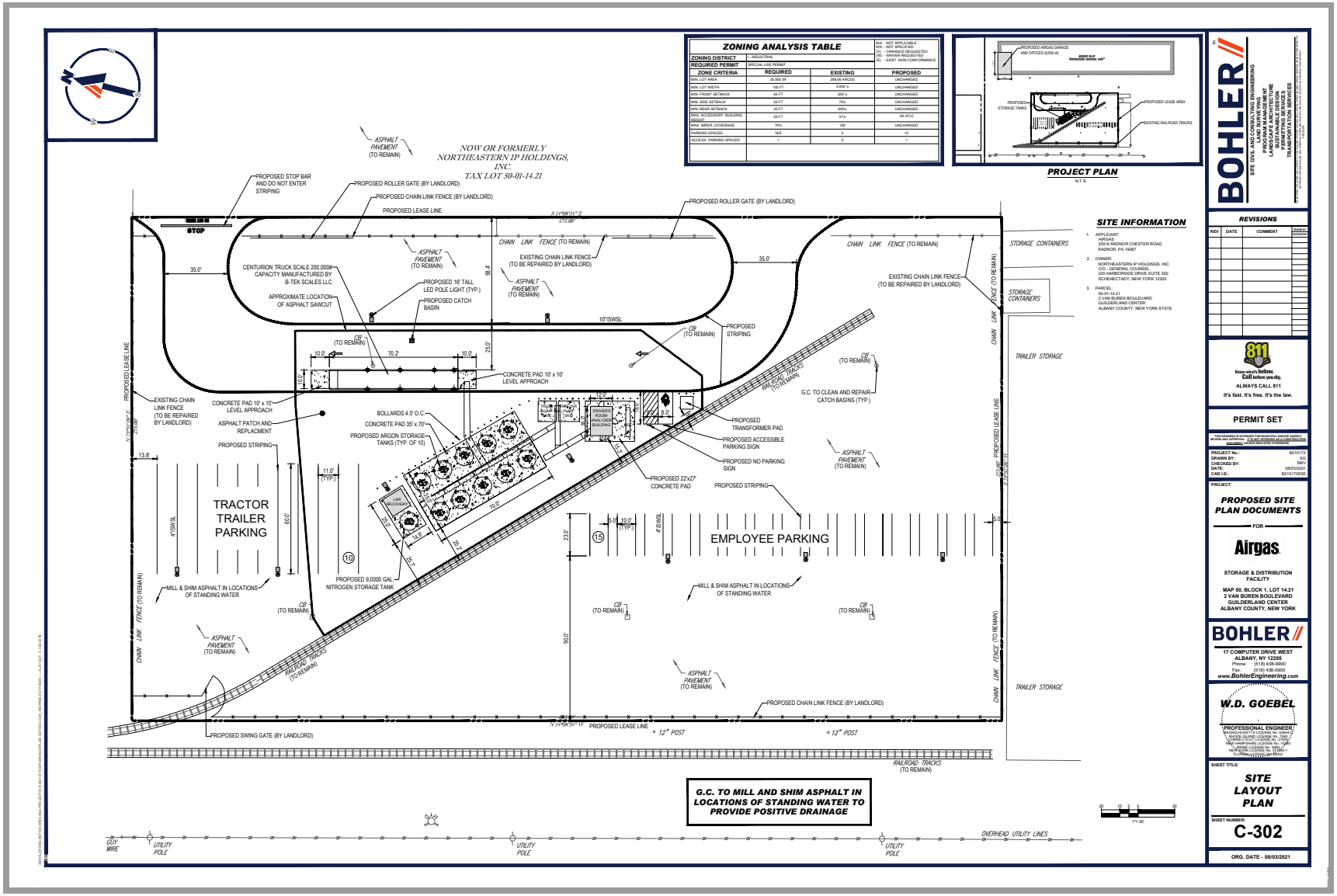
1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:
   - "ALTA / NSPS LAND TITLE SURVEY" PREPARED BY: COMMERCIAL DUE DILIGENCE SERVICES, DATED: DECEMBER 23, 2020.
   - "ALTA / ACSM LAND TITLE SURVEY" PREPARED BY: HERSHBERG & HERSHBERG, DATED: FEBRUARY 1, 2016.
   - GEOTECHNICAL REPORT PREPARED BY: ATC ENGINEERING LLP, DATED: JANUARY 4, 2021

   PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST VERIFY THAT HE/SHE HAS THE LATEST EDITION OF THE DOCUMENTS REFERENCED ABOVE. THIS IS CONTRACTOR'S RESPONSIBILITY.
2. ALL ACCESSIBLE (AKA ADA) PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 et seq. AND 28 C.F.R. § 35.101 et seq.) OR THE REQUIREMENTS OF THE JURISDICTION IN THE STATE WHERE THE PROJECT IS TO BE CONSTRUCTED, AND ANY AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED.
3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND CONFIRMED THAT ALL NECESSARY OR REQUIRED PERMITS HAVE BEEN OBTAINED. CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
4. THE OWNER/CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
5. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND ORDINANCES OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.
6. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF A CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICT, DISCREPANCY OR AMBIGUITY WITHIN THE GEOTECHNICAL REPORT AND RECOMMENDATIONS, PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.
7. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, IN WRITING, IMMEDIATELY IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
8. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH ANY CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE redone OR REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION OR FABRICATION OF SAME AND ENGINEER, THEREFORE, PROVIDING CONSTRUCTION WITH PRIOR AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
9. CONTRACTOR MUST REFER TO THE ARCHITECTURAL/BUILDING PLANS OF 'RECORD' FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
10. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE ENTIRE SITE PLAN AND THE LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE AND SITE ENGINEER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST.
11. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONTRACTOR.
12. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING SHORING SYSTEMS THAT MAY BE REQUIRED FOR TRENCHING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONSTRUCTED STRUCTURES AND PROPERTIES.
13. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
14. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME. TO INCLUDE, BUT NOT BE LIMITED TO, RESEEDING, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO ITS ORIGINAL CONDITION OR BETTER. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS REQUIRED FOR PERFORMING WORK IN ACCORDANCE WITH APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
15. ALL CONCRETE MUST BE AIR ENTRAINED AND HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.
16. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCORE REVISIONS WHICH MAY BE REQUIRED IN THE FIELD. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS BY WHICH THE WORK SHOWN HEREON IS TO BE PERFORMED AND THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
17. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.
18. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKERS' COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND CONSULTANTS AT A CONSTRUCTION/PRODUCT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES, JOB SITE CONDITIONS AND SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE PROJECT. THE CONTRACTOR SHALL COMPLY WITH ANY AND ALL DOCUMENTS AND COMPLIANCE WITH ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCY WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. BOHLER ENGINEERING SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND MUST BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE IN NOTE 18 FOR JOB SITE SAFETY.
19. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION FROM THE ENGINEER OF RECORD, THE CONTRACTOR DOES SO ENTIRELY AT HIS OWN RISK AND BEARS ALL COSTS ARISING FROM CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY AND CONSEQUENTIAL DAMAGES RESULTING THEREFROM. FURTHER, SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, IN ACCORDANCE WITH PARAGRAPH 19 HEREIN, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.
20. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.
21. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.
22. THE ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTORS FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE PLANS. THE CONTRACTOR MUST INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS.
23. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS. IN STRICT ACCORDANCE WITH THE PLANS AND RELATED DOCUMENTS. OWNER IS RESPONSIBLE FOR ENSURING THAT ANY AND ALL REPAIRS, MAINTENANCE AND/OR REPLACEMENT OF PHYSICAL SITE AND/OR DESIGN FEATURES, IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE SUCH PHYSICAL SITE AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
24. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.
25. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA STANDARDS.
26. CONTRACTOR AND OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.
27. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH EPA REQUIREMENTS FOR SITES WHERE ONE (1) ACRE OR MORE (UNLESS THE LOCAL JURISDICTION REQUIRES FEWER) IS DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE.
28. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED APPLICATION DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER, THE USE OF THE WORDS CERTIFY OR CERTIFICATION CONSTITUTES AN EXPRESSION OF 'PROFESSIONAL OPINION' REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL'S KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESSED OR IMPLIED.

GENERAL GRADING & UTILITY PLAN NOTES

1. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS MUST BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES MUST IMMEDIATELY BE REPORTED, IN WRITING, TO THE ENGINEER. CONSTRUCTION MUST COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THEY PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, ETC. PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR MUST CONTACT ALL UTILITIES AND/OR MUNICIPALITY TO CONFIRM THE PROPER WATER/SEWER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL NECESSARY RELOCATIONS WITH THE RESPECTIVE UTILITY COMPANIES. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY SERVICES REMAIN IN SERVICE WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.
3. IT IS THE CONTRACTORS RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT AND/OR DISCREPANCY BETWEEN THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE OR APPLICABLE CODES, REGULATIONS, LAWS, RULES, STATUTES AND/OR ORDINANCES, IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD, IN WRITING, OF SAID CONFLICT AND/OR DISCREPANCY PRIOR TO THE START OF CONSTRUCTION. CONTRACTORS FAILURE TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE CONTRACTORS FULL AND COMPLETE ACCEPTANCE OF ALL RESPONSIBILITY TO CONSTRUCT THE SITE IN ACCORDANCE WITH THE HIGHEST STANDARD OF ALL APPLICABLE CODES, REGULATIONS, LAWS, STATE AND LOCAL REGULATIONS, LAWS, STATUTES, ORDINANCES AND CODES AND, FURTHER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME.
4. THE CONTRACTOR MUST LOCATE AND CLEARLY AND UNAMBIGUOUSLY DEFINE VERTICALLY AND HORIZONTALLY ALL ACTIVE AND INACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE AND INACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
5. THE CONTRACTOR MUST FAMILIARIZE ITSELF WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
6. THE CONTRACTOR MUST INSTALL ALL STORM SEWER AND SANITARY SEWER COMPONENTS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.
7. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. GREASE TRAP LOCATIONS, AND EXACT UTILITY SERVICE SIZES. CONTRACTOR MUST REVIEW ARCHITECTURAL PLANS AND COORDINATE WITH ALL UTILITY COMPANIES FOR EXACT LOCATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALL IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS WITH JURISDICTION AND/OR CONTROL OF THE SITE, AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT/N EXISTS BETWEEN THESE SITE PLANS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, AND PRIOR TO CONSTRUCTION, RESOLVE SAME.
8. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTOR'S PRICE FOR WATER SERVICE MUST INCLUDE ALL FEES, COSTS AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE FULL AND COMPLETE WORKING SERVICE. CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.
9. THE NEW UTILITIES/SERVICES INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC., ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
10. SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. WORK REQUIRED TO BE DONE "OFF-PLAN" IS TO BE DONE AT NO ADDITIONAL COST TO THE OWNER.
11. ALL FILL PLACEMENT AND COMPACTION MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND MUST BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS, FILL AND COMPACTION MUST, AT A MINIMUM, COMPLY WITH THE STATE DOT REQUIREMENTS OF ALL MUNICIPALITIES AND CONSULTANT SHALL HAVE NO LIABILITY OR RESPONSIBILITY FOR OR AS RELATED TO FILL, COMPACTION AND BACKFILL. FURTHER, CONTRACTOR IS FULLY RESPONSIBLE FOR EARTHWORK BALANCE.
12. THE CONTRACTOR MUST COMPLY TO THE FULLEST EXTENT, WITH THE LATEST OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF ALL APPLICABLE REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING PROCEDURES AND CONSULTANT SHALL HAVE NO RESPONSIBILITY FOR OR AS RELATED TO OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES.
13. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES, AND EXCEPT FOR EDGE OF BUTT JOINTS, MUST EXTEND TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
14. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES.
15. DURING THE INSTALLATION OF SANITARY SEWER, STORM SEWER, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION INFORMATION. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE FROM THE INFORMATION CONTAINED IN THE UTILITY PLANS. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE DRAWINGS ON UTILITY PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER AT THE COMPLETION OF WORK.
16. WHEN THE SITE IMPROVEMENT PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING BUT NOT LIMITED TO, SANITARY SEWER, STORM SEWER, WATER, GAS, ELECTRIC, TELEPHONE, CABLE TV, ETC., TO THE LIMIT OF DISTURBANCE AS SHOWN ON THE PLANS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE, SAME LOCATIONS WITH A LOG, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF THE DRAWINGS ON UTILITY PLAN, WHICH CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF THE WORK.
17. THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER, IN WRITING, OF ANY DISCREPANCIES IN THE FIELD CONDITIONS FROM THE INFORMATION SHOWN ON THE PLANS. IN THE EVENT OF ANY DISCREPANCIES, WORK AND REQUIREMENTS OF EXISTING TOPOGRAPHY LIMIT GRADES, TO PROJECT POINTS, CONTRACTOR MUST IMMEDIATELY NOTIFY, IN WRITING TO THE ENGINEER, ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PRIOR NOTIFICATION, MUST BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS THE DESIGN ENGINEER FOR ANY DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM SAME.
18. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY AT FINISHED GRADE UNLESS LOCAL ASPHALT GRADE CURB DETAIL IS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 5.70% GUTTER GRADE ALONG CURB FACE. IT IS CONTRACTOR'S OBLIGATION TO ENSURE THAT PROPOSED PERFORMANCE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION OF SAME.
19. IN THE EVENT OF DISCREPANCIES AND/OR CONFLICTS BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE AND CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROJECT ENGINEER, IN WRITING, OF ANY DISCREPANCIES AND/OR CONFLICTS.
20. CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING ANY WORK.
21. WHERE RETAINING WALLS (WHETHER OR NOT THEY MEET THE JURISDICTIONAL DEFINITION) ARE IDENTIFIED ON PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTING/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED HEREON AND ARE TO BE DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS.
22. STORM DRAINAGE PIPE LABELED AS INDICATED HEREIN STRUCTURES: ALL STORM SEWER PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH BUTT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M294 AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR BELL TIGHT JOINT. PVC PIPE FOR ROOF DRAIN CONNECTIONS MUST BE SCH 40 OR SCHEDULE 40 UNLESS INDICATED OTHERWISE.
23. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
   - FOR PIPES LESS THAN 10'-0" DEEP: PVC-SDR35, CAULKED JOINTS PER ASTM D3034
   - FOR PIPES MORE THAN 10'-0" DEEP: POLYVINYL CHLORIDE (


PROPOSED AIRGAS GARAGE AND OFFICES (8,950 sf)
BUILDING No.19
"NORTHEASTERN INDUSTRIAL PARK"
121.0'
74.0'
NOW OR FORMERLY NORTHEASTERN IP HOLDINGS, LLC TAX LOT 50-01-14.11
NOW OR FORMERLY NORTHEASTERN IP HOLDINGS, INC TAX LOT 50-01-14.21
NOW OR FORMERLY IIS HIFI, LLC TAX LOT 50-01-14.13
NOW OR FORMERLY IIS HIFI, LLC TAX LOT 50-01-14.13
PROPOSED LEASE AREA
PROPOSED STORAGE TANKS
EXISTING RAILROAD TRACKS
CHAIN LINK FENCE
OVERHEAD UTILITY LINES
UTILITY POLE
GUY WIRE
MANHOLE RIM=319.82'
MANHOLE RIM=319.75'
BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND DEVELOPMENT
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
FEASIBILITY STUDIES
TRANSPORTATION SERVICES
REVISIONS
REV
DATE
COMMENT
ISSUED BY
Know what's below. Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.
PERMIT SET
PROJECT No.: B210173
DRAWN BY: SC
CHECKED BY: SMV
DATE: 08/03/2021
CAD I.D.: B210173SSS
PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
Airgas
STORAGE & DISTRIBUTION FACILITY
MAP 50, BLOCK 1, LOT 14.21
2 VAN BUREN BOULEVARD
GUILDERLAND CENTER
ALBANY COUNTY, NEW YORK
BOHLER
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com
W.D. GOEBEL
PROFESSIONAL ENGINEER
SHEET TITLE:
PROJECT PLAN
SHEET NUMBER:
C-301
ORG. DATE - 08/03/2021


ZONING ANALYSIS TABLE
ZONING DISTRICT
I - INDUSTRIAL
REQUIRED PERMIT
SPECIAL USE PERMIT
ZONE CRITERIA
REQUIRED
EXISTING
PROPOSED
MIN. LOT AREA
20,000 SF
299.06 ACRES
UNCHANGED
MIN. LOT WIDTH
100 FT
4,000' ±
UNCHANGED
MIN. FRONT SETBACK
45 FT
300' ±
UNCHANGED
MIN. SIDE SETBACK
25 FT
70'±
UNCHANGED
MIN. REAR SETBACK
25 FT
600'±
UNCHANGED
MAX. ACCESSORY BUILDING HEIGHT
20 FT
67'±
40'-9"(V)
MAX. IMPER. COVERAGE
70%
100
UNCHANGED
PARKING SPACES
N/S
0
15
ACCESS. PARKING SPACES
1
0
1
PROJECT PLAN
N.T.S.
SITE INFORMATION
1. APPLICANT: AIRGAS 259 N RADNOR CHESTER ROAD RADNOR, PA 19087
2. OWNER: NORTHEASTERN IP HOLDINGS, INC. C/O - GENERAL COUNSEL 220 HARBORSIDE DRIVE SUITE 300 SCHENECTADY, NEW YORK, 12305
3. PARCEL: 50-01-14.21 2 VAN BUREN BOULEVARD GUILDERLAND CENTER ALBANY COUNTY, NEW YORK STATE
NOW OR FORMERLY NORTHEASTERN IP HOLDINGS, INC.
TAX LOT 50-01-14.21
TRACTOR TRAILER PARKING
EMPLOYEE PARKING
TRAILER STORAGE
STORAGE CONTAINERS
PROPOSED 9,0000 GAL NITROGEN STORAGE TANK
PROPOSED ARGON STORAGE TANKS (TYP. OF 10)
CENTURION TRUCK SCALE 200,000# CAPACITY MANUFACTURED BY B-TEK SCALES LLC
PROPOSED 22'x27' CONCRETE PAD
PROPOSED TRANSFORMER PAD
PROPOSED ACCESSIBLE PARKING SIGN
PROPOSED NO PARKING SIGN
PROPOSED STRIPING
PROPOSED 16' TALL LED POLE LIGHT (TYP.)
PROPOSED CATCH BASIN
CONCRETE PAD 10' x 10' LEVEL APPROACH
BOLLARDS 4.0' O.C.
CONCRETE PAD 35' x 70'
G.C. TO CLEAN AND REPAIR CATCH BASINS (TYP.)
MILL & SHIM ASPHALT IN LOCATIONS OF STANDING WATER
PROPOSED SWING GATE (BY LANDLORD)
PROPOSED ROLLER GATE (BY LANDLORD)
PROPOSED CHAIN LINK FENCE (BY LANDLORD)
PROPOSED LEASE LINE
EXISTING CHAIN LINK FENCE (TO BE REPAIRED BY LANDLORD)
CHAIN LINK FENCE (TO REMAIN)
ASPHALT PAVEMENT (TO REMAIN)
RAILROAD TRACKS (TO REMAIN)
CB (TO REMAIN)
UTILITY POLE
GUY WIRE
OVERHEAD UTILITY LINES
G.C. TO MILL AND SHIM ASPHALT IN LOCATIONS OF STANDING WATER TO PROVIDE POSITIVE DRAINAGE
BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
LAND DEVELOPMENT CONSULTANTS
SUSTAINABLE DESIGN
PERMITTING & APPROVALS
TRANSPORTATION SERVICES
REVISIONS
REV | DATE | COMMENT
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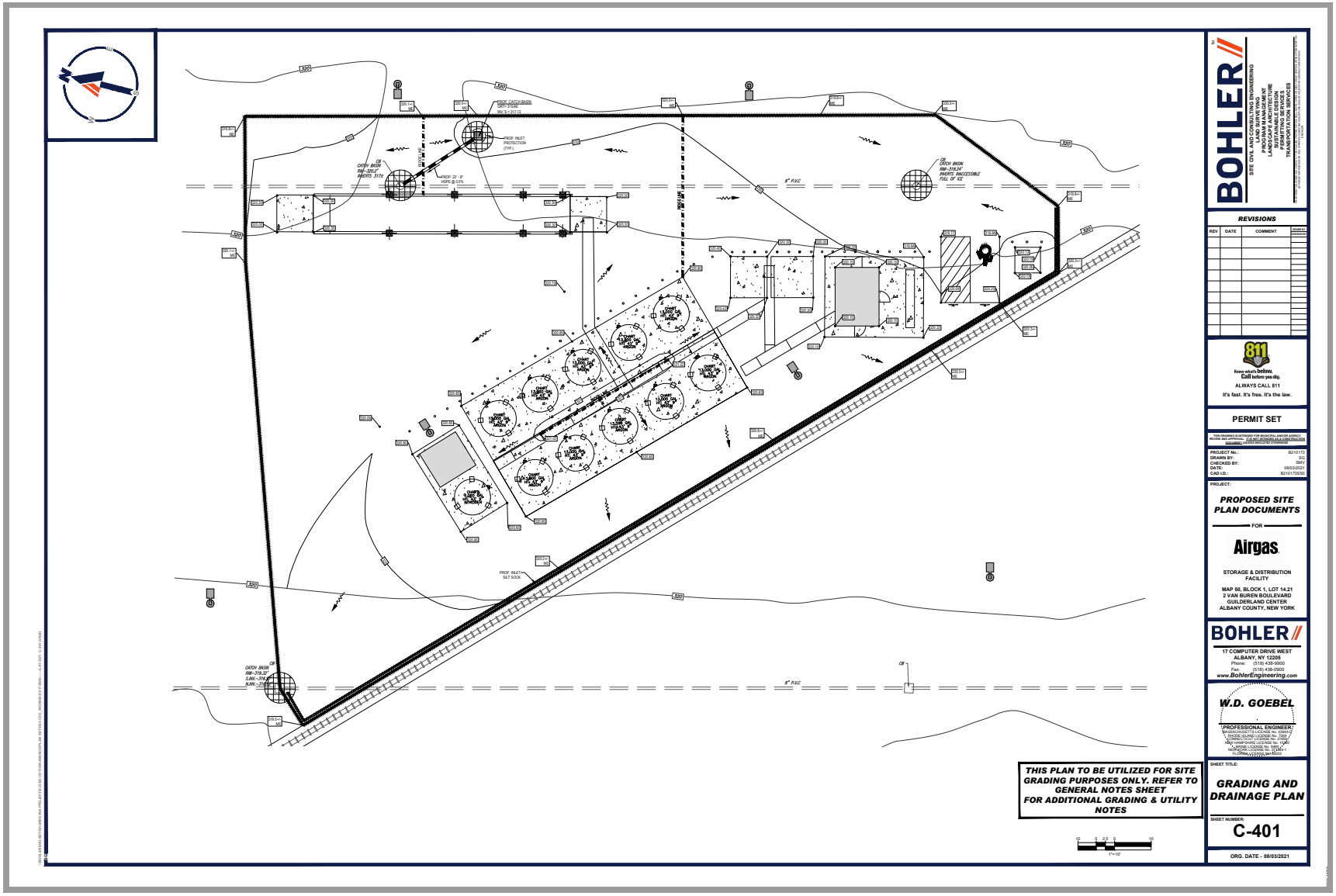
PROJECT No.: B210173
DRAWN BY: SC
CHECKED BY: SMV
DATE: 08/03/2021
CAD I.D.: B210173SSS
PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
Airgas
STORAGE & DISTRIBUTION FACILITY
MAP 50, BLOCK 1, LOT 14.21
2 VAN BUREN BOULEVARD
GUILDERLAND CENTER
ALBANY COUNTY, NEW YORK
BOHLER
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com
W.D. GOEBEL
PROFESSIONAL ENGINEER
SHEET TITLE:
SITE LAYOUT PLAN
SHEET NUMBER:
C-302
ORG. DATE - 08/03/2021


THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES
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REVISIONS
REV
DATE
COMMENT
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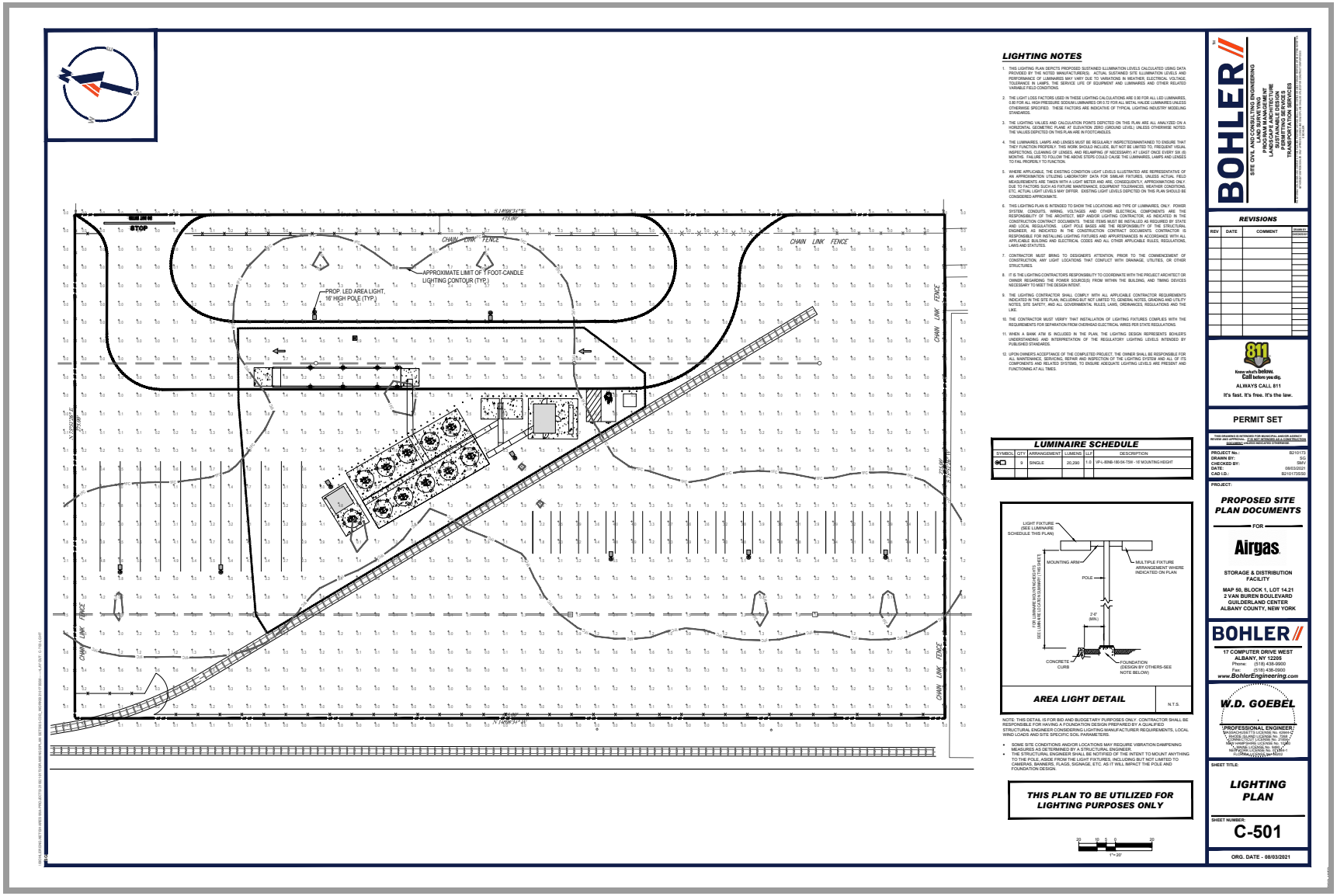
DRAWN BY: SC
CHECKED BY: SMV
DATE: 08/03/2021
CAD I.D.: B210173S5
PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
Airgas
STORAGE & DISTRIBUTION FACILITY
MAP 50, BLOCK 1, LOT 14.21
2 VAN BUREN BOULEVARD
GUILDERLAND CENTER
ALBANY COUNTY, NEW YORK
BOHLER
17 COMPUTER DRIVE WEST
ALBANY, NY 12205
Phone: (518) 438-9900
Fax: (518) 438-0900
www.BohlerEngineering.com
W.D. GOEBEL
PROFESSIONAL ENGINEER
SHEET TITLE:
GRADING AND DRAINAGE PLAN
SHEET NUMBER:
C-401
ORG. DATE - 08/03/2021


STOP
CHAIN LINK FENCE
PROP. LED AREA LIGHT, 16' HIGH POLE (TYP.)
APPROXIMATE LIMIT OF 1 FOOT-CANDLE LIGHTING CONTOUR (TYP.)
LIGHTING NOTES
1. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
2. THE LIGHT LOSS FACTORS USED IN THESE LIGHTING CALCULATIONS ARE 0.90 FOR ALL LED LUMINAIRES, 0.80 FOR ALL HIGH PRESSURE SODIUM LUMINAIRES OR 0.72 FOR ALL METAL HALIDE LUMINAIRES UNLESS OTHERWISE SPECIFIED. THESE FACTORS ARE INDICATIVE OF TYPICAL LIGHTING INDUSTRY MODELING STANDARDS.
3. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
4. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT NOT BE LIMITED TO, FREQUENT VISUAL INSPECTIONS, CLEANING OF LENSES, AND RELAMPING IF NECESSARY AT LEAST ONCE EVERY SIX (6) MONTHS. FAILURE TO FOLLOW THE ABOVE STEPS COULD CAUSE THE LUMINAIRES, LAMPS AND LENSES TO FAIL PROPERLY TO FUNCTION.
5. WHERE APPLICABLE, THE EXISTING CONDITION LIGHT LEVELS ILLUSTRATED ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES, UNLESS ACTUAL FIELD MEASUREMENTS ARE TAKEN WITH A LIGHT METER AND ARE, CONSEQUENTLY, APPROXIMATIONS ONLY. EXISTING LIGHT LEVELS IN FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC. ACTUAL LIGHT LEVELS MAY DIFFER. EXISTING LIGHT LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
6. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. LIGHT POLE BASES ARE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
7. CONTRACTOR MUST BRING TO DESIGNERS ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
8. IT IS THE LIGHTING CONTRACTORS RESPONSIBILITY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER REGARDING THE POWER SOURCE(S) FROM WITHIN THE BUILDING, AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT.
9. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
10. THE CONTRACTOR MUST VERIFY THAT INSTALLATION OF LIGHTING FIXTURES COMPLIES WITH THE REQUIREMENTS FOR SEPARATION FROM OVERHEAD ELECTRICAL WIRES PER STATE REGULATIONS.
11. WHEN A BANK ATM IS INCLUDED IN THE PLAN, THE LIGHTING DESIGN REPRESENTS BOHLER'S UNDERSTANDING AND INTERPRETATION OF THE REGULATORY LIGHTING LEVELS INTENDED BY PUBLISHED STANDARDS.
12. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
LUMINAIRE SCHEDULE
SYMBOL | QTY | ARRANGEMENT | LUMENS | LLF | DESCRIPTION
9 | SINGLE | 20,250 | 1.0 | VPL-B2NB-18D-5K-T5W - 16' MOUNTING HEIGHT
LIGHT FIXTURE (SEE LUMINAIRE SCHEDULE THIS PLAN)
MOUNTING ARM
POLE
MULTIPLE FIXTURE ARRANGEMENT WHERE INDICATED ON PLAN
2'-0" (MIN.)
CONCRETE CURB
FOUNDATION (DESIGN BY OTHERS-SEE NOTE BELOW)
AREA LIGHT DETAIL
N.T.S.
NOTE: THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A FOUNDATION DESIGN PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS AND SITE SPECIFIC SOIL PARAMETERS.
• SOME SITE CONDITIONS AND/OR LOCATIONS MAY REQUIRE VIBRATION DAMPENING MEASURES AS DETERMINED BY A STRUCTURAL ENGINEER.
• THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING TO THE POLE, ASIDE FROM THE LIGHT FIXTURES, INCLUDING BUT NOT LIMITED TO CAMERAS, BANNERS, FLAGS, SIGNAGE, ETC. AS IT WILL IMPACT THE POLE AND FOUNDATION DESIGN.
THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY
1"=20'
BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
LAND DEVELOPMENT CONSULTING
SUSTAINABLE DESIGN
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PROJECT No.: B210173
DRAWN BY: SC
CHECKED BY: SMV
DATE: 08/03/2021
CAD I.D.: B210173SSI
PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
Airgas
STORAGE & DISTRIBUTION FACILITY
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ALBANY COUNTY, NEW YORK
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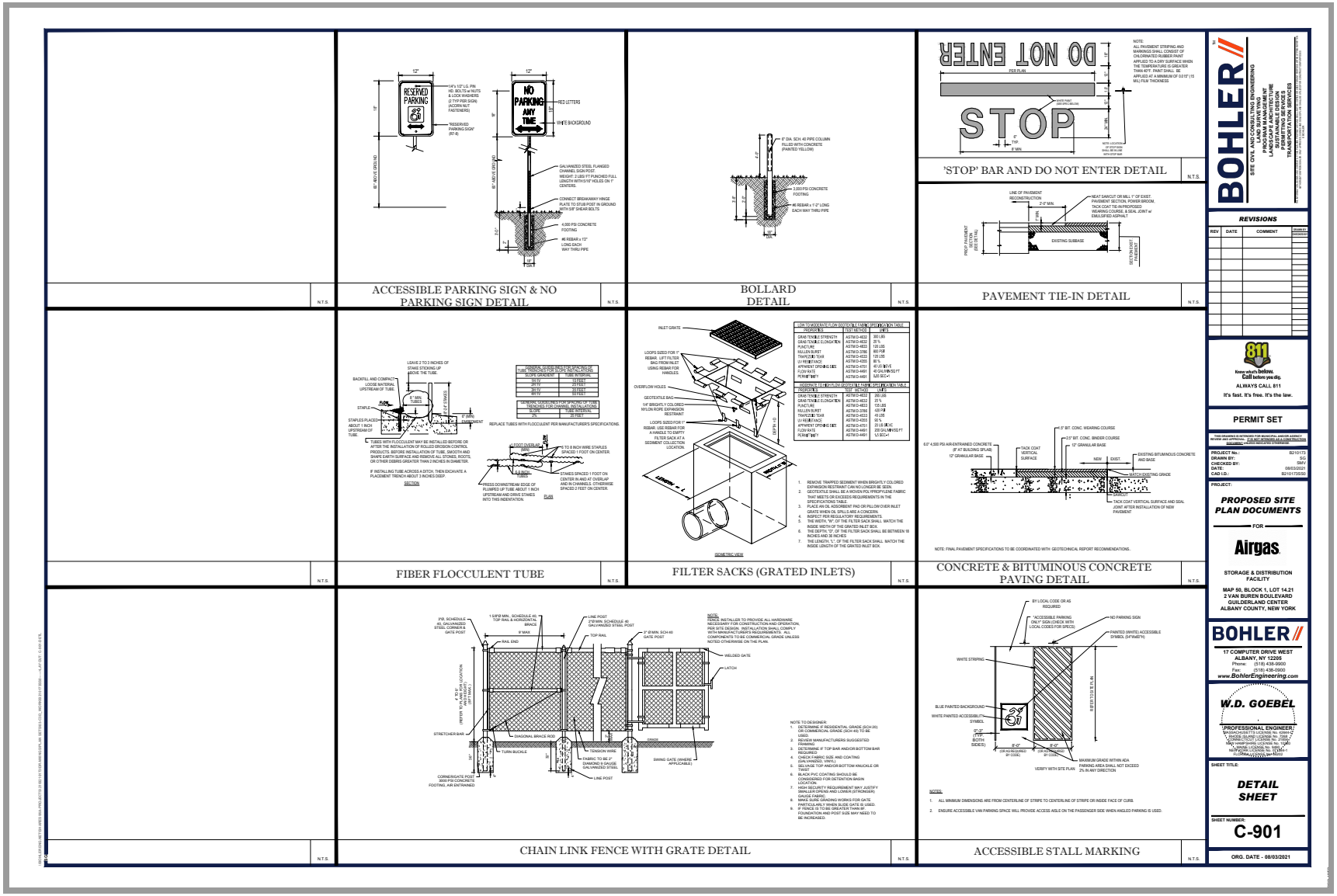
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 43944
CONNECTICUT LICENSE No. 29,
COLORADO LICENSE No. 37886
NEW HAMPSHIRE LICENSE No. 19240
NEW YORK LICENSE No. 087441
NORTH DAKOTA LICENSE No. PE-10764
FLORIDA LICENSE No. 86602
SHEET TITLE:
LIGHTING PLAN
SHEET NUMBER:
C-501
ORG. DATE - 08/03/2021


RESERVED PARKING
NO PARKING ANY TIME
ACCESSIBLE PARKING SIGN & NO PARKING SIGN DETAIL
BOLLARD DETAIL
DO NOT ENTER
STOP
'STOP' BAR AND DO NOT ENTER DETAIL
PAVEMENT TIE-IN DETAIL
FIBER FLOCCULENT TUBE
FILTER SACKS (GRATED INLETS)
CONCRETE & BITUMINOUS CONCRETE PAVING DETAIL
CHAIN LINK FENCE WITH GRATE DETAIL
ACCESSIBLE STALL MARKING
BOHLER
PROPOSED SITE PLAN DOCUMENTS
Airgas
STORAGE & DISTRIBUTION FACILITY
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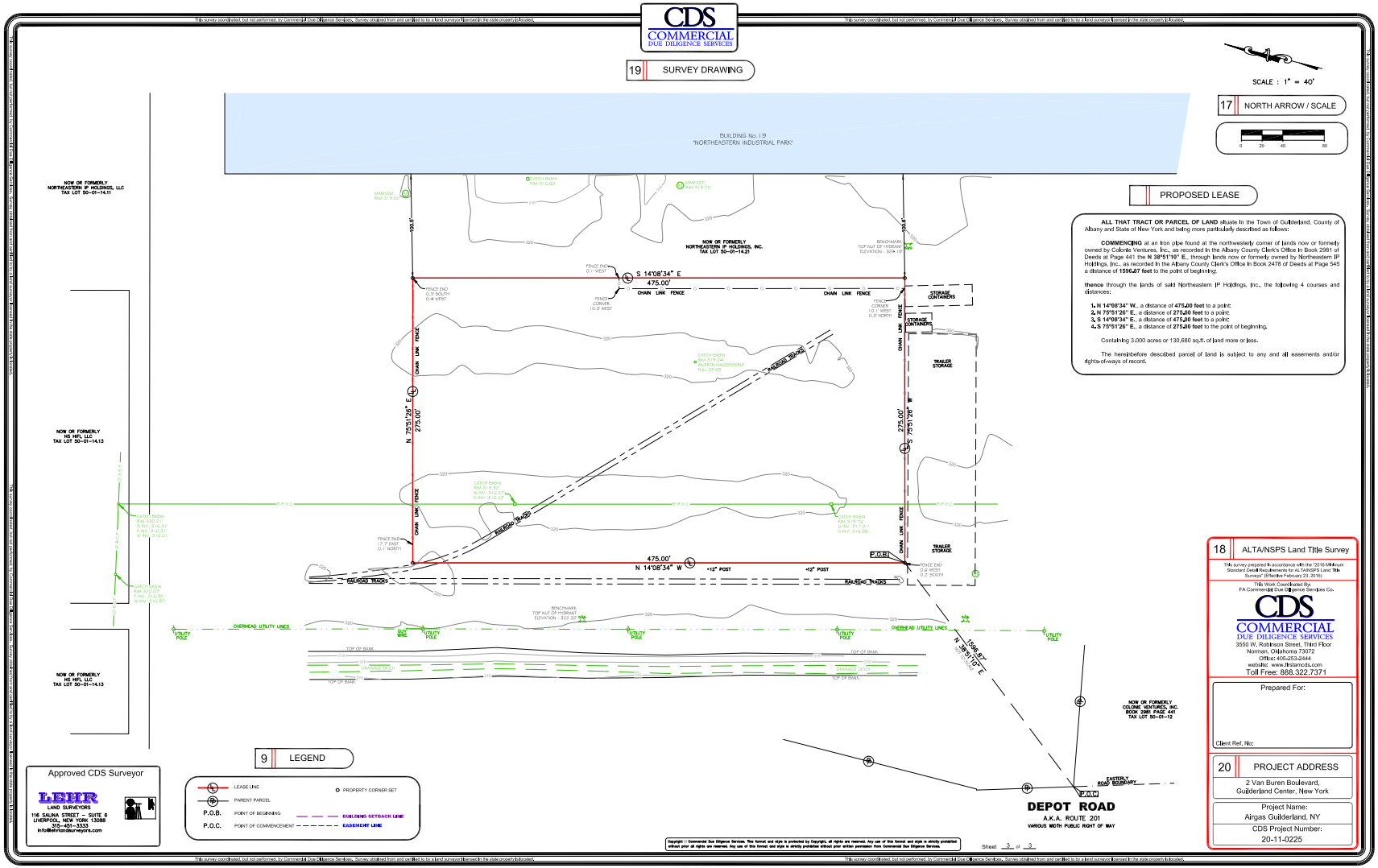
2 VAN BUREN BOULEVARD
GUILDERLAND CENTER
ALBANY COUNTY, NEW YORK
PERMIT SET
DETAIL SHEET
C-901


CDS
COMMERCIAL
DUE DILIGENCE SERVICES
19 SURVEY DRAWING
SCALE : 1" = 40'
17 NORTH ARROW / SCALE
PROPOSED LEASE
ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Guilderland, County of Albany and State of New York and being more particularly described as follows:
COMMENCING at an iron pipe found at the northwesterly corner of lands now or formerly owned by Colonie Ventures, Inc., as recorded in the Albany County Clerk's Office in Book 2981 of Deeds at Page 441 the N 38°51'10" E, through lands now or formerly owned by Northeastern IP Holdings, Inc., as recorded in the Albany County Clerk's Office in Book 2478 of Deeds at Page 545 a distance of 1596.87 feet to the point of beginning;
thence through the lands of said Northeastern IP Holdings, Inc., the following 4 courses and distances:
1. N 14°08'34" W, a distance of 475.00 feet to a point;
2. N 75°51'26" E, a distance of 275.00 feet to a point;
3. S 14°08'34" E, a distance of 475.00 feet to a point;
4. S 75°51'26" E, a distance of 275.00 feet to the point of beginning.
Containing 3.000 acres or 130,680 sq.ft. of land more or less.
The hereinbefore described parcel of land is subject to any and all easements and/or rights-of-ways of record.
BUILDING No. 19
"NORTHEASTERN INDUSTRIAL PARK"
NOW OR FORMERLY NORTHEASTERN IP HOLDINGS, LLC TAX LOT 50-01-14.11
NOW OR FORMERLY NORTHEASTERN IP HOLDINGS, INC. TAX LOT 50-01-14.21
NOW OR FORMERLY HS HIFI, LLC TAX LOT 50-01-14.13
NOW OR FORMERLY HS HIFI, LLC TAX LOT 50-01-14.13
NOW OR FORMERLY COLONIE VENTURES, INC. BOOK 2981 PAGE 441 TAX LOT 50-01-12
S 14°08'34" E
475.00'
N 75°51'26" E
275.00'
S 75°51'26" W
275.00'
N 14°08'34" W
475.00'
P.O.B.
P.O.C.
1596.87'
N 38°51'10" E
CHAIN LINK FENCE
STORAGE CONTAINERS
TRAILER STORAGE
RAILROAD TRACKS
OVERHEAD UTILITY LINES
UTILITY POLE
DRAINAGE DITCH
TOP OF BANK
EASTERLY ROAD BOUNDARY
DEPOT ROAD
A.K.A. ROUTE 201
VARIOUS WIDTH PUBLIC RIGHT OF WAY
9 LEGEND
LEASE LINE
PARENT PARCEL
POINT OF BEGINNING
POINT OF COMMENCEMENT
PROPERTY CORNER SET
BUILDING SETBACK LINE
EASEMENT LINE
Approved CDS Surveyor
LEHR
LAND SURVEYORS
116 SALINA STREET – SUITE 6
LIVERPOOL, NEW YORK 13088
315-451-3333
info@lehrlandsurveyors.com
18 ALTA/NSPS Land Title Survey
This survey prepared in accordance with the "2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys" (Effective February 23, 2016)
This Work Coordinated By:
FA Commercial Due Diligence Services Co.
CDS
COMMERCIAL
DUE DILIGENCE SERVICES
3550 W. Robinson Street, Third Floor
Norman, Oklahoma 73072
Office: 405-253-2444
website: www.fnstamcds.com
Toll Free: 888.322.7371
Prepared For:
Client Ref. No:
20 PROJECT ADDRESS
2 Van Buren Boulevard,
Guilderland Center, New York
Project Name:
Airgas Guilderland, NY
CDS Project Number:
20-11-0225
Sheet 3 of 3
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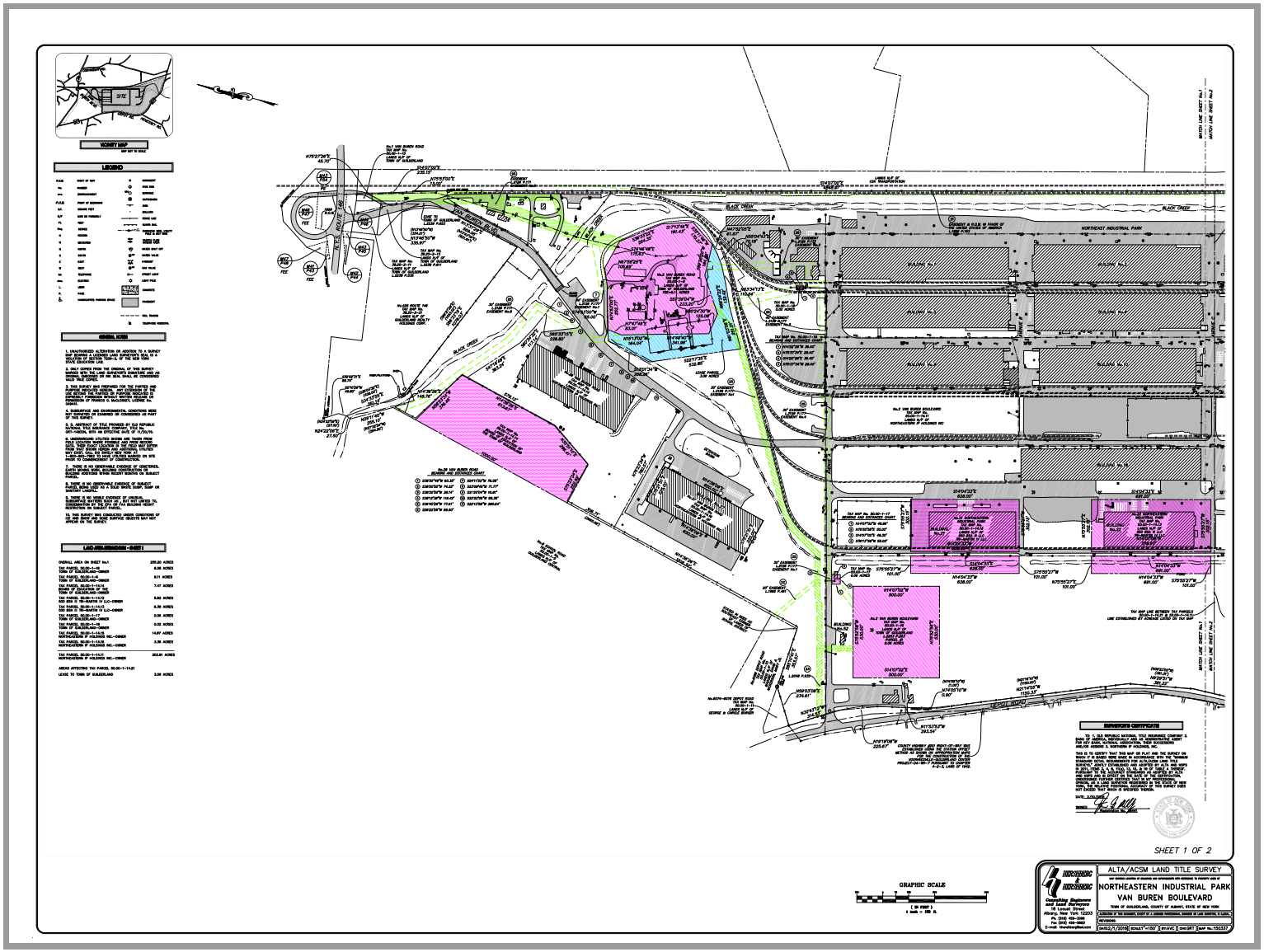
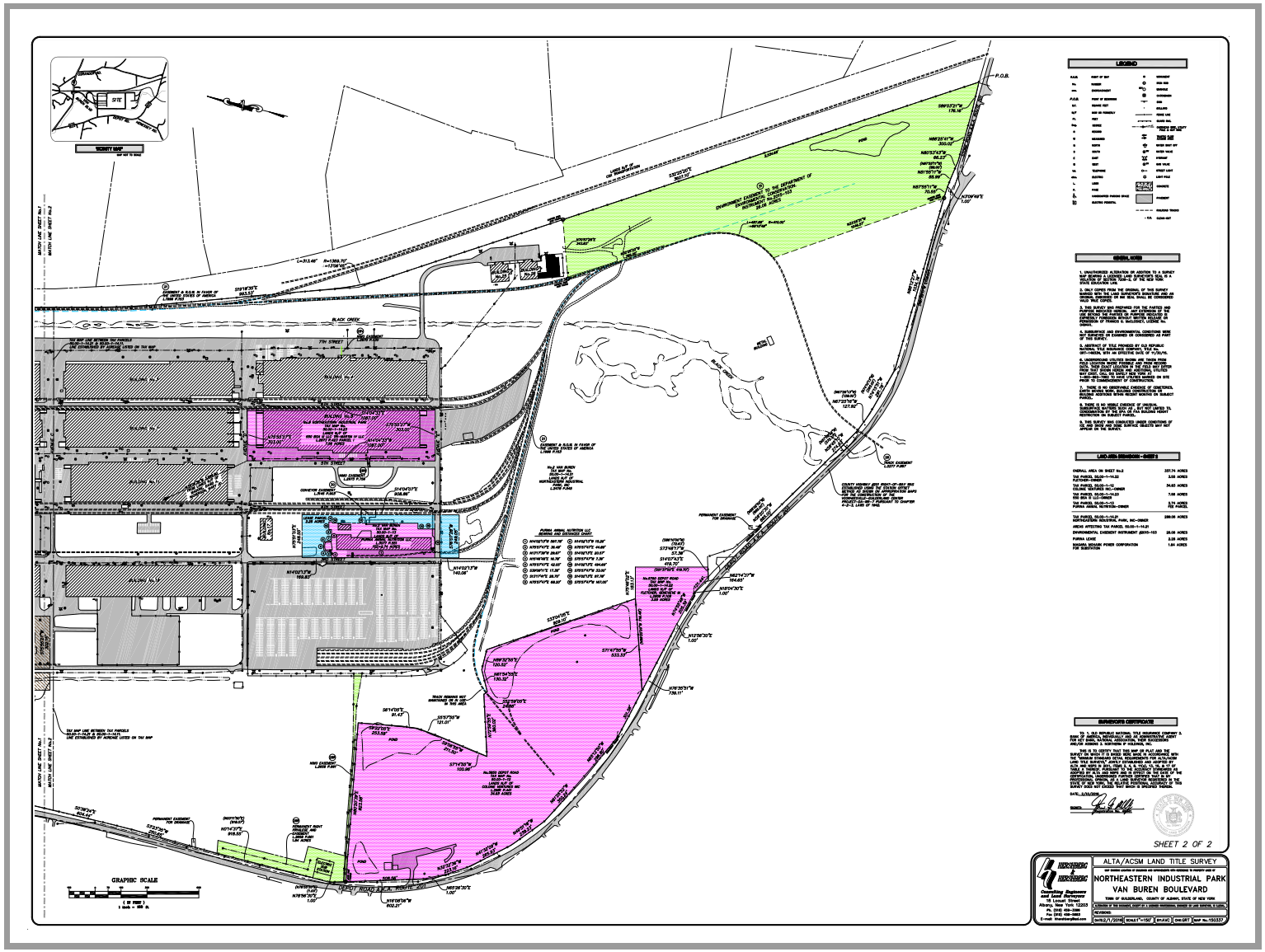

ALTA/ACSM LAND TITLE SURVEY
NORTHEASTERN INDUSTRIAL PARK
VAN BUREN BOULEVARD
TOWN OF GUILDERLAND, COUNTY OF ALBANY, STATE OF NEW YORK
SHEET 1 OF 2
GRAPHIC SCALE


LEGEND
GENERAL NOTES
LAND AREA BREAKDOWN - SHEET 2
SURVEYOR'S CERTIFICATE
SHEET 2 OF 2
GRAPHIC SCALE
ALTA/ACSM LAND TITLE SURVEY
NORTHEASTERN INDUSTRIAL PARK
VAN BUREN BOULEVARD

WHITEMAN OSTERMAN & HANNA LLP
Attorneys at Law
www.woh.com

One Commerce Plaza
Albany, New York 12260
518.487.7600

Charles J. Gottlieb
Partner
518.487.7612 phone
cgottlieb@woh.com

October 5, 2021

VIA FEDERAL EXPRESS AND EMAIL

Chairman Remmert and Members
Zoning Board of Appeals
Guilderland Town Hall
209 Western Tpk.
Guilderland, NY 12084

Re: Airgas USA, LLC – Proposed Distribution Facility
Special Use Permit and Area Variance Application
Project Site: Northeastern Industrial Park (Rt. 146), Town of Guilderland

Dear Chairman Remmert and Members of the Zoning Board of Appeals:

Our firm represents Airgas USA, LLC ("Airgas" or "Applicant") with respect to its pending application to the Town of Guilderland Zoning Board of Appeals ("ZBA"). The Applicant is seeking a special use permit for its proposed distribution facility (the "Project") within the Northeastern Industrial Park, which is more thoroughly explained in our August 4, 2021 submission to the ZBA. The Applicant is also seeking a height variance to permit ten (10) storage/distribution tanks, which are 46' 9" feet in height, where 20 feet is permitted for accessory structures. *See* Town of Guilderland Zoning Code § 280-24(A)(2).

On September 22, 2021, the Planning Board adopted a positive referral to the ZBA and recommended the following: (1) the Applicant prepare a visual assessment of the proposed storage tanks, and (2) the Applicant provide an update on the current traffic at the Northeastern Industrial Park and assess any potential traffic impacts.

Accordingly, Airgas's engineering consultant, Bohler Engineering, has prepared a traffic assessment finding that, "[b]ased upon the previous truck traffic counts and the documented decline in truck traffic per day, the proposed use and low anticipated traffic demands, it is anticipated that the existing roadway has adequate capacity to service the project site and would

not result in the need for any improvements to the existing access drives." *See* **Exhibit A** [Bohler Memorandum].

In addition, Airgas has prepared a visual assessment of the proposed storage tanks from residential receptors along Depot Road. *See* **Exhibit B** [Airgas Visual Assessment]. As you can see from **Exhibit B**, the proposed storage tanks will hardly be seen from nearby residential receptors, which are at a great distance from the Project Site. Further, as demonstrated by **Exhibit B**, the Project is not the tallest structure within the Northeastern Industrial Park and blends with the other industrial uses within the park.

In furtherance of this application, we respectfully submit twelve (12) copies of the instant letter with the following exhibits:

Exhibit A: Bohler Engineering Traffic Memorandum, dated September 28, 2021; and
Exhibit B: Storage Tank Visual Assessment, prepared by Bohler Engineering.

Please advise if additional copies are required. We look forward to working with the Town to advance the Project. Please do not hesitate to contact my office with any questions.

Very Truly Yours,

/s/ *Charles J. Gottlieb*

Charles J. Gottlieb

Enclosures

cc: Steve Vukas, Bolher Engineering (*via email*)
Susan R. Miller, Esq., Airgas, Inc. (*via email*)
David R. Everett, Esq., Whiteman, Osterman & Hanna, LLP (*via email*)

Exhibit A

Traffic Memorandum
Proposed Distribution Facility
Northeastern Industrial Park (Rt. 146), Town of Guilderland
September 28, 2021

Introduction

The applicant, Airgas USA, LLC "Airgas" is proposing to develop a portion of the ±255-acre property located at 2 Van Buren Boulevard in the Town of Guilderland, New York. As a part of the project, Airgas is proposing to construct a distribution facility. Proposed construction will include development of ten (10) storage/distribution tanks for argon, which will be serviced by the existing rail line. Access to the site is currently via an access drive off Van Buren Boulevard, as depicted on the "Site Plan Documents", prepared by Bohler Engineering, dated August 3, 2021.

The purpose of this memo is to provide a traffic assessment summary for the referenced project. The proposed use, and the related traffic impact, are as discussed in this memo.

Existing Conditions

The existing ±255-acre site is currently developed as the Northeastern Industrial Park with various buildings and industrial uses. Access to the site is currently provided via Van Buren Boulevard which is off of New York State Route 146. According to an Environmental Impact Study performed by Clough, Harbour & Associates in 2005, the traffic study portion indicated that the average daily truck traffic was approximately 700 per day. Subsequently, in 2013, the Northeastern Industrial Park's Security Department recorded actual truck counts for the months of July & August 2013 to be approximately 590 per day. The current daily truck traffic count is approximately 400 per day.

Proposed Project

The Airgas proposal will be on an approximately 3-acre site within the Industrial Park, which is completely paved and currently used for storage (the "Project Site"). Airgas is proposing a distribution facility on the Project Site that would include ten (10) storage/distribution tanks for argon, which will be serviced by the existing rail line (the "Facility"). The Facility will also include the use of an existing building within the Industrial Park for a 2-bay truck garage, offices, restrooms, and other accessory uses to accommodate the Facility. While the proposed storage/distribution tanks will be for argon, the Facility will be available to all Airgas operations, which will include but it not limited to the direct transfer (rail to truck) of carbon dioxide without storage of the same.

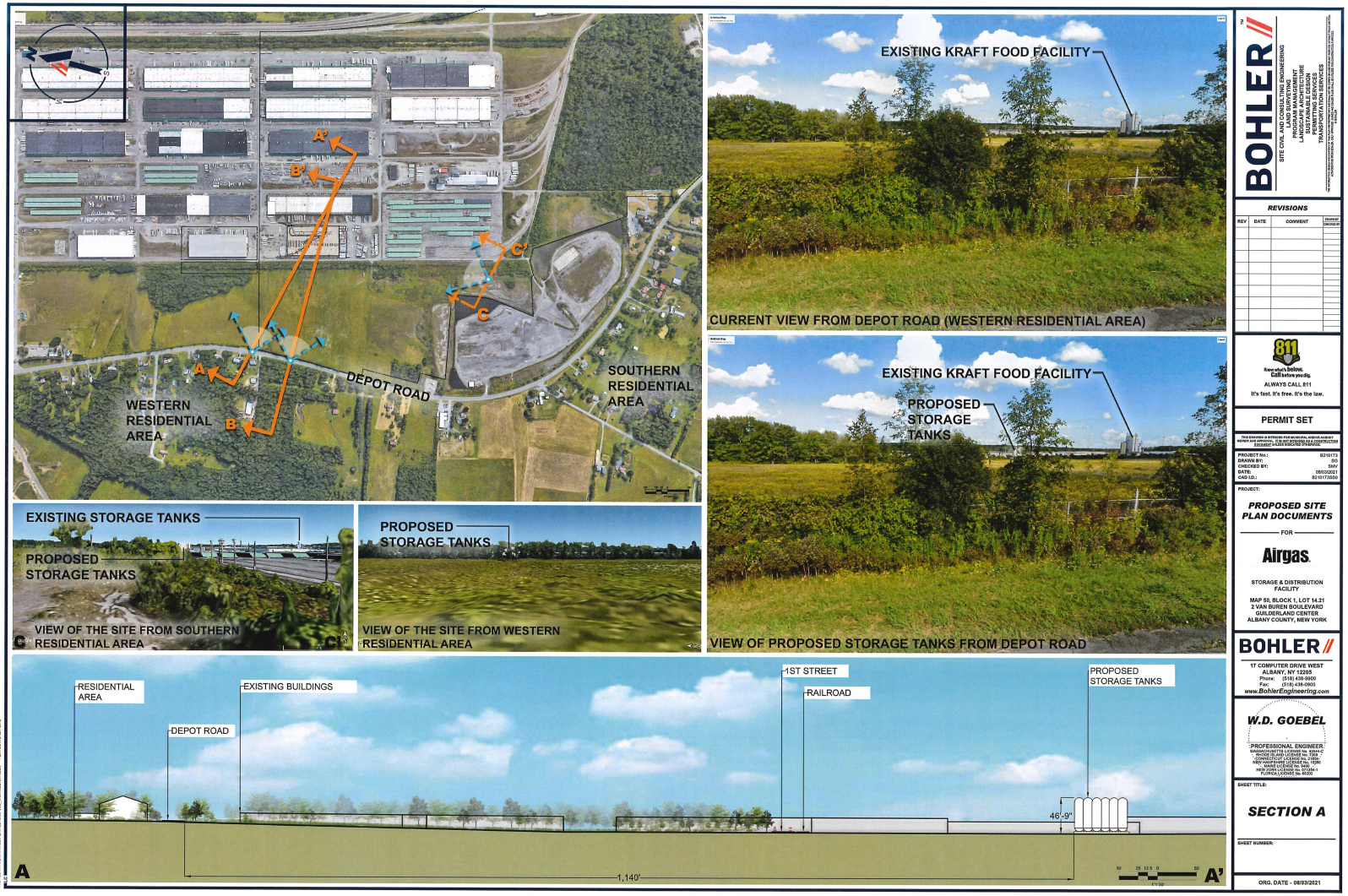
It is anticipated the Facility will include 1 full time employee with up to 6 truck drivers utilizing the site per day. The Facility will experience 2-6 trucks a day.

Conclusion

Based on the site use, it is anticipated that the total one-way trips from the proposed project will not exceed ±6 trips on a given day. These trips are anticipated to be distributed through the day and as such it is anticipated that one-way trips from the site will be significantly lower during "peak hours" given the unique use of the site. Based upon the previous truck traffic counts and the documented decline in truck traffic per day, the proposed use and low anticipated traffic demands, it is anticipated that the existing roadway has adequate capacity to service the project site and would not result in the need for any improvements to the existing access drives.

BOHLER

Exhibit B


A
A'
B
B'
C
C'
WESTERN RESIDENTIAL AREA
DEPOT ROAD
SOUTHERN RESIDENTIAL AREA
EXISTING KRAFT FOOD FACILITY
CURRENT VIEW FROM DEPOT ROAD (WESTERN RESIDENTIAL AREA)
EXISTING KRAFT FOOD FACILITY
PROPOSED STORAGE TANKS
VIEW OF PROPOSED STORAGE TANKS FROM DEPOT ROAD
EXISTING STORAGE TANKS
PROPOSED STORAGE TANKS
VIEW OF THE SITE FROM SOUTHERN RESIDENTIAL AREA
PROPOSED STORAGE TANKS
VIEW OF THE SITE FROM WESTERN RESIDENTIAL AREA
RESIDENTIAL AREA
DEPOT ROAD
EXISTING BUILDINGS
1ST STREET
RAILROAD
PROPOSED STORAGE TANKS
46'-9"
1,140'
A
A'
BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROJECT MANAGEMENT
LANDSCAPE ARCHITECTURE
PLANNING
PERMITTING SERVICES
TRANSPORTATION SERVICES
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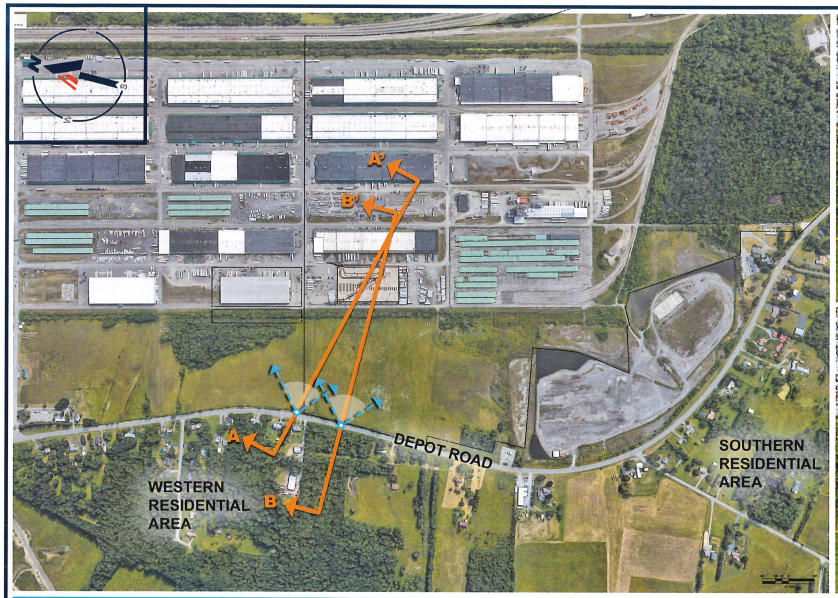
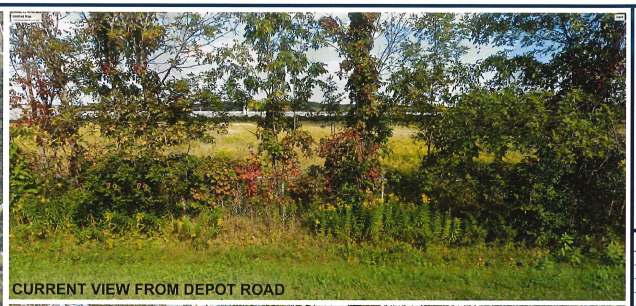
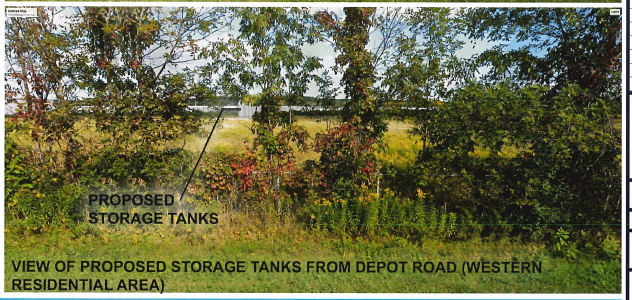
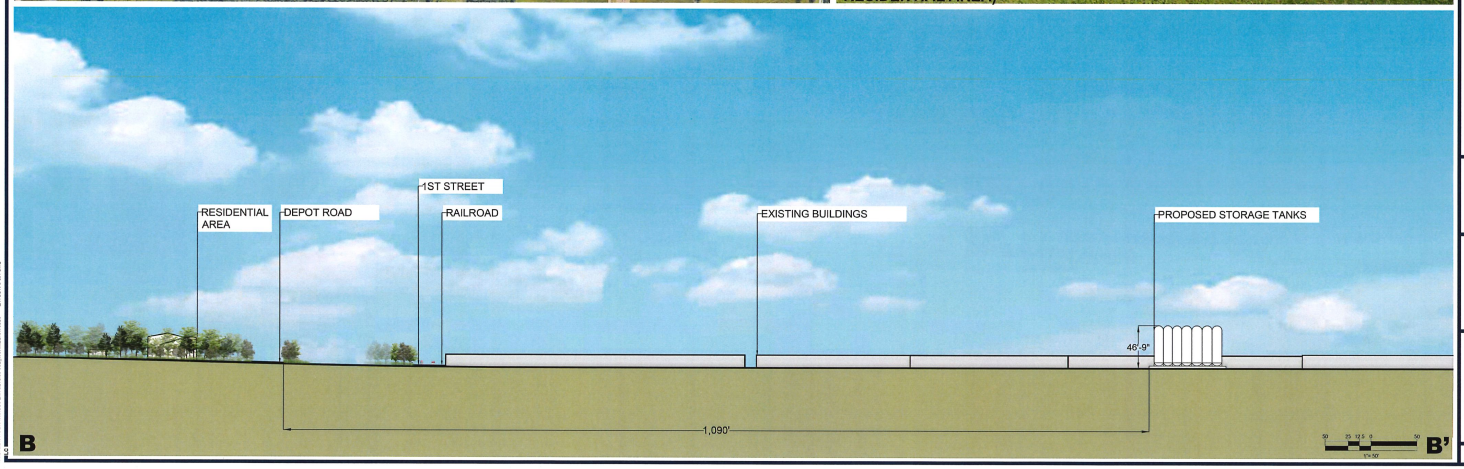
SECTION A
SHEET NUMBER:
ORG. DATE - 08/03/2021









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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PERMIT SET

PROJECT No.:	B210173
DRAWN BY:	SG
CHECKED BY:	MW
DATE:	08/03/2021
CAD I.D.:	B210173SB3

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

Airgas

STORAGE & DISTRIBUTION FACILITY

MAP 59, BLOCK 1, LOT 14.21
2 VAN BUREN BOULEVARD
GUILDERLAND CENTER
ALBANY COUNTY, NEW YORK

BOHLER
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ALBANY, NY 12205
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SHEET TITLE:

SECTION B

SHEET NUMBER:

ORG. DATE - 08/03/2021

ALBANY COUNTY PLANNING BOARD
NOTIFICATION

RECOMMENDATION DATE: August 20, 2021

Case #:	**10 -210803772**
Applicant:	**Airgas**
Project Location:	Northeastern Industrial Park (2 Van Buren Blvd)
Tax Map Number:	50.00-1-14.21
Referring Agency:	Town of Guilderland Zoning Board of Appeals
Considerations:	Area variance and special use permit for the proposed storage and distribution facility, which will include storage/distribution tanks for argon and nitrogen and other accessory uses.
ACPB Recommendation:	Modify local approval to include 1. Notification should be given to the local fire department to evaluate for public safety, emergency services access, water availability and any sprinkler system that may be required by building code.
Advisory:	

Gopika Muddappa, Senior Planner
Albany County Planning Board

NOTE:

- This recommendation is rendered in compliance with applicable requirements of Section 239 of New York State General Municipal Law. Final determination on this matter rests with the appropriate municipal body.
- A recommendation of "APPROVE" or "MODIFY LOCAL APPROVAL" should not be interpreted as a recommendation by this body that the referring agency approve the matter referred. Such recommendation does not indicate that this body has reviewed all local concerns; rather the referral has met certain countywide considerations. Evaluation of local criteria is the responsibility of the referring agency.
- General Municipal Law Section 239 requires that the local agency notify the county within thirty days of its final action. Please use the OFFICIAL NOTICE OF LOCAL ACTION form that is attached for this purpose.
- General Municipal Law Section 239 sets forth the procedural requirements for taking local action contrary to the County Planning Board's recommendation of objection or conditional approval.
- Albany County is required to submit a Municipal Separate Storm Sewer System Permit (MS4) (No. GP-0-10-002) Notice of Intent (NOI) to comply with the NYS DEC permit for the control of wastewater and stormwater discharges in accordance with the Clean Water Act. Construction Activity Permit No. GP-0-1-001 issued by NYSDEC is also required for activity with soil disturbances of one acre or more. The law is required by the Clean Water Act to control point source discharges to ground water as well as surface waters.

449 New Salem Road, Voorheesville, NY 12186
TELEPHONE: (518) 655-7932 FAX: (518) 765-3459

In compliance with Article 12-B, Section 239 of New York State General Municipal Law, this serves as official notification to the Albany County Planning Board of the action taken on the application described above.

LOCAL ACTION ON ACPB RECOMMENDATION:

☐ AGREED WITH COUNTY PLANNING BOARD RECOMMENDATIONS TO MODIFY OR DISAPPROVE
☐ OVER-RULED COUNTY PLANNING BOARD RECOMMENDATIONS TO MODIFY OR DISAPPROVE

LOCAL DECISION ON PROJECT:

☐ PROJECT APPROVED
☐ PROJECT DISAPPROVED

VOTE RECORDED: _____ DATE OF LOCAL ACTION: _____

Set forth the reasons for any action contrary to the ACPB recommendations (use additional sheets if needed):

SIGNED: _____ TITLE: _____

TOWN OF GUILDERLAND

Planning Department
Town Hall, Route 20
P.O. Box 339
Guilderland, NY 12084-0339
Phone: (518) 356-1980 x 1061
Fax: (518) 356-5514
Email: kovalchikk@togny.org

Peter G. Barber
Supervisor

Kenneth Kovalchik, AICP
Town Planner

MEMORANDUM

To: Thomas Remmert, Chairman
& Town Zoning Board

FROM: Kenneth Kovalchik, AICP, Town Planner

DATE: September 9, 2021

SUBJ: Airgas USA, LLC – 2 Van Buren Blvd (Northeast Industrial Park)
Planning Board Site Plan Report to Zoning Board for a Storage/Distribution Facility

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Background

The applicant is proposing to operate a storage and distribution facility, which will include storage/distribution tanks for argon and nitrogen, offices, 2-bay garage and other accessory uses within Building 19, on a 3-acre site located in the Northeast Industrial Park. The facility will be serviced by CSX rail line. Building 19 is depicted within the red highlighted area below, with the yellow highlighted area indicating where the office space is located.

The applicant is also proposing to install 10 storage/distribution tanks for argon, which will be serviced by the existing rail line.

The nearest residential dwellings to the project site are located on the west side of Depot Road, approximately 950 feet from the western property line of Building 19. There are existing trees located on the east and west side of depot road that will act as a buffer to the proposed use.

Planning Board Recommendation
The Planning Board reviewed the application at their September 8, 2021 meeting and recommended to APPROVE the site plan associated with the Special Use Permit with the applicant to provide the following additional information:

1. Provide a visual assessment from Depot Road of the proposed storage tanks.
2. Provide an updated traffic analysis for the Northeastern Industrial Park based on additional truck traffic for the proposed use

cc: J. Coons

SWIS	PRINT KEY	NAME	ADDRESS
013089	50.00-1-13	Purina Animal Nutrition, LLC c/o Land O Lakes Inc	MS 4015, P.O. Box 64101,St Paul, MN 55164-0101
013089	50.00-1-14.13	HS HIFI LLC c/o Heritage Group	P.O. Box 627,Ridgewood, NJ 07451

Town of Guilderland
ALBANY COUNTY, ROUTE 20
P.O. BOX 339
GUILDERLAND, N.Y. 12084-0339

PETER G. BARBER
SUPERVISOR

(518) 356-1980
FAX: (518) 356-1990

JACQUELINE M. COONS
CHIEF BUILDING AND ZONING INSPECTOR

Notice is hereby given that the Zoning Board of Appeals of the Town of Guilderland, New York, will hold a public hearing pursuant to Articles III, IV & V of the Zoning Law on the following proposition:

Special Use Permit Request No. 4857

Request of Airgas USA for a Special Use Permit under the Zoning Law to permit: the development of a distribution facility in an industrial park. A variance is requested to permit accessory storage tanks to exceed the 20ft height restriction.

Per Articles III, IV & V Sections 280-22, 280-24, 280-51 & 280-52 respectively

For property owned by Northeastern IP Holdings
Situated as follows: 2 Van Buren Boulevard Altamont, NY 12009
Tax Map #s 50.00-1-14.21 Zoned IN

Plans are available for public inspection at the Town Hall or on the Town website at https://www.townofguilderland.org/zoning-board-appeals . Said hearing will take place on October 20, 2021 at 7:00pm. Due to COVID-19 gathering precautions, the meeting will be virtual. Members of the public may listen and view the meeting live on the Town website, channel 34 on Verizon FiOS or channel 1303 on Spectrum. To participate in the public comment period join Zoom Meeting https://us02web.zoom.us/j/81391211886?pwd=TzFsbzQ1UUY4VVUvaUVrT3B2WXJlQT09 or dial 1-929-205-6099. Use Meeting ID: *813 9121 1886* and Passcode*: 605688*. For questions regarding the application, call the Building Department during regular business hours.

Dated: October 12, 2021

Jacqueline M. Coons

Jacqueline M. Coons
Chief Building & Zoning Inspector

CM FOX REAL ESTATE

To Whom It May Concern:

With regards to Special Use Permit/Variance Request No. 4817 approved on 12/2/2020, we are requesting an extension for one year. Please let us know if you have any questions or need anything else.

Sincerely,

Troy C Miller
Owner
2390 Western Ave LLC

2390 Western Ave, Guilderland, NY 12084 | 518-861-7030 | www.cmfoxrealestate.com