

Mr. Kenneth Ripley, Code Enforcement Officer
Town of Veteran
4049 Watkins Road,
Millport, New York 14864

04.20.2026

**Re: Application for Special Use and Site Plan Approval – Veteran Hill Road Solar Project
Veteran Hill Road, Veteran, New York
Lot 39-00-1-14.1**

Dear Town of Veteran:

On behalf of Veteran Hill Road Solar LLC, an affiliate of Dynamic Energy LLC, please find attached a completed application for a proposed 3.8-megawatt (MW) ground-mounted Solar Energy System in the Town of Veteran, Chemung County, New York.

The Veteran Hill Road Solar Project (Project) will be located on a portion of an approximately 145-acre parcel (Lot 39-00-1-14.1) located off Veteran Hill Road. The array and its access driveway will be located on land leased from the current landowner. Access to the facility will be via a new entrance from Veteran Hill Road. The Project will connect to existing NYSEG overhead three-phase electric service along Veteran Hill Road.

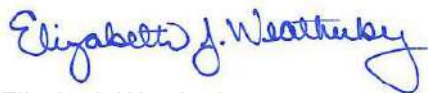
In support of its application, the following documents are being transmitted along with this letter:

- Attachment 1 - Completed Town of Veteran Forms and Property Owner Verification
- Attachment 2 - Project Narrative
- Attachment 3 - SEQRA SEAF
- Attachment 4 - Visual Impact Assessment
- Attachment 5 - Site Engineering Plans prepared by AKRF, Inc., dated April 20, 2026
- Attachment 6 - Stormwater Management Report prepared by AKRF, Inc. dated April 20, 2026
- Attachment 7 - Electrical Diagram and Equipment Specifications
- Attachment 8 - Operations and Maintenance Plan
- Attachment 9 - Decommissioning Plan and Decommissioning Agreement
- Attachment 10 - Host Community Agreement

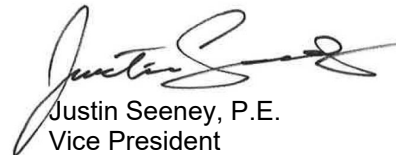
In addition, a check in the amount of \$15,000 is being by the Applicant to cover Town's application fee.

We look forward to reviewing and discussing the above submittals with you at the upcoming Town Planning Board meeting. Please let us know if you have any questions or comments in the interim.

Sincerely,
AKRF, Inc.



Elizabeth Weatherby
Vice President, Energy Practice



Justin Seeney, P.E.
Vice President

cc: J. Funk, Dynamic Energy
M. McDevitt, Dynamic Energy
J. Macalintal, AKRF, Inc.

Attachment 1

Completed Town of Veteran Forms:

- Permit Application Form
- Chemung County Planning Board – Municipal Referral Form
- Property Owner's Verification

Town of Veteran

P.O. Box 183
4049 Watkins Road
Millport, NY 14864
Telephone: 607-739-1476
Fax: 607-739-8371

Permit Application

Conditional Use / Variance

Town of Veteran Zoning Ordinance

Application No. _____
Application Date: _____

Application Fee: _____ Code: _____
Public Hearing Fee: _____

Reason for Application:

☒ Conditional use (Sect. 4.2.3) Code No. _____

☐ Use variance (Sect. 13.3.3)

☐ Area variance (Sect. 13.3.2)

☒ Other

Description The Applicant is applying for Special Permit and Site Plan Approval for a Tier 3 Solar Energy System

To Be Completed By the Applicant

Applicant Name Veteran Hill Road Solar LLC

Address 2401 Walnut Street, Suite 503, Philadelphia, PA 19103

Telephone (215) 802-0033 Fax _____ E-Mail jason.funk@dynamicenergy.com

Owner Name (If Different)* Marc and Valarie Cassada

Address 211 Veteran Hill Road, Horseheads, NY 14845

Telephone (607) 342-3679 Fax _____ E-Mail mcassada@empireaccess.net

*Must submit written authorization

Location of Project Veteran Hill Road, Veteran, NY

Tax Map I.D. No. _____ Size of Parcel _____

Description of Project The Applicant proposes to develop a 3.8-megawatt (MW) ground-mounted Tier 3 Solar Energy System

NYS SEQR (Part I Completed) _____

Documentation Submitted (Sect. 10.4)

☒ Site Plan 7 Copies (See Page 1D)

☒ Area Map 7 Copies

☒ Project Details (See Page 1D)

VPA Number 1A

7/1/2008

PUBLICATION EXPENSE. I (We), the undersigned, understand that a public hearing s required to be held on this request and that notice of such hearing will be advertised in the official Town paper as prescribed by law. I (We) agree to pay the cost of advertising the hearing and any other reasonable expenses billed by the official newspaper and/or by the Town of Veteran.

SECTION 809 CERTIFICATION. In accordance with section 809 of the General Municipal Law of the State of New York, the undersigned certifies in submitting this application that no officer or employee of the State of New York or the County of Chemung or Town of Veteran is interested in granting said application:

It is understood that:

- (1) A person is "interested" in such an application when [he/she] or [his/her] spouse or [his/her] brothers, sisters, parents, children, grandchildren or spouse of any of them
 - (a) is the applicant, or
 - (b) is an officer, director, partner or employee of the applicant, or
 - (c) legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association applicant, or
 - (d) is a party to an agreement with such an applicant, express or implies, whereby [he/she] may receive any payment or other benefit, whether or not for services rendered dependent or contingent upon the favorable approval of such application, petition or request.
- (2) Ownership of less than five percent of the stock of corporation whose stock is listed on the New York or American Stock Exchange shall not constitute an interest for the purposes of this section.
- (3) Any person who knowingly and intentionally violates the provisions of section 809 of said General Municipal Law shall be guilty of a misdemeanor.

(NOTE: If in any case the applicant cannot make the foregoing certification, the applicant shall so state and shall furnish with the application a signed statement which set forth in detail the reason therefore.)

The foregoing certification as well as the contents of this entire application is hereby subscribed by the applicant and is hereby affirmed by the applicant as true under the penalties of perjury.

Applicant Nichole Coulter

Phone No 503.329.2543

Digital signed by Nichole Coulter
DN: cn=Nichole Coulter, email=nichole.coulter@nytimescorp,
c=US, o=NY Times Corp, ou=New York Times Corp
Date: 2008.06.17 15:15:25 -0400

To Be Completed by the Board

Public Hearing Required ☐ Yes ☐ No Date of Hearing _____

Planning Board Action

Plan meets zoning requirements? ☐ Yes ☐ No

VPA Number 1B

7/1/2008

Is property within 500 feet of:

- | | | |
|--|-----|----|
| a. Any Town of Veteran boundary line? | YES | NO |
| b. Any existing or proposed county or state park or other recreation area? | YES | NO |
| c. Any existing or proposed county road? | YES | NO |
| d. Any existing or proposed state road? | YES | NO |
| e. Any existing or proposed county stream or drainage channel? | YES | NO |

☐ Referred to County Planning Dept. Date: _____

☐ Other Referral(s) _____ Date: _____

Environmental Review: Date: _____

☐ Negative Declaration- The project will result in no major impacts and will cause no significant damage to the environment.

☐ Negative Declaration- The project, with conditions, will result in no major impacts and will cause no significant damage to the environment.

☐ EIS Required

Additional Information Required _____

Site Plan: ☐ Approved

☐ Approved with Modifications _____

☐ Denied _____

Application: ☐ Approved

☐ Denied

☐ Approved with these conditions: _____

Final Action: ☐ Approved ☐ Denied Signed _____

A variance denial may be appealed to the Zoning Board of Appeals (Sect. 13.2)

VPA Number 1C
7/1/2008

Town of Veteran Zoning Ordinance



CHEMUNG COUNTY Planning Commission

400 E Church Street
Elmira, NY 14902
www.chemungcountyny.gov.com

Chemung County Planning Board – Municipal Referral Form

Referring Municipality: ☐ City ☐ Town ☐ Village of

Referring Official:

Title:

Address:

Do not write in this space

Referral ID #:

Delivery Date:

Phone Number:

Email:

Referring Body (check appropriate box): ☐ Legislative Body ☐ ZBA ☐ Planning Board

Applicant: Veteran Hill Road Solar LLC

Phone: (215) 802-0033

Applicant Mailing Address:

Email: jason.funk@dynamicenergy.com

2401 Walnut Street, Suite 503, Philadelphia, PA 19103

Property Address:

Tax Map Number(s): 39-00-1-14.1

Veteran Hill Road, Veteran, NY

Current Zoning District: Residential Agriculture (R-A)

Proposed Action (check all that apply)

- ☐ Comprehensive Plan Adoption/Amendment
- ☐ Zoning Text Amendment
- ☐ Zoning Map Amendment
- ☐ Zoning Ordinance/Local Law Adoption
- ☐ Subdivision Review (§239-N)
- ☐ Moratorium

- ☒ Special/Conditional Use Permit
- ☒ Site Plan Review/Approval
- ☐ Use Variance
- ☐ Area Variance
- ☐ Other (please specify)

Existing use and description of the Proposed Action (attach a detailed narrative if available).

The Applicant proposes to develop a 3.8-megawatt (MW) ground-mounted Tier 3 Solar Energy System located on approximately 68 acres of a 136-acre site located off Veteran Hill Road. The array and its access driveway will be located on land leased from the current landowner. The Project Site currently consists of undeveloped woodland and scattered trails and is bordered by a transmission line corridor to the south. Access to the facility will utilize an existing gravel driveway from Veteran Hill Road (County Route 47) which ties into an existing trail through the woodlands to minimize new disturbance to the maximum extent practicable. The proposed point of interconnection (POI) to the existing NYESG transmission system will be at Veteran Hill Road.

Reason referral is required for the Action (see Interactive GIS Database for trigger boundaries):

Project is located within 500 feet of the municipal line between the Town of Veteran and the Town of Horseheads.

Actions the referring body has taken on the Proposed Action to date (e.g. reviewed, approved, discussed, etc.)

Future scheduled meetings of the referring body that will involve the Proposed Action:

Town of Veteran Planning Board Meetings: May 4, 2026, June 1, 2026, July 6, 2026

"Full Statement of Proposed Action" Checklist

As defined in NYS General Municipal Law §239-m (1)(c)

Please make sure you have enclosed the following required information with your referral, as appropriate.

Please also include any additional materials required by your municipality's non-referral agreement with Chemung County.

For all actions:

☒ Chemung County Planning Board – Municipal Referral Form

☒ All application materials required by local law/ordinance to be considered a "complete application" at the local level

☒ Part I Environmental Assessment Form (EAF) or Environmental Impact Statement (EIS) for State Environmental Quality Review Act (SEQR) Type I Action or Unlisted Action. If Type II Action, provide a statement to that effect.

N/A ☐ Agricultural Data Statement, for site plan review, special/conditional use permit, use variances, or subdivision review located in an Agricultural District or within 500 feet of a farm operation located in an Agricultural District, per Ag. Districts Law Article 25AA §305-a, Town Law §283-a, and Village Law §7-739.

For Proposing or Amending Zoning Ordinances or Local Laws: The above requirements AND

☐ Complete text of proposed ordinance or local law as well as all existing provisions to be affected

☐ Zoning Map (if applicable)

Submit this form with supporting documentation in PDF format to the Chemung County Planning Department via email at: planning@chemungcountyny.gov. Completed referrals must be submitted by close of business 12 calendar days prior to the Chemung County Planning Board meeting.

Note: If the completed referral is too large to submit via email, please email this form to planning@chemungcountyny.gov and note file size issues in your email body

Each municipality will be required to submit a Report of Final Action to the Chemung County Planning Department within 30 days of taking final action. Additional instructions are available on the Chemung County Planning Department website through the "[Referral Guidance for Chemung County Municipalities, GML§239](#)."

Parcel ID	Property Address	Owner Name and Mailing Address
39-00-1-14.1	NS VETERAN HILL ROAD Veteran, NY	CASSADA, MARC J. and CASSADA, VALARIE A. 211 Veteran Hill Road Horseheads, NY 14845

Property Owners' Verification

The undersigned property owners verify and confirm that Veteran Hill Road Solar LLC:

1. Has an equitable and proprietary interest in the above-listed property.
2. Has the authority and approval via the equitable and proprietary interest to file and prosecute the conditional use application and any other zoning relief, including applying for necessary construction permits, required for a Solar Energy System on the above-referenced property, and to file, defend and prosecute any appeals therefrom.
3. The undersigned property owners understand the Special Permit and Site Plan application will seek approval of a Solar Energy System and we hereby approve, consent to and expressly authorize the Special Permit and Site Plan application as submitted to be filed and prosecuted on our behalf as the landowners and co-applicants.

Dated: 4/18/26

Marc J Cassada
Marc J. Cassada

Dated: 4/18/26

valarie A. Cassada
Valarie A. Cassada

Attachment 2

Project Narrative

Veteran Hill Road Solar Project
Town of Veteran, Chemung County, New York

Project Narrative

Prepared for:
Veteran Hill Road Solar LLC
2401 Walnut Street, Suite 503
Philadelphia, PA 19103

Prepared by:
akrf
27 Main Street, PO Box 324
Trumansburg, NY 14886

April 2026

Veteran Hill Road Solar Project

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Appendix A. Wetland Delineation Memo

A. THE APPLICANT

Veteran Hill Road Solar LLC (the Applicant), an affiliate of Dynamic Energy LLC, is proposing to develop a 3.8-megawatt (MW) ground-mount, community solar facility in the Town of Veteran, Chemung County, New York.

B. PROJECT SITE

The Applicant proposes to develop the Veteran Hill Road Solar Project (the Project) on approximately 35 acres of the approximately 145-acre parcel at Veteran Hill Road (County Route 47) in the Town of Veteran, Chemung County, New York (the Project Site) (**Figure 1**). The Project Site is listed as Chemung County Tax Parcel 39.00-1-14.1¹ (**Figure 2**). The Project Site currently consists of undeveloped woodland and scattered trails. The Project Site is surrounded by undeveloped woodlands and agricultural land to the north; undeveloped woodlands, agricultural land, and single-family dwellings to the east; undeveloped woodlands and a transmission line corridor to the south; undeveloped woodlands and a tributary to Catharine Creek to the west.

Access to the facility will utilize an existing gravel driveway from Veteran Hill Road (County Route 47) which ties into an existing trail through the woodlands to minimize new disturbance to the maximum extent practicable. The proposed point of interconnection (POI) to the existing NYSEG transmission system will be at Veteran Hill Road.

C. PROJECT DESCRIPTION

The Project includes the construction of a 3.8-MW ground-mounted solar array and related vehicle, utility and security infrastructure.

The Project will consist primarily of installation of tracking solar panels mounted on an elevated post-mounted axle oriented in a north south direction. Panels slowly rotate from east-facing to west-facing to maximize sun exposure and return to east-facing condition overnight. The panels can reach a maximum height of approximately 6-8 feet and can rotate up to 60° to maximize energy capture at sunrise/sunset. The Project will also include 7-foot-tall perimeter fencing, pad mounted electric gear, a gravel access drive, and stormwater management systems (**Figure 1**).

There are no parking facilities or occupied structures proposed as part of the Project as the solar facility will be unmanned. Required excavation will be limited to installation of stormwater management areas, access roads and material staging area, underground electric lines and site preparation for pad mounted electrical equipment. The area under the solar panels will be stabilized and seeded with low growing grass to establish a vegetated ground cover. The Project's existing conditions as well as proposed improvements and specifications are shown in detail on the "Site Plans" provided with the Application.

The Project will connect to an existing overhead power line along Veteran Hill Road. The proposed Point of Interconnection (POI) will be located along the new private access road, requiring the installation of six (6) new approximately 30-foot-tall wooden utility poles.

CONSTRUCTION

Following receipt of all the required permits and approvals, on-Site mobilization will begin. The Project will utilize portions of the Project Site to construct the Project, while using other portions for materials and equipment laydown, and on-Site craft parking.

Construction activities on the Project Site will generally follow the sequence below:

¹ Prior to submission of this application, the landowner obtained a lot line adjustment from the Chemung County Planning Department to merge Parcel 39.00-1-14.1 and portions of 39.00-1-17.1.

Veteran Hill Road Solar Project

1. **Erosion and Sediment Control Installation:** Erosion and sediment controls will be installed in accordance with approved plans
2. **Clearing and Grading:** The Project will require tree and vegetation clearing for the construction of the Project. Minimal grading is proposed only along the access road and ancillary equipment foundation locations. Spot grading at some racking pile foundation locations may be needed depending on field conditions.
3. **Access Road Installation:** The Project will have a 16-foot access road from Veteran Hill Road (County Route 47) into the fence line of the solar facility.
4. **Ancillary Equipment Installation:** The foundations for the inverters and ancillary electrical equipment will be installed, and equipment will be mounted on the completed pads.
5. **Racking and Panel Construction:** The solar panel posts and ancillary equipment racking systems will be installed, after which the panel installation will commence.
6. **Installation of Utilities:** The Project will include both overhead and underground utilities to connect the solar facility to the electrical grid.

Construction is anticipated to occur between the hours of 7:00 A.M. to 7:00 P.M., Monday through Saturday. It is not anticipated that overnight, weekend or holiday construction hours will be required, but if special circumstances arise, approval from the Town will be requested in advance. The Project is anticipated to be completed in a single phase with construction planned to commence in the third quarter of 2026.

During construction, truck and vehicle traffic is anticipated to access the Project Site utilizing state roadways, specifically Veteran Hill Road (County Route 47), New York State Route 13 and Interstate 86.

OPERATIONS AND MAINTENANCE

The Project Site will normally be unmanned during operation. The Project will be remotely monitored and operated 24 hours per day, 7 days per week, 365 days per year. Unanticipated conditions will be automatically reported to enable service technicians to assess the situation and take appropriate action, including dispatch of maintenance technicians, to return the equipment to a normal operational condition and to maintain safe and reliable operation.

Routine facility and Site maintenance are performed on an annual or semi-annual schedule. Operations and maintenance teams perform preventive maintenance tasks and assess Project conditions to identify necessary repairs. This will include periodic mowing approximately 3-4 times per year. Refer to the Solar Facility Operations and Maintenance Plan provided as Attachment 8 of the Application for additional detail.

D. REVIEW OF ENVIRONMENTAL IMPACT

The solar energy development community's underlying motivation is to create an environmentally sensitive and sustainable source of power to displace less efficient, more polluting, traditional power sources to protect and preserve qualities of the natural environment. The Applicant considers environmental stewardship a core value and strives to integrate projects into the existing landscape through proper site selection and sensitive design. Each potential site has been assessed through detailed preliminary screening for potential impacts on local natural resources such as streams, wetlands, soil classes, and protected species, and only those found to have minimal or no adverse impacts in each category are considered. The Project will minimize impacts to the extent practicable by proper siting, design and construction best management practices (BMPs) while meeting the requirements of the Town's Solar Law.

The Project Site falls within the Town's Residential-Agricultural (RA) Zoning District (**Figure 3**). The Project Site currently consists of undeveloped woodland and scattered trails (**Figure 4**). Tree clearing will be required to construct the Project and has been minimized to the extent practicable through careful evaluation and design of the access road. Prior to any tree clearing, the Applicant will ensure that erosion and sediment control best management practices (BMPs) are installed as presented on the Erosion and Sediment Control Plan (E&SC Plan) to minimize potential impacts during rain events.

National Resource Conservation Service (NRCS) maps indicated that soils within the Project Site are categorized by three different soil map units. The soil map units are summarized in **Table 1**.

Table 1.
Natural Resource Conservation Service – Mapped Soils in the Study Area

Soil Map Unit Symbol	Soil Map Unit Name	Hydric Rating	Percent Cover
LnB	Lima silt loam, 3 to 8 percent slopes	Predominantly nonhydric	34.8%
LnC	Lansing silt loam, 8 to 15 percent slopes	Nonhydric	61.4%
VoC	Volusia channery silt loam, 8 to 15 percent slopes	Predominantly nonhydric	3.8%

The Project is not in a designated NYS Agricultural District and there are no mapped soils as important farmland or statewide significance. Soils within the Project Site are predominately unmapped as MSG Soils, with a small portion of the eastern Project Site mapped as Group 4 (**Figure 5**).

The Project intends to minimize grading to the extent practicable with limited, minimal spot grading to meet racking constraints and as required to prepare the access road and to construct stormwater controls. Further, earthwork may be required following the required clearing and grubbing. The Project will maintain existing runoff patterns and volumes. The Project proposes to minimize impervious ground cover to the extent practicable and proposed impervious ground cover is limited to a proposed electrical equipment pad (gravel/concrete) and an approximately 16 ft-wide gravel access driveway. Further, construction will be performed in accordance with the Project's E&SC Plans and the New York State Department of Environmental Conservation's (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-25-001).

A review of the National Wetland Inventory (NWI) mapping does not depict any mapped wetlands within the Project Site; however, it does depict several mapped wetlands within the vicinity of the Project Site. A mapped riverine (R4SBC, Riverine Intermittent Streambed Seasonally Flooded) is located to the west of the study area. Additionally, a second mapped riverine (PUBHh, Palustrine Unconsolidated Bottom Permanently Flooded Diked/Impounded) is located to the east of the Project Site and further to the south of the Project Site is a NWI mapped freshwater pond (PUBHx, Palustrine Unconsolidated Bottom Permanently Flooded Excavated) and freshwater emergent wetland (PEM1E, Palustrine Emergent Persistent Seasonally Flooded/Saturated). NYSDEC wetland maps also do not identify any wetlands or streams within the Project Site. There are two (2) NYSDEC mapped Priority Streams found within the vicinity of the study area: Catherine Creek and tributaries, is located to the west of the Project Site area and North Branch Newton Creek and tributaries is located to the east of the Project Site.

Wetland delineations conducted by AKRF, Inc. in December 2023, October 2024, and April 2025. In total, AKRF delineated four (4) wetlands within the proposed project development site Project Site. A copy of the Project's Wetland Delineation Memo is provided in **Appendix B**.

Veteran Hill Road Solar Project

The Applicant has used the information obtained during the wetland delineations to inform design of the Project's layout, access roadway and electric interconnection while meeting applicable wetland permit requirements. The Project will avoid impacts to the delineated wetlands by locating components away from all resource areas. Therefore, the Project is not anticipated to have an adverse impact on wetlands or waters.

During construction, the Project may temporarily displace some general wildlife species; however, once the Project is constructed, a low-growing meadow cover will be established and maintained beneath the solar panels providing habitat for some species. In addition, the Project proposes wildlife fencing, providing a six (6) inch above-ground gap allowing smaller animals to pass through. Substantial wooded areas will remain on all sides of the Project which will provide viable habitat for wildlife across the Project parcel.

A review of the NYSDEC's Environmental Assessment Form (EAF) mapper and ERM does not identify any known rare, threatened or endangered species in the vicinity of the Project Site. Therefore, the Project is not anticipated to have an adverse impact on rare, threatened or endangered species.

A review of the New York State Office of Parks, Recreation and Historic Places (OPRHP) Cultural Resource Information System (CRIS) shows that the Project is not located in or adjacent to an area designated as sensitive for archaeological sites. Further, there are no listed or eligible listed sites in the vicinity of the Project Site. Therefore, the Project is not anticipated to have an adverse impact on archeological or historic resources.

E. COMPLIANCE WITH LOCAL LAWS

The Town of Veteran adopted a zoning ordinance in 2021 and adopted a Solar Energy Local Law (Solar Law) in 2025 updated by Local Law No. 1 of 2026. This section addresses the Project's compliance with the applicable sections of the Solar Law for a Tier 3 Ground-Mounted Solar Energy System. The provisions of the Solar Ordinance are shown in ***bold, italicized*** text while the Project's compliance is shown in regular text².

COMPLIANCE WITH APPLICABILITY (§3(4))

A. The requirements of this Local Law shall apply to all Solar Energy Systems permitted, installed, or modified in the Town of Veteran after the effective date of this Local Law, excluding general maintenance and repair.

The Project will comply with the requirements of the Solar Law.

B. This Local Law shall apply to all applications pending before the Planning Board, so long as a Special Use Permit has not been approved prior to the effective date of this Local Law.

Prior to construction, the Project will obtain a Building Permit from the Town.

COMPLIANCE WITH GENERAL REQUIREMENTS (§3(5))

C. A Building permit shall be required for the installation of all Solar Energy Systems in accordance with the laws herein, and in accordance with the Town of Veteran Zoning Law.

Prior to construction, the Project will obtain a Building Permit from the Town.

² As a result of the Project's capacity and/or system configuration (i.e., ground-mounted), the following sections of the Town Solar Law were deemed not applicable: §6 Permitting Requirements for Tier 1 Solar Energy Systems, §7 Permitting Requirements for Tier 2 Solar Energy Systems, and §9 Permitting Requirements for Tier 4 Solar Energy Systems.

B. Prior to the issuance of the building permit or final approval by the Planning Board, all construction and site plan documents must be signed and stamped by a NYS Licensed Professional Engineer or NYS Registered Architect.

The Project will be designed and engineered by a New York-licensed professional engineer that will certify that the Project meets, or exceeds, the manufacturer's construction and installation standards and applicable code requirements. The site plan drawings are signed and stamped by a NYS Licensed Professional Engineer. Therefore, the Project is in compliance with this requirement.

C. All Tier 2, Tier 3, and Tier 4 Solar Energy Systems shall be designed and operated in consultation with the fire protection agencies serving the Town. Applicants shall coordinate with the appropriate fire departments to ensure adequate site access, emergency response planning, and system safety. Applicants shall provide basic emergency documentation and offer training or orientation to responding agencies prior to system activation. Proof of coordination shall be submitted with the application.

The Applicant will work with the local fire department to provide the necessary training for emergency responders prior to operation of the facility.

D. Issuance of permits and approvals by the Planning Board shall include review pursuant to the State Environmental Quality Review Act (ECL Article 8 and its implementing regulations at 6 NYCRR Part 617 ("SEQRA")).

The Project seeks a Special Use Permit and Site Plan Approval from the Town Board through this Application, and the Applicant understands will trigger review under SEQRA. Therefore, the Project is in compliance with this requirement.

E. All Solar Energy Systems shall be designed, erected, and installed in accordance with all applicable codes, regulations, and industry standards as referenced in the NYS Uniform Fire Prevention and Building Code ("Uniform Code"), the NYS Energy Conservation Code ("Energy Code"), and the Town of Veteran Code.

The Project is designed and will be constructed in accordance with applicable laws, codes, rules and regulations including the Town of Veteran Code.

F. For Solar Energy Systems subject to site plan review and Special Use Permits, the Town of Veteran shall require the applicant to pay the Town for professional services in connection with the Project pursuant to of the Town of Veteran's Local Law 1 of 2010, "A Local Law Pertaining to Professional Services Reimbursement."

The Project seeks a Special Use Permit and Site Plan Approval from the Town Board through this Application, and the Applicant understands fees for professional services may be required. Therefore, the Project is in compliance with this requirement.

COMPLIANCE WITH PERMITTING REQUIREMENTS FOR TIER 3 SOLAR ENERGY SYSTEMS (§8)

A. Applications for the installation of Tier 3 Solar Energy System shall be:

- 1) Reviewed by the Code Enforcement Officer for completeness. Applicants shall be advised within 30 days of the completeness of their application or any deficiencies that must be addressed prior to substantive review.***

- 2) Subject to a public hearing to hear all comments for and against the application. This hearing shall be in compliance with all existing public hearing requirements established under law by the Town of Veteran.**
- 3) Referred to the Chemung County Planning Department pursuant to General Municipal Law § 239-m, if required.**
- 4) Upon closing of the public hearing, the Planning Board shall take action on the application within 60-days of the public hearing, which can include approval, approval with conditions, or denial. The 60-day period may be extended upon consent by both the Town Planning Board and applicant.**

The Project seeks a Special Use Permit and Site Plan Approval from the Town Board through this Application and acknowledges the process outlined in the Solar Law. Therefore, the Project is in compliance with this requirement.

B. Application & Site Plan Review Requirements. Applications for Tier 3 Solar Energy Systems, including materials for site plan review, shall include the following:

- 1) Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the Solar Energy System. Such information of the final system installer shall be submitted prior to the issuance of building permit pursuant to the Town of Veteran Zoning Law.**
- 2) Name, address, contact information, and signature of the project applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the Solar Energy System.**
- 3) Nameplate Capacity of the Solar Energy System (as expressed in MW).**
- 4) Zoning district designation for the parcel(s) of land comprising the Facility Area.**
- 5) Property lines and physical features, including roads, for the project site.**
- 6) Map(s) of MSG 1-4 soils and Active Agriculture Lands on the parcel(s) comprising the Facility Area and adjacent parcels.**
- 7) Adjacent land uses on contiguous parcels within a one-mile radius of the site boundary.**
- 8) Proposed changes to the landscape of the site, including site grading, vegetation clearing and planting, the removal of any large trees, access roads, exterior lighting, signage, fencing, landscaping, and screening vegetation or structures.**
- 9) Erosion and sediment control and storm water management plans prepared by the NYS Department of Environmental Conservation standard.**
- 10) A one- or three-line electrical diagram detailing the entire Solar Energy System layout, including the number of Solar Panels in each ground mount array, solar collector installation, associated components, inverters, electrical interconnection methods, and utility meter, with all National Electrical Code compliant disconnects and over current devices. The diagram should describe the location and layout of all Battery Energy Storage System components if applicable and should include applicable setback and other bulk and area standards.**
- 11) A preliminary equipment specification sheet that documents all proposed Solar Panels, system components, mounting systems, racking system details, and inverters that are to be installed. A final equipment specification sheet, including manufacturer, model numbers, and country of origin shall be submitted prior to the issuance of a building permit pursuant to the Town of Veteran Zoning Law.**
- 12) A Property Operation and Maintenance Plan**
- 13) A Decommissioning Plan (see Attachment 1 Town of Veteran Solar Energy System Decommissioning Agreement) signed by the owner and/or operator of the Solar Energy System shall be submitted by the applicant.**
- 14) A Host Community Agreement (Attachment 2 Host Community Agreement) signed by the owner and/or operator of the Solar Energy System shall be submitted by the applicant.**

The Project seeks a Tier 3 Solar Energy System Approval from the Planning Board through this Application, which includes the required information 1 through 14 above. Therefore, the Project is in compliance with this requirement.

C. Special Use Permit Standards: Tier 3. The Planning Board may issue a Special Use Permit for a Tier 3 Solar Energy System pursuant to the satisfaction of requirements established in Article 10, Sections 10.4 – 10.5 of the Town of Veteran Zoning Law, and only after it has found that all the following standards and conditions have been satisfied:

1) Vehicular Paths. Vehicular paths within the Facility Area shall be designed in compliance with Uniform Code requirements to ensure emergency access, while minimizing the extent of impervious materials and soil compaction.

The Project will require 16-foot-wide access from Veteran Hill Road to the fence to allow for safe passage of construction and emergency vehicles as required by the Uniform Code. Therefore, the Project is in compliance with this requirement.

2) Signage.

i. No signage or graphic content shall be displayed on the Solar Energy Systems except the manufacturer's name, equipment specification information, safety information, and 24-hour emergency contact information. Said information shall be depicted within an area no more than 8 square feet.

ii. As required by National Electric Code (NEC), disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

Appropriate warning signs will be placed at the transformers and the Project's main service disconnect as detailed on Sheet C-502 of the of the Site Engineering Plans provided as Attachment 6 of the Application. Therefore, the Project is in compliance with this requirement.

3) Glare. All Solar Panels shall have anti-reflective coating(s).

The Project proposes to use solar panels that are coated with an anti-glare material to minimize potential impacts from glint and glare on adjacent properties and roadways. The Project will not result in glint or glare as demonstrated in the glare analysis portion of the Visual Impact Assessment, provided as Attachment 4 of the Application. Therefore, the Project is in compliance with this requirement.

4) Lighting. Lighting of the Solar Energy Systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.

The Project does not propose any lighting. Therefore, the Project is in compliance with this requirement.

5) Lot size. The property on which the Tier 3 Solar Energy System is placed shall meet the lot size requirements of the underlying zoning district.

The Project complies with the lot size requirements as shown on Sheet C-001 of the Site Engineering Plans provided as Attachment 5 of the Application. The parcel the Project is located on is a total of 145 acres. Therefore, the Project is in compliance with this requirement.

6) Setbacks. *The Tier 3 Solar Energy Systems shall comply with the setback requirements of the underlying zoning district for principal structures. Fencing, collection lines, access roads and landscaping may occur within the setback. In addition, all Tier 3 Solar Energy Facilities shall maintain a 250-foot setback from property lines or the boundary of the Conservation Overlay District, whichever is greater.*

The Project complies with the setback requirements as shown on Sheet C-001 of the Site Engineering Plans provided as Attachment 5 of the Application. Therefore, the Project is in compliance with this requirement.

7) Height. *The Tier 3 Solar Energy Systems shall comply with the building height limitations for principal structures of the underlying zoning district. This height requirement can be waived by the Planning Board if the panels are being raised to accommodate continued or new agricultural purposes.*

Although final design of the Project racking system has not yet been completed, the Project will comply with the panel height requirements as shown on Sheet C-001 of the Site Engineering Plans provided as Attachment 6 of the Application. Solar panel height measured from grade will vary with uneven terrain beneath the racking system; however, it is anticipated that in limited locations the maximum solar panel height at full tilt will be approximately 15-16 feet above ground.

8) Lot coverage. *Tier 3 Solar Energy Systems are exempt from the lot coverage requirements in the underlying zoning district.*

The Project's lot coverage is shown on Sheet C-001 of the Site Engineering Plans provided as Attachment 5 of the Application. There are no other buildings or structures on the Project Site. Therefore, the Project is in compliance with this requirement.

9) Fencing Requirements. *All mechanical equipment, including any structure for Battery Energy Storage System components, shall be enclosed by a minimum 7-foot high fence, as required by NEC, with a self-locking gate to prevent unauthorized access.*

The location of the Project's proposed 7-foot fencing is shown on Sheet C-201 and detailed on Sheet C-502 of the Site Engineering Plans provided as Attachment 5 of the Application.

When left unattended, site gates will be secured and locked. A Knox box key box, Knox lock, or other accommodation meeting fire and police access requirements will be provided. The Project will have an 7-ft tall perimeter fence around the facility. Therefore, the Project is in compliance with this requirement.

10) Screening and Visibility

i. The applicant for a Tier 3 Solar Energy System shall be required to:

a) Conduct a visual assessment of the visual impacts of the Solar Energy System on public roadways and adjacent properties. At a minimum, a line-of-sight profile analysis shall be provided. Depending upon the scope and potential significance of the visual impacts, additional impact analyses, including for example a digital viewshed report, shall be required to be submitted by the applicant. Assessments and analysis shall be performed by third party per town of Veteran Local Professional Services Reimbursement Law.

b) Submit a screening & landscaping plan to show adequate measures to screen through landscaping, grading, or other means so that views of Solar Panels and Solar Energy Equipment shall be minimized as reasonably practical from public roadways and adjacent properties to the extent feasible.

c) The screening & landscaping plan shall specify the locations, elevations, height, plant species, and/or materials that will comprise the structures, landscaping, and/or grading used to screen and/or mitigate any adverse aesthetic effects of the system. The landscaped screening shall be comprised of a minimum of [1] evergreen tree, at least [6] feet high at time of planning, plus [2] supplemental shrubs at the reasonable discretion of the Planning Board, all planted within each [10] linear feet of the Solar Energy System. Existing vegetation may be used to satisfy all or a portion of the required landscaped screening. A list of suitable evergreen tree and shrub species should be provided by the Town of Veteran.

The Project is not anticipated to have adverse visual impacts to surrounding areas. The surrounding area is a mix of open field, active farmland, and woodland with significant elevation changes across the area that will limit visibility. Further, the Project has limited frontage along Veteran Hill Road (County Route 47) and will retain a largely intact perimeter of forest. The existing, natural vegetation will also minimize potential impacts from glare. As such, the Project will have limited visual impacts to surrounding areas. A Visual Impact Assessment is provided as Attachment 4 of the demonstrating the low visibility of the Project Site from surrounding viewpoints. Therefore, the Project is in compliance with this requirement.

11) Environmental Resources

i. Removal of existing trees larger than six (6) inches in diameter at breast height (DBH) shall be minimized. The applicant shall submit a Tree Removal Plan that documents all trees to be removed, alternatives considered, and justifications for removals. The Planning Board may require preservation of significant trees where feasible.

ii. Tier 3 Solar Energy System owners shall develop, implement, and maintain native vegetation to the extent practicable pursuant to a vegetation management plan by providing Native Perennial Vegetation and foraging habitat beneficial to game birds, songbirds, and Pollinators. To the extent practicable, when establishing perennial vegetation and beneficial foraging habitat, the owners shall use native plant species and seed mixes and seed all appropriate areas within the Facility Area. Any project which is designed to incorporate agricultural or farm related activities or uses within the Facility Area may be excluded from this requirement based on the amount of space actually occupied by the agricultural use(s). This exclusion will only be allowed based on the Town Planning Board determination that these lands are being used for actual agricultural uses.

iii. Use integrated pest management practices to refrain from/limit pesticide use (including herbicides) for long-term operation and site maintenance.

The Project Site is predominately undeveloped woodland with forested uplands on-site best classified as a mesophytic forest (Edinger, 2014) with red maple (*Acer rubrum*), white pine (*Pinus strobus*), pignut hickory (*Carya glabra*), American hornbeam (*Carpinus caroliniana*), and eastern cottonwood (*Populus deltoides*) dominant to varying degrees throughout the woodlands present. The Applicant has minimized tree clearing to the maximum extent practicable through the use of existing trails as possible, however the Project will require approximately 31 acres of tree clearing and grubbing for the installation of the panels and the access road outside of existing trails. The Applicant does not propose the use of any pesticides or herbicides during construction or maintenance of the Project. Further, the Applicant will work with the Planning Board to develop appropriate survey parameters and perform a tree survey in order to prepare a Tree Removal Plan required by the Solar Law. As such, the Project will be in compliance with this requirement.

12) Agricultural Resources. Tier 3 Solar Energy Systems for which the Facility Area includes Active Agricultural Land shall adhere to the following requirements:

i. Tier 3 Solar Energy System located on Active Agricultural Land shall not exceed 50% of the area of the Active Agricultural Land within the Facility Area.

ii. To the maximum extent practicable, Tier 3 Solar Energy Systems located on active Agricultural Land shall be constructed, monitored, and decommissioned in accordance with the NYS Department of Agriculture and Markets' "Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands."

iii. The Planning Board may waive or modify certain bulk and area standards that result in unintended consequence, if it finds that waiving those standards better protects agriculture and promotes continued agricultural use and alternative designs that protect more land.

The Project is not located on active agricultural land or within a designated Agricultural District. Therefore, the Project is in compliance with this requirement.

D. Ownership Changes. If the owner or operator of the Solar Energy System changes or the owner of the property changes, the Special Use Permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the use permit, including the decommissioning plan. A new owner or operator of the Solar Energy System shall notify the zoning enforcement officer of such change in ownership or operator within 30 days of the ownership change.

The Applicant acknowledges this requirement.

COMPLIANCE WITH SAFETY (§10)

A. Solar Energy Systems and Solar Energy Equipment shall be certified under the applicable electrical and building codes as required.

The Project will be designed and engineered by a New York-licensed professional engineer that will certify that the Project meets, or exceeds, the manufacturer's construction and installation standards and applicable code requirements. The Project will be constructed according to all applicable industry standards.

B. Solar Energy Systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department and, if the Tier 2 or 3 Solar Energy System is located in an ambulance district, the local ambulance corps.

The Project will be inspected in accordance with the Solar Facility Operation and Maintenance Plan provided as Attachment 8 of the Application. Therefore, the Project is in compliance with this requirement.

C. If a Battery Energy Storage System is included as part of the Solar Energy System, they shall conform to the Town of Veteran's Battery Energy Storage System Local Law.

The Project does not include solar storage batteries. Therefore, the Project is in compliance with this requirement.

COMPLIANCE WITH PERMIT TIMEFRAME AND ABANDONMENT (§11)

A. The Special Use Permit and site plan approval for a Solar Energy System shall be valid for a period of 36 months, provided that a building permit is issued, and construction is commenced. In the event construction is not completed in accordance with the final site plan – as may have been amended and approved – as required by the Planning Board within 36 months, the applicant may request to extend the time to complete construction for 12 months. Approval of a request to extend the time to complete construction shall not be unreasonably withheld by the Town. If the owner and/or operator fails to perform substantial construction within 48 months, the approvals shall expire.

The Applicant understands the timeframes for the validity of the Special Use Permit and Site Plan approval.

B. Upon cessation of electricity generation of a Solar Energy System on a continuous basis for 6 (six) months ("No Generation Status"), the Town may notify and instruct the owner and/or operator of the Solar Energy System to implement the decommissioning plan. The owner must commence decommissioning within ninety (90) days and complete all removal and restoration within nine (9) months of notification. The owner/operator shall notify the Town Code Enforcement Officer within 30 days of a No Generation Status.

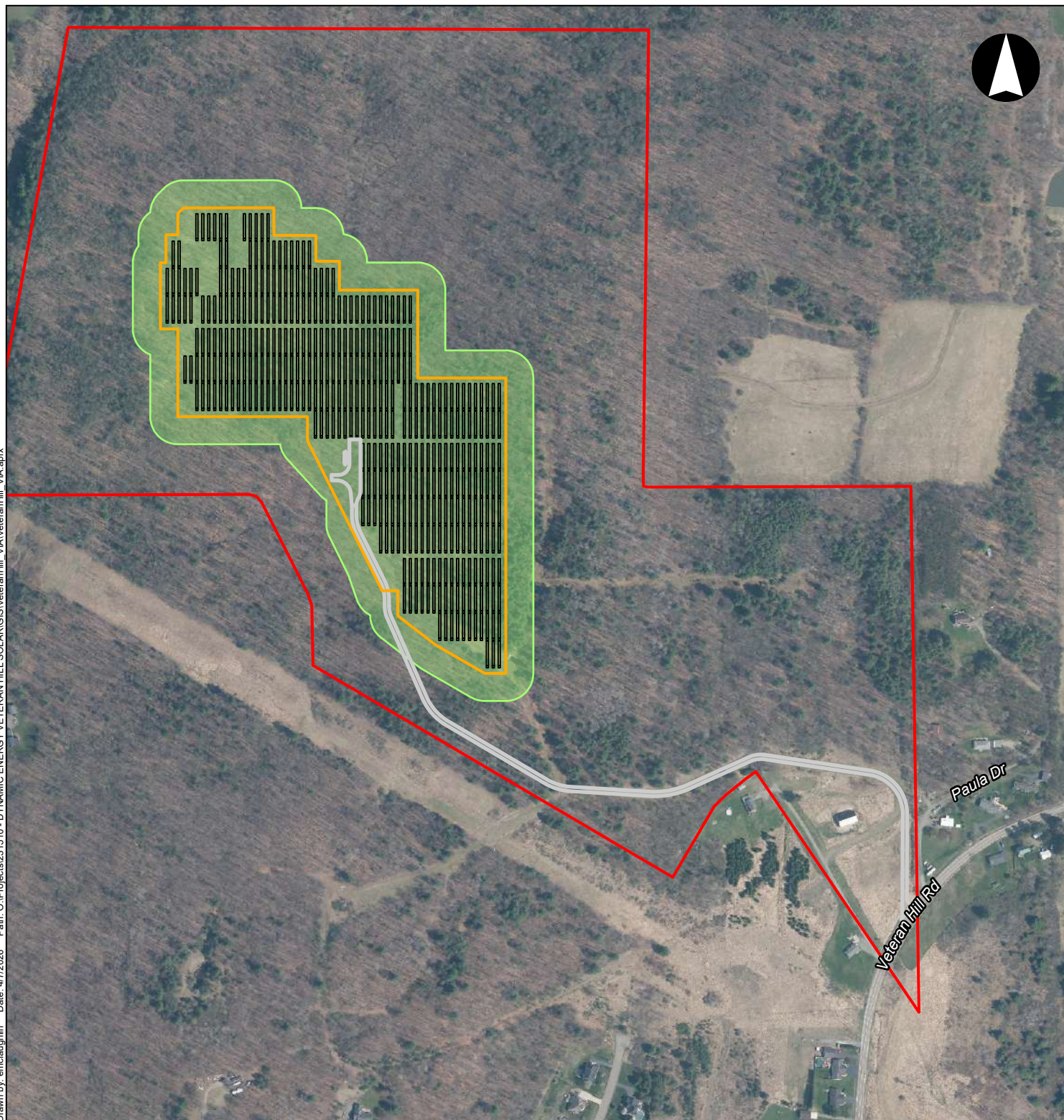
The Project's Preliminary Solar Facility Decommissioning Plan, including the decommissioning cost estimate, is provided as Attachment 9 of the Application and includes provisions commensurate with the Solar Law's Decommissioning Agreement. Therefore, the Project is in compliance with this requirement.

C. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the Town may, at its discretion, utilize the bond and/or security for the removal of the Solar Energy System and restoration of the site in accordance with the decommissioning plan. Refer to Town of Veteran Solar Energy System Decommissioning Agreement Attachment #1.

The Project's Preliminary Solar Facility Decommissioning Plan, including the decommissioning cost estimate, is provided as Attachment 9 of the Application and includes provisions for the Town's utilization of the bond and/or financial security for removal and restoration per the Solar Law's Decommissioning Agreement. Therefore, the Project is in compliance with this requirement.

Figures

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akrf

Data source: Aerial imagery is for 2022,
sourced from the NYS GIS Clearinghouse

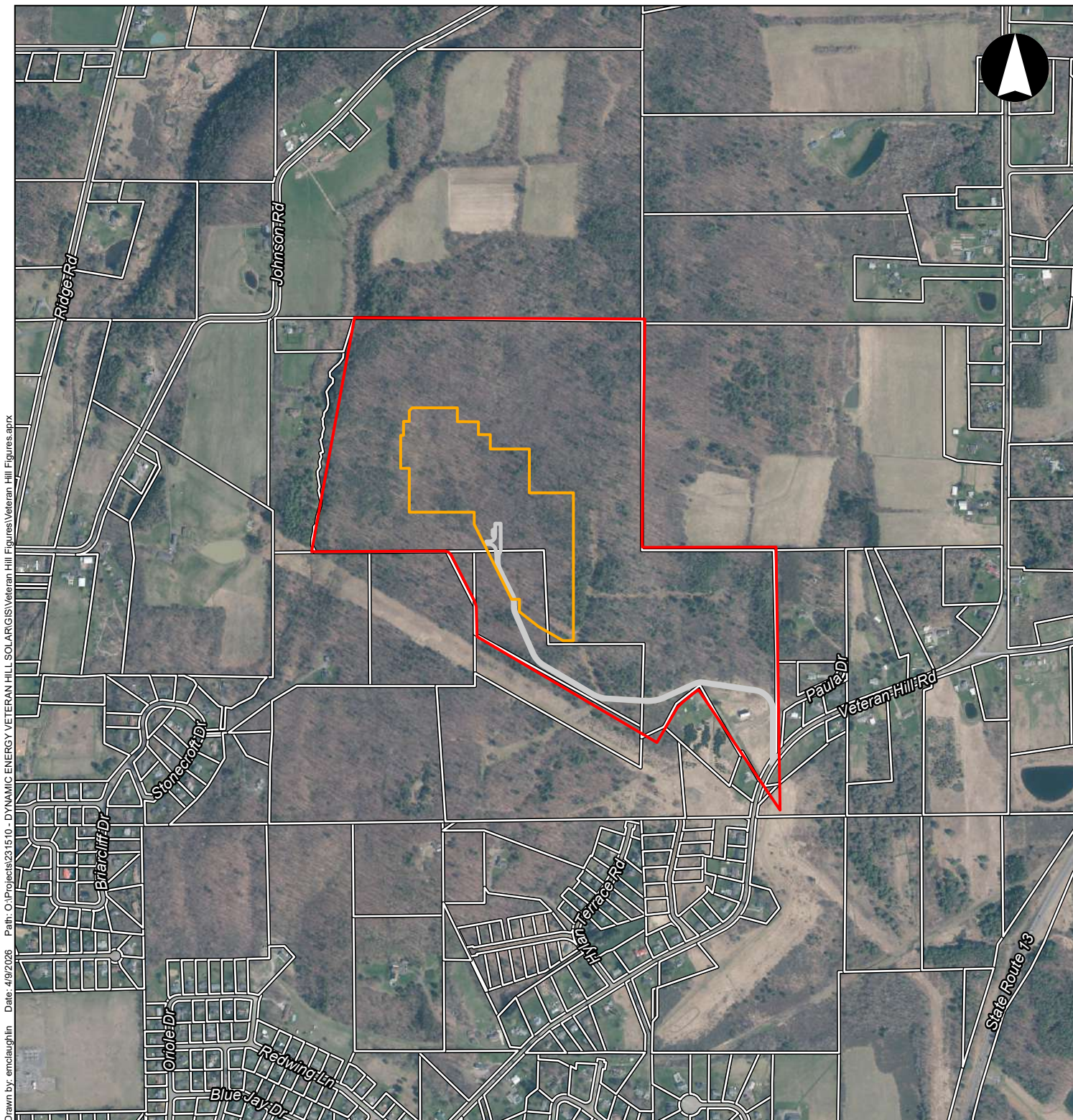
Legend

-  Parcel Boundary
-  Proposed Solar Arrays
-  Proposed Project Fence
-  Proposed Access Road
-  Assumed Tree Clearing Area

Veteran Hill Road Solar, LLC
Veteran Hill Road Solar Project
Town of Veteran
Chemung County, NY

0 250 500
Feet
1 inch equals 500 feet

Figure 1
Project Overview
April 2026



Drawn by: emclaughlin Date: 4/9/2026 Path: O:\Projects\23 1510 - DYNAMIC ENERGY VETERAN HILL SOLAR\GIS\Veteran Hill Figures\Veteran Hill Figures.aprx

akrf

Data source: Parcels data for Chemung County last updated on November 20, 2024

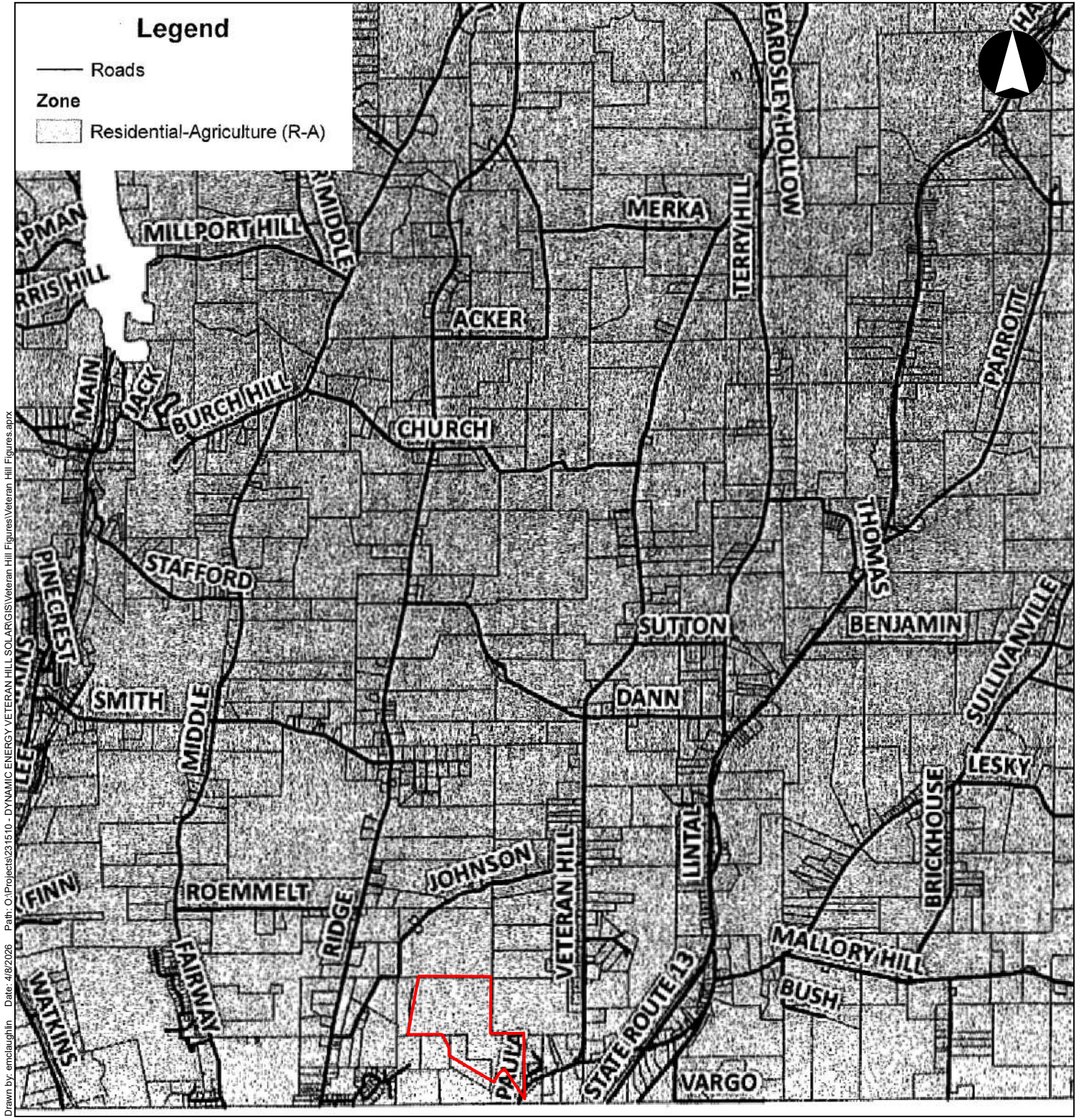
Legend

- Parcel Boundary
- Proposed Project Fence
- Proposed Access Road
- Parcel

**Veteran Hill Road Solar, LLC
Veteran Hill Road Solar Project
Town of Veteran
Chemung County, NY**

0 500 1,000
Feet
1 inch equals 1,000 feet

Figure 2
Chemung County Tax Map
April 2026



Drawn by: emclaughlin Date: 4/8/2026 Path: O:\Projects\23 1510 - DYNAMIC ENERGY VETERAN HILL SOLAR\GIS\Veteran Hill Figures.aprx

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Data source: Zoning map sourced from the Town of Veteran Zoning Law (2021)

Legend

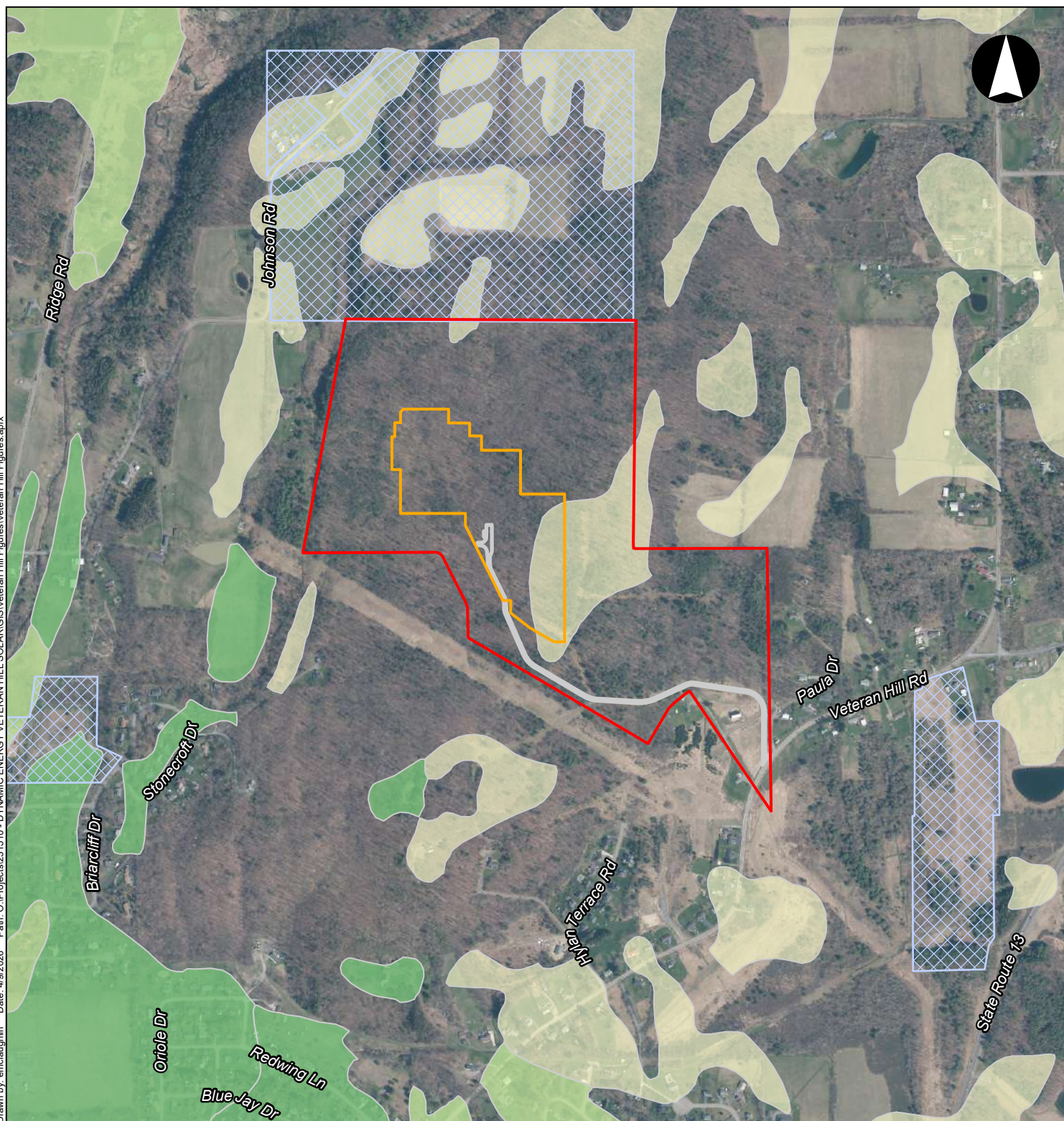
Parcel Boundary

Veteran Hill Road Solar, LLC
 Veteran Hill Road Solar Project
 Town of Veteran
 Chemung County, NY,

0 2,000 4,000 Feet
 1 inch equals 4,000 feet

Figure
Zoning Map
 April 2026

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akrf

Data source: MSG soils data provided by
NYSERDA. NY Agricultural Districts provided
by the NYS GIS Clearinghouse.

Legend

- Parcel Boundary
- Proposed Project Fence
- Proposed Access Road
- NYS Agricultural Districts

NYSERDA MSG Soils

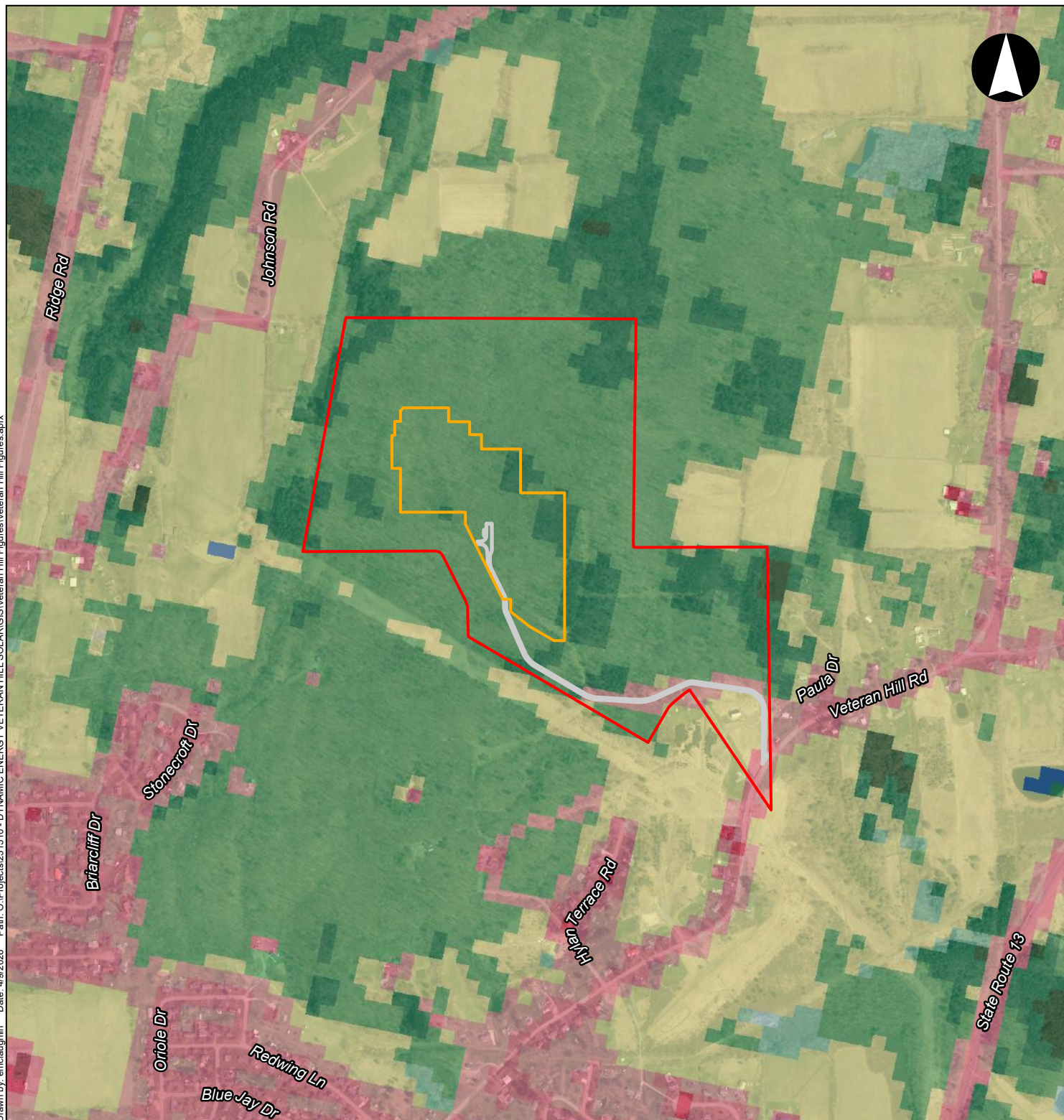
- Group 1
- Group 2
- Group 3
- Group 4

Veteran Hill Road Solar, LLC
Veteran Hill Road Solar Project
Town of Veteran
Chemung County, NY

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Feet
1 inch equals 1,000 feet

Figure
Soils Map
April 2026

Drawn by: emclaughlin Date: 4/9/2026 Path: O:\Projects\23 1510 - DYNAMIC ENERGY VETERAN HILL SOLAR\GIS\Veteran Hill Figures\Veteran Hill Figures.aprx



akrf

Data source: NLCD Land Cover provided by esri, last updated February 23, 2026.

Legend

- Parcel Boundary
- Proposed Project Fence
- Proposed Access Road
- USA Annual NLCD - Land Cover**
- Open Water
- Developed Open Space
- Developed Low Intensity
- Developed Medium Intensity
- Developed High Intensity

- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

Veteran Hill Road Solar, LLC
Veteran Hill Road Solar Project
Town of Veteran
Chemung County, NY

0 500 1,000
Feet
1 inch equals 1,000 feet

figure
NLCD Annual Land Cover
April 2026

Appendix A.
Wetland Delineation Memo

Memorandum

To: Matt McDevitt, Dynamic Energy LLC
From: Elizabeth Weatherby (Vice President); Jerry Peake (Wetland Scientist)
Date: May 7, 2025
Re: Veteran Hill Road Solar Project Wetland Delineation Memo
cc: Jason Funk, Dynamic Energy LLC

INTRODUCTION

Dynamic Energy LLC (Dynamic Energy) is proposing the development of a solar farm on a site located in the Town of Veteran in Chemung County, New York (proposed project). The study area is approximately 100 acres across four (4) parcels (see **Figure 1** and **Figure 2**). It is currently planned that the solar array will be located over undeveloped woodlands on Town of Veteran Tax Parcel 39.00-01-14.1 (project site). The parcel in its entirety is 126.1 acres, of which approximately 85 acres has been delineated as part of the solar project siting investigation. The western and southern-most areas of the parcel having not been delineated. It is currently planned that the proposed site access and interconnection route will follow the eastern parcel boundary from Veteran Hill Road, bearing north, to the westerly turn at the existing access road. The proposed access will follow the existing access road to the west, turning to the north into the central portion of the parcel. The study area consists primarily of undeveloped woodlands intersected with dirt and gravel access roads throughout. It should be noted that AKRF previously performed two wetland delineations at this parcel on December 19, 2023 and October 9 and 10, 2024. The April 2025 wetland delineation focused on the study area located in the central portion of the parcel and along the proposed site access/project interconnection route, consisting of approximately 40 acres.

During the December 2023 delineation, AKRF delineated three (3) streams (S1, S2, and S3). Streams S1 and S3 were determined to be ephemeral and stream S2 was determined to be perennial.

During the October 9 and 10, 2024 delineation, AKRF delineated four (4) wetlands within the additional, approximately 32-acre, project development site study area, which is located to the north of the 2023 study area. In addition, AKRF slightly expanded the previously delineated stream S2 to the north, to cover the area of the previously planned site access/project interconnection route.

The April 7, 2025 and April 21, 2025 site investigations, AKRF investigated approximately 40 acres of additional land located in the central portion of the parcel and the updated proposed site access/project interconnection route. The study area is located to the northwest of the initial 2023 study area and to the south of the 2024 study area. The April 2025 investigation did not result in any additional wetland communities or streams delineated in the central portion of the parcel or along the proposed site access/project interconnection route.

METHODOLOGY

Prior to the wetland delineation, AKRF reviewed maps from the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) (see **Figure 3**) and the New York State Department of Environmental Conservation (NYSDEC) (see **Figure 4**) for NWI-mapped and NYSDEC-mapped wetlands and priority waterbodies, respectively, within the study area. AKRF also reviewed the Natural Resources Conservation Service (NRCS) soils maps (see **Figure 5**) for soil types within the study area, with respect to soil series identified as hydric.

AKRF wetland scientist conducted the wetland delineation within the study area of the proposed project on April 7, 2025 and April 21, 2025, using the U.S. Army Corps of Engineers (USACE) three parameter wetland delineation methodology¹ as described below for the three wetland indicators of hydrology, hydric soils and hydrophytic vegetation. The USACE *Wetland Determination Data Form – Northcentral and Northeast Region* (2012) was used to document the absence of wetlands in the study area and photographs of representative upland communities are shown in **Attachment B**.

HYDROLOGY AND SOILS

AKRF characterized the absence of hydrology within the study area using aerial photographs, site observations, and soil samples. An auger was used to collect the samples to determine soil saturation and/or a high-water table. The soil samples were characterized using the Munsell Soil Color Chart. During the site investigation, hydrology and soils observations were made during a period of moderately wet weather owing to transition of winter to spring and soil moisture due to snow melt in the area.

VEGETATION

AKRF used the USACE *Northcentral and Northeast 2022 Regional Wetland Plant List* to determine the wetland/upland status² of the plant species identified within the study area. Percent cover was documented in the tree, woody vine, sapling/shrub, and herb strata. A 30-foot radius plot was established to document plant species percent cover in the tree and woody vine strata. Within this 30-foot plot, a 15-foot radius plot was established for the measurement of percent cover of shrubs and saplings. For species in the herb stratum, a 5-foot radius plot was established within the 30-foot radius plot.

WETLANDS, SURFACE WATERS MAPS, AND SOILS

NATIONAL WETLANDS INVENTORY-MAPPED WETLANDS

The NWI mapping does not depict any mapped wetlands within the study area; however, it does depict several mapped wetlands within the vicinity of the study area. A mapped riverine (R4SBC, Riverine Intermittent Streambed Seasonally Flooded) is located to the west of the study area (see **Figure 3**). Additionally a second mapped riverine (PUBHh, Palustrine Unconsolidated Bottom Permanently Flooded Diked/Impounded) is located to the east of the study area and further to the south of the study area is a NWI mapped freshwater pond (PUBHx, Palustrine Unconsolidated

¹ Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss; U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

² Wetland/upland statuses for plant species include Obligate (OBL; occurring in wetlands greater than or equal to 99 percent of the time), Facultative Wetland (FACW; occurring in wetlands between 67 and 99 percent of the time), Facultative (FAC; occurring in wetlands between 34 and 66 percent of the time), Facultative Upland (FACU; occurring in wetlands between 1 and 33 percent of the time), and Upland (UPL; occurring in wetlands less than or equal to 1 percent of the time). Dominant species indicative of wetlands include species rated as OBL, FACW, and FAC.

Bottom Permanently Flooded Excavated) and freshwater emergent wetland (PEM1E, Palustrine Emergent Persistent Seasonally Flooded/Saturated).

NEW YORK STATE DEPARTMENT OF CONSERVATION-MAPPED WETLANDS

NYSDEC wetland maps did not identify any wetlands or streams within the study area (see **Figure 4**). However, two (2) NYSDEC mapped Priority Streams are found within the vicinity of the study area: Catherine Creek and tributaries, is located to the west of the study area and North Branch Newton Creek and tributaries is located to the east of the study area.

NEW YORK STATE DEPARTMENT OF CONSERVATION-MAPPED PRIORITY WATERBODIES

The NYSDEC Priority Waterbodies mapping did not identify any mapped resources within the study area. However, as mentioned above, two NYSDEC Class C Priority Waterbody³, Catherine Creek and tributaries (water index number Ont 66-12-P369- 59 (upper))⁴ to the west of the study area, and North Branch Newton Creek (water index number: Pa 3-28-13)⁵ to the east of the study area (see **Figure 4**). The study area is on the border of the Chemung River and Oswego River/Finger Lakes Watersheds.

NATURAL RESOURCES CONSERVATION SERVICE -MAPPED SOILS

NRCS-mapped soils within the study area (see **Figure 5**) are categorized into 3 different soil map units. The soil map units and their hydric rating (i.e., whether NRCS identifies the soil map unit as hydric) are summarized in **Table 1** below.

Table 1.

Natural Resource Conservation Service – Mapped Soils in the Study Area

Soil Map Unit Symbol	Soil Map Unit Name	Hydric Rating	Percent Cover
LnB	Lima silt loam, 3 to 8 percent slopes	Predominantly nonhydric	34.8%
LnC	Lansing silt loam, 8 to 15 percent slopes	Nonhydric	61.4%
VoC	Volusia channery silt loam, 8 to 15 percent slopes	Predominantly nonhydric	3.8%

WETLAND DELINEATION

AKRF wetland scientist performed a site investigation on April 7, 2025 and April 21, 2025. The site investigation did not find additional wetlands within the study area (see **Figure 6**). The study area is predominately undeveloped woodland. Forested uplands on-site are best classified as a mesophytic forest (Edinger, 2014) with red maple (*Acer rubrum*), white pine (*Pinus strobus*), pignut hickory (*Carya glabra*), American hornbeam (*Carpinus caroliniana*), and eastern cottonwood (*Populus deltoides*) dominant to varying degrees throughout the woodlands present on the study area. Weather conditions during the site review on April 7 were 29°F at 7:30 am to 42°F at 1:00 pm with a light snow cover on the ground surface in the morning which melted off by 12:00 pm. Weather conditions during the site review on April 21, 2025 were 63°F and cloudy at

³ Per 6 CRR-NY 701.8, "The best usage of Class C waters is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes."

⁴ [WI/PWL Fact Sheets - Seneca Lake Inlet Watershed \(0414020106\)](#)

⁵ [WI/PWL Fact Sheets - Middle Chemung River Watershed \(0205010505\)](#)

12:00 pm to 65°F and cloudy at 2:30 pm. The sky was overcast for the majority of the site investigation with only brief periods of sunshine throughout the duration of the investigation. Soils were not frozen and vegetation had recently started to bud out. See **Figure 6** and **Attachment A** for an overview of the survey area and photographic documentation of the conditions at the time of the investigation.

UPLAND PLOT 1

Upland plot 1 is an un-paired data plot which characterizes the general upland conditions located in the southern portion of the investigation area, serving to characterize the upland areas within this general vicinity of the site (see **Figure 6** and **Attachment A**). The dominant vegetation observed in this upland included white pine (*Pinus strobus*, FACU) and red oak (*Quercus rubra*, FACU) in the tree stratum and white pine in the sapling/shrub stratum. The observed vegetation does not meet the criteria for hydrophytic vegetation. In addition, this area contained no wetland hydrology or hydric soils indicators. Therefore, this area does not meet the threshold for a wetland (see **Attachment B** – USACE Data Form “Upland Plot 1”).

UPLAND PLOT 2

Upland Plot 2 is an unpaired data plot which characterizes the general upland conditions located within the northwestern portion of the investigation area, serving to characterize the upland areas within this general area of the site (see **Figure 6** and **Attachment A**). The dominant vegetation observed in this upland included red oak (*Quercus rubra*, FACU), white pine (*Pinus strobus*, FACU) in the tree stratum; red oak, white pine, and hophornbeam (*Ostrya virginiana*, FACU) in the sapling/shrub stratum. The vegetation does not meet the criteria for hydrophytic vegetation. In addition, this area contained no wetland hydrology or hydric soils indicators. Therefore, this area does not meet the threshold for a wetland (see **Attachment B** – USACE Data Form “Upland Plot 2”).

UPLAND PLOT 3

Upland plot 3 is an un-paired data plot which characterizes the general upland conditions located within the northeastern portion of the investigation area, serving to characterize the upland areas within this general vicinity of the site (see **Figure 6** and **Attachment A**). The dominant vegetation observed in this upland included red oak (*Quercus rubra*, FACU), black cherry (*Prunus serotina*, FACU), white ash (*Fraxinus americana*, FACU), white pine (*Pinus strobus*, FACU), and American beech (*Fagus grandifolia*, FACU) in the tree stratum; American beech, white pine, and Morrow's honeysuckle (*Lonicera morrowii*, FACU) in the sapling/shrub stratum and partridgeberry (*Mitchella repens*, FACU) in the herbaceous stratum. The observed vegetation does not meet the criteria for hydrophytic vegetation. In addition, this area contained no wetland hydrology or hydric soils indicators. Therefore, this area does not meet the threshold for a wetland (see **Attachment B** – USACE Data Form “Upland Plot 3”).

UPLAND PLOT 4

Upland plot 4 is an un-paired data plot which characterizes the general upland conditions located in the southern portion of the investigation area, serving to characterize the upland conditions along the proposed site access/project interconnection route (see **Figure 6** and **Attachment A**). The dominant vegetation observed in this upland included white pine (*Pinus strobus*, FACU) and white oak (*Quercus alba*, FACU) in the tree stratum and white pine, white oak, and red maple (*Acer rubrum*, FAC) in the sapling/shrub stratum. The dominant vegetation observed in the herbaceous stratum included poverty oatgrass (*Danthonia spicata*, UPL) and dandelion (*Taraxacum officinale*, FACU). The observed vegetation does not meet the criteria for hydrophytic vegetation. In addition, this area contained no wetland hydrology or hydric soils indicators.

Therefore, this area does not meet the threshold for a wetland (see **Attachment B** – USACE Data Form “Upland Plot 4”).

SURFACE WATERS

The site investigations performed on April 7, 2025 and April 21, 2025 did not locate additional surface waters within the investigation area.

PRELIMINARY JURISDICTIONAL SUMMARY AND CONCLUSION

No additional freshwater wetlands or streams were delineated within the study area during the April 7, 2025 and April 21, 2025 site investigations. A total of four (4) upland data plots were collected during the site investigations to document the typical vegetative community, soil characteristics, and hydrology within the investigation areas.

Figures:

- Figure 1 – USGS (NYSDOT) Topographic Map
- Figure 2 – Aerial Overview Map
- Figure 3 – NWI Wetlands Map
- Figure 4 – NYSDEC Wetlands and Priority Waterbodies
- Figure 5 – NRCS Soil Survey Map
- Figure 6 – Study Area Investigation Overview

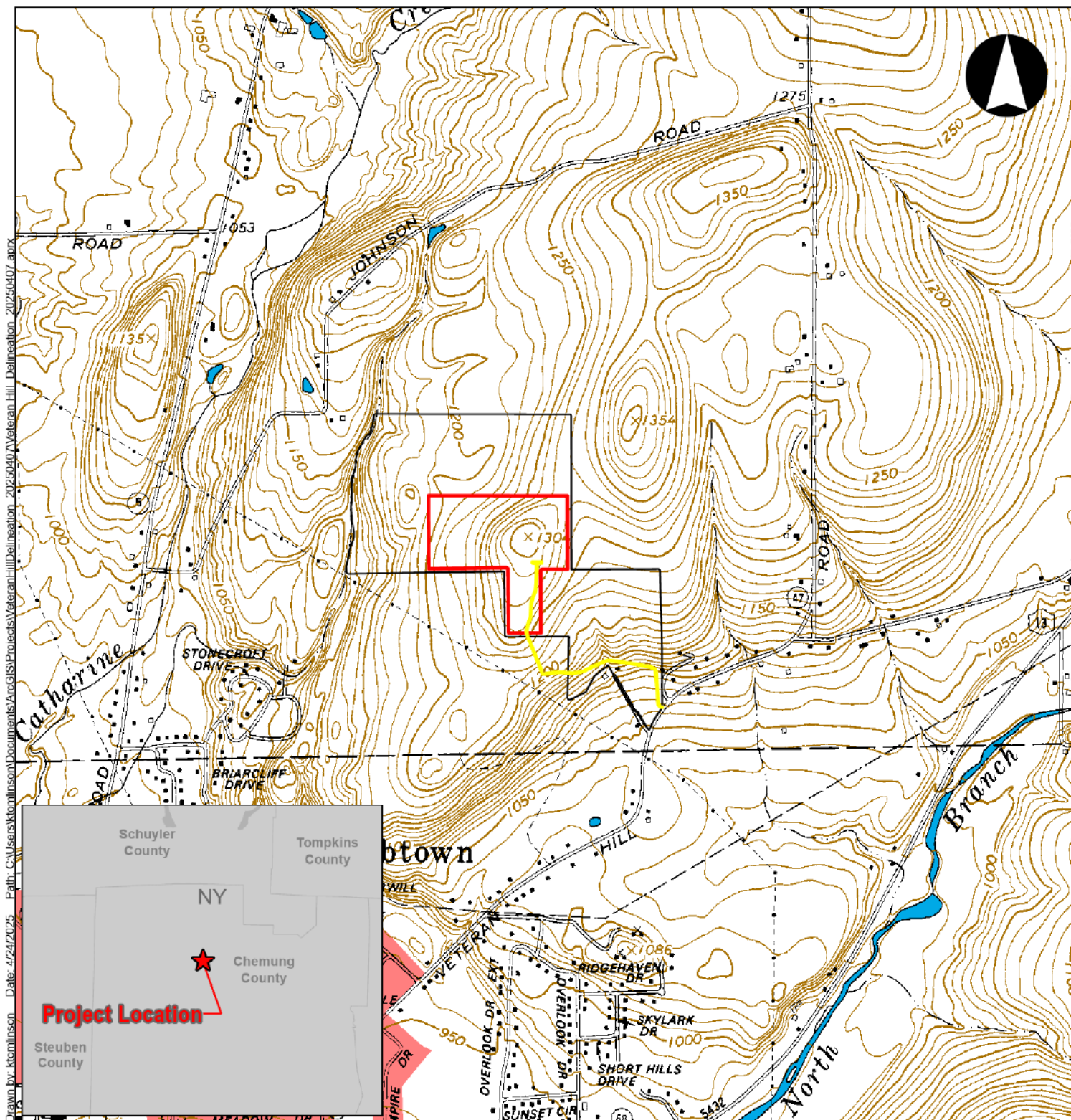
Attachments:

- Attachment A – Study Area Photographic Log
- Attachment B – USACE Wetland Determination Data Forms (ENG 6116-8)

REFERENCES

- Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY
- Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss; U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Figures



akrf

Data source: data.gis.ny.gov 24K Quad Map for Horseheads (W24) last updated March 2023.

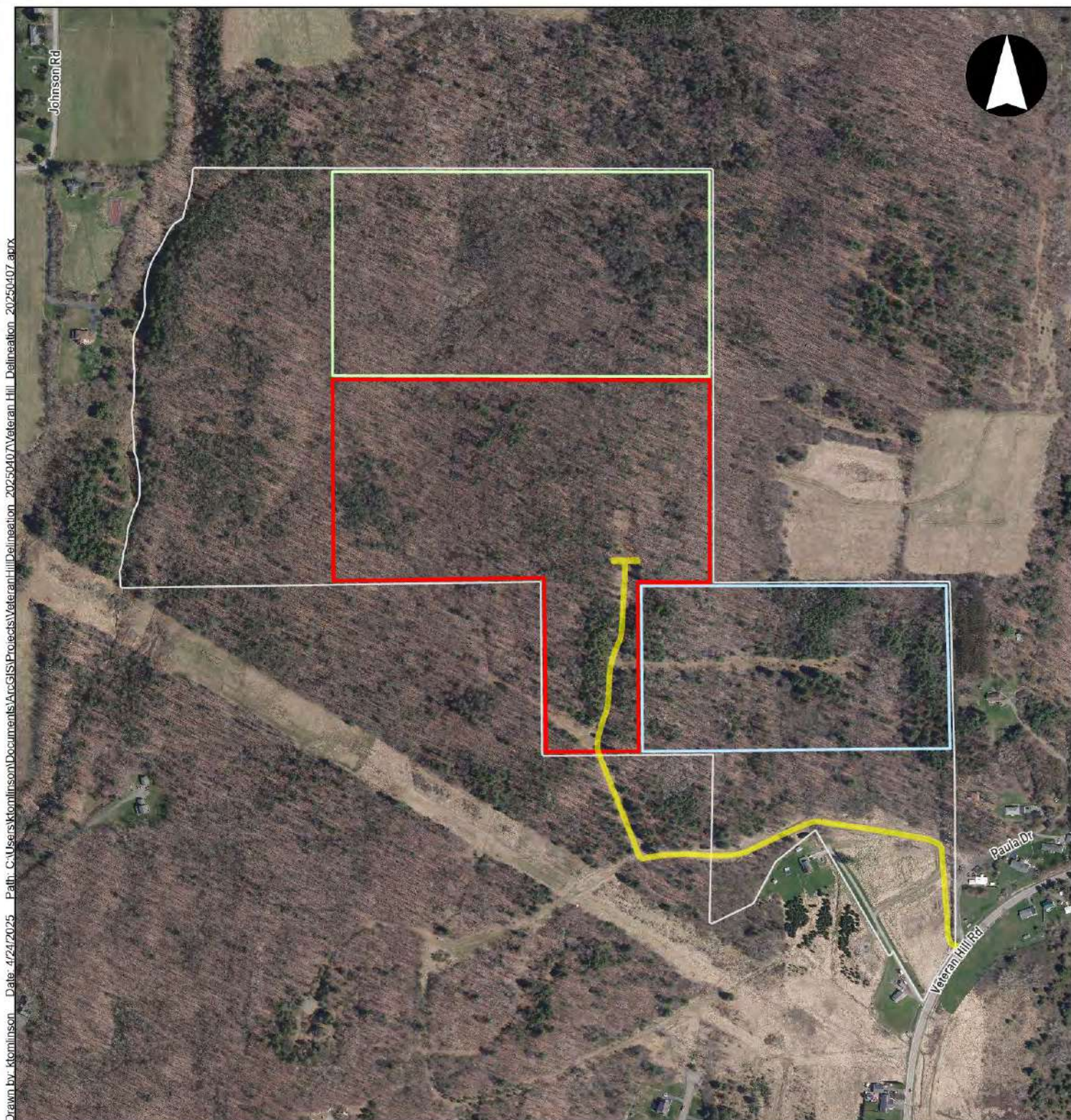
Legend

- Study Area (04/07/2025)
- Parcel Boundary
- Proposed Access Road

Dynamic Energy, LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY
April 2025 Wetland Delineation

0 1,000 2,000
Feet
1 inch equals 2,000 feet

Figure 1
NYSDOT Topographic Site Location
April 2025



akrf

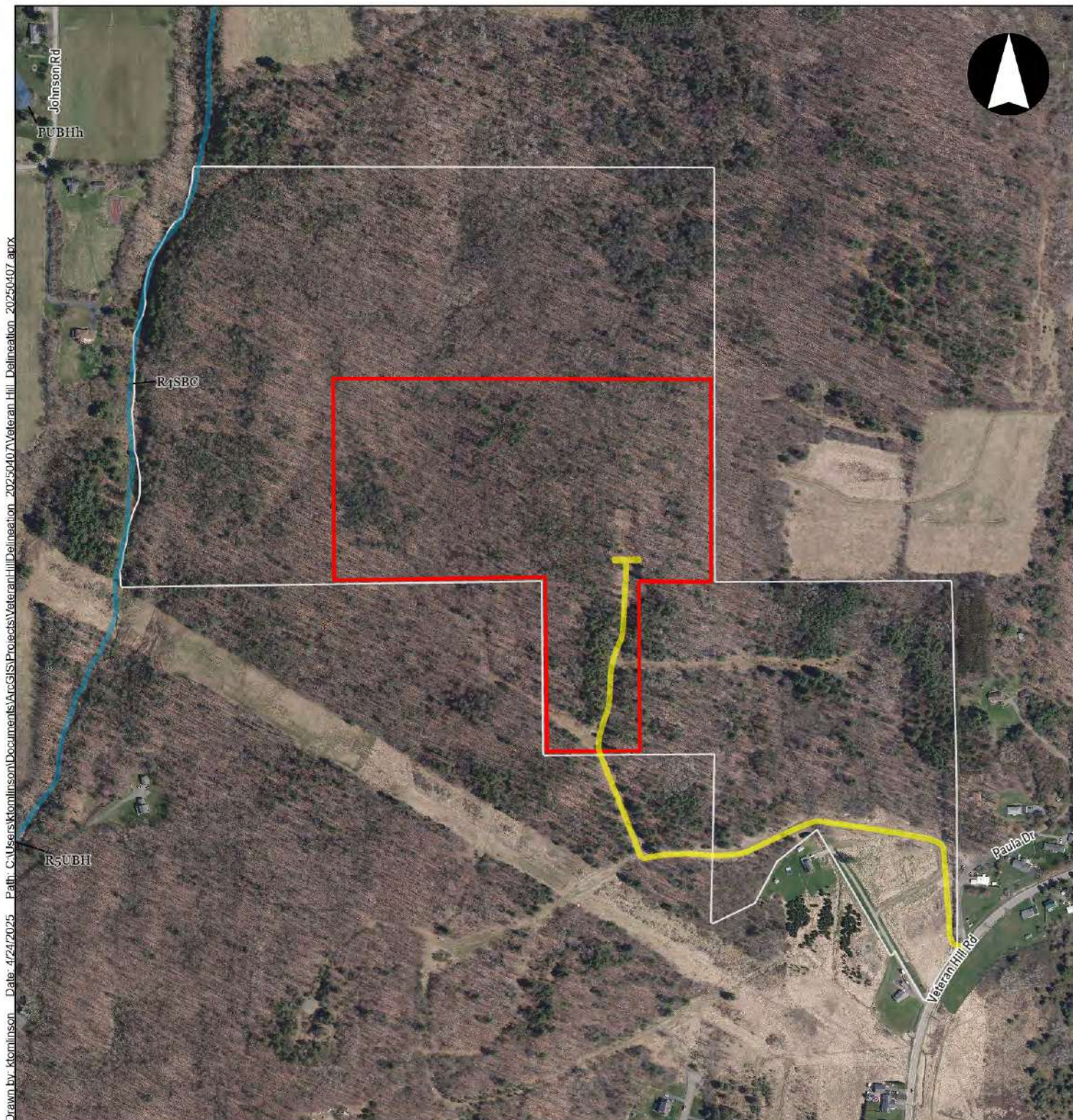
Data source: Aerial imagery sourced from
2021 NYS Orthoimagery Program Office at
<https://ortho.dhSES.ny.gov/>.

Legend

- Study Area (04/07/2025)
- Previously Delineated Area (12/19/2023)
- Previously Delineated Area (10/10/2024)
- Parcel Boundary
- Proposed Access Road

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Town of Veteran, Chemung County, NY
April 2025 Wetland Delineation

Figure 2
Aerial Overview
April 2025



akrf

Data source: USFWS NWI Mapper last updated March, 2025.

Legend

- Study Area (04/07/2025)
- Parcel Boundary
- Proposed Access Road

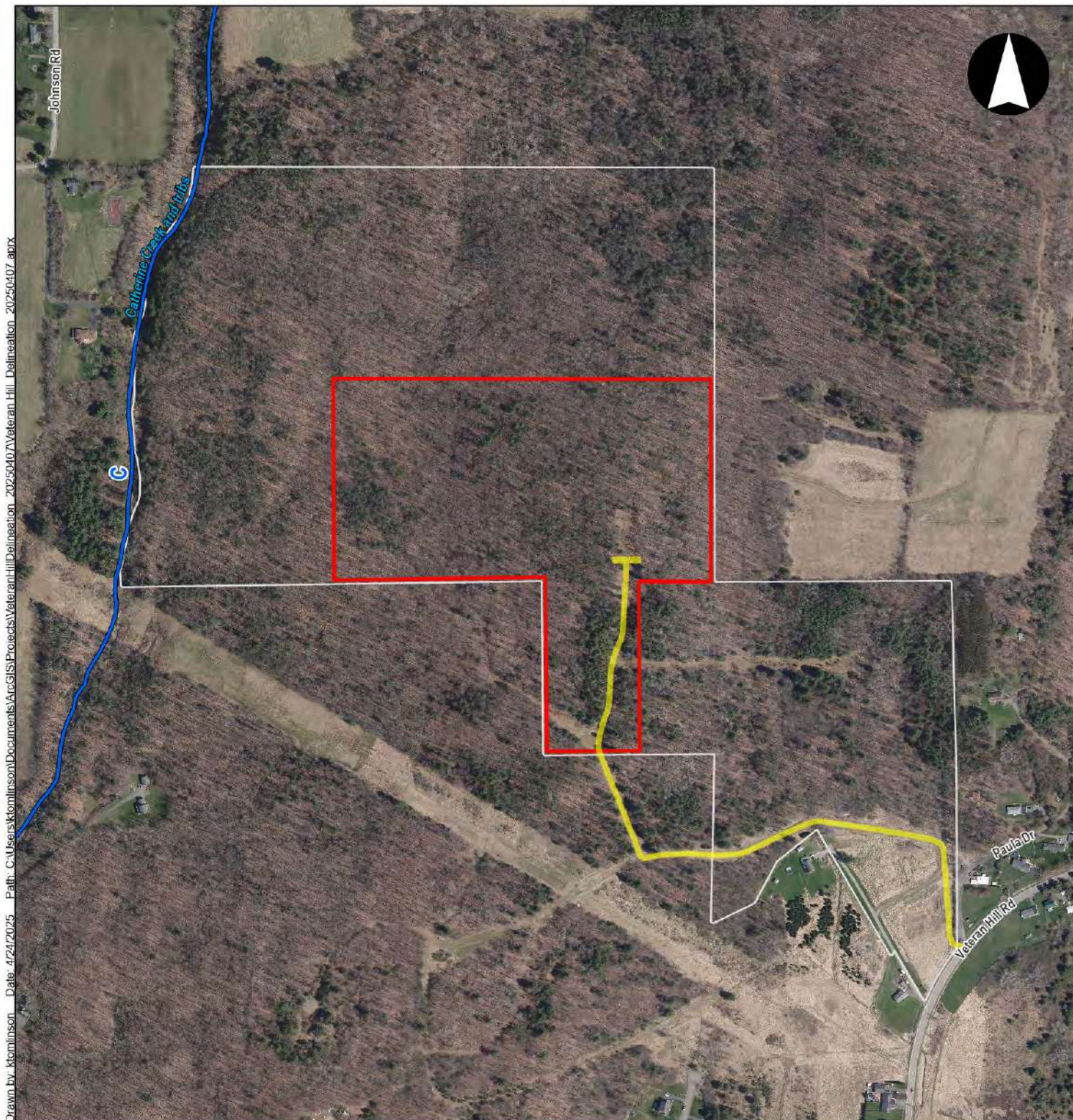
NWI Wetland Type

- Freshwater Pond
- Riverine

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April 2025 Wetland Delineation

0 375 750
Feet
1 inch equals 750 feet

Figure 3
NWI Wetlands
April 2025



akrf

Data source: <https://data.gis.ny.gov/> published by NYSDEC. Mapped wetlands last updated February 2023 and Priority Waterbodies last updated April 2024

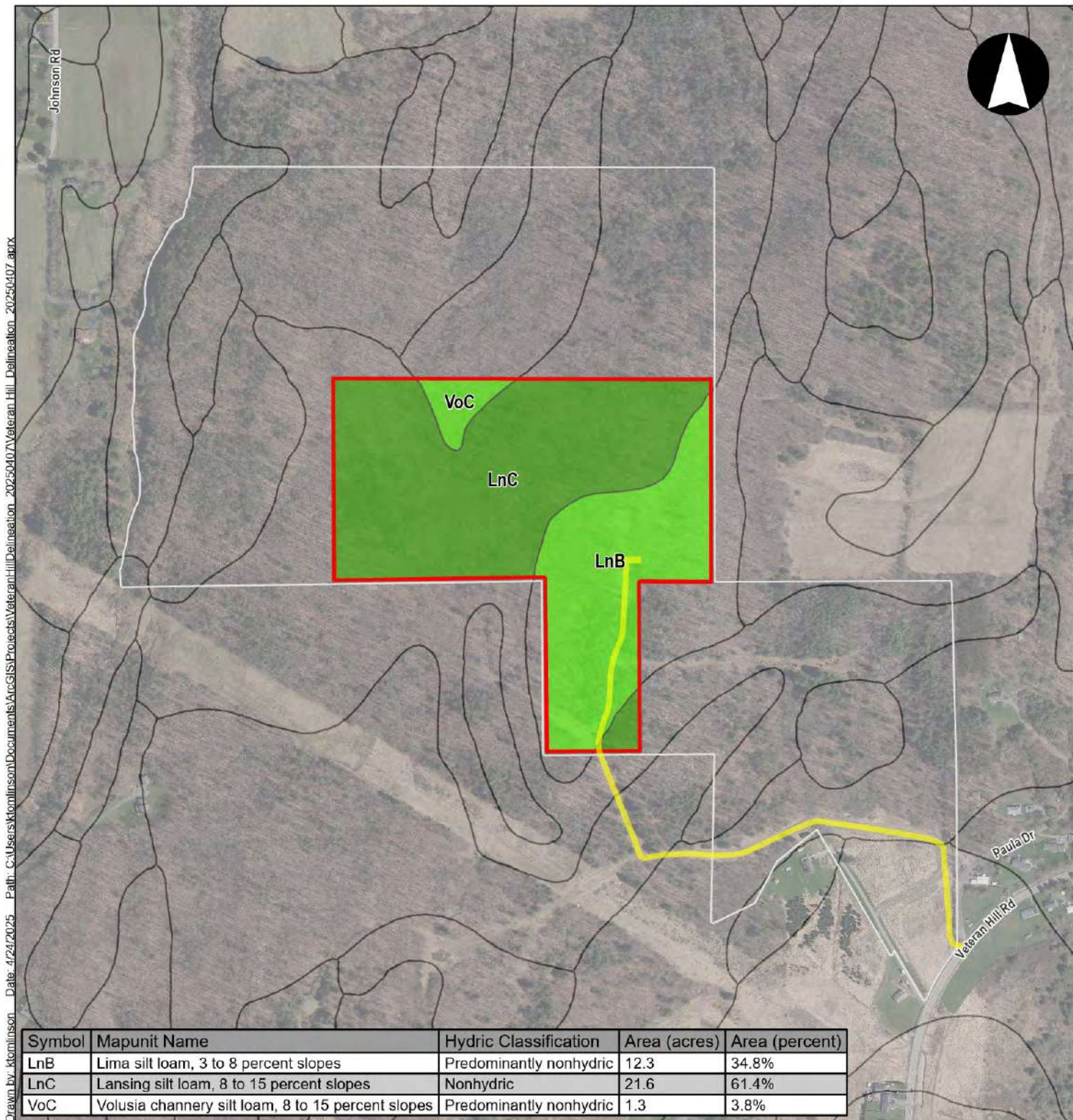
Legend

- Study Area (04/07/2025)
- Parcel Boundary
- Proposed Access Road
- ~ NYSDEC Priority Streams

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Town of Veteran, Chemung County, NY
April 2025 Wetland Delineation

0 375 750
Feet
1 inch equals 750 feet

Figure 4
NYSDEC Wetlands and Priority Waters
April 2025



akrf

Data source: USDA NRCS Web Soil Survey
SSURGO dataset. Last updated October
2024.

Legend

- Study Area (04/07/2025)
- Parcel Boundary
- Proposed Access Road
- NRCS Soil Boundaries

Hydric Classification

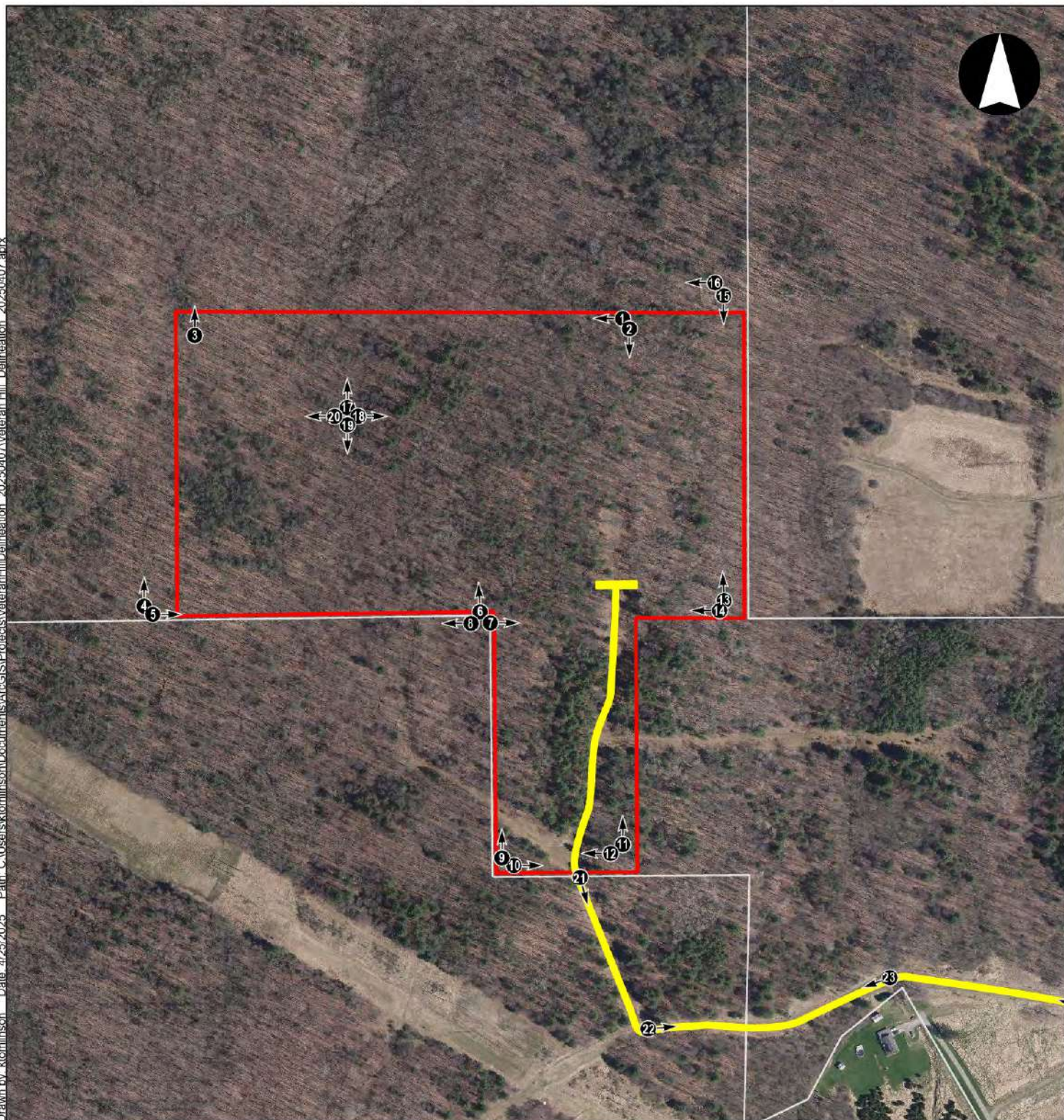
- Predominantly nonhydric
- Nonhydric

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Veteran Hill Solar Project
Town of Veteran, Chemung County, NY
April 2025 Wetland Delineation

0 375 750
Feet
1 inch equals 750 feet

Figure 5
NRCS Soils
April 2025

Drawn by: Ktomlinson Date: 4/25/2025 Path: C:\Users\ktomlinson\Documents\ArcGIS\Projects\Veteran Hill Delineation_20250407.aprx



akrf

NOTE: Photographs were taken by AKRF on April 7 and 21, 2025.

Legend

- Study Area (04/07/2025)
- Parcel Boundary
- Proposed Access Road
- Photograph Location

Dynamic Energy, LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY
April 2025 Wetland Delineation

0 250 500
Feet
1 inch equals 500 feet

Attachment A
Photograph Location
April 2025

ATTACHMENT A
Study Area Photographic Log



Photo 1. Photo facing west along northern investigation boundary. Photo taken from northeastern quadrant of investigation area.



Photo 2. Photo facing south, upgradient, along access trail. Photo taken from northeastern quadrant of investigation area.



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7, 2025



Photo 3. Photo view facing north with previously delineated wetland WD visible in the background. Photo taken from northwest corner of investigation area.



Photo 4. Photo view facing north, upgradient, along western investigation area boundary. Photo taken from southwestern corner of investigation area limits.



**Dynamic Energy LLC
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Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7th, 2025



Photo 5. Photo view east along inspection area southern limit. Photo taken at SW corner of investigation area.



Photo 6. Photo view facing north from the southern investigation area at parcel boundary elbow. The investigation area boundary turns 90 degrees to the south at this location.



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7th, 2025



Photo 7. Photo view facing east from the southern investigation area at parcel boundary elbow. The investigation area boundary turns 90 degrees to the south at this location



Photo 8. Photo view facing west from the southern investigation area at parcel boundary elbow. The investigation area boundary turns 90 degrees to the south at this location



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7th, 2025



Photo 9. Photo view facing north, upgradient, depicting typical upland community with white pine (*Pinus strobus*, FACU) and red oak (*Quercus rubra*, FACU) visible throughout. Photo taken from southwestern-most corner of investigation area.



Photo 10. Photo view facing east toward access trail at southern limits of investigation area. White pine (*Pinus strobus*, FACU) and shagbark hickory (*Carya ovata*, FACU), and Morrow's honeysuckle (*Lonicera morrowii*, FACU) visible throughout. Photo taken from southwestern-most corner of investigation area.



**Dynamic Energy LLC
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Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7th, 2025



Photo 11. Photo view facing north, upgradient, depicting typical upland community with white pine (*Pinus strobus*, FACU) and Morrow's honeysuckle (*Lonicera morrowii*, FACU) visible throughout. Photo taken from southeastern-most corner of investigation area.



Photo 12. Photo view facing west, upgradient, depicting typical upland community with white pine (*Pinus strobus*, FACU) and Morrow's honeysuckle (*Lonicera morrowii*, FACU) visible throughout. Photo taken from southeastern-most corner of investigation area.



**Dynamic Energy LLC
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Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7th, 2025



Photo 13. Photo view facing north along eastern investigation area boundary. Photo taken at southeastern corner of investigation area, typical upland community.



Photo 14. Photo view facing west along southern investigation area boundary. Photo taken at southeastern corner of investigation area, typical upland community.



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7th, 2025



Photo 15. Photo view facing south along eastern investigation area boundary. Photo taken at northeastern corner of investigation area, typical upland community. Access trail visible in center of photo.



Photo 16. Photo view facing west along northern investigation area boundary. Photo taken at northeastern corner of investigation area, typical upland community.



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7th, 2025



Photo 17. Photo view facing north from central portion of investigation area. View depicting typical upland community within project site.



Photo 18. Photo view facing east from central portion of investigation area. View depicting typical upland community within project site.



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7th, 2025



Photo 19. Photo view facing south from central portion of investigation area. View depicting typical upland community within project site.



Photo 20. Photo view facing west from central portion of investigation area. View depicting typical upland community within project site.



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B - Study Area Photographs

Photo Source: AKRF, Inc. April 7th, 2025



Photo 21. Photo view facing south, down gradient along proposed site access/project interconnection route. Photo taken from northeastern portion of proposed site access/project interconnection route.



Photo 22. Photo view facing east, cross gradient along proposed site access/project interconnection route. Photo taken from northward turn on proposed site access/project interconnection route.



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B Study Area Photographs

Photo Source: AKRF, Inc. April 7, 2025



Photo 23. Photo view facing west, upgradient along proposed site access/project interconnection route. Photo taken from existing access road gate.



Photo 24. Photo facing west, upgradient along proposed site access/interconnection route. Photo taken from westward turn on existing access road, access road gate visible in distance.



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B- Study Area Photographs

Photo Source: AKRF, Inc. April 7, 2025

ATTACHMENT B

USACE Wetland Determination Data Forms (ENG 6116-8)

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Veteran Hill Solar Project City/County: Chemung County Sampling Date: 4/7/25
Applicant/Owner: Dynamic Energy LLC State: NY Sampling Point: UPL 1
Investigator(s): Jerry Peake Section, Township, Range: Town of Veteran
Landform (hillside, terrace, etc.): Hillside Local relief (concave, convex, none): Convex Slope %: 3
Subregion (LRR or MLRA): LRR R, MLRA 140 Lat: 42.205981 Long: -76.796080 Datum: WGS1983
Soil Map Unit Name: Lima silt loam, LnB - 3% to 8% slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u> If yes, optional Wetland Site ID: <u> </u>
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Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <u> </u> Surface Water (A1) <u> </u> Water-Stained Leaves (B9) <u> </u> High Water Table (A2) <u> </u> Aquatic Fauna (B13) <u> </u> Saturation (A3) <u> </u> Marl Deposits (B15) <u> </u> Water Marks (B1) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Sediment Deposits (B2) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Drift Deposits (B3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Algal Mat or Crust (B4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Iron Deposits (B5) <u> </u> Thin Muck Surface (C7) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Other (Explain in Remarks) <u> </u> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <u> </u> Surface Soil Cracks (B6) <u> </u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Stunted or Stressed Plants (D1) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> Microtopographic Relief (D4) <u> </u> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: UPL 1

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Pinus strobus</u>	<u>75</u>	<u>Yes</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. <u>Quercus rubra</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Fagus grandifolia</u>	<u>15</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Quercus alba</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>130</u> =Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>Pinus strobus</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>175</u></td> <td>x 4 = <u>700</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>175</u> (A)</td> <td><u>700</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>175</u>	x 4 = <u>700</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>175</u> (A)	<u>700</u> (B)	Prevalence Index = B/A = <u>4.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>175</u>	x 4 = <u>700</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>175</u> (A)	<u>700</u> (B)																			
Prevalence Index = B/A = <u>4.00</u>																				
2. <u>Fagus grandifolia</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>45</u> =Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
_____ =Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)																				
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ =Total Cover																				
Hydrophytic Vegetation Present?				Yes <u> </u> No <u>X</u>																

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point	UPL 1
----------------	-------

[illegible]

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
--	---

Project/Site: Veteran Hill Solar Project City/County: Chemung Sampling Date: 4/7/2025
Applicant/Owner: Dynamic Energy LLC State: NY Sampling Point: UPL 2
Investigator(s): Jerry Peake Section, Township, Range: Town of Veteran
Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope %: 2
Subregion (LRR or MLRA): LRR R, MLRA 140 Lat: 42.207098 Long: -76.799264 Datum: WGS1983
Soil Map Unit Name: Lansing silt loam, LnC - 8% to 15% slopes NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
---	---

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ____ Surface Water (A1) ____ Water-Stained Leaves (B9) ____ High Water Table (A2) ____ Aquatic Fauna (B13) ____ Saturation (A3) ____ Marl Deposits (B15) ____ Water Marks (B1) ____ Hydrogen Sulfide Odor (C1) ____ Sediment Deposits (B2) ____ Oxidized Rhizospheres on Living Roots (C3) ____ Drift Deposits (B3) ____ Presence of Reduced Iron (C4) ____ Algal Mat or Crust (B4) ____ Recent Iron Reduction in Tilled Soils (C6) ____ Iron Deposits (B5) ____ Thin Muck Surface (C7) ____ Inundation Visible on Aerial Imagery (B7) ____ Other (Explain in Remarks) ____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ____ Surface Soil Cracks (B6) ____ Drainage Patterns (B10) ____ Moss Trim Lines (B16) ____ Dry-Season Water Table (C2) ____ Crayfish Burrows (C8) ____ Saturation Visible on Aerial Imagery (C9) ____ Stunted or Stressed Plants (D1) ____ Geomorphic Position (D2) ____ Shallow Aquitard (D3) ____ Microtopographic Relief (D4) ____ FAC-Neutral Test (D5)
---	--

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: UPL 2

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus rubra</u>	<u>45</u>	<u>Yes</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. <u>Pinus strobus</u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Carya ovata</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Fagus grandifolia</u>	<u>8</u>	<u>No</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>103</u>		=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>3</u></td> <td>x 3 = <u>9</u></td> </tr> <tr> <td>FACU species <u>129</u></td> <td>x 4 = <u>516</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>132</u></td> <td>(A) <u>525</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.98</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>3</u>	x 3 = <u>9</u>	FACU species <u>129</u>	x 4 = <u>516</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>132</u>	(A) <u>525</u> (B)	Prevalence Index = B/A = <u>3.98</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>3</u>	x 3 = <u>9</u>																			
FACU species <u>129</u>	x 4 = <u>516</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>132</u>	(A) <u>525</u> (B)																			
Prevalence Index = B/A = <u>3.98</u>																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>Quercus rubra</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u>Pinus strobus</u>	<u>8</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Ostrya virginiana</u>	<u>8</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u>Carpinus caroliniana</u>	<u>3</u>	<u>No</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>29</u>		=Total Cover		Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: <u>5'</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
_____		=Total Cover		Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
Woody Vine Stratum (Plot size: <u>30'</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____		=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point	UPL 2
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[illegible]

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Veteran Hill Solar Project City/County: Chemung Sampling Date: 4/7/2025
Applicant/Owner: Dynamic Energy LLC State: NY Sampling Point: UPL 3
Investigator(s): Jerry Peake Section, Township, Range: Town of Veteran
Landform (hillside, terrace, etc.): Hillside Local relief (concave, convex, none): None Slope %: 3
Subregion (LRR or MLRA): LRR R, MLRA 140 Lat: 42.207352 Long: -76.795026 Datum: WGS1983
Soil Map Unit Name: Lansing silt loam, LnC - 8% to 15% slopes NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ____ Surface Water (A1) ____ Water-Stained Leaves (B9) ____ High Water Table (A2) ____ Aquatic Fauna (B13) ____ Saturation (A3) ____ Marl Deposits (B15) ____ Water Marks (B1) ____ Hydrogen Sulfide Odor (C1) ____ Sediment Deposits (B2) ____ Oxidized Rhizospheres on Living Roots (C3) ____ Drift Deposits (B3) ____ Presence of Reduced Iron (C4) ____ Algal Mat or Crust (B4) ____ Recent Iron Reduction in Tilled Soils (C6) ____ Iron Deposits (B5) ____ Thin Muck Surface (C7) ____ Inundation Visible on Aerial Imagery (B7) ____ Other (Explain in Remarks) ____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ____ Surface Soil Cracks (B6) ____ Drainage Patterns (B10) ____ Moss Trim Lines (B16) ____ Dry-Season Water Table (C2) ____ Crayfish Burrows (C8) ____ Saturation Visible on Aerial Imagery (C9) ____ Stunted or Stressed Plants (D1) ____ Geomorphic Position (D2) ____ Shallow Aquitard (D3) ____ Microtopographic Relief (D4) ____ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: UPL 3

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus rubra</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. <u>Prunus serotina</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Fraxinus americana</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u>Pinus strobus</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
5. <u>Fagus grandifolia</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
6. <u>Populus grandidentata</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
7. <u>Populus tremuloides</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
<u>80</u> =Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)																				
1. <u>Fagus grandifolia</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>150</u></td> <td>x 4 = <u>600</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals <u>150</u> (A)</td> <td><u>600</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>150</u>	x 4 = <u>600</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals <u>150</u> (A)	<u>600</u> (B)	Prevalence Index = B/A = <u>4.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>150</u>	x 4 = <u>600</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals <u>150</u> (A)	<u>600</u> (B)																			
Prevalence Index = B/A = <u>4.00</u>																				
2. <u>Pinus strobus</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Lonicera morrowii</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>65</u> =Total Cover																				
Herb Stratum (Plot size: <u>5'</u>)																				
1. <u>Mitchella repens</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>5</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>30'</u>)																				
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ =Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point UPL 3

[illegible]

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Veteran Hill Solar Project	City/County: Chemung	Sampling Date: 4/21/25
Applicant/Owner: Dynamic Energy LLC	State: NY	Sampling Point: UPL 4
Investigator(s): Jerry Peake	Section, Township, Range: Town of Veteran	
Landform (hillside, terrace, etc.): Hillside	Local relief (concave, convex, none): None	Slope %: 10
Subregion (LRR or MLRA): LRR R, MLRA 140	Lat: 42.203188	Long: -76.795530
Soil Map Unit Name: Lima silt loam, LnB - 3% to 8% slopes	Datum: WGS1983	
Soil Map Unit Name: Lima silt loam, LnB - 3% to 8% slopes		
NWI classification:		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)		
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No		
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes No X	Is the Sampled Area within a Wetland? Yes No X
Hydric Soil Present? Yes No X	
Wetland Hydrology Present? Yes No X	
If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)	
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)	
Saturation (A3)	Marl Deposits (B15)	Moss Trim Lines (B16)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots (C3)	Crayfish Burrows (C8)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Stunted or Stressed Plants (D1)	
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)	
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Shallow Aquitard (D3)	
Sparsely Vegetated Concave Surface (B8)		Microtopographic Relief (D4)	
		FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present? Yes No X	Depth (inches):	Wetland Hydrology Present? Yes No X	
Water Table Present? Yes No X	Depth (inches):		
Saturation Present? Yes No X	Depth (inches):		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION – Use scientific names of plants.

 Sampling Point: UPL 4

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u><i>Pinus strobus</i></u>	<u>45</u>	<u>Yes</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>14.3%</u> (A/B)																
2. <u><i>Quercus alba</i></u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>65</u>	=Total Cover	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>125</u></td> <td>x 4 = <u>500</u></td> </tr> <tr> <td>UPL species <u>43</u></td> <td>x 5 = <u>215</u></td> </tr> <tr> <td>Column Totals <u>198</u> (A)</td> <td><u>795</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.02</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>125</u>	x 4 = <u>500</u>	UPL species <u>43</u>	x 5 = <u>215</u>	Column Totals <u>198</u> (A)	<u>795</u> (B)	Prevalence Index = B/A = <u>4.02</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>10</u>	x 2 = <u>20</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>125</u>	x 4 = <u>500</u>																			
UPL species <u>43</u>	x 5 = <u>215</u>																			
Column Totals <u>198</u> (A)	<u>795</u> (B)																			
Prevalence Index = B/A = <u>4.02</u>																				
Sapling/Shrub Stratum (Plot size: <u>15</u>)																				
1. <u><i>Quercus alba</i></u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u><i>Pinus strobus</i></u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u><i>Acer rubrum</i></u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>																	
4. <u><i>Vaccinium corymbosum</i></u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
5. <u><i>Lonicera morrowii</i></u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
6. <u><i>Elaeagnus umbellata</i></u>	<u>8</u>	<u>No</u>	<u>UPL</u>																	
7. _____	_____	_____	_____																	
		<u>78</u>	=Total Cover	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: <u>5</u>)																				
1. <u><i>Danthonia spicata</i></u>	<u>30</u>	<u>Yes</u>	<u>UPL</u>																	
2. <u><i>Taraxacum officinale</i></u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u><i>Potentilla canadensis</i></u>	<u>5</u>	<u>No</u>	<u>UPL</u>																	
4. <u><i>Plantago rugelii</i></u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		<u>55</u>	=Total Cover	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
Woody Vine Stratum (Plot size: <u>30</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		_____	=Total Cover																	

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point UPL 4

[illegible]

Memorandum

To: Matt McDevitt, Dynamic Energy LLC

From: Elizabeth Weatherby (Vice President); Edward McLaughlin (Environmental Scientist)

Date: November 22, 2024

Re: Veteran Hill Solar Project Wetland Delineation Memo

cc: Jason Funk, Dynamic Energy LLC

INTRODUCTION

Dynamic Energy LLC (Dynamic Energy) is proposing the development of a solar farm on a site located in the Town of Veteran in Chemung County, New York (proposed project). The study area is approximately 100 acres across four (4) parcels (see **Figure 1** and **Figure 2**). It is currently planned that the solar array will be located over undeveloped woodlands on Parcel 39.00-01-14.1 (project site). It is currently planned that the proposed site access and interconnection route will follow the eastern parcel boundary from Veteran Hill Road, bearing north, to the proposed project area in the northern portion of the parcel. The study area consists primarily of undeveloped old growth woodlands. It should be noted that AKRF previously performed a wetland delineation at this parcel on December 19, 2023, which focused on the prior study area located in the southern portion of the parcel. During the prior delineation, AKRF delineated three (3) streams (S1, S2, and S3). Streams S1 and S3 were determined to be ephemeral and stream S2 was determined to be perennial.

On October 9 and 10, 2024, AKRF delineated four (4) wetlands within the new, approximately 32-acre, project development site study area, which is located to the north of the previous study area. In addition, AKRF slightly expanded the previously delineated stream S2 to the north, to cover the area of the planned site access/project interconnection route.

METHODOLOGY

Prior to the wetland delineation, AKRF reviewed maps from the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) (see **Figure 3**) and the New York State Department of Environmental Conservation (NYSDEC) (see **Figure 4**) for NWI-mapped and NYSDEC-mapped wetlands and priority waterbodies, respectively, within the study area. AKRF also reviewed the Natural Resources Conservation Service (NRCS) soils maps (see **Figure 5**) for soil types within the study area, with respect to soil series identified as hydric.

AKRF wetland scientists conducted the wetland delineation within the study area of the proposed project on October 9 and 10, 2024, using the U.S. Army Corps of Engineers (USACE) three parameter wetland delineation methodology¹ as described below for the three wetland indicators

¹ Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss; U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (version

of hydrology, hydric soils and hydrophytic vegetation. The USACE *Wetland Determination Data Form – Northcentral and Northeast Region* (2012) was used to document the wetlands observed in the study area and photographs of the delineated wetlands are shown in **Attachment B**.

HYDROLOGY AND SOILS

AKRF characterized the hydrology within the study area using aerial photographs, site observations, and soil samples. An auger was used to collect the samples to determine soil saturation and/or a high-water table. The soil samples were characterized using the Munsell Soil Color Chart. During the wetland delineation, hydrology and soils observations were made during a period of dry weather.

VEGETATION

AKRF used the USACE *Northcentral and Northeast 2022 Regional Wetland Plant List* to determine the wetland/upland status² of the plant species identified within the study area. Percent cover was documented in the tree, woody vine, sapling/shrub, and herb strata. A 30-foot radius plot was established to document plant species percent cover in the tree and woody vine strata. Within this 30-foot plot, a 15-foot radius plot was established for the measurement of percent cover of shrubs and saplings. For species in the herb stratum, a 5-foot radius plot was established within the 30-foot radius plot.

WETLANDS, SURFACE WATERS MAPS, AND SOILS

NATIONAL WETLANDS INVENTORY-MAPPED WETLANDS

The NWI mapping does not depict any mapped wetlands within the study area; however, it does depict several mapped wetlands within the vicinity of the study area. A mapped riverine (R4SBC, Riverine Intermittent Streambed Seasonally Flooded) is located to the west of the study area, and a second mapped riverine (PUBHh, Palustrine Unconsolidated Bottom Permanently Flooded Diked/Impounded) is located to the east of the study area (see **Figure 3**). Additionally, further to the south of the study area is a NWI mapped freshwater pond (PUBHx, Palustrine Unconsolidated Bottom Permanently Flooded Excavated) and freshwater emergent wetland (PEM1E, Palustrine Emergent Persistent Seasonally Flooded/Saturated).

NEW YORK STATE DEPARTMENT OF CONSERVATION-MAPPED WETLANDS

NYSDEC wetland maps did not identify any wetlands or streams within the study area (see **Figure 4**). However, two (2) NYSDEC mapped Priority Streams are found within the vicinity of the study area: Catherine Creek and tributaries, is located to the west of the study area and North Branch Newton Creek and tributaries is located to the east of the study area.

NEW YORK STATE DEPARTMENT OF CONSERVATION-MAPPED PRIORITY WATERBODIES

The NYSDEC Priority Waterbodies mapping did not identify any mapped resources within the study area. However, as mentioned above, two NYSDEC Class C Priority Waterbody³, Catherine

2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

² Wetland/upland statuses for plant species include Obligate (OBL; occurring in wetlands greater than or equal to 99 percent of the time), Facultative Wetland (FACW; occurring in wetlands between 67 and 99 percent of the time), Facultative (FAC; occurring in wetlands between 34 and 66 percent of the time), Facultative Upland (FACU; occurring in wetlands between 1 and 33 percent of the time), and Upland (UPL; occurring in wetlands less than or equal to 1 percent of the time). Dominant species indicative of wetlands include species rated as OBL, FACW, and FAC.

³ Per 6 CRR-NY 701.8, "The best usage of Class C waters is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes."

Creek and tributaries (water index number Ont 66-12-P369- 59 (upper))⁴ to the west of the study area, and North Branch Newton Creek (water index number: Pa 3-28-13)⁵ to the east of the study area (see **Figure 4**). The study area is on the border of the Chemung River and Oswego River/Finger Lakes Watersheds.

NATURAL RESOURCES CONSERVATION SERVICE -MAPPED SOILS

NRCS-mapped soils within the study area (see **Figure 5**) are categorized into 15 different soil map units. The soil map units and their hydric rating (i.e., whether NRCS identifies the soil map unit as hydric) are summarized in **Table 1** below.

Table 1.
Natural Resource Conservation Service – Mapped Soils in the Study Area

Soil Map Unit Symbol	Soil Map Unit Name	Hydric Rating	Percent Cover
ArB	Arkport fine sandy loam, 3 to 8 percent slopes	Nonhydric	1.66%
ChA	Colton loamy fine sand, 0 to 3 percent slopes	Nonhydric	2.32%
LnB	Lima silt loam, 3 to 8 percent slopes	Predominantly nonhydric	4.45%
LnC	Lansing silt loam, 8 to 15 percent slopes	Nonhydric	35.17%
LnD	Lansing silt loam, 15 to 25 percent slopes	Nonhydric	2.79%
VoB	Volusia channery silt loam, 0 to 8 percent slopes	Predominantly nonhydric	27.98%
VoC	Volusia channery silt loam, 8 to 15 percent slopes	Predominantly nonhydric	25.62%

WETLAND DELINEATION

AKRF wetland scientists performed a site review on October 9th and 10th, 2024, which resulted in the delineation of four (4) wetlands within the study area (see **Figure 6**). The study area is predominately an undeveloped old growth woodland. Forested uplands on-site are best classified as a mesophytic forest (Edinger, 2014) with red maple (*Acer rubrum*), white pine (*Pinus strobus*), pignut hickory (*Carya glabra*), American hornbeam (*Carpinus caroliniana*), and eastern cottonwood (*Populus deltoides*) dominant to varying degrees throughout the woodlands present on the study area. Weather conditions during the site review between the 9th and 10th were generally 44°F to 59°F with moderate rainfall occurring for approximately 2 hours beginning around 6pm on the night of the 9th. Soils were not frozen and vegetation had senesced. See **Attachment A, Figure 1** for an overview of the delineated boundaries for the wetland areas.

WETLAND WA

Wetland WA (0.018 acres) is a forested freshwater wetland located near the property boundary and proposed site access/interconnection route (see **Figure 6** and **Attachment A, Figure 1 and Figure 2A**). This wetland area is a localized depression. This wetland contains species such as red maple (*Acer rubrum*, FAC) in the tree stratum; white oak (*Quercus alba*, FACU) in the sapling/shrub stratum; fringed sedge (*Carex crinita*, OBL), giant goldenrod (*Solidago gigantea*,

⁴ [WI/PWL Fact Sheets - Seneca Lake Inlet Watershed \(0414020106\)](#)

⁵ [WI/PWL Fact Sheets - Middle Chemung River Watershed \(0205010505\)](#)

FACW), and woolgrass (*Scirpus cyperinus*, OBL) in the herb stratum. This passed the Dominance Test and Prevalence Index indicators for hydrophytic vegetation.

A soil sample from this wetland meets the criteria for the “F3 Depleted Matrix” and “F8 Redox Depressions” hydric soil indicators.

Primary hydrology indicators observed at this wetland include “B9 Water-Stained Leaves”. In addition, secondary hydrology indicators observed and include “B10 – Drainage Patterns”, “D1 Stunted or Stressed Plants”, and “D5 FAC-Neutral Test” (see **Attachment C** – USACE Data Form “Wetland WA”). Stunted or Stressed Plants included several white pines that were observed growing within and near this that showed signs of malnourishment, as compared to the healthy white pines further outside of this wetland

UPLAND WA

Upland W1-A describes the general upland conditions across much of the study area and is situated between wetlands WA and WB, serving to characterize the upland areas adjacent to both of these wetlands (see **Figure 6** and **Attachment A, Figure 1 and Figure 2A**). The vegetation observed in this upland included red maple (*Acer rubrum*, FAC), white pine (*Pinus strobus*, FACU) and pignut hickory (*Carya glabra*, FACU) in the tree stratum; bush honeysuckle (*Diervilla lonicera*, UPL) in the sapling/shrub stratum; and white ash (*Fraxinus americana* FACU), pignut hickory (*Carya glabra*, FACU) and Pennsylvania sedge (*Carex pensylvanica*, FACU) in the herb stratum. The vegetation does not meet the criteria for hydrophytic vegetation. In addition, this area contained no wetland hydrology or hydric soils indicators. Therefore, this area does not meet the threshold for a wetland (see **Attachment C** – USACE Data Form “Upland WA”). It should also be noted that facultative vegetation (defined by USACE as “occur in wetlands and non-wetlands”), red maple (*Acer rubrum*) was observed throughout most of the upland areas on site.

WETLAND WB

Wetland WB (0.019 acres) is a scrub/shrub freshwater wetland located along the proposed site access/interconnection route (see **Figure 6** and **Attachment A, Figure 1 and Figure 2B**). This wetland area is a localized depression. This wetland contains species such as red maple (*Acer rubrum*, FAC) in the sapling/shrub stratum; sensitive fern (*Onoclea sensibilis*, FAC), New York fern (*Parathelypteris noveboracensis*, OBL) and shallow sedge (*Carex lurida*, OBL) in the herb stratum. This passed the Dominance Test and Prevalence Index indicators for hydrophytic vegetation.

A soil sample from this wetland meets the criteria for the “F3 Depleted Matrix” hydric soil indicator.

Primary hydrology indicators observed at this wetland include “B9 Water-Stained Leaves”. In addition, secondary hydrology indicators observed and include “B10 – Drainage Patterns”, “D4 Microtopographic Relief”, and “D5 FAC-Neutral Test” (see **Attachment C** – USACE Data Form “Wetland WB”).

WETLAND WC

Wetland WC (5.99 acres) is a forested freshwater wetland located within the proposed project development area and is the largest of the wetlands on-site (see **Figure 6** and **Attachment A, Figure 1 and Figure 2C**). This wetland area is located on a hillside, however, the wetland itself is generally flat containing minor changes in topography. Being situated between two areas of notable slopes has caused water to drain into this area and forming the wetland. In addition, the bedrock layer at this location is relatively high, located approximately 16 inches below the surface, which influences the hydrology and drainage patterns within this wetland. Within this wetland, there are three (3) locations where minor drainage corridors form on the hillside and drain into the larger wetland complex. The wetland receives hydrologic input from the hillside located to the

west and ultimately drains to the east where slopes increase and the wetland narrows forming a distinct drainage pattern. This wetland contains species such as red maple (*Acer rubrum*, FAC) and pin oak (*Quercus palustris*, FACW) in the tree stratum; American hornbeam (*Carpinus caroliniana*, FAC), red maple (*Acer rubrum*, FAC) and white ash (*Fraxinus americana*, FACU) in the sapling/shrub stratum; cinnamon fern (*Osmundastrum cinnamomeum*, FACW), New York fern (*Parathelypteris noveboracensis*, FAC) and fringed sedge (*Carex crinita*, OBL), and fowl manna grass (*Glyceria striata*, OBL) in the herb stratum. This passed the Dominance Test and Prevalence Index indicators for hydrophytic vegetation.

A soil sample from this wetland meets the criteria for the “F3 Depleted Matrix” and “A11 Depleted Below Dark Surface” hydric soil indicators.

Primary hydrology indicators observed at this wetland include “B9 Water-Stained Leaves”. In addition, secondary hydrology indicators observed and include “B10 – Drainage Patterns” and “D4 Microtopographic Relief” (see **Attachment C** – USACE Data Form “Wetland WC”).

UPLAND WC

Upland WC is situated between wetlands WC and WD, serving to characterize the upland areas adjacent to both of these wetlands (see **Figure 6** and **Attachment A, Figure 1 and Figure 2C**). The vegetation observed in this upland included red maple (*Acer rubrum*, FAC), shagbark hickory (*Carya glabra*, FACU), white oak (*Quercus alba*, FACU), American hornbeam (*Carpinus caroliniana*, FAC) and slippery elm (*Ulmus rubra*, FAC) in the tree stratum; bush honeysuckle (*Diervilla lonicera*, UPL) in the sapling/shrub stratum; and New York fern (*Parathelypteris noveboracensis*, OBL) and Pennsylvania sedge (*Carex pennsylvanica*, FACU) in the herb stratum. The vegetation does not meet the criteria for hydrophytic vegetation. In addition, this area contained no wetland hydrology indicators observed. However, the soil sample in this location was marginal, and did meet the hydric soil indicator for “A11 Depleted Below Dark Surface”. Even though hydric soils were observed this area does not meet the threshold for a wetland since there was no hydrology indicators or hydric vegetation (see **Attachment C** – USACE Data Form “Upland WC”).

WETLAND WD

Wetland WD (0.11 acres) is An isolated forested freshwater wetland located in the southwestern corner of the study area for the proposed development (see **Figure 6** and **Attachment A, Figure 1 and Figure 2C**). This wetland area is a localized depression. This wetland contains species such as red maple (*Acer rubrum*, FAC) and slippery elm (*Ulmus rubra*, FAC) in the tree stratum; red maple (*Acer rubrum*, FAC) and slippery elm (*Ulmus rubra*, FAC) in the sapling/shrub stratum; northern dewberry (*Rubus flagellaris*, FACU), New York fern (*Parathelypteris noveboracensis*, OBL) and shallow sedge (*Carex lurida*, OBL) in the herb stratum. This passed the Dominance Test and Prevalence Index indicators for hydrophytic vegetation.

A soil sample from this wetland meets the criteria for the “F3 Depleted Matrix” and “A11 Depleted Below Dark Surface” hydric soil indicators.

Primary hydrology indicators observed at this wetland include “B9 Water-Stained Leaves”. In addition, secondary hydrology indicators observed and include “B16 – Moss Trim Lines” and “D4 Microtopographic Relief” (see **Attachment C** – USACE Data Form “Wetland WC”).

SURFACE WATERS

STREAM S2

As discussed above, stream S2 was previously delineated by AKRF on December 19, 2023. During the delineation on October 9th and 10th, 2024, AKRF slightly expanded the previously

delineated stream S2 to the north, to cover the area of the planned site access/project interconnection route. This stream is a perennial stream with well-defined banks that flows from north to south through the proposed site access/project interconnection route (see **Figure 6** and **Attachment A, Figure 1 and Figure 2C**).

PRELIMINARY JURISDICTIONAL SUMMARY AND CONCLUSION

Four (4) freshwater wetlands were delineated within the study area (Wetlands WA, WB, WC, and WD). Per review of NOAA 2019 LiDAR topographic contours, it appears that Wetlands WA and WD do not have a connection to any waterways through Relatively Permanent Waters (RPW), nor any connection to NYSDEC mapper freshwater wetlands or check zones. Wetland WD is a localized depression and is isolated. Wetland WA is also a localized depression and is likely isolated. However, as this wetland is situated adjacent to the property boundary, AKRF was unable to delineate areas of this wetland located off-site to establish isolation. Wetland WB is situated adjacent to Stream S2. This wetland is also located adjacent to the property boundary and AKRF was not able to delineate off-site portions of this wetland to establish whether it contains a connection to Stream S2. However, this wetland does not contain any connection to NYSDEC mapped freshwater wetlands. It should be noted that these wetlands are characterized by their herbaceous vegetation layer and subtle drainage patterns. The previous wetland delineation conducted by AKRF took place out of the growing season on December 19, 2024, and a thin layer of snow was on the ground. Due to these factors, Wetlands WA and WB were not identifiable during that time of year and within those weather conditions. Pursuant to the field review, the western extent of Wetland WC forms a drainage pattern bearing westwardly towards Catherine Creek and tributaries. Based on review of the NOAA 2019 LiDAR topographic contours, it is unclear whether this feature continues towards and forms a connection with Catherine Creek and tributaries. In addition, there was no observed connection to this waterway through RPW, nor any connection to any NYSDEC mapped freshwater wetlands.

It should be noted that the NYSDEC are changing their freshwater wetlands rules⁶, beginning January 1, 2025, wherein their freshwater wetlands mapping will no longer limit NYSDEC regulatory jurisdiction to wetlands depicted on those maps. Additionally, small wetlands (less than 12.4 acres) of “unusual importance” will be regulated if they meet one of the 11 newly established criteria for unusual importance. As defined in the NYSDEC “Questions and Answers on Amendments to the Freshwater Wetlands Act”⁷, dated August 14, 2024, one of these criteria establishes that the State will regulate wetlands less than 12.4 acres located within an Urban Area as defined by the US Census Bureau. In addition, the State will also regulate wetlands less than 12.4 acres within a 2.48-mile buffer from an Urban Area if they are within a USGS HUC 12 watershed having 2% or greater impervious surface and less than 5% floodwater storage capacity. The study area and delineated wetlands are located within 2.48 miles of the “Elmira, NY” Urban Area (code 27118), and also located within the North Branch Newtown Creek (HUC 12 020501050501) and Headwaters Catherine Creek (HUC 12 041402010601) HUC 12 watersheds. Pursuant to the NYSDEC informational webinar on August 1, 2024⁸, which provides detail and context for the upcoming regulatory changes, NYSDEC has established a database of those watersheds meeting those criteria. However, this database does not yet appear to be available to the public. Therefore, it is unclear whether the onsite watersheds contain 2% or greater impervious surface and less than 5% floodwater storage capacity.

As such, a Joint Jurisdictional Determination is recommended for all wetlands on-site to confirm NYSDEC jurisdiction and the need for a Water Quality Certification (WQC) and USACE

⁶ [Amendments to Article 24 Freshwater Wetlands](#)

⁷ <https://dec.ny.gov/sites/default/files/2024-07/644qna.pdf>

⁸ [Freshwater Wetlands Proposed Regulation Changes: An Overview-20240801 1803-1 - NYS Information Technology Service WebEx Enterprise Site](#)

jurisdiction as Waters of the United States under Sections 401/404 of the Clean Water Act (CWA)⁹.

One (1) stream (Stream 2) was delineated in the study area as an extension of a previously delineated stream (Stream 2) on December 19, 2023. Stream 2 is a perennial stream that likely drains offsite to North Branch Newtown Creek and tributaries through several culverted connections. As this off-site connection to Traditional Navigable Waterway (TNW)¹⁰ was not verifiable with information and resources available, a Joint Jurisdictional Determination is recommended to confirm USACE jurisdiction of Stream 2 as Waters of the United States under Sections 401/404 of the Clean Water Act (CWA)¹¹ and the need for a Water Quality Certification (WQC) from NYSDEC. Stream 2 is an unmapped tributary to a NYSDEC Class C Priority Stream but it is unlikely to be regulated by the NYSDEC under the Protection of Waters Act (Article 15 of ECL).

⁹ NYSDEC would be responsible for administering the Section 401 Water Quality Certificate (WQC).

¹⁰ 7 Traditional Navigable Waters are "...those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce" (33 CFR Part 329). Available:

<https://www.nap.usace.army.mil/Portals/39/docs/regulatory/regs/33cfr329.pdf> (accessed on November 4, 2024).

¹¹ NYSDEC would be responsible for administering the Section 401 Water Quality Certificate (WQC).

Figures:

- Figure 1 – Aerial Overview Map
- Figure 2 – USGS (NYSDOT) Topographic Map
- Figure 3 – NWI Wetlands Map
- Figure 4 – NYSDEC Wetlands and Priority Waterbodies
- Figure 5 – NRCS Soil Survey Map
- Figure 6 – Delineated Wetlands Overview Map
- Figure 7 – Photograph Locations

Attachments:

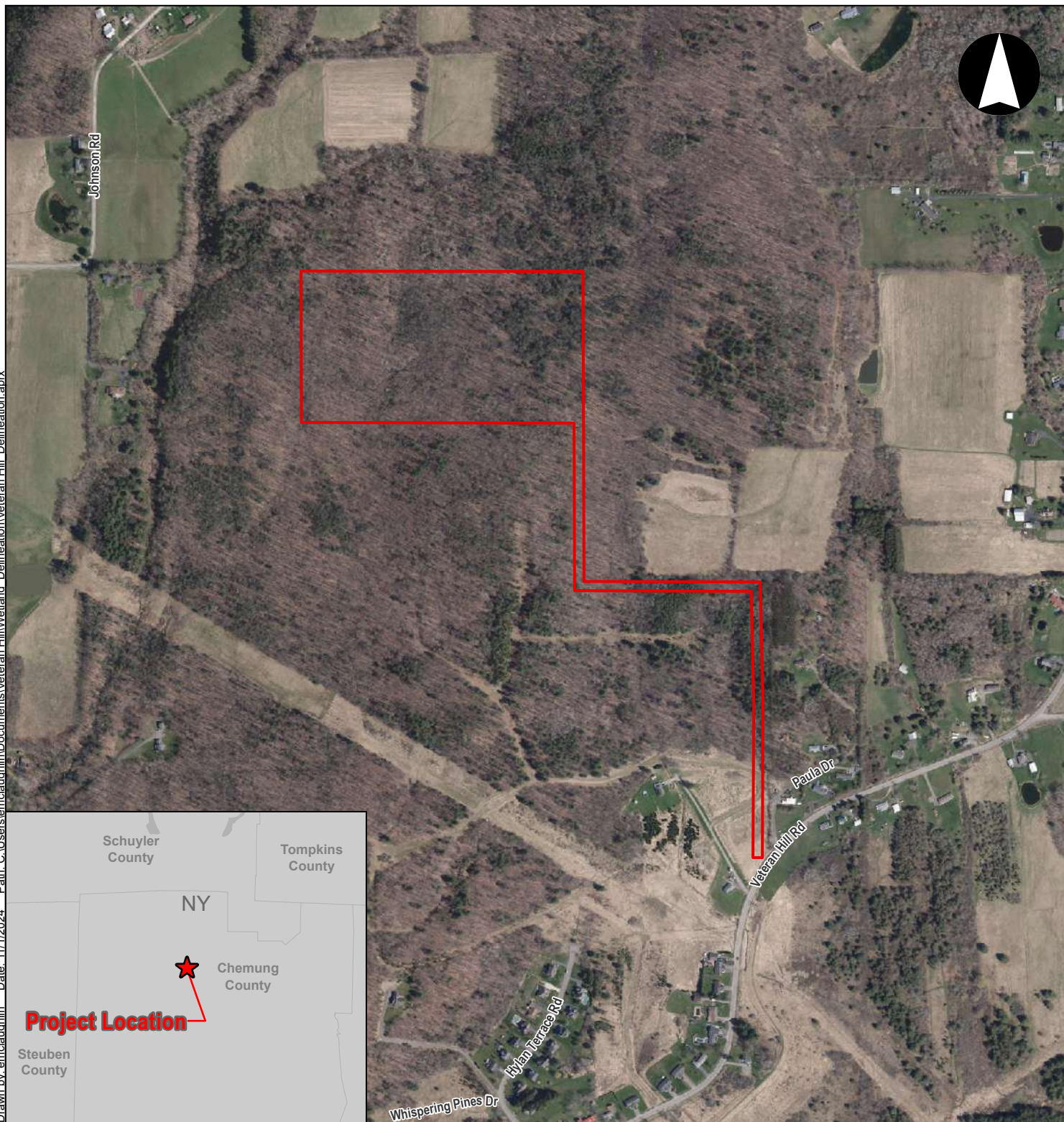
- Attachment A – Delineated Wetlands Drawings
 - Figure 1 – Delineated Wetlands Figure Extent Map
 - Figure 2 – Delineated Wetlands Details Map
- Attachment B – Study Area Photographs
- Attachment C – USACE Wetland Determination Data Forms (ENG 6116-8)

REFERENCES

Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reschke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY

Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss; U.S. Army Corps of Engineers. 2011. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (version 2.0)*, ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Drawn by: emclaughlin Date: 11/1/2024 Path: C:\Users\emclaughlin\Documents\Veteran Hill\Weiland Delineation\Veteran Hill Delineation.aprx



akrf

Data source: Aerial imagery sourced from
2021 NYS Orthoimagry Program Office at
<https://ortho.dhss.ny.gov/>.

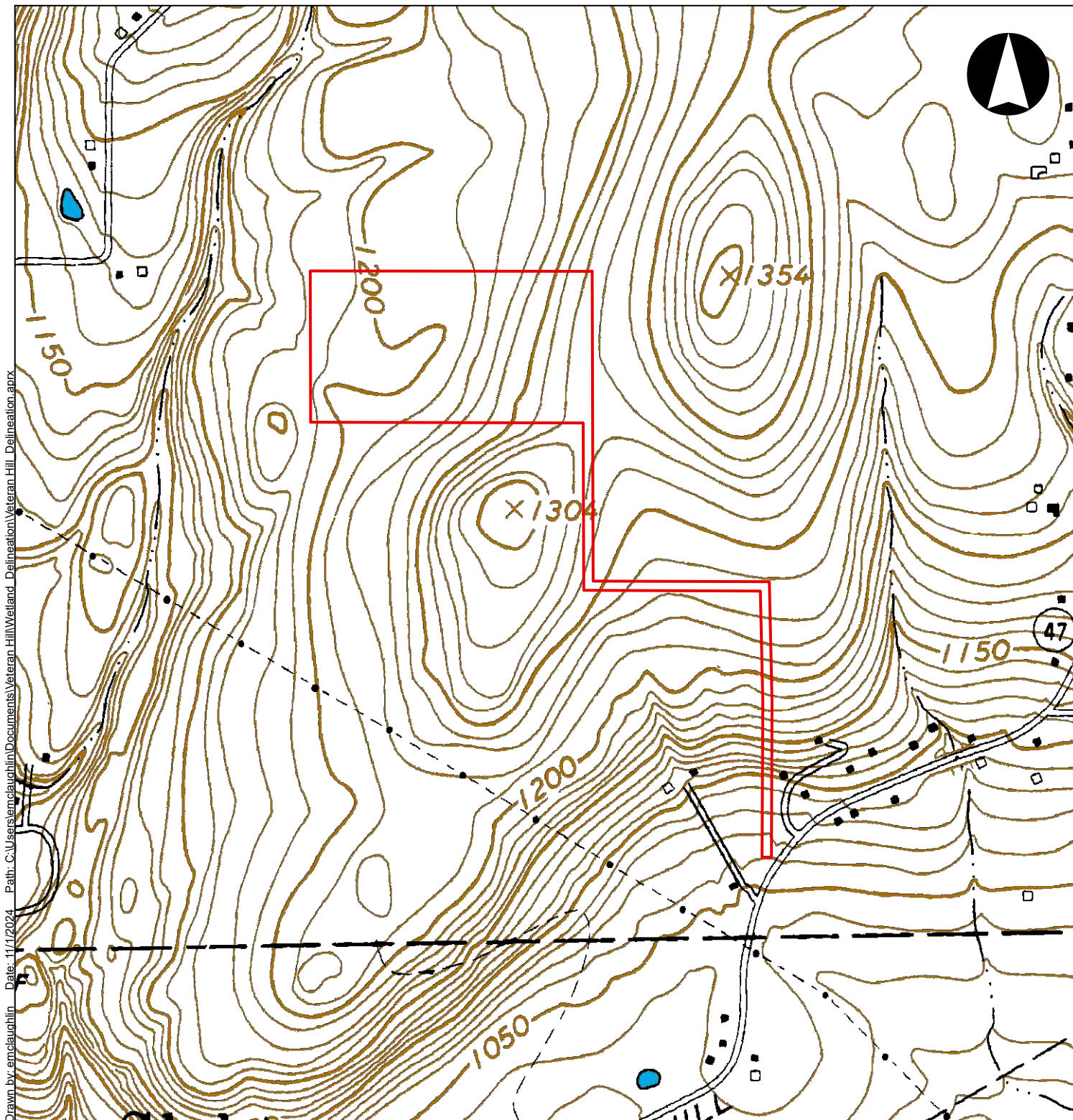
Legend

 Study Area

Dynamic Energy, LLC
Veteran Hill Solar Project
Town of Veteran
Chemung County, NY

0 500 1,000
Feet
1 inch equals 1,000 feet

Figure 1
Aerial Overview Map
November 2024



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akrf

Data source: data.gis.ny.gov 24K Quad Map for Horseheads (W24) last updated March 2023.

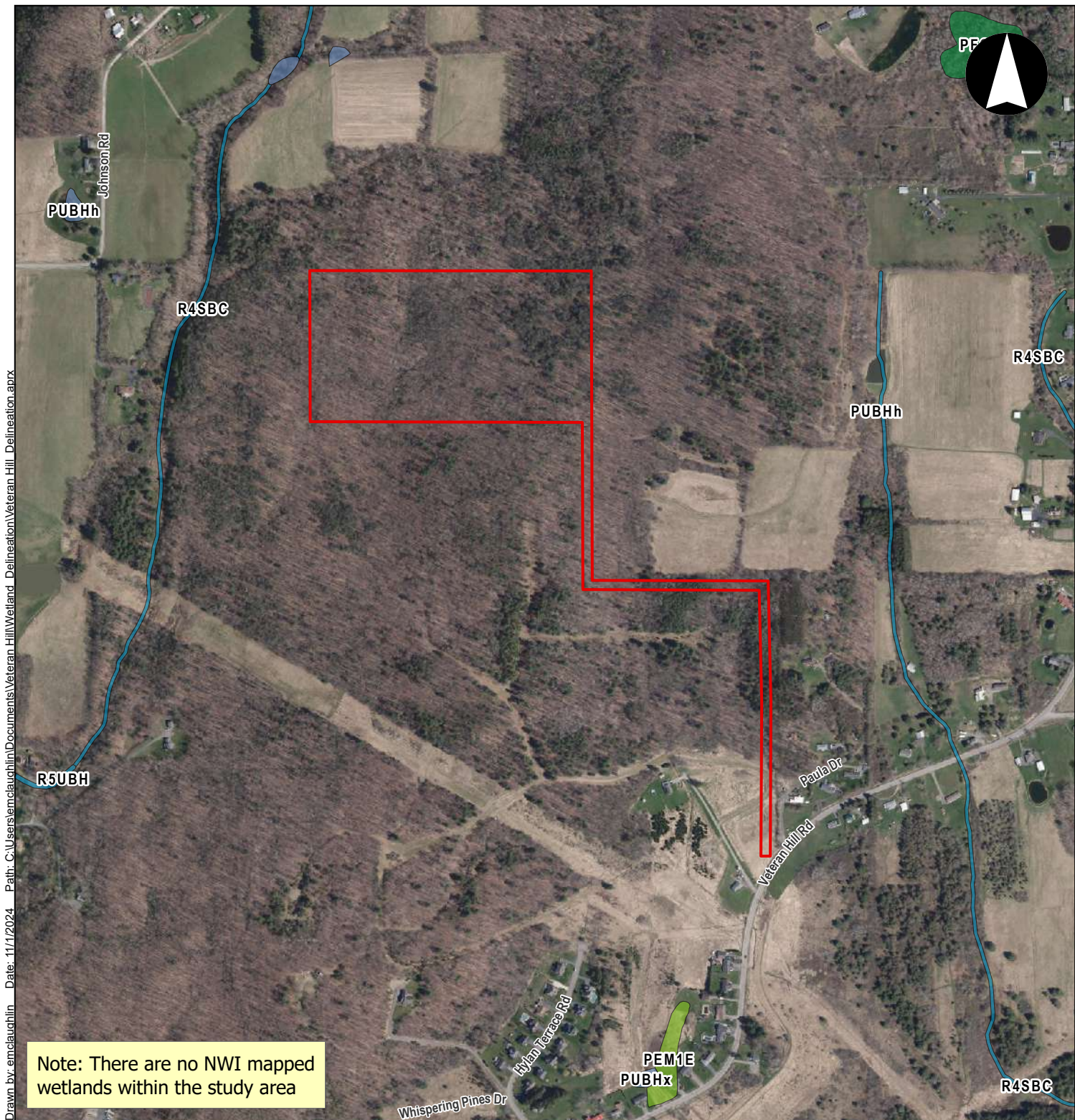
Legend

Study Area

Dynamic Energy, LLC
Veteran Hill Solar Project
Town of Veteran
Chemung County, NY

0 500 1,000 Feet
1 inch equals 1,000 feet

Figure 2
NYSOT Topographic Map
November 2024



akrf

Data source: USFWS NWI Mapper last updated October 2023.

Legend

Study Area

NWI Wetlands

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

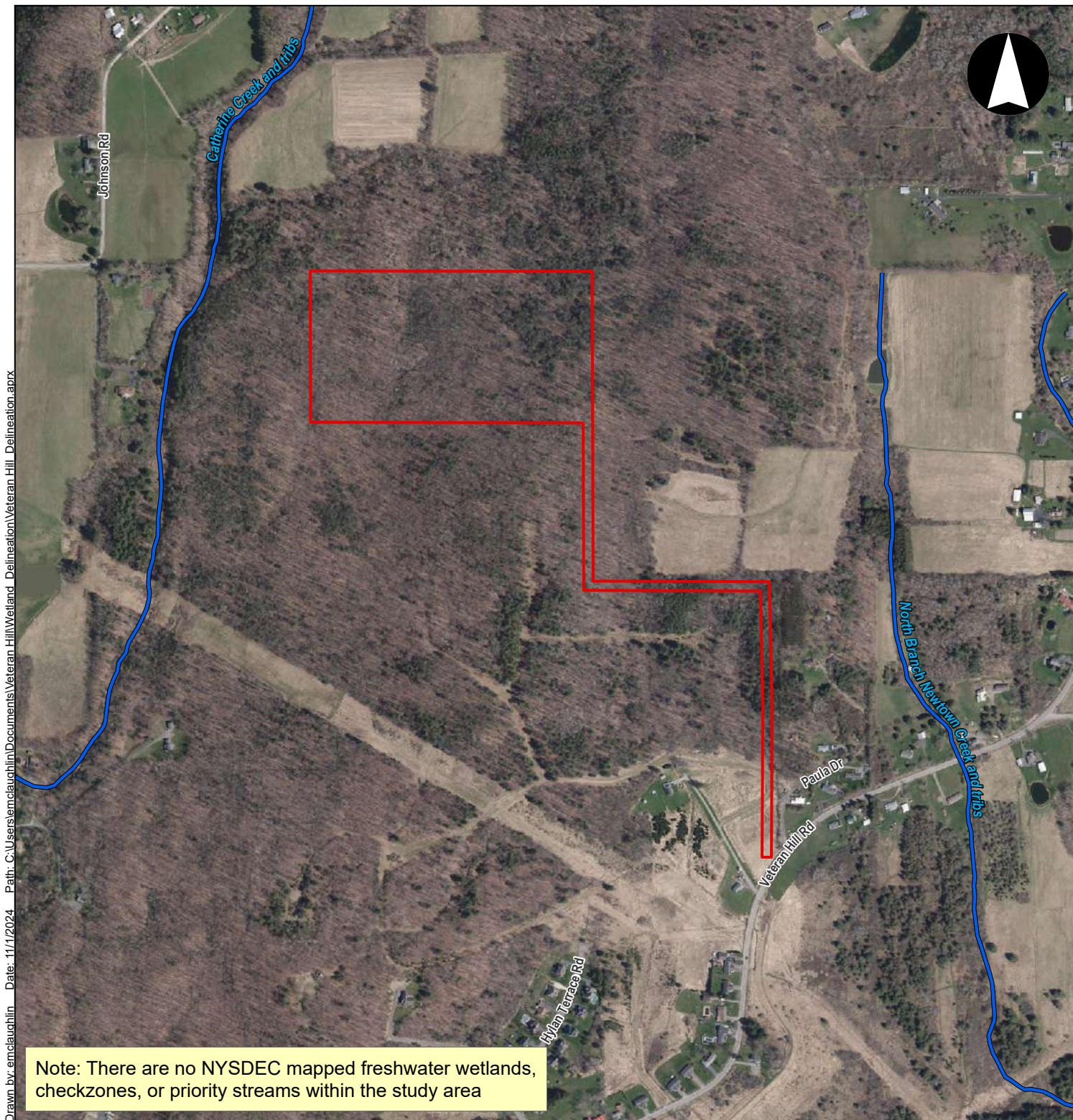
Freshwater Pond

Riverine

Dynamic Energy, LLC
Veteran Hill Solar Project
Town of Veteran
Chemung County, NY

0 500 1,000
Feet
1 inch equals 1,000 feet

Figure 3
NWI Wetlands Map
November 2024



akrf

Data source: <https://data.gis.ny.gov/> published by NYSDEC. Mapped wetlands last updated February 2023 and Priority Waterbodies last updated April 2024.

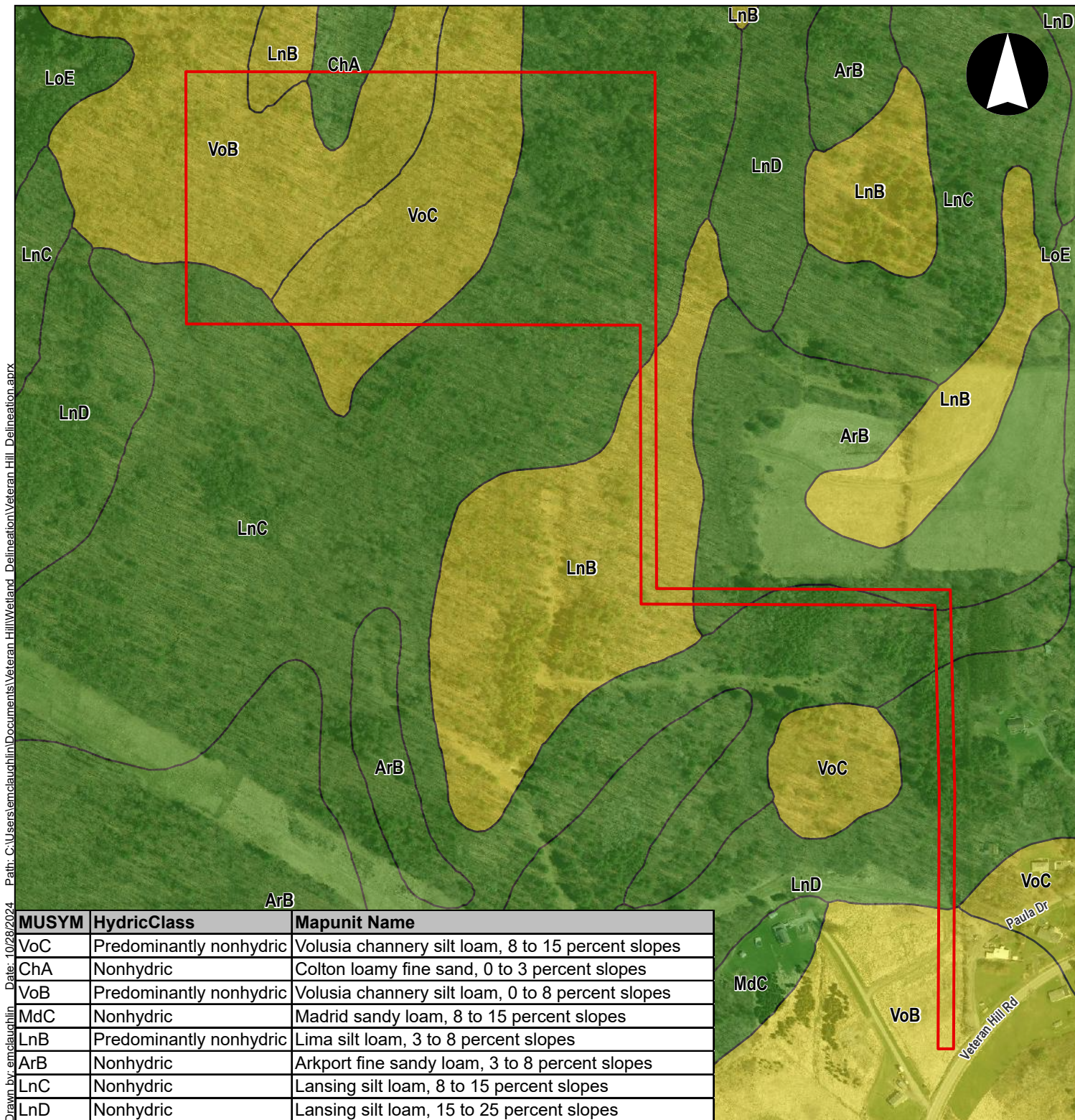
Legend

- Study Area
- NYSDEC Freshwater Wetlands
- NYSDEC Freshwater Wetlands Checkzones
- NYSDEC Priority Streams

Dynamic Energy, LLC
 Veteran Hill Solar Project
 Town of Veteran
 Chemung County, NY

0 500 1,000
 Feet
 1 inch equals 1,000 feet

Figure 4
NYSDEC Wetlands and Priority Waters Map
 November 2024



akrf

Data source: USDA NRCS Web Soil Survey
SSURGO dataset. Last updated December 2023.

Legend

 Study Area

NRCS Soils Survey

Hydric Classification

Partially hydric

Predominantly nonhydric

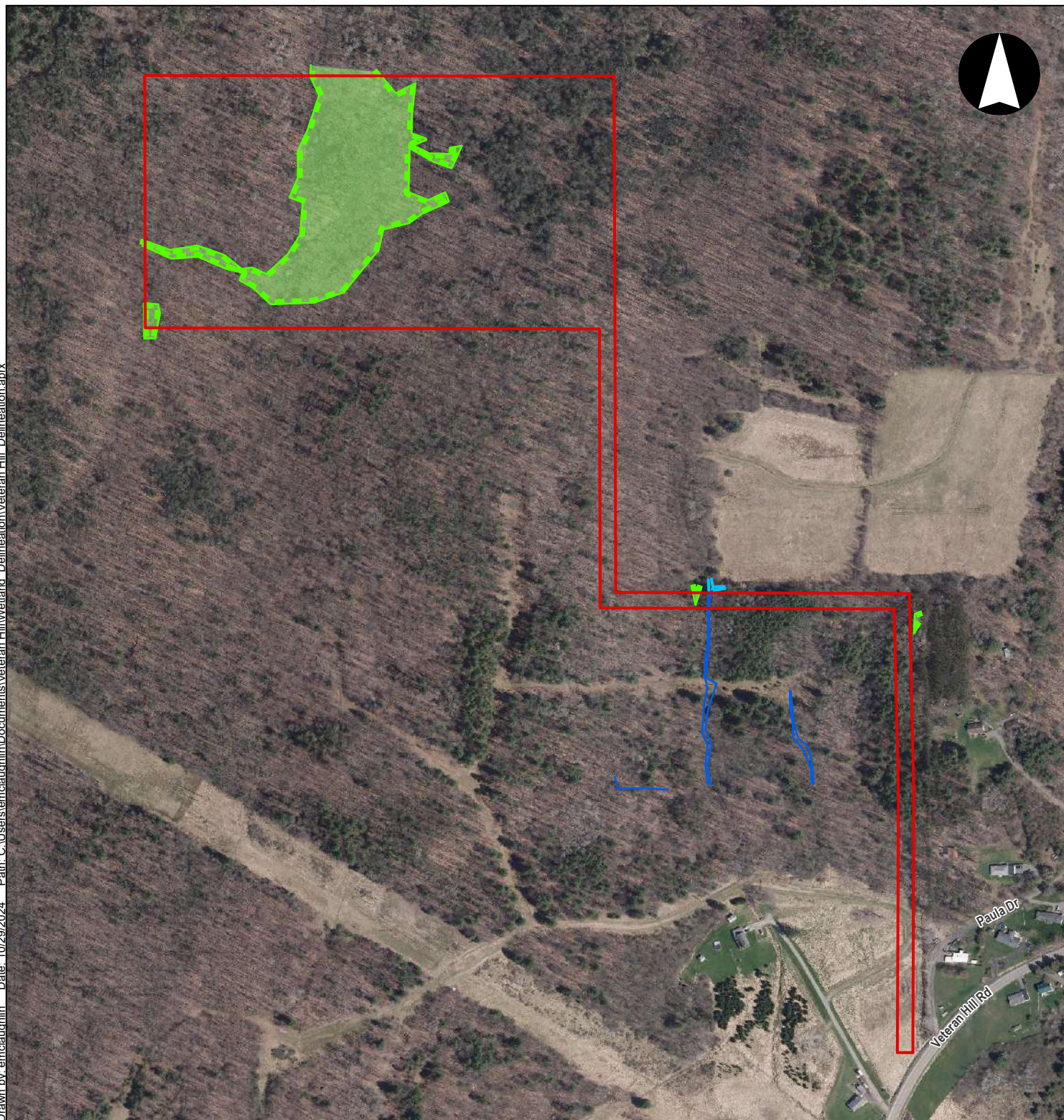
Nonhydric

Dynamic Energy, LLC
Veteran Hill Solar Project
Town of Veteran
Chemung County, NY

0 300 600
Feet
1 inch equals 600 feet

Figure 5
NRCS Soil Survey Map
October 2024

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akrf

Wetland delineation was conducted by AKRF on October 9 and 10, 2024. Please see Attachment A for wetland delineation details.

Legend

- Study Area
- Delineated Wetland
- Wetland Boundary
- Delineated Stream (10/9/2024)
- Delineated Stream (12/19/2023)

Dynamic Energy, LLC
Veteran Hill Solar Project
Town of Veteran
Chemung County, NY

0 300 600
Feet
1 inch equals 600 feet

Figure 6
Delineated Wetlands Overview Map
October 2024

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akrf

NOTE: Photographs were taken by AKRF on October 9th and 10th, 2024.

Legend

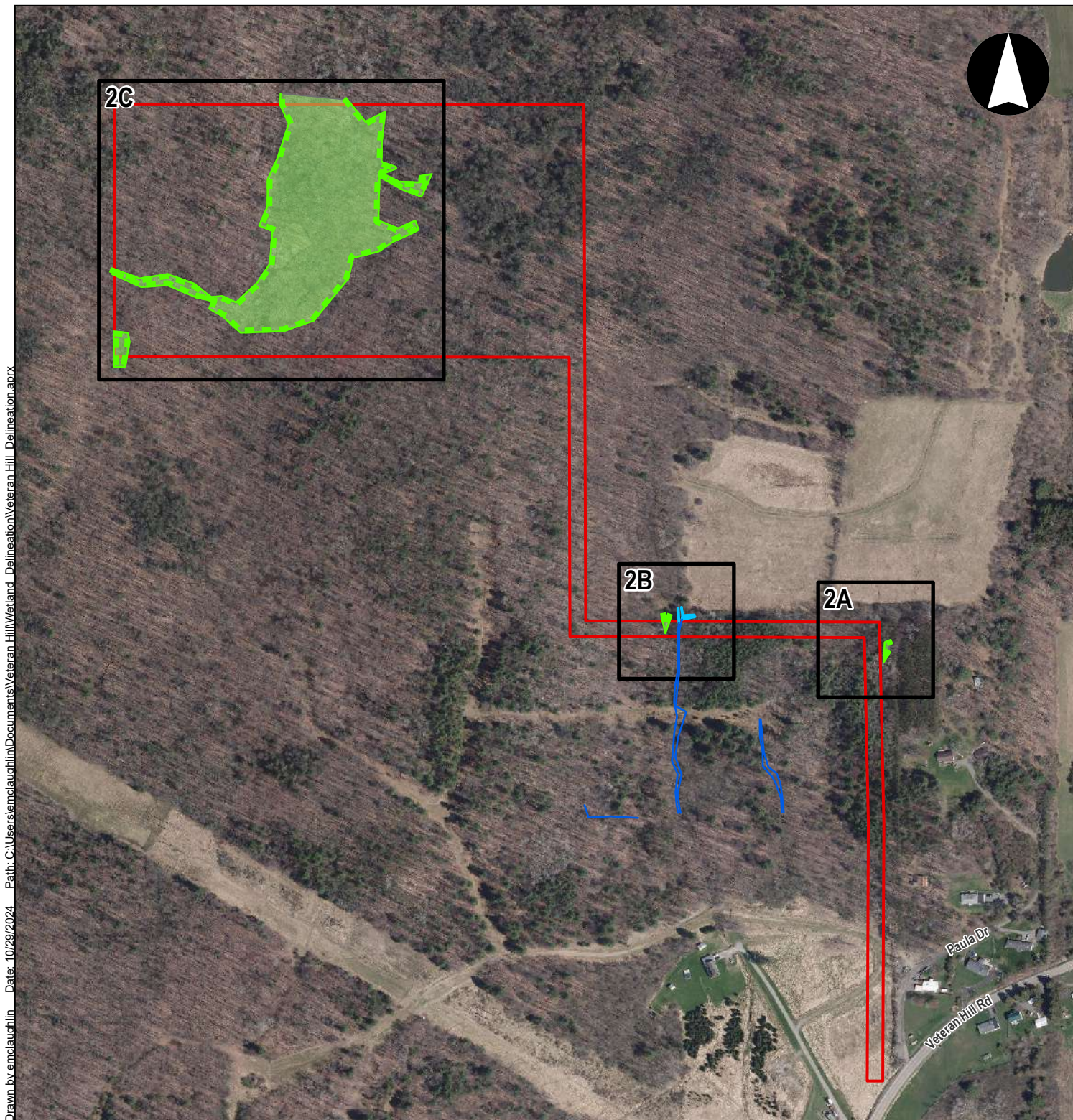
-  Study Area
-  Photo Location and Direction

Dynamic Energy, LLC
Veteran Hill Solar Project
Town of Veteran
Chemung County, NY

0 300 600
Feet
1 inch equals 600 feet

Figure 7
Photograph Locations
November 2024

ATTACHMENT A
Delineated Wetlands Drawings



Drawn by emclaughlin Date: 10/29/2024 Path: C:\Users\emclaughlin\Documents\Veteran Hill\Wetland Delineation\Veteran Hill Delineation.aprx

akrf

Data source: Aerial imagery is for 2021, obtained from <https://gis.ny.gov/orthoimagery>
 NOTE: Wetland delineation was performed by AKRF on October 9 and 10, 2024.
 Streams data from December 19, 2023 delineation as shown
 *Boundary lines are hatched towards the interior of the delineated wetland.

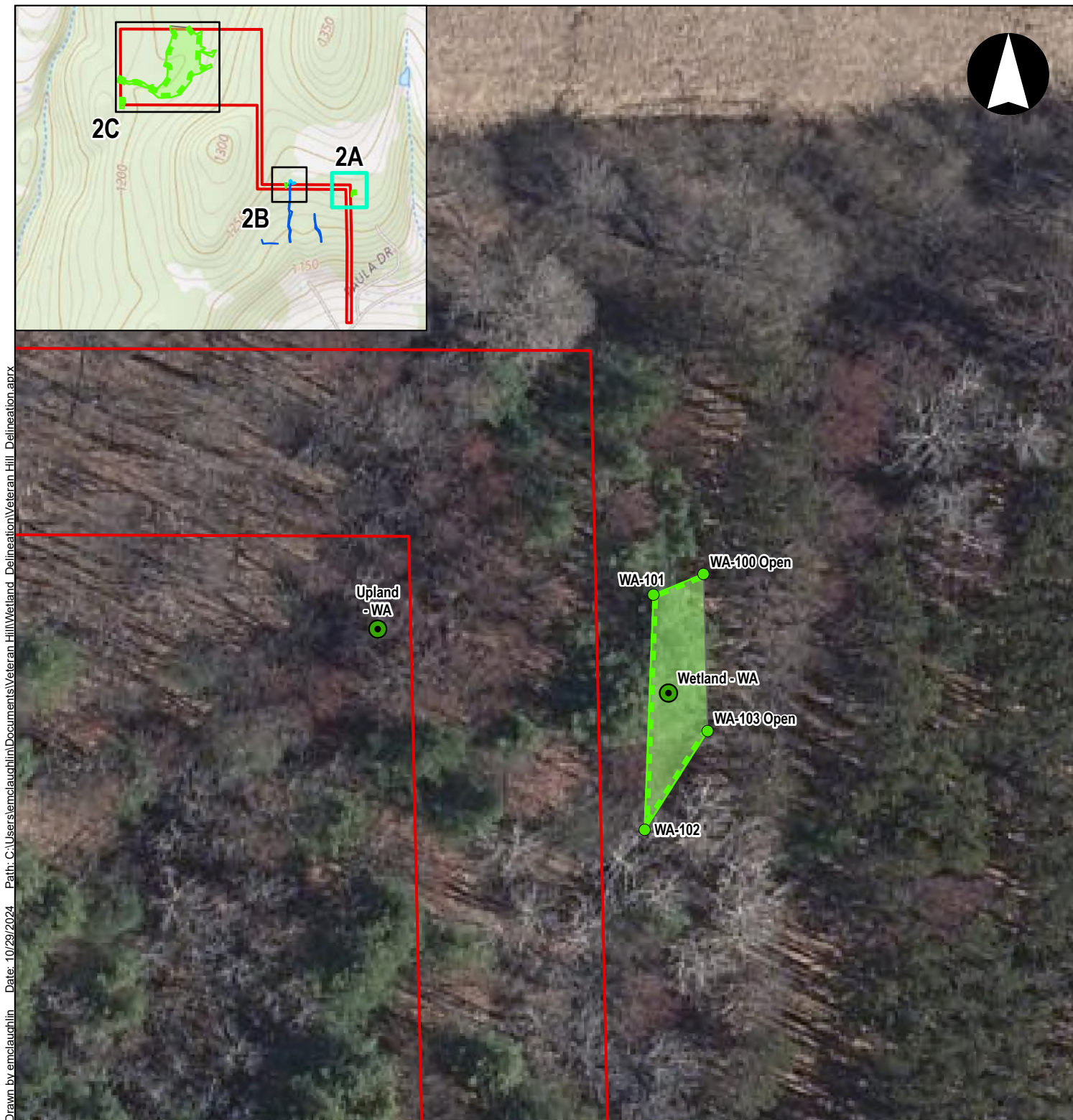
0 300 600 Feet
 1 inch equals 600 feet

Legend

- Study Area
- Figure Number and Extent
- Wetland Boundary
- Delineated Wetland
- Delineated Stream (12/19/2023)
- Delineated Stream (10/9/2024)

Dynamic Energy, LLC
 Veteran Hill Solar Project
 Town of Veteran
 Chemung County, NY

Attachment A, Figure 1
Delineated Wetlands Figure Index
 October 2024



Drawn by emclaughlin Date: 10/29/2024 Path: C:\Users\emclaughlin\Documents\Veteran Hill\Wetland Delineation\Veteran Hill Delineation.aprx

akrf

Data source: Aerial imagery is for 2021, obtained from <https://gis.ny.gov/orthoimagery>
 NOTE: Wetland delineation was performed by AKRF on October 9 and 10, 2024.
 Streams data from December 19, 2023 delineation as shown
 *Boundary lines are hatched towards the interior of the delineated wetland.

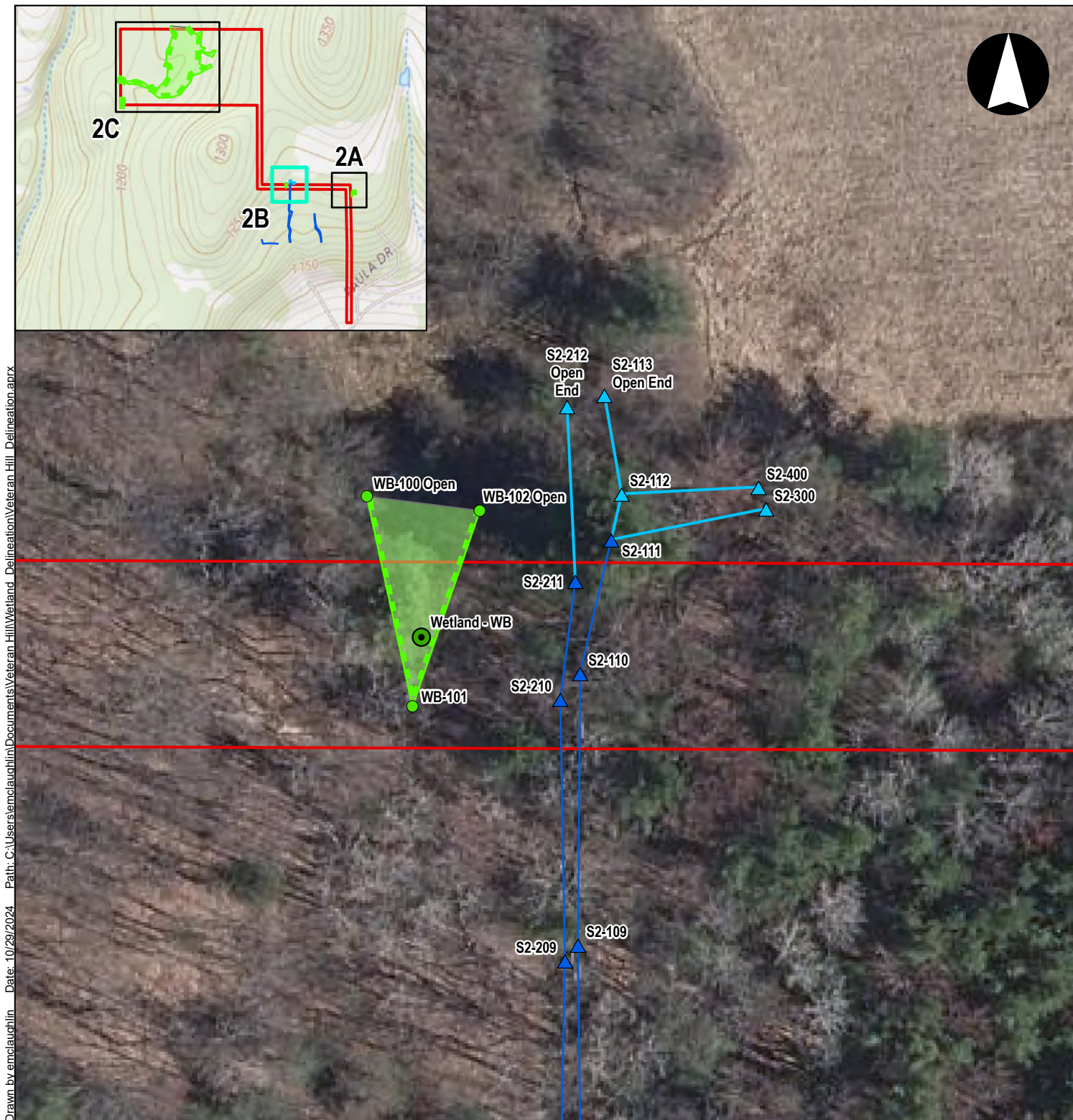
Legend

- Study Area
- Wetland Data Point
- Wetland Flags
- Wetland Boundary
- Delineated Wetland

Dynamic Energy, LLC
 Veteran Hill Solar Project
 Town of Veteran
 Chemung County, NY

0 25 50
 Feet
 1 inch equals 50 feet

Attachment A, Figure 2A
Delineated Wetlands Details Map
 October 2024



Drawn by emclaughlin Date: 10/29/2024 Path: C:\Users\emclaughlin\Documents\Veteran Hill\Wetland Delineation\Veteran Hill Delineation.aprx

akrf

Data source: Aerial imagery is for 2021, obtained from <https://gis.ny.gov/orthoimagery>
NOTE: Wetland delineation was performed by AKRF on October 9 and 10, 2024.
Streams data from December 19, 2023 delineation as shown
*Boundary lines are hatched towards the interior of the delineated wetland.

Legend

- Study Area
- Wetland Data Point
- Wetland Flags
- Wetland Boundary
- Delineated Wetland

- ▲ Stream Flags (12/19/2023)
- Delineated Stream (12/19/2023)
- ▲ Stream Flags (10/9/2024)
- Delineated Stream (10/9/2024)

Dynamic Energy, LLC
Veteran Hill Solar Project
Town of Veteran
Chemung County, NY

0 25 50
Feet
1 inch equals 50 feet

Attachment A, Figure 2B
Delineated Wetlands Details Map
October 2024

ATTACHMENT B
Representative Site Photographs



Photo 1. Photo facing north from Veteran Hill Road depicting the location of the proposed site access/project interconnection route.



Photo 2. Photo facing south depicting the proposed route for site access and project interconnection to Veteran Hill Road (background).

akrf

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Attachment B-1 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024



Photo 3. Photo facing north depicting the location where the proposed route for site access/interconnection enters old growth woodlands. Note the significant slopes present at this location.



Photo 4. Photo facing north depicting the location of the proposed site access/interconnection route within the old growth woodlands. Note the property boundary and adjacent parcel to the east (right), identified by the linear tree line.



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Attachment B-2 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024



Photo 5. Photo facing northeast depicting wetland WA. This small wetland area is a localized depression and includes species such as fringed sedge (*Carex crinita*, OBL), giant goldenrod (*Solidago gigantea*, FACW), woolgrass (*Scirpus cyperinus*, OBL) and red maple (*Acer rubrum*, FAC)



Photo 6. Photo facing north from the proposed site access/interconnection route depicting the property boundary and adjacent parcel which includes the agricultural field to the north. The proposed site access/interconnection route turns west near this location.

akrf

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Town of Veteran, Chemung County, NY**

Attachment B-3 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024



Photo 7. Photo facing west from the proposed site access/interconnection depicting typical upland conditions on the site. Uplands on the subject site can be typically characterized by white pine (*Pinus strobus*, UPL), pignut hickory (*Carya glabra*, FACU), American hornbeam (*Carpinus caroliniana*, FAC) and eastern cottonwood (*Populus deltoides*, FAC).



Photo 8. Photo facing south depicting the delineated ephemeral stream S2. This ephemeral stream is located adjacent to the southwest corner of the agricultural field by which it receives hydrologic input. This stream flows southwardly and bisects the proposed access/interconnection route.

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Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B-4 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024



Photo 9. Photo facing north depicting wetland WB. This wetland area is a localized depression located to the east of stream S2, and is characterized by species such as sensitive fern (*Onoclea sensibilis*, FACW), New York fern (*Parathelypteris noveboracensis*, FAC) and shallow sedge (*Carex lurida*, OBL).



Photo 10. Photo facing north depicting the location where proposed site access/interconnection route turns north and typical uplands on the site.

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Town of Veteran, Chemung County, NY**

Attachment B-5 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024



Photo 11. Photo facing northwest from the southeast corner of the study area depicting the planned location for the solar farm.



Photo 12. Photo facing west from the eastern/central portion of the study area depicting the planned location for the solar farm.

akrf

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Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B-6 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024



Photo 13. Photo facing west depicting wetland WC. This area of wetland WC contains a drainage corridor located on the hillside which drains into the larger WC wetland complex. This area of the site contains a high bedrock layer, at around 16 inches below the surface, which influences the hydrology and drainage patterns on the site.



Photo 14. Photo facing west depicting a second hillside drainage corridor of wetland WC with characteristics similar to that of the drainage corridor depicted in photo 13. These areas of wetland WC are dominated by species including cinnamon fern (*Osmundastrum cinnamomeum*, FACW) and fowl manna grass (*Glyceria striata*, OBL).



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B-7 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024



Photo 15. Photo facing west depicting a third hillside drainage corridor of wetland WC. This feature is more distinctly channelized than the drainage corridors depicting in photos 13 and 14.



Photo 16. Photo facing southwest from the northern/central portion of the study area depicting the larger WC wetland complex from its eastern boundary. This wetland receives hydrologic input from the hillside located to the west and ultimately drains to the east where the slopes increase. This wetland contains little topography and is a generally flat area situated between areas of higher slopes.



**Dynamic Energy LLC
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Town of Veteran, Chemung County, NY**

Attachment B-8 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024



Photo 17. Photo facing northeast depicting wetland WC from is western boundary.



Photo 18. Photo facing north near the northwestern corner of the study area depicting typical uplands located to the west of the WC wetland complex.

akrf

**Dynamic Energy LLC
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Town of Veteran, Chemung County, NY**

Attachment B-9 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024



Photo 19. Photo facing west near the western limits of the study area depicting where topography increases and wetland WC becomes more channelized and drains to the west.



Photo 20. Photo facing south from the southwestern portion of the study area depicting the delineated isolated wetland WD. This wetland is a localized depression and is characterized by species including red maple (*Acer rubrum*, FAC), slippery elm (*Ulmus rubra*, FAC) and shallow sedge (*Carex lurida*, OBL).



**Dynamic Energy LLC
Veteran Hill Solar Project
Town of Veteran, Chemung County, NY**

Attachment B-10 - Study Area Photographs

Photo Source: AKRF, Inc. October 9th and 10th, 2024

ATTACHMENT C

USACE Wetland Determination Data Forms (ENG 6116-8)

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Veteran Hill Solar Project City/County: Chemung County Sampling Date: 10/9/2024
Applicant/Owner: Dynamic Energy LLC State: NY Sampling Point: WET WA
Investigator(s): Edward McLaughlin, Kevin Tomlinson Section, Township, Range: Town of Veteran
Landform (hillside, terrace, etc.): Hillside Local relief (concave, convex, none): Concave Slope %:
Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.205184 Long: -76.790562 Datum: WGS1983
Soil Map Unit Name: Lansing silt loam, 8 to 15 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u> If yes, optional Wetland Site ID: <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators</u> (minimum of one is required; check all that apply) <u> </u> Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) <u> </u> High Water Table (A2) <u> </u> Aquatic Fauna (B13) <u> </u> Saturation (A3) <u> </u> Marl Deposits (B15) <u> </u> Water Marks (B1) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Sediment Deposits (B2) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Drift Deposits (B3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Algal Mat or Crust (B4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Iron Deposits (B5) <u> </u> Thin Muck Surface (C7) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Other (Explain in Remarks) <u> </u> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators</u> (minimum of two required) <u> </u> Surface Soil Cracks (B6) <u>X</u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u>X</u> Stunted or Stressed Plants (D1) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u> </u> Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

 Sampling Point: WET WA

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer rubrum</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>50</u></td> <td>x 1 = <u>50</u></td> </tr> <tr> <td>FACW species <u>25</u></td> <td>x 2 = <u>50</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u></td> <td>(A) <u>155</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.72</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>50</u>	x 1 = <u>50</u>	FACW species <u>25</u>	x 2 = <u>50</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u>	(A) <u>155</u> (B)	Prevalence Index = B/A = <u>1.72</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>50</u>	x 1 = <u>50</u>																			
FACW species <u>25</u>	x 2 = <u>50</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>90</u>	(A) <u>155</u> (B)																			
Prevalence Index = B/A = <u>1.72</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>5</u>	=Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15</u>)																				
1. <u>Quercus alba</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>5</u>	=Total Cover																		
Herb Stratum (Plot size: <u>5</u>)																				
1. <u>Carex crinita</u>	<u>40</u>	<u>Yes</u>	<u>OBL</u>	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. <u>Scirpus cyperinus</u>	<u>10</u>	<u>No</u>	<u>OBL</u>																	
3. <u>Solidago gigantea</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>																	
4. <u>Solidago canadensis</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
5. <u>Rubus hispidus</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>80</u>	=Total Cover																		
Woody Vine Stratum (Plot size: <u>15</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	_____	=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point WET WA

[illegible]

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
--	--

Project/Site: Veteran Hill Solar Project City/County: Chemung County Sampling Date: 10/9/2024
Applicant/Owner: Dynamic Energy LLC State: NY Sampling Point: UPL WA
Investigator(s): Edward McLaughlin, Kevin Tomlinson Section, Township, Range: Town of Veteran
Landform (hillside, terrace, etc.): Hillside Local relief (concave, convex, none): _____ Slope %: _____
Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.205231 Long: -76.790851 Datum: WGS1983
Soil Map Unit Name: Lansing silt loam, 8 to 15 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are “Normal Circumstances” present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
---	---

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ____ Surface Water (A1) ____ Water-Stained Leaves (B9) ____ High Water Table (A2) ____ Aquatic Fauna (B13) ____ Saturation (A3) ____ Marl Deposits (B15) ____ Water Marks (B1) ____ Hydrogen Sulfide Odor (C1) ____ Sediment Deposits (B2) ____ Oxidized Rhizospheres on Living Roots (C3) ____ Drift Deposits (B3) ____ Presence of Reduced Iron (C4) ____ Algal Mat or Crust (B4) ____ Recent Iron Reduction in Tilled Soils (C6) ____ Iron Deposits (B5) ____ Thin Muck Surface (C7) ____ Inundation Visible on Aerial Imagery (B7) ____ Other (Explain in Remarks) ____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ____ Surface Soil Cracks (B6) ____ Drainage Patterns (B10) ____ Moss Trim Lines (B16) ____ Dry-Season Water Table (C2) ____ Crayfish Burrows (C8) ____ Saturation Visible on Aerial Imagery (C9) ____ Stunted or Stressed Plants (D1) ____ Geomorphic Position (D2) ____ Shallow Aquitard (D3) ____ Microtopographic Relief (D4) ____ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

 Sampling Point: UPL WA

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer rubrum</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20.0%</u> (A/B)																
2. <u>Carya glabra</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Pinus strobus</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>15</u> =Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15</u>)																				
1. <u>Diervilla lonicera</u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>	Prevalence Index worksheet: <table style="width: 100%;"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>13</u></td> <td>x 4 = <u>52</u></td> </tr> <tr> <td>UPL species <u>35</u></td> <td>x 5 = <u>175</u></td> </tr> <tr> <td>Column Totals: <u>53</u> (A)</td> <td><u>242</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.57</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>13</u>	x 4 = <u>52</u>	UPL species <u>35</u>	x 5 = <u>175</u>	Column Totals: <u>53</u> (A)	<u>242</u> (B)	Prevalence Index = B/A = <u>4.57</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>13</u>	x 4 = <u>52</u>																			
UPL species <u>35</u>	x 5 = <u>175</u>																			
Column Totals: <u>53</u> (A)	<u>242</u> (B)																			
Prevalence Index = B/A = <u>4.57</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>10</u> =Total Cover																				
Herb Stratum (Plot size: <u>5</u>)																				
1. <u>Fraxinus americana</u>	<u>2</u>	<u>No</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Carya glabra</u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
3. <u>Diervilla lonicera</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>																	
4. <u>Carex pensylvanica</u>	<u>5</u>	<u>No</u>	<u>UPL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>28</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u>15</u>)																				
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ =Total Cover																				
Hydrophytic Vegetation Present? Yes <u> </u> No <u> X </u>																				

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point	UPL WA
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[illegible]

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Veteran Hill Solar Project City/County: Chemung County Sampling Date: 10/9/2024
Applicant/Owner: Dynamic Energy LLC State: NY Sampling Point: WET WB
Investigator(s): Edward McLaughlin, Kevin Tomlinson Section, Township, Range: Town of Veteran
Landform (hillside, terrace, etc.): Hillside Local relief (concave, convex, none): Concave Slope %:
Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.205387 Long: -76.793172 Datum: WGS1983
Soil Map Unit Name: Arkport fine sandy loam, 3 to 8 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u> If yes, optional Wetland Site ID: <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators</u> (minimum of one is required; check all that apply) <u> </u> Surface Water (A1) <u>X</u> Water-Stained Leaves (B9) <u> </u> High Water Table (A2) <u> </u> Aquatic Fauna (B13) <u> </u> Saturation (A3) <u> </u> Marl Deposits (B15) <u> </u> Water Marks (B1) <u> </u> Hydrogen Sulfide Odor (C1) <u> </u> Sediment Deposits (B2) <u> </u> Oxidized Rhizospheres on Living Roots (C3) <u> </u> Drift Deposits (B3) <u> </u> Presence of Reduced Iron (C4) <u> </u> Algal Mat or Crust (B4) <u> </u> Recent Iron Reduction in Tilled Soils (C6) <u> </u> Iron Deposits (B5) <u> </u> Thin Muck Surface (C7) <u> </u> Inundation Visible on Aerial Imagery (B7) <u> </u> Other (Explain in Remarks) <u> </u> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators</u> (minimum of two required) <u> </u> Surface Soil Cracks (B6) <u>X</u> Drainage Patterns (B10) <u> </u> Moss Trim Lines (B16) <u> </u> Dry-Season Water Table (C2) <u> </u> Crayfish Burrows (C8) <u> </u> Saturation Visible on Aerial Imagery (C9) <u> </u> Stunted or Stressed Plants (D1) <u> </u> Geomorphic Position (D2) <u> </u> Shallow Aquitard (D3) <u>X</u> Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

 Sampling Point: WET WB

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species <u>95</u></td> <td>x 3 = <u>285</u></td> </tr> <tr> <td>FACU species <u>7</u></td> <td>x 4 = <u>28</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>122</u> (A)</td> <td><u>348</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.85</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>95</u>	x 3 = <u>285</u>	FACU species <u>7</u>	x 4 = <u>28</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>122</u> (A)	<u>348</u> (B)	Prevalence Index = B/A = <u>2.85</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>5</u>	x 1 = <u>5</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>95</u>	x 3 = <u>285</u>																			
FACU species <u>7</u>	x 4 = <u>28</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>122</u> (A)	<u>348</u> (B)																			
Prevalence Index = B/A = <u>2.85</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		=Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15</u>)																				
1. <u>Acer rubrum</u>	<u>80</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		=Total Cover																		
Herb Stratum (Plot size: <u>5</u>)																				
1. <u>Onoclea sensibilis</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. <u>Parathelypteris noveboracensis</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Solidago canadensis</u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Rubus flagellaris</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
5. <u>Carex lurida</u>	<u>5</u>	<u>No</u>	<u>OBL</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		=Total Cover																		
Woody Vine Stratum (Plot size: <u>15</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point WET WB

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	5Y 4/2	80	10YR 5/6	20	C	M	Loamy/Clayey	Prominent redox concentrations
3-8	5Y 4/2	50	10YR 5/6	35	C	M	Loamy/Clayey	Prominent redox concentrations
			2.5Y 6/1	15	D	M		
8-10	2.5Y 6/1	70	10YR 5/6	15	C	M	Loamy/Clayey	Prominent redox concentrations
			2.5Y 7/6	5	C	M		Prominent redox concentrations
			10YR 4/2	10	C	M		Distinct redox concentrations
10-19	2.5Y 6/1	60	10YR 6/8	40	C	M	Loamy/Clayey	Prominent redox concentrations
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.				² Location: PL=Pore Lining, M=Matrix.				
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
☐ Histosol (A1)			☐ Dark Surface (S7)			☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)		
☐ Histic Epipedon (A2)			☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)			☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
☐ Black Histic (A3)						☐ Polyvalue Below Surface (S8) (LRR K, L)		
☐ Hydrogen Sulfide (A4)			☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)			☐ Thin Dark Surface (S9) (LRR K, L)		
☐ Stratified Layers (A5)			☐ High Chroma Sands (S11) (LRR K, L)			☐ Iron-Manganese Masses (F12) (LRR K, L, R)		
☐ Depleted Below Dark Surface (A11)			☐ Loamy Mucky Mineral (F1) (LRR K, L)			☐ Piedmont Floodplain Soils (F19) (MLRA 149B)		
☐ Thick Dark Surface (A12)			☐ Loamy Gleyed Matrix (F2)			☐ Red Parent Material (F21) (outside MLRA 145)		
☐ Mesic Spodic (A17)			☒ Depleted Matrix (F3)			☐ Very Shallow Dark Surface (F22)		
☐ (MLRA 144A, 145, 149B)			☐ Redox Dark Surface (F6)			☐ Other (Explain in Remarks)		
☐ Sandy Mucky Mineral (S1)			☐ Depleted Dark Surface (F7)					
☐ Sandy Gleyed Matrix (S4)			☐ Redox Depressions (F8)					
☐ Sandy Redox (S5)			☐ Marl (F10) (LRR K, L)					
☐ Stripped Matrix (S6)			☐ Red Parent Material (F21) (MLRA 145)					
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____						Hydric Soil Present? Yes ☒ No ☐		
Remarks:								

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Veteran Hill Solar Project	City/County: Chemung County	Sampling Date: 10/10/2024
Applicant/Owner: Dynamic Energy LLC	State: NY	Sampling Point: WET WC
Investigator(s): Edward McLaughlin, Kevin Tomlinson	Section, Township, Range: Town of Veteran	
Landform (hillside, terrace, etc.): Hillside	Local relief (concave, convex, none): Concave	Slope %:
Subregion (LRR or MLRA): LRR K, MLRA 94A	Lat: 42.208907	Long: -76.796144
Datum: WGS1983		
Soil Map Unit Name: Volusia channery silt loam, 8 to 15 percent slopes	NW1 classification: N/A	
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ☒ No ☐	(If no, explain in Remarks.)
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed?	Are "Normal Circumstances" present? Yes ☒ No ☐	
Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic?	(If needed, explain any answers in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐ If yes, optional Wetland Site ID: _____
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.)	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8) ☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)
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VEGETATION – Use scientific names of plants.

 Sampling Point: WET WC

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer rubrum</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. <u>Carya ovata</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
3. <u>Quercus palustris</u>	<u>10</u>	<u>No</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>55</u>		=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>85</u></td> <td>x 1 = <u>85</u></td> </tr> <tr> <td>FACW species <u>45</u></td> <td>x 2 = <u>90</u></td> </tr> <tr> <td>FAC species <u>100</u></td> <td>x 3 = <u>300</u></td> </tr> <tr> <td>FACU species <u>17</u></td> <td>x 4 = <u>68</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>247</u> (A)</td> <td><u>543</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.20</u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>85</u>	x 1 = <u>85</u>	FACW species <u>45</u>	x 2 = <u>90</u>	FAC species <u>100</u>	x 3 = <u>300</u>	FACU species <u>17</u>	x 4 = <u>68</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>247</u> (A)	<u>543</u> (B)	Prevalence Index = B/A = <u>2.20</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>85</u>	x 1 = <u>85</u>																			
FACW species <u>45</u>	x 2 = <u>90</u>																			
FAC species <u>100</u>	x 3 = <u>300</u>																			
FACU species <u>17</u>	x 4 = <u>68</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>247</u> (A)	<u>543</u> (B)																			
Prevalence Index = B/A = <u>2.20</u>																				
Sapling/Shrub Stratum (Plot size: <u>15</u>)																				
1. <u>Carpinus caroliniana</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u>Acer rubrum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Hamamelis virginiana</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>65</u>		=Total Cover																		
Herb Stratum (Plot size: <u>5</u>)																				
1. <u>Osmundastrum cinnamomeum</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Parathelypteris noveboracensis</u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
3. <u>Polystichum acrostichoides</u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Carex crinita</u>	<u>15</u>	<u>No</u>	<u>OBL</u>																	
5. <u>Glyceria striata</u>	<u>70</u>	<u>Yes</u>	<u>OBL</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>127</u>		=Total Cover																		
Woody Vine Stratum (Plot size: <u>15</u>)																				
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____		=Total Cover																		
Hydrophytic Vegetation Present? Yes <u>X</u> No _____																				

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point	WET WC
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[illegible]

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region See ERDC/EL TR-12-1; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Veteran Hill Solar Project City/County: Chemung County Sampling Date: 10/10/2024
Applicant/Owner: Dynamic Energy LLC State: NY Sampling Point: UPL WC
Investigator(s): Edward McLaughlin, Kevin Tomlinson Section, Township, Range: Town of Veteran
Landform (hillside, terrace, etc.): Hillside Local relief (concave, convex, none): _____ Slope %: _____
Subregion (LRR or MLRA): LRR K, MLRA 94A Lat: 42.208256 Long: -76.799701 Datum: WGS1983
Soil Map Unit Name: Lansing silt loam, 8 to 15 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ____ Surface Water (A1) ____ Water-Stained Leaves (B9) ____ High Water Table (A2) ____ Aquatic Fauna (B13) ____ Saturation (A3) ____ Marl Deposits (B15) ____ Water Marks (B1) ____ Hydrogen Sulfide Odor (C1) ____ Sediment Deposits (B2) ____ Oxidized Rhizospheres on Living Roots (C3) ____ Drift Deposits (B3) ____ Presence of Reduced Iron (C4) ____ Algal Mat or Crust (B4) ____ Recent Iron Reduction in Tilled Soils (C6) ____ Iron Deposits (B5) ____ Thin Muck Surface (C7) ____ Inundation Visible on Aerial Imagery (B7) ____ Other (Explain in Remarks) ____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> ____ Surface Soil Cracks (B6) ____ Drainage Patterns (B10) ____ Moss Trim Lines (B16) ____ Dry-Season Water Table (C2) ____ Crayfish Burrows (C8) ____ Saturation Visible on Aerial Imagery (C9) ____ Stunted or Stressed Plants (D1) ____ Geomorphic Position (D2) ____ Shallow Aquitard (D3) ____ Microtopographic Relief (D4) ____ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

 Sampling Point: UPL WC

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. <u>Acer rubrum</u>	20	No	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Total % Cover of:</th> <th style="width: 20%;"></th> <th style="width: 20%;">Multiply by:</th> <th style="width: 20%;"></th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="text-align: center;">0</td> <td>x 1 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FACW species</td> <td style="text-align: center;">0</td> <td>x 2 =</td> <td style="text-align: center;">0</td> </tr> <tr> <td>FAC species</td> <td style="text-align: center;">65</td> <td>x 3 =</td> <td style="text-align: center;">195</td> </tr> <tr> <td>FACU species</td> <td style="text-align: center;">72</td> <td>x 4 =</td> <td style="text-align: center;">288</td> </tr> <tr> <td>UPL species</td> <td style="text-align: center;">15</td> <td>x 5 =</td> <td style="text-align: center;">75</td> </tr> <tr> <td>Column Totals:</td> <td style="text-align: center;">152</td> <td>(A)</td> <td style="text-align: center;">558 (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A =</td> <td colspan="2" style="text-align: center;"><u>3.67</u></td> </tr> </tbody> </table>	Total % Cover of:		Multiply by:		OBL species	0	x 1 =	0	FACW species	0	x 2 =	0	FAC species	65	x 3 =	195	FACU species	72	x 4 =	288	UPL species	15	x 5 =	75	Column Totals:	152	(A)	558 (B)	Prevalence Index = B/A =		<u>3.67</u>	
Total % Cover of:		Multiply by:																																		
OBL species	0	x 1 =	0																																	
FACW species	0	x 2 =	0																																	
FAC species	65	x 3 =	195																																	
FACU species	72	x 4 =	288																																	
UPL species	15	x 5 =	75																																	
Column Totals:	152	(A)	558 (B)																																	
Prevalence Index = B/A =		<u>3.67</u>																																		
2. <u>Carya ovata</u>	30	Yes	FACU																																	
3. <u>Quercus alba</u>	30	Yes	FACU																																	
4. <u>Ulmus rubra</u>	15	No	FAC																																	
5. <u>Carpinus caroliniana</u>	20	No	FAC																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
115 =Total Cover																																				
Sapling/Shrub Stratum (Plot size: <u>15</u>)																																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>Problematic Hydrophytic Vegetation</u> ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																																
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
12. _____	_____	_____	_____																																	
37 =Total Cover																																				
Woody Vine Stratum (Plot size: <u>15</u>)																																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																																
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
_____ =Total Cover																																				

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point	UPL WC
----------------	--------

[illegible]

VEGETATION – Use scientific names of plants.

Sampling Point: WET WD

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer rubrum</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>85.7%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>25</u></td> <td>x 1 = <u>25</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>130</u></td> <td>x 3 = <u>390</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>175</u> (A)</td> <td><u>495</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.83</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>25</u>	x 1 = <u>25</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>130</u>	x 3 = <u>390</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>175</u> (A)	<u>495</u> (B)	Prevalence Index = B/A = <u>2.83</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>25</u>	x 1 = <u>25</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>130</u>	x 3 = <u>390</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>175</u> (A)	<u>495</u> (B)																			
Prevalence Index = B/A = <u>2.83</u>																				
2. <u>Ulmus rubra</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>																	
3. <u>Carya ovata</u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>75</u> =Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15</u>)																				
1. <u>Ulmus rubra</u>	<u>35</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Acer rubrum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
		<u>55</u> =Total Cover																		
Herb Stratum (Plot size: <u>5</u>)																				
1. <u>Carex lurida</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
2. <u>Rubus flagellaris</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Parathelypteris noveboracensis</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
4. <u>Carex crinita</u>	<u>5</u>	<u>No</u>	<u>OBL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
		<u>45</u> =Total Cover																		
Woody Vine Stratum (Plot size: <u>15</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
		_____ =Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point	WET	WD
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[illegible]



Environmental, Planning, and Engineering Consultants

307 Fellowship Road
Suite 214
Mt. Laurel, NJ 08054
tel: 856 797-9930
fax: 929 284-1085
www.akrf.com

Memorandum

To: Jason Funk, Dynamic Energy LLC
From: Elizabeth Weatherby, Senior Technical Director; Kevin Tomlinson, Environmental Scientist
Date: January 17, 2023
Re: Veteran Hill Solar Project Wetland Delineation Memo
cc: Kevin Maher (AKRF)

INTRODUCTION

Dynamic Energy LLC (Dynamic Energy), is proposing the development of a solar farm project (“Veteran Hill Solar Project” or “proposed project”), located in the Town of Veteran, Chemung County, New York (study area) (see **Figure 1** and **Figure 2**). The purpose of the proposed project is to develop an approximately 5 MW ground-mounted solar farm on approximately 16-acres of a larger approximately 126-acre parcel located off Veteran Hill Road (County Road [CR] 47).

AKRF delineated three (3) streams within the approximate 28-acre project development site study area on December 19, 2023 following a period of substantial rain outside of the growing season. This memorandum presents the results from the wetland delineation.

METHODOLOGY

Prior to the wetland delineation, AKRF reviewed maps from the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) (see **Figure 3**) and the New York State Department of Environmental Conservation (NYSDEC) (see **Figure 4**) for NWI-mapped and NYSDEC-mapped wetlands and priority waterbodies, respectively, within the study area. AKRF also reviewed the Natural Resources Conservation Service (NRCS) soils maps (see **Figure 5**) for soil types within the study area, with respect to soil series identified as hydric.

AKRF wetland scientists conducted the wetland delineation within the study area of the proposed project on December 19, 2023, using the U.S. Army Corps of Engineers (USACE) three parameter wetland delineation methodology¹ as described below for the three wetland indicators of hydrology, hydric soils

¹ Environmental Laboratory. 1987. “Corps of Engineers Wetlands Delineation Manual,” Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss; U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region

and hydrophytic vegetation. The USACE *Wetland Determination Data Form – Northcentral and Northeast Region* (2012) was used to document the wetlands observed in the study area and photographs of the delineated wetlands are shown in **Attachment B**.

HYDROLOGY AND SOILS

AKRF characterized the hydrology within the study area using aerial photographs, site observations, and soil samples. An auger was used to collect the samples to determine soil saturation and/or a high-water table. The soil samples were characterized using the Munsell Soil Color Chart. During the wetland delineation, hydrology and soils observations were made during a period of dry weather.

VEGETATION

AKRF used the USACE *Northcentral and Northeast 2020 Regional Wetland Plant List* to determine the wetland/upland status² of the plant species identified within the study area. Percent cover was documented in the tree, woody vine, sapling/shrub, and herb strata. A 30-foot radius plot was established to document plant species percent cover in the tree and woody vine strata. Within this 30-foot plot, a 15-foot radius plot was established for the measurement of percent cover of shrubs and saplings. For species in the herb stratum, a 5-foot radius plot was established within the 30-foot radius plot. Vegetation data was collected outside of the growing season. Species identification was therefore based on limited characteristics and some herbaceous plants may not have been observed due to their seasonality.

WETLANDS, SURFACE WATERS MAPS, AND SOILS

NATIONAL WETLANDS INVENTORY-MAPPED WETLANDS

The NWI mapping showed there were no NWI-mapped wetlands within the study area. South of the study area, roughly 2,000 feet, there is an NWI-mapped freshwater emergent wetland (PEM1E) with an associated freshwater pond (PUBHx) (see **Figure 3**). Additionally, NWI-mapped riverine (R4SBC) and ponds (PUBHh) were mapped to the east and west of the study area. These NWI-mapped riverine wetlands are also mapped as an NYSDEC Class C Priority Waterbody as described below.

NEW YORK STATE DEPARTMENT OF CONSERVATION-MAPPED WETLANDS

NYSDEC wetland maps did not identify any wetlands within or in proximity to the study area (see **Figure 4**).

NEW YORK STATE DEPARTMENT OF CONSERVATION-MAPPED PRIORITY WATERBODIES

The NYSDEC Priority Waterbodies mapping did not identify any mapped resources within the study area. However, two NYSDEC Class C Priority Waterbody³, Catherine Creek and tributaries (water index number: Ont 66-12-P369-59[upper])⁴ to the west, and North Branch Newtown Creek and tributaries (water

(version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

² Wetland/upland statuses for plant species include Obligate (OBL; occurring in wetlands greater than or equal to 99 percent of the time), Facultative Wetland (FACW; occurring in wetlands between 67 and 99 percent of the time), Facultative (FAC; occurring in wetlands between 34 and 66 percent of the time), Facultative Upland (FACU; occurring in wetlands between 1 and 33 percent of the time), and Upland (UPL; occurring in wetlands less than or equal to 1 percent of the time). Dominant species indicative of wetlands include species rated as OBL, FACW, and FAC.

³ Per 6 CRR-NY 701.8, “The best usage of Class C waters is fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.”

⁴ <https://extapps.dec.ny.gov/data/WQP/PWL/0705-0011.pdf>

index number: Pa 3-28-13)⁵ to the east of the study area (see **Figure 4**). The site is within the Chemung River Watershed.

NATURAL RESOURCES CONSERVATION SERVICE -MAPPED SOILS

NRCS-mapped soils within the study area (see **Figure 5**) are categorized into 5 different soil map units. The soil map units and their hydric rating (i.e., whether NRCS identifies the soil map unit as hydric) are summarized in **Table 1** below.

Table 1.
Natural Resource Conservation Service – Mapped Soils in the Study Area

Soil Map Unit Symbol	Soil Map Unit Name	Hydric Rating	Percent Cover
ArB	Arkport fine sandy loam, 3 to 8 percent slopes	Nonhydric	8.0%
LnB	Lima silt loam, 3 to 8 percent slopes	Predominantly nonhydric	45.7%
LnC	Lansing silt loam, 8 to 15 percent slopes	Nonhydric	34.1%
LnD	Lansing silt loam, 15 to 25 percent slopes	Nonhydric	4.7%
VoC	Volusia channery silt loam, 8 to 15 percent slopes	Predominantly nonhydric	7.6%

WETLAND DELINEATION

AKRF wetland scientists performed a site review on December 19th, 2023, which resulted in the delineation of three (3) streams (Stream 1, Stream 2, and Stream 3), within the study area (see **Figure 6**). The study area is an upland forest best classified as a rich mesophytic forest (Edinger, 2014) with Eastern white pine (*Pinus strobus*), Northern red oak (*Quercus rubra*), and sugar maple (*Acer saccharum*) dominant to varying degrees throughout steep predominantly south facing upper slopes. Weather conditions during the site review were generally 28°F to 32°F with a light snow flurry in the morning. Soils were not frozen and vegetation had senesced. The area received substantial rainfall in the days prior to conducting the delineation. The nearest downstream USGS stream gauge to the project area, Chemung River at Chemung, NY (01531000)⁶ saw the stream level rise from 4.3 feet on December 17th to an annual record maximum of 9.8 feet by 9:00 PM on December 18th. **Attachment A, Figure 1** provide a detail of the delineated boundaries for each stream.

SURFACE WATERS

STREAM 1

Stream 1 is an ephemeral stream that flows from north to south from a hillside seep (see **Figure 6** and **Attachment A, Figure 1**). A defined rocky-bottomed drainage channel is visible with a width of one to three feet. The stream continues south outside of the study area.

STREAM 2

Stream 2 is a perennial stream that flows from north to south through the center of the study area. The upper reaches of Stream 2 are on a more gradual slope with well-defined banks. As the stream continues south through the site steeper banks develop before cascading downslope and into a culvert outside of the study area. (see **Figure 6** and **Attachment A, Figure 1**).

⁵ <https://extapps.dec.ny.gov/data/WQP/PWL/0501-0035.pdf>

⁶ Sourced from USGS Water Data at <https://waterdata.usgs.gov/monitoring-location/01531000>.

STREAM 3

Stream 3 is an ephemeral stream that flows from west to east before flowing into Stream 2 outside of the study area (see **Figure 6** and **Attachment A, Figure 1**).

PRELIMINARY JURISDICTIONAL SUMMARY AND CONCLUSION

Three (3) streams (Stream 1, Stream 2, and Stream 3) were delineated in the study area. Stream 1 and Stream 3 (ephemeral streams) are not connected through Relatively Permanent Waters (RPW) to Waters of the United States and are not likely to be regulated. Stream 2 is a perennial stream that drains offsite to North Branch Newtown Creek and tributaries through several culverted connections. As this off-site connection to Traditional Navigable Waterway (TNW)⁷ was not verifiable with information and resources available, a Joint Jurisdictional Determination is recommended to confirm USACE jurisdiction of Stream 2 as Waters of the United States under Sections 401/404 of the Clean Water Act (CWA)⁸ and the need for a Water Quality Certification (WQC) from NYSDEC. Stream 2 is an unmapped tributary to a NYSDEC Class C Priority Stream but it is unlikely to be regulated by the NYSDEC under the Protection of Waters Act (Article 15 of ECL).

Figures:

Figure 1 – Aerial Map

Figure 2 – USGS Topographic Map

Figure 3 – NWI Wetlands

Figure 4 – NYSDEC Wetlands and Priority Waterbodies

Figure 5 – NRCS Soils

Figure 6 – Delineated Streams Overview

Attachments:

Attachment A – Delineated Streams Drawings

Figure 1 – Delineated Streams Details Map

Attachment B – Study Area Photographs

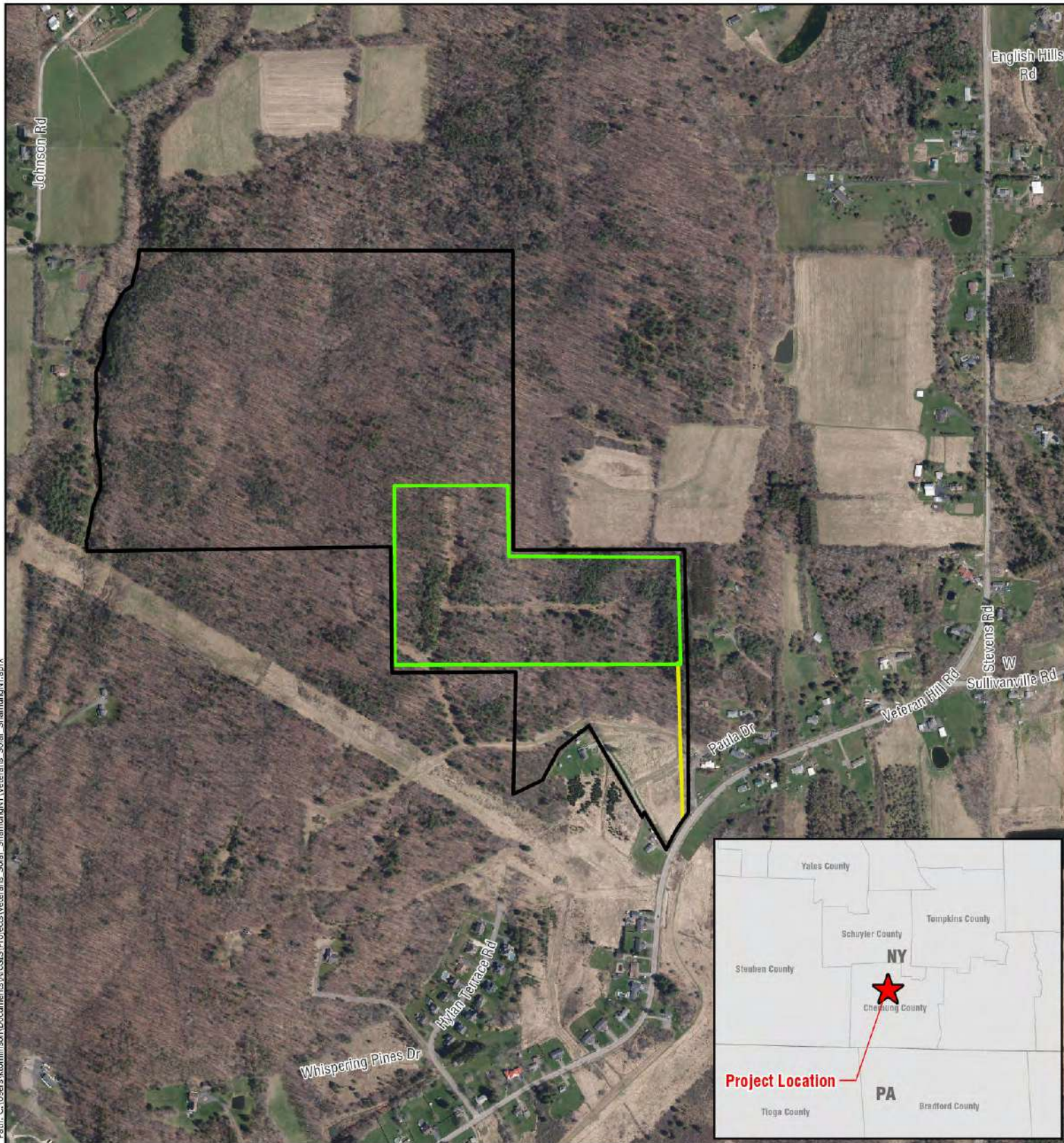
⁷ Traditional Navigable Waters are “...those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce” (33 CFR Part 329). Available: <https://www.nap.usace.army.mil/Portals/39/docs/regulatory/regs/33cfr329.pdf> (accessed on November 27, 2023).

⁸ NYSDEC would be responsible for administering the Section 401 Water Quality Certificate (WQC).

REFERENCES

Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY

Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss; U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.



0 500 1,000
Feet
1 inch equals 1,000 feet



Legend

- Property Parcel
- Study Area
- POI and Access Road

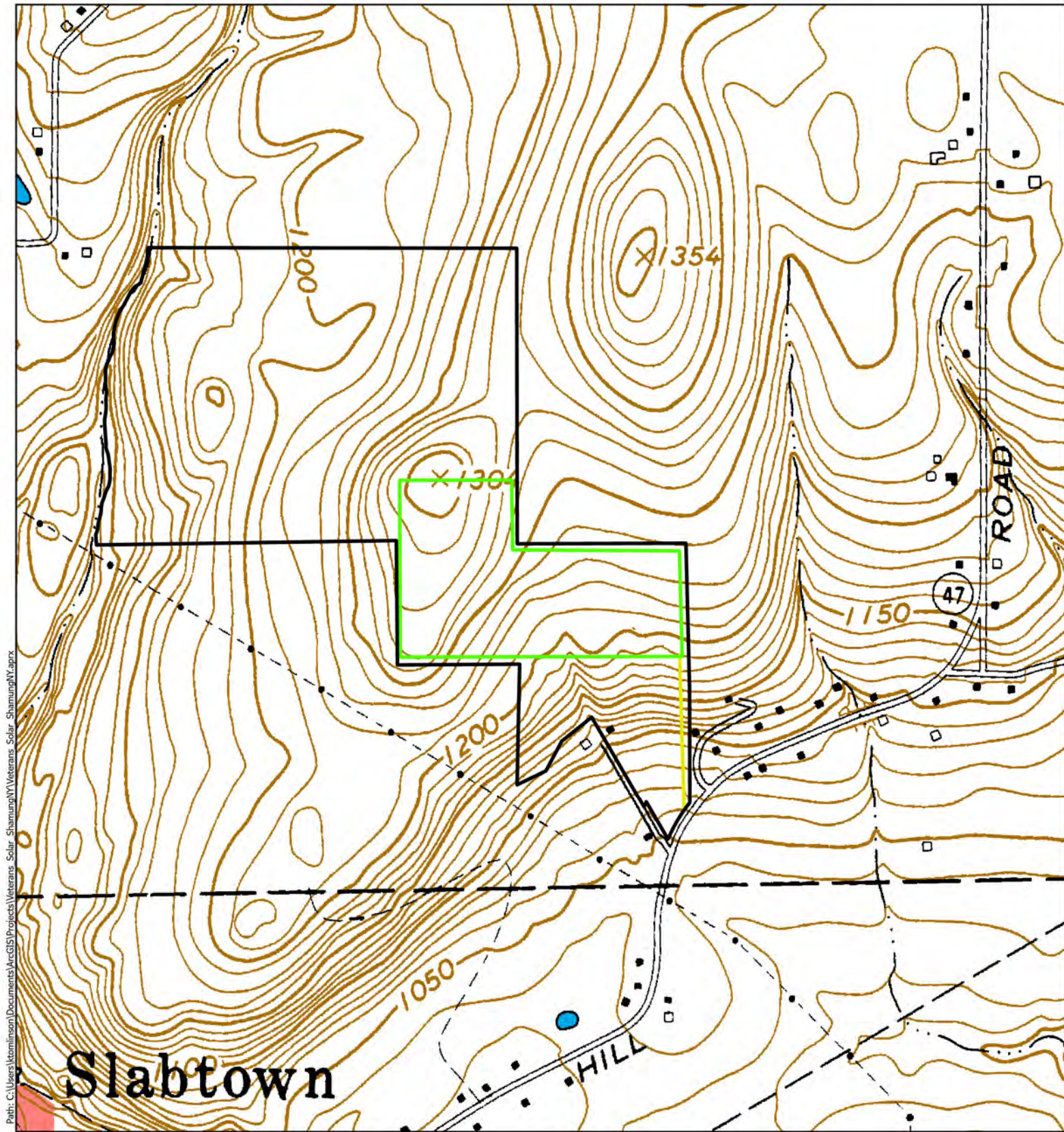
Data source: Aerial imagery sourced from 2021 NYS Orthoimagery Program Office at <https://ortho.dhses.ny.gov/>.

Aerial Overview Map

Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, NY

Figure 1

JANUARY 2024



Path: C:\Users\Hornlinson\Documents\ArcGIS\Projects\Veterans Solar\Shamung\NY.aprx



0 500 1,000
Feet
1 inch equals 1,000 feet



Legend

- Property Parcel
- Study Area
- POI and Access Road

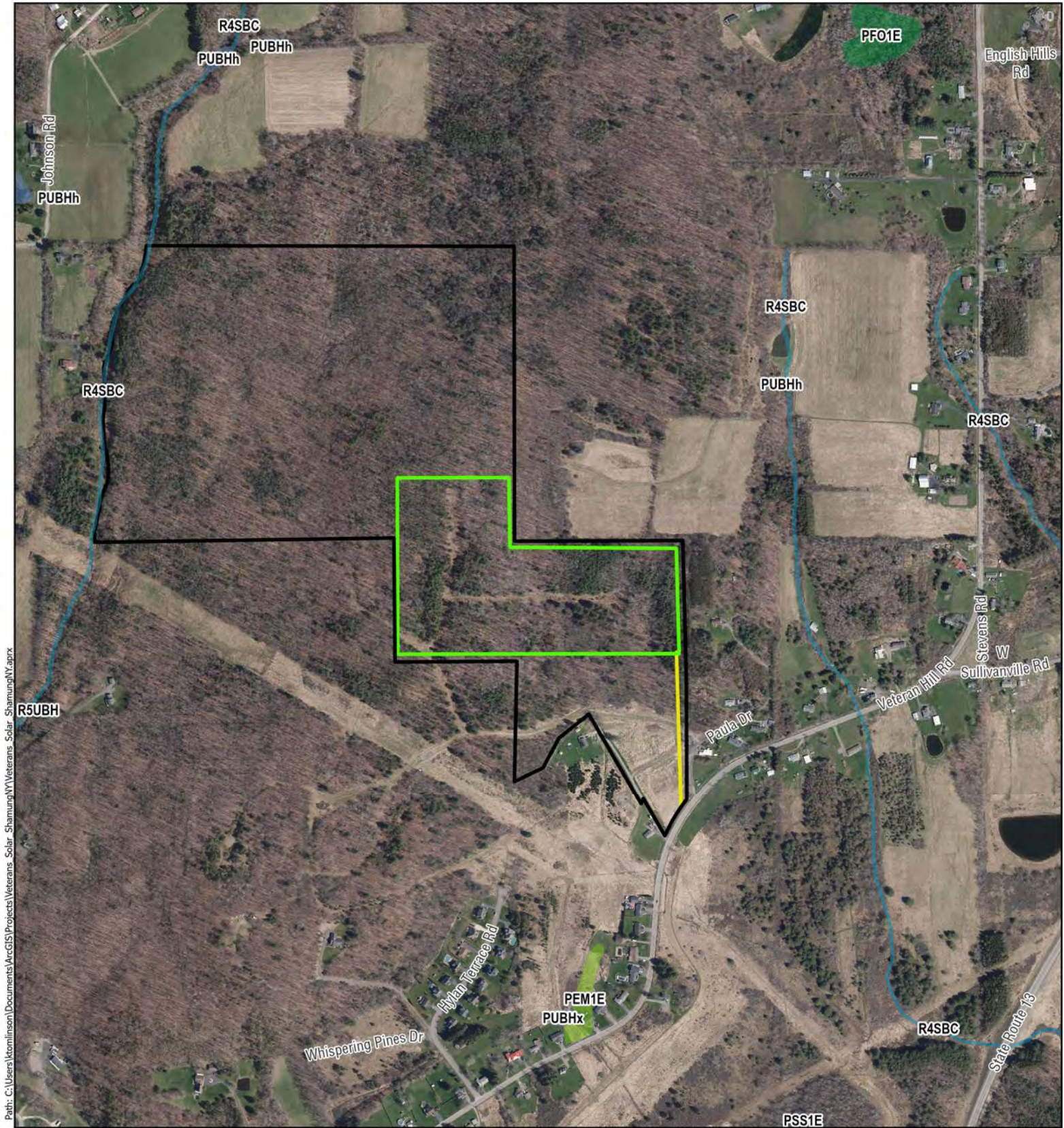
Data source: data.gis.ny.gov 24K Quad Map for Horseheads (W24) last updated March 2023.

USGS Topographic Map

Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, NY

Figure 2

JANUARY 2024



0 500 1,000
Feet
1 inch equals 1,000 feet

Data source: USFWS NWI Mapper last updated October 2023.



Legend

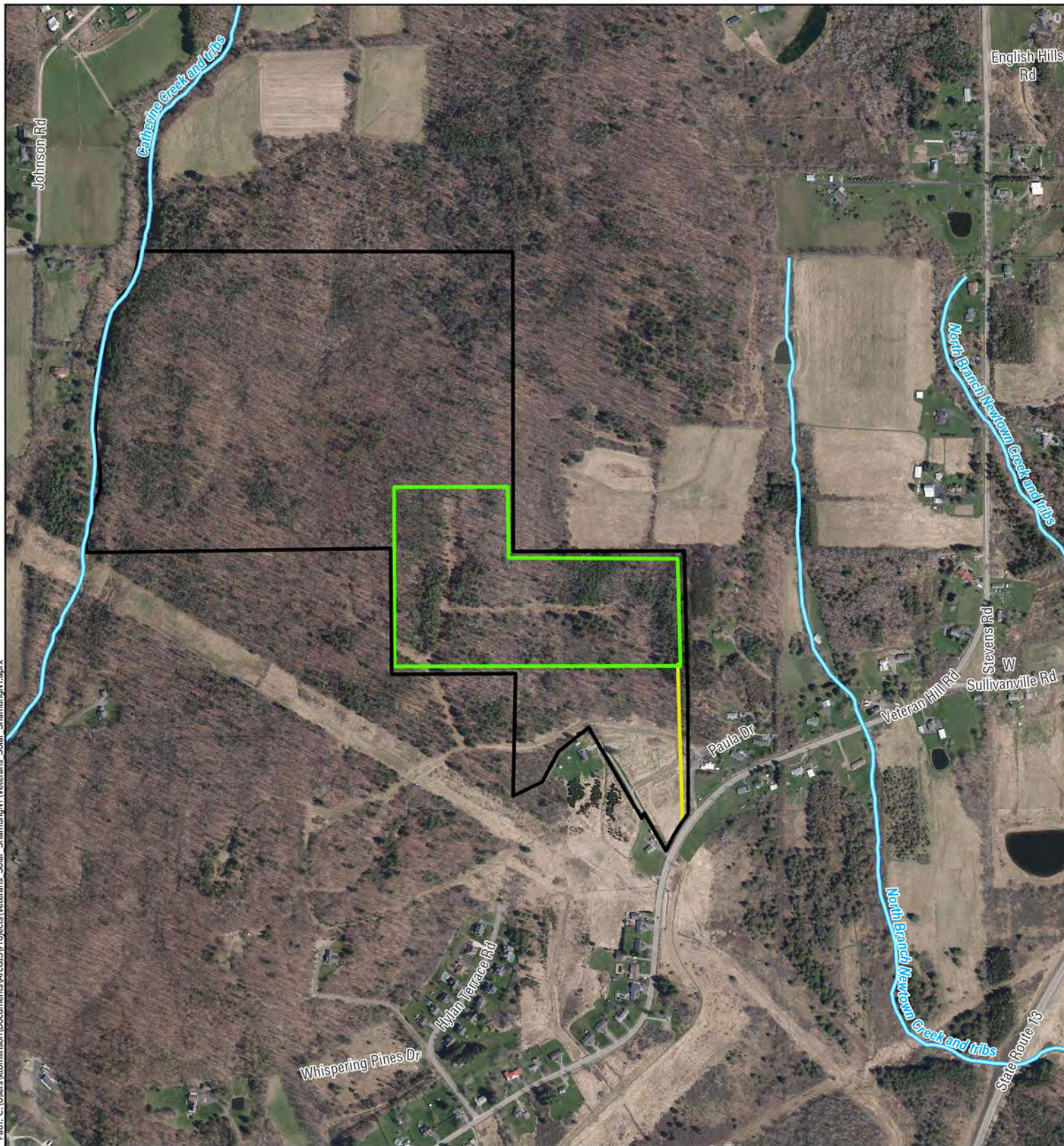
- | | |
|---------------------|-----------------------------|
| Property Parcel | Freshwater Emergent Wetland |
| Study Area | Forested/Shrub Wetland |
| POI and Access Road | Freshwater Pond |
| | Riverine |

NWI Wetlands

Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, NY

Figure 3

JANUARY 2024



0 500 1,000
Feet
1 inch equals 1,000 feet



Legend

- Property Parcel
- Study Area
- POI and Access Road
- NYSDEC Priority Stream

NYSDEC Wetlands and Priority Waterbodies

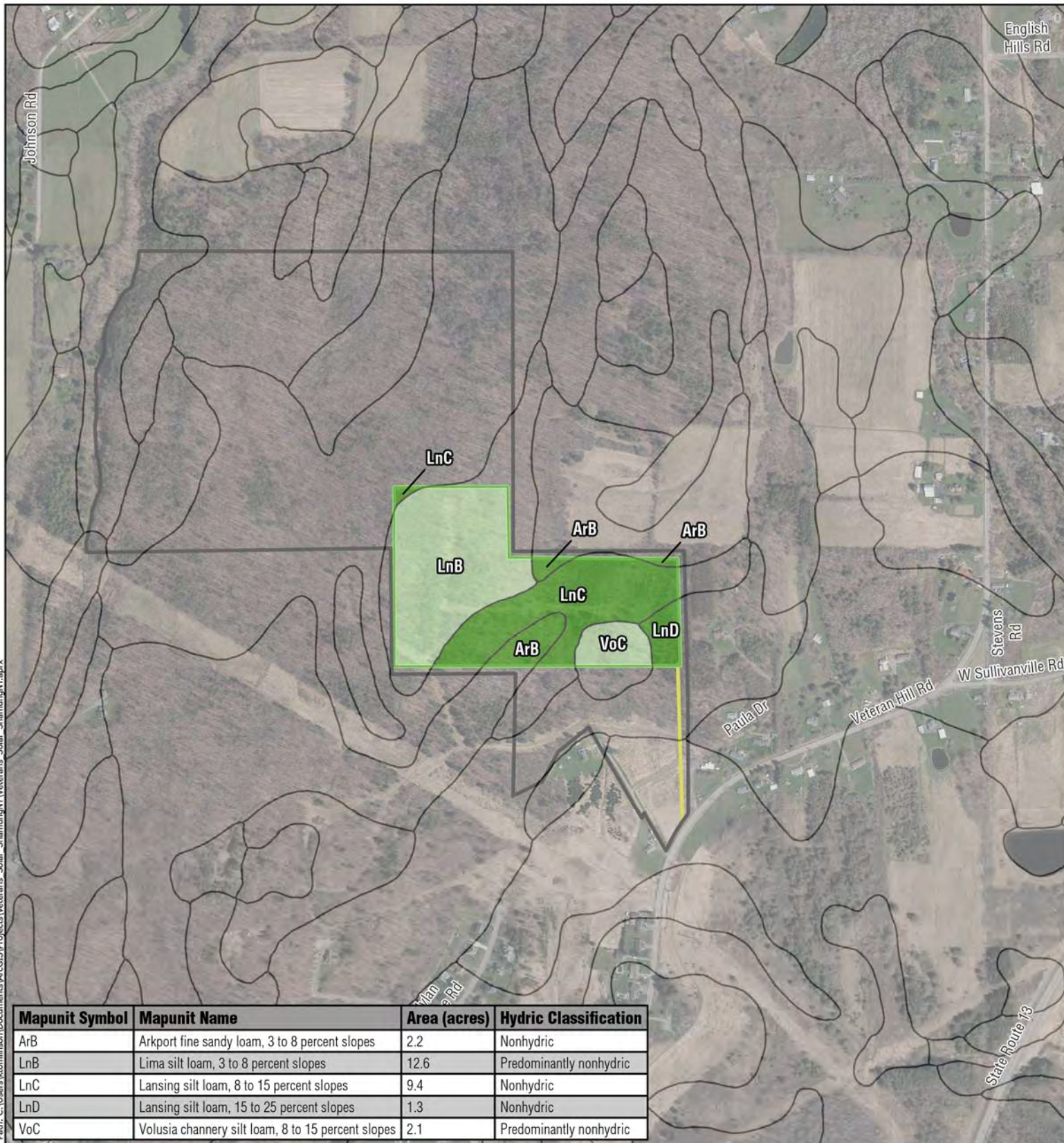
Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, NY

Note: There are no NYSDEC mapped wetlands in the vicinity of the project area. Data source: <https://data.gis.ny.gov/> published by NYSDEC. Mapped wetlands last updated September 2022 and Priority Waterbodies last updated November 2023.

Figure 4

JANUARY 2024

Path: C:\Users\Hominson\Documents\ArcGIS\Projects\Veterans Solar\ShamungNY.aprx



Mapunit Symbol	Mapunit Name	Area (acres)	Hydric Classification
ArB	Arkport fine sandy loam, 3 to 8 percent slopes	2.2	Nonhydic
LnB	Lima silt loam, 3 to 8 percent slopes	12.6	Predominantly nonhydic
LnC	Lansing silt loam, 8 to 15 percent slopes	9.4	Nonhydic
LnD	Lansing silt loam, 15 to 25 percent slopes	1.3	Nonhydic
VoC	Volusia channery silt loam, 8 to 15 percent slopes	2.1	Predominantly nonhydic



0 500 1,000
Feet
1 inch equals 1,000 feet



Legend

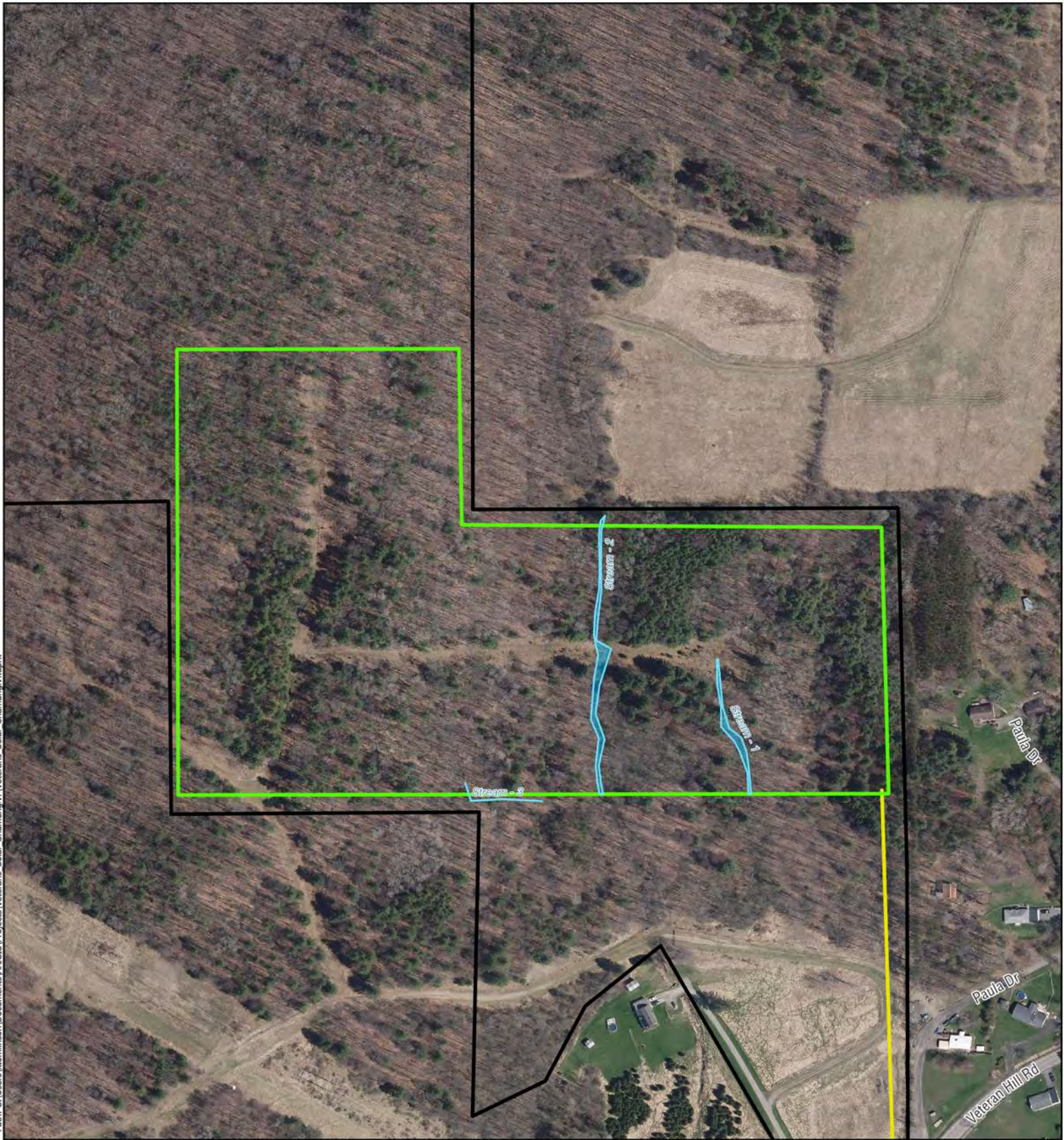
- Property Parcel
- Study Area
- POI and Access Road
- Nonhydic
- Predominantly nonhydic
- NRCS Soil Boundaries

NRCS Soils

Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, NY

Figure 5

JANUARY 2024



0 250 500
Feet

1 inch equals 400 feet

NOTE: Wetland delineation was conducted by AKRF
on December 19th, 2023.



Legend

-  Property Parcel
-  Study Area
-  POI and Access Road
-  Delineated Stream

Delineated Streams Overview

Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, NY

Figure 6

JANUARY 2024

ATTACHMENT A

Delineated Wetlands Drawings

Path: C:\Users\hominson\Documents\ArcGIS\Projects\Veterans Solar\Shamung\NY.aprx





N



0100200

Feet

1 inch equals 120 feet

NOTE: Wetland delineation was conducted by AKRF on December 19th, 2023.

Legend

 Study Area

 Delineated Stream Boundary

 Stream Flag

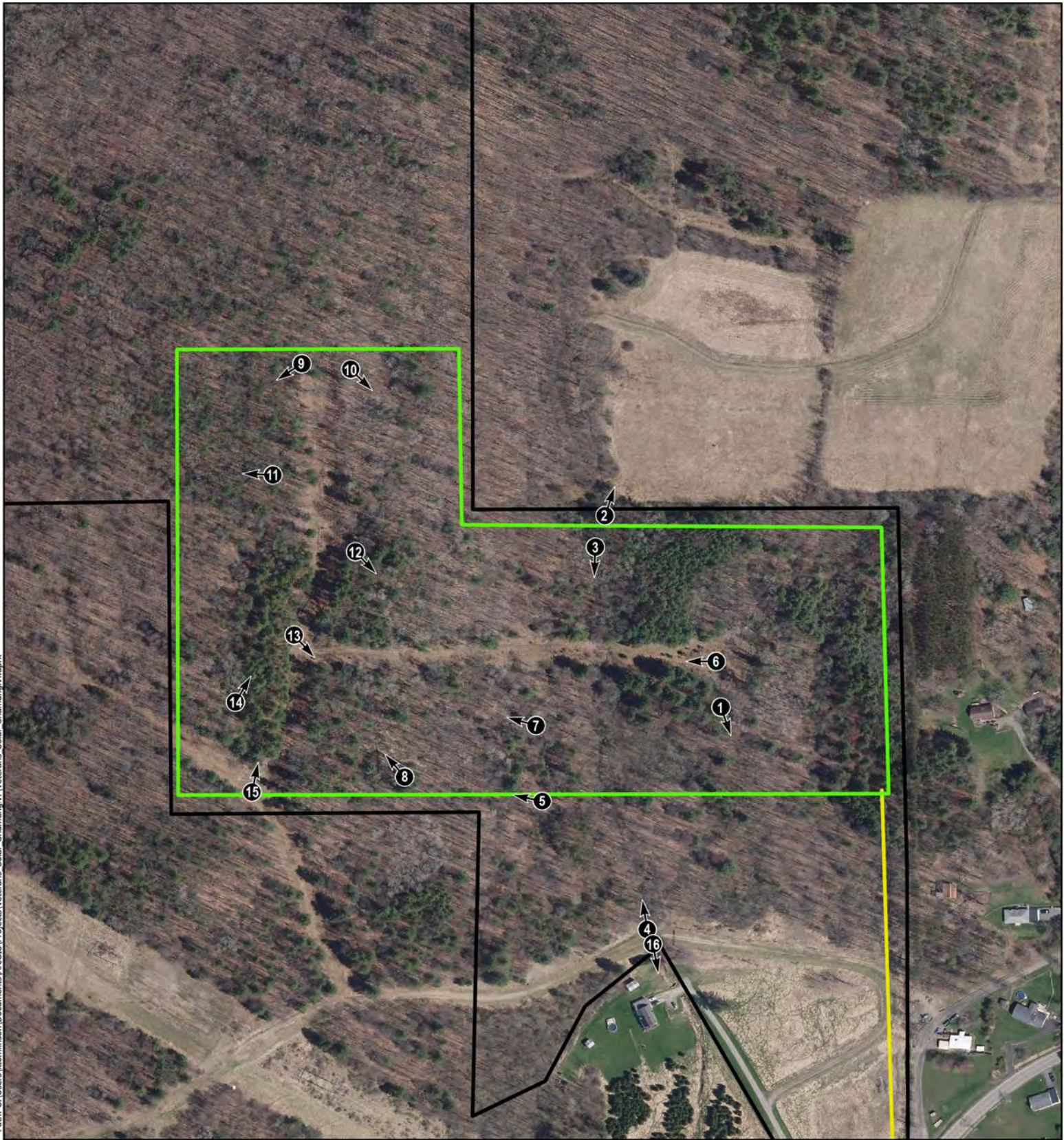
Delineated Streams Details Map

Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, NY

Figure 1

JANUARY 2024

ATTACHMENT B
Representative Site Photographs



0 250 500
Feet

1 inch equals 400 feet

NOTE: Photographs were taken by AKRF on
December 19th, 2023.



Legend

-  Property Parcel
-  Study Area
-  POI and Access Road
-  Photo Location and Direction

Photograph Locations

Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, NY

Figure 1

JANUARY 2024



Photo 01. Photo from Flag S1-205 showing Stream 1, an ephemeral stream, facing south.



Photo 02. Photo from Flag S2-111 Open Start at the northern property edge facing upstream on Stream 2, a perennial stream, facing north.



**Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, New York**

Attachment B-1 - Study Area Photographs

Photo Source: AKRF, Inc. December 19th, 2023



Photo 05. Photo from Flag S3-103 showing Stream 3, an intermittent channel that drains to Stream 2 offsite, facing west.



Photo 04. Photo showing the steep outfall of Stream 2 through a culvert outside of the delineation area, facing north.



**Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, New York**

Attachment B-2 - Study Area Photographs

Photo Source: AKRF, Inc. December 19th, 2023



Photo 03. Photo showing the defined banks of Stream 2 through the forest as it flows south through the property, facing south.



Photo 06. Photo from the access road that runs east-west through the rich mesophytic forest, facing west.



**Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, New York**

Attachment B-3 - Study Area Photographs

Photo Source: AKRF, Inc. December 19th, 2023



Photo 07. Photo showing an upland area of younger trees with larger Eastern white pine trees scattered throughout, facing west.



Photo 08. Photo showing an upland area dominated by Eastern white pine trees with a bare understory, facing northwest.



**Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, New York**

Attachment B-4 - Study Area Photographs

Photo Source: AKRF, Inc. December 19th, 2023



Photo 09. Photo showing an upland area of mixed pine and hardwoods, including American beech that was not present in the lower portions of the site, facing southwest.



Photo 10. Photo showing an upland area through the rich mesophytic forest, where younger trees and saplings are more abundant, facing southeast.



**Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, New York**

Attachment B-5 - Study Area Photographs

Photo Source: AKRF, Inc. December 19th, 2023



Photo 11. Photo showing an upland area through the rich mesophytic forest, where Eastern white pine saplings are more prevalent, facing west.



Photo 12. Photo showing an upland area through the rich mesophytic forest where pines are more dominant, facing southeast.



**Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, New York**

Attachment B-6 - Study Area Photographs

Photo Source: AKRF, Inc. December 19th, 2023



Photo 13. Photo showing the intersection of the north-south and east-west access road, facing southeast.



Photo 14. Photo showing a dense portion of Eastern white pines with the access road barely visible through their trunks in photo center-right, facing northeast.



**Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, New York**

Attachment B-7 - Study Area Photographs

Photo Source: AKRF, Inc. December 19th, 2023



Photo 15. Photo showing the fork in the access road where the path on the right continues to the north-south access road, photo facing north.



Photo 16. Photo showing the culvert outfall from Stream 2 as it drains under the road, showing the steep slope leading up to the property, facing south.



**Dynamic Energy LLC
Veteran Hill Solar Project
Veteran, Chemung County, New York**

Attachment B-8 - Study Area Photographs

Photo Source: AKRF, Inc. December 19th, 2023

Attachment 3

SEQRA SEAF

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			
Veteran Hill Road Solar LLC			
Name of Action or Project:			
Veteran Hill Road Solar Project			
Project Location (describe, and attach a location map):			
Veteran Hill Road, Town of Veteran, Chemung County, NY			
Brief Description of Proposed Action:			
Veteran Hill Road Solar LLC proposes to construct a 3.8 megawatt (MW) ground-mounted solar facility on a portion of Lot 39-00-1-14.1 in the Town of Veteran. The solar facility will be accessed by a new access road from Veteran Hill Road.			
Name of Applicant or Sponsor:		Telephone: (212) 802-0033	
Veteran Hill Road Solar LLC		E-Mail: jason.funk@dynamicenergy.com	
Address:			
2401 Walnut Street			
City/PO:		State:	Zip Code:
Philadelphia		PA	19103
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation?		NO	YES
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?		NO	YES
If Yes, list agency(s) name and permit or approval: Chemung County 239m Review		☐	☒
3. a. Total acreage of the site of the proposed action?		~145 acres	
b. Total acreage to be physically disturbed?		~35 acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		~145 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): Utility right-of-way			
☐ Parkland			

5. Is the proposed action, a. A permitted use under the zoning regulations? b. Consistent with the adopted comprehensive plan?	NO ☐ ☐	YES ☒ ☒	N/A ☐ ☐
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: _____ The facility will be unmanned and will not require water.	NO ☒	YES ☐	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____ The facility will be unmanned and will not require 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: _____ _____ _____	NO ☐ ☒	YES ☒ ☐	

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		
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?	NO	YES
	☒	☐
16. Is the project site located in the 100-year flood plan?	NO	YES
	☒	☐
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:	NO	YES
	☒	☐
	☒	☐
	☒	☐
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:	NO	YES
	☒	☐
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:	NO	YES
	☒	☐
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:	NO	YES
	☒	☐
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor/name: <u>Veteran Hill Road Solar LLC</u> Date: <u>4/16/26</u> Signature: <u>Nichole Coulter</u> Digitally signed by Nichole Coulter DN: cn = Nichole Coulter email = nichole.coulter@dynamicenergy.com C = AD O = Dynamic Energy Date: 2026.04.16 11:03:23 -0400 Title: <u>Sr. VP of Permitting and Development Execution</u>		



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 to confirm data provided by the Mapper or to obtain data not provided by the Mapper.



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]	No
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	No

Attachment 4

Visual Impact Assessment

Veteran Hill Road Solar Project
Town of Veteran, Chemung County, New York

Visual Impact Assessment

Prepared for:

Veteran Hill Road Solar LLC
2401 Walnut Street, Suite 503
Philadelphia, PA 19103

Prepared by:



27 Main Street, PO Box 324
Trumansburg, NY 14886

April 2026

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A. INTRODUCTION

Veteran Hill Road Solar LLC (the Applicant), an affiliate of Dynamic Energy LLC, is proposing to develop an approximately 3.8-megawatt (MW) ground-mount community solar facility on approximately 68 acres of the approximately 266.2-acre parcel at Veteran Hill Road (County Route 47) (Parcel 39.00-1-14.1 and portions of 39.00-1-17.1) in the Town of Veteran, Chemung County, New York (the Project Site). The Project Site currently consists of undeveloped woodland. The Project Site has frontage on Veteran Hill Road (County Route 47) and is surrounded by undeveloped woodlands and agricultural land to the north; undeveloped woodlands, agricultural land, and single family dwellings to the east; undeveloped woodlands and a transmission line corridor to the south; and undeveloped woodlands and a tributary to Catharine Creek to the west (**Figure 1**). **Figure 2** shows the elevation in the vicinity of the Project.

B. PROJECT DESCRIPTION

The Veteran Hill Road Solar Project (the Project) includes the construction of an approximately 3.8-MW ground-mounted solar array and related vehicular, utility, and security infrastructure. Access to the facility will utilize an existing gravel driveway from Veteran Hill Road (County Route 47) which ties into an existing trail through the woodlands to minimize new disturbance to the maximum extent practicable. The proposed point of interconnection (POI) to the existing NYESG transmission system will be at Veteran Hill Road. The access road will be 16-foot-wide with access gates to allow for maintenance activities.

The Project will consist primarily of installation of tracking solar panels mounted on an elevated post-mounted axle oriented in a north south direction. Panels slowly rotate from east-facing to west-facing to maximize sun exposure and return to east-facing condition overnight. The panels can reach a maximum height of approximately 6-8 feet and can rotate up to 60° to maximize energy capture at sunrise/sunset. The Project will also include 7-foot-tall perimeter fencing, pad mounted electric gear, a gravel access drive, and stormwater management systems (**Figure 1**).

The Project will connect to an existing overhead power line along Veteran Hill Road. The proposed Point of Interconnection (POI) will be located along the new private access road, requiring the installation of new approximately 30-foot wood utility poles.

C. CHARACTER AND VISUAL QUALITY OF THE EXISTING LANDSCAPE

The Project is located in the Town of Veteran, Chemung County, New York west of Veteran Hill Road. The surrounding area is a mix of open field, active farmland, rural residential, and woodland with significant elevation changes across the area. Horseheads North is approximately 0.5 miles southwest and Horseheads is approximately 2.5 miles to the southwest. The Project is located approximately 1,500 to 2,000 feet from the apex of a western-facing slope (**Figure 2**).

Scattered rural residences are present in the vicinity of the Project. Many of these residences are surrounded by dense forest, however, open fields and active agricultural areas are also prevalent in the landscape. Two residential properties are located adjacent to the Project Site along Veteran Hill Road (209 and 211 Veteran Hill Rd) and four residential properties along Paula Drive (10, 27, 53, and 227 Paula Drive).

D. INVENTORY OF VISUALLY SENSITIVE RESOURCES

An inventory of visually sensitive resources was compiled based on resources meeting criteria outlined by the New York State Department of Environmental Conservation (NYSDEC) Visual Policy. The assessment area consisted of a one-mile radius surrounding the proposed structures for the Project. One visual resource was identified within the assessment area, as described in further detail below.

INVENTORY METHODOLOGY

Visually sensitive resources were compiled through various publicly available data sources through the New York State (NYS) Geographic Information System (GIS) Clearinghouse, ESRI, and federally hosted datasets. The data evaluated for proximity to the assessment area included datasets from, but not limited to:

- NYS Office of Parks Recreation and Historic Preservation (OPRHP) for State and National Registers of Historic Places, Heritage Areas, Urban Heritage Areas, Historic Districts, and Greenway Trails datasets;
- NYSDEC for Wildlife Management Areas, Wild, Scenic and Recreational Rivers, Public Fishing Areas, Public Parks, State Lands datasets;
- NYS Department of Transportation (NYSDOT) for Scenic Byways datasets;
- NYS Department of State (NYSDOS) for Scenic Areas of Statewide Significance and State Parks datasets;
- NYS Education Department for Public School and Library datasets;
- United States Fish and Wildlife Service (USFWS) for National Wildlife Refuges datasets;
- USFWS for National Forest datasets;
- ESRI hosted USA Parks dataset for national, state, county, regional, and local parks derived from 2024 TomTom sources.

NYSDEC VISUAL POLICY RESOURCE INVENTORY

The NYSDEC issued a Program Policy on July 31, 2000 entitled “*Assessing and Mitigating Visual Impacts*” which was revised on December 13, 2019. This document defines State regulatory concerns and provides the framework for evaluating visual and aesthetic impacts generated from proposed development. This NYSDEC policy also defines important technical concepts and methods for compliance with the State Environmental Quality Review Act (SEQRA) with respect to environmental aesthetics. With this policy, NYSDEC asserts that the state’s interest with respect to aesthetic resources is to protect those resources whose scenic character has been recognized through national or state designations. They are as follows:

- 1) *A historic resource listed or eligible for inclusion in the State or National registers of historic places;*
There is one structure listed as eligible for the National or State Register of Historic Places located within the assessment area. The Sullivanville United Methodist Church is an eligible resource that is located approximately one mile from the Project Site. Several structures with registry statuses of “Undetermined” or “Not Eligible” were within the assessment area and are depicted on **Figure 3**.
- 2) *State Parks [Parks, Recreation and Historic Preservation Law Section 3.09];*
No state parks are located within the study area. The nearest, Clark Reservation State Park, is approximately 13 miles from the Project.
- 3) *NYS Heritage Areas (formerly Urban Cultural Parks) [Parks, Recreation and Historic Preservation Law Section 35.15];*
There are no State Heritage Areas located within or in proximity to the assessment area.
- 4) *The State Forest Preserve [NYS Constitution Article XIV];*
There are no State Forest Preserves located within or in proximity to the assessment area.
- 5) *National Wildlife Refuges [16 U.S.C. 668dd], and State Game Refuges [ECL 11-2105];*
No National Wildlife Refuges or State Game Refuges are located near the assessment area.

- 6) *National Natural Landmarks [36 CFR Part 62];*
No National Natural Landmarks (NNL) are located within or in proximity to the assessment area.
- 7) *The National Park System, Recreational Area, Seashores, Forests [16 U.S.C. 1c];*
No National Parks are located within or in proximity to the assessment area.
- 8) *Rivers designated as National or State Wild, Scenic or Recreational [16 U.S.C. Chapter 28, ECL 15 2701 et seq.];*
There are no National or State Wild, Scenic or Recreational Rivers within or proximity to of the assessment area. The nearest stream is a tributary to Catharine Creek which is not listed¹.
- 9) *A site, area, lake, reservoir or highway designated or eligible for designation as scenic, including NYS Scenic Byways [ECL Article 49 Title 1] or DOT equivalent;*
There are no designated scenic byways or scenic roads within the assessment area. The nearest Scenic Byway is Scenic Route 24², consisting of portions of State Route 414 around Seneca Lake, approximately 17 miles north of the Project.
- 10) *Scenic Areas of Statewide Significance [Article 42 of Executive Law];*
No Scenic Areas of Statewide Significance (SASS) areas are located within or in proximity to the analysis area. New York State's six SASS areas are within the Hudson Valley region.
- 11) *A state or federally designated interstate or inter county foot trail, or one proposed for designation [16 U.S.C. Chapter 27 or equivalent];*
There are no trails meeting this qualification within the assessment area.
- 12) *Adirondack Park Scenic Vistas [Adirondack Park Land Use and Development Map];*
The Adirondack Park is located in northeastern New York State, far removed from the assessment area.
- 13) *State Nature and Historic Preserve Areas [Section 4 of Article XIV of the State Constitution];*
No preserves are located within or in proximity to the assessment area.
- 14) *Palisades Park [Palisades Interstate Park Commission];*
New York State's portion of the Palisades Park is located primarily in Rockland County, well outside of the assessment area.
- 15) *Bond Act Properties purchased under Exceptional Scenic Beauty category [ECL Article 51, 52, and 56];*
No such properties are located within or in proximity to the study area.
- 16) *National Heritage Areas [Each of the 49 designated NHAs has its own individual authorizing legislation].*
No National Heritage Areas are within or in proximity to the assessment area.

ADDITIONAL REGIONAL AND LOCAL VISUAL RESOURCES

An inventory of additional visual resources including scenic easements, public parks and recreation areas, scenic overlooks, other environmentally sensitive community lands and general areas of public access is also considered within the context of the NYSDEC Policy. No additional regional and local visual resources were found within the analysis area.

¹ According to the NYSDEC's Wild, Scenic and Recreational Rivers Program list of rivers at <https://dec.ny.gov/regulatory/permits-licenses/waterways-coastlines-wetlands/permits/wild-scenic-recreational-rivers-permit-program/wild-scenic-recreational-rivers>.

² According to the NYSDOT 2018 Scenic Byways Map at <https://www.dot.ny.gov/portal/page/portal/content/engineering/Scenic-Byways/Byways-repository/byway%20map.jpg>.

E. VISIBILITY ANALYSIS

After inventorying the visual resources, a visibility analysis for the one-mile assessment area was conducted. This analysis is a GIS analytical technique that determines if and where an object, such as a solar facility, can geographically be seen within a larger regional area. The methodology utilized, assumptions and limitations, and results are described in further detail below.

METHODOLOGY

ELEVATION

The NYS GIS Clearinghouse provides access to a statewide repository of high-quality LiDAR data. The most recent LiDAR data was from the 2019 FEMA flights and was utilized to determine a 1-foot bare-earth elevation model (DEM) and a surface elevation model (DSM) within the assessment area. In areas where tree clearing was proposed, the surface elevation (i.e. the height of the trees) was replaced within the bare-earth elevation to accurately reflect the diminished visual screening that will be provided to the Project by those forested areas.

VISIBILITY ANALYSIS

The visibility analysis for the Project was conducted utilizing the Visibility Geoprocessing Tool within ArcGIS Pro 3.6.1. To accurately describe the shielding of buildings, trees, and other landscape features, the modified DSM (i.e. proposed tree clearing included), was utilized. The primary Project components included in the analysis were the 7-foot-tall fence, the solar panels at a maximum height of 8-feet, and the 30-foot-tall utility poles. Further, an observer height was established at 5.5 feet above the surface elevation. The final resulting output grid identified those areas from which viewers would potentially see all or some part of the Project (**Figure 3**).

ASSUMPTIONS AND LIMITATIONS OF THE VISIBILITY ANALYSIS

The visibility analysis identifies cells (image pixels) that contain elevation information and computes the differences along the terrain surface between an observer at any point within the study area and a target (e.g. the fence or solar panel components). The analysis is a clear line-of-sight and therefore certain factors in the interpretation of the results need to be considered:

- 1) The model assumes the observer to have perfect vision at all distances. Therefore, a certain amount of reasonable interpretation needs to be considered because of atmospheric/meteorological variables that may cause reduced visibility. Additionally, an object is naturally smaller and shows much less detail at greater distances and will therefore have less visual impact.
- 2) Visibility does not indicate that the entirety of the Project components are visible, but rather that the highest point of some of the components analyzed are. In many cases for this Project, the vegetative buffer surrounding the site is expected to provide a visual impediment for much of the lower elements of the facility. The photosimulations provided in the Report provide more insight into the extent of visibility of the Project and its components.
- 3) The model assumes that an observer would not be able to see the Project if standing amongst the trees or within a building. There may be areas where less dense canopy coverage or midstory would allow for limited visibility through the trees, particularly outside of the growing season when leaves are not present.

VISIBILITY ANALYSIS RESULTS AND DISCUSSION

Landform and elevation, in addition to the vegetative features in the landscape, are a key influence on the visibility and sightline of a Project. One visually sensitive resource, The Sullivanville United Methodist Church eligible historic resource, was identified approximately 1 mile to the east of the Project. However, the results of the visibility analysis (**Figure 3**) concluded that the Project will not be visible from this resource and thereby not visually impact the Sullivanville United Methodist Church. Surrounding hillsides, particularly to the east, reach higher elevations and screen this historic resource from the Project. In addition, the Project would be immediately surrounded by dense woodlands, and visibility would be expected to be shielded, particularly during the growing season.

It should also be noted that the visibility model accounts for the proposed poles along the Project's interconnection route. Elevated visibility from Veteran Hill Road is a direct result of the proposed Poles which abut this roadway. In general, the proposed PV panels and fence are not visible from areas southeast of the Project and the majority of depicted visibility in these areas are of poles.

F. GLINT AND GLARE ANALYSIS

As electrical generation turns to renewable energy and solar energy installations continue to be developed, it is important to review and minimize the potential for these installations to result in glare impacts on passing vehicles and surrounding properties. Glare and glint both refer to the unwanted reflection of the sun's radiation on a reflective surface but differ in the duration. While glare is a continuous source of reflection from a stationary source such as the sun reflecting off a waterbody, glint is a temporary, momentary flash from a source such as the sun reflecting off the window of a moving car. Both glare and glint may result in an after-image, or a visual illusion where an image lingers after exposure to the original light stimulus is gone, which can result in a temporary visual hazard to pilots, motorists, and others. As a result, studying the potential glare from solar projects is being increasingly important.

SPECIFICATIONS AND ASSUMPTIONS

The ForgeSolar™ model analyzes resulting glare at one minute time intervals throughout all times of day, every day of the year at the solar array site as reflectivity varies with the sun. The proposed Project aims to produce about 3.8 MW of power generated by approximately 10,192 smooth glass modules with anti-reflective coatings. The anti-reflective coating reduces the reflectivity of the solar panels but also increases the slope error in the model. These modules will be mounted on a single-axis tracker racking system that will follow the sun throughout the day with an assumed maximum tracking angle of 60 degrees and a maximum Ground Cover Ratio (GCR) of 0.347.

For the purposes of this study, "Green" solar glare means that there is a low potential to cause "flash blindness", or an after-image. "Yellow" solar glare means that there is a moderate potential to cause a temporary after-image. "Red" solar glare means that there is potential to cause permanent eye damage and retinal burns.

As the Project Site is surrounded on all sides by existing tree lines, much of the anticipated glare from this Project is minimal. An assumed 30-foot obstruction height was built into the model on these sides to represent the existing tree lines. Further assumptions in the ForgeSolar™ model can be found in **Appendix A**.

RESULTS

The glare model and study indicate that the proposed solar arrays will not generate impacts to the surrounding area. The potential glare is mitigated largely through existing tree lines and topographic changes. Below, **Table 1** summarizes the glare model outputs by month of the year, which is also found in **Appendix A**.

Table 1: Yearly Glare Expectations

Month	Time of Anticipated “Green” Glare (minutes): All Points	Time of Anticipated “Yellow” Glare (minutes): All Points
January	56	None
February	None	None
March	246	None
April	420	1
May	600	11
June	639	12
July	620	5
August	496	12
September	338	None
October	35	None
November	0	None
December	189	None

In general, the results from this modeled glare analysis suggest that the glint and glare from the Project is not expected to negatively impact local roads, residences, and other nearby buildings. No one roadway, residence or building will experience glare every day of the year, and at most of the daily occurrence of glare is approximately 10 minutes either during sunrise or sunset (**Appendix A**). As this design is still preliminary, the findings of this glare report only reflect the current stage of design and may not accurately reflect further design phases. If the glare is determined to be significant, the developer may further collaborate with the Town and landowners on glare mitigation options.

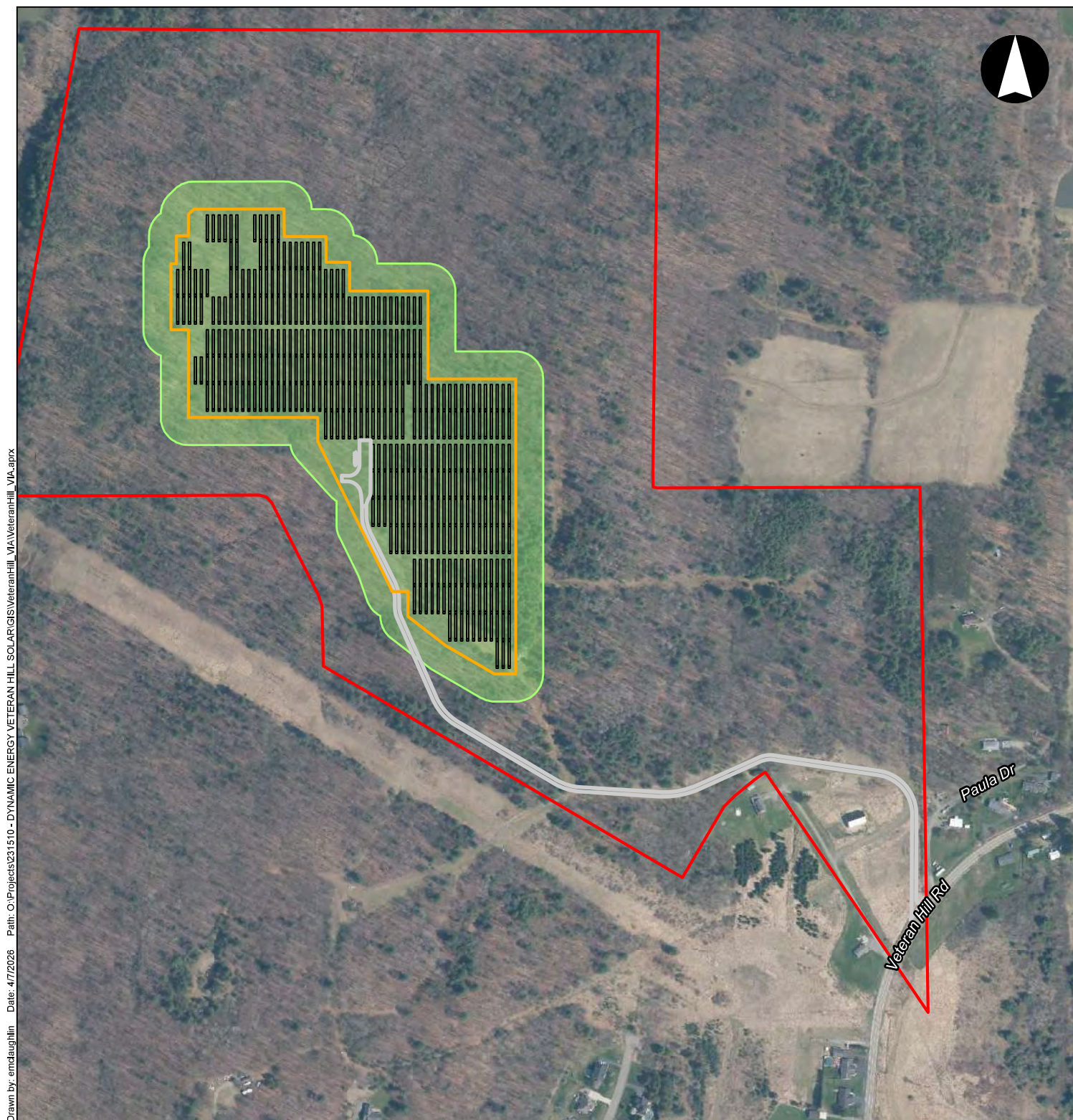
G. VISUAL IMPACTS SUMMARY

The Project is not anticipated to have adverse visual impacts to surrounding areas. The surrounding area is a mix of open field, active farmland, and woodland with significant elevation changes across the area that will limit visibility. Further, the Project has limited frontage along Veteran Hill Road (County Route 47) and will retain a largely intact perimeter of forest. The existing, natural vegetation will also minimize potential impacts from glare. As such, the Project will have limited visual impacts to surrounding areas.

H. REFERENCES

New York State Department of Environmental Conservation, DEP-00-2 / *Assessing and Mitigating Visual and Aesthetic Impacts*. Issued July 31, 2000. Revised December 13, 2019. 24 pp. https://extapps.dec.ny.gov/docs/permits_ej_operations_pdf/visualpolicydep002.pdf.

United States Department of Agriculture (USDA). Forest Service. Agriculture Handbook Number 701 (AH-701). *Landscape Aesthetics: A Handbook for Scenery Management*. December 1995. 264 pp. [https://blmwyomingvisual.anl.gov/docs/Landscape%20Aesthetics%20\(AH-701\).pdf](https://blmwyomingvisual.anl.gov/docs/Landscape%20Aesthetics%20(AH-701).pdf).



Drawn by: emdaughlin Date: 4/7/2026 Path: O:\Projects\231510 - DYNAMIC ENERGY VETERAN HILL SOLAR\GIS\VeteranHill_VIA.aprx

akrf

Data source: Aerial imagery is for 2022,
sourced from the NYS GIS Clearinghouse

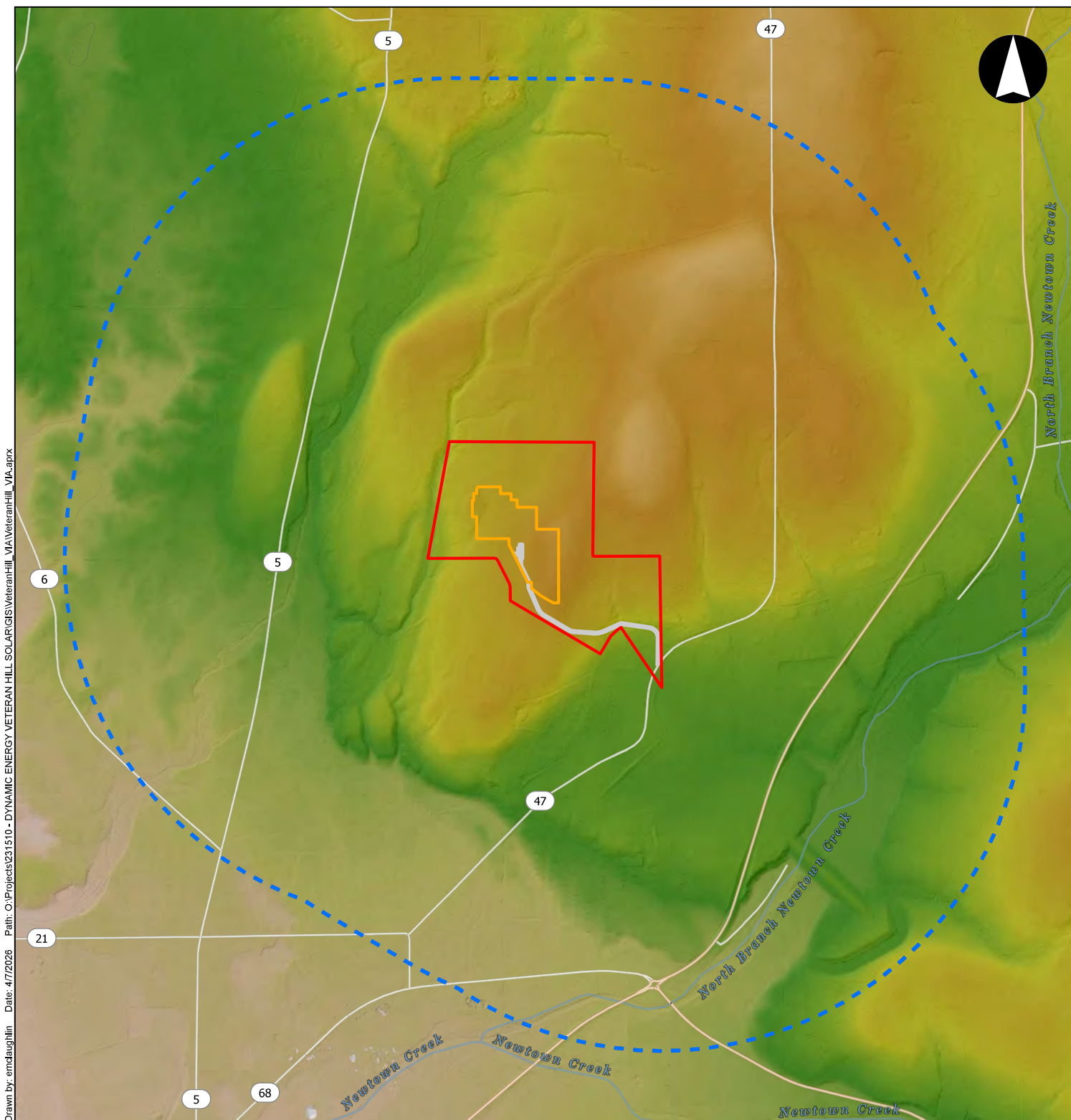
Legend

- Parcel Boundary
- Proposed Solar Arrays
- Proposed Project Fence
- ~ Proposed Access Road
- Assumed Tree Clearing Area

Veteran Hill Road Solar, LLC
Veteran Hill Road Solar Project
Town of Veteran
Chemung County, NY

0 250 500
 Feet
 1 inch equals 500 feet

Figure 1
Project Overview
 April 2026



Drawn by: emdaughtlin Date: 4/7/2026 Path: O:\Projects\231510 - DYNAMIC ENERGY VETERAN HILL SOLAR\GIS\Veteran Hill_VIA_Veteran Hill_VIA.aprx

akrf

Data source: Elevation data sourced from NYS LiDAR (gis.ny.gov/lidar) for FEMA's 2019 flight paths.

Legend

- Parcel Boundary
- Viewshed Analysis Area (1 mile radius)
- Proposed Project Fence
- Proposed Access Road

Digital Elevation Model

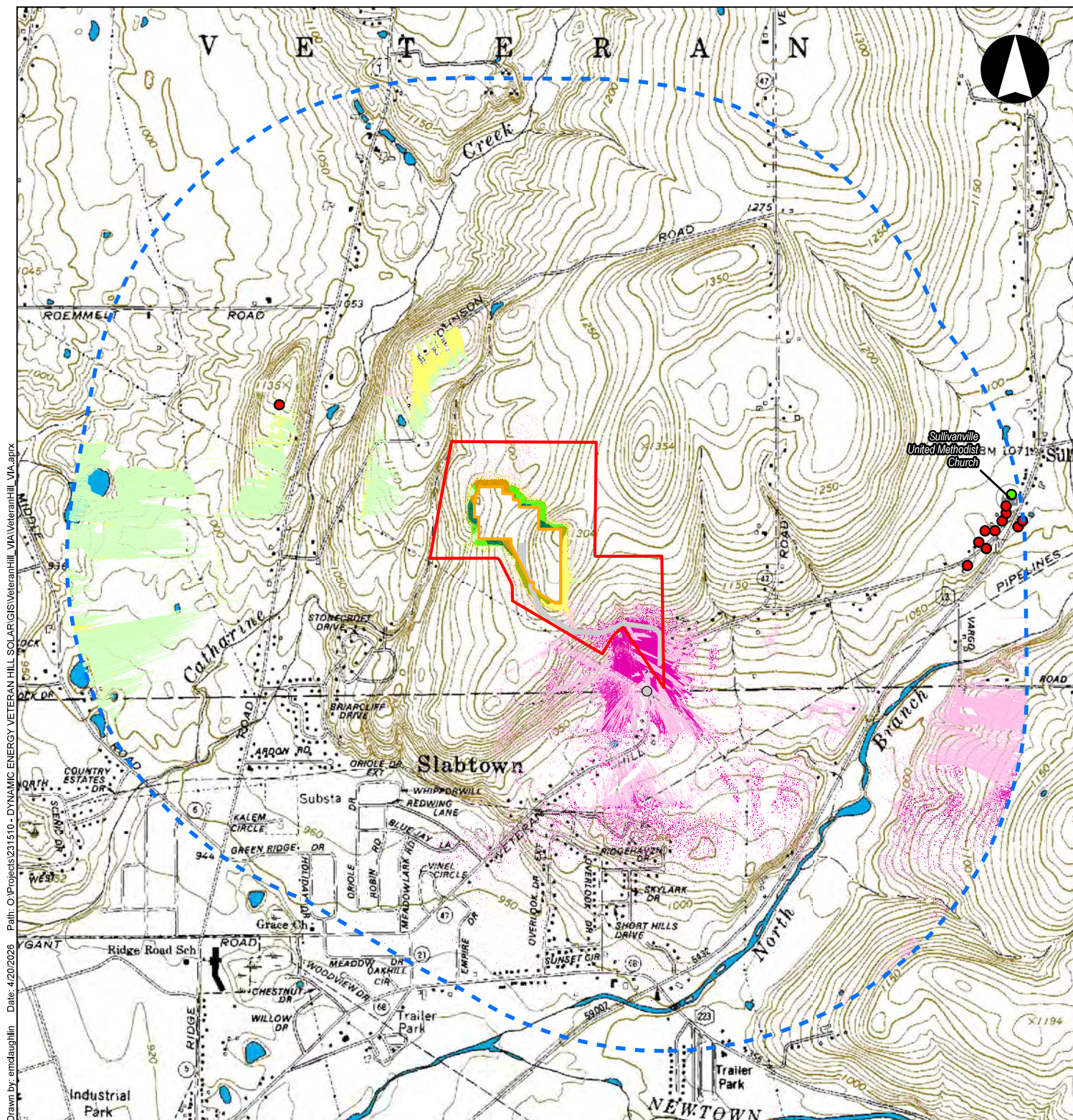
High
Low

Veteran Hill Road Solar, LLC
Veteran Hill Road Solar Project
Town of Veteran
Chemung County, NY

0 1,000 2,000
Feet
1 inch equals 2,000 feet

Figure 2
Digital Elevation Model (DEM)

April 2026



akrf

Data source: Data sources from NYS GIS Clearinghouse (data.gis.ny.gov) for Building USN Points. NYSDOT 24k TopoQuads were used for Horseheads (W24).

0 1,000 2,000 Feet
1 inch equals 2,000 feet

Legend

- Parcel Boundary
- Viewshed Analysis Area (1 mile radius)
- Proposed Project Fence
- Proposed Access Road
- Place of Worship
- NYSHPO Historic Resources**
 - Eligible
 - Not Eligible
 - Undetermined

Visibility Model (PV Panels & Poles)

- Barely Visible (<33%)
- Visible (33%-66%)
- Clearly Visible (>66%)

Visibility Model (PV Panels)

- Barely Visible (<33%)
- Visible (33%-66%)
- Clearly Visible (>66%)

Visibility Model (Poles)

- Barely Visible (<33%)
- Visible (33%-66%)
- Clearly Visible (>66%)

Veteran Hill Road Solar, LLC
Veteran Hill Road Solar Project
Town of Veteran
Chemung County, NY

Figure 3
Visibility Analysis
April 2026

Appendix A. ForgeSolar™ Analysis Report

FORGESOLAR GLARE ANALYSIS

Project: **Veteran Hill Solar**

Site configuration: **Veteran Hill 202603330**

Calculated via ForgeSolar Radiometric Physics Engine v3.1.2

Created 30 Mar, 2026

Updated 10 Apr, 2026

Time-step 1 minute

Timezone offset UTC-5

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m²

Category 1 MW to 5 MW

Site ID 174659.28749

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad

Summary of Results Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	DA tracking	DA tracking	5,681	94.7	62	1.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Ardon Dr	0	0.0	0	0.0
Briardcliff Dr	0	0.0	0	0.0
Hylan Terrace Rd	0	0.0	0	0.0
Johnson Rd	1,139	19.0	27	0.5
Oriole Dr	0	0.0	0	0.0
Redwing Ln	0	0.0	0	0.0
Ridge Rd	0	0.0	0	0.0
Route 14	0	0.0	0	0.0
Stonecroft Dr	0	0.0	0	0.0
Veteran Hill Rd	0	0.0	0	0.0
West Sullivanville Rd	0	0.0	0	0.0
Whispering Pines Dr	0	0.0	0	0.0
Wynmere Dr	0	0.0	0	0.0
Wynmere Dr	0	0.0	0	0.0
OP 1	245	4.1	0	0.0
OP 2	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	1,041	17.4	22	0.4
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	1,854	30.9	0	0.0
OP 16	0	0.0	0	0.0
OP 17	1,402	23.4	13	0.2
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 1

Axis tracking: Dual-axis

Rated power: -

Panel material: Smooth glass with AR coating



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.203550	-76.795504	1251.79	6.00	1257.79
2	42.206816	-76.795622	1332.92	6.00	1338.92
3	42.206824	-76.796373	1331.43	6.00	1337.43
4	42.207706	-76.796394	1297.53	6.00	1303.53
5	42.207706	-76.797145	1281.58	6.00	1287.58
6	42.208477	-76.798422	1246.52	6.00	1252.52
7	42.208469	-76.800192	1254.33	6.00	1260.33
8	42.206029	-76.800182	1257.25	6.00	1263.25
9	42.206013	-76.798723	1281.39	6.00	1287.39
10	42.204265	-76.797521	1258.20	6.00	1264.20

Route Receptors

Name: Ardon Dr

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.197358	-76.812871	958.28	5.00	963.28
2	42.197398	-76.808140	965.89	5.00	970.89

Name: Briarcliff Dr

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.200319	-76.811946	970.81	5.00	975.81
2	42.200331	-76.810551	969.47	5.00	974.47
3	42.200403	-76.810192	970.43	5.00	975.43
4	42.200426	-76.808899	973.64	5.00	978.64
5	42.200426	-76.808534	978.74	5.00	983.74
6	42.199779	-76.808545	978.72	5.00	983.72
7	42.199024	-76.808604	978.85	5.00	983.85
8	42.198626	-76.808496	973.28	5.00	978.28
9	42.198491	-76.808529	969.97	5.00	974.97
10	42.198408	-76.808631	968.66	5.00	973.66
11	42.198376	-76.808781	967.44	5.00	972.44
12	42.198372	-76.809054	965.81	5.00	970.81
13	42.198459	-76.809687	963.95	5.00	968.95
14	42.198575	-76.809805	964.19	5.00	969.19
15	42.199401	-76.809795	967.69	5.00	972.69
16	42.199528	-76.809821	967.82	5.00	972.82
17	42.199616	-76.809907	967.85	5.00	972.85
18	42.199640	-76.810181	967.43	5.00	972.43
19	42.199675	-76.810353	968.82	5.00	973.82
20	42.199751	-76.810422	969.07	5.00	974.07
21	42.200359	-76.810444	969.31	5.00	974.31

Name: Hylan Terrace Rd

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.200078	-76.794374	1059.51	5.00	1064.51
2	42.199529	-76.794545	1049.46	5.00	1054.46
3	42.199084	-76.794760	1040.94	5.00	1045.94
4	42.198500	-76.795301	1033.41	5.00	1038.41
5	42.198078	-76.795773	1029.00	5.00	1034.00
6	42.197935	-76.795805	1028.25	5.00	1033.25
7	42.197760	-76.795752	1028.68	5.00	1033.68
8	42.196823	-76.794840	1035.60	5.00	1040.60

Name: Johnson Rd

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.205479	-76.810992	1002.16	5.00	1007.16
2	42.205463	-76.809340	994.50	5.00	999.50
3	42.205558	-76.808825	1004.00	5.00	1009.00
4	42.206369	-76.808482	1028.32	5.00	1033.32
5	42.210072	-76.805971	1132.57	5.00	1137.57
6	42.210152	-76.803997	1159.87	5.00	1164.87
7	42.212965	-76.803804	1215.49	5.00	1220.49
8	42.213219	-76.803504	1218.43	5.00	1223.43
9	42.215222	-76.800714	1208.14	5.00	1213.14
10	42.216604	-76.797560	1187.59	5.00	1192.59
11	42.216795	-76.796401	1204.79	5.00	1209.79
12	42.217097	-76.795006	1242.21	5.00	1247.21
13	42.217478	-76.794169	1253.14	5.00	1258.14
14	42.217494	-76.793182	1277.23	5.00	1282.23
15	42.219115	-76.784572	1280.70	5.00	1285.70

Name: Oriole Dr

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.191464	-76.804513	943.65	5.00	948.65
2	42.191400	-76.806476	945.42	5.00	950.42
3	42.191480	-76.806659	945.89	5.00	950.89
4	42.196448	-76.806712	962.82	5.00	967.82
5	42.196567	-76.806530	962.70	5.00	967.70
6	42.196583	-76.804545	957.02	5.00	962.02
7	42.196479	-76.804449	957.66	5.00	962.66
8	42.195645	-76.804502	955.33	5.00	960.33

Name: Redwing Ln

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.193423	-76.800007	950.14	5.00	955.14
2	42.194369	-76.801445	948.52	5.00	953.52
3	42.194799	-76.802121	950.88	5.00	955.88
4	42.195633	-76.804492	955.38	5.00	960.38
5	42.195609	-76.806680	959.72	5.00	964.72

Name: Ridge Rd

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



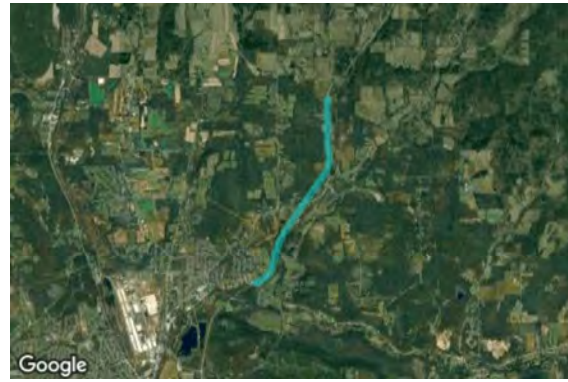
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.226955	-76.805028	1191.70	5.00	1196.70
2	42.225780	-76.805200	1179.11	5.00	1184.11
3	42.225255	-76.805243	1174.31	5.00	1179.31
4	42.224032	-76.805243	1140.13	5.00	1145.13
5	42.223587	-76.805329	1126.57	5.00	1131.57
6	42.221672	-76.806241	1092.54	5.00	1097.54
7	42.217239	-76.807550	1052.48	5.00	1057.48
8	42.214632	-76.808354	1055.66	5.00	1060.66
9	42.210667	-76.809577	1058.52	5.00	1063.52
10	42.206916	-76.810693	1022.84	5.00	1027.84
11	42.201647	-76.811680	981.54	5.00	986.54
12	42.200264	-76.811959	970.30	5.00	975.30
13	42.193625	-76.814001	942.15	5.00	947.15

Name: Route 14

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.188516	-76.790723	955.74	5.00	960.74
2	42.189279	-76.788835	959.79	5.00	964.79
3	42.189899	-76.787805	971.04	5.00	976.04
4	42.190519	-76.787204	983.86	5.00	988.86
5	42.191250	-76.786646	996.25	5.00	1001.25
6	42.196767	-76.784372	1033.58	5.00	1038.58
7	42.198309	-76.783385	1027.09	5.00	1032.09
8	42.199469	-76.782483	1034.44	5.00	1039.44
9	42.203602	-76.778642	1074.43	5.00	1079.43
10	42.206415	-76.775982	1082.07	5.00	1087.07
11	42.208354	-76.774158	1085.61	5.00	1090.61
12	42.210564	-76.772119	1092.23	5.00	1097.23
13	42.211199	-76.771497	1090.34	5.00	1095.34
14	42.211708	-76.771197	1096.36	5.00	1101.36
15	42.212868	-76.770660	1093.99	5.00	1098.99
16	42.213869	-76.770553	1098.65	5.00	1103.65
17	42.215077	-76.770660	1105.58	5.00	1110.58
18	42.216523	-76.770939	1112.04	5.00	1117.04
19	42.217540	-76.771046	1118.31	5.00	1123.31
20	42.222260	-76.771111	1143.36	5.00	1148.36
21	42.225870	-76.771068	1160.67	5.00	1165.67

Name: Stonecroft Dr

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



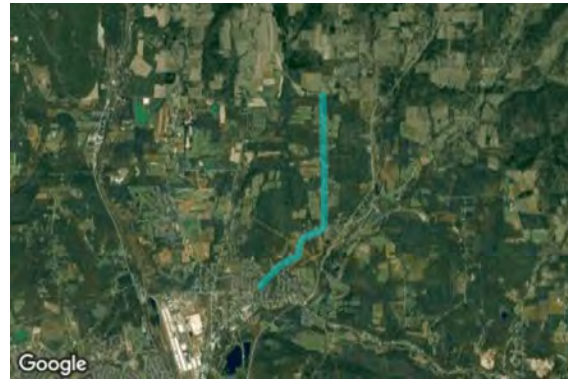
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.200433	-76.808545	978.65	5.00	983.65
2	42.200934	-76.808201	994.92	5.00	999.92
3	42.201236	-76.807842	1005.14	5.00	1010.14
4	42.201574	-76.807472	1015.61	5.00	1020.61
5	42.201709	-76.807424	1019.97	5.00	1024.97
6	42.201971	-76.807466	1032.81	5.00	1037.81
7	42.202118	-76.807461	1036.62	5.00	1041.62
8	42.202317	-76.807348	1040.16	5.00	1045.16
9	42.202412	-76.807139	1040.96	5.00	1045.96
10	42.202444	-76.806860	1042.15	5.00	1047.15
11	42.202412	-76.806538	1043.46	5.00	1048.46
12	42.202285	-76.806163	1045.47	5.00	1050.47
13	42.202134	-76.805964	1044.30	5.00	1049.30
14	42.201959	-76.805868	1042.50	5.00	1047.50
15	42.201796	-76.805932	1041.17	5.00	1046.17
16	42.201328	-76.806270	1036.38	5.00	1041.38
17	42.200990	-76.806581	1033.80	5.00	1038.80
18	42.200664	-76.807021	1028.94	5.00	1033.94
19	42.200557	-76.807214	1025.54	5.00	1030.54
20	42.200557	-76.807322	1023.65	5.00	1028.65
21	42.200644	-76.807466	1020.86	5.00	1025.86
22	42.200779	-76.807536	1018.59	5.00	1023.59
23	42.201014	-76.807670	1009.62	5.00	1014.62
24	42.201212	-76.807869	1004.27	5.00	1009.27

Name: Veteran Hill Rd

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.230549	-76.784642	1330.31	5.00	1335.31
2	42.218791	-76.784534	1284.67	5.00	1289.67
3	42.217440	-76.784341	1322.64	5.00	1327.64
4	42.207062	-76.784320	1202.29	5.00	1207.29
5	42.204758	-76.784330	1164.48	5.00	1169.48
6	42.204368	-76.784416	1152.90	5.00	1157.90
7	42.204019	-76.784641	1138.50	5.00	1143.50
8	42.203613	-76.785017	1121.54	5.00	1126.54
9	42.203287	-76.785521	1106.40	5.00	1111.40
10	42.202142	-76.789240	1083.15	5.00	1088.15
11	42.201912	-76.789744	1074.06	5.00	1079.06
12	42.201474	-76.790324	1060.26	5.00	1065.26
13	42.201021	-76.790721	1048.09	5.00	1053.09
14	42.200584	-76.790967	1042.52	5.00	1047.52
15	42.200203	-76.791085	1039.70	5.00	1044.70
16	42.198812	-76.791246	1040.16	5.00	1045.16
17	42.198558	-76.791289	1038.92	5.00	1043.92
18	42.198335	-76.791450	1035.83	5.00	1040.83
19	42.198128	-76.791654	1032.43	5.00	1037.43
20	42.197969	-76.791922	1030.85	5.00	1035.85
21	42.197540	-76.793124	1031.85	5.00	1036.85
22	42.197272	-76.793899	1037.15	5.00	1042.15
23	42.196068	-76.796415	1027.19	5.00	1032.19
24	42.195930	-76.796666	1025.38	5.00	1030.38
25	42.192094	-76.801751	946.49	5.00	951.49

Name: West Sullivanville Rd

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.203363	-76.785380	1110.72	5.00	1115.72
2	42.203522	-76.784071	1114.87	5.00	1119.87
3	42.203793	-76.781947	1089.82	5.00	1094.82
4	42.204524	-76.778106	1077.92	5.00	1082.92
5	42.204540	-76.777355	1077.76	5.00	1082.76
6	42.204905	-76.776175	1065.58	5.00	1070.58
7	42.205096	-76.775037	1064.59	5.00	1069.59
8	42.205255	-76.774630	1068.25	5.00	1073.25
9	42.205557	-76.773943	1071.44	5.00	1076.44
10	42.206526	-76.772463	1061.51	5.00	1066.51
11	42.207607	-76.771325	1069.49	5.00	1074.49
12	42.208275	-76.770939	1070.29	5.00	1075.29
13	42.209737	-76.770424	1068.87	5.00	1073.87
14	42.210484	-76.770360	1070.40	5.00	1075.40
15	42.211899	-76.770338	1084.64	5.00	1089.64
16	42.212153	-76.770553	1091.51	5.00	1096.51
17	42.212280	-76.770875	1093.67	5.00	1098.67

Name: Whispering Pines Dr
Path type: Two-way
Azimuthal view angle: 50.0°
Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.199441	-76.798010	1156.25	5.00	1161.25
2	42.199048	-76.798144	1143.10	5.00	1148.10
3	42.198746	-76.798144	1125.54	5.00	1130.54
4	42.198710	-76.798085	1124.65	5.00	1129.65
5	42.198591	-76.796711	1056.16	5.00	1061.16
6	42.198551	-76.796566	1048.88	5.00	1053.88
7	42.198440	-76.796427	1038.15	5.00	1043.15
8	42.197828	-76.795783	1028.38	5.00	1033.38

Name: Wynmere Dr
Path type: Two-way
Azimuthal view angle: 50.0°
Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.202643	-76.805302	1049.04	5.00	1054.04
2	42.202369	-76.805227	1048.32	5.00	1053.32
3	42.201888	-76.805270	1044.79	5.00	1049.79
4	42.201856	-76.805077	1049.06	5.00	1054.06
5	42.201785	-76.804916	1053.20	5.00	1058.20
6	42.201622	-76.804798	1061.92	5.00	1066.92
7	42.201455	-76.804765	1065.78	5.00	1070.78
8	42.200978	-76.804728	1076.12	5.00	1081.12
9	42.200763	-76.804647	1088.96	5.00	1093.96
10	42.200700	-76.804470	1092.72	5.00	1097.72

Name: Wynmere Dr

Path type: Two-way

Azimuthal view angle: 50.0°

Downward view angle: 90.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.201880	-76.805905	1042.22	5.00	1047.22
2	42.201844	-76.805626	1042.21	5.00	1047.21
3	42.201876	-76.805289	1044.53	5.00	1049.53
4	42.201940	-76.805058	1048.28	5.00	1053.28
5	42.202170	-76.804666	1069.94	5.00	1074.94
6	42.202969	-76.803121	1111.92	5.00	1116.92
7	42.203211	-76.802606	1130.90	5.00	1135.90

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	42.202457	-76.792686	1110.55	6.00
OP 2	2	42.202259	-76.791387	1081.45	6.00
OP 3	3	42.203030	-76.789574	1133.99	6.00
OP 4	4	42.204285	-76.789843	1207.85	6.00
OP 5	5	42.202251	-76.790036	1085.00	6.00
OP 6	6	42.202418	-76.789456	1096.56	6.00
OP 7	7	42.203299	-76.802568	1132.96	6.00
OP 8	8	42.205414	-76.806869	1083.51	6.00
OP 9	9	42.208237	-76.803447	1137.63	6.00
OP 10	10	42.209954	-76.803597	1161.51	6.00
OP 11	11	42.208952	-76.807352	1074.69	6.00
OP 12	12	42.206982	-76.807642	1075.13	6.00
OP 13	13	42.213585	-76.803565	1221.06	6.00
OP 14	14	42.213760	-76.801972	1227.87	6.00
OP 15	15	42.207581	-76.785285	1224.21	6.00
OP 16	16	42.206468	-76.784990	1210.56	6.00
OP 17	17	42.210945	-76.787351	1275.81	6.00
OP 18	18	42.208382	-76.784749	1218.89	6.00
OP 19	19	42.209097	-76.784658	1231.58	6.00
OP 20	20	42.209534	-76.784641	1230.88	6.00
OP 21	21	42.209776	-76.783912	1244.63	6.00
OP 22	22	42.213881	-76.788885	1293.99	6.00
OP 23	23	42.216212	-76.795129	1256.07	6.00
OP 24	24	42.216991	-76.793171	1280.07	6.00
OP 25	25	42.199295	-76.797837	1149.72	6.00
OP 26	26	42.199736	-76.794806	1056.73	6.00
OP 27	27	42.198555	-76.795801	1035.80	6.00

Obstruction Components

Name: Existing Farm Treeline

Top height: 32.8 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.209403	-76.788298	1242.73
2	42.208863	-76.788340	1234.26
3	42.208656	-76.788705	1234.23
4	42.208291	-76.788727	1233.93
5	42.208084	-76.788512	1223.77
6	42.208005	-76.788255	1221.85
7	42.207496	-76.788233	1216.19
8	42.207448	-76.787911	1224.44
9	42.205668	-76.787868	1180.19

Name: Existing North Tree Line

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.208546	-76.800291	1249.61
2	42.208550	-76.798355	1245.35
3	42.207779	-76.797121	1280.38
4	42.207787	-76.796252	1294.01
5	42.206905	-76.796252	1332.84
6	42.206901	-76.795458	1332.33

Name: Existing South Tree Line

Top height: 30,0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.203448	-76.795855	1252.58
2	42.204179	-76.797765	1262.35
3	42.205880	-76.798881	1286.67
4	42.205904	-76.800350	1241.79

Name: Existing West Tree Line

Top height: 30,0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.205919	-76.800393	1238.82
2	42.208550	-76.800393	1248.44

Name: Exiting East Tree Line

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.206897	-76.795453	1332.21
2	42.203495	-76.795276	1256.39

Name: Farm Tree Line 1

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.211313	-76.801301	1163.62
2	42.211805	-76.801279	1168.72
3	42.213077	-76.799841	1174.46
4	42.213188	-76.797395	1206.05
5	42.213236	-76.795764	1229.27

Name: Farm Tree Line 2

Top height: 30,0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.205607	-76.792825	1237.66
2	42.205607	-76.789434	1232.46
3	42.207419	-76.788898	1238.02
4	42.207451	-76.790851	1283.72

Name: Farm Tree Line 3

Top height: 30,0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.206624	-76.784639	1206.32
2	42.207570	-76.784564	1208.14
3	42.208031	-76.785368	1226.39
4	42.209938	-76.785390	1235.59
5	42.210035	-76.788742	1254.70
6	42.211396	-76.788759	1270.42

Name: Johnson Rd Tree Line 1

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.204617	-76.807441	1056.47
2	42.205905	-76.807441	1072.77
3	42.206827	-76.806926	1095.37
4	42.209115	-76.806154	1120.40

Name: Johnson Rd Tree Line 2

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.213851	-76.799416	1190.88
2	42.215123	-76.799266	1222.51
3	42.215409	-76.798644	1218.53
4	42.216037	-76.798252	1182.49
5	42.216323	-76.797466	1216.50
6	42.216521	-76.796691	1216.68
7	42.216895	-76.795100	1250.46
8	42.217308	-76.793445	1286.51
9	42.217483	-76.792044	1305.91
10	42.217832	-76.790246	1293.17

Name: Midway Tree Line

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.207785	-76.801955	1197.95
2	42.208540	-76.801966	1217.51
3	42.209048	-76.801580	1218.02
4	42.209684	-76.800861	1228.05
5	42.210161	-76.800453	1233.42
6	42.210622	-76.800260	1223.55

Name: Obstruction 15

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.207083	-76.792460	1264.22
2	42.206813	-76.793018	1253.32
3	42.205605	-76.792889	1238.45

Name: Residential Tree Line

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.207832	-76.803167	1120.52
2	42.208865	-76.803103	1146.21
3	42.209835	-76.802588	1160.83
4	42.210240	-76.802223	1160.54
5	42.211881	-76.802084	1177.40
6	42.213035	-76.800839	1191.46
7	42.214526	-76.800748	1234.15
8	42.214906	-76.800863	1222.69
9	42.215477	-76.799863	1199.70

Name: Residential Tree Line 2

Top height: 30.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.214022	-76.789974	1312.26
2	42.213228	-76.789920	1289.33
3	42.213029	-76.789223	1282.29
4	42.212846	-76.788493	1280.50
5	42.213243	-76.787592	1279.06

Name: Transmission ROW Tree Line

Top height: 30,0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.205337	-76.804004	1097.01
2	42.201093	-76.793898	1083.81

Glare Analysis Results

Summary of Results Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	DA tracking	DA tracking	5,681	94.7	62	1.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Ardon Dr	0	0.0	0	0.0
Briardcliff Dr	0	0.0	0	0.0
Hylan Terrace Rd	0	0.0	0	0.0
Johnson Rd	1,139	19.0	27	0.5
Oriole Dr	0	0.0	0	0.0
Redwing Ln	0	0.0	0	0.0
Ridge Rd	0	0.0	0	0.0
Route 14	0	0.0	0	0.0
Stonecroft Dr	0	0.0	0	0.0
Veteran Hill Rd	0	0.0	0	0.0
West Sullivanville Rd	0	0.0	0	0.0
Whispering Pines Dr	0	0.0	0	0.0
Wynmere Dr	0	0.0	0	0.0
Wynmere Dr	0	0.0	0	0.0
OP 1	245	4.1	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	1,041	17.4	22	0.4
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	1,854	30.9	0	0.0
OP 16	0	0.0	0	0.0
OP 17	1,402	23.4	13	0.2

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0

PV: PV array 1 potential temporary after-image

Receptor results ordered by category of glare

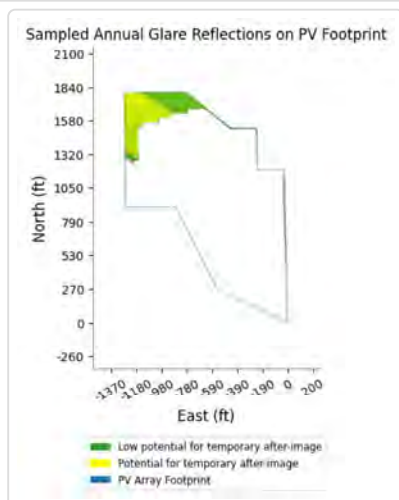
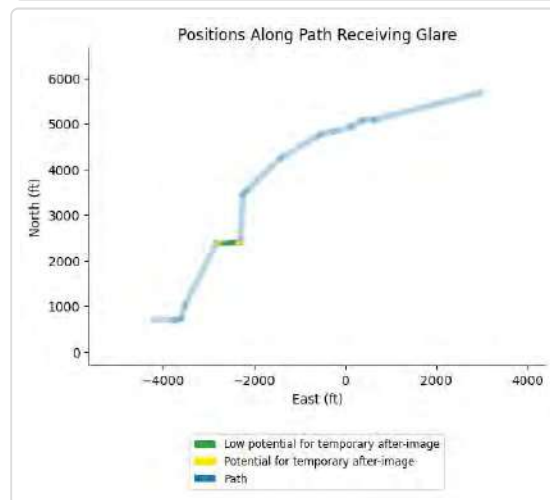
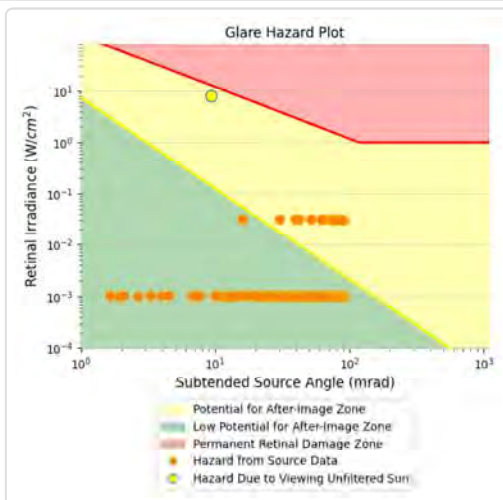
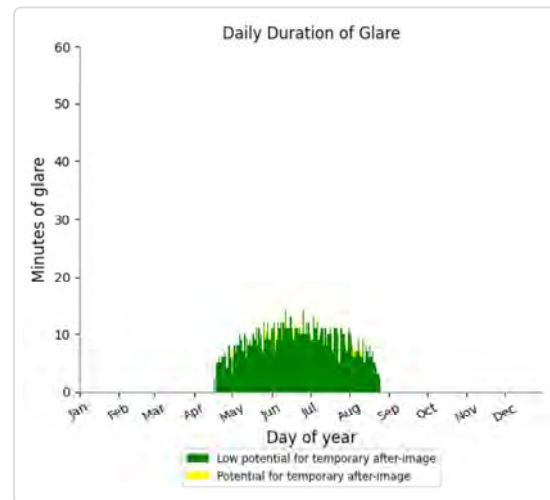
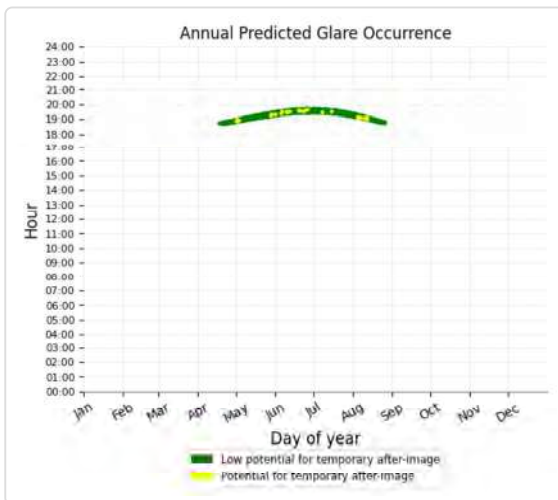
Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Johnson Rd	1,139	19.0	27	0.5
Ardon Dr	0	0.0	0	0.0
Briardliff Dr	0	0.0	0	0.0
Hylan Terrace Rd	0	0.0	0	0.0
Oriole Dr	0	0.0	0	0.0
Redwing Ln	0	0.0	0	0.0
Ridge Rd	0	0.0	0	0.0
Route 14	0	0.0	0	0.0
Stonecroft Dr	0	0.0	0	0.0
Veteran Hill Rd	0	0.0	0	0.0
West Sullivanville Rd	0	0.0	0	0.0
Whispering Pines Dr	0	0.0	0	0.0
Wynmere Dr	0	0.0	0	0.0
Wynmere Dr	0	0.0	0	0.0
OP 10	1,041	17.4	22	0.4
OP 17	1,402	23.4	13	0.2
OP 1	245	4.1	0	0.0
OP 15	1,854	30.9	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0
OP 25	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 26	0	0.0	0	0.0
OP 27	0	0.0	0	0.0

PV array 1 and Route: Johnson Rd

Yellow glare: 27 min.

Green glare: 1,139 min.



PV array 1 and Route: Ardon Dr

No glare found

PV array 1 and Route: Briarcliff Dr

No glare found

PV array 1 and Route: Hylan Terrace Rd

No glare found

PV array 1 and Route: Oriole Dr

No glare found

PV array 1 and Route: Redwing Ln

No glare found

PV array 1 and Route: Ridge Rd

No glare found

PV array 1 and Route: Route 14

No glare found

PV array 1 and Route: Stonecroft Dr

No glare found

PV array 1 and Route: Veteran Hill Rd

No glare found

PV array 1 and Route: West Sullivanville Rd

No glare found

PV array 1 and Route: Whispering Pines Dr

No glare found

PV array 1 and Route: Wynmere Dr

No glare found

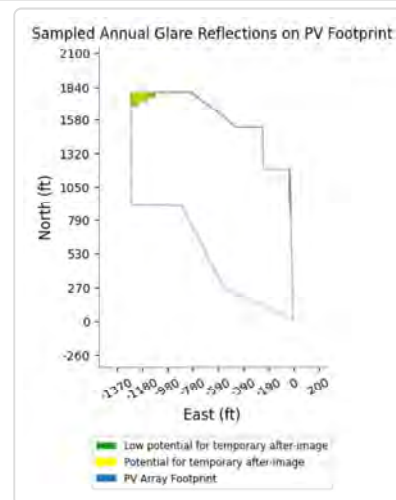
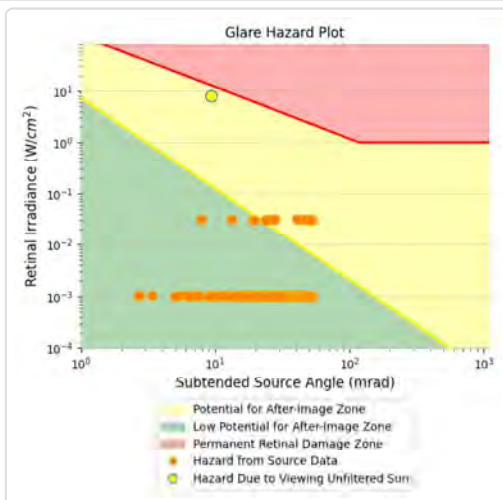
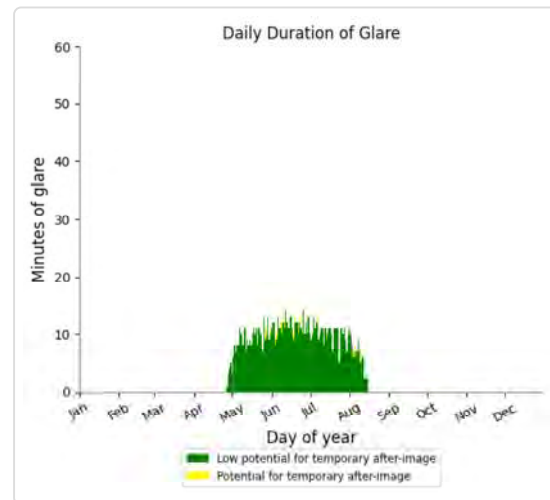
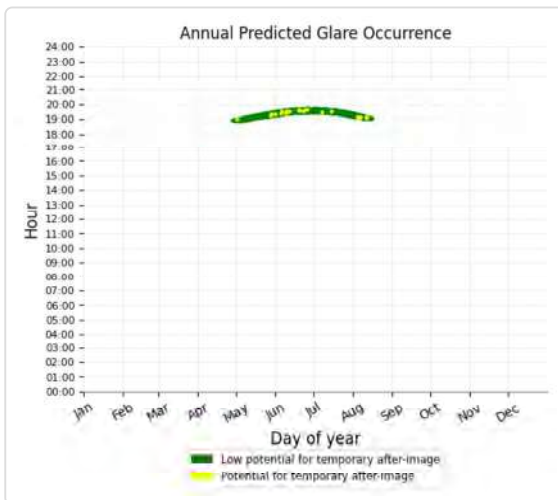
PV array 1 and Route: Wynmere Dr

No glare found

PV array 1 and OP 10

Yellow glare: 22 min.

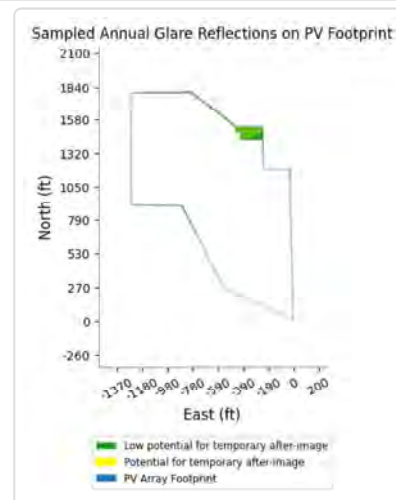
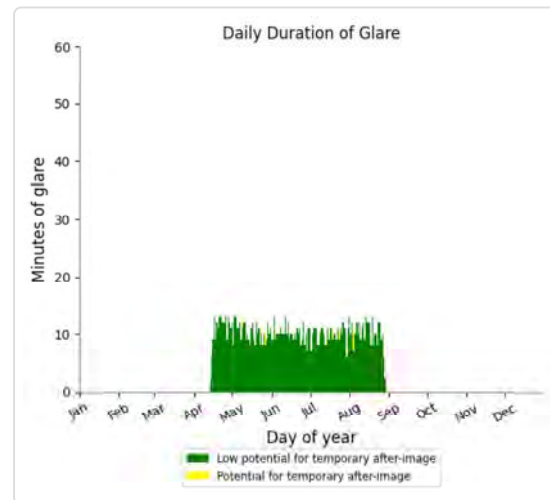
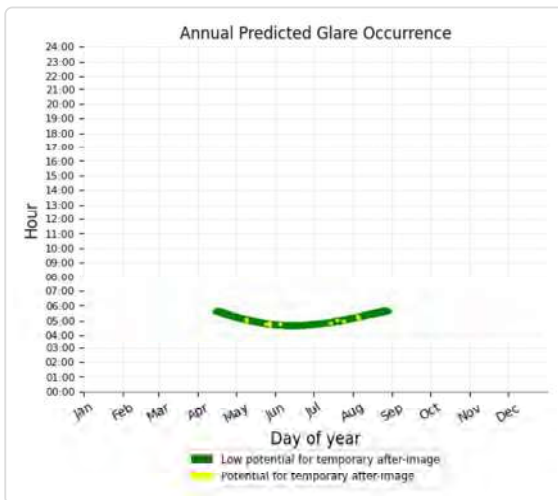
Green glare: 1,041 min.



PV array 1 and OP 17

Yellow glare: 13 min.

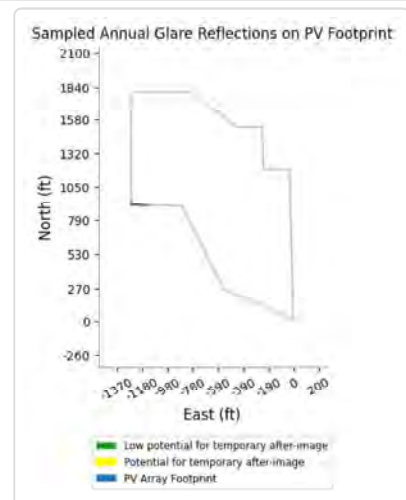
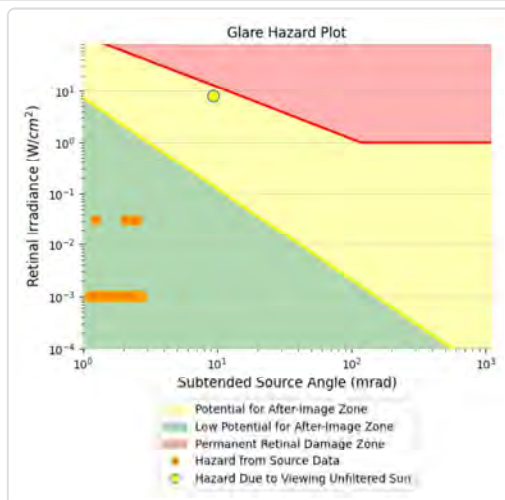
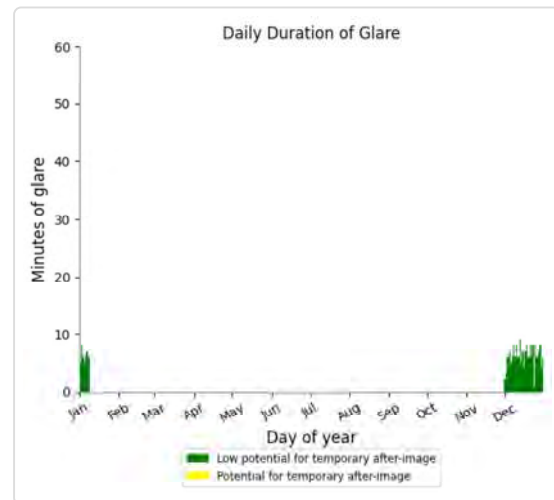
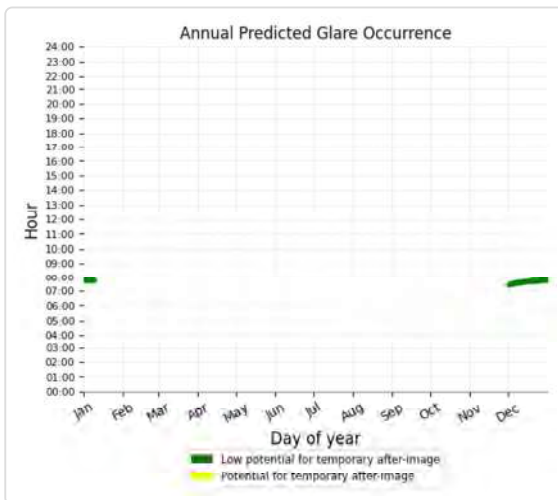
Green glare: 1,402 min.



PV array 1 and OP 1

Yellow glare: none

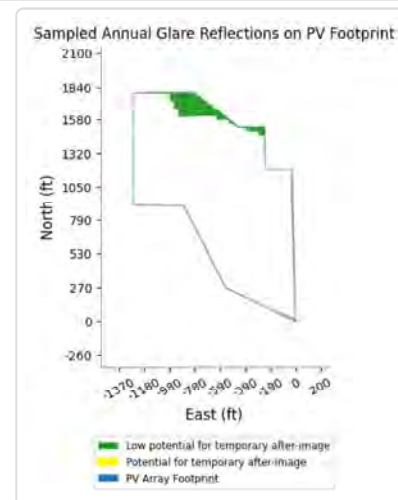
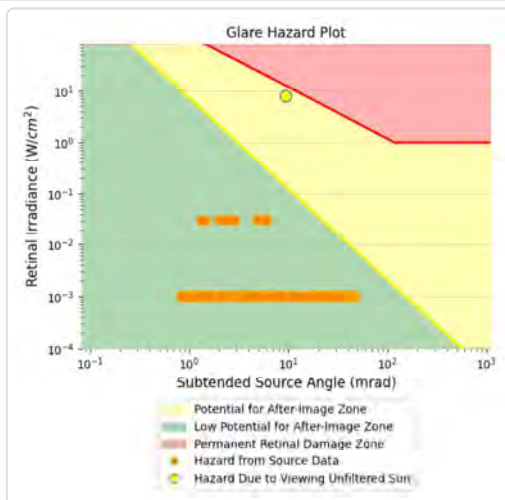
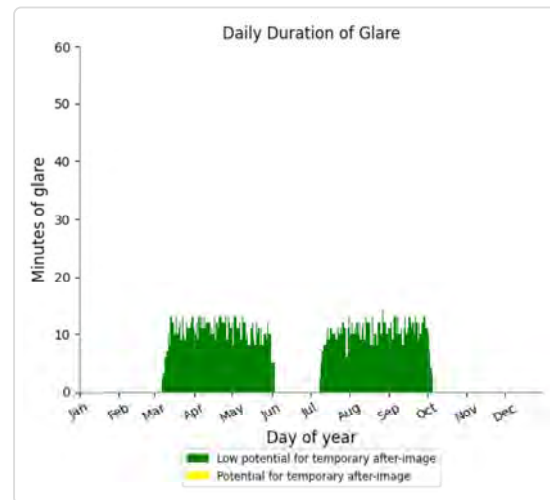
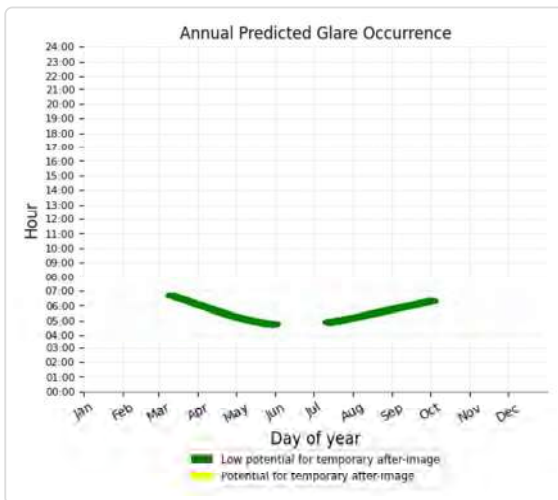
Green glare: 245 min.



PV array 1 and OP 15

Yellow glare: none

Green glare: 1,854 min.



PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV array 1 and OP 14

No glare found

PV array 1 and OP 16

No glare found

PV array 1 and OP 18

No glare found

PV array 1 and OP 19

No glare found

PV array 1 and OP 20

No glare found

PV array 1 and OP 21

No glare found

PV array 1 and OP 22

No glare found

PV array 1 and OP 23

No glare found

PV array 1 and OP 24

No glare found

PV array 1 and OP 25

No glare found

PV array 1 and OP 26

No glare found

PV array 1 and OP 27

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

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.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

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.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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This analysis was conducted using the best available radiometric modeling at the time of generation. Future updates to the modeling methodology may yield different results.

Attachment 5

Site Engineering Plans prepared by AKRF, Inc., dated April 20, 2026

SITE PLAN APPROVAL DRAWING SET
FOR
VETERAN HILL ROAD SOLAR PROJECT
TAX LOT NO. 39.00-1-14.1
TOWN OF VETERAN
CHEMUNG COUNTY, NEW YORK

akrf

34 SOUTH BROADWAY
SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336
WWW.AKRF.COM

OWNER

DYNAMIC ENERGY LLC

2401 WALNUT STREET, SUITE 503
PHILADELPHIA, PA 19103

PROJECT

VETERAN HILL ROAD
SOLAR PROJECT

TOWN OF VETERAN
CHEMUNG COUNTY, NY 14845

MILESTONE

SITE PLAN APPROVAL

REV.	DESCRIPTION	DATE

DESIGN PROFESSIONAL



JUSTIN H. SEENEY P.E.
NY PROFESSIONAL ENGINEER NO. 095222

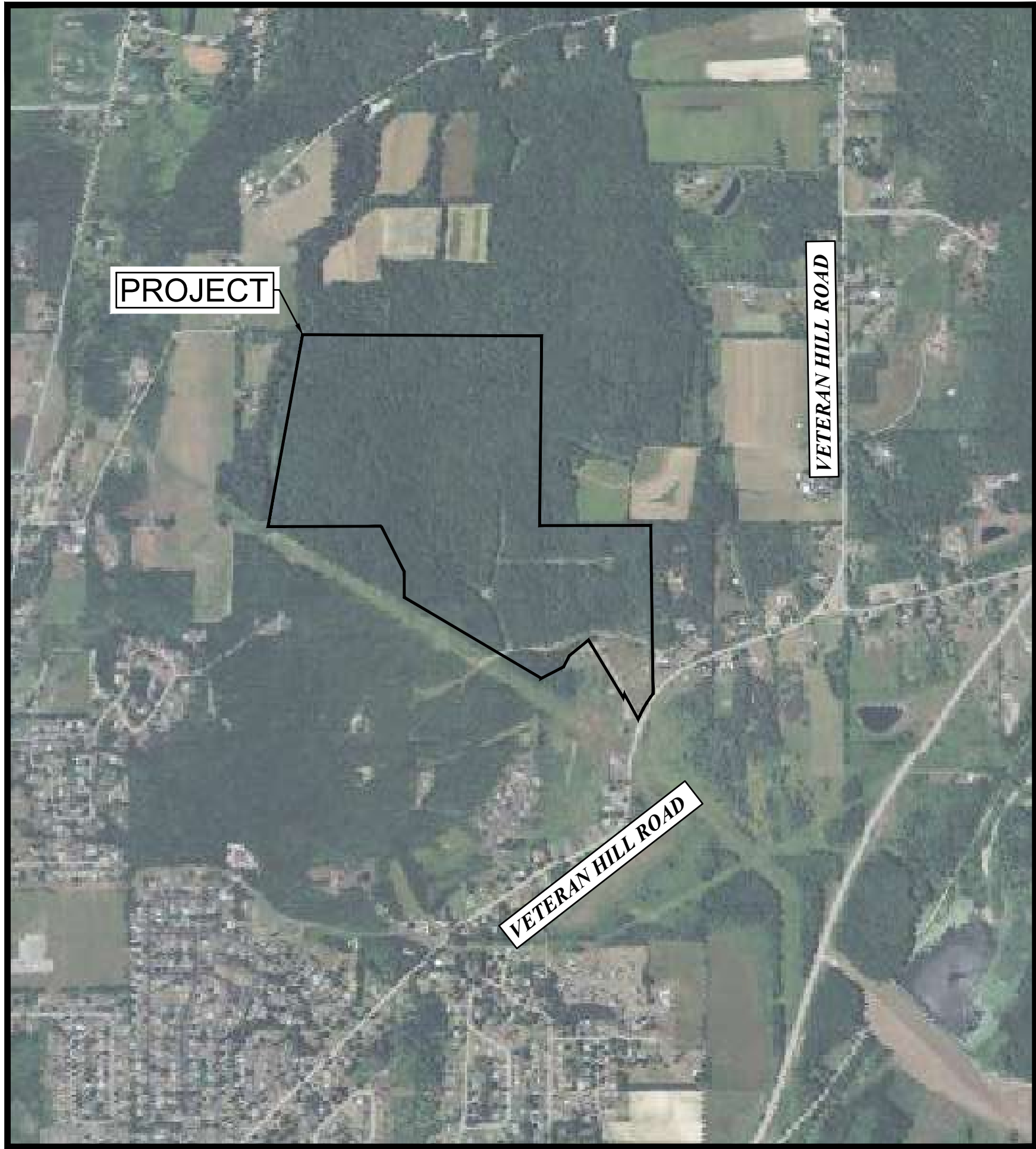
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CHECKED BY:	JM / JS

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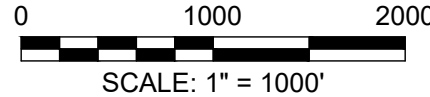
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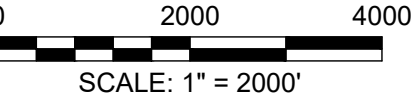
C001



AERIAL MAP
SCALE: 1" = 1000'



LOCATION MAP
SCALE: 1" = 2000'



DRAWING INDEX		
PAGE No.	DRAWING No.	DRAWING TITLE
1	C001	TITLE SHEET
2	C100	OVERALL EXISTING CONDITIONS AND SITE REMOVALS PLAN
3	C201	SITE LAYOUT PLAN
4	C202	VEHICLE TURNING MOVEMENT PLAN (1 OF 2)
5	C203	VEHICLE TURNING MOVEMENT PLAN (2 OF 2)
6	C301	GRADING AND DRAINAGE PLAN
7	C401	EROSION AND SEDIMENT CONTROL PLAN
8	C501	CONSTRUCTION DETAILS (1 OF 2)
9	C502	CONSTRUCTION DETAILS (2 OF 2)

ZONING TABLE			
TOWN OF VETERAN SOLAR POWERED ENERGY SYSTEM REQUIREMENTS (TOWN OF VETERAN ZONING LAW 2021 AND L.L. No. 3 OF THE YEAR 2025) ZONING DISTRICT: RESIDENTIAL-AGRICULTURAL (R-A) PERMITTED USE: LARGE SCALE SOLAR ENERGY SYSTEM UNDER A SPECIAL USE PERMIT			
CRITERIA	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	10 ACRES	144.4 ACRES	144.4 ACRES
MAXIMUM PANEL HEIGHT	35 FEET ¹	-	21.5 FEET
MINIMUM SETBACK			
FRONT YARD	250 FEET	-	1730.8 FEET
REAR YARD	250 FEET	-	656.7 FEET
SIDE YARD	250 FEET	-	288.8 FEET
MAXIMUM LOT COVERAGE	30% ²	-	17% ³ (24.64 ACRES)

NOTES

- SOURCE: TOWN OF VETERAN ZONING CODE & TOWN OF VETERAN 2025 SOLAR LAW
- A LARGE SCALE SOLAR ENERGY SYSTEM WHICH IS GROUND-MOUNTED SHALL NOT EXCEED 30% OF THE LOT WHERE IT IS INSTALLED. TIER 3 SOLAR ENERGY SYSTEMS ARE EXEMPT FROM LOT COVERAGE REQUIREMENTS. REFER TO TOWN OF VETERAN 2025 SOLAR LAW SECTION 8C FOR TIER 3 SOLAR ENERGY SYSTEM LOT COVERAGE REQUIREMENTS.
- THE LOT COVERAGE IS DEFINED AS THE TOTAL FENCED AREA. REFER TO TOWN OF VETERAN 2025 SOLAR LAW FOR THE DEFINITION OF FACILITY AREA.
- SOLAR ENERGY EQUIPMENT ARE NOT SUBJECT TO THE BUILDING HEIGHT REQUIREMENT. REFER TO ARTICLE 5 OF THE TOWN OF VETERAN'S ZONING CODE FOR ADDITIONAL INFORMATION.

GENERAL NOTES

- EXISTING CONDITIONS DEPICTED ON THIS PLAN ARE BASED ON SURVEY ENTITLED "PARTIAL TOPOGRAPHIC AND LOCATION SURVEY MAP, LOT 14.1, BLOCK 1, SECTION 39.00" PREPARED BY CONTROL POINT ASSOCIATES INC., PC DATED OCTOBER 29, 2025.
- THE HORIZONTAL DATUM IS NAD83. THE VERTICAL DATUM IS NAVD83.
- THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING AND GIVEN CONDITIONS AND DIMENSIONS WITH THOSE SHOWN ON THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD PRIOR TO PROCEEDING WITH WORK.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CALL "DIG SAFELY" (1-800-962-7962) TO HAVE UNDERGROUND UTILITIES LOCATED.
- THE LOCATION, SIZES, AND TYPES OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REFLECT THE BEST AVAILABLE INFORMATION. ACTUAL FIELD CONDITIONS MAY VARY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE LOCAL UTILITY COMPANIES THAT HAVE SUBSURFACE INSTALLATIONS IN THE AREA OF WORK FOR THIS CONTRACTOR AND DIRECT THEM TO HAVE THEIR FACILITIES MARKED OUT PRIOR TO COMMENCING WORK.
- IT WILL BE THE CONTRACTOR'S OBLIGATION AND RESPONSIBILITY TO USE METHODS AND EQUIPMENT WHICH WILL ENSURE THE SATISFACTORY COMPLETION OF THE REQUIRED WORK WITHIN THE CONTRACT DURATION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR, EQUIPMENT, AND MATERIALS AS REQUIRED FOR THE IMPROVEMENT WORK SHOWN WITHIN THE PROJECT AREA.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGES CAUSED BY HIS/HER OPERATIONS. ALL DAMAGE SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE OWNER OR THE TOWN OF VETERAN.
- THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE TO IMPLEMENT SHORING AND BRACING MEASURES. SHORING AND BRACING MEASURES SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH CURRENT OSHA STANDARDS.
- THE CONTRACTOR IS TO EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO STRUCTURES, FOUNDATIONS, WALLS, PAVEMENTS, SIDEWALKS, UTILITIES, ETC. WHICH ARE TO REMAIN AS PART OF THE FINAL CONDITION.
- THE CONTRACTOR SHALL PROVIDE 2 WEEKS ADVANCE NOTICE TO THE ENGINEER OF RECORD AND THE TOWN OF VETERAN OF ALL PROPOSED STREET CLOSINGS, OR ANY WORK THAT MIGHT AFFECT THE MOBILITY OR ACCESS OF THE FIRE OR POLICE DEPARTMENTS.
- THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO ENSURE THE SAFETY OF THE GENERAL PUBLIC AND HIS/HER PERSONNEL. THE OWNER, ENGINEER OF RECORD, AND THE TOWN OF VETERAN ASSUME NO RESPONSIBILITY FOR THE CONTRACTOR'S SAFETY PROGRAM AND PROCEDURES IN CONNECTION WITH THE WORK.
- THE CONTRACTOR IS ADVISED THAT ADDITIONAL NOTES SHALL BE FOUND ON SUBSEQUENT SHEETS OF THE CONTRACT PLANS.
- PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE BUILDING DEPARTMENT, AN "AS-BUILT" PLAN SHOWING THE INSTALLED AND COMPLETED IMPROVEMENTS (ABOVE AND BELOW GRADE), CERTIFIED BY A NEW YORK STATE LICENSED LAND SURVEYOR, SHALL BE PREPARED AT THE SOLE EXPENSE OF THE CONTRACTOR. SAID AS-BUILT PLAN SHALL BE PROVIDED TO THE ENGINEER DOCUMENTING SATISFACTORY COMPLETION OF ALL APPROVED AND AUTHORIZED CONSTRUCTION ACTIVITIES AND ZONING COMPLIANCE.



GENERAL NOTES

- EXISTING CONDITIONS DEPICTED ON THIS PLAN ARE BASED ON SURVEY ENTITLED "PARTIAL TOPOGRAPHIC AND LOCATION SURVEY MAP, LOT 14.1, BLOCK 1, SECTION 39.00" PREPARED BY CONTROL POINT ASSOCIATES INC., PC DATED OCTOBER 29, 2025.
- THE DEPICTED WETLANDS IS IDENTIFIED AS A FRESHWATER FORESTED WETLAND THAT ARE LOCATED ON THE NORTHERN HALF OF THE PROPERTY LINE. THE WETLAND BOUNDARY WAS DELINEATED ON OCTOBER 10, 2024 WITH AN ADJACENT BUFFER OF 25 FT.

SITE REMOVAL NOTES

- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CALL "DIG SAFELY" (1-800-962-7962) TO HAVE UNDERGROUND UTILITIES LOCATED.
- PRIOR TO CLEARING, GRUBBING, EXCAVATION, AND/OR OTHER SOIL DISTURBANCE ACTIVITIES, ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS.
- ALL EXCAVATED SOIL SHALL BE STOCKPILED IN CONFORMANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL DETAILS. ALL NYSDEC AND USEPA REGULATIONS FOR REMOVAL OF CONTROLLED FILL SHALL BE ADHERED TO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL EXCESS SOIL.
- DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL UNSUITABLE MATERIAL, CONSTRUCTION DEBRIS, ETC. SHALL BE PROPERLY REMOVED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE CODES, ORDINANCES, AND LAWS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTIONS, AND OFF ALIGNMENTS ACCORDING TO CODES AND STANDARD OF GOOD PRACTICE.
- ALL EXISTING TREES AND VEGETATION TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. ANY DAMAGED TREES AND/OR VEGETATION SHALL BE REPLACED IN KIND AT THE EXPENSE OF THE CONTRACTOR.
- DUST CONTROL SHALL BE PERFORMED BY THE CONTRACTOR AS DEEMED NECESSARY BY THE ENGINEER OR TOWN OF VETERAN.
- ALL DEMOLITION, GRADING, AND TREE REMOVAL PROCEDURES, PERMITS, AND APPROVALS SHALL BE IN ACCORDANCE WITH THE TOWN OF VETERAN, NYSDEC, AND/OR OTHER APPROPRIATE AUTHORIZING AGENCIES AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR GROUNDWATER DEWATERING, INCLUDING, BUT NOT LIMITED TO WITHDRAWAL AND TREATMENT, PERMITTING, INSTALLATION, AND MAINTENANCE AS REQUIRED TO PERFORM THE WORK.

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34 SOUTH BROADWAY
SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336
WWW.AKRF.COM

OWNER

DYNAMIC ENERGY LLC
2401 WALNUT STREET, SUITE 503
PHILADELPHIA, PA 19103

PROJECT

**VETERAN HILL ROAD
SOLAR PROJECT**
TOWN OF VETERAN
CHEMUNG COUNTY, NY 14845

MILESTONE

SITE PLAN APPROVAL

REV.	DESCRIPTION	DATE

DESIGN PROFESSIONAL

JUSTIN H. SEENEY P.E.
NY PROFESSIONAL ENGINEER NO. 09522

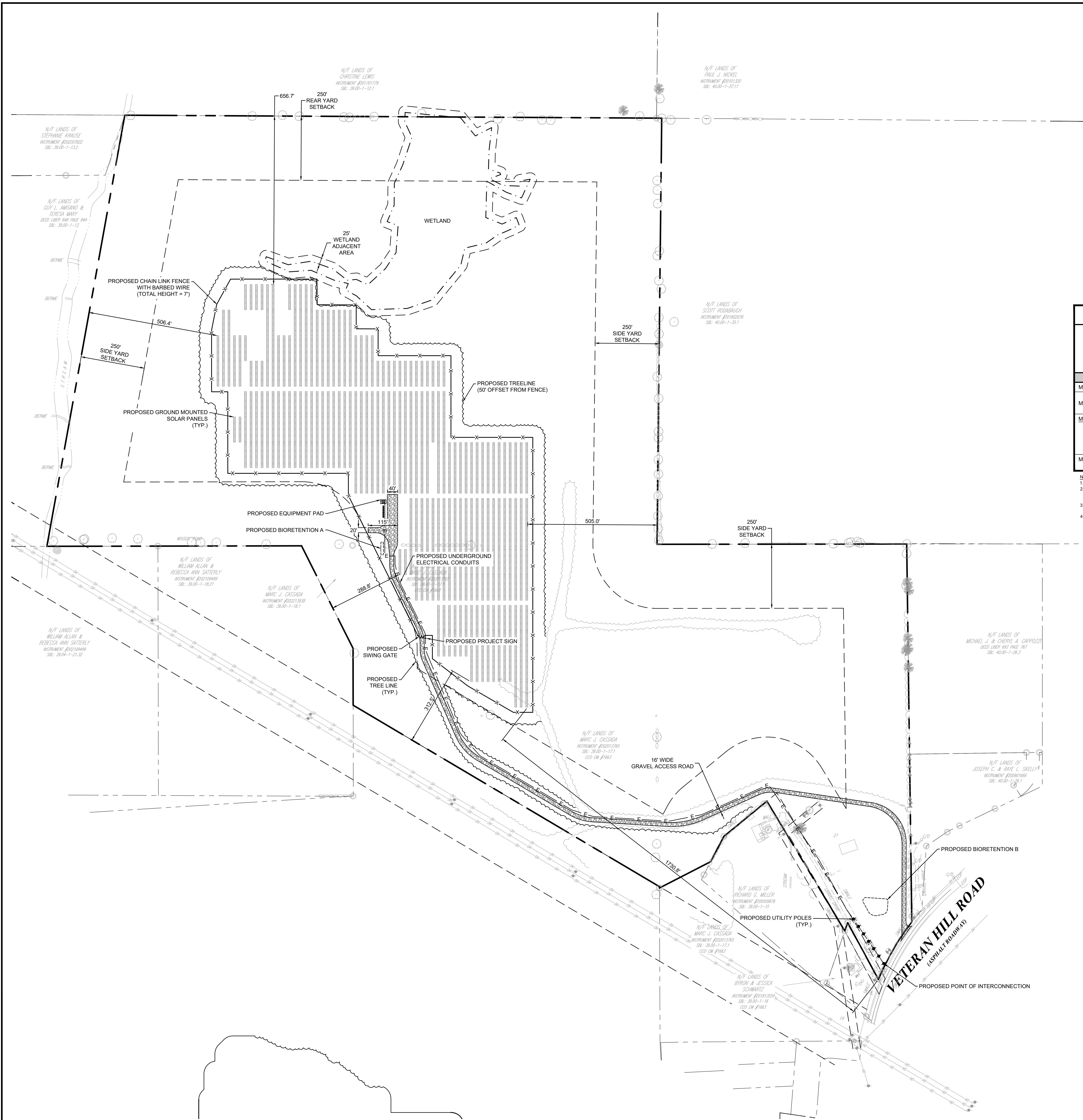
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FORMAT:	30" x 42" (ARCH E1)
DRAWN BY:	DC
CHECKED BY:	JM / JS

SHEET TITLE:

**EXISTING CONDITIONS
AND SITE REMOVALS
PLAN**

SHEET NUMBER:

C101



GENERAL NOTES

- EXISTING CONDITIONS DEPICTED ON THIS PLAN ARE BASED ON SURVEY ENTITLED "PARTIAL TOPOGRAPHIC AND LOCATION SURVEY MAP, LOT 14.1, BLOCK 1, SECTION 39.00" PREPARED BY CONTROL POINT ASSOCIATES INC., PC DATED OCTOBER 29, 2025.
- PV SOLAR PANEL TABLE LAYOUT SHOWN IS AS PROVIDED BY DYNAMIC ENERGY LLC.
- ALL INFORMATION PROVIDED IS APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTINGS FEATURES FOR ACCURACY.
- THE ROWS OF SOLAR PANELS SHALL BE SPACED A MINIMUM OF ONE TABLE WIDTH APART SO THAT STORMWATER CAN FLOW OFF THE DOWN GRADIENT SIDE OF THE PANEL AND CONTINUE AS SHEET FLOW ACROSS THE GROUND SURFACE, SERVING AS SHEET FLOW TO FILTER STRIP AND DISCONNECTION OF IMPERVIOUS AREA.
- AREAS UNDER THE SOLAR PANEL TABLE, SIDE SLOPES, AND ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE TOPSOILED, SEEDED, AND REVEGETATED UNTIL A MINIMUM OF 80% PERENNIAL VEGETATIVE COVER IS ACHIEVED.
- REFER TO ELECTRIC PLANS FOR TRENCH AND WIRING DETAILS.
- GROUND COVER VEGETATION BETWEEN SOLAR PANELS TO SERVE AS PROPOSED GRASS FILTER STRIP EQUIVALENT FOR WATER QUALITY TREATMENT PURPOSES IN ACCORDANCE WITH APPLICABLE NYS DEC "SOLAR PANEL CONSTRUCTION STORMWATER PERMITTING/SWPPP GUIDELINES."
- THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING AND GIVEN CONDITIONS AND DIMENSIONS WITH THOSE SHOWN ON THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD PRIOR TO PROCEEDING WITH THE WORK.
- FINAL DESIGN AND LAYOUT OF THE PROPOSED GRAVEL ACCESS DRIVEWAY SHALL BE REVIEWED AND APPROVED BY THE TOWN PLANNING BOARD AND LOCAL FIRE CHIEF.

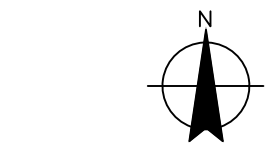
ZONING TABLE

TOWN OF VETERAN SOLAR POWERED ENERGY SYSTEM REQUIREMENTS (TOWN OF VETERAN ZONING LAW 2021 AND L.L. No. 3 OF THE YEAR 2025) ZONING DISTRICT: RESIDENTIAL-AGRICULTURAL (R-A) PERMITTED USE: LARGE SCALE SOLAR ENERGY SYSTEM UNDER A SPECIAL USE PERMIT			
CRITERIA	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	10 ACRES	132.74 ACRES	142.86 ACRES
MAXIMUM PANEL HEIGHT	35 FEET ¹	-	21.5 FEET
MINIMUM SETBACK			
FRONT YARD	250 FEET	-	1730.8 FEET
REAR YARD	250 FEET	-	656.7 FEET
SIDE YARD	250 FEET	-	288.8 FEET
MAXIMUM LOT COVERAGE	30% ²	-	17% ³ (24.64 ACRES)

- NOTES
- SOURCE: TOWN OF VETERAN ZONING CODE & TOWN OF VETERAN 2025 SOLAR LAW
 - A LARGE-SCALE SOLAR ENERGY SYSTEM WHICH IS GROUND-MOUNTED SHALL NOT EXCEED 30% OF THE LOT WHERE IT IS INSTALLED. TIER 3 SOLAR ENERGY SYSTEMS ARE EXEMPT FROM LOT COVERAGE REQUIREMENTS. REFER TO TOWN OF VETERAN 2025 SOLAR LAW SECTION 8C FOR TIER 3 SOLAR ENERGY SYSTEM LOT COVERAGE REQUIREMENTS.
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 - SOLAR ENERGY EQUIPMENT ARE NOT SUBJECT TO THE BUILDING HEIGHT REQUIREMENT. REFER TO ARTICLE 5 OF THE TOWN OF VETERAN'S ZONING CODE FOR ADDITIONAL INFORMATION.

LEGEND

- PROPERTY LINE
- WETLAND BOUNDARY
- EXISTING UTILITY POLE
- EXISTING OVERHEAD WIRES
- EXISTING TREE LINE
- PROPOSED SOLAR PANELS
- PROPOSED GRAVEL ACCESS ROAD
- PROPOSED SETBACKS
- PROPOSED CHAIN LINK FENCE
- PROPOSED TREE LINE
- PROPOSED UNDERGROUND CONDUITS
- PROPOSED UTILITY POLE



0 75 150 300
SCALE: 1" = 150'

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34 SOUTH BROADWAY
SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336
WWW.AKRF.COM

OWNER

DYNAMIC ENERGY LLC

2401 WALNUT STREET, SUITE 503
PHILADELPHIA, PA 19103

PROJECT

VETERAN HILL ROAD
SOLAR PROJECT

TOWN OF VETERAN
CHEMUNG COUNTY, NY 14845

MILESTONE

SITE PLAN APPROVAL

REV.	DESCRIPTION	DATE

DESIGN PROFESSIONAL



JUSTIN H. SEENEY P.E.
NY PROFESSIONAL ENGINEER NO. 095227

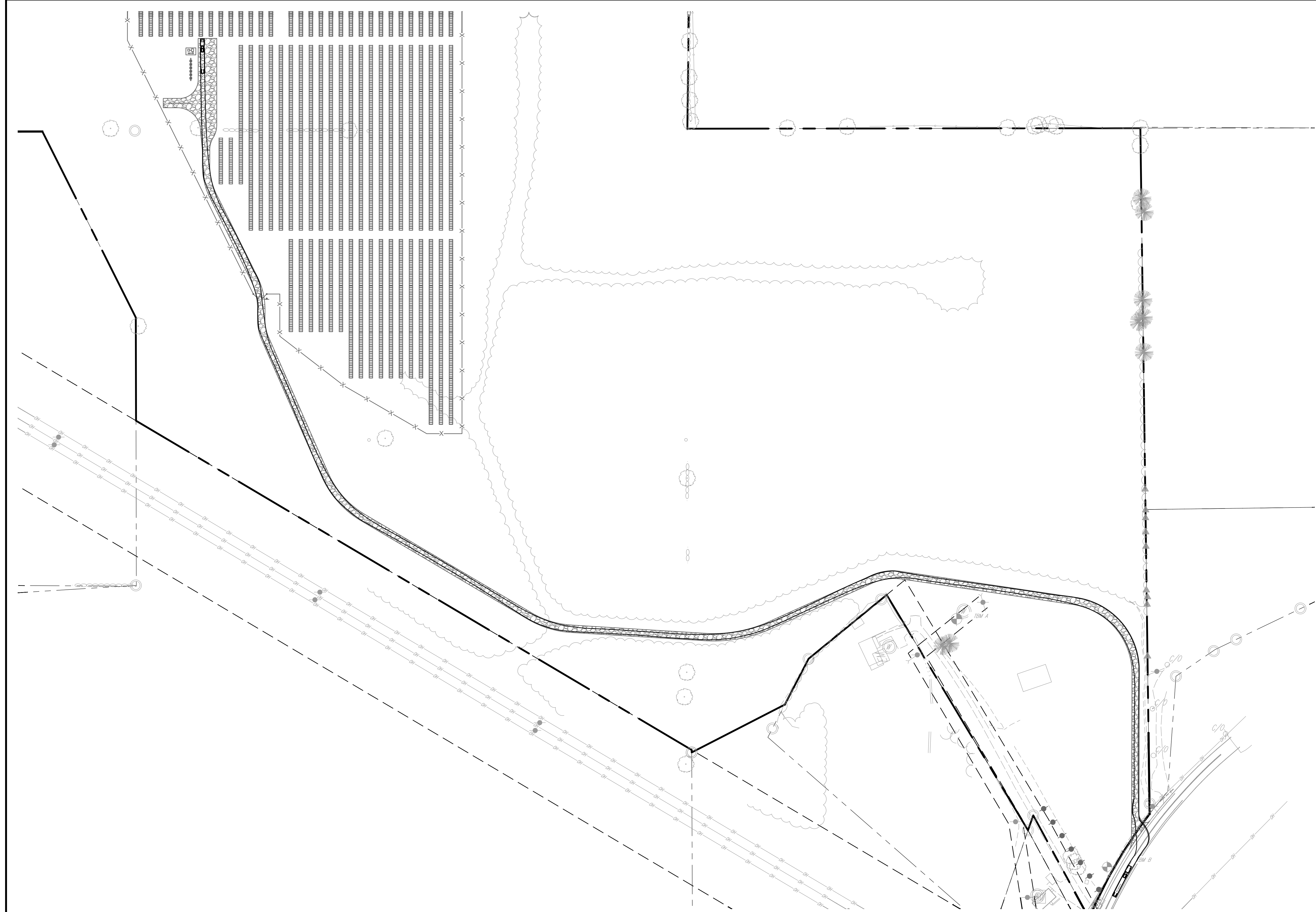
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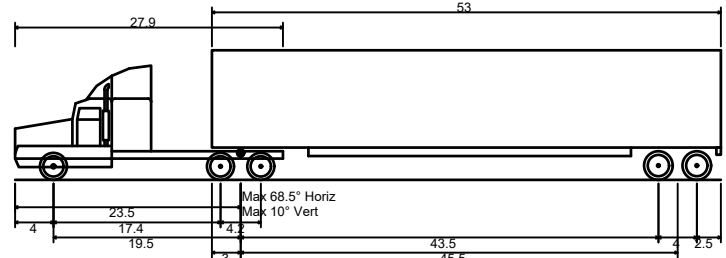
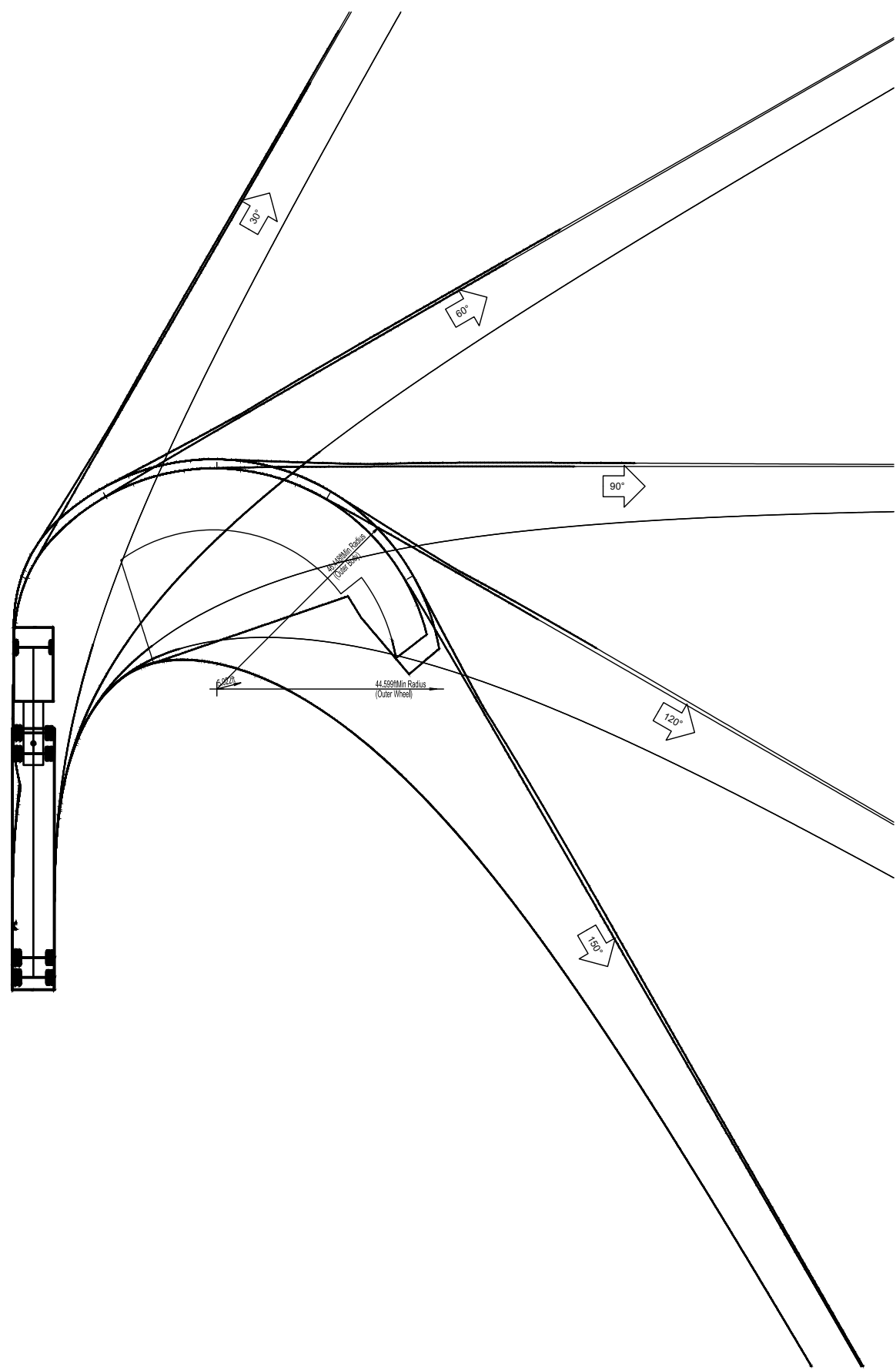
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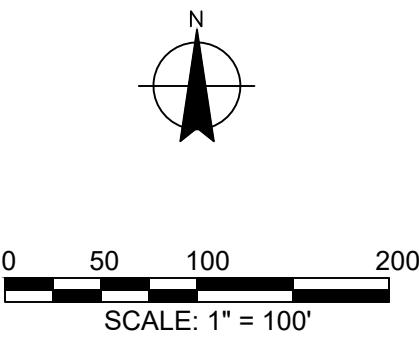
VEHICLE TURNING MOVEMENT PLAN A
SCALE: 1" = 100'



WB-67 - Interstate Semi-Trailer
Overall Length 73.501ft
Overall Width 8.500ft
Overall Body Height 13.500ft
Min Spring Clearance 13.34ft
Max Track Width 8.500ft
Lock-to-lock time 5.00s
Max Steering Angle (Virtual) 28.40°

LEGEND

- PROPERTY LINE
- WETLAND BOUNDARY
- EXISTING UTILITY POLE
- EXISTING OVERHEAD WIRES
- EXISTING TREE LINE
- PROPOSED SOLAR PANELS
- PROPOSED GRAVEL ACCESS ROAD
- PROPOSED SETBACKS
- PROPOSED CHAIN LINK FENCE
- PROPOSED TREE LINE
- PROPOSED UNDERGROUND CONDUITS
- PROPOSED UTILITY POLE



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34 SOUTH BROADWAY
SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336
WWW.AKRF.COM

OWNER

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PROJECT

**VETERAN HILL ROAD
SOLAR PROJECT**

TOWN OF VETERAN
CHEMUNG COUNTY, NY 14845

MILESTONE

SITE PLAN APPROVAL

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NY PROFESSIONAL ENGINEER NO. 095227

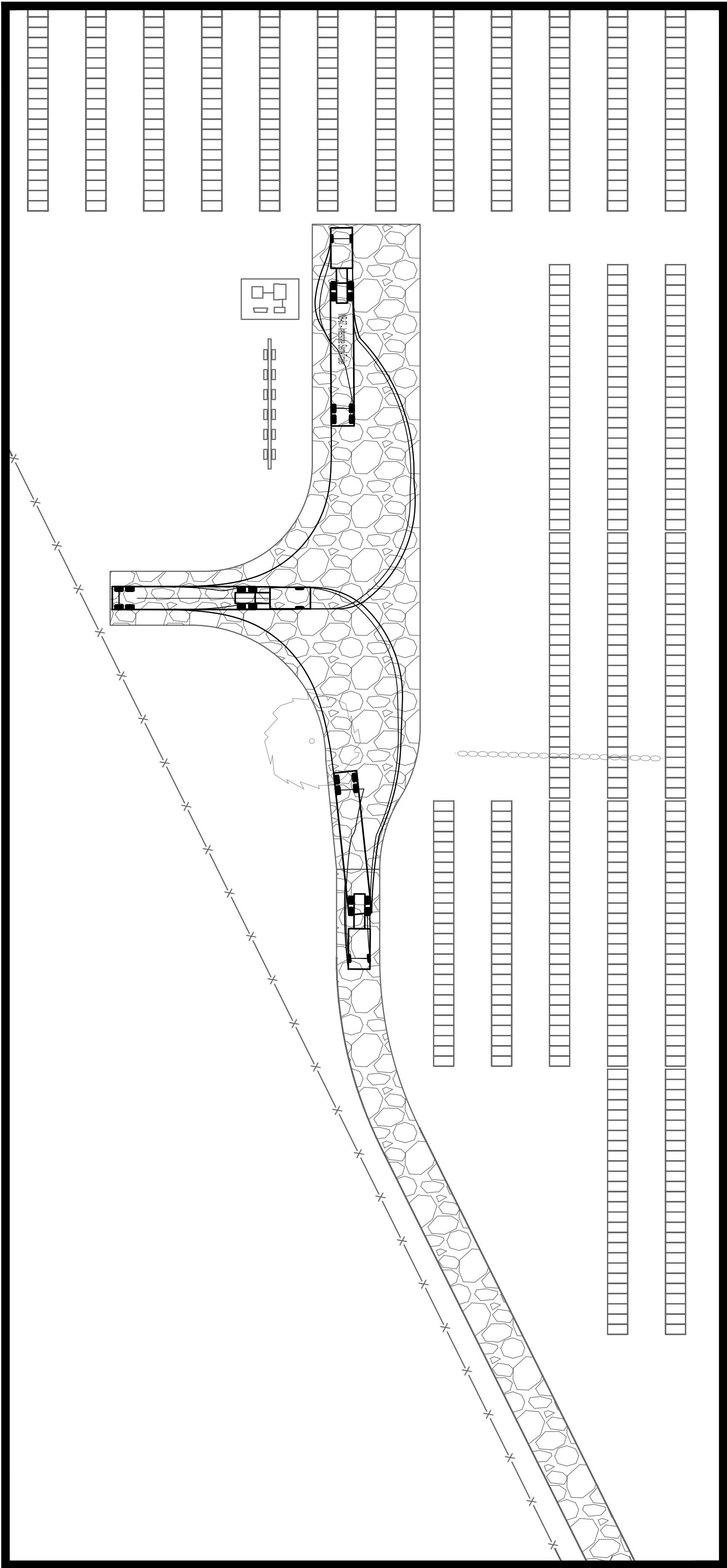
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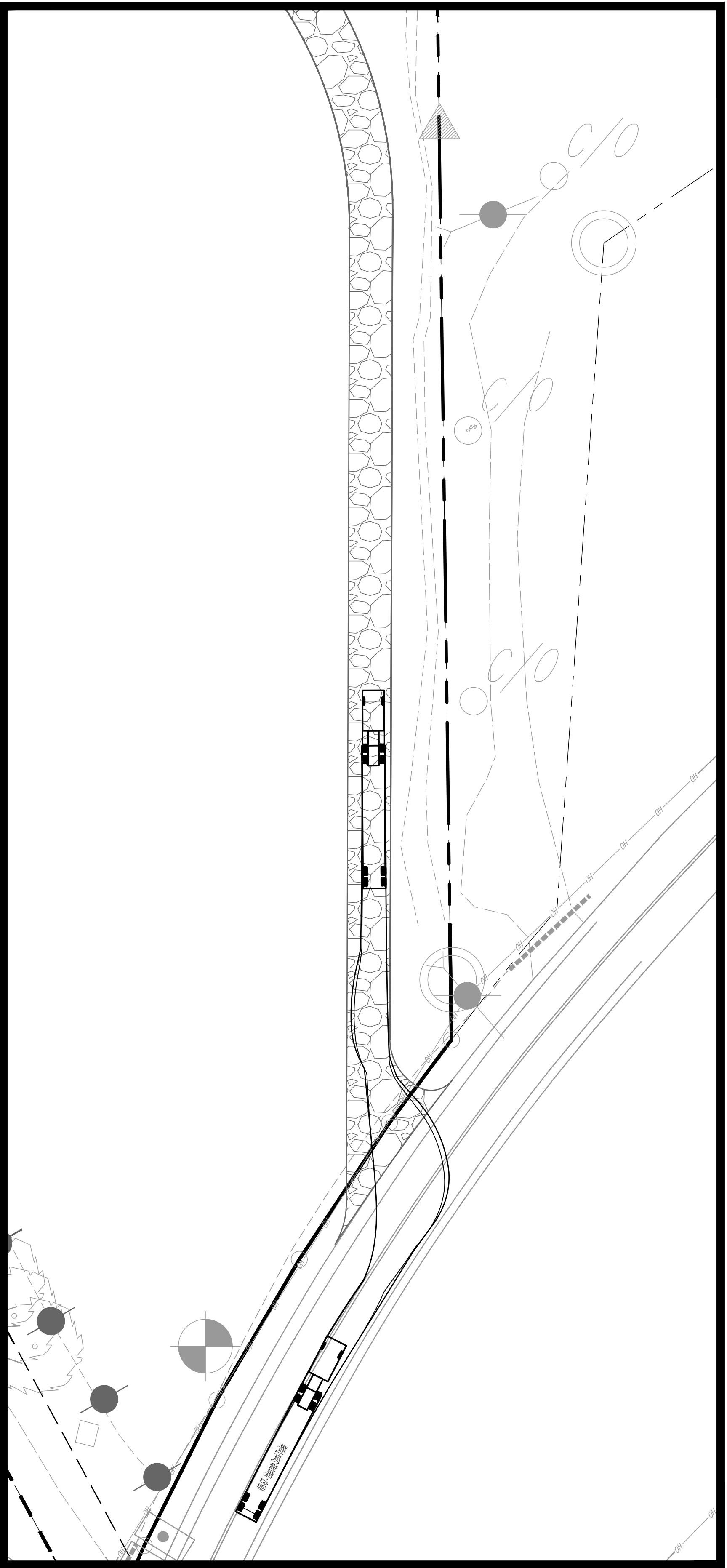
**VEHICLE TURNING
MOVEMENT PLAN
(1 OF 2)**

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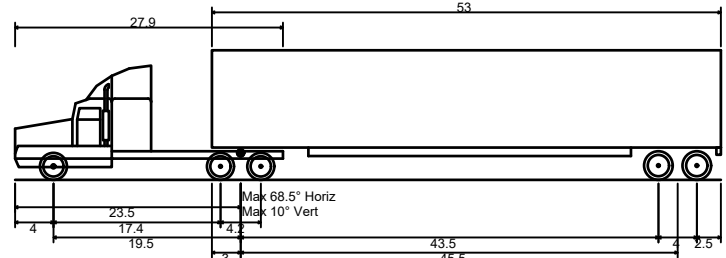
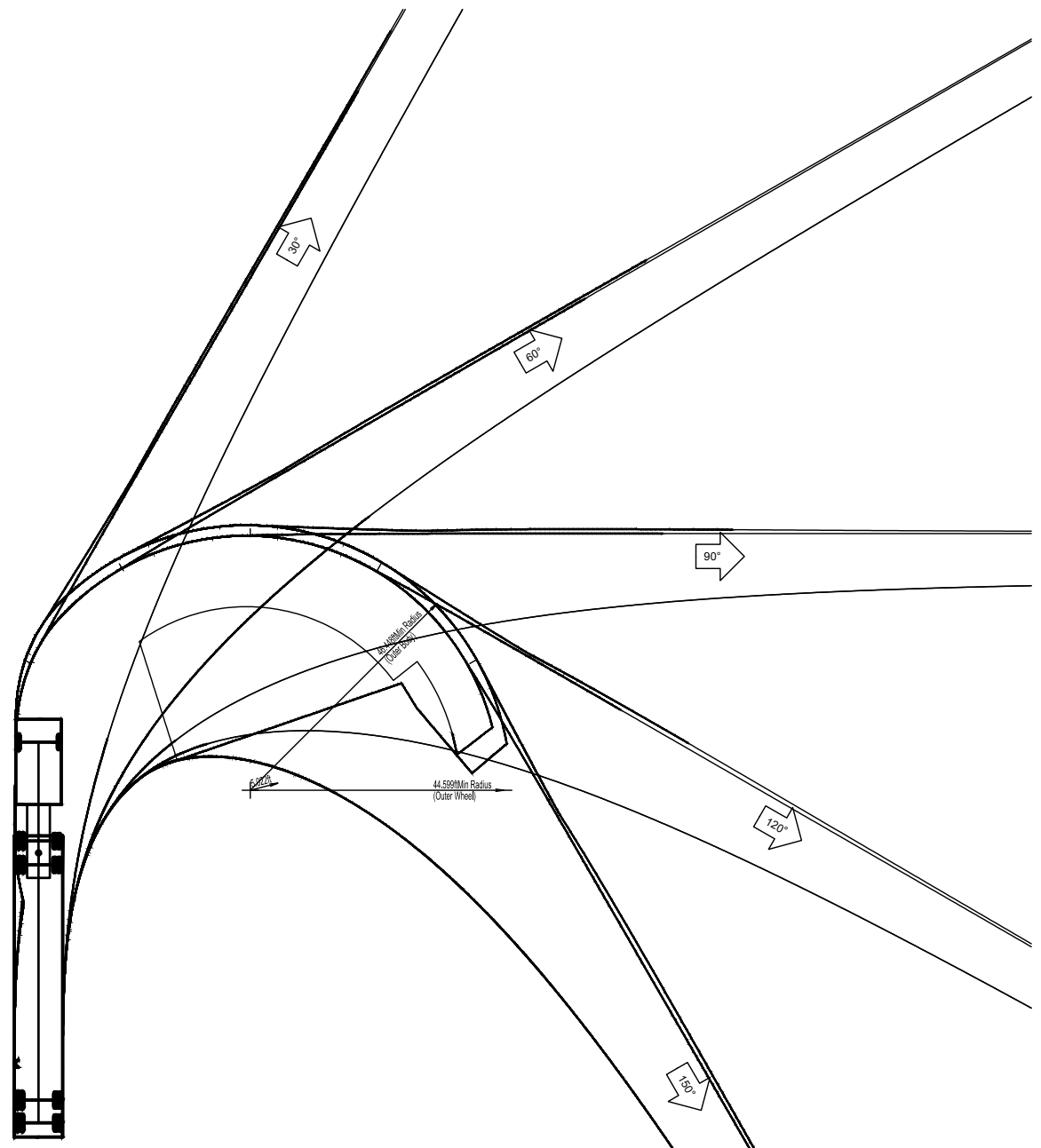
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VEHICLE TURNING MOVEMENT PLAN B
SCALE: 1" = 30'



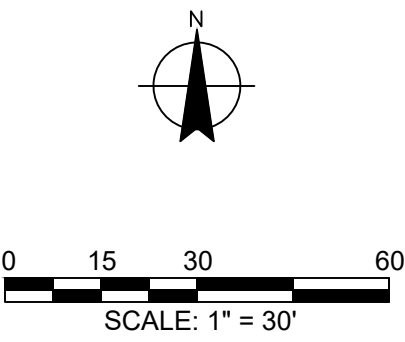
VEHICLE TURNING MOVEMENT PLAN C
SCALE: 1" = 30'



WB-67 - Interstate Semi-Trailer
Overall Length 73.501ft
Overall Width 8.500ft
Overall Body Height 13.500ft
Min Spring Clearance 13.34ft
Max Track Width 8.500ft
Lock-to-lock time 8.00s
Max Steering Angle (Virtual) 28.40°

LEGEND

- PROPERTY LINE
- WETLAND BOUNDARY
- EXISTING UTILITY POLE
- EXISTING OVERHEAD WIRES
- EXISTING TREE LINE
- PROPOSED SOLAR PANELS
- PROPOSED GRAVEL ACCESS ROAD
- PROPOSED SETBACKS
- PROPOSED CHAIN LINK FENCE
- PROPOSED TREE LINE
- PROPOSED UNDERGROUND CONDUITS
- PROPOSED UTILITY POLE



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34 SOUTH BROADWAY
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SOLAR PROJECT**

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CHEMUNG COUNTY, NY 14845

MILESTONE

SITE PLAN APPROVAL

REV.	DESCRIPTION	DATE

DESIGN PROFESSIONAL



JUSTIN H. SEENEY P.E.
NY PROFESSIONAL ENGINEER NO. 095227

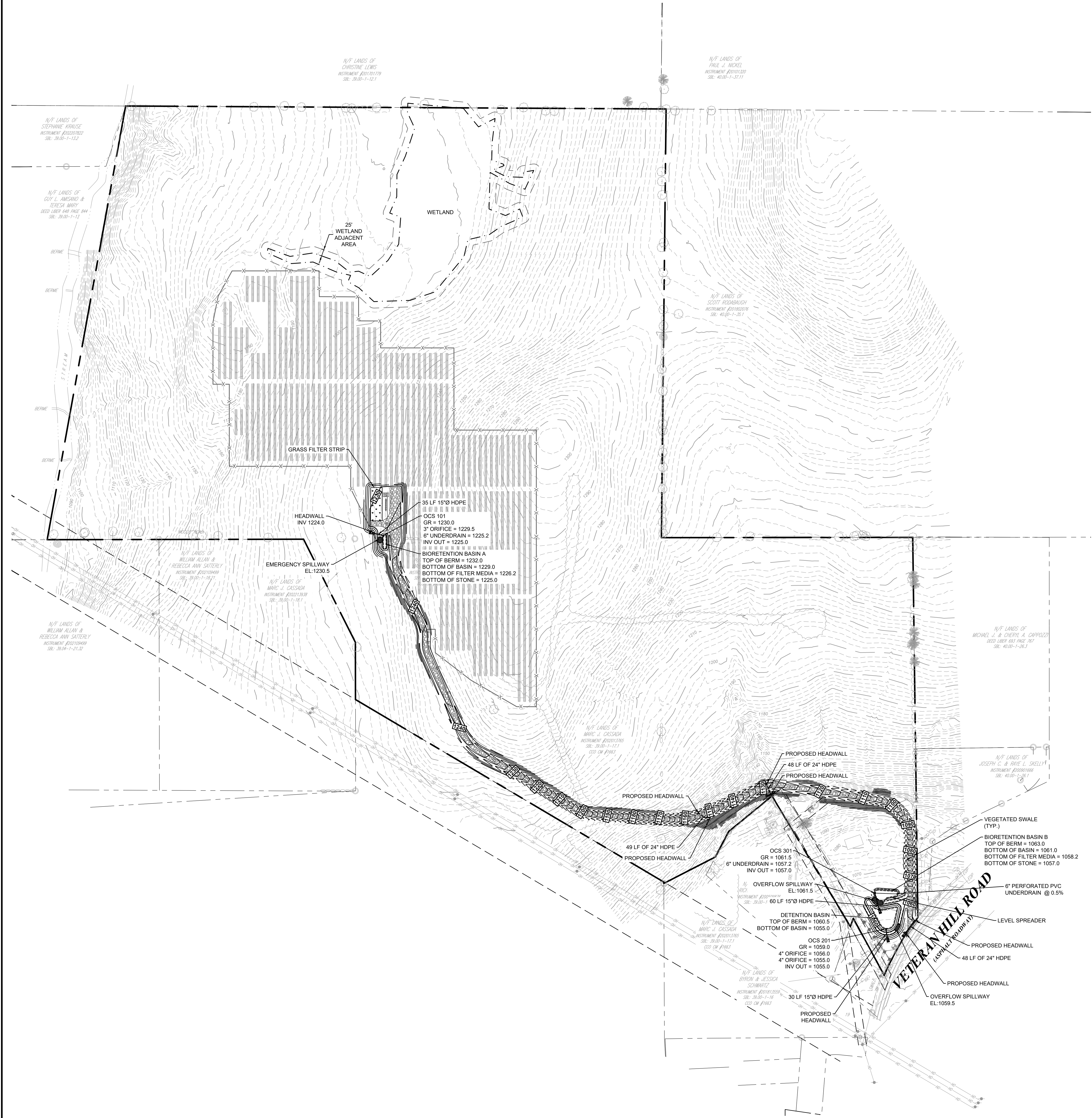
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SHEET TITLE:

**VEHICLE TURNING
MOVEMENT PLAN
(2 OF 2)**

SHEET NUMBER:

C203



LAND GRADING NOTES

- EXISTING CONDITIONS DEPICTED ON THIS PLAN ARE BASED ON SURVEY ENTITLED "PARTIAL TOPOGRAPHIC AND LOCATION SURVEY MAP, LOT 14.1, BLOCK 1, SECTION 39.00" PREPARED BY CONTROL POINT ASSOCIATES INC., PC DATED OCTOBER 29, 2025.
- ALL GRADED OR DISTURBED AREAS, INCLUDING SLOPES, SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE ADEQUATELY STABILIZED.
- ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN THE AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
- AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, OR OTHER OBJECTIONABLE MATERIAL.
- AREAS THAT ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 4 INCHES PRIOR TO PLACEMENT OF TOPSOIL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SPILLAGE, SETTLEMENT, SUBSIDENCE, OR OTHER RELATED PROBLEMS.
- ALL FILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- FROZEN MATERIAL OR SOFT, MUCKY, AND HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS.
- FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.
- CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASSES SHALL NOT BE STEEPER THAN 2:1. WHEN SLOPES EXCEED 2:1, SPECIAL DESIGN AND STABILIZATION CONSIDERATION ARE REQUIRED.
- WHERE THE SLOPE IS TO BE MOWED, THE SLOPE SHOULD BE NO STEEPER THAN 3:1.

TOPSOILING NOTES

SITE PREPARATION

- ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- COMPLETE ROUGH GRADING AND FINAL GRADE, ALLOWING FOR DEPTH OF TOP SOIL TO BE ADDED.
- 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.
- REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER 3 INCHES IN DIAMETER, AND OTHER LITTER.

TOPSOIL MATERIALS

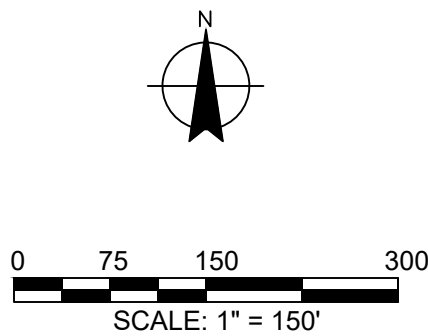
- TOPSOIL SHALL HAVE AT LEAST 6 PERCENT BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL, AND NO GREATER THAN 20 PERCENT. MUCK SOIL SHALL NOT BE CONSIDERED TOPSOIL.
- TOPSOIL SHALL NOT LESS THAN 20 PERCENT FINE TEXTURED MATERIAL (PASSING THE No. 200 SIEVE) AND NOT MORE THAN 15 PERCENT CLAY.
- TOPSOIL TREATED WITH SOIL STERILANTS OR HERBICIDES SHALL BE SO IDENTIFIED TO THE PURCHASER.
- 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.
- TOPSOIL CONTAINING SOLUBLE SALTS GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
- TOPSOIL MAY BE MANUFACTURED AS A MIXTURE OF A MINERAL COMPONENT AND ORGANIC MATERIAL SUCH AS COMPOST.

APPLICATION AND GRADING

- 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.
- TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5 PERCENT SHALL BE PROMPTLY FERTILIZED, SEEDDED, MULCHED, AND STABILIZED BY "TRACKING" WITH SUITABLE EQUIPMENT.

LEGEND

- PROPERTY LINE
- WETLAND BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING UTILITY POLE
- EXISTING OVERHEAD WIRES
- EXISTING TREE LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORMWATER PIPE



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34 SOUTH BROADWAY
SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336
WWW.AKRF.COM

OWNER

DYNAMIC ENERGY LLC

2401 WALNUT STREET, SUITE 503
PHILADELPHIA, PA 19103

PROJECT

**VETERAN HILL ROAD
SOLAR PROJECT**

TOWN OF VETERAN
CHEMUNG COUNTY, NY 14845

MILESTONE

SITE PLAN APPROVAL

REV.	DESCRIPTION	DATE

DESIGN PROFESSIONAL



JUSTIN H. SEENEY P.E.
NY PROFESSIONAL ENGINEER NO. 095227

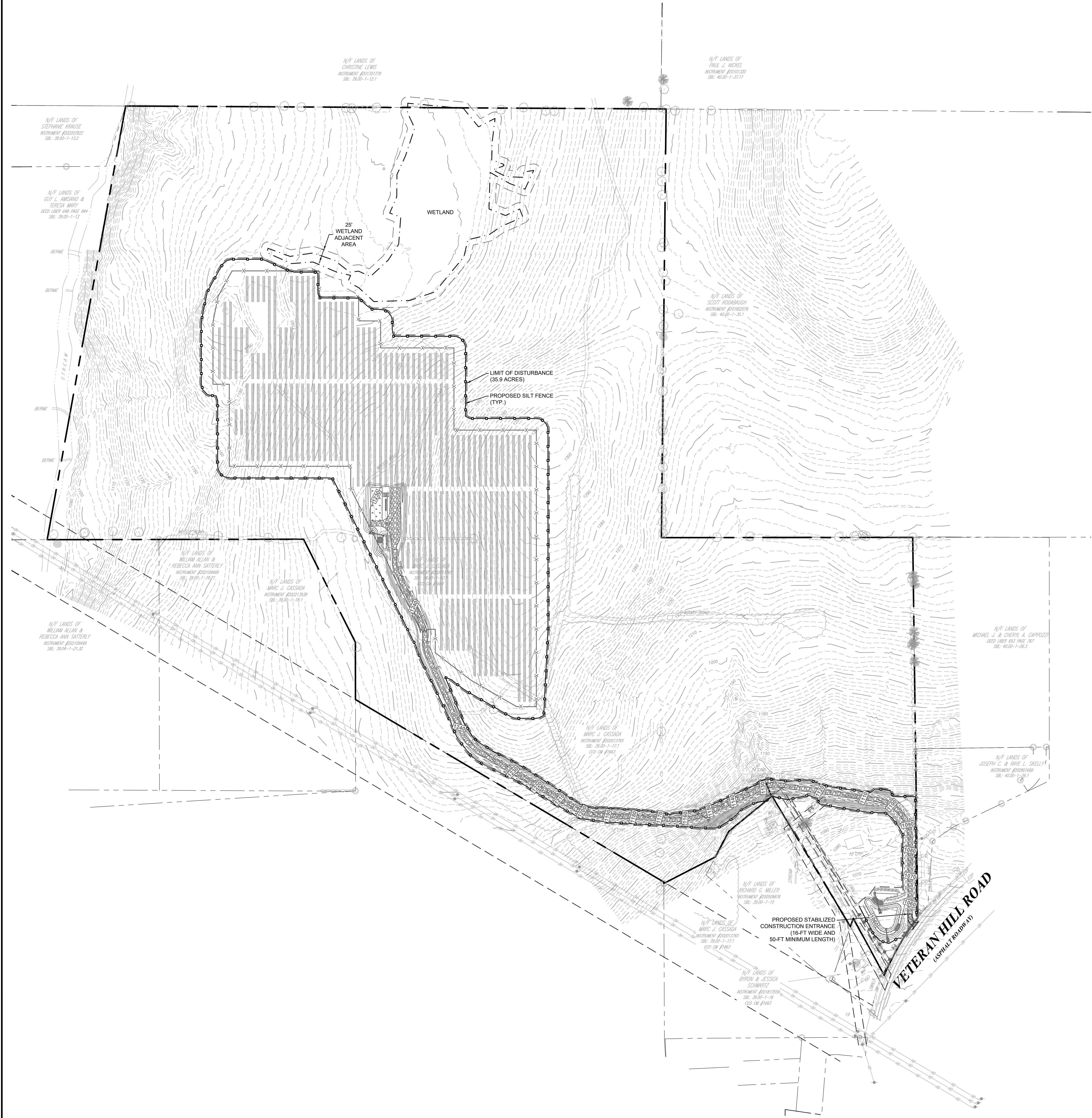
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DATE:	04/20/2026
SCALE:	AS NOTED
FORMAT:	30" x 42" (ARCH E1)
DRAWN BY:	DC
CHECKED BY:	JM / JS

SHEET TITLE:

**GRADING AND
DRAINAGE PLAN**

SHEET NUMBER:

C301



GENERAL NOTES

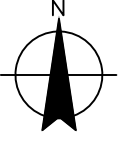
- EXISTING CONDITIONS DEPICTED ON THIS PLAN ARE BASED ON SURVEY ENTITLED "PARTIAL TOPOGRAPHIC AND LOCATION SURVEY MAP, LOT 14.1, BLOCK 1, SECTION 39.00" PREPARED BY CONTROL POINT ASSOCIATES INC., PC DATED OCTOBER 29, 2025.
- ALL INFORMATION PROVIDED IS APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING FEATURES FOR ACCURACY.
- AREAS UNDER SOLAR PANEL TABLES AND ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RE-VEGETATED WITH A NATIVE PLANT SPECIES SEED MIX UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE TEMPORARY SEDIMENT TRAPS AT LOCATIONS AND SIZE NEEDED TO MAINTAIN RUNOFF FROM DISTURBED AREAS DURING CONSTRUCTION.

SOIL EROSION AND SEDIMENT CONTROL NOTES

- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH THE APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP), IF APPLICABLE, AND THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (BLUE BOOK)," LATEST EDITION.
- PRIOR TO CLEARING, GRUBBING, EXCAVATION, AND/OR OTHER SOIL DISTURBANCE ACTIVITIES, ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS.
- THE CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES ON A DAILY BASIS. ALL COLLECTED SEDIMENT WITHIN THE SEDIMENT BARRIERS SHALL BE REMOVED PERIODICALLY AS REQUIRED TO MAINTAIN THE FUNCTION OF THE SEDIMENT CONTROL MEASURE.
- SITE PREPARATION ACTIVITIES SHALL BE COORDINATED TO MINIMIZE THE AMOUNT OF EXPOSED SOIL, MINIMIZE DISTURBANCE OF STEEP SLOPES, AND PRESERVE EXISTING VEGETATION AS MUCH AS PRACTICAL.
- CONTRACTOR SHALL ESTABLISH PERMANENT TRAFFIC CORRIDORS. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.
- CONTRACTOR SHALL KEEP PAVED ROADWAYS CLEAN AT ALL TIMES. ANY SEDIMENT SPILLED OR TRACKED ONTO THE ROADWAY SHALL BE CLEANED UP IMMEDIATELY OR, AT A MINIMUM, BY THE END OF EACH WORK DAY.
- CONTRACTOR SHALL MINIMIZE SOIL COMPACTION AS MUCH AS PRACTICAL, UNLESS THE SPECIFIC AREA IS INTENDED TO BE COMPACTED BY DESIGN.
- CONTRACTOR SHALL MINIMIZE DUST THROUGH THE APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION TECHNIQUES.
- EROSIVE STOCKPILED MATERIAL SHALL INCLUDE A PROTECTIVE PERIMETER BARRIER AND BE LOCATED AWAY FROM STORM DRAINS, WETLANDS, AND OTHER WATER BODIES.
- UNFILTERED DEWATERING SHALL NOT BE DISCHARGED DIRECTLY INTO WETLANDS, WATER COURSES, WATER BODIES, OR DRAINAGE SYSTEMS.
- ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED/WARRANTED BY FIELD CONDITIONS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE, ENGINEER OF RECORD, AND/OR TOWN OF VETERAN.
- TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED ONCE ALL DISTURBED AREAS HAVE ACHIEVED FINAL STABILIZATION AND ALL STORMWATER MANAGEMENT SYSTEMS ARE IN PLACE AND OPERABLE. ALL AREAS DISTURBED BY THE REMOVAL OF THE TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE FILLED IN, TOPSOILED, SEEDED, AND MULCHED. FINAL STABILIZATION IS ACHIEVED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 80 PERCENT COVERAGE IS ACHIEVED OR EQUIVALENT STABILIZATION MEASURES, SUCH AS PLACEMENT OF MULCH OR GEOTEXTILE, IS COMPLETED ON ALL AREAS NOT PAVED OR COVERED BY PERMANENT STRUCTURES.

LEGEND

- PROPERTY LINE
- WETLAND BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING UTILITY POLE
- EXISTING OVERHEAD WIRES
- EXISTING TREE LINE
- LIMIT OF DISTURBANCE
- PROPOSED STABILIZED ENTRANCE
- PROPOSED SILT FENCE



0 75 150 300
SCALE: 1" = 150'

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34 SOUTH BROADWAY
SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336
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OWNER

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2401 WALNUT STREET, SUITE 503
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PROJECT

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TOWN OF VETERAN
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MILESTONE

SITE PLAN APPROVAL

REV.	DESCRIPTION	DATE

DESIGN PROFESSIONAL



JUSTIN H. SEENEY P.E.
NY PROFESSIONAL ENGINEER NO. 095227

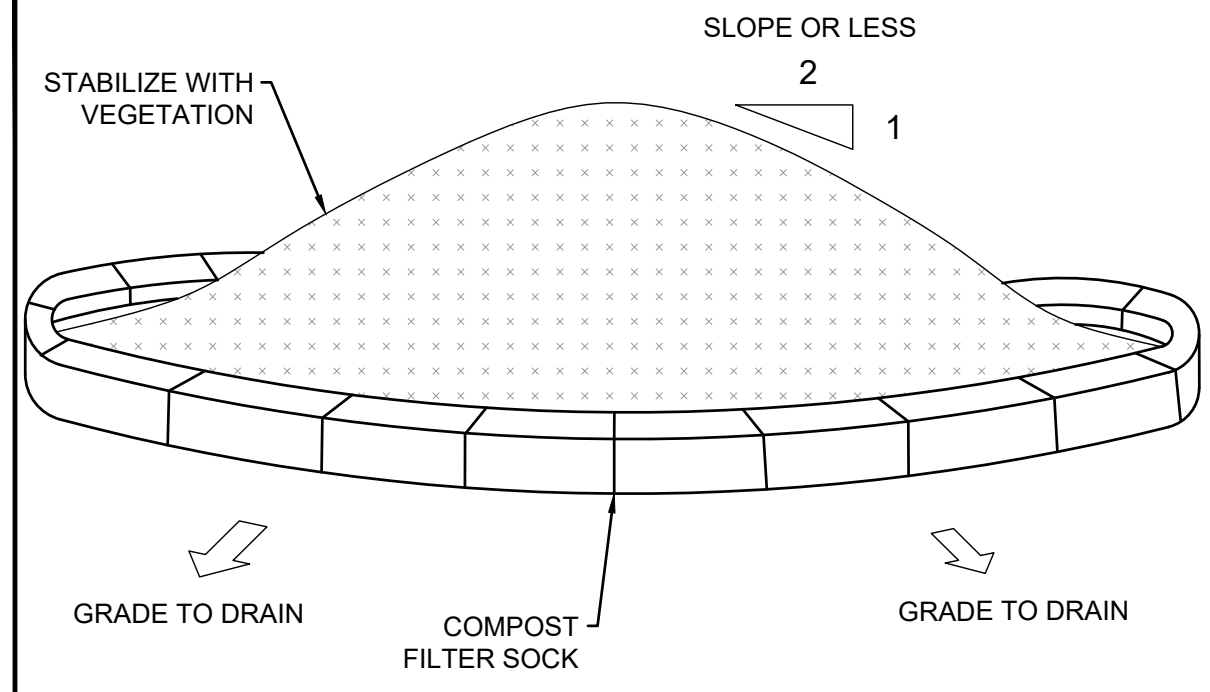
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SCALE:	AS NOTED
FORMAT:	30" x 42" (ARCH E1)
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CHECKED BY:	JM / JS

SHEET TITLE:

**EROSION AND
SEDIMENT CONTROL
PLAN**

SHEET NUMBER:

C401



- CONSTRUCTION SPECIFICATIONS**
1. AREA CHOSEN FOR MATERIAL SHALL BE DRY AND STABLE.
 2. MAXIMUM SLOPE OF MATERIAL PILE SHALL BE 2:1
 3. PRIOR TO DISTURBING MATERIAL, EACH PILE SHALL BE SURROUNDED WITH PERIMETER CONTROLS AS NEEDED, E.G. COMPOST FILTER SOCK

MATERIAL STOCKPILE
SCALE: NTS

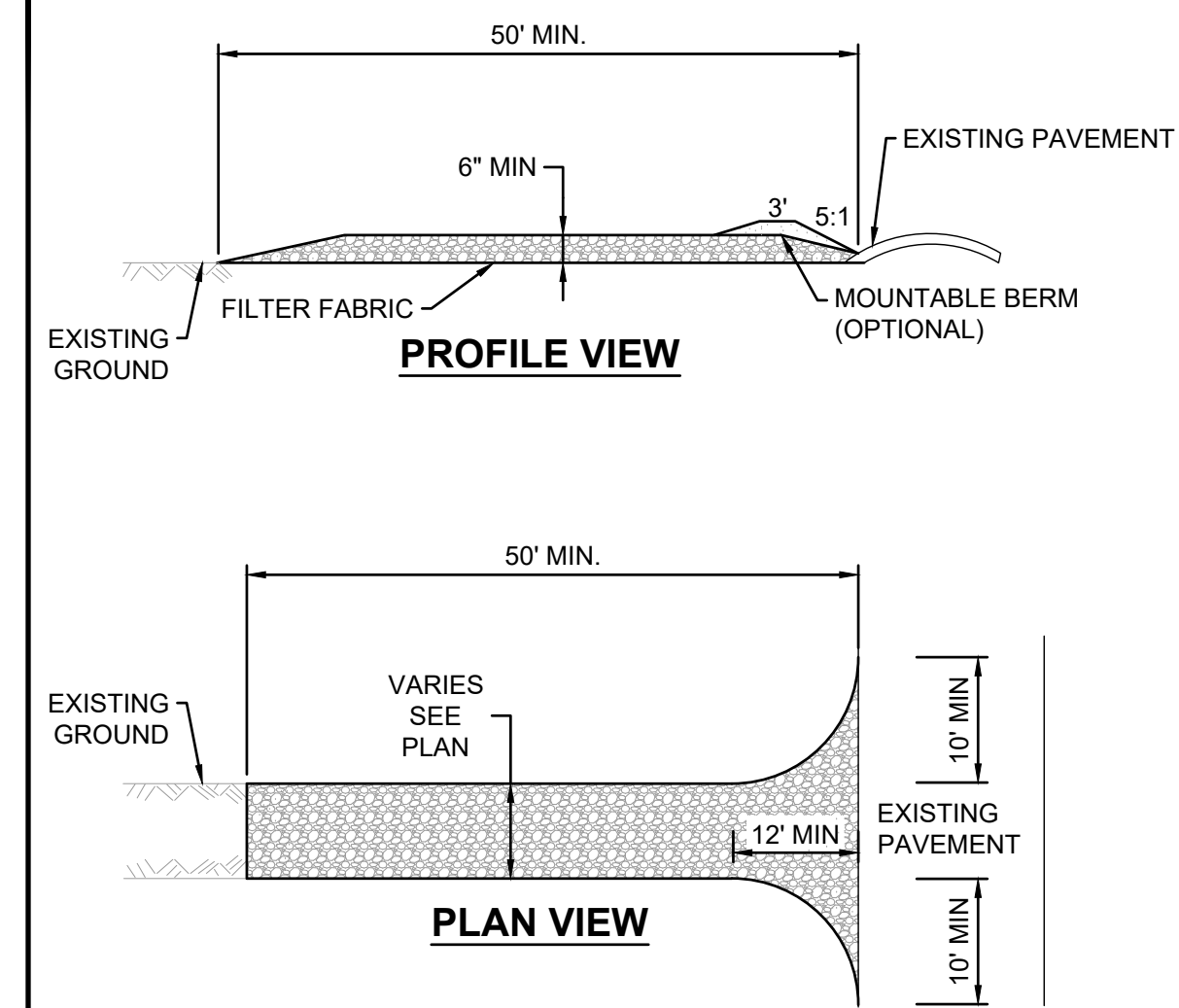
- SPECIFICATIONS FOR SOIL RESTORATION & SEEDING**
- SOIL RESTORATION**
- DURING PERIODS OF RELATIVELY LOW TO MODERATE SUBSOIL MOISTURE, THE DISTURBED SUBSOILS ARE RETURNED TO ROUGH GRADE AND THE FOLLOWING SOIL RESTORATION STEPS APPLIED:
1. APPLY 3 INCHES OF COMPOST OVER SUBSOIL. THE COMPOST SHALL BE 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 301 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 TILER, TO MIX AND CIRCULATE AIR AND COMPOST INTO THE SUBSOIL.
 3. ROCK-PICK UNTIL UPLIFTED STONE / ROCK MATERIALS OF 4 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 OF 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**
1. KEEP THE SITE FREE OF VEHICULAR AND FOOT TRAFFIC OR OTHER WEIGHT LOADS.
 2. SARY TO ENSURE THE STRUCTURAL STABILITY OF FOUNDATIONS/ WALLS/ SIDEWALKS AND PAVEMENT TO REMAIN, AND PROVIDE A SAFE WORK AREA.

SOIL RESTORATION NOTES
SCALE: NTS

SOIL RESTORATION REQUIREMENTS			
TYPE OF SOIL DISTURBANCE		SOIL RESTORATION REQUIREMENT	
NO SOIL DISTURBANCE		RESTORATION NOT REQUIRED	
MINIMAL SOIL DISTURBANCE		RESTORATION NOT REQUIRED	
AREAS WHERE TOPSOIL IS STRIPPED ONLY - NO CHANGE IN GRADE		HSG A & B	HSG C & D
		APPLY 6 INCHES OF TOPSOIL	AREATE* AND APPLY 6 INCHES OF TOPSOIL
AREAS OF CUT OR FILL		HSG A & B	HSG C & D
		AREATE* AND APPLY 6 INCHES OF TOPSOIL	APPLY FULL SOIL RESTORATION**
HEAVY TRAFFIC AREAS ON SITE ESPECIALLY IN A ZONE 5-20 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.	
REDEVELOPMENT PROJECTS		SOIL RESTORATION IS REQUIRED ON REDEVELOPMENT PROJECTS IN AREAS WHERE EXISTING IMPERVIOUS AREAS WILL BE CONVERTED TO PERVIOUS AREA	

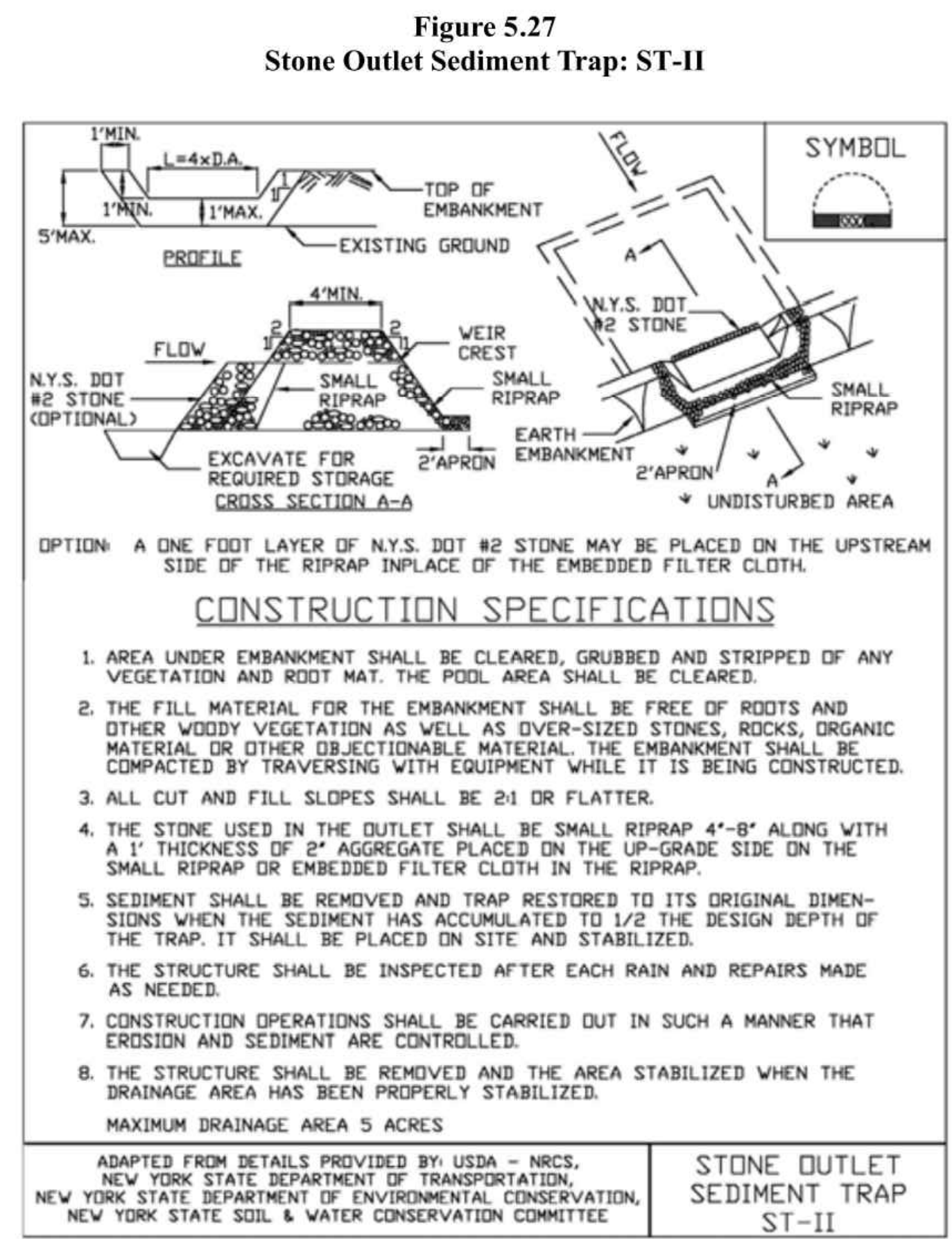
* AREATION INCLUDES THE USE OF MACHINES SUCH AS TRACTOR-DRAWN IMPLEMENTS WITH CULTERS MAKING A NARROW SLIT IN THE SOIL. A ROLLER WITH MANY SPIKES MAKING DEENTIONS IN THE SOIL, OR PRODS WHEN FUNCTIONING AS A NARROW SUBSIDIZER.

** PER "DEEP RIPPING AND DE-COMPACTION, DEC 2009"

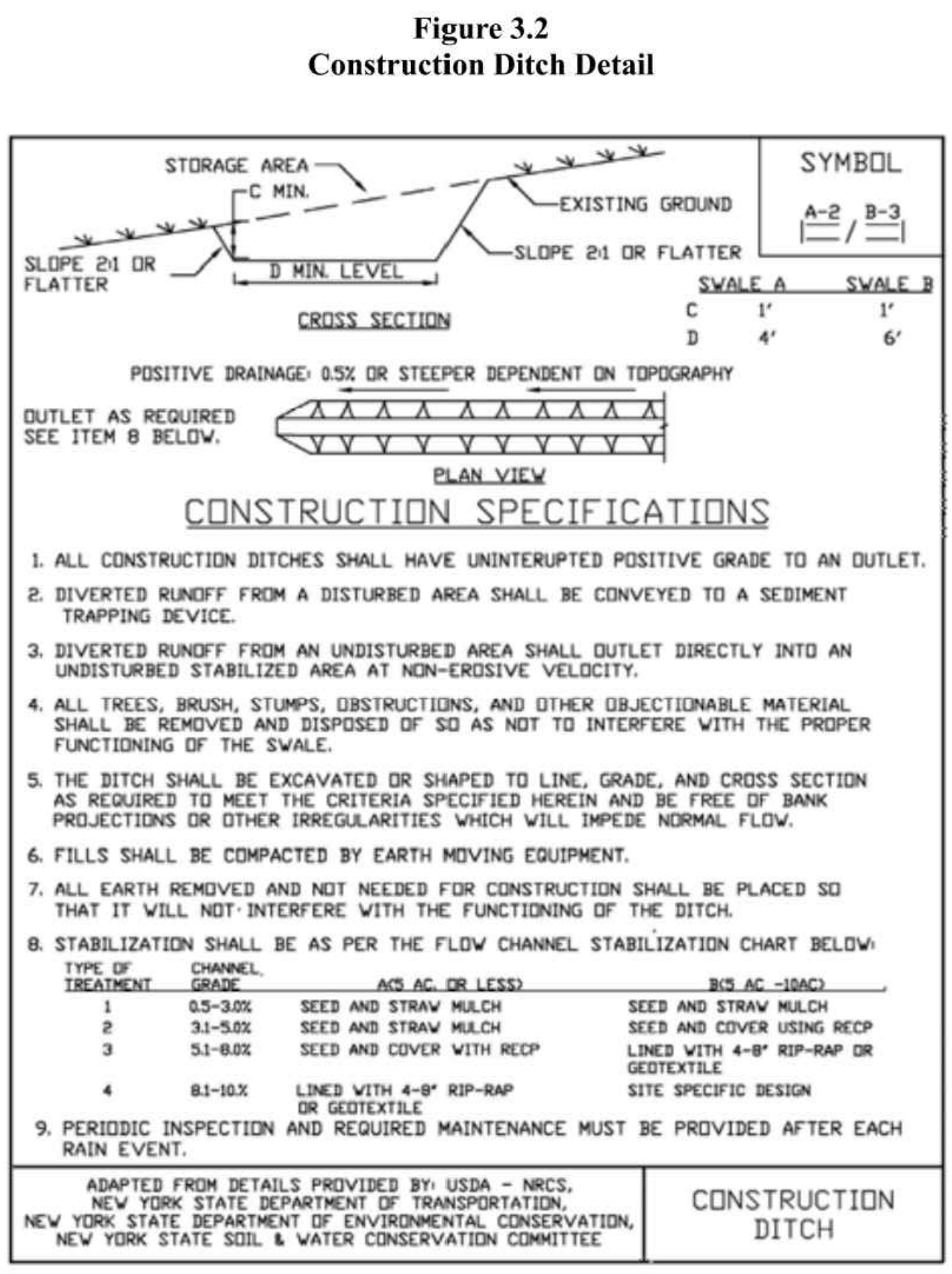


STABILIZED CONSTRUCTION ACCESS
SCALE: NTS

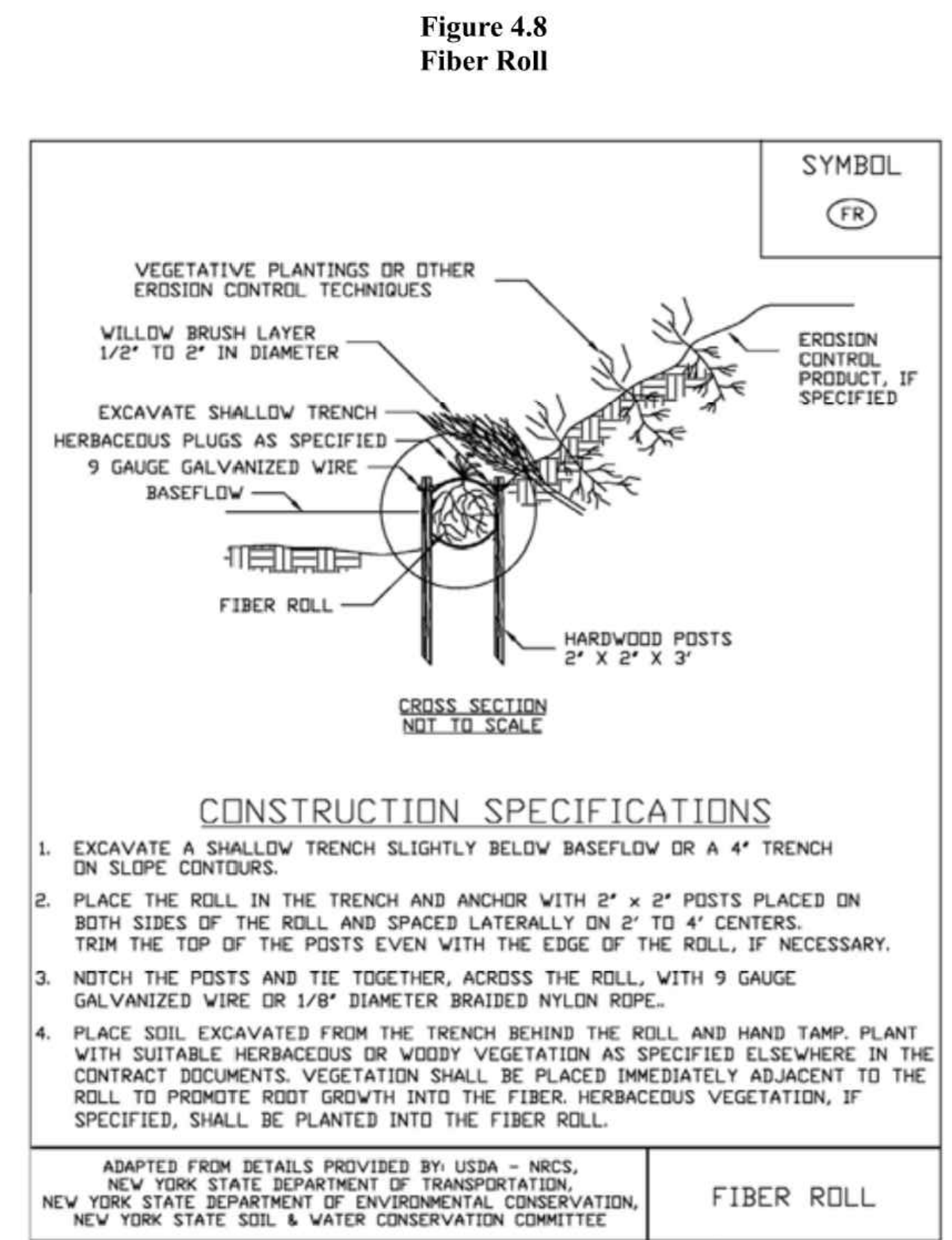
- CONSTRUCTION SPECIFICATIONS**
1. STONE SIZE - USE 1-INCH TO 4-INCH STONE.
 2. LENGTH - NOT LESS THAN 50 FEET.
 3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
 4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
 5. FILTER FABRIC - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE OR FOODS REUSABLE CONSTRUCTION ENTRANCE PADS. FILTER FABRIC SHALL BE MIFRAFI 500X OR APPROVED EQUAL.
 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 ON TO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
 8. 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 EVERY 7 CALENDAR DAYS AND AFTER EACH RAINFALL EVENT.



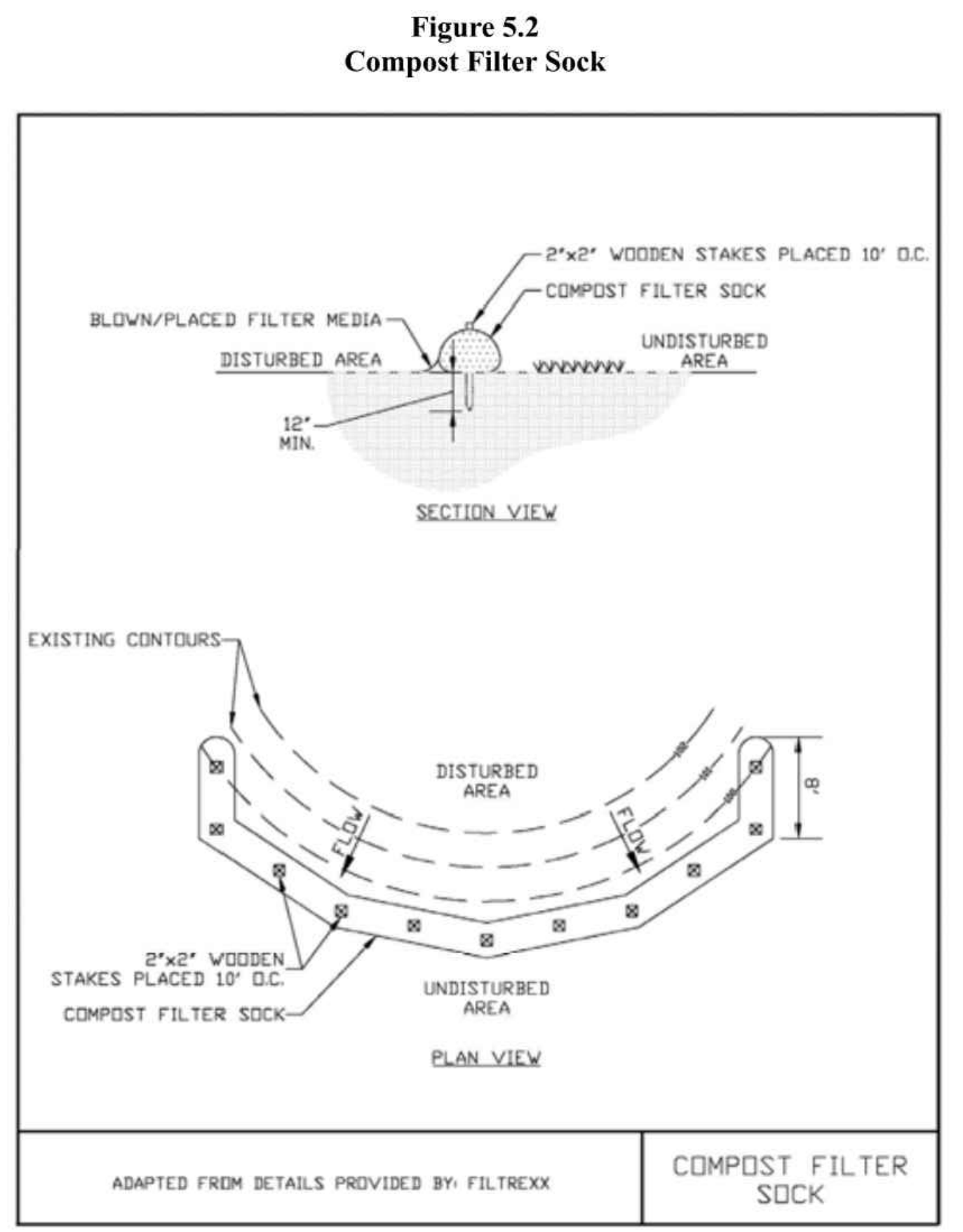
New York State Standards and Specifications For Erosion and Sediment Control November 2016



New York State Standards and Specifications For Erosion and Sediment Control November 2016



New York State Standards and Specifications For Erosion and Sediment Control November 2016



New York State Standards and Specifications For Erosion and Sediment Control November 2016

- NOTES**
1. SOCK FABRIC SHALL MEET STANDARDS OF THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. (BLUE BOOK) TABLE 5.1 COMPOST SHALL MEET THE STANDARDS LIST ON TABLE 5.2. COMPOST FILTER SOCK SHALL BE MINIMUM 12' O.
- CONSTRUCTION DETAILS (1 OF 2)**
- COMPOST FILTER SOCK SEDIMENT TRAP**
- EROSION CONTROL BLANKET DETAIL FOR SLOPE INSTALLATION**
- CONSTRUCTION DETAILS (1 OF 2)**
- COMPOST FILTER SOCK SEDIMENT TRAP**
- EROSION CONTROL BLANKET DETAIL FOR SLOPE INSTALLATION**

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34 SOUTH BROADWAY
SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336
WWW.AKRF.COM

OWNER

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2401 WALNUT STREET, SUITE 503
PHILADELPHIA, PA 19103

PROJECT

**VETERAN HILL ROAD
SOLAR PROJECT**
TOWN OF VETERAN
CHEMUNG COUNTY, NY 14845

MILESTONE

SITE PLAN APPROVAL

REV.	DESCRIPTION	DATE

STATE OF NEW YORK
SEAL OF THE STATE ENGINEER
1892
PROFESSIONAL ENGINEER

JUSTIN H. SEENEY P.E.
NY PROFESSIONAL ENGINEER NO. 095227

PROJECT #:	231510
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SHEET TITLE:

**CONSTRUCTION
DETAILS
(1 OF 2)**

SHEET NUMBER:

C501

OWNER

DYNAMIC ENERGY LLC

2401 WALNUT STREET, SUITE 503
PHILADELPHIA, PA 19103

PROJECT

**VETERAN HILL ROAD
SOLAR PROJECT**

TOWN OF VETERAN
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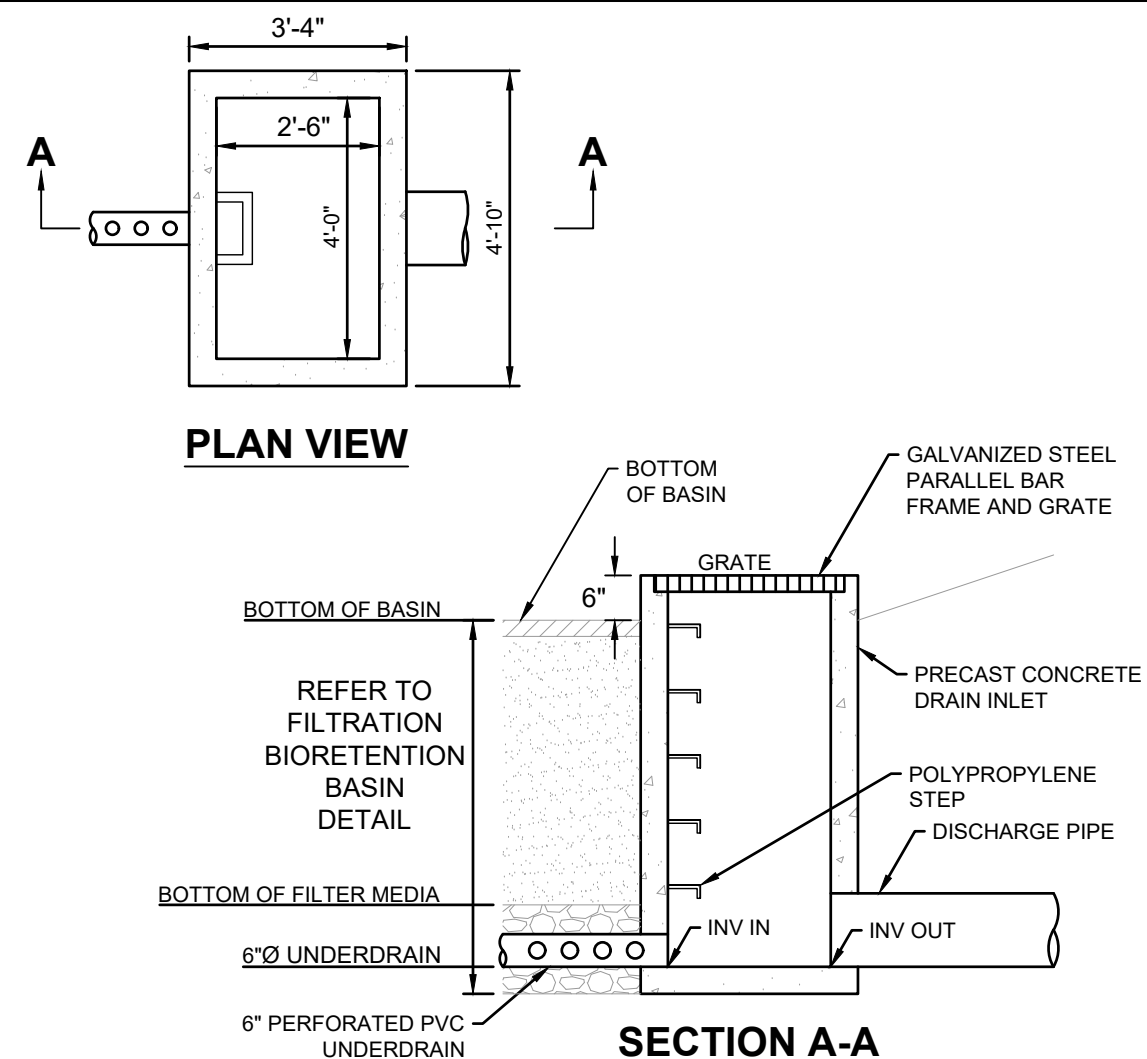
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SHEET TITLE:

**CONSTRUCTION
DETAILS
(2 OF 2)**

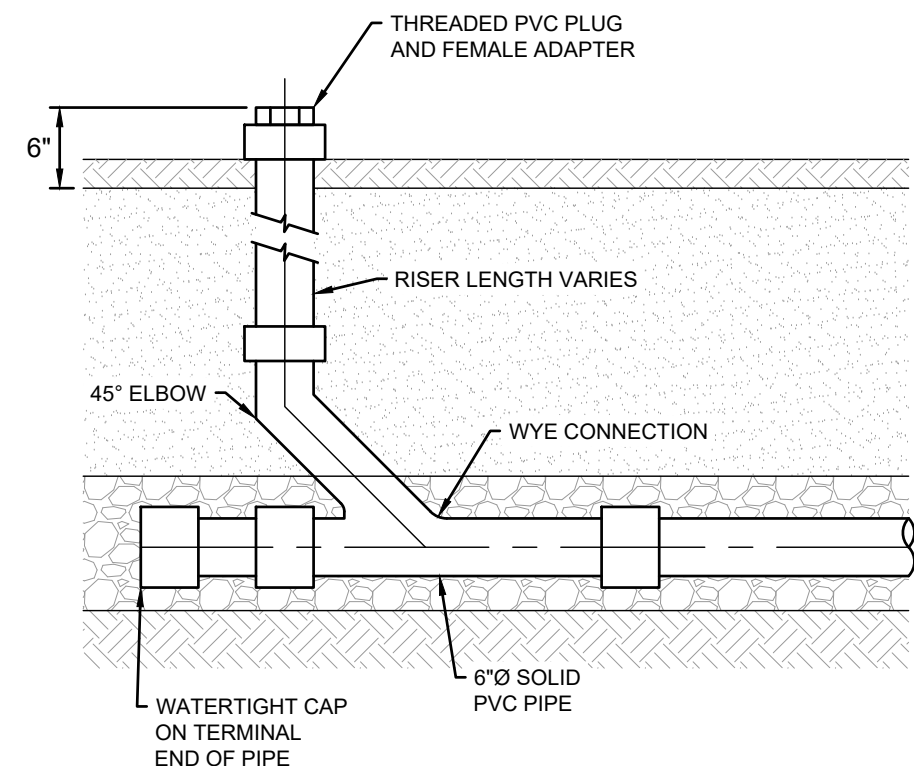
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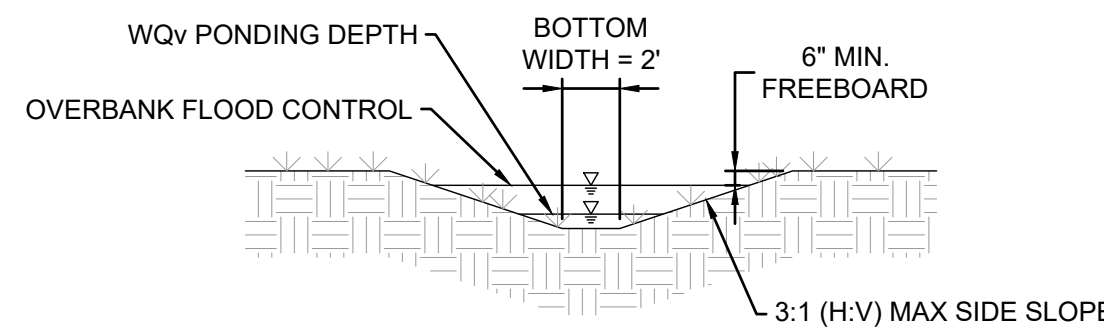
FILTRATION BIORETENTION OUTLET CONTROL STRUCTURE

SCALE: NTS



DRAINAGE CLEANOUT

SCALE: NTS

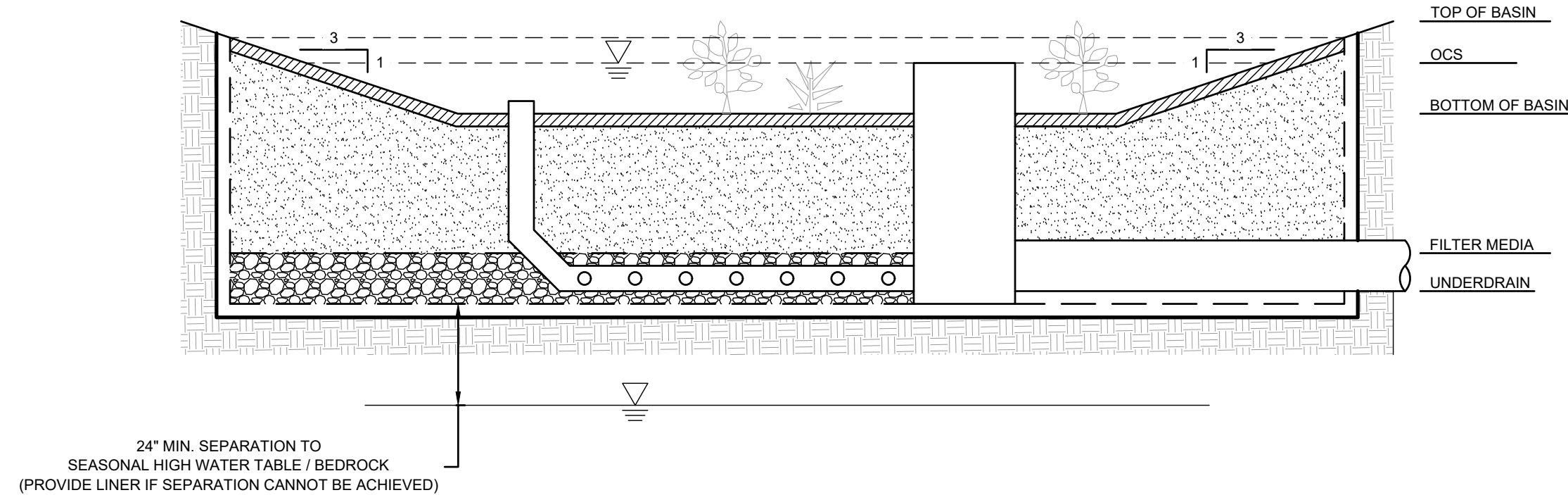


NOTE

- PERMANENT VEGETATIVE COVER SHALL ACHIEVE 80% UNIFORM DENSITY ESTABLISHED OVER THE ENTIRE CONTRIBUTING PERVIOUS AREA, BEFORE RUNOFF IS DIRECTED INTO THE FACILITY.

VEGETATED SWALE

SCALE: NTS



24" MIN. SEPARATION TO
SEASONAL HIGH WATER TABLE / BEDROCK
(PROVIDE LINER IF SEPARATION CANNOT BE ACHIEVED)

NOTES

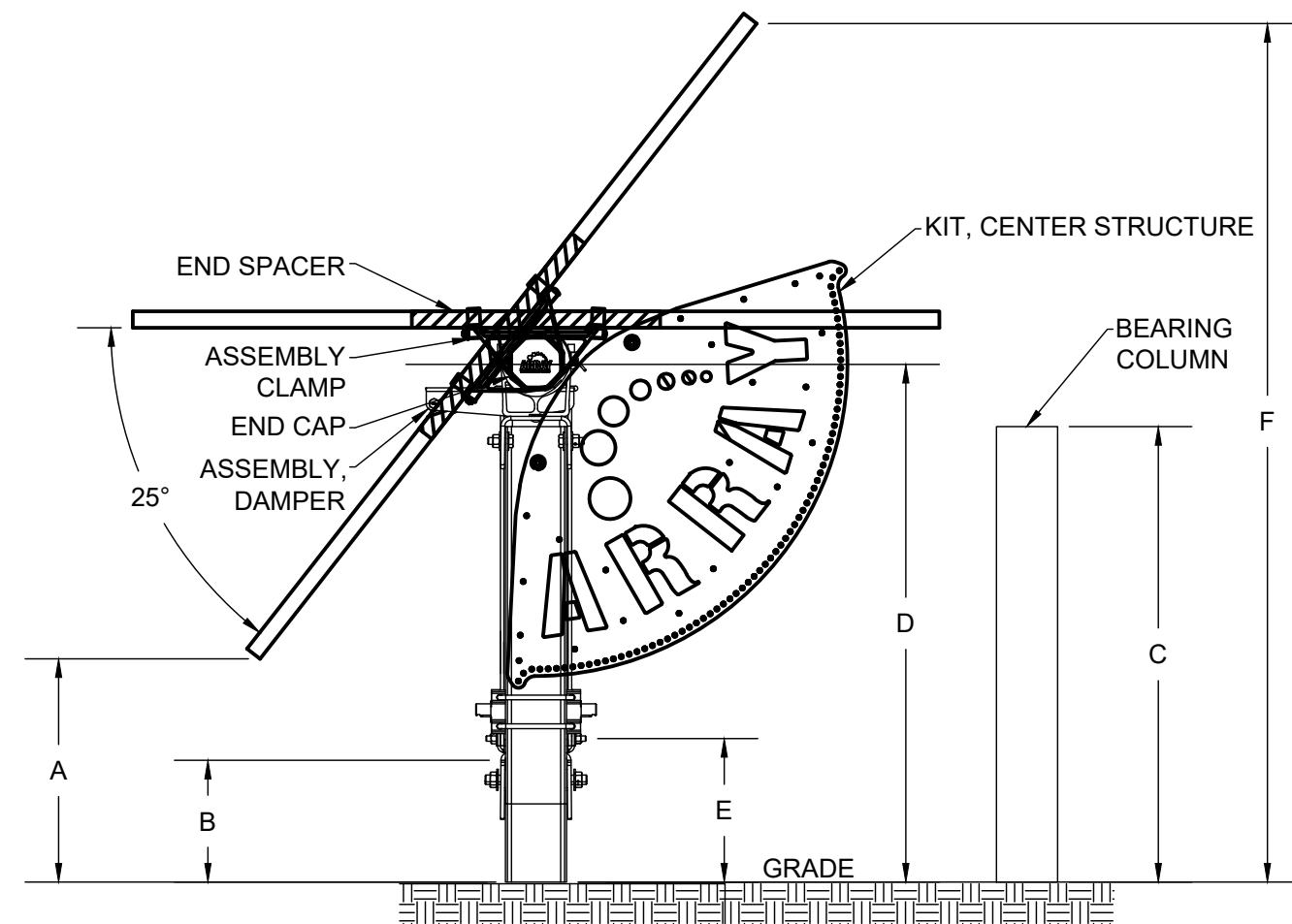
- PRACTICE AREA SHALL BE CLEARLY MARKED BEFORE ANY SITE BEGINS AND HEAVY EQUIPMENT TRAFFIC SHALL BE RESTRICTED TO AVOID SOIL DISTURBANCE AND COMPACTION.
- FILTRATION PRACTICES SHALL NEVER SERVE AS A SEDIMENT CONTROL DEVICE DURING SITE CONSTRUCTION PHASE.
- PRACTICE SHALL BE CONSTRUCTED LEVEL WITH NO LONGITUDINAL OR LATERAL SLOPE.
- ADEQUATE PRETREATMENT SHALL BE INCORPORATED IN ACCORDANCE WITH CHAPTER 6.4 OF THE NYS STORMWATER MANAGEMENT DESIGN MANUAL (JULY 2024).
- IMPERMEABLE LINER SHALL BE INSTALLED AT THE BOTTOM OF THE DRAINAGE LAYER AND ALL SIDES UNDER THE FOLLOWING CONDITIONS:
 - LESS THAN 2 FT VERTICAL SEPARATION TO SEASONAL HIGH WATER TABLE OR BEDROCK.
 - PRACTICE IS TREATING HOTSPOT RUNOFF.
 - IN AREAS OF KNOWN CONTAMINATION OR IF CONTAMINATION IS DISCOVERED DURING EXCAVATION.
- WHERE AN IMPERMEABLE LINER IS NOT PROPOSED, UNDERDRAIN SYSTEMS SHALL BE DESIGNED TO CREATE AN INTERNAL WATER STORAGE USING ONE OF THE FOLLOWING METHODS:
 - PROVIDE AN UPTURNED ELBOW, SET 10 INCHES ABOVE THE BOTTOM OF PRACTICE.
 - SET THE OUTLET PIPE INVERT, AT THE OUTLET CONTROL STRUCTURE, 10 INCHES ABOVE THE BOTTOM OF PRACTICE; OR
 - INCREASE THE DRAINAGE LAYER DEPTH TO PROVIDE 8 INCHES OF STONE BELOW THE UNDERDRAIN.
- A MIN. 12 FT WIDE MAINTENANCE ACCESS SHALL BE PROVIDED WITH A 15% MAX SLOPE.

MATERIAL SPECIFICATIONS	
SURFACE LAYER	SHREDDED HARDWOOD MULCH OR NON-INVASIVE LIVING MULCH
FILTER MEDIA	STANDARD MATERIAL: ASTM C-33 SAND: 60% TO 75% TOPSOIL: 25% TO 40% ENHANCED MATERIAL: ² ASTM C-33 SAND: 85% TO 95% TOPSOIL / ORGANIC ³ : 5% TO 15% P-INDEX 12 TO 30
DRAINAGE LAYER	AASHTO No. 57 STONE, WASHED, NO FINES
UNDERDRAIN	6" PERFORATED PVC LAID AT 0.5% SLOPE MIN. AT 30 FT MAX O.C.
DRAINAGE FILTER FABRIC	NON-WOVEN, POLYPROPYLENE GEOTEXTILE WITH FLOW RATE GREATER THAN 125 GPM / SF (ASTM D4491) AND APPARENT OPENING SIZE US #70 SIEVE (ASTM D4751)

¹ TOPSOIL SHALL CONFORM TO NYSDOT STANDARD SPECIFICATION 713-01 FOR ROADSIDE MIX OR SPECIALTY PLANTING MIX.
² ENHANCED FILTER MEDIA SHALL BE USED WITHIN WATERSHEDS REQUIRING ENHANCED PHOSPHORUS REMOVAL.
³ ORGANIC COMPONENT SHALL NOT CONSIST OF COMPOST.

FILTRATION BIORETENTION BASIN

SCALE: NTS

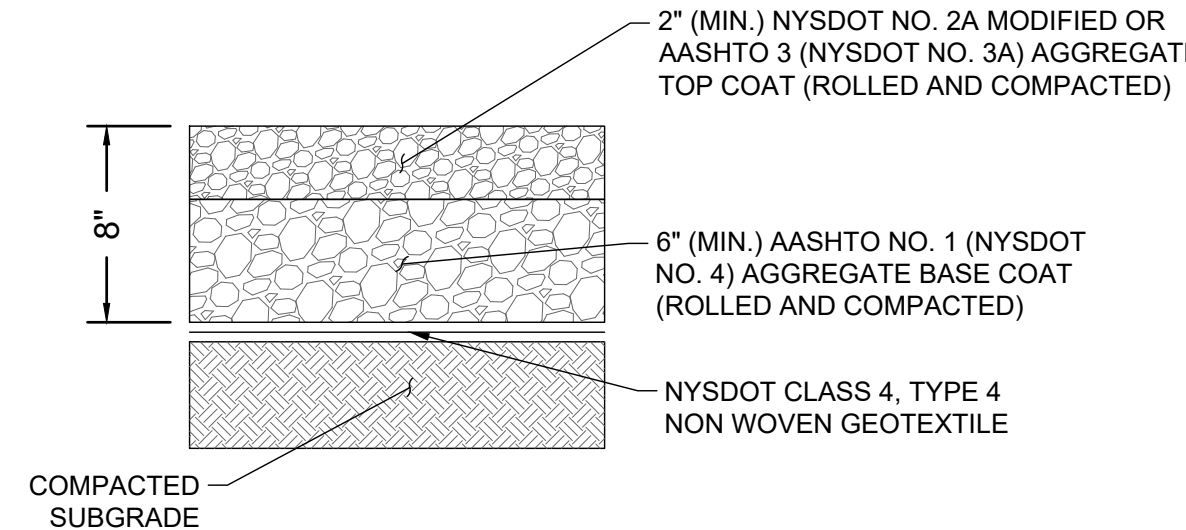


A	B	C	D	E	F
BOTTOM EDGE OF 93" MODULE AT 52" (IN)	GEARBOX COLUMN (IN)	BEARING COLUMN HEIGHT (IN)	CENTER OF ROTATION (IN)	TO BOTTOM OF DRIVE LINE (IN)	TOP EDGE OF 93" MODULE AT 52" (IN)
17	22	54	60	24	+/- 15" MAX.

NOTE: CLEARANCES HAVE ± INSTALL TOLERANCES.

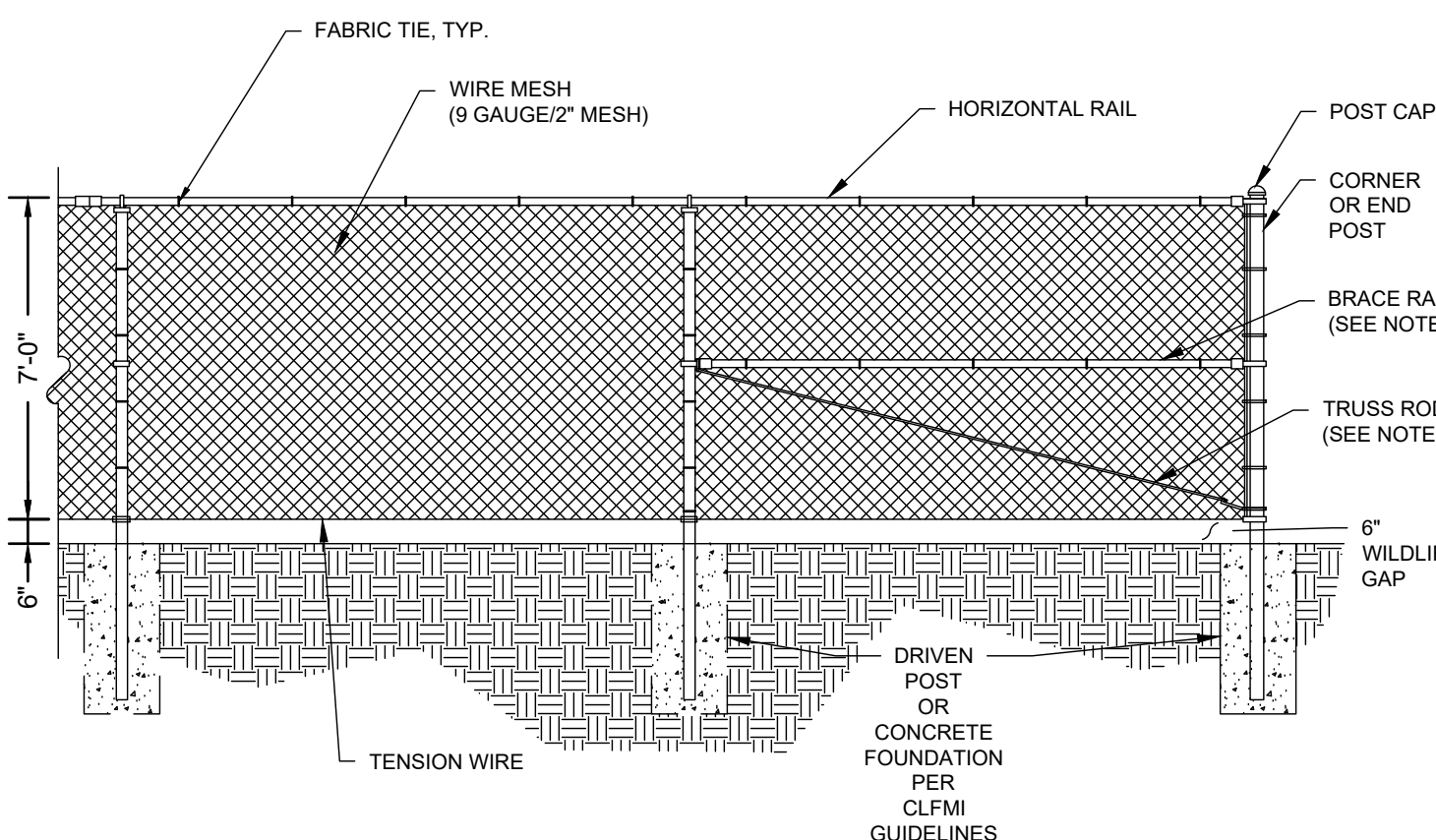
1 TYPICAL VERTICAL MOUNT MOTOR CLEARANCES

N.T.S.



2 GRAVEL PAD SECTION (TYP.)

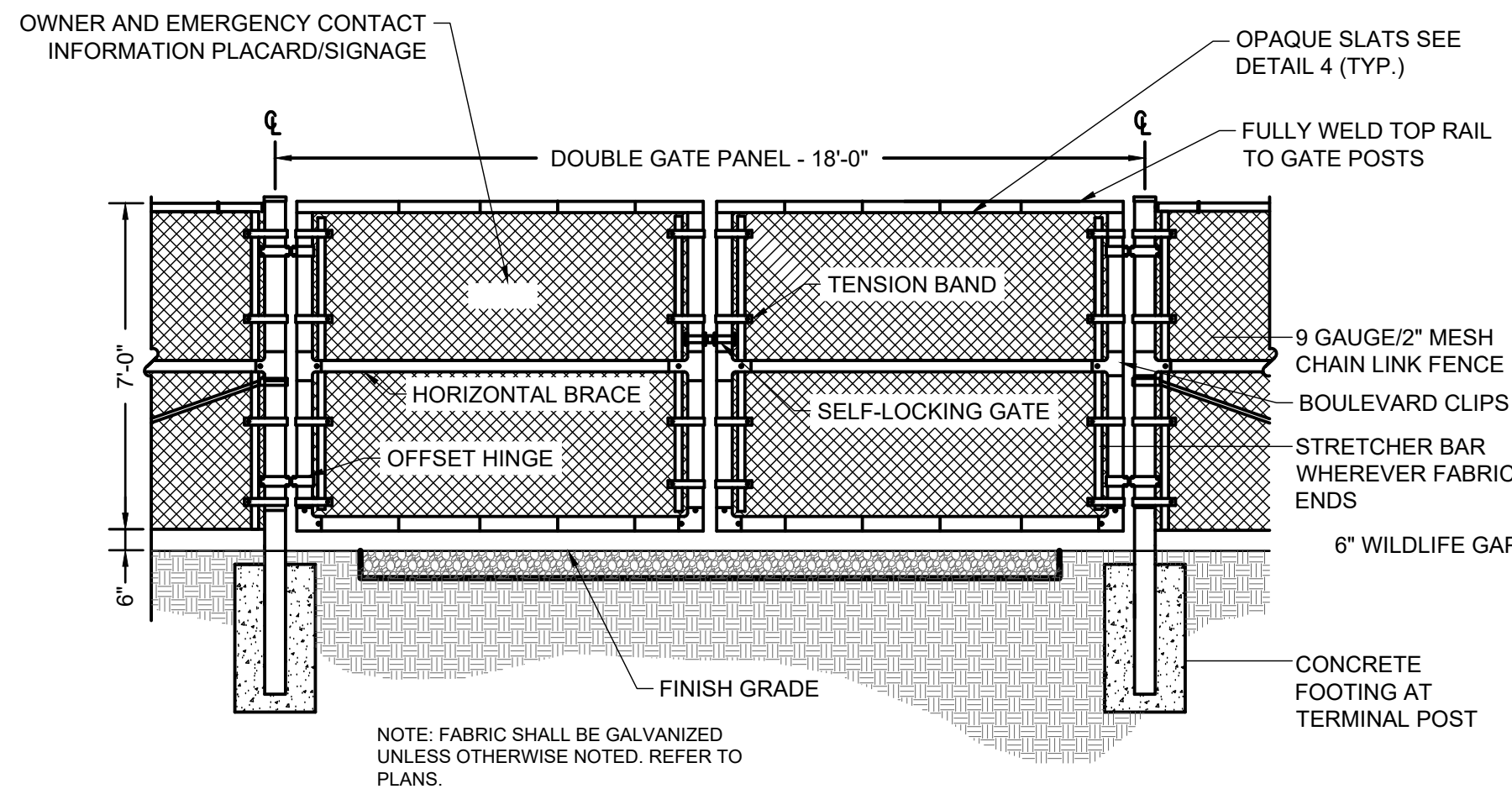
N.T.S.



- NOTES:
- THE FENCE SHALL MEET OR EXCEED THE CHAIN LINK FENCE MANUFACTURER INSTITUTE (CLFMI) GUIDELINES AND RELATED FEDERAL SPECIFICATIONS FOR SECURITY CHAIN LINK FENCE MATERIALS AND INSTALLATION.
 - FENCE MATERIAL AND COMPONENTS SHALL BE GALVANIZED, UNLESS OTHERWISE NOTED.
 - THIS DETAIL NOT APPLICABLE FOR PRIVACY FENCE OR FENCE WITH SLATS.
 - ADJUSTABLE TRUSS ROD AND BRACE RAIL AT CORNER OR END POSTS ONLY, IF REQUIRED BY CLFMI GUIDELINES.

3 TYPICAL CHAIN LINK FENCE WITH WILDLIFE GAP

N.T.S.



NOTE: FABRIC SHALL BE GALVANIZED UNLESS OTHERWISE NOTED. REFER TO PLANS.

4 TYPICAL VEHICLE GATE WITH WILDLIFE GAP

N.T.S.

Attachment 6

Stormwater Management Report prepared by AKRF, Inc. dated April 20, 2026

STORMWATER MANAGEMENT REPORT

For:

VETERAN HILL ROAD SOLAR PROJECT

Town of Veteran
Chemung County, NY 14845
Lot ID: 39.00-1-14.1

Prepared For:

Dynamic Energy LLC

2401 Walnut Street
Suite 503
Philadelphia, PA 19103

Prepared By:

AKRF, Inc.

34 S Broadway
Suite 300
White Plains, NY 10601



Preparation Date:

April 20, 2026

Justin Seeney, PE

Registered Professional Engineer, State of New York No. 095227

AKRF Project Number: 231510

akrf

Table of Contents

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2.0	EXISTING CONDITIONS	3
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3.2	Water Quantity.....	4
4.0	CONCLUSION	5

Figures

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Figure 2	Aerial Map
Figure 3	Flood Insurance Rate map
Figure 4	Hydrologic Soils Map
Figure 5	Pre-Development Drainage Map
Figure 6	Post-Development Drainage Map

Appendices

Appendix A	USDA Web Soil Survey
Appendix B	Water Quality Calculations
Appendix C	Pre-Development HydroCAD Report
Appendix D	Post-Development HydroCAD Report

1.0 EXECUTIVE SUMMARY

On behalf of the Applicant, Dynamic Energy LLC, this Stormwater Management Report and accompanying project plans were prepared by AKRF, Inc. (AKRF) for the proposed project entitled “Veteran Hill Road Solar Project” located in the Town of Veteran in Chemung County, New York. The project proposes to construct a 3.8-megawatt ground-mounted solar array with electrical infrastructure, a gravel access road, and stormwater management facilities.

The Stormwater Management Report was prepared to document the selection, design, installation, implementation, and maintenance of the control measures and practices proposed to minimize the discharge of pollutants and meet applicable water quality standards. The control measures and stormwater practices were selected and designed to comply with the following applicable rules, regulations, and guidance documents established by the New York State Department of Environmental Conservation (NYSDEC):

- NYSDEC State Pollutant Discharge Elimination System (SDPES) General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-25-001 (“Construction General Permit”)
- NYSDEC Stormwater Management Design Manual, dated July 31, 2024 (“Stormwater Design Manual”)
- NYSDEC Standards and Specifications for Erosion and Sediment Control, dated July 2016 (“Blue Book”)

The project proposes to maintain existing drainage patterns as much as practicable and implements runoff reduction techniques and standard post-construction stormwater management practices (SMP) to satisfy water quantity requirements. The proposed SMP’s were designed to meet the performance criteria in the Stormwater Design Manual to mitigate potential impacts on the flow rate of stormwater runoff. A comparison of the overall peak flow rates under pre- and post-development conditions is summarized in the table below:

Table 1: Peak Flow Rate Summary Table

Storm Event	Pre-Development (cfs)	Post-Development (cfs)	Delta (cfs)
1-year	18.09	17.70	- 2.2%
10-year	91.64	92.40	+ 0.8%
100-year	262.94	265.97	+ 1.2%

2.0 EXISTING CONDITIONS

The 145-acre parcel consists predominantly of undeveloped woodlands, agricultural land, and single-family dwellings. The property is bound by Veteran Hills Road to the south, agricultural land to the east and west, and wooded area to the north. Access to the site is through an existing gravel path off Veteran Hill Road that runs along the southern property line.

The property is within the Chemung River watershed and generally drains to the west towards the Catherine Creek tributary to the west according to the existing topography.

3.0 PROPOSED CONDITIONS

The project consists of installing a 3.8-megawatt ground-mounted solar panel system with a footprint of approximately 24 acres in the center of the parcel. A new gravel access road off Veteran Hill Road provides access to panels, transformers, and other electrical equipment. Other improvements include a security fence around the solar racking system as well as stormwater management measures to meet Construction General Permit requirements. The total earth disturbance is estimated to be approximately 35.9 acres.

3.1 Water Quality

The project proposes to meet Appendix B, Table 1 conditions of the Construction General Permit by having the solar panels elevated off the ground, spaced a minimum of one table width apart, not altering hydrology from pre- to post-development conditions, and maintaining sheet flow. The solar panels will be elevated off the ground surface sufficiently enough to allow a well-established vegetative cover. This cover in combination with the vegetative cover between the panels serve as a grass filter strip and disconnection of impervious area, thus satisfying the water quality and runoff reduction volume requirements for the solar panels.

The project will also include traditional impervious area in the form of a gravel access road and gravel equipment pad. A grass filter strip and two bioretention basins will serve as standard SMPs with runoff reduction capacity and were designed in accordance with sizing criteria described in the Stormwater Design Manual. A summary of the stormwater practice, contributing areas, and water quality volumes are listed in the table below.

Table 2: Water Quality Summary

RR Technique	NYSDEC Design Variant	RRv Capacity	WQv Required (cf)	RRv Provided (cf)	WQv Treated (cf)	Total Treatment Provided (cf)
Sheetflow to Grass Filter Strip	RR-2	100%	724	724	0	724
Filtration Bioretention	F-5	40%	906	431	474	906
Filtration Bioretention	F-5	40%	3,944	2,015	1,929	3,944
Total			5,574	3,171	2,403	5,574

Minimum required Runoff Reduction Volume (RRv) = 1,394 CF
 Provided Runoff Reduction Volume = 3,171 CF

Refer to [Appendix B](#) for supporting calculations and additional information.

3.2 Water Quantity

A hydrologic analysis was completed using HydroCAD, a hydrologic modeling program that implements the USDA Soil Conservation Service Publication Technical Release (TR-55), to compare the peak flow rates under pre- and post-development conditions for the 1-, 10-, and 100-year, 24-hour storm events. Precipitation data for these storm events were obtained from Cornell's Extreme Precipitation Website which utilizes data collected from the Northeast Regional Climate Center (NRCC). A summary of the precipitation values can be found in the table below.

Table 3: Precipitation Values

Storm Event	Precipitation
1-year	1.93 inches
10-year	3.42 inches
100-year	5.90 inches

The overall watershed of the site was divided into 4 design points. Results of the hydrologic analysis comparing the peak flow rates are summarized in the table below. Refer to [Figures 5 and 6](#) as well as [Appendices C and D](#) for additional information.

Table 4: Pre- and Post-Development Peak Flow Rate Summary

Design Point	Storm Event	Pre-Developed Peak Flow Rate (cfs)	Post- Developed Peak Flow Rate (cfs)	Delta (%)
DP-1	1-year	9.02	9.01	- 0.1%
	10-year	46.26	46.01	- 0.5%
	100-year	133.8	132.82	- 0.7%
DP-2	1-year	3.81	3.92	+ 2.9%
	10-year	21.16	21.72	+2.6%
	100-year	63.06	64.64	+2.5%
DP-3	1-year	1.61	1.26	- 21.7%
	10-year	7.87	7.65	- 2.8%
	100-year	21.77	22.29	+ 2.4%
DP-4	1-year	3.65	3.51	- 3.8%
	10-year	16.35	17.02	+ 4.1%
	100-year	44.31	46.22	+ 4.3%

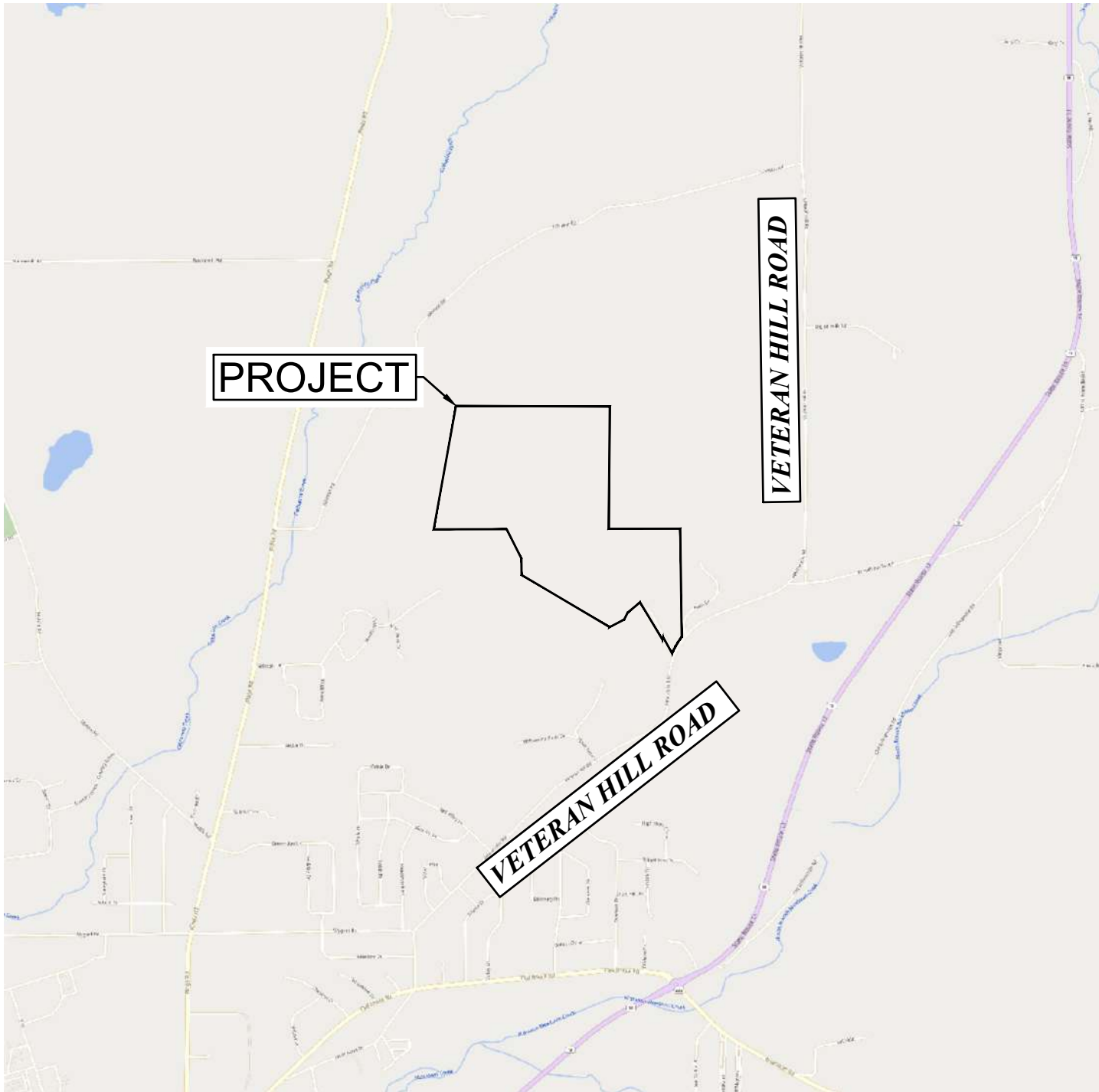
Based on the results of the hydrologic analysis, a comparison of the pre- and post-development conditions concludes that the post-development improvements will not alter the hydrology at each design point, which the Construction General Permit defines as an increase by more than 5% of the pre-developed conditions.

4.0 CONCLUSION

As described in this Stormwater Management Report, this project proposes to implement several post construction stormwater management practices to meet water quality, water quantity, and runoff reduction requirements based on the NYSDEC Construction General Permit. Such stormwater practices include grass filter strips, filtration bioretention basins, and a dry detention basin which were designed based on the performance criteria in the Stormwater Design Manual. Therefore, the supporting calculations and hydrologic analysis described in this Report have demonstrated that effective measures will be implemented as part of this project to improve water quantity within the surrounding and downstream areas.

FIGURES

**Site Location Map
Aerial Map
Flood Insurance Rate Map
Hydrologic Soils Map
Pre-Development Drainage Map
Post-Development Drainage Map**



SCALE: 1" = 2000'

CLIENT
DYNAMIC ENERGY LLC
1550 LIBERTY RIDGE DR., SUITE 310
WAYNE, PA 19087

SITE/CIVIL ENGINEER
akrf
AKRF INC.
34 SOUTH BROADWAY, SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336 (PHONE)

PROJECT
**VETERAN HILL
SOLAR PROJECT**

DRAWN BY
JM/AL

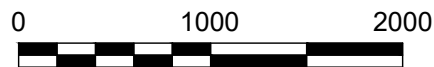
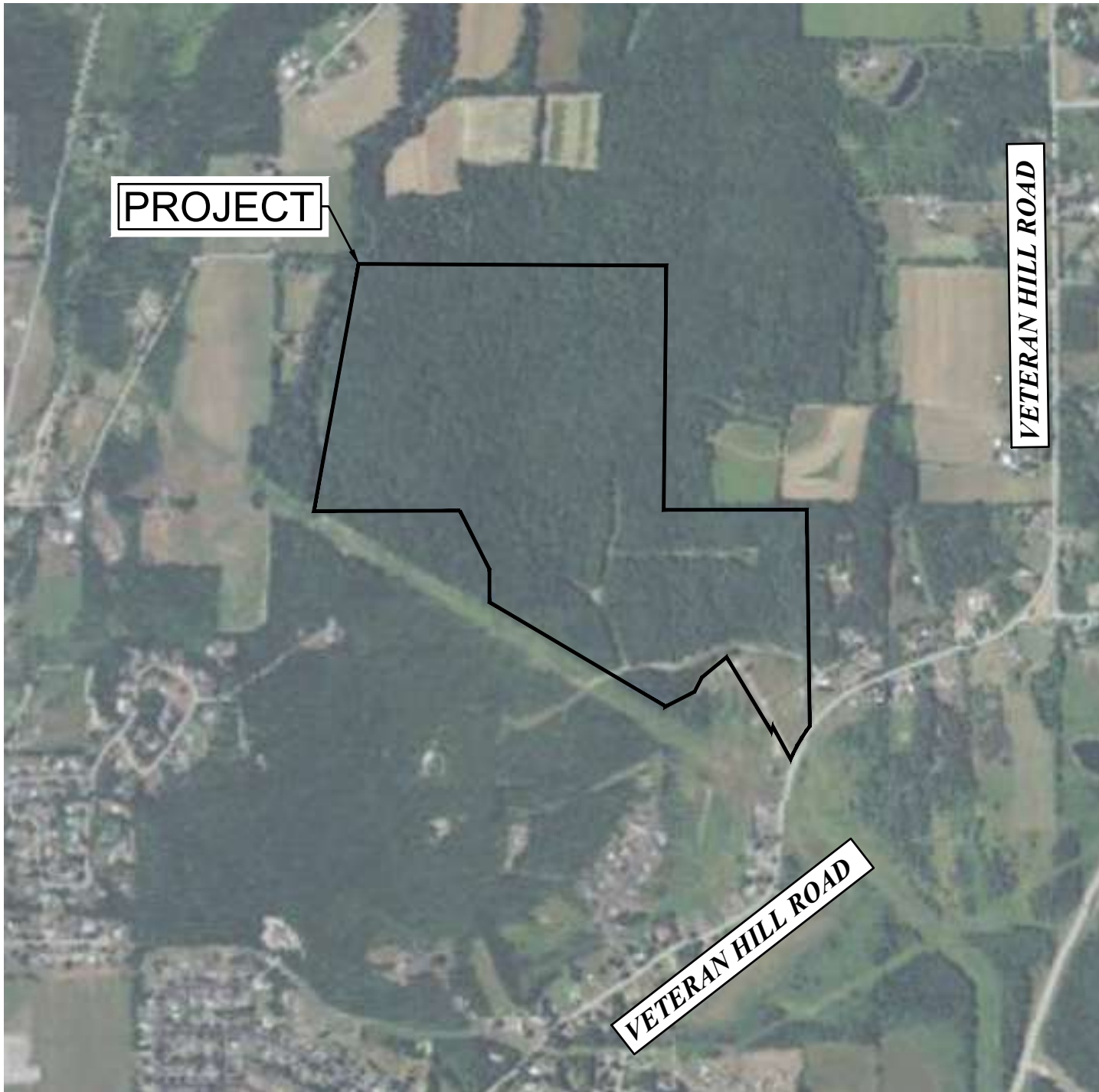
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AS SHOWN

CHECKED BY
JS

DATE
04/20/2026

SHEET TITLE
**SITE LOCATION
MAP**

SHEET NO.
FIGURE 1



SCALE: 1" = 1000'

CLIENT
DYNAMIC ENERGY LLC
1550 LIBERTY RIDGE DR., SUITE 310
WAYNE, PA 19087

SITE/CIVIL ENGINEER
akrf
AKRF INC.
34 SOUTH BROADWAY, SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336 (PHONE)

PROJECT
**VETERAN HILL
SOLAR PROJECT**

DRAWN BY
JM/AL

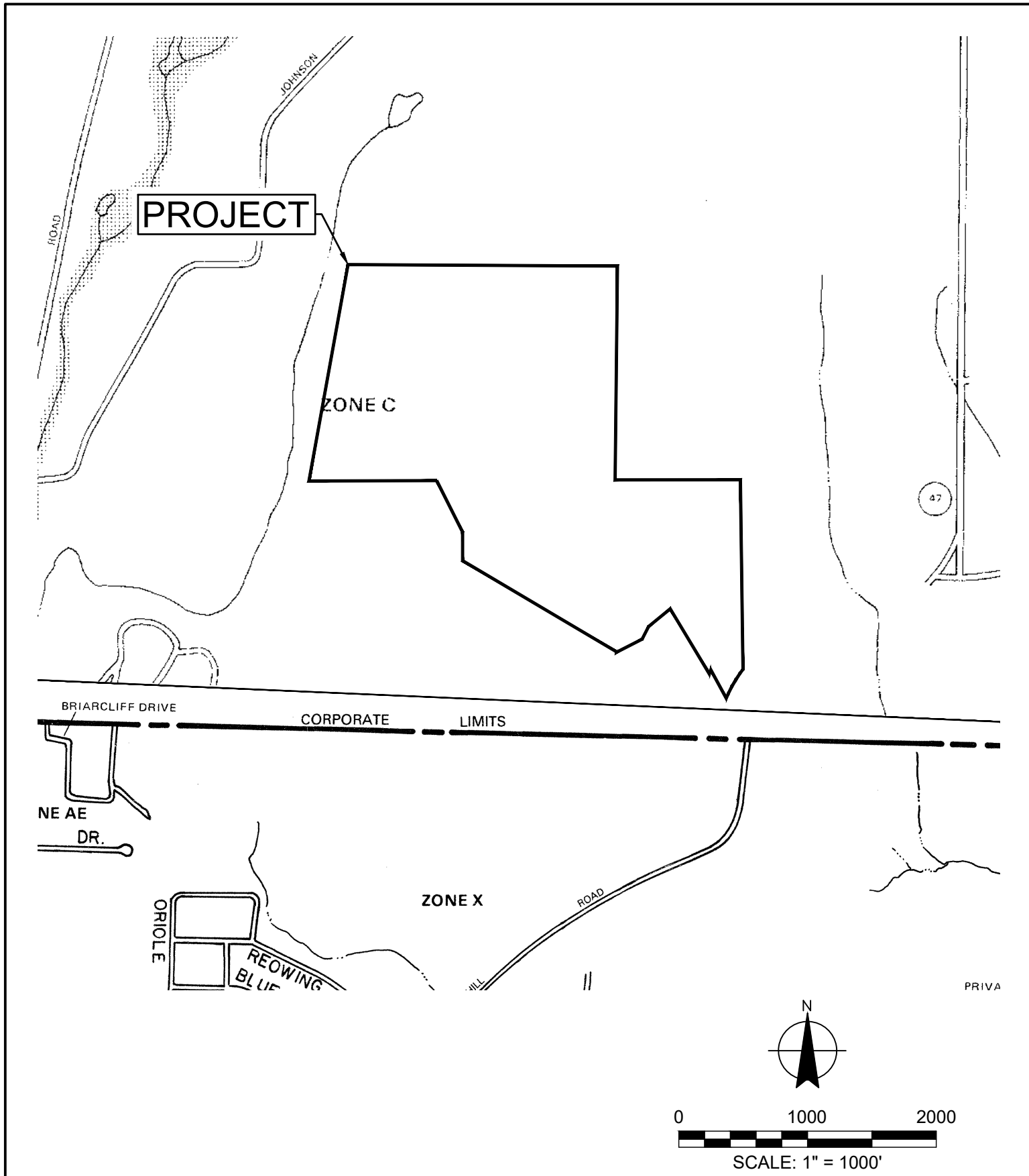
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DATE
04/20/2026

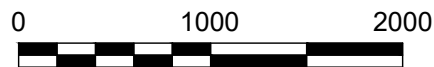
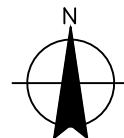
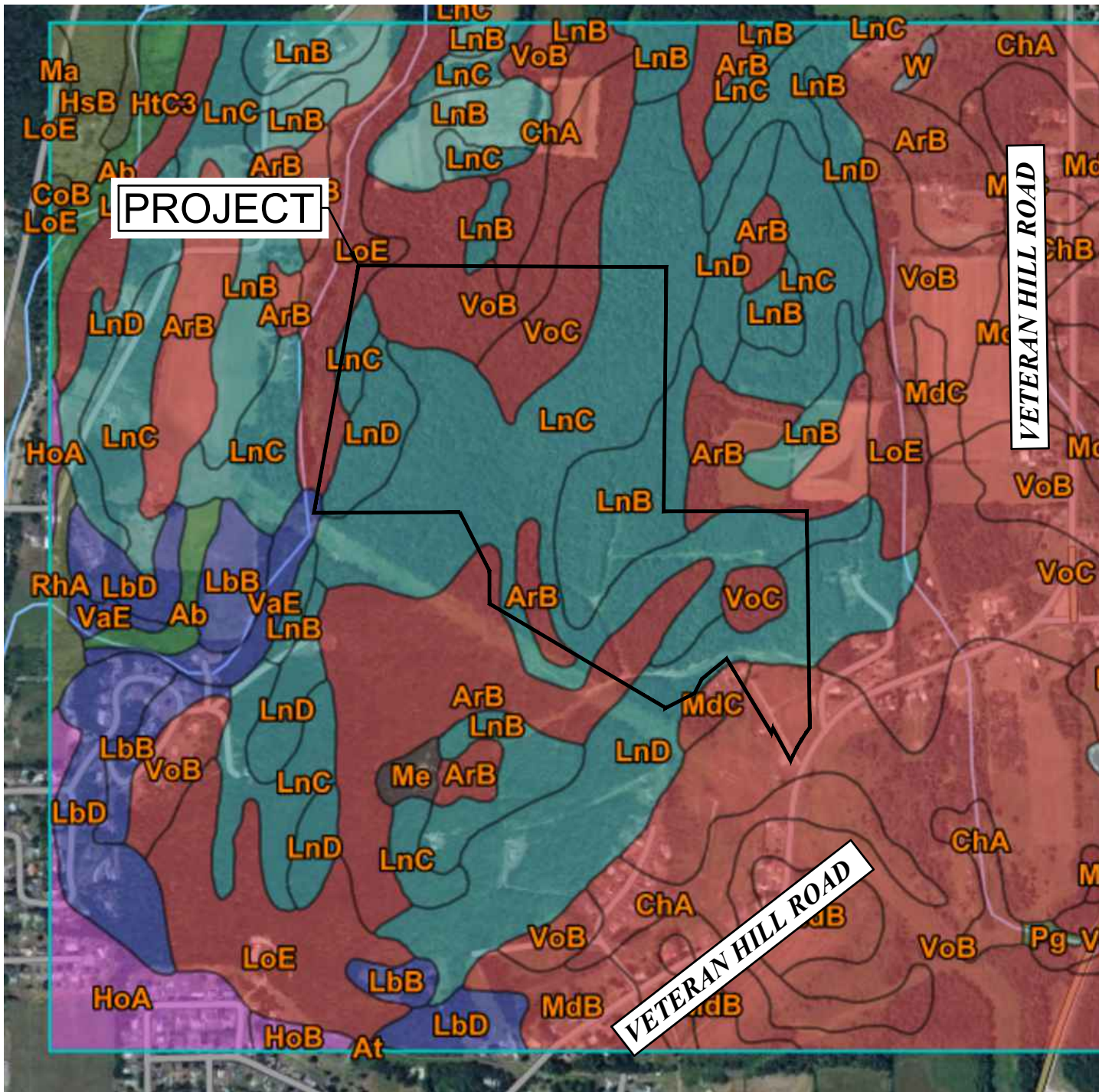
SHEET TITLE
AERIAL MAP

SHEET NO.
FIGURE 2



CLIENT DYNAMIC ENERGY LLC 1550 LIBERTY RIDGE DR., SUITE 310 WAYNE, PA 19087	SITE/CIVIL ENGINEER  AKRF INC. 34 SOUTH BROADWAY, SUITE 300 WHITE PLAINS, NY 10601 (914) 949-7336 (PHONE)	PROJECT VETERAN HILL SOLAR PROJECT	SHEET TITLE FLOOD INSURANCE MAP
		DRAWN BY JM/AL	CHECKED BY JS
		SCALE AS SHOWN	DATE 04/20/2026
SHEET NO. FIGURE 3			

Z:\Projects\231510 - DYNAMIC ENERGY VETERAN HILL SOLAR\Drawings\Figures\SWPPP Figures.dwg, FIGURE 3, alajqi



SCALE: 1" = 1000'

CLIENT
DYNAMIC ENERGY LLC
1550 LIBERTY RIDGE DR., SUITE 310
WAYNE, PA 19087

SITE/CIVIL ENGINEER
akrf
AKRF INC.
34 SOUTH BROADWAY, SUITE 300
WHITE PLAINS, NY 10601
(914) 949-7336 (PHONE)

PROJECT
**VETERAN HILL
SOLAR PROJECT**

DRAWN BY
JM/AL

SCALE
AS SHOWN

CHECKED BY
JS

DATE
04/20/2026

SHEET TITLE
**HYDROLOGIC
SOILS MAP**

SHEET NO.
FIGURE 4

OWNER

DYNAMIC ENERGY LLC

2401 WALNUT STREET, SUITE 503
PHILADELPHIA, PA 19103

PROJECT

**VETERAN HILL ROAD
SOLAR PROJECT**

TOWN OF VETERAN
CHEMUNG COUNTY, NY 14845

MILESTONE

SITE PLAN APPROVAL

REV.	DESCRIPTION	DATE

DESIGN PROFESSIONAL

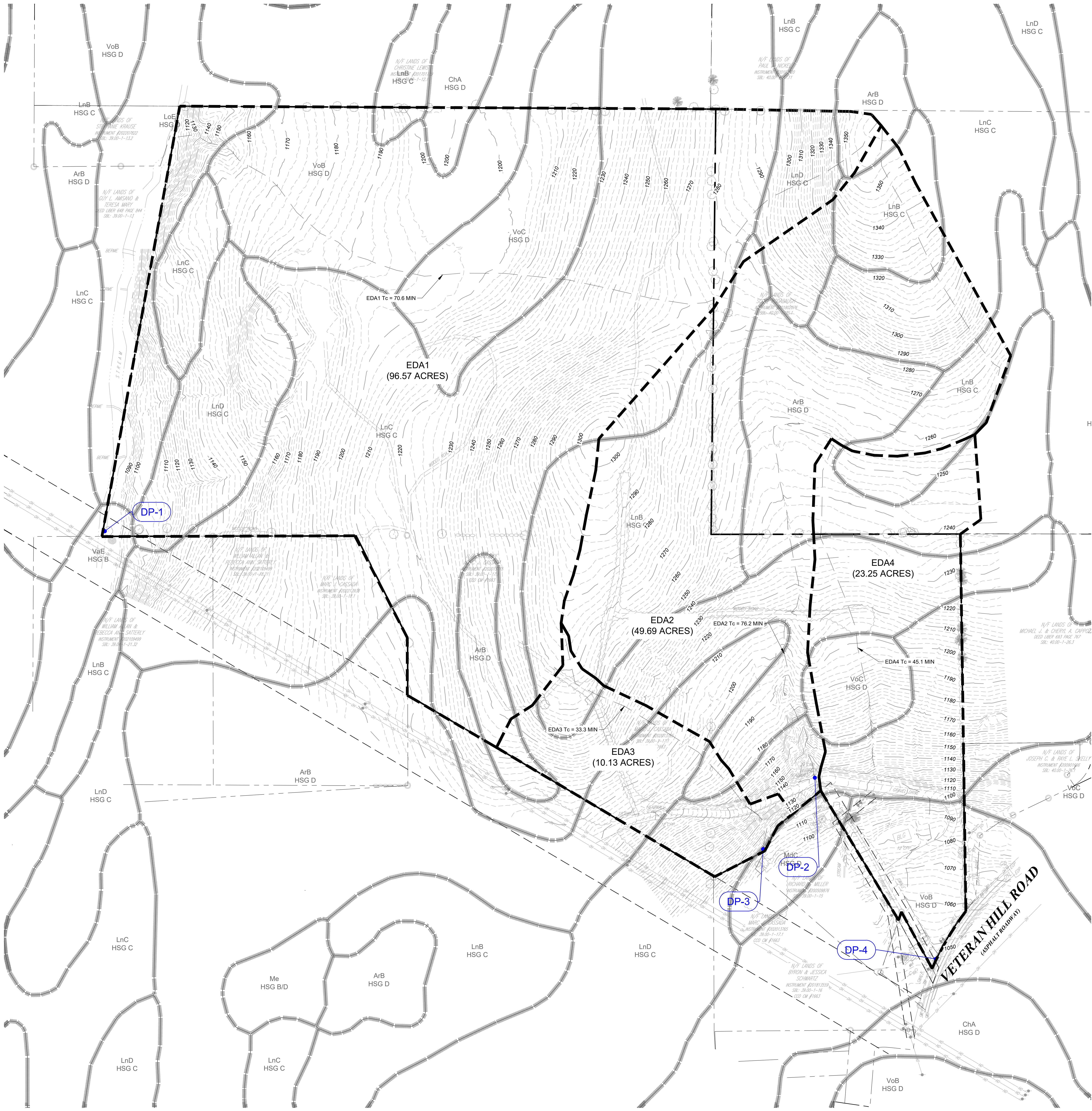
JUSTIN H. SEENEY P.E.
NY PROFESSIONAL ENGINEER NO. 095227

PROJECT #:	231510
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DRAWN BY:	DC
CHECKED BY:	JM / JS
SHEET TITLE:	

**EXISTING DRAINAGE
AREA PLAN**

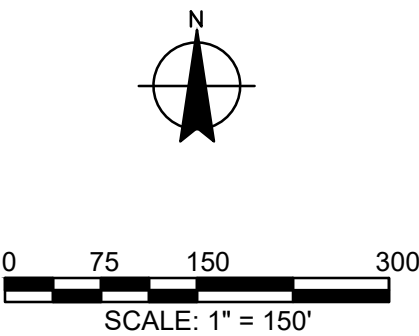
SHEET NUMBER:

C601



EXISTING LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING CONTOUR
- EXISTING STEEP SLOPE (10%-15%)
- EXISTING STEEP SLOPE (>15%)
- EXISTING FEMA ZONE AE FLOODPLAIN
- EXISTING PERENNIAL STREAM
- EXISTING WETLANDS
- EXISTING WOODED AREA
- EXISTING SOIL BOUNDARY
- EXISTING SOIL TYPE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UTILITY POLE
- EXISTING BUILDING
- 532 EXISTING CONTOUR
- DRAINAGE BOUNDARY
- TIME OF CONCENTRATION



OWNER

DYNAMIC ENERGY LLC

2401 WALNUT STREET, SUITE 503
PHILADELPHIA, PA 19103

PROJECT

**VETERAN HILL ROAD
SOLAR PROJECT**

TOWN OF VETERAN
CHEMUNG COUNTY, NY 14845

MILESTONE

SITE PLAN APPROVAL

REV.	DESCRIPTION	DATE

DESIGN PROFESSIONAL

JUSTIN H. SEENEY P.E.
NY PROFESSIONAL ENGINEER NO. 095227

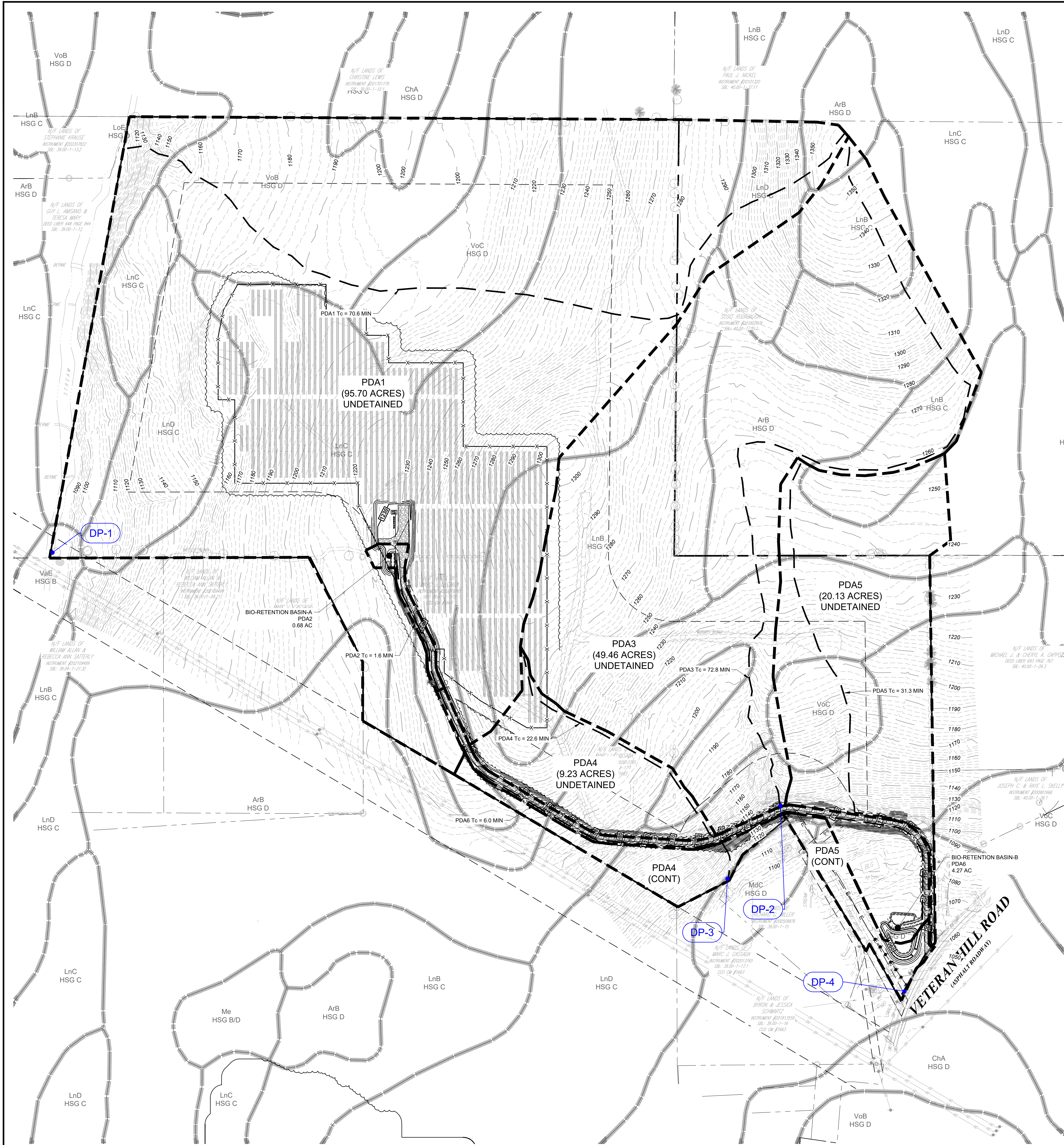
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DATE:	04/20/2026
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DRAWN BY:	DC
CHECKED BY:	JM / JS

SHEET TITLE:

**PROPOSED
DRAINAGE AREA
PLAN**

SHEET NUMBER:

C602



EXISTING LEGEND

- EXISTING PROPERTY BOUNDARY
- EXISTING CONTOUR
- EXISTING STEEP SLOPE (10%-15%)
- EXISTING STEEP SLOPE (>15%)
- EXISTING FEMA ZONE AE FLOODPLAIN
- EXISTING PERENNIAL STREAM
- EXISTING WETLANDS
- EXISTING WOODED AREA
- EXISTING SOIL BOUNDARY
- EXISTING SOIL TYPE
- EXISTING OVERHEAD ELECTRIC
- EXISTING UTILITY POLE
- EXISTING BUILDING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DRAINAGE BOUNDARY
- TIME OF CONCENTRATION

APPENDIX A

USDA Web Soil Survey



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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: Chemung County, New York

Survey Area Data: Version 23, Aug 27, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 1, 2020—Oct 1, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ab	Alluvial land	A/D	21.0	1.7%
ArB	Arnot channery silt loam, 2 to 8 percent slopes	D	139.7	11.2%
At	Atherton mucky silt loam	B/D	0.3	0.0%
ChA	Chippewa silt loam, 0 to 3 percent slopes	D	51.1	4.1%
ChB	Chippewa silt loam, 3 to 8 percent slopes	D	5.4	0.4%
CoB	Collamer silt loam, 3 to 8 percent slopes	C/D	0.8	0.1%
HoA	Howard gravelly silt loam, 0 to 3 percent slopes	A	23.0	1.9%
HoB	Howard gravelly silt loam, 3 to 8 percent slopes	A	2.6	0.2%
HsB	Hudson silt loam, gravelly substratum, 2 to 8 percent slopes	C/D	8.7	0.7%
HtC3	Hudson silty clay loam, gravelly substratum, 8 to 20 percent slopes, eroded	C/D	2.1	0.2%
LbB	Lansing gravelly silt loam, 3 to 8 percent slopes	B	16.6	1.3%
LbD	Lansing gravelly silt loam, 15 to 25 percent slopes	B	35.2	2.8%
LnB	Lordstown channery silt loam, 2 to 8 percent slopes	C	106.9	8.6%
LnC	Lordstown channery silt loam, 8 to 15 percent slopes	C	183.4	14.8%
LnD	Lordstown channery silt loam, 15 to 25 percent slopes	C	96.3	7.7%
LoE	Lordstown and Arnot soils, 25 to 35 percent slopes, very rocky	D	76.4	6.1%
Ma	Madalin silt loam, gravelly substratum	C/D	1.7	0.1%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
MdB	Mardin channery silt loam, 2 to 8 percent slopes	D	92.4	7.4%
MdC	Mardin channery silt loam, 8 to 15 percent slopes	D	25.0	2.0%
MdD	Mardin channery silt loam, 15 to 25 percent slopes	D	15.7	1.3%
Me	Middlebury silt loam	B/D	2.8	0.2%
Pg	Papakating silt loam	C/D	1.0	0.1%
RhA	Rhinebeck silt loam, gravelly substratum, 0 to 3 percent slopes	C/D	4.8	0.4%
TuB	Tuller channery silt loam, 0 to 8 percent slopes	D	3.7	0.3%
VaE	Valois gravelly loam, 25 to 40 percent slopes	B	10.2	0.8%
VoB	Volusia channery silt loam, 2 to 8 percent slopes	D	229.6	18.5%
VoC	Volusia channery silt loam, 8 to 15 percent slopes	D	78.7	6.3%
W	Water		7.7	0.6%
Totals for Area of Interest			1,242.9	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

APPENDIX B

Water Quality Calculations

Provided Water Quality Volume Calculation

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?						
						No
What is the nature of this construction project? Redevelopment with no increase in impervious area						
Design Point = 1, 2, 3, & 4			Enter 90% Rainfall Event as P			
P = 1.00 inches						
Calculate WQv						
Drainage Area Number	Contributing Area (acres)	Impervious Area (acres)	Percent Impervious (%)	Runoff Coefficient, Rv	WQv (cf)	SMP Description
1	0.39	0.20	51%	0.51	724	Sheetflow to Grass Filter Strip
PDA2	0.67	0.24	36%	0.37	906	Filtration Bioretention
PDA3	4.27	0.97	23%	0.25	3,944	Filtration Bioretention
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	5.33	1.41	26%	0.29	5,574	

Required WQv = 0.128 af

Apply RRv Techniques and Standard SMP's

Runoff Reduction Volume and Treated Volumes						
Runoff Reduction Techniques / Standard SMPs			Total Contributing Area (acres)	Total Contributing Impervious Area (acres)	WQv Reduced, RRv (cf)	WQv Treated (cf)
RR Techniques	Conservation of Natural Areas	RR-1				
	Sheetflow to Riparian Buffer/Filter Strip	RR-2	0.39	0.20	724	
	Tree Planting/Tree Pit/Tree Trench	RR-3				
	Disconnection of Rooftop Runoff	RR-4				
	Vegetated Swale	RR-5				
	Rain Garden	RR-6				
	Stormwater Planter	RR-7				
	Rainwater Harvesting Systems	RR-8				
	Porous Pavement	RR-9				
	Green Roof (Extensive & Intensive)	RR-10				
	Stream Daylighting	RR-11				
Standard SMPs w/ RRv Capacity	Infiltration Trench	I-1				
	Infiltration Basin	I-2				
	Dry Well	I-3				
	Underground Infiltration System	I-4				
	Infiltration Bioretention	F-4				
	Filtration Bioretention	F-5	4.94	1.21	2,446	2,403
	Bioslope	F-6				
	Dry Swale	O-1				
Standard SMPs	Micropool Extended Detention	P-1				
	Wet Pond	P-2				
	Wet Extended Detention	P-3				
	Multiple Pond System	P-4				
	Shallow Wetland	W-1				
	Ext. Detention Shallow Wetland	W-2				
	Pont / Wetland System	W-3				
	Pocket Wetland	W-4				
	Gravel Wetland	W-5				
	Surface Sand Filter	F-1				
	Underground Sand Filter	F-2				
	Perimeter Sand Filter	F-3				
	Wet Swale	O-2				
Alt SMP	Flow Based Alternative Practice	-				
	Volume Based Alternative Practice	-				
Totals by RR Technique →			0.39	0.20	724	
Totals by Standard SMP w/ RRv →			4.94	1.21	2,446	2,403
Totals by Standard SMP →			0.00	0.00		0
Totals by Alternative SMP →			0.00	0.00		0
Totals (RR Technique + All SMPs) →			5.33	1.41	3,171	2,403

Calculate Minimum RRv Required

Enter the Soils Data for the Site		
Hydrologic Soil Group	Acres	S
A		55%
B		40%
C	0.84	30%
D	0.76	20%

Total Area 1.6

Calculate the Minimum RRv		
S =	0.2525	
Impervious =	1.6	acres
Precipitation =	1.00	inches
Rv =	0.95	
Minimum RRv	0.032	af
	1,394	cf

Sheet Flow to Grass Filter Strip (RR-2)

Design Point	1, 2, 3, & 4					
Enter Site Data for Drainage Area to be Treated by Practice						
Drainage Area Number	Contributing Area (acres)	Impervious Area (acres)	Percent Impervious (%)	Rv	WQv (cf)	SMP Description
1	0.39	0.2	51%	0.51	724	Grass Filter Strip
Design Criteria						
Is the contributing area a designated hotspot?				No		
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?				Yes		
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?				Yes		
Enter the total length of contributing flow path (ft)				70		
Enter the length of contributing flow path from impervious surfaces (ft)				70		
Enter the slope of contributing flow path (%)				2		
Minimum buffer length based on contributing flow path slope (ft)				35		
Enter the slope of the first 10 ft of the buffer (%)				2		
Sizing Criteria						
				Value	Units	Notes
Enter Travel Time through Buffer <i>T</i>				6	min	
Enter 2-yr 24-hr Rainfall Depth <i>P</i>				2.34	inch	
Enter Overall Buffer Slope <i>S</i>				0.0200	ft/ft	
Enter Manning's Coefficient for Buffer <i>n</i>				0.24		
Calculated Minimum Length of Buffer <i>L</i>				28	ft	
Minimum Length of Buffer <i>L</i>				35	ft	
Select HSG				C		
Required Length of Buffer <i>L</i>				40	ft	
Enter Provided Length of Buffer <i>L</i>				40	ft	
Determine for Water Quality Volume Treated						
Water Quality Volume Treated				724	cf	
Runoff Reduction Credit				100%		
RRv Provided				724	cf	

Filtration Bioretention (F-5)

Design Point 1, 2, 3, & 4

Enter Site Data for Drainage Area to be Treated by Practice						
Drainage Area Number	Contributing Area (acres)	Impervious Area (acres)	Percent Impervious (%)	Rv	WQv (cf)	SMP Description
PDA2	0.67	0.24	36%	0.37	906	Filtration Bioretention
Design Criteria						
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)			0.0	in/hr	Underdrains required	
Is the contributing area to the practice a stormwater hotspot?			No			
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?			No			
Is contributing area greater than max. contributing area?			No			
Enter depth to seasonal high water table			>2	ft		
Enter depth to bedrock			>2	ft		
Is pretreatment provided, in conformance with Section 6.4.3.1?			Yes			
Enter average height of ponding			0.25	ft		
Enter depth of surface layer			3	in		
Enter depth of filter media			2.5	ft		
Enter depth of drainage layer			10	in		
Enter slope of maintenance access			15	%		
Enter width of maintenance access			12	ft		

Sizing Criteria				
		Value	Units	Notes
Permeability Flow Rate	k	1	ft/day	
Filter Time	tf	2	days	
Required Filter Area	Af	412	sf	
Enter Provided Filter Area	Af	490	sf	
Recalculated Water Quality Volume (Based on provided filter area)				
	WQv calc	1,078	cf	

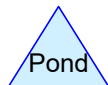
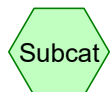
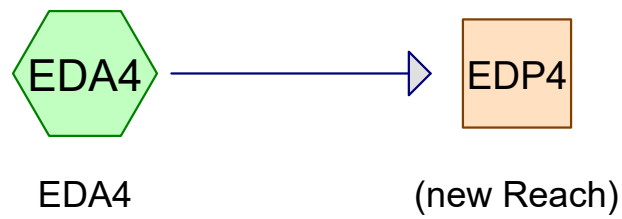
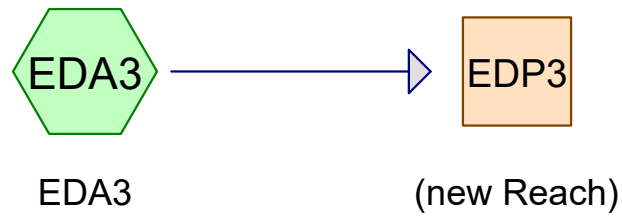
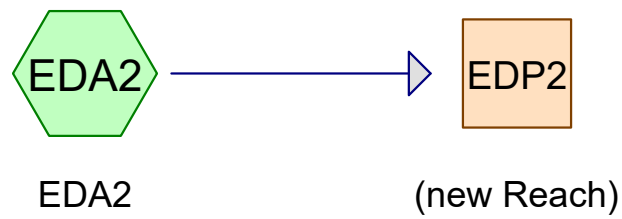
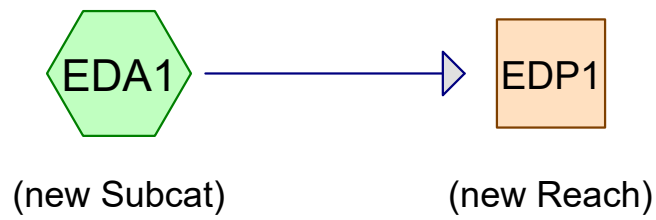
Determine for Water Quality Volume Treated		
WQv calc	1,078	cf
Runoff Reduction Credit	40%	
RRv Provided	431	cf
WQv Treated	474	cf

Filtration Bioretention (F-5)

Design Point	1, 2, 3, & 4					
Enter Site Data for Drainage Area to be Treated by Practice						
Drainage Area Number	Contributing Area (acres)	Impervious Area (acres)	Percent Impervious (%)	Rv	WQv (cf)	SMP Description
PDA3	4.27	0.97	23%	0.25	3,944	Filtration Bioretention
Design Criteria						
Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D)			0.0	in/hr	Underdrains required	
Is the contributing area to the practice a stormwater hotspot?			No			
Is the practice the first in series for treatment of a Level 1 (Infiltration Restricted) hotspot?			No			
Is contributing area greater than max. contributing area?			No			
Enter depth to seasonal high water table			>2	ft		
Enter depth to bedrock			>2	ft		
Is pretreatment provided, in conformance with Section 6.4.3.1?			Yes			
Enter average height of ponding			0.25	ft		
Enter depth of surface layer			3	in		
Enter depth of filter media			2.5	ft		
Enter depth of drainage layer			10	in		
Enter slope of maintenance access			15	%		
Enter width of maintenance access			12	ft		
Sizing Criteria						
		Value	Units	Notes		
Permeability Flow Rate	k	1	ft/day			
Filter Time	tf	2	days			
Required Filter Area	Af	1,793	sf			
Enter Provided Filter Area	Af	2,290	sf			
Recalculated Water Quality Volume (Based on provided filter area)		WQv calc	5,038	cf		
Determine for Water Quality Volume Treated						
WQv calc		5,038	cf			
Runoff Reduction Credit		40%				
RRv Provided		2,015	cf			
WQv Treated		1,929	cf			

APPENDIX C

Pre-Development HydroCAD Report



Veteran Hill Solar - Existing Conditions

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY - Veteran Solar 24-hr S1	1-yr	Default	24.00	1	1.93	2
2	10-yr	NY - Veteran Solar 24-hr S1	10-yr	Default	24.00	1	3.42	2
3	100-yr	NY - Veteran Solar 24-hr S1	100-yr	Default	24.00	1	5.90	2

Veteran Hill Solar - Existing Conditions

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.130	65	Brush, Good, HSG C (EDA1)
0.070	73	Brush, Good, HSG D (EDA1)
3.000	96	Gravel surface, HSG C (EDA1, EDA2, EDA3, EDA4)
1.010	96	Gravel surface, HSG D (EDA1, EDA2, EDA3, EDA4)
6.750	71	Meadow, non-grazed, HSG C (EDA2, EDA3, EDA4)
15.740	78	Meadow, non-grazed, HSG D (EDA1, EDA2, EDA3, EDA4)
0.290	55	Woods, Good, HSG B (EDA1)
110.260	70	Woods, Good, HSG C (EDA1, EDA2, EDA3, EDA4)
42.370	77	Woods, Good, HSG D (EDA1, EDA2, EDA3, EDA4)

Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEDA1: (new Subcat)

Runoff Area=96.560 ac 0.00% Impervious Runoff Depth>0.24"
Flow Length=3,298' Tc=70.6 min CN=73 Runoff=9.02 cfs 1.909 af

SubcatchmentEDA2: EDA2

Runoff Area=49.680 ac 0.00% Impervious Runoff Depth>0.21"
Flow Length=3,595' Tc=76.2 min CN=72 Runoff=3.81 cfs 0.880 af

SubcatchmentEDA3: EDA3

Runoff Area=10.140 ac 0.00% Impervious Runoff Depth>0.27"
Flow Length=1,215' Tc=33.3 min CN=74 Runoff=1.61 cfs 0.228 af

SubcatchmentEDA4: EDA4

Runoff Area=23.240 ac 0.00% Impervious Runoff Depth>0.29"
Flow Length=2,299' Tc=45.1 min CN=75 Runoff=3.65 cfs 0.570 af

Reach EDP1: (new Reach)

Inflow=9.02 cfs 1.909 af
Outflow=9.02 cfs 1.909 af

Reach EDP2: (new Reach)

Inflow=3.81 cfs 0.880 af
Outflow=3.81 cfs 0.880 af

Reach EDP3: (new Reach)

Inflow=1.61 cfs 0.228 af
Outflow=1.61 cfs 0.228 af

Reach EDP4: (new Reach)

Inflow=3.65 cfs 0.570 af
Outflow=3.65 cfs 0.570 af

Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

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Summary for Subcatchment EDA1: (new Subcat)

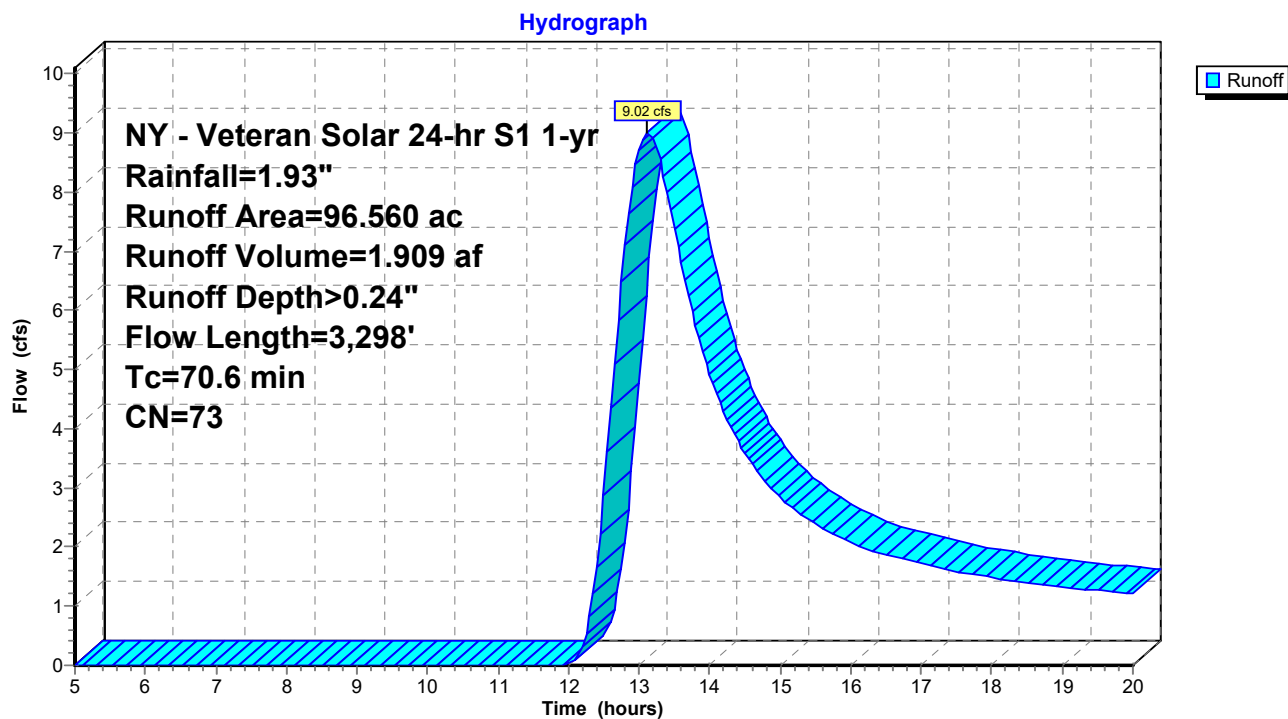
Runoff = 9.02 cfs @ 13.12 hrs, Volume= 1.909 af, Depth> 0.24"
 Routed to Reach EDP1 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
1.180	96	Gravel surface, HSG C
0.190	96	Gravel surface, HSG D
0.130	65	Brush, Good, HSG C
0.070	73	Brush, Good, HSG D
5.960	78	Meadow, non-grazed, HSG D
0.290	55	Woods, Good, HSG B
62.870	70	Woods, Good, HSG C
25.870	77	Woods, Good, HSG D
96.560	73	Weighted Average
96.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.8	150	0.0231	0.08		Sheet Flow, SEG 1
					Woods: Light underbrush n= 0.400 P2= 2.34"
37.8	3,148	0.0770	1.39		Shallow Concentrated Flow, SEG 2
					Woodland Kv= 5.0 fps
70.6	3,298	Total			

Subcatchment EDA1: (new Subcat)



Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

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Summary for Subcatchment EDA2: EDA2

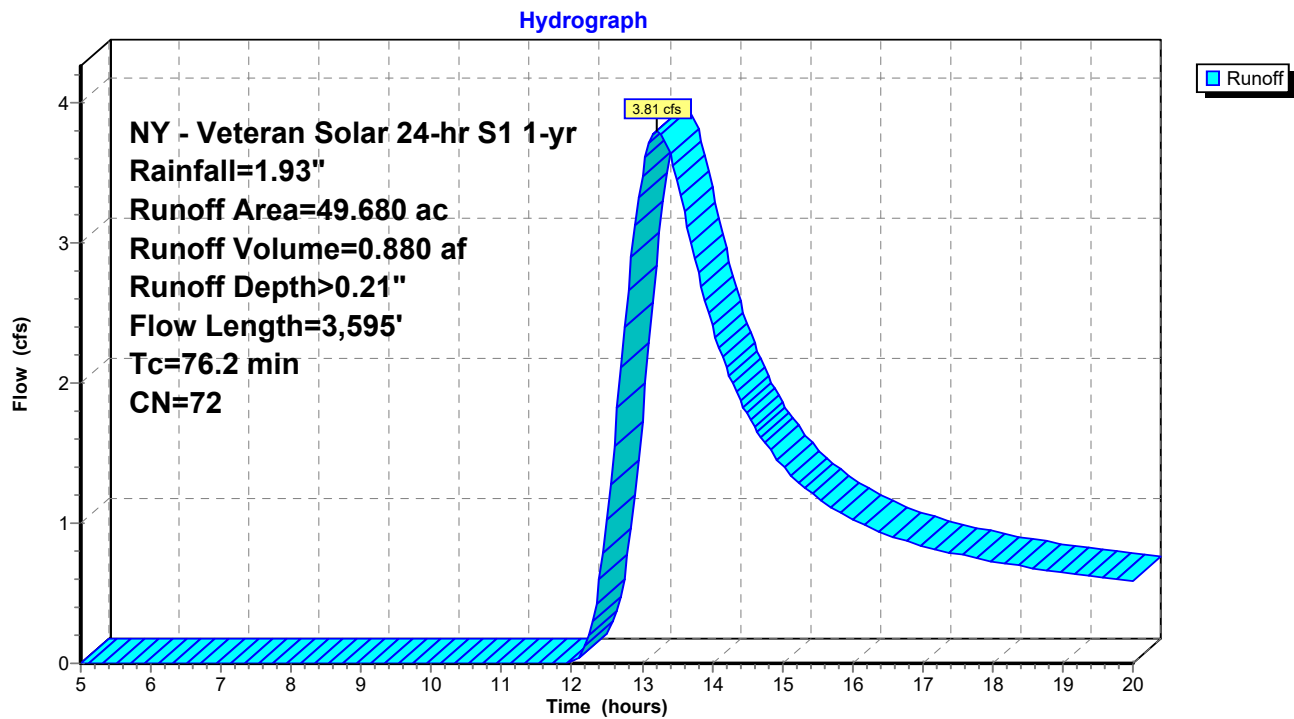
Runoff = 3.81 cfs @ 13.22 hrs, Volume= 0.880 af, Depth> 0.21"
 Routed to Reach EDP2 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
0.820	96	Gravel surface, HSG C
0.020	96	Gravel surface, HSG D
3.610	71	Meadow, non-grazed, HSG C
33.200	70	Woods, Good, HSG C
9.530	77	Woods, Good, HSG D
2.500	78	Meadow, non-grazed, HSG D
49.680	72	Weighted Average
49.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.3	150	0.0305	0.09		Sheet Flow, SEG1
					Woods: Light underbrush n= 0.400 P2= 2.34"
40.1	2,740	0.0519	1.14		Shallow Concentrated Flow, SEG2
					Woodland Kv= 5.0 fps
0.6	53	0.0418	1.43		Shallow Concentrated Flow, SEG3
					Short Grass Pasture Kv= 7.0 fps
5.8	613	0.1248	1.77		Shallow Concentrated Flow, SEG4
					Woodland Kv= 5.0 fps
0.4	39	0.0669	1.81		Shallow Concentrated Flow, SEG5
					Short Grass Pasture Kv= 7.0 fps
76.2	3,595	Total			

Subcatchment EDA2: EDA2



Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

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Summary for Subcatchment EDA3: EDA3

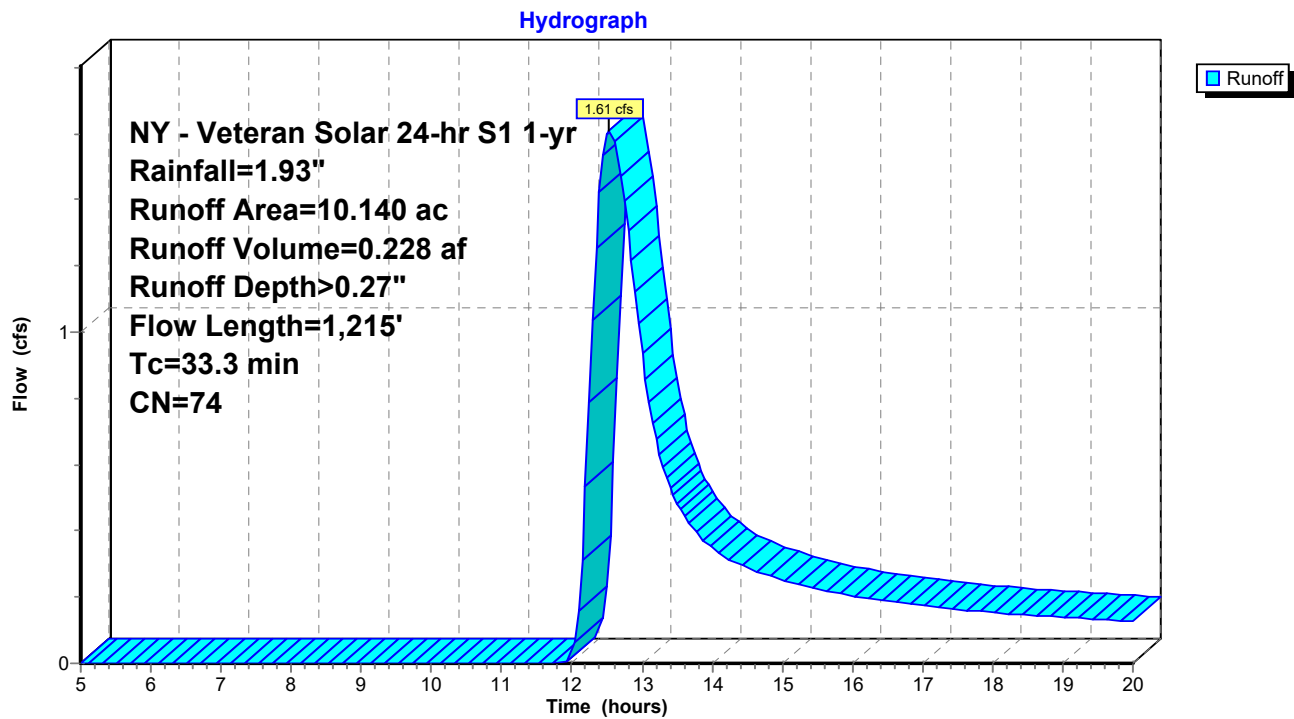
Runoff = 1.61 cfs @ 12.54 hrs, Volume= 0.228 af, Depth> 0.27"
 Routed to Reach EDP3 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
0.560	96	Gravel surface, HSG C
0.330	96	Gravel surface, HSG D
0.480	71	Meadow, non-grazed, HSG C
0.230	78	Meadow, non-grazed, HSG D
5.810	70	Woods, Good, HSG C
2.730	77	Woods, Good, HSG D
10.140	74	Weighted Average
10.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.7	150	0.0470	0.10		Sheet Flow, SEG1
					Woods: Light underbrush n= 0.400 P2= 2.34"
0.2	19	0.0784	1.96		Shallow Concentrated Flow, SEG2
					Short Grass Pasture Kv= 7.0 fps
1.0	124	0.0803	1.98		Shallow Concentrated Flow, SEG3
					Short Grass Pasture Kv= 7.0 fps
6.2	679	0.1334	1.83		Shallow Concentrated Flow, SEG4
					Woodland Kv= 5.0 fps
0.1	78	0.1200	15.71	12.34	Pipe Channel, SEG5
					12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
					n= 0.013 Concrete pipe, straight & clean
1.1	165	0.2369	2.43		Shallow Concentrated Flow, SEG6
					Woodland Kv= 5.0 fps
33.3	1,215	Total			

Subcatchment EDA3: EDA3



Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

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Summary for Subcatchment EDA4: EDA4

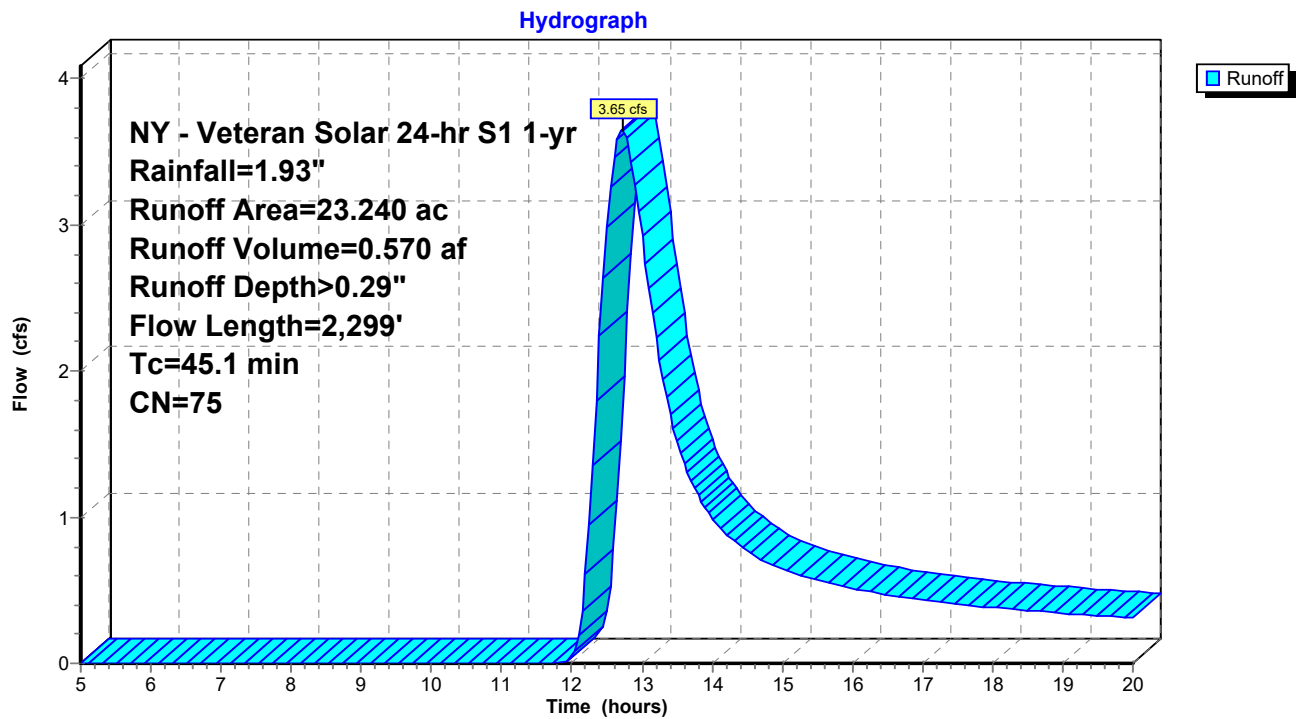
Runoff = 3.65 cfs @ 12.72 hrs, Volume= 0.570 af, Depth> 0.29"
 Routed to Reach EDP4 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
0.440	96	Gravel surface, HSG C
0.470	96	Gravel surface, HSG D
2.660	71	Meadow, non-grazed, HSG C
7.050	78	Meadow, non-grazed, HSG D
8.380	70	Woods, Good, HSG C
4.240	77	Woods, Good, HSG D
23.240	75	Weighted Average
23.240		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	150	0.0481	0.10		Sheet Flow, SEG1 Woods: Light underbrush n= 0.400 P2= 2.34"
6.6	508	0.0657	1.28		Shallow Concentrated Flow, SEG2 Woodland Kv= 5.0 fps
1.1	121	0.0664	1.80		Shallow Concentrated Flow, SEG3 Short Grass Pasture Kv= 7.0 fps
4.9	547	0.1386	1.86		Shallow Concentrated Flow, SEG4 Woodland Kv= 5.0 fps
8.0	973	0.0847	2.04		Shallow Concentrated Flow, SEG5 Short Grass Pasture Kv= 7.0 fps
45.1	2,299	Total			

Subcatchment EDA4: EDA4



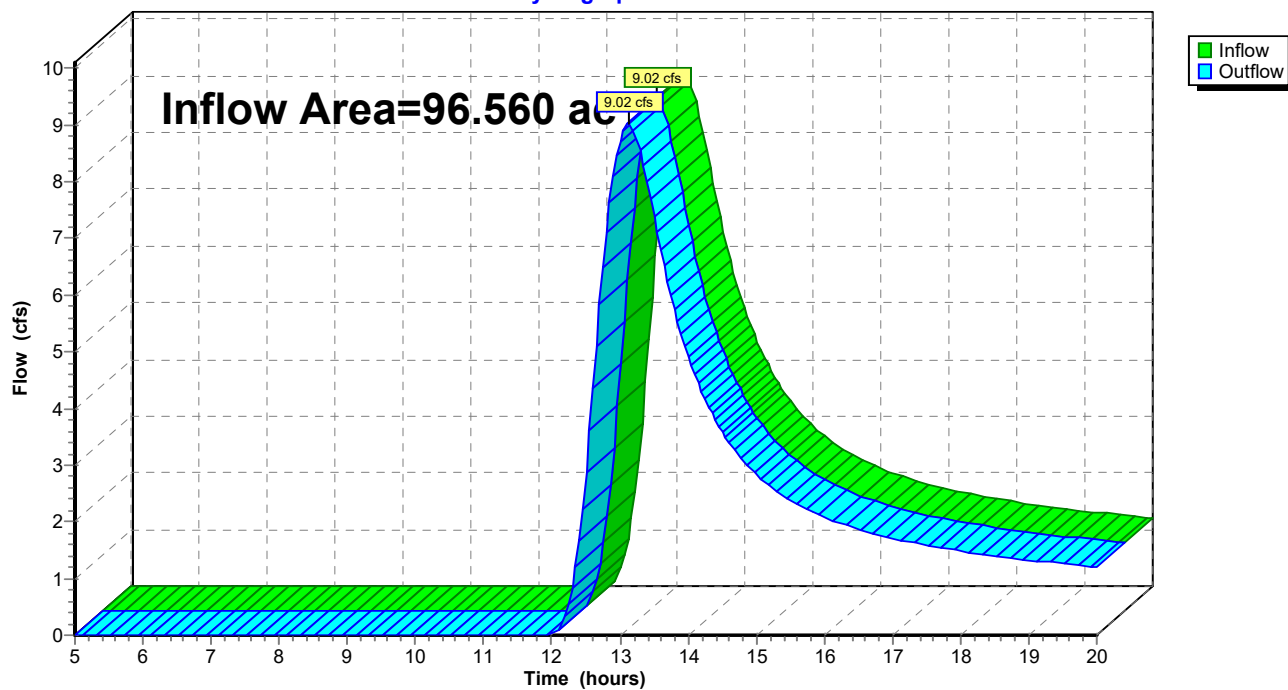
Summary for Reach EDP1: (new Reach)

Inflow Area = 96.560 ac, 0.00% Impervious, Inflow Depth > 0.24" for 1-yr event
Inflow = 9.02 cfs @ 13.12 hrs, Volume= 1.909 af
Outflow = 9.02 cfs @ 13.12 hrs, Volume= 1.909 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP1: (new Reach)

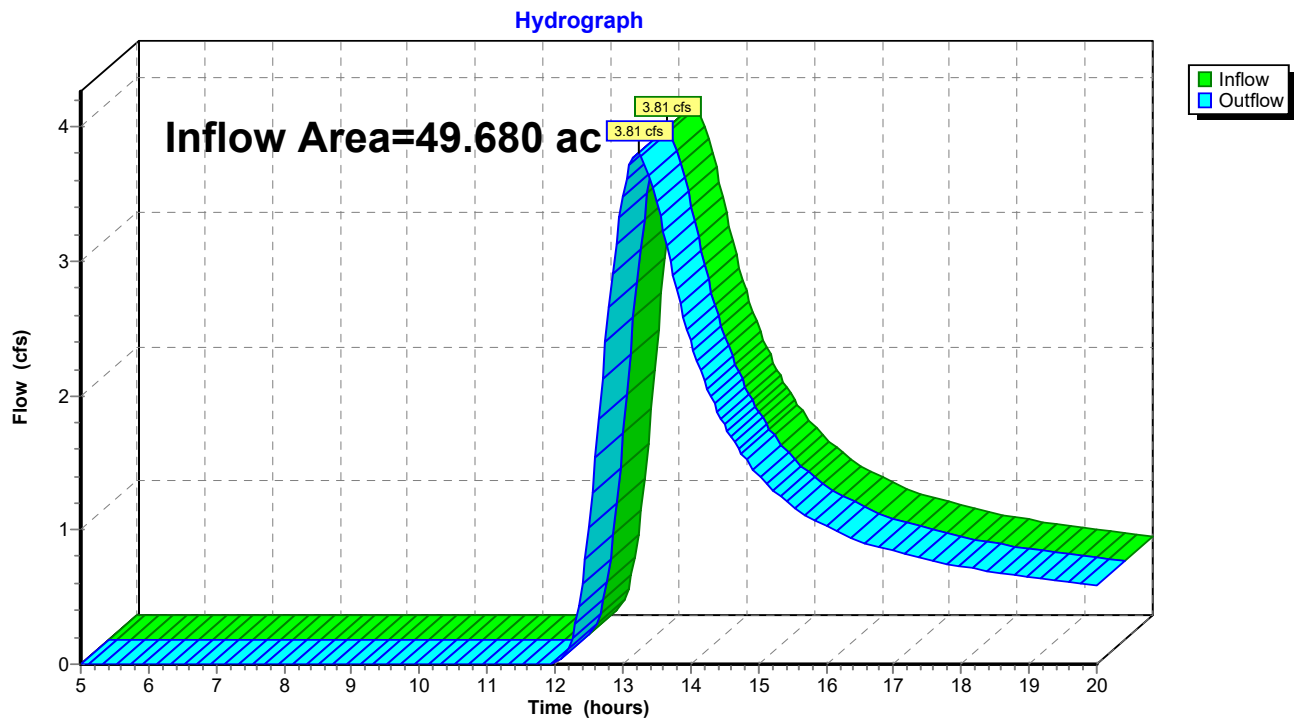
Hydrograph



Summary for Reach EDP2: (new Reach)

Inflow Area = 49.680 ac, 0.00% Impervious, Inflow Depth > 0.21" for 1-yr event
Inflow = 3.81 cfs @ 13.22 hrs, Volume= 0.880 af
Outflow = 3.81 cfs @ 13.22 hrs, Volume= 0.880 af, Atten= 0%, Lag= 0.0 min

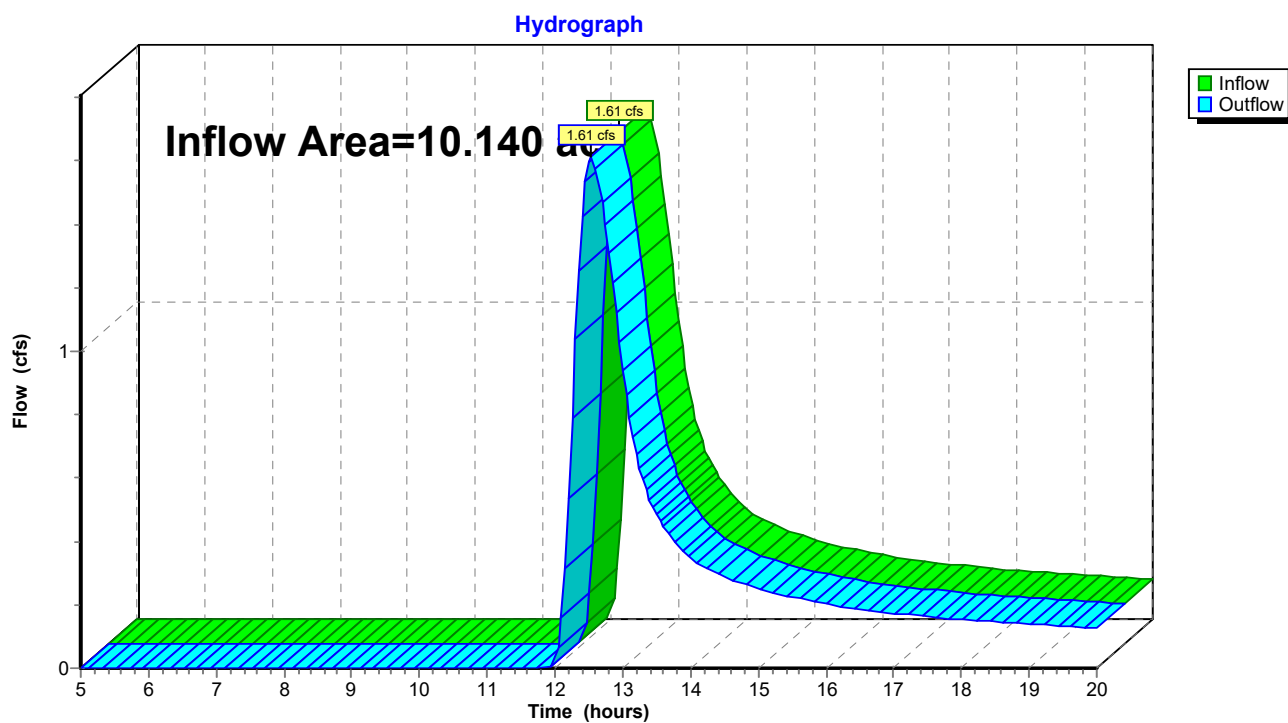
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP2: (new Reach)

Summary for Reach EDP3: (new Reach)

Inflow Area = 10.140 ac, 0.00% Impervious, Inflow Depth > 0.27" for 1-yr event
Inflow = 1.61 cfs @ 12.54 hrs, Volume= 0.228 af
Outflow = 1.61 cfs @ 12.54 hrs, Volume= 0.228 af, Atten= 0%, Lag= 0.0 min

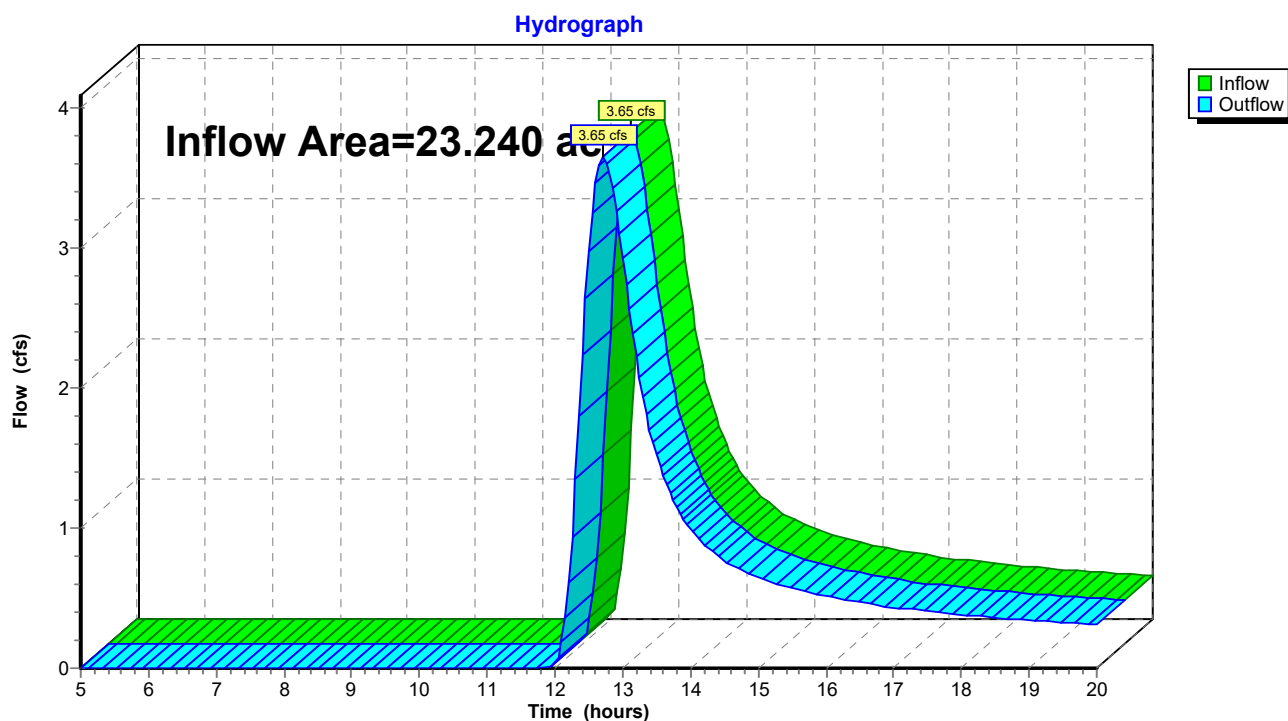
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP3: (new Reach)

Summary for Reach EDP4: (new Reach)

Inflow Area = 23.240 ac, 0.00% Impervious, Inflow Depth > 0.29" for 1-yr event
Inflow = 3.65 cfs @ 12.72 hrs, Volume= 0.570 af
Outflow = 3.65 cfs @ 12.72 hrs, Volume= 0.570 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP4: (new Reach)

Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEDA1: (new Subcat)Runoff Area=96.560 ac 0.00% Impervious Runoff Depth>0.98"
Flow Length=3,298' Tc=70.6 min CN=73 Runoff=46.26 cfs 7.907 af**SubcatchmentEDA2: EDA2**Runoff Area=49.680 ac 0.00% Impervious Runoff Depth>0.93"
Flow Length=3,595' Tc=76.2 min CN=72 Runoff=21.16 cfs 3.836 af**SubcatchmentEDA3: EDA3**Runoff Area=10.140 ac 0.00% Impervious Runoff Depth>1.06"
Flow Length=1,215' Tc=33.3 min CN=74 Runoff=7.87 cfs 0.894 af**SubcatchmentEDA4: EDA4**Runoff Area=23.240 ac 0.00% Impervious Runoff Depth>1.11"
Flow Length=2,299' Tc=45.1 min CN=75 Runoff=16.35 cfs 2.146 af**Reach EDP1: (new Reach)**Inflow=46.26 cfs 7.907 af
Outflow=46.26 cfs 7.907 af**Reach EDP2: (new Reach)**Inflow=21.16 cfs 3.836 af
Outflow=21.16 cfs 3.836 af**Reach EDP3: (new Reach)**Inflow=7.87 cfs 0.894 af
Outflow=7.87 cfs 0.894 af**Reach EDP4: (new Reach)**Inflow=16.35 cfs 2.146 af
Outflow=16.35 cfs 2.146 af

Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

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Summary for Subcatchment EDA1: (new Subcat)

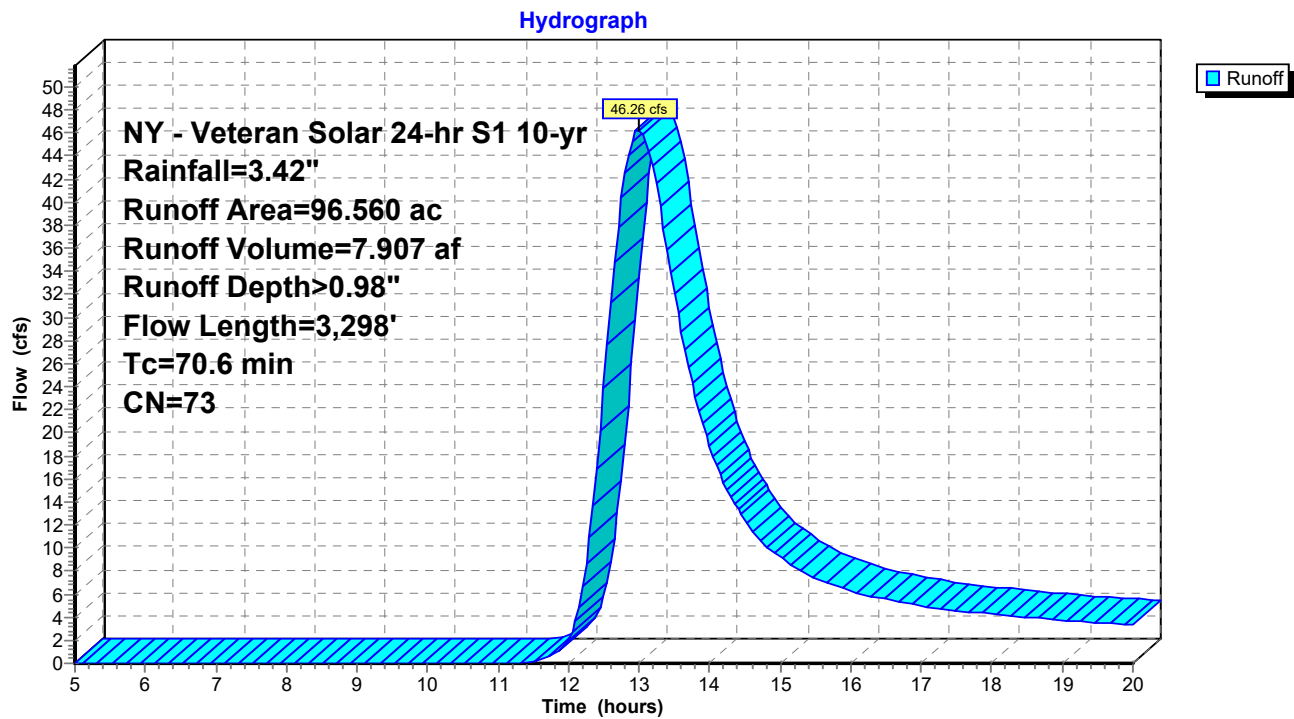
Runoff = 46.26 cfs @ 12.99 hrs, Volume= 7.907 af, Depth> 0.98"
 Routed to Reach EDP1 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
1.180	96	Gravel surface, HSG C
0.190	96	Gravel surface, HSG D
0.130	65	Brush, Good, HSG C
0.070	73	Brush, Good, HSG D
5.960	78	Meadow, non-grazed, HSG D
0.290	55	Woods, Good, HSG B
62.870	70	Woods, Good, HSG C
25.870	77	Woods, Good, HSG D
96.560	73	Weighted Average
96.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.8	150	0.0231	0.08		Sheet Flow, SEG 1
					Woods: Light underbrush n= 0.400 P2= 2.34"
37.8	3,148	0.0770	1.39		Shallow Concentrated Flow, SEG 2
					Woodland Kv= 5.0 fps
70.6	3,298	Total			

Subcatchment EDA1: (new Subcat)



Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

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Summary for Subcatchment EDA2: EDA2

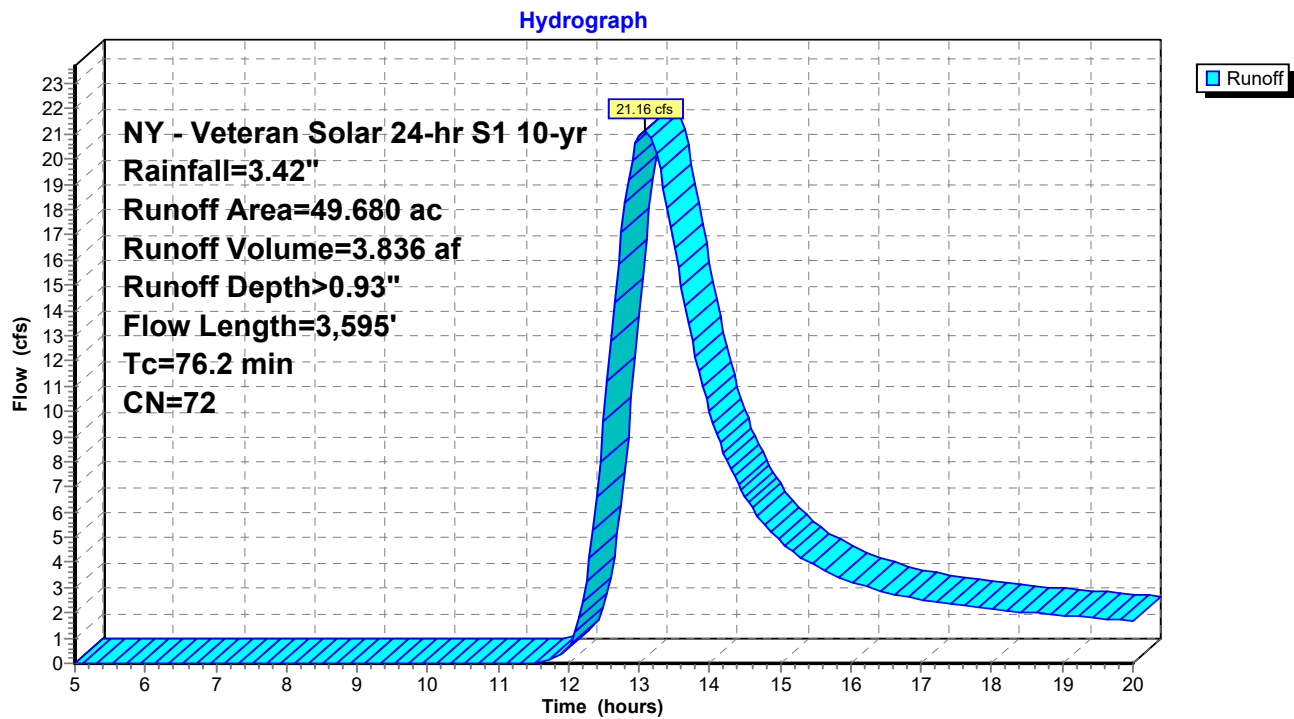
Runoff = 21.16 cfs @ 13.08 hrs, Volume= 3.836 af, Depth> 0.93"
 Routed to Reach EDP2 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
0.820	96	Gravel surface, HSG C
0.020	96	Gravel surface, HSG D
3.610	71	Meadow, non-grazed, HSG C
33.200	70	Woods, Good, HSG C
9.530	77	Woods, Good, HSG D
2.500	78	Meadow, non-grazed, HSG D
49.680	72	Weighted Average
49.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.3	150	0.0305	0.09		Sheet Flow, SEG1
					Woods: Light underbrush n= 0.400 P2= 2.34"
40.1	2,740	0.0519	1.14		Shallow Concentrated Flow, SEG2
					Woodland Kv= 5.0 fps
0.6	53	0.0418	1.43		Shallow Concentrated Flow, SEG3
					Short Grass Pasture Kv= 7.0 fps
5.8	613	0.1248	1.77		Shallow Concentrated Flow, SEG4
					Woodland Kv= 5.0 fps
0.4	39	0.0669	1.81		Shallow Concentrated Flow, SEG5
					Short Grass Pasture Kv= 7.0 fps
76.2	3,595	Total			

Subcatchment EDA2: EDA2



Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

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Summary for Subcatchment EDA3: EDA3

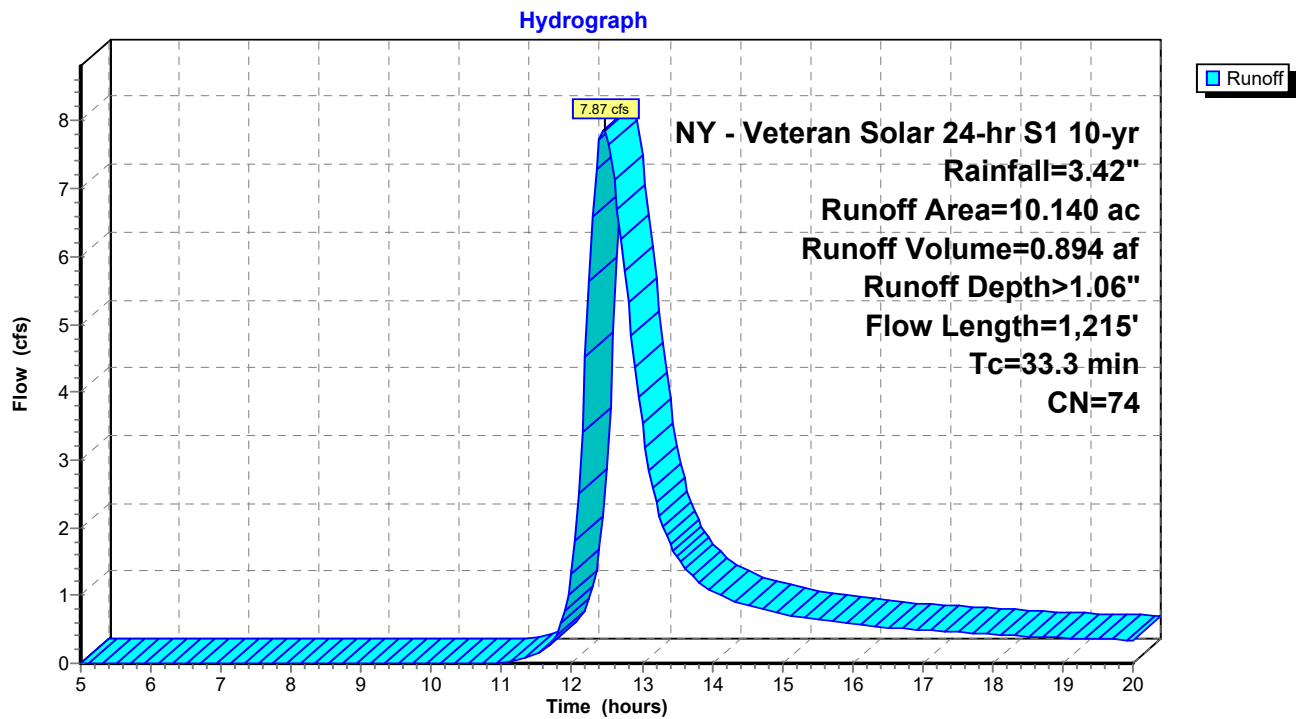
Runoff = 7.87 cfs @ 12.46 hrs, Volume= 0.894 af, Depth> 1.06"
 Routed to Reach EDP3 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
0.560	96	Gravel surface, HSG C
0.330	96	Gravel surface, HSG D
0.480	71	Meadow, non-grazed, HSG C
0.230	78	Meadow, non-grazed, HSG D
5.810	70	Woods, Good, HSG C
2.730	77	Woods, Good, HSG D
10.140	74	Weighted Average
10.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.7	150	0.0470	0.10		Sheet Flow, SEG1
					Woods: Light underbrush n= 0.400 P2= 2.34"
0.2	19	0.0784	1.96		Shallow Concentrated Flow, SEG2
					Short Grass Pasture Kv= 7.0 fps
1.0	124	0.0803	1.98		Shallow Concentrated Flow, SEG3
					Short Grass Pasture Kv= 7.0 fps
6.2	679	0.1334	1.83		Shallow Concentrated Flow, SEG4
					Woodland Kv= 5.0 fps
0.1	78	0.1200	15.71	12.34	Pipe Channel, SEG5
					12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25'
					n= 0.013 Concrete pipe, straight & clean
1.1	165	0.2369	2.43		Shallow Concentrated Flow, SEG6
					Woodland Kv= 5.0 fps
33.3	1,215	Total			

Subcatchment EDA3: EDA3



Veteran Hill Solar - Existing Conditions

NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

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Summary for Subcatchment EDA4: EDA4

Runoff = 16.35 cfs @ 12.63 hrs, Volume= 2.146 af, Depth> 1.11"
 Routed to Reach EDP4 : (new Reach)

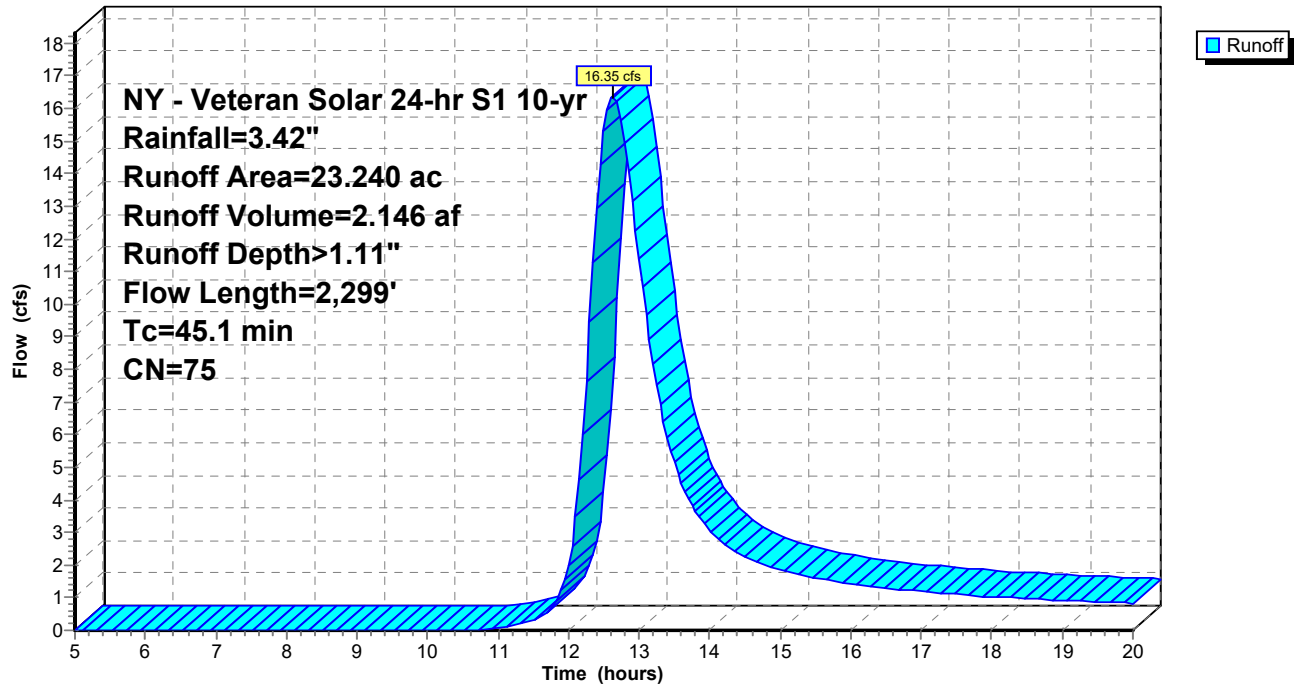
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
0.440	96	Gravel surface, HSG C
0.470	96	Gravel surface, HSG D
2.660	71	Meadow, non-grazed, HSG C
7.050	78	Meadow, non-grazed, HSG D
8.380	70	Woods, Good, HSG C
4.240	77	Woods, Good, HSG D
23.240	75	Weighted Average
23.240		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	150	0.0481	0.10		Sheet Flow, SEG1
					Woods: Light underbrush n= 0.400 P2= 2.34"
6.6	508	0.0657	1.28		Shallow Concentrated Flow, SEG2
					Woodland Kv= 5.0 fps
1.1	121	0.0664	1.80		Shallow Concentrated Flow, SEG3
					Short Grass Pasture Kv= 7.0 fps
4.9	547	0.1386	1.86		Shallow Concentrated Flow, SEG4
					Woodland Kv= 5.0 fps
8.0	973	0.0847	2.04		Shallow Concentrated Flow, SEG5
					Short Grass Pasture Kv= 7.0 fps
45.1	2,299	Total			

Subcatchment EDA4: EDA4

Hydrograph



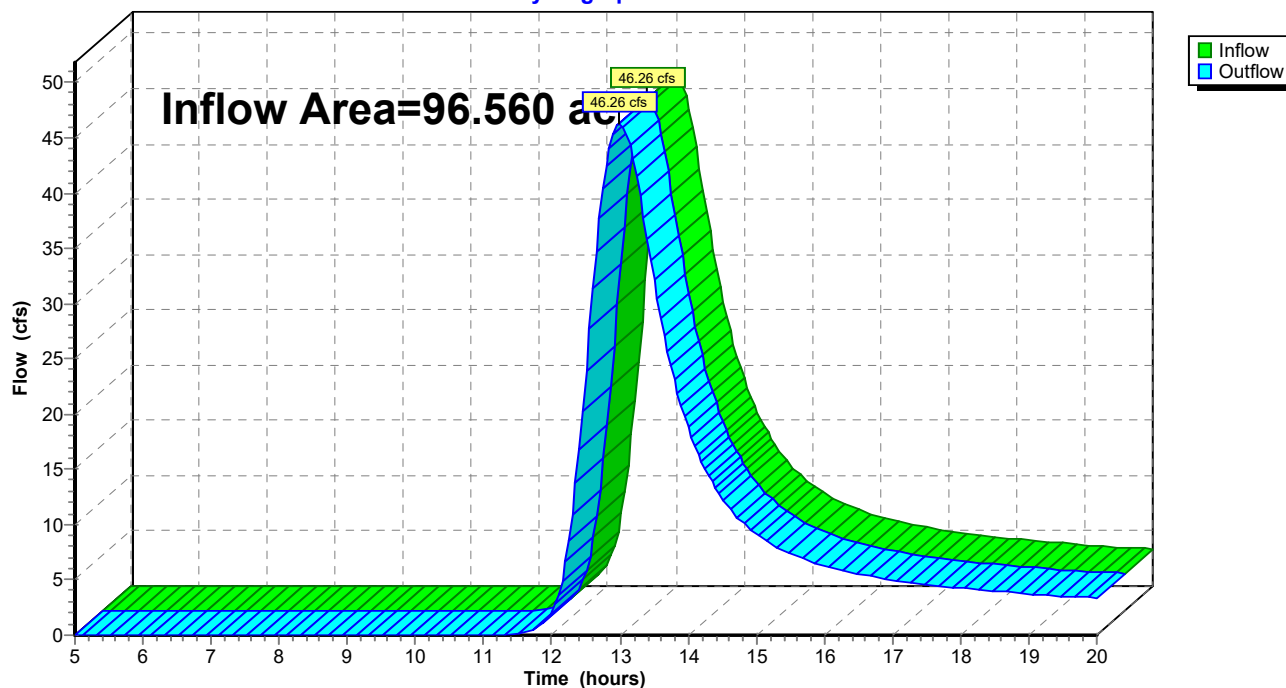
Summary for Reach EDP1: (new Reach)

Inflow Area = 96.560 ac, 0.00% Impervious, Inflow Depth > 0.98" for 10-yr event
Inflow = 46.26 cfs @ 12.99 hrs, Volume= 7.907 af
Outflow = 46.26 cfs @ 12.99 hrs, Volume= 7.907 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP1: (new Reach)

Hydrograph



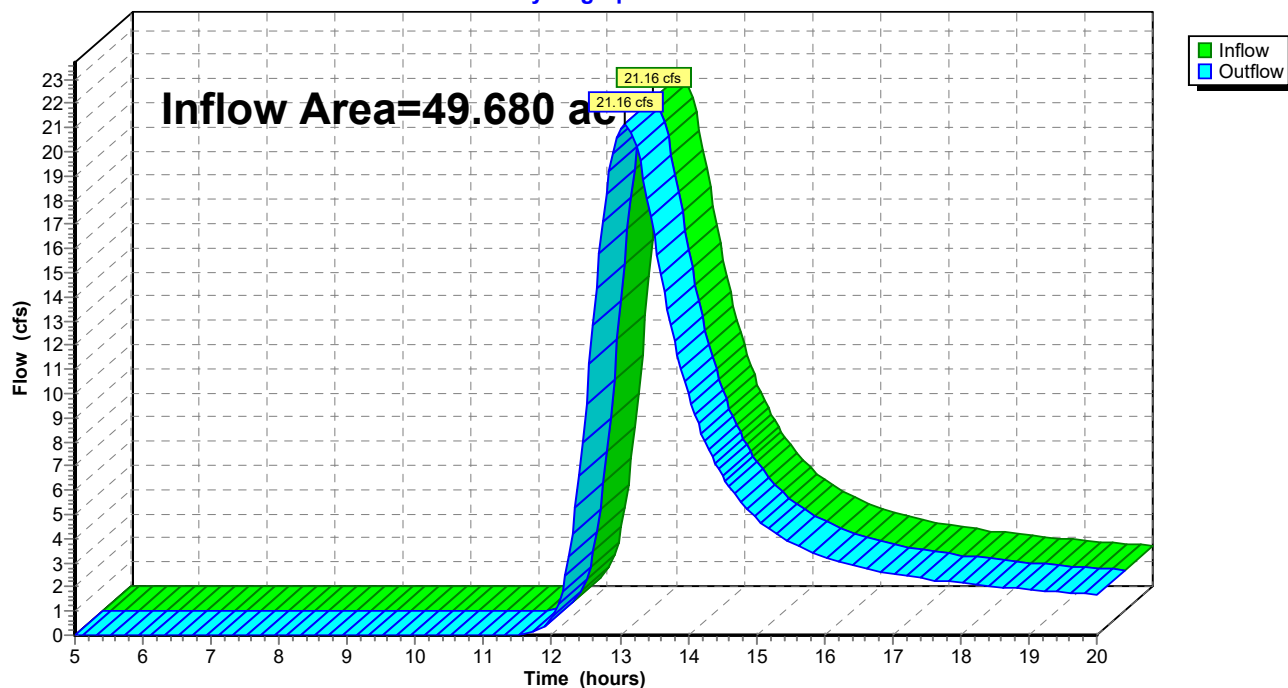
Summary for Reach EDP2: (new Reach)

Inflow Area = 49.680 ac, 0.00% Impervious, Inflow Depth > 0.93" for 10-yr event
 Inflow = 21.16 cfs @ 13.08 hrs, Volume= 3.836 af
 Outflow = 21.16 cfs @ 13.08 hrs, Volume= 3.836 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP2: (new Reach)

Hydrograph

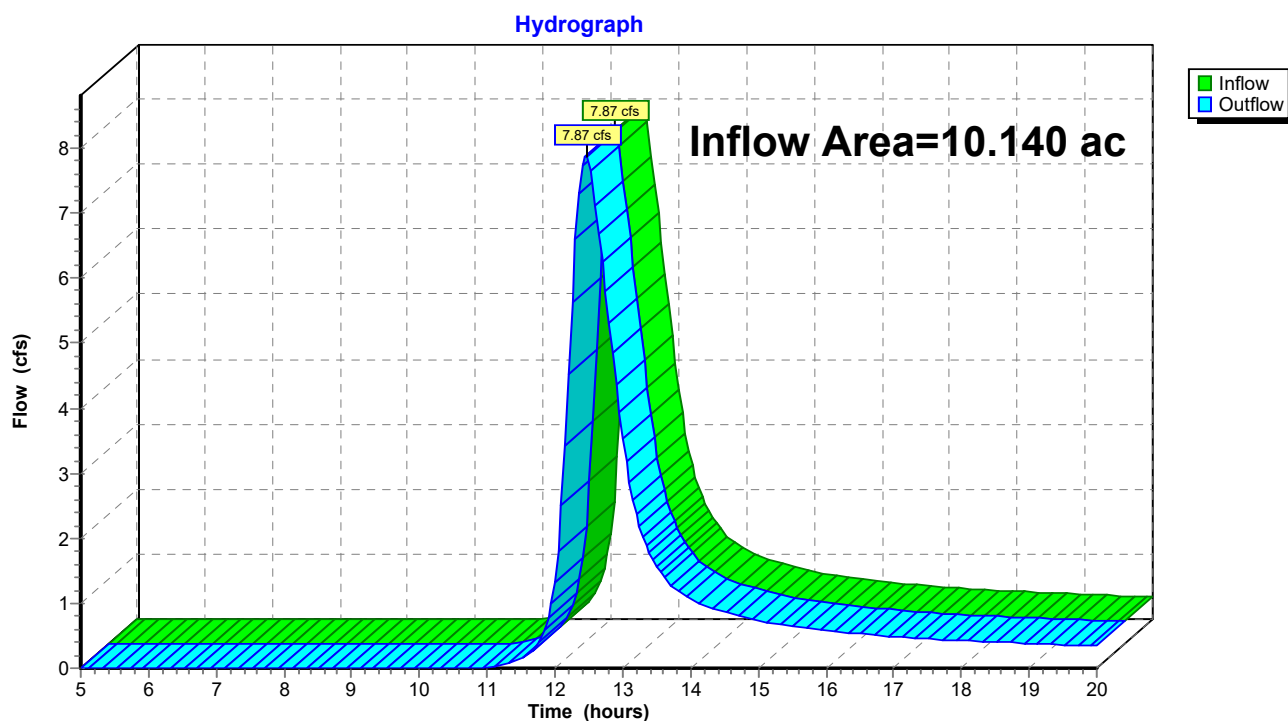


Summary for Reach EDP3: (new Reach)

Inflow Area = 10.140 ac, 0.00% Impervious, Inflow Depth > 1.06" for 10-yr event
 Inflow = 7.87 cfs @ 12.46 hrs, Volume= 0.894 af
 Outflow = 7.87 cfs @ 12.46 hrs, Volume= 0.894 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

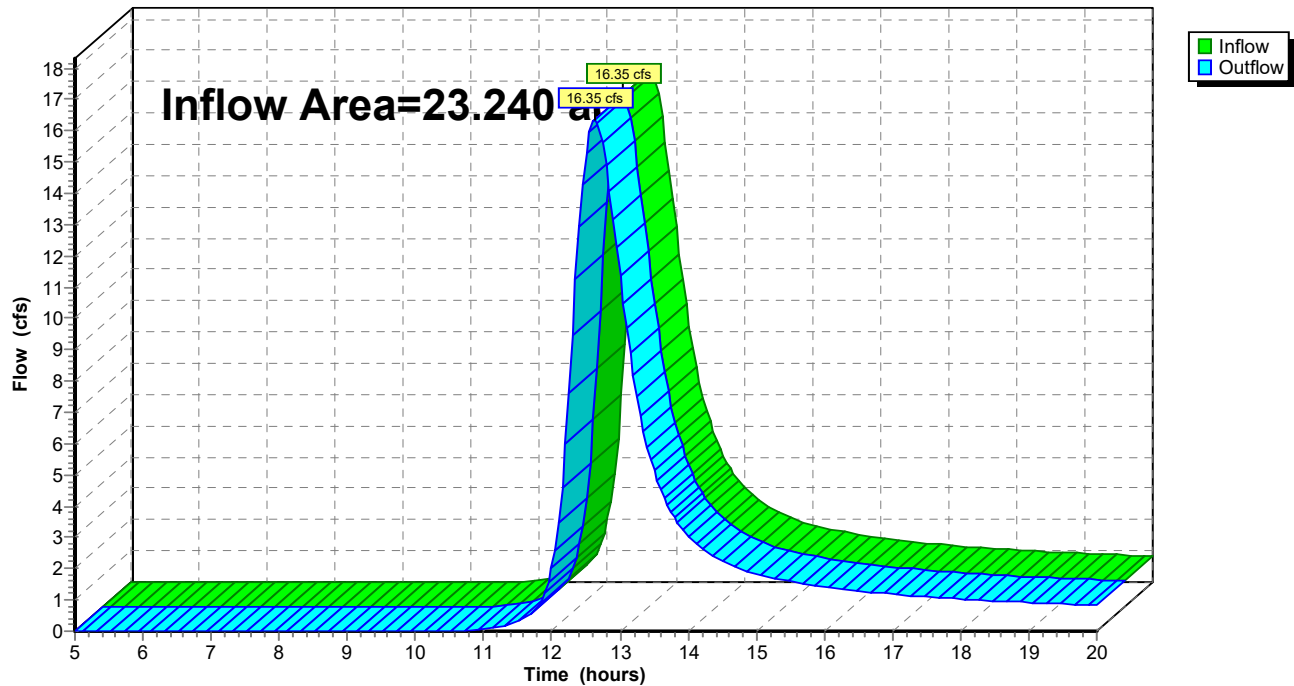
Reach EDP3: (new Reach)



Summary for Reach EDP4: (new Reach)

Inflow Area = 23.240 ac, 0.00% Impervious, Inflow Depth > 1.11" for 10-yr event
Inflow = 16.35 cfs @ 12.63 hrs, Volume= 2.146 af
Outflow = 16.35 cfs @ 12.63 hrs, Volume= 2.146 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP4: (new Reach)**Hydrograph**

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEDA1: (new Subcat)	Runoff Area=96.560 ac 0.00% Impervious Runoff Depth>2.71" Flow Length=3,298' Tc=70.6 min CN=73 Runoff=133.80 cfs 21.775 af
SubcatchmentEDA2: EDA2	Runoff Area=49.680 ac 0.00% Impervious Runoff Depth>2.61" Flow Length=3,595' Tc=76.2 min CN=72 Runoff=63.06 cfs 10.805 af
SubcatchmentEDA3: EDA3	Runoff Area=10.140 ac 0.00% Impervious Runoff Depth>2.84" Flow Length=1,215' Tc=33.3 min CN=74 Runoff=21.77 cfs 2.399 af
SubcatchmentEDA4: EDA4	Runoff Area=23.240 ac 0.00% Impervious Runoff Depth>2.92" Flow Length=2,299' Tc=45.1 min CN=75 Runoff=44.31 cfs 5.652 af
Reach EDP1: (new Reach)	Inflow=133.80 cfs 21.775 af Outflow=133.80 cfs 21.775 af
Reach EDP2: (new Reach)	Inflow=63.06 cfs 10.805 af Outflow=63.06 cfs 10.805 af
Reach EDP3: (new Reach)	Inflow=21.77 cfs 2.399 af Outflow=21.77 cfs 2.399 af
Reach EDP4: (new Reach)	Inflow=44.31 cfs 5.652 af Outflow=44.31 cfs 5.652 af

Summary for Subcatchment EDA1: (new Subcat)

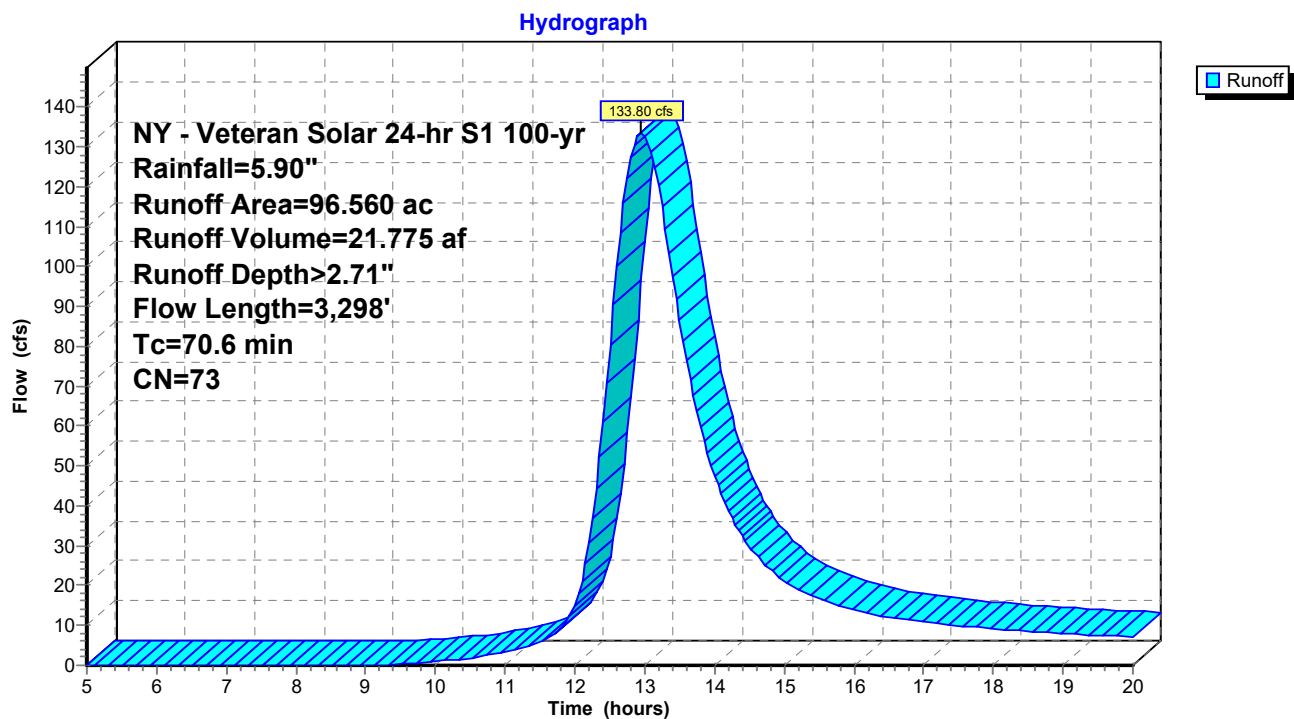
Runoff = 133.80 cfs @ 12.95 hrs, Volume= 21.775 af, Depth> 2.71"
 Routed to Reach EDP1 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
1.180	96	Gravel surface, HSG C
0.190	96	Gravel surface, HSG D
0.130	65	Brush, Good, HSG C
0.070	73	Brush, Good, HSG D
5.960	78	Meadow, non-grazed, HSG D
0.290	55	Woods, Good, HSG B
62.870	70	Woods, Good, HSG C
25.870	77	Woods, Good, HSG D
96.560	73	Weighted Average
96.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.8	150	0.0231	0.08		Sheet Flow, SEG 1
					Woods: Light underbrush n= 0.400 P2= 2.34"
37.8	3,148	0.0770	1.39		Shallow Concentrated Flow, SEG 2
					Woodland Kv= 5.0 fps
70.6	3,298	Total			

Subcatchment EDA1: (new Subcat)



Summary for Subcatchment EDA2: EDA2

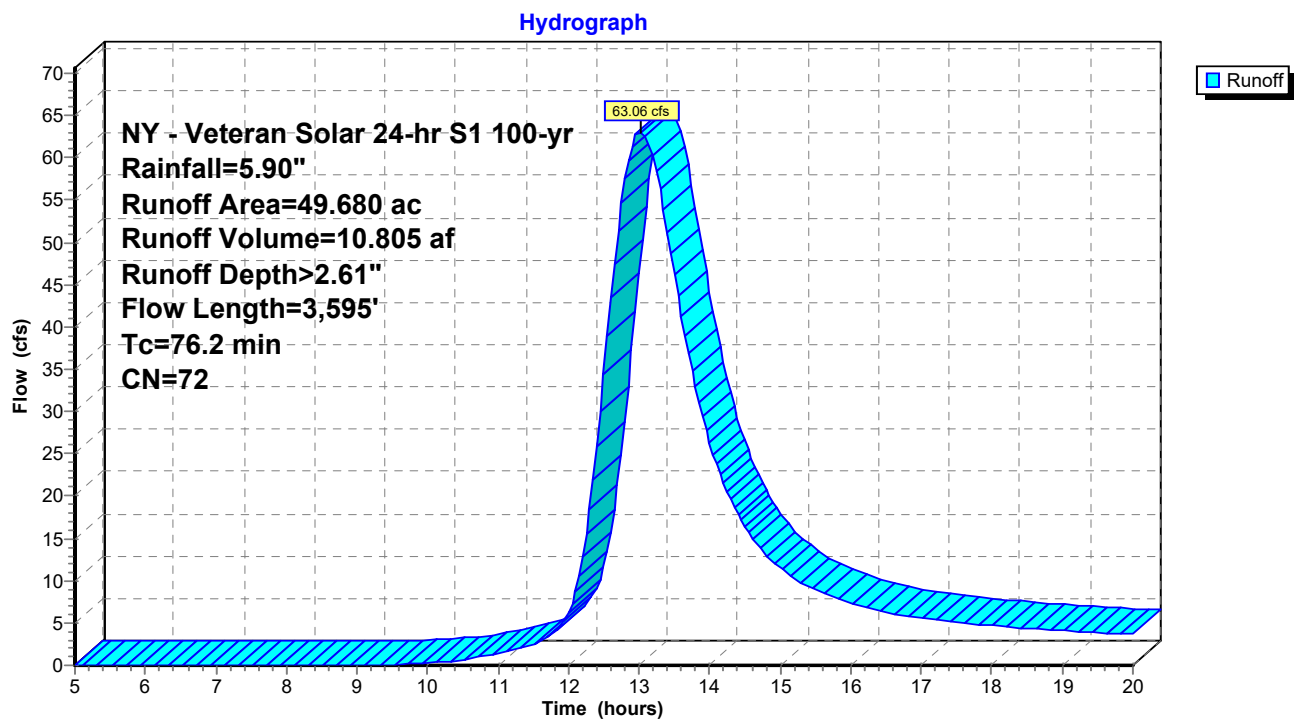
Runoff = 63.06 cfs @ 13.02 hrs, Volume= 10.805 af, Depth> 2.61"
 Routed to Reach EDP2 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
0.820	96	Gravel surface, HSG C
0.020	96	Gravel surface, HSG D
3.610	71	Meadow, non-grazed, HSG C
33.200	70	Woods, Good, HSG C
9.530	77	Woods, Good, HSG D
2.500	78	Meadow, non-grazed, HSG D
49.680	72	Weighted Average
49.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.3	150	0.0305	0.09		Sheet Flow, SEG1 Woods: Light underbrush n= 0.400 P2= 2.34"
40.1	2,740	0.0519	1.14		Shallow Concentrated Flow, SEG2 Woodland Kv= 5.0 fps
0.6	53	0.0418	1.43		Shallow Concentrated Flow, SEG3 Short Grass Pasture Kv= 7.0 fps
5.8	613	0.1248	1.77		Shallow Concentrated Flow, SEG4 Woodland Kv= 5.0 fps
0.4	39	0.0669	1.81		Shallow Concentrated Flow, SEG5 Short Grass Pasture Kv= 7.0 fps
76.2	3,595	Total			

Subcatchment EDA2: EDA2



Summary for Subcatchment EDA3: EDA3

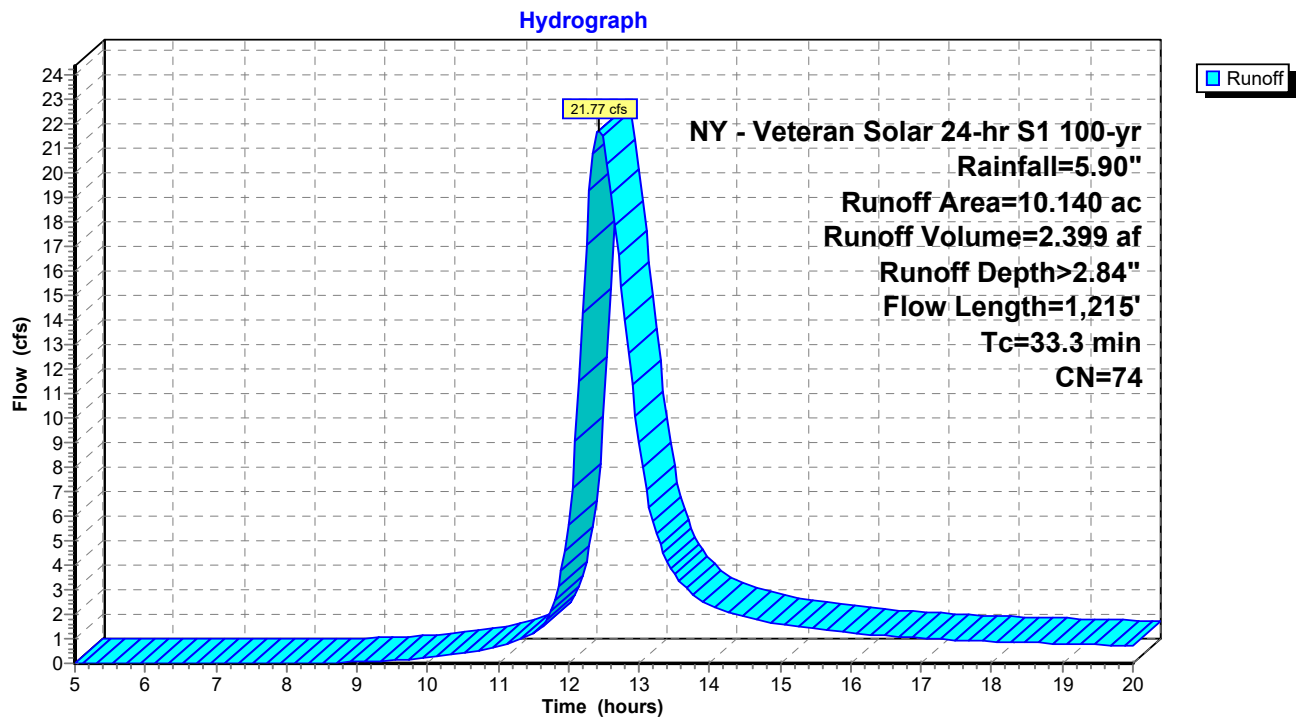
Runoff = 21.77 cfs @ 12.43 hrs, Volume= 2.399 af, Depth> 2.84"
 Routed to Reach EDP3 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
0.560	96	Gravel surface, HSG C
0.330	96	Gravel surface, HSG D
0.480	71	Meadow, non-grazed, HSG C
0.230	78	Meadow, non-grazed, HSG D
5.810	70	Woods, Good, HSG C
2.730	77	Woods, Good, HSG D
10.140	74	Weighted Average
10.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.7	150	0.0470	0.10		Sheet Flow, SEG1 Woods: Light underbrush n= 0.400 P2= 2.34"
0.2	19	0.0784	1.96		Shallow Concentrated Flow, SEG2 Short Grass Pasture Kv= 7.0 fps
1.0	124	0.0803	1.98		Shallow Concentrated Flow, SEG3 Short Grass Pasture Kv= 7.0 fps
6.2	679	0.1334	1.83		Shallow Concentrated Flow, SEG4 Woodland Kv= 5.0 fps
0.1	78	0.1200	15.71	12.34	Pipe Channel, SEG5 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, straight & clean
1.1	165	0.2369	2.43		Shallow Concentrated Flow, SEG6 Woodland Kv= 5.0 fps
33.3	1,215	Total			

Subcatchment EDA3: EDA3



Summary for Subcatchment EDA4: EDA4

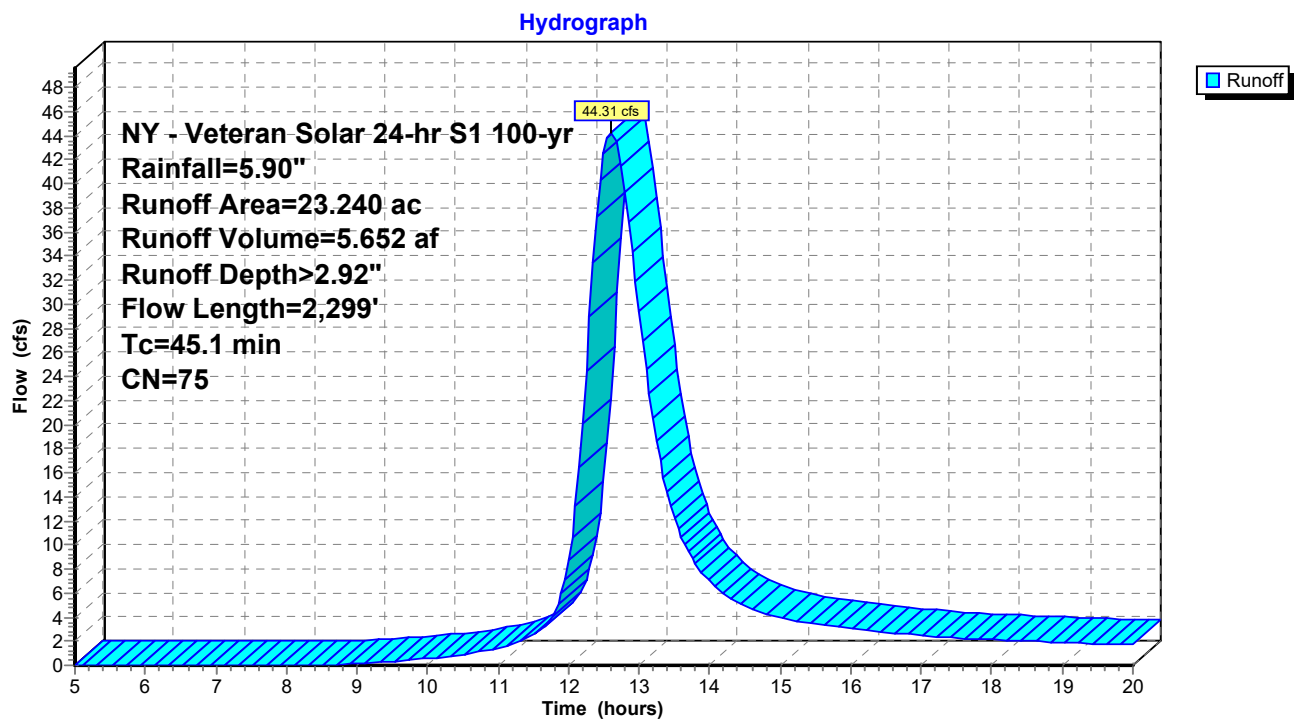
Runoff = 44.31 cfs @ 12.60 hrs, Volume= 5.652 af, Depth> 2.92"
 Routed to Reach EDP4 : (new Reach)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
0.440	96	Gravel surface, HSG C
0.470	96	Gravel surface, HSG D
2.660	71	Meadow, non-grazed, HSG C
7.050	78	Meadow, non-grazed, HSG D
8.380	70	Woods, Good, HSG C
4.240	77	Woods, Good, HSG D
23.240	75	Weighted Average
23.240		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.5	150	0.0481	0.10		Sheet Flow, SEG1 Woods: Light underbrush n= 0.400 P2= 2.34"
6.6	508	0.0657	1.28		Shallow Concentrated Flow, SEG2 Woodland Kv= 5.0 fps
1.1	121	0.0664	1.80		Shallow Concentrated Flow, SEG3 Short Grass Pasture Kv= 7.0 fps
4.9	547	0.1386	1.86		Shallow Concentrated Flow, SEG4 Woodland Kv= 5.0 fps
8.0	973	0.0847	2.04		Shallow Concentrated Flow, SEG5 Short Grass Pasture Kv= 7.0 fps
45.1	2,299	Total			

Subcatchment EDA4: EDA4

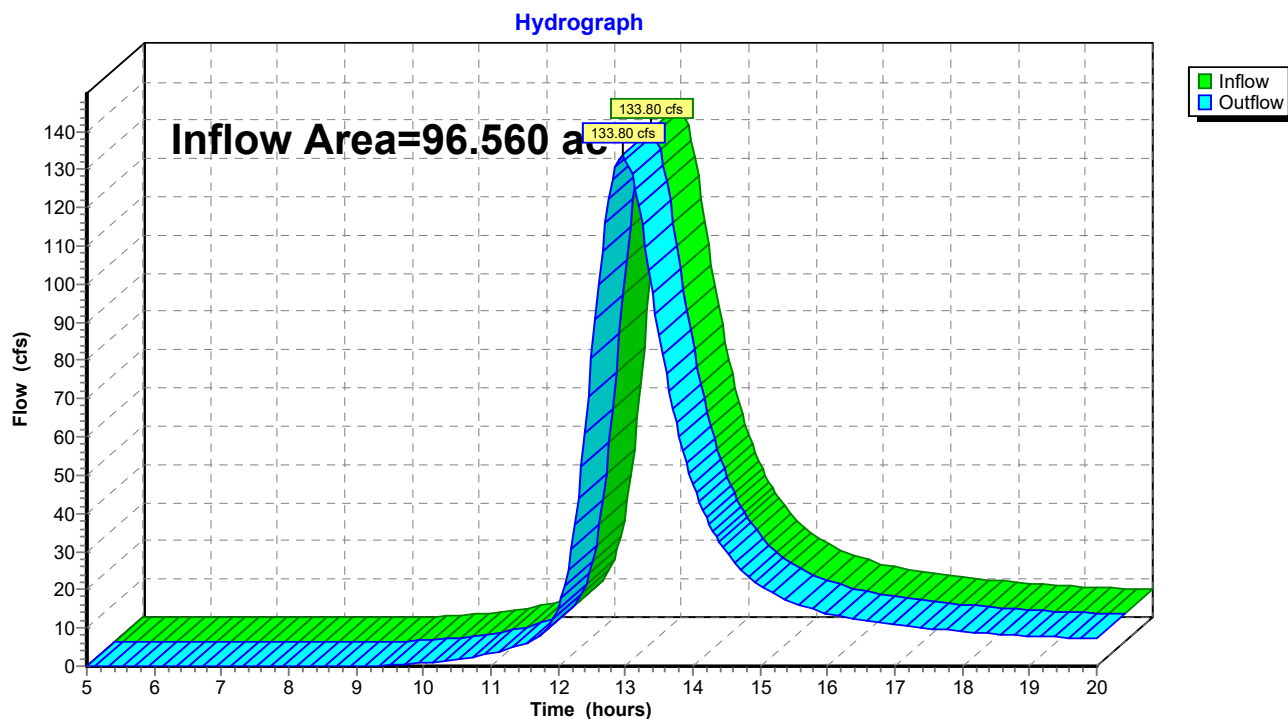


Summary for Reach EDP1: (new Reach)

Inflow Area = 96.560 ac, 0.00% Impervious, Inflow Depth > 2.71" for 100-yr event
Inflow = 133.80 cfs @ 12.95 hrs, Volume= 21.775 af
Outflow = 133.80 cfs @ 12.95 hrs, Volume= 21.775 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP1: (new Reach)

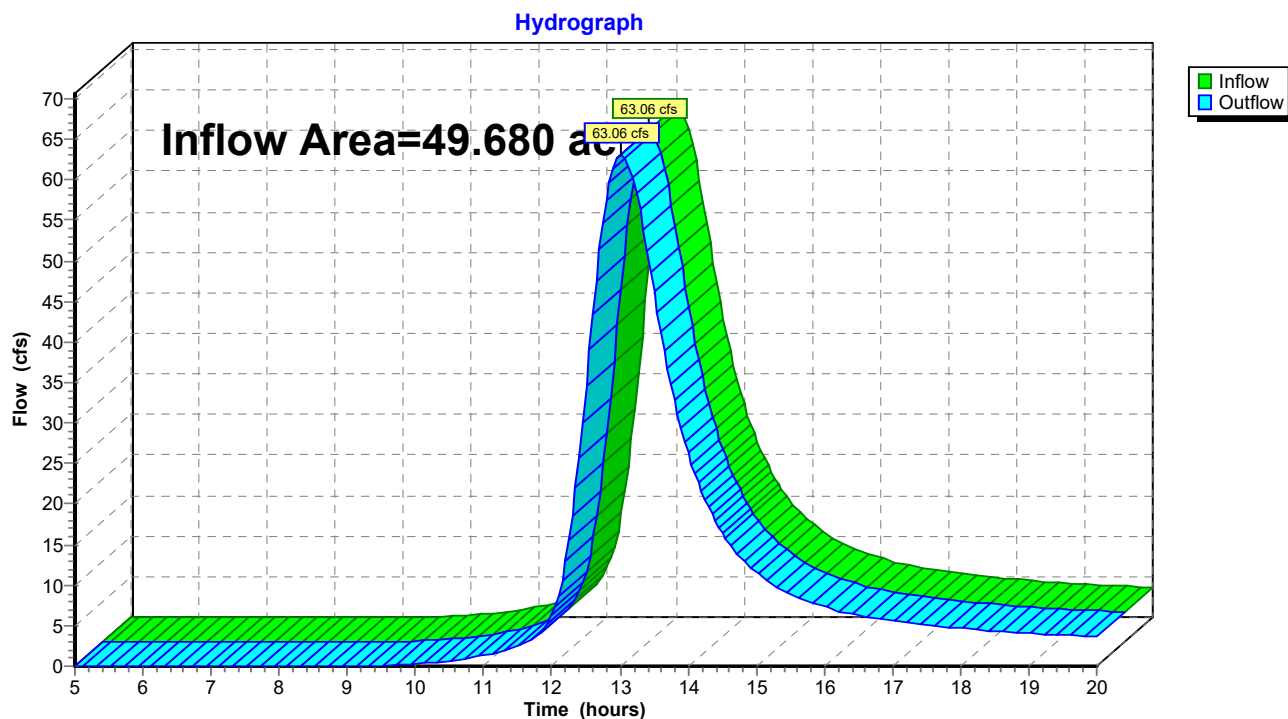


Summary for Reach EDP2: (new Reach)

Inflow Area = 49.680 ac, 0.00% Impervious, Inflow Depth > 2.61" for 100-yr event
Inflow = 63.06 cfs @ 13.02 hrs, Volume= 10.805 af
Outflow = 63.06 cfs @ 13.02 hrs, Volume= 10.805 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP2: (new Reach)

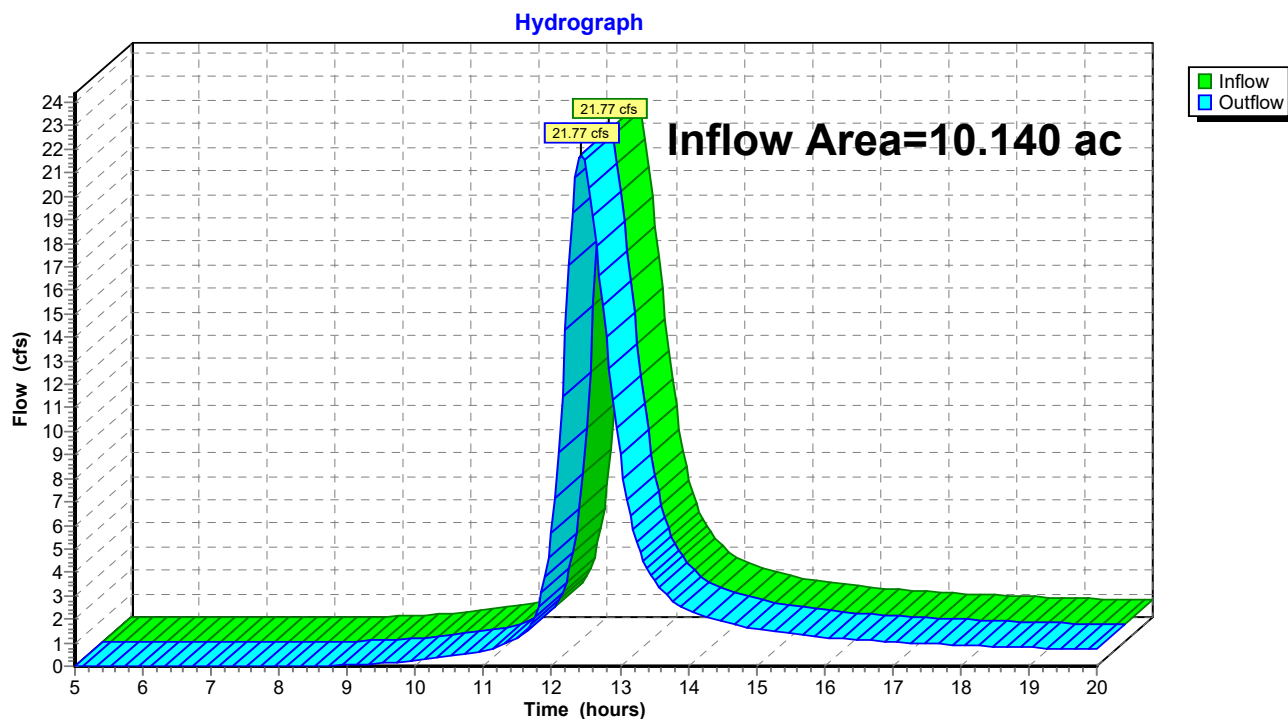


Summary for Reach EDP3: (new Reach)

Inflow Area = 10.140 ac, 0.00% Impervious, Inflow Depth > 2.84" for 100-yr event
Inflow = 21.77 cfs @ 12.43 hrs, Volume= 2.399 af
Outflow = 21.77 cfs @ 12.43 hrs, Volume= 2.399 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP3: (new Reach)

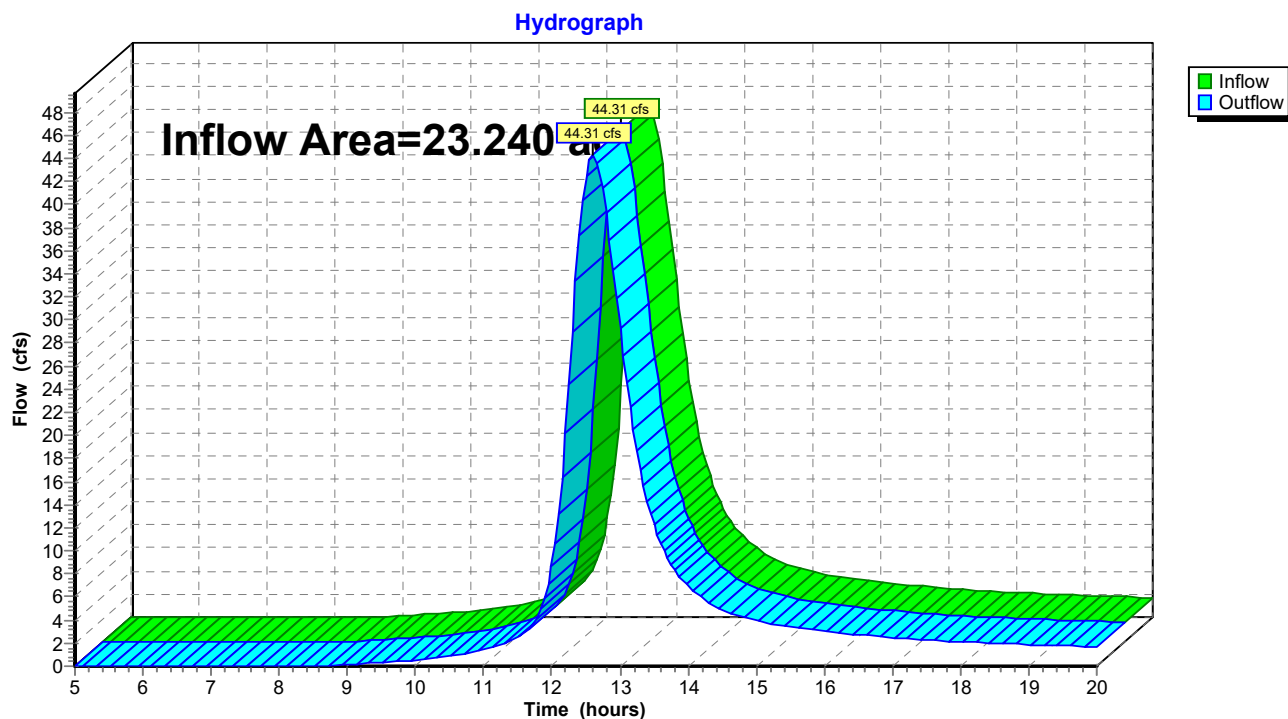


Summary for Reach EDP4: (new Reach)

Inflow Area = 23.240 ac, 0.00% Impervious, Inflow Depth > 2.92" for 100-yr event
Inflow = 44.31 cfs @ 12.60 hrs, Volume= 5.652 af
Outflow = 44.31 cfs @ 12.60 hrs, Volume= 5.652 af, Atten= 0%, Lag= 0.0 min

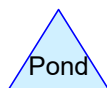
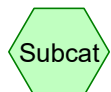
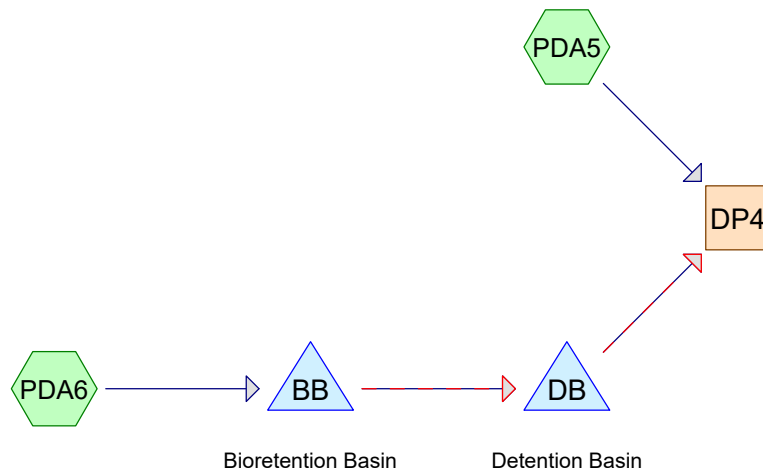
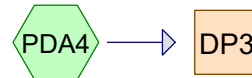
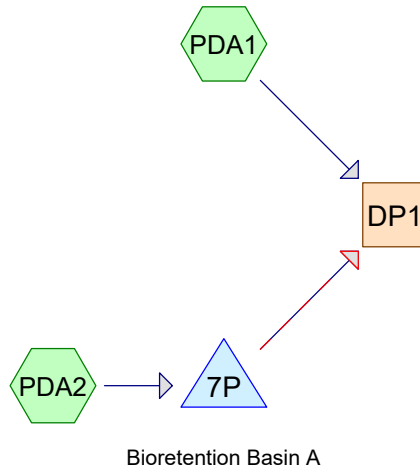
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach EDP4: (new Reach)



APPENDIX D

Post-Development HydroCAD Report



Veteran Hill Solar - Proposed Conditions

Prepared by AKRF, Inc

Printed 4/19/2026

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY - Veteran Solar 24-hr S1	1-yr	Default	24.00	1	1.93	2
2	10-yr	NY - Veteran Solar 24-hr S1	10-yr	Default	24.00	1	3.42	2
3	100-yr	NY - Veteran Solar 24-hr S1	100-yr	Default	24.00	1	5.90	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.840	96	Gravel surface, HSG C (PDA1, PDA2, PDA6)
0.760	96	Gravel surface, HSG D (PDA2, PDA5, PDA6)
35.950	71	Meadow, non-grazed, HSG C (PDA1, PDA2, PDA3, PDA4, PDA5, PDA6)
13.310	78	Meadow, non-grazed, HSG D (PDA1, PDA2, PDA3, PDA4, PDA5, PDA6)
0.290	55	Woods, Good, HSG B (PDA1)
82.230	70	Woods, Good, HSG C (PDA1, PDA3, PDA4, PDA5)
46.070	77	Woods, Good, HSG D (PDA1, PDA3, PDA4, PDA5)

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentPDA1:	Runoff Area=95.680 ac 0.00% Impervious Runoff Depth=0.29" Flow Length=3,298' Tc=70.6 min CN=73 Runoff=8.94 cfs 2.311 af
SubcatchmentPDA2:	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=0.56" Flow Length=521' Tc=1.6 min CN=81 Runoff=0.63 cfs 0.031 af
SubcatchmentPDA3:	Runoff Area=49.470 ac 0.00% Impervious Runoff Depth=0.26" Flow Length=3,557' Tc=72.8 min CN=72 Runoff=3.92 cfs 1.086 af
SubcatchmentPDA4:	Runoff Area=9.220 ac 0.00% Impervious Runoff Depth=0.26" Flow Length=1,243' Tc=22.6 min CN=72 Runoff=1.26 cfs 0.202 af
SubcatchmentPDA5:	Runoff Area=20.140 ac 0.00% Impervious Runoff Depth=0.32" Flow Length=2,095' Tc=31.3 min CN=74 Runoff=3.30 cfs 0.533 af
SubcatchmentPDA6:	Runoff Area=4.270 ac 0.00% Impervious Runoff Depth=0.56" Tc=6.0 min CN=81 Runoff=3.25 cfs 0.199 af
Reach DP1:	Inflow=9.01 cfs 2.342 af Outflow=9.01 cfs 2.342 af
Reach DP2:	Inflow=3.92 cfs 1.086 af Outflow=3.92 cfs 1.086 af
Reach DP3:	Inflow=1.26 cfs 0.202 af Outflow=1.26 cfs 0.202 af
Reach DP4:	Inflow=3.51 cfs 0.732 af Outflow=3.51 cfs 0.732 af
Pond 7P: Bioretention Basin A	Peak Elev=1,229.71' Storage=453 cf Inflow=0.63 cfs 0.031 af Primary=0.12 cfs 0.031 af Secondary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.031 af
Pond BB: Bioretention Basin	Peak Elev=1,061.63' Storage=1,568 cf Inflow=3.25 cfs 0.199 af Primary=1.15 cfs 0.122 af Secondary=1.40 cfs 0.077 af Outflow=2.56 cfs 0.199 af
Pond DB: Detention Basin	Peak Elev=1,055.52' Storage=2,662 cf Inflow=2.56 cfs 0.199 af Primary=0.25 cfs 0.198 af Secondary=0.00 cfs 0.000 af Outflow=0.25 cfs 0.198 af

Veteran Hill Solar - Proposed Conditions

NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

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Summary for Subcatchment PDA1:

Runoff = 8.94 cfs @ 13.12 hrs, Volume= 2.311 af, Depth= 0.29"
Routed to Reach DP1 :

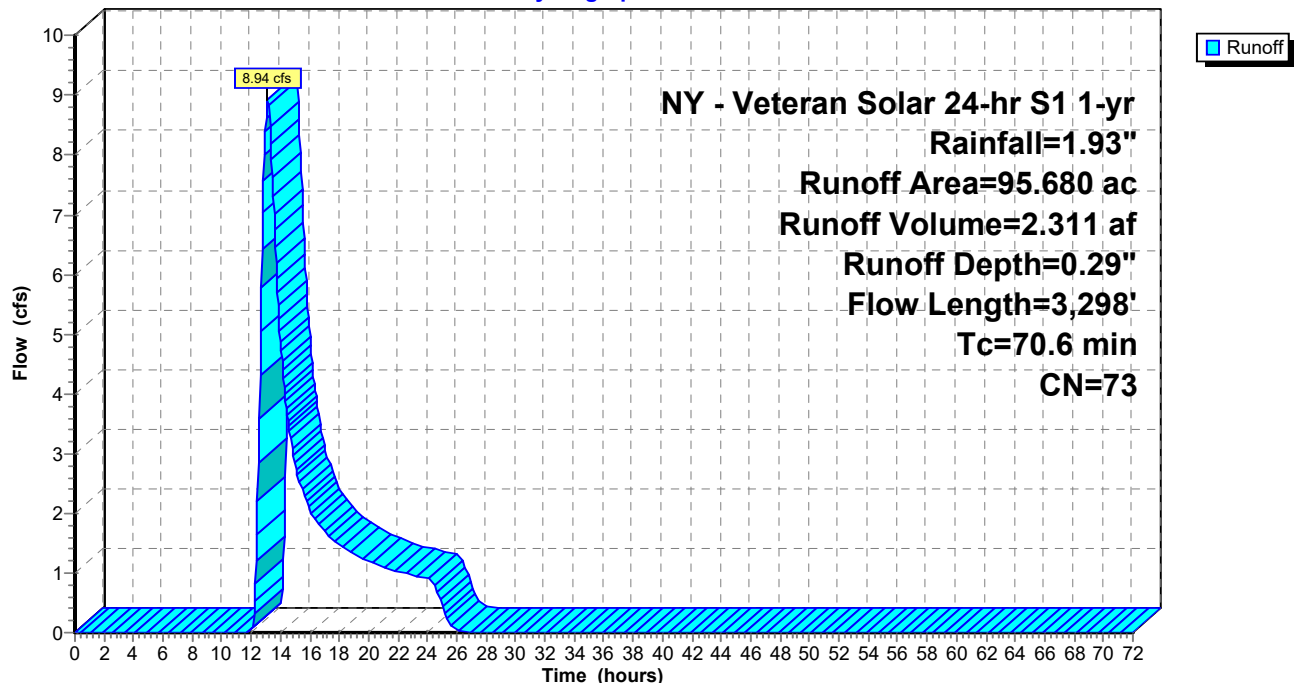
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
24.460	71	Meadow, non-grazed, HSG C
2.890	78	Meadow, non-grazed, HSG D
0.290	55	Woods, Good, HSG B
38.080	70	Woods, Good, HSG C
29.780	77	Woods, Good, HSG D
0.180	96	Gravel surface, HSG C
95.680	73	Weighted Average
95.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.8	150	0.0231	0.08		Sheet Flow, SEG 1
					Woods: Light underbrush n= 0.400 P2= 2.34"
37.8	3,148	0.0770	1.39		Shallow Concentrated Flow, SEG 2
					Woodland Kv= 5.0 fps
70.6	3,298	Total			

Subcatchment PDA1:

Hydrograph



Veteran Hill Solar - Proposed Conditions

NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

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Summary for Subcatchment PDA2:

Runoff = 0.63 cfs @ 11.99 hrs, Volume= 0.031 af, Depth= 0.56"
Routed to Pond 7P : Bioretention Basin A

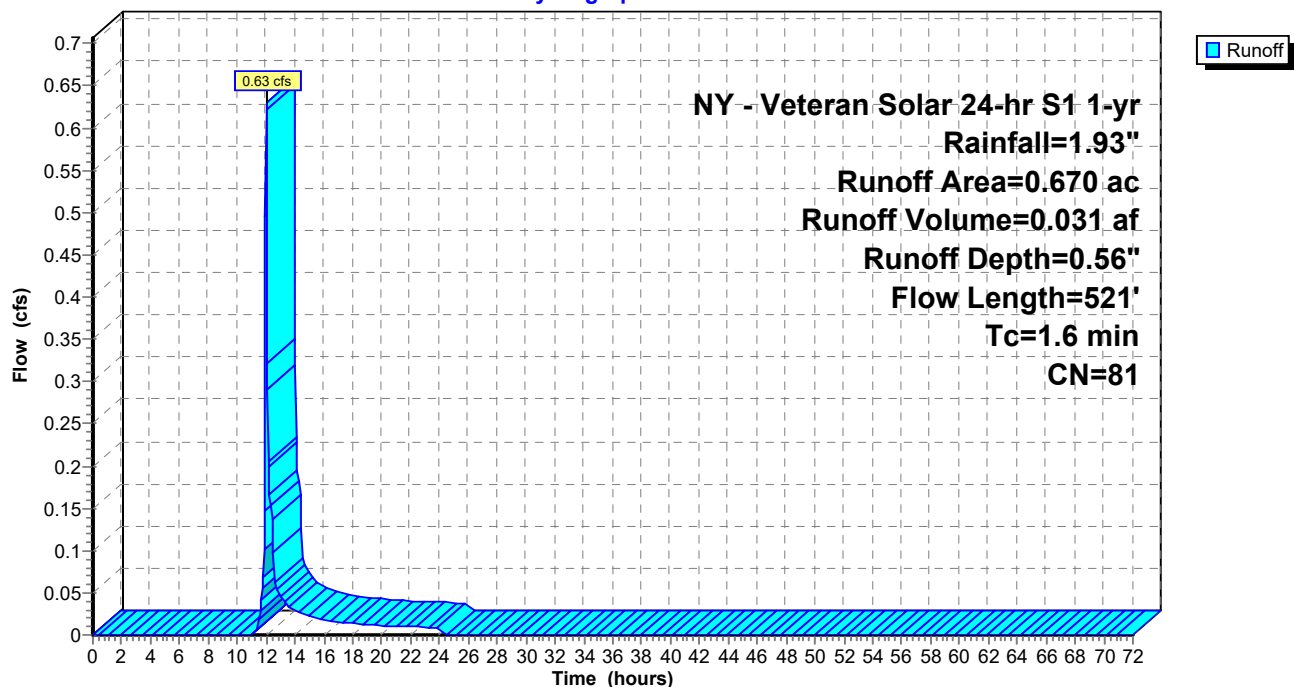
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
0.130	96	Gravel surface, HSG C
0.110	96	Gravel surface, HSG D
0.310	71	Meadow, non-grazed, HSG C
0.120	78	Meadow, non-grazed, HSG D
0.670	81	Weighted Average
0.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	100	0.0051	2.81	25.32	Channel Flow, SEG1 Area= 9.0 sf Perim= 11.0' r= 0.82' n= 0.033
1.0	421	0.0289	6.70	60.27	Channel Flow, SEG2 Area= 9.0 sf Perim= 11.0' r= 0.82' n= 0.033 Earth, grassed & winding
1.6	521	Total			

Subcatchment PDA2:

Hydrograph



Summary for Subcatchment PDA3:

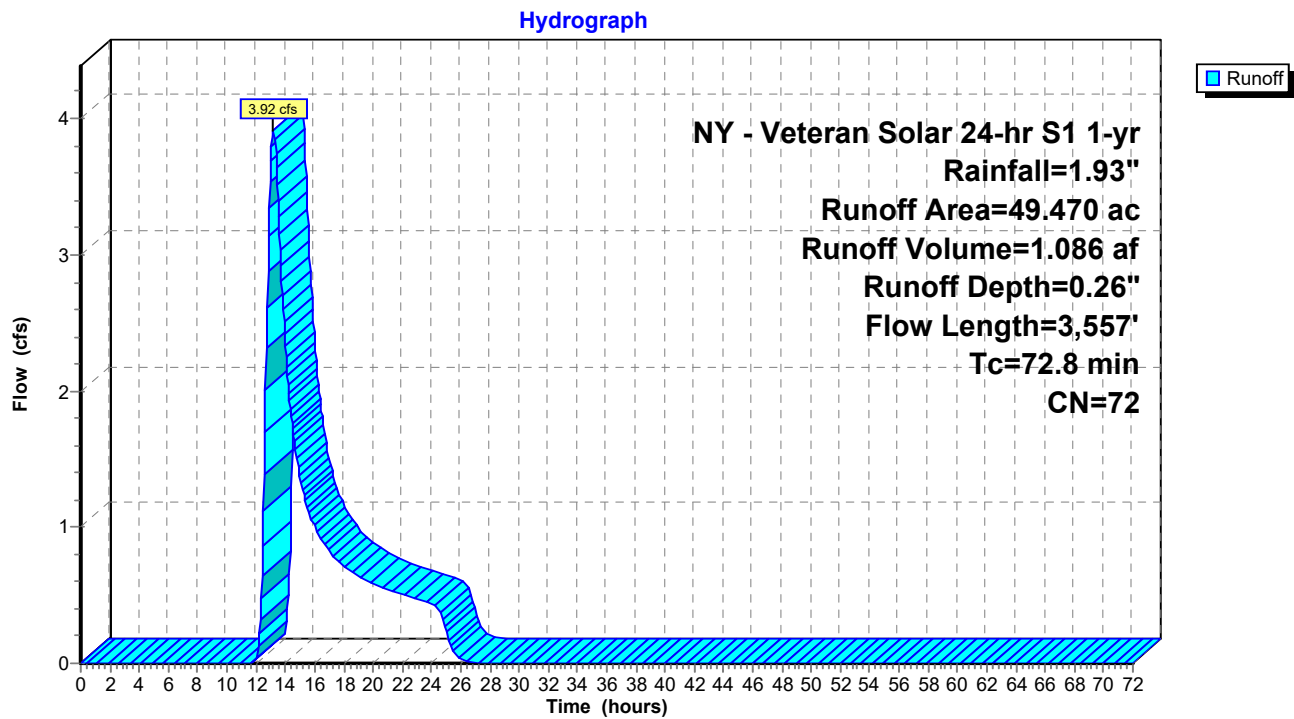
Runoff = 3.92 cfs @ 13.19 hrs, Volume= 1.086 af, Depth= 0.26"
 Routed to Reach DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
6.140	71	Meadow, non-grazed, HSG C
31.290	70	Woods, Good, HSG C
9.550	77	Woods, Good, HSG D
2.490	78	Meadow, non-grazed, HSG D
49.470	72	Weighted Average
49.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.6	150	0.0391	0.09		Sheet Flow, SEG1
					Woods: Light underbrush n= 0.400 P2= 2.34"
39.6	2,706	0.0518	1.14		Shallow Concentrated Flow, SEG2
					Woodland Kv= 5.0 fps
0.6	53	0.0418	1.43		Shallow Concentrated Flow, SEG3
					Short Grass Pasture Kv= 7.0 fps
5.8	613	0.1248	1.77		Shallow Concentrated Flow, SEG4
					Woodland Kv= 5.0 fps
0.2	35	0.1129	2.35		Shallow Concentrated Flow, SEG5
					Short Grass Pasture Kv= 7.0 fps
72.8	3,557	Total			

Subcatchment PDA3:



Summary for Subcatchment PDA4:

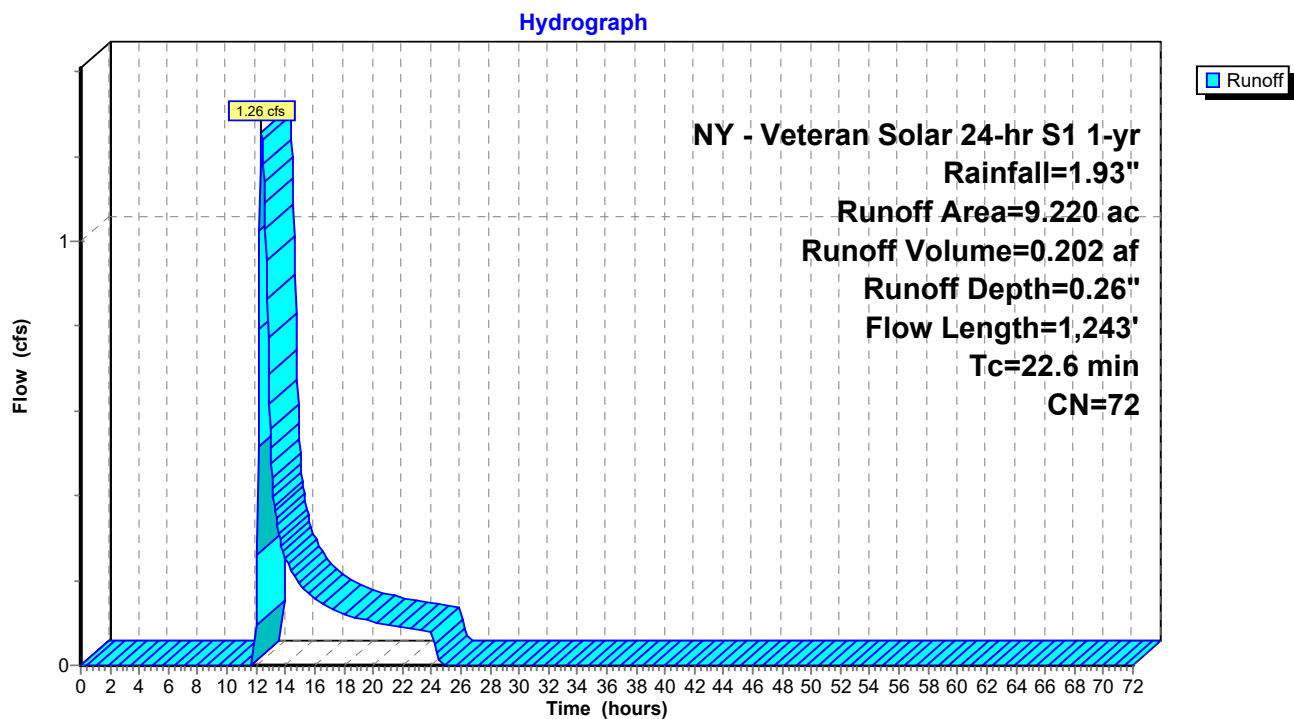
Runoff = 1.26 cfs @ 12.38 hrs, Volume= 0.202 af, Depth= 0.26"
 Routed to Reach DP3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
1.780	71	Meadow, non-grazed, HSG C
0.460	78	Meadow, non-grazed, HSG D
4.490	70	Woods, Good, HSG C
2.490	77	Woods, Good, HSG D
9.220	72	Weighted Average
9.220		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0405	0.13		Sheet Flow, SEG1 Grass: Dense n= 0.240 P2= 2.34"
2.5	234	0.0947	1.54		Shallow Concentrated Flow, SEG2 Woodland Kv= 5.0 fps
6.2	663	0.1282	1.79		Shallow Concentrated Flow, SEG3 Woodland Kv= 5.0 fps
0.2	35	0.3074	3.88		Shallow Concentrated Flow, SEG4 Short Grass Pasture Kv= 7.0 fps
0.1	65	0.1400	16.97	13.33	Pipe Channel, SEG5 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, straight & clean
0.1	33	0.4987	4.94		Shallow Concentrated Flow, SEG6 Short Grass Pasture Kv= 7.0 fps
0.9	113	0.1894	2.18		Shallow Concentrated Flow, SEG7 Woodland Kv= 5.0 fps
22.6	1,243	Total			

Subcatchment PDA4:



Summary for Subcatchment PDA5:

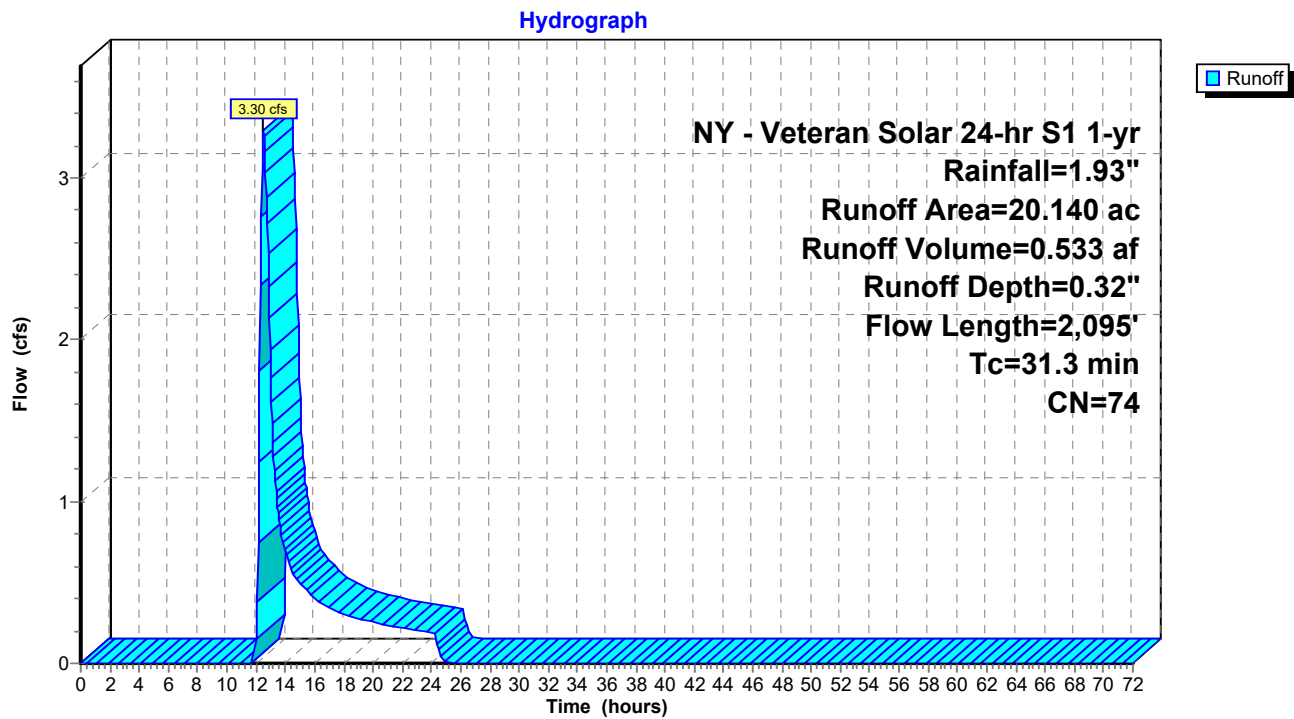
Runoff = 3.30 cfs @ 12.51 hrs, Volume= 0.533 af, Depth= 0.32"
 Routed to Reach DP4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
2.710	71	Meadow, non-grazed, HSG C
4.600	78	Meadow, non-grazed, HSG D
8.370	70	Woods, Good, HSG C
4.250	77	Woods, Good, HSG D
0.210	96	Gravel surface, HSG D
20.140	74	Weighted Average
20.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	100	0.0583	0.10		Sheet Flow, SEG1 Woods: Light underbrush n= 0.400 P2= 2.34"
7.3	555	0.0640	1.26		Shallow Concentrated Flow, SEG2 Woodland Kv= 5.0 fps
1.2	123	0.0639	1.77		Shallow Concentrated Flow, SEG3 Short Grass Pasture Kv= 7.0 fps
5.1	570	0.1396	1.87		Shallow Concentrated Flow, SEG4 Woodland Kv= 5.0 fps
0.2	39	0.2016	3.14		Shallow Concentrated Flow, SEG5 Short Grass Pasture Kv= 7.0 fps
1.1	708	0.0800	11.14	100.27	Channel Flow, SEG6 Area= 9.0 sf Perim= 11.0' r= 0.82' n= 0.033
31.3	2,095	Total			

Subcatchment PDA5:



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NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

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Summary for Subcatchment PDA6:

Runoff = 3.25 cfs @ 12.05 hrs, Volume= 0.199 af, Depth= 0.56"
Routed to Pond BB : Bioretention Basin

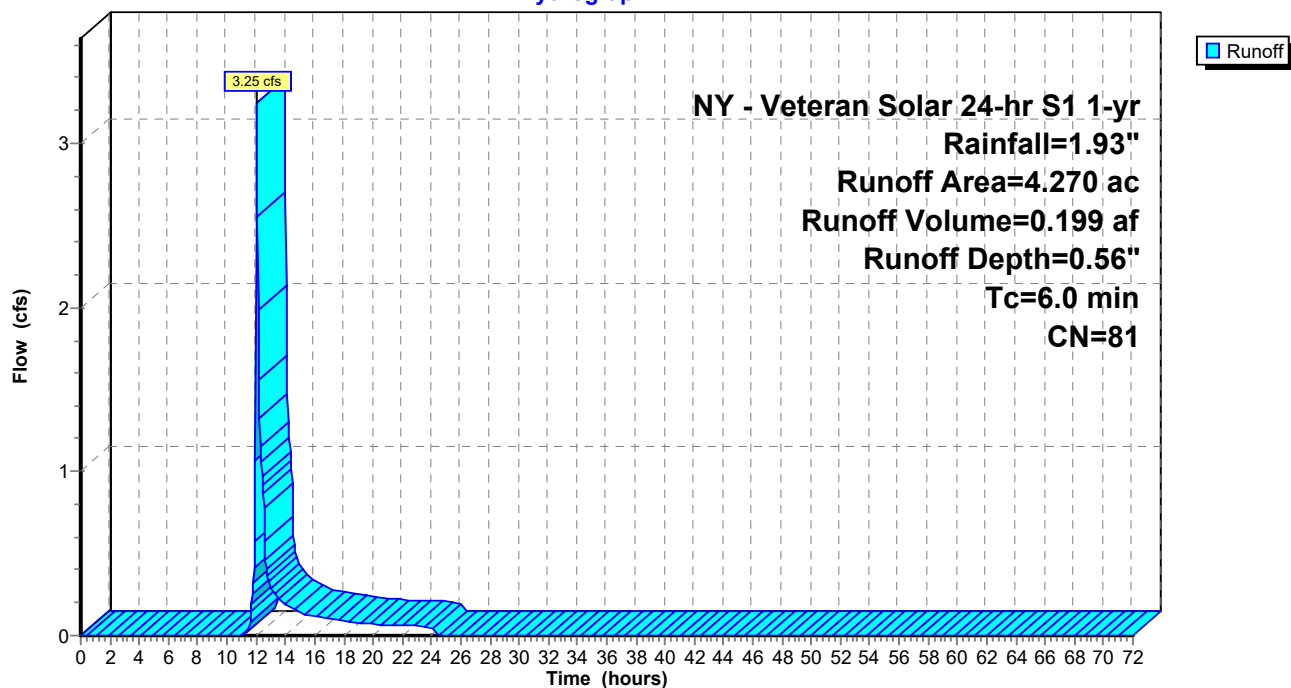
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY - Veteran Solar 24-hr S1 1-yr Rainfall=1.93"

Area (ac)	CN	Description
0.530	96	Gravel surface, HSG C
0.440	96	Gravel surface, HSG D
0.550	71	Meadow, non-grazed, HSG C
2.750	78	Meadow, non-grazed, HSG D
4.270	81	Weighted Average
4.270		100.00% Pervious Area

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

Subcatchment PDA6:

Hydrograph

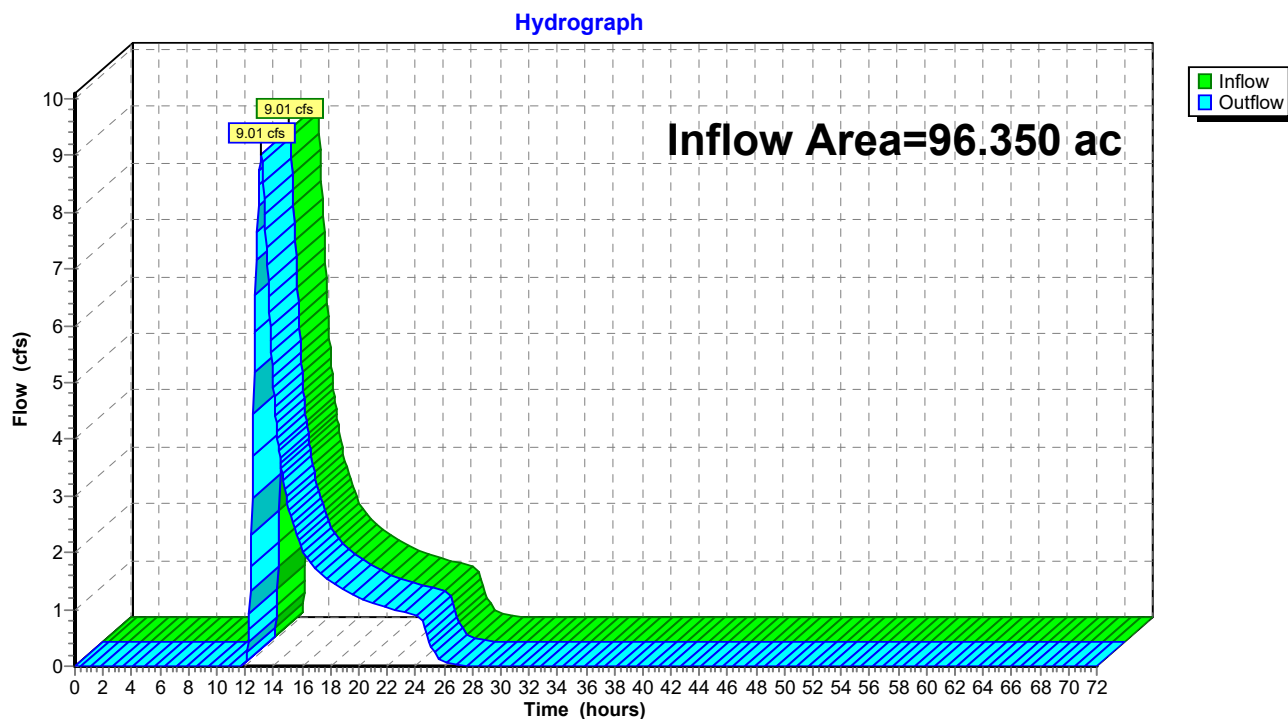


Summary for Reach DP1:

Inflow Area = 96.350 ac, 0.00% Impervious, Inflow Depth = 0.29" for 1-yr event
Inflow = 9.01 cfs @ 13.12 hrs, Volume= 2.342 af
Outflow = 9.01 cfs @ 13.12 hrs, Volume= 2.342 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP1:



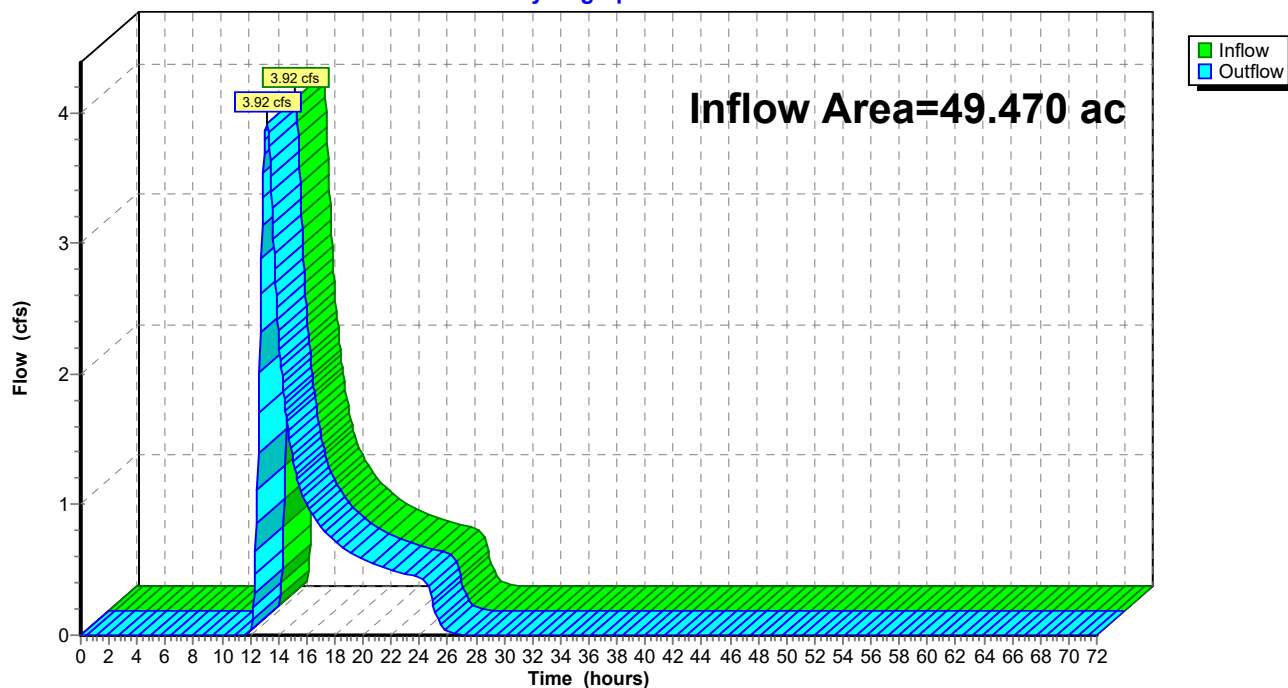
Summary for Reach DP2:

Inflow Area = 49.470 ac, 0.00% Impervious, Inflow Depth = 0.26" for 1-yr event
Inflow = 3.92 cfs @ 13.19 hrs, Volume= 1.086 af
Outflow = 3.92 cfs @ 13.19 hrs, Volume= 1.086 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP2:

Hydrograph

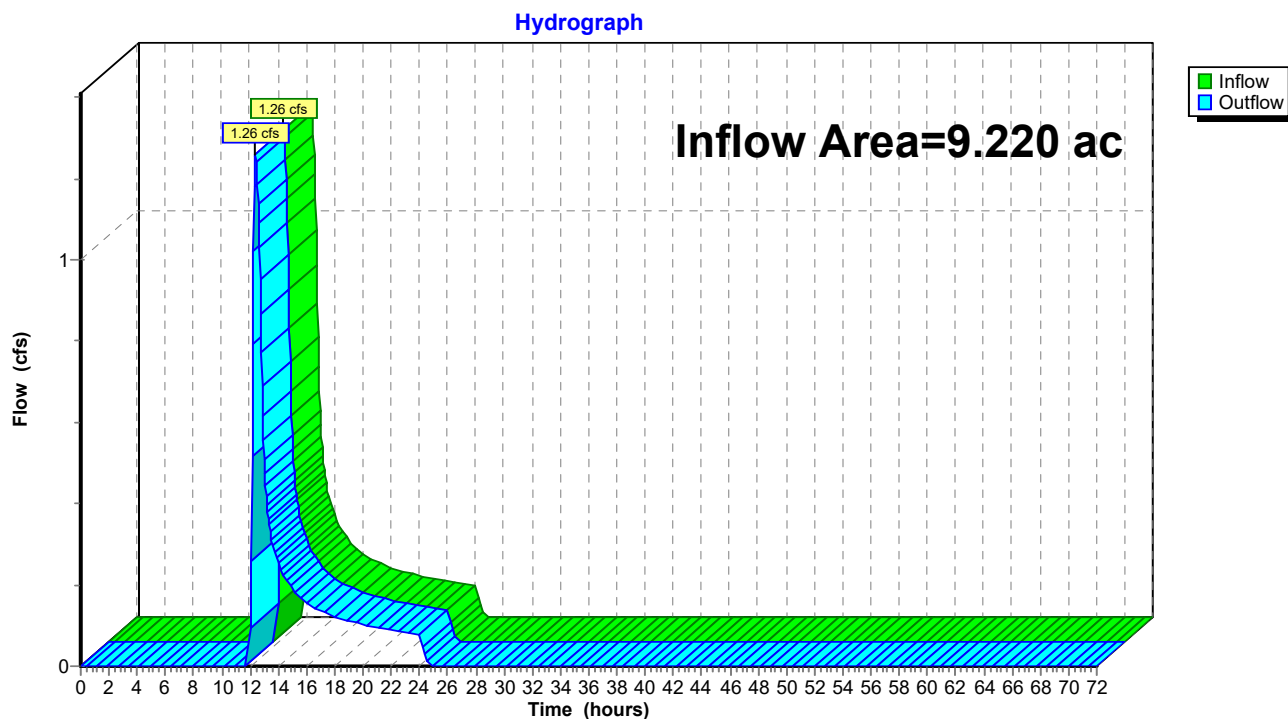


Summary for Reach DP3:

Inflow Area = 9.220 ac, 0.00% Impervious, Inflow Depth = 0.26" for 1-yr event
Inflow = 1.26 cfs @ 12.38 hrs, Volume= 0.202 af
Outflow = 1.26 cfs @ 12.38 hrs, Volume= 0.202 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

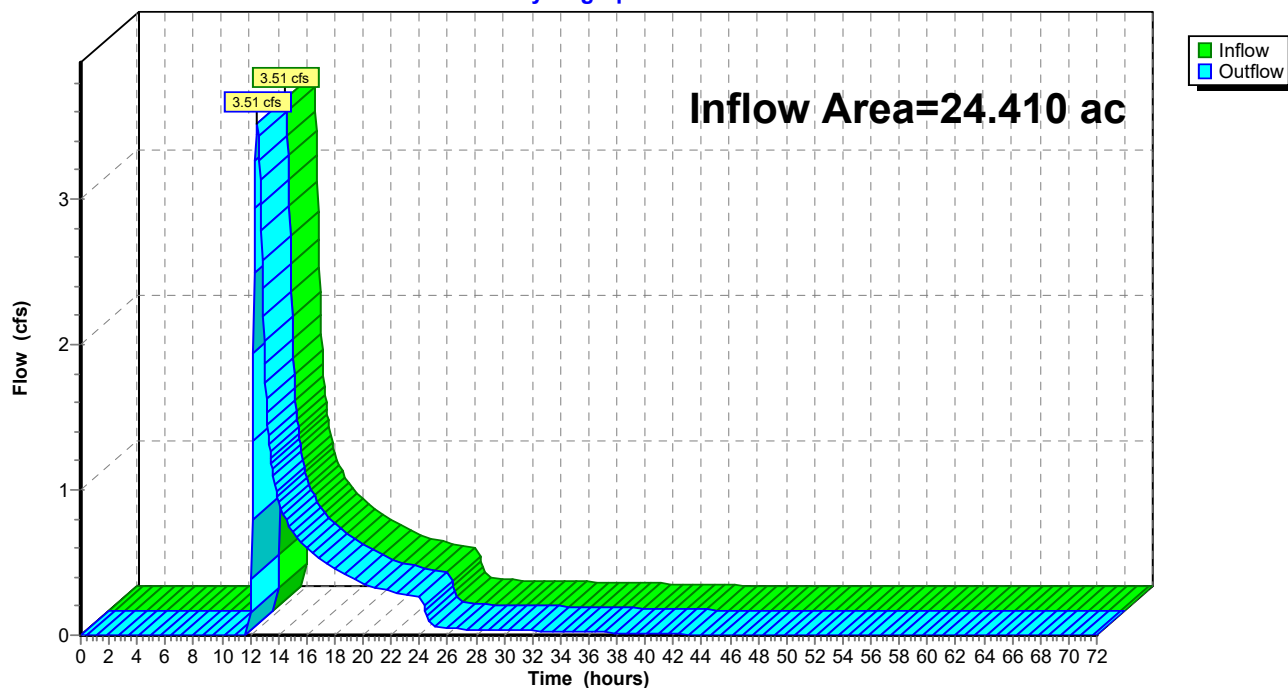
Reach DP3:



Summary for Reach DP4:

Inflow Area = 24.410 ac, 0.00% Impervious, Inflow Depth = 0.36" for 1-yr event
Inflow = 3.51 cfs @ 12.51 hrs, Volume= 0.732 af
Outflow = 3.51 cfs @ 12.51 hrs, Volume= 0.732 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP4:**Hydrograph**

Summary for Pond 7P: Bioretention Basin A

Inflow Area = 0.670 ac, 0.00% Impervious, Inflow Depth = 0.56" for 1-yr event
 Inflow = 0.63 cfs @ 11.99 hrs, Volume= 0.031 af
 Outflow = 0.12 cfs @ 12.50 hrs, Volume= 0.031 af, Atten= 82%, Lag= 30.3 min
 Primary = 0.12 cfs @ 12.50 hrs, Volume= 0.031 af
 Routed to Reach DP1 :
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP1 :

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,229.71' @ 12.50 hrs Surf.Area= 793 sf Storage= 453 cf

Plug-Flow detention time= 246.1 min calculated for 0.031 af (100% of inflow)
 Center-of-Mass det. time= 246.5 min (1,115.2 - 868.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,229.00'	3,405 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,229.00	490	0	0
1,232.00	1,780	3,405	3,405

Device	Routing	Invert	Outlet Devices
#1	Primary	1,225.00'	15.0" Round Culvert L= 33.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,225.00' / 1,224.00' S= 0.0303 ' /' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,229.50'	3.0" Horiz. 3" Orifice C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,230.00'	48.0" x 30.0" Horiz. Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	1,225.25'	6.0" Vert. 6" Underdrain C= 0.600 Limited to weir flow at low heads
#5	Device 4	1,229.00'	0.500 in/hr Filtering Media over Surface area
#6	Secondary	1,230.50'	20.0' long Emergency Spillway 2 End Contraction(s)

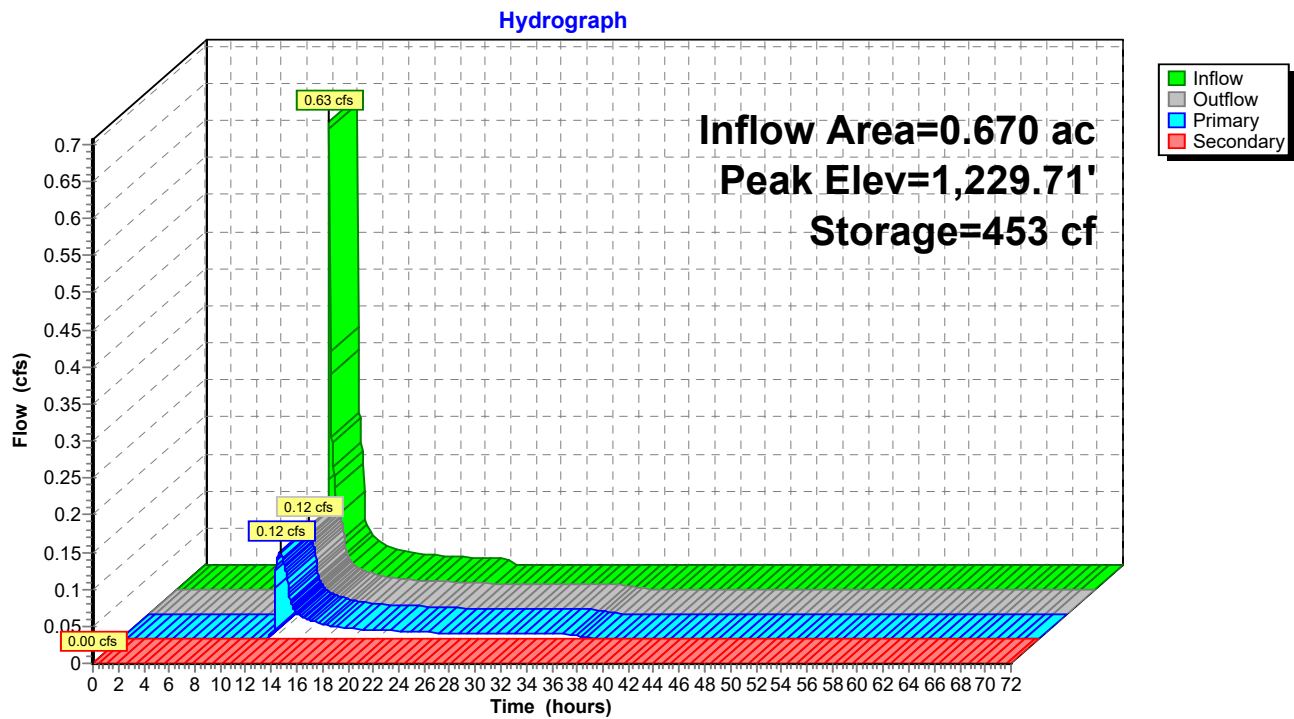
Primary OutFlow Max=0.12 cfs @ 12.50 hrs HW=1,229.71' (Free Discharge)

↑ **1=Culvert** (Passes 0.12 cfs of 11.94 cfs potential flow)
 ↑ **2=3" Orifice** (Orifice Controls 0.11 cfs @ 2.18 fps)
 ↑ **3=Grate** (Controls 0.00 cfs)
 ↑ **4=6" Underdrain** (Passes 0.01 cfs of 1.94 cfs potential flow)
 ↑ **5=Filtering Media** (Exfiltration Controls 0.01 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,229.00' (Free Discharge)

↑ **6=Emergency Spillway** (Controls 0.00 cfs)

Pond 7P: Bioretention Basin A



Summary for Pond BB: Bioretention Basin

Inflow Area = 4.270 ac, 0.00% Impervious, Inflow Depth = 0.56" for 1-yr event
 Inflow = 3.25 cfs @ 12.05 hrs, Volume= 0.199 af
 Outflow = 2.56 cfs @ 12.12 hrs, Volume= 0.199 af, Atten= 21%, Lag= 4.3 min
 Primary = 1.15 cfs @ 12.12 hrs, Volume= 0.122 af
 Routed to Pond DB : Detention Basin
 Secondary = 1.40 cfs @ 12.12 hrs, Volume= 0.077 af
 Routed to Pond DB : Detention Basin

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,061.63' @ 12.12 hrs Surf.Area= 2,719 sf Storage= 1,568 cf

Plug-Flow detention time= 160.0 min calculated for 0.199 af (100% of inflow)
 Center-of-Mass det. time= 157.7 min (1,030.4 - 872.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,061.00'	5,950 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,061.00	2,290	0	0
1,063.00	3,660	5,950	5,950

Device	Routing	Invert	Outlet Devices
#1	Primary	1,057.00'	15.0" Round Culvert L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,057.00' / 1,056.50' S= 0.0100 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,061.50'	24.0" x 24.0" Horiz. Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,057.20'	6.0" Vert. 6" Underdrain C= 0.600 Limited to weir flow at low heads
#4	Device 3	1,061.00'	0.500 in/hr Filtering Media over Surface area
#5	Secondary	1,061.50'	10.0' long Overflow Spillway 2 End Contraction(s)

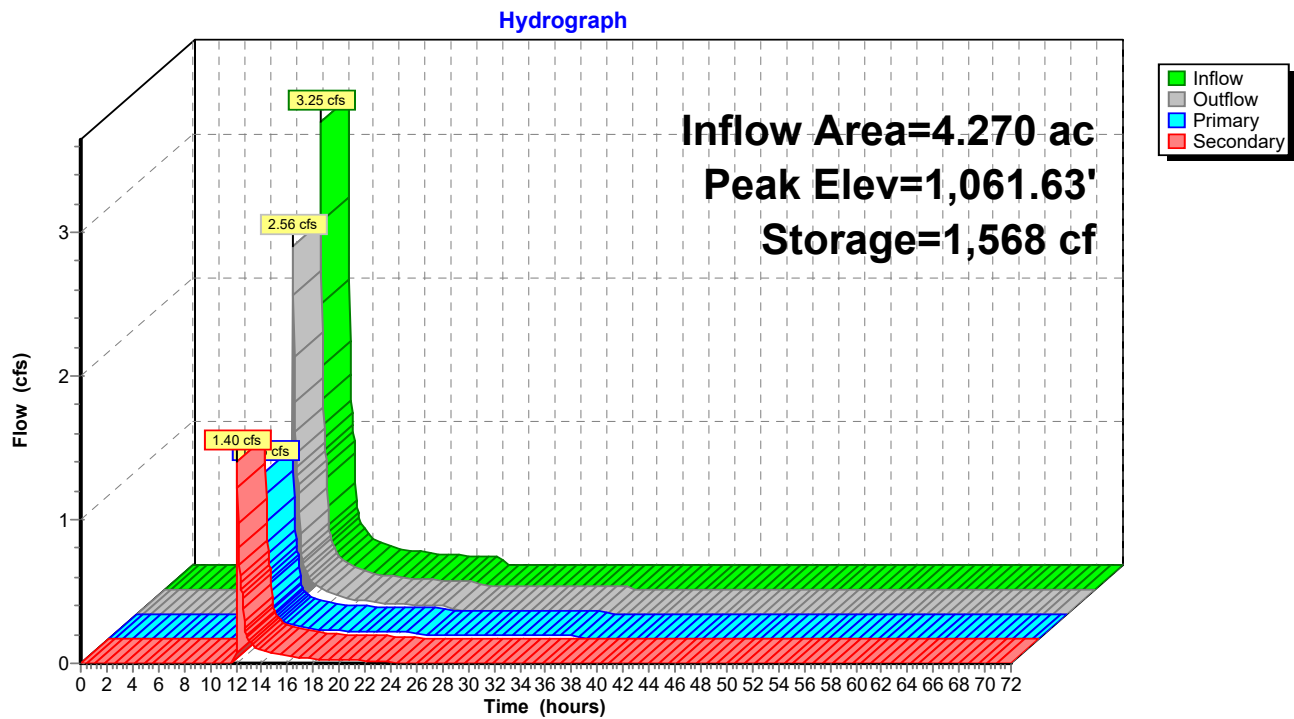
Primary OutFlow Max=1.03 cfs @ 12.12 hrs HW=1,061.61' (Free Discharge)

↑ **1=Culvert** (Passes 1.03 cfs of 11.80 cfs potential flow)
 ↑ **2=Grate** (Weir Controls 1.00 cfs @ 1.10 fps)
 ↑ **3=6" Underdrain** (Passes 0.03 cfs of 1.93 cfs potential flow)
 ↑ **4=Filtering Media** (Exfiltration Controls 0.03 cfs)

Secondary OutFlow Max=1.24 cfs @ 12.12 hrs HW=1,061.61' (Free Discharge)

↑ **5=Overflow Spillway** (Weir Controls 1.24 cfs @ 1.10 fps)

Pond BB: Bioretention Basin



Summary for Pond DB: Detention Basin

Inflow Area = 4.270 ac, 0.00% Impervious, Inflow Depth = 0.56" for 1-yr event
 Inflow = 2.56 cfs @ 12.12 hrs, Volume= 0.199 af
 Outflow = 0.25 cfs @ 13.36 hrs, Volume= 0.198 af, Atten= 90%, Lag= 74.2 min
 Primary = 0.25 cfs @ 13.36 hrs, Volume= 0.198 af
 Routed to Reach DP4 :
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP4 :

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,055.52' @ 13.36 hrs Surf.Area= 5,432 sf Storage= 2,662 cf

Plug-Flow detention time= 210.6 min calculated for 0.198 af (100% of inflow)
 Center-of-Mass det. time= 209.1 min (1,239.5 - 1,030.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,055.00'	44,550 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,055.00	4,810	0	0
1,060.50	11,390	44,550	44,550

Device	Routing	Invert	Outlet Devices
#1	Primary	1,055.00'	15.0" Round Culvert L= 100.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,055.00' / 1,054.00' S= 0.0100 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,055.00'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,056.00'	4.0" Vert. Orifice C= 0.600 Limited to weir flow at low heads
#4	Device 1	1,059.00'	48.0" x 30.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,059.50'	20.0' long Emergency Spillway 2 End Contraction(s)

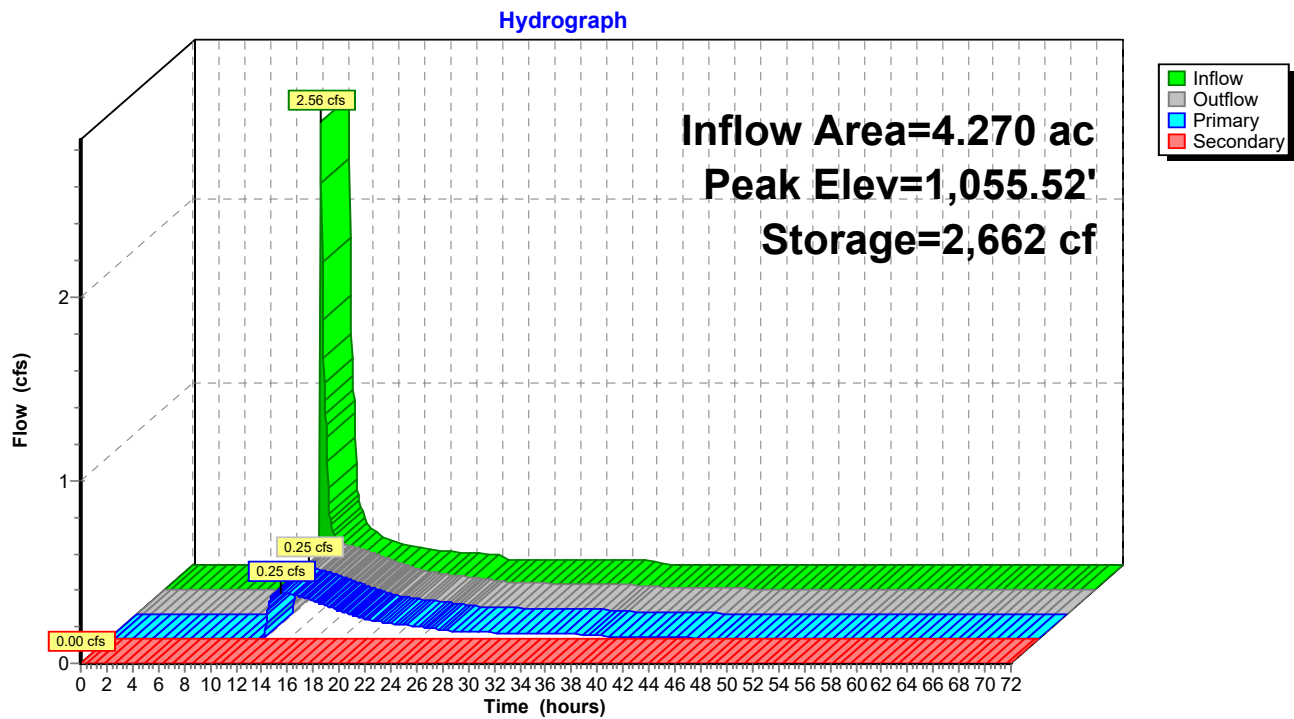
Primary OutFlow Max=0.25 cfs @ 13.36 hrs HW=1,055.52' (Free Discharge)

↑ **1=Culvert** (Passes 0.25 cfs of 1.18 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.25 cfs @ 2.86 fps)
 ↑ **3=Orifice** (Controls 0.00 cfs)
 ↑ **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,055.00' (Free Discharge)

↑ **5=Emergency Spillway** (Controls 0.00 cfs)

Pond DB: Detention Basin



Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentPDA1:	Runoff Area=95.680 ac 0.00% Impervious Runoff Depth=1.13" Flow Length=3,298' Tc=70.6 min CN=73 Runoff=45.84 cfs 8.980 af
SubcatchmentPDA2:	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=1.64" Flow Length=521' Tc=1.6 min CN=81 Runoff=1.89 cfs 0.092 af
SubcatchmentPDA3:	Runoff Area=49.470 ac 0.00% Impervious Runoff Depth=1.07" Flow Length=3,557' Tc=72.8 min CN=72 Runoff=21.72 cfs 4.407 af
SubcatchmentPDA4:	Runoff Area=9.220 ac 0.00% Impervious Runoff Depth=1.07" Flow Length=1,243' Tc=22.6 min CN=72 Runoff=7.65 cfs 0.821 af
SubcatchmentPDA5:	Runoff Area=20.140 ac 0.00% Impervious Runoff Depth=1.19" Flow Length=2,095' Tc=31.3 min CN=74 Runoff=16.17 cfs 1.989 af
SubcatchmentPDA6:	Runoff Area=4.270 ac 0.00% Impervious Runoff Depth=1.64" Tc=6.0 min CN=81 Runoff=9.98 cfs 0.585 af
Reach DP1:	Inflow=46.01 cfs 9.071 af Outflow=46.01 cfs 9.071 af
Reach DP2:	Inflow=21.72 cfs 4.407 af Outflow=21.72 cfs 4.407 af
Reach DP3:	Inflow=7.65 cfs 0.821 af Outflow=7.65 cfs 0.821 af
Reach DP4:	Inflow=17.02 cfs 2.574 af Outflow=17.02 cfs 2.574 af
Pond 7P: Bioretention Basin A	Peak Elev=1,230.12' Storage=818 cf Inflow=1.89 cfs 0.092 af Primary=1.81 cfs 0.091 af Secondary=0.00 cfs 0.000 af Outflow=1.81 cfs 0.091 af
Pond BB: Bioretention Basin	Peak Elev=1,061.80' Storage=2,039 cf Inflow=9.98 cfs 0.585 af Primary=4.24 cfs 0.297 af Secondary=5.22 cfs 0.288 af Outflow=9.46 cfs 0.585 af
Pond DB: Detention Basin	Peak Elev=1,056.93' Storage=11,510 cf Inflow=9.46 cfs 0.585 af Primary=0.92 cfs 0.585 af Secondary=0.00 cfs 0.000 af Outflow=0.92 cfs 0.585 af

Summary for Subcatchment PDA1:

Runoff = 45.84 cfs @ 12.99 hrs, Volume= 8.980 af, Depth= 1.13"
 Routed to Reach DP1 :

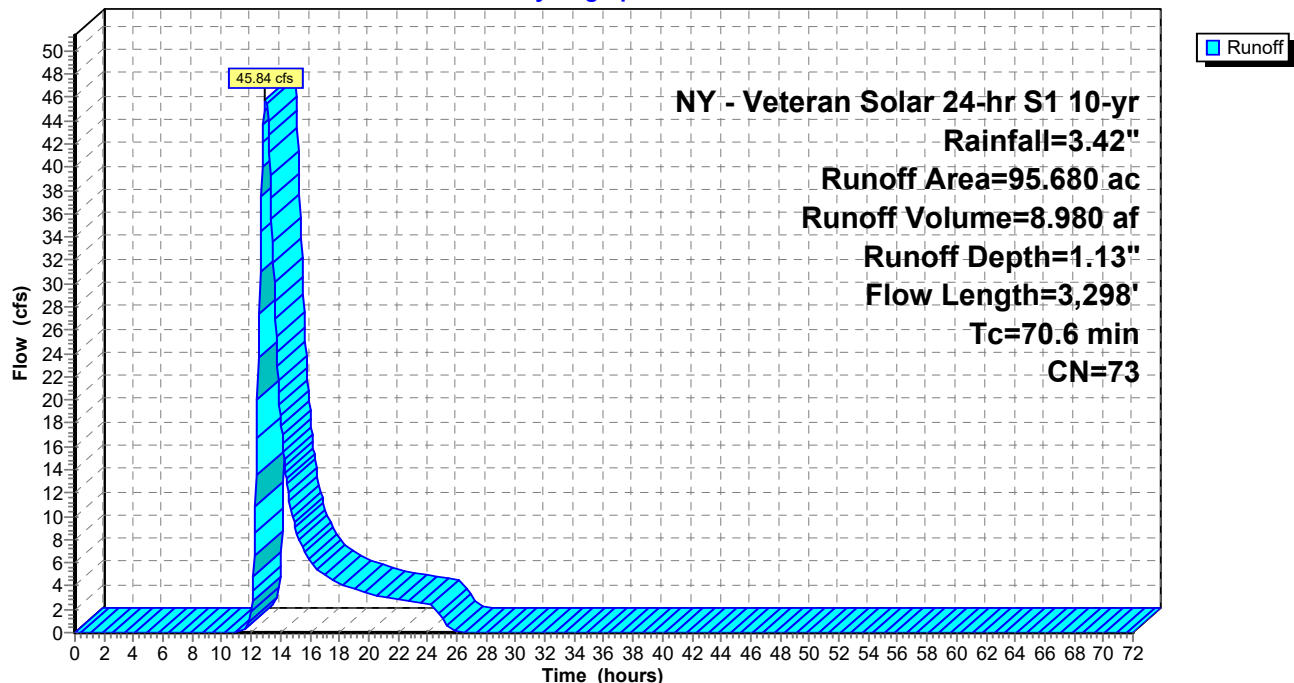
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
24.460	71	Meadow, non-grazed, HSG C
2.890	78	Meadow, non-grazed, HSG D
0.290	55	Woods, Good, HSG B
38.080	70	Woods, Good, HSG C
29.780	77	Woods, Good, HSG D
0.180	96	Gravel surface, HSG C
95.680	73	Weighted Average
95.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.8	150	0.0231	0.08		Sheet Flow, SEG 1
					Woods: Light underbrush n= 0.400 P2= 2.34"
37.8	3,148	0.0770	1.39		Shallow Concentrated Flow, SEG 2
					Woodland Kv= 5.0 fps
70.6	3,298	Total			

Subcatchment PDA1:

Hydrograph



Summary for Subcatchment PDA2:

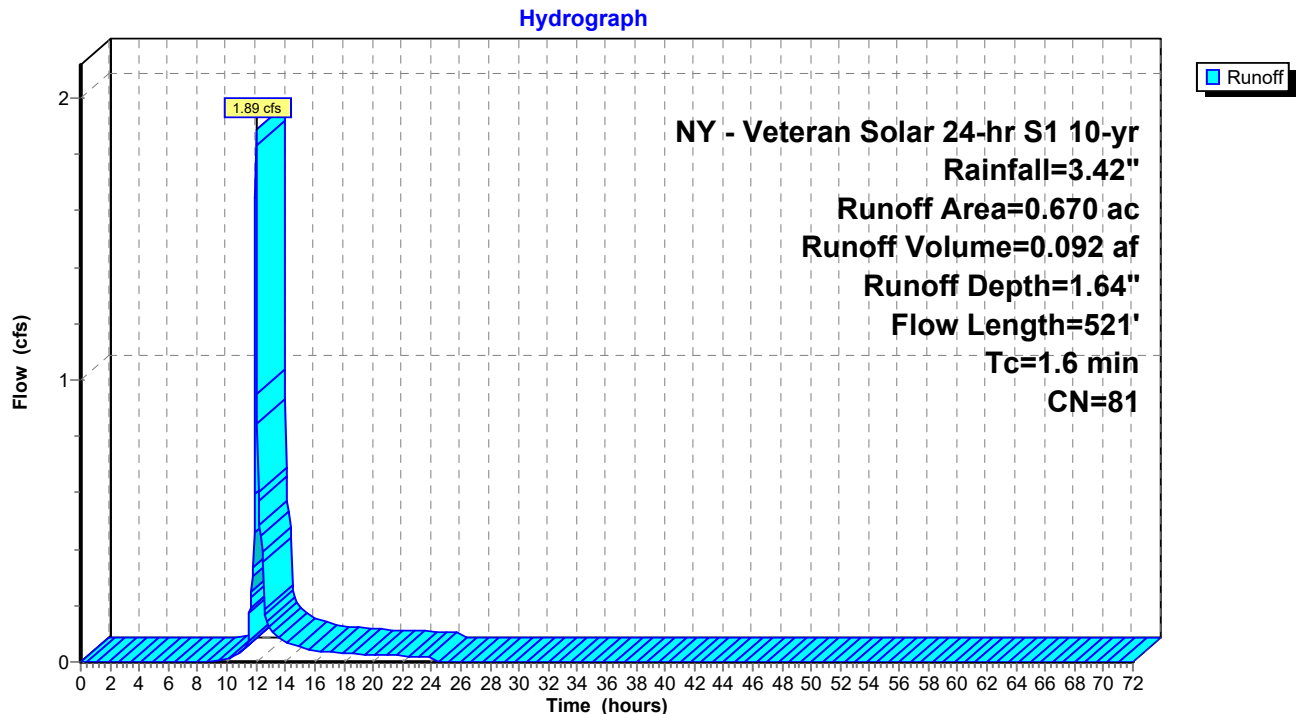
Runoff = 1.89 cfs @ 11.98 hrs, Volume= 0.092 af, Depth= 1.64"
 Routed to Pond 7P : Bioretention Basin A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
0.130	96	Gravel surface, HSG C
0.110	96	Gravel surface, HSG D
0.310	71	Meadow, non-grazed, HSG C
0.120	78	Meadow, non-grazed, HSG D
0.670	81	Weighted Average
0.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	100	0.0051	2.81	25.32	Channel Flow, SEG1 Area= 9.0 sf Perim= 11.0' r= 0.82' n= 0.033
1.0	421	0.0289	6.70	60.27	Channel Flow, SEG2 Area= 9.0 sf Perim= 11.0' r= 0.82' n= 0.033 Earth, grassed & winding
1.6	521	Total			

Subcatchment PDA2:



Summary for Subcatchment PDA3:

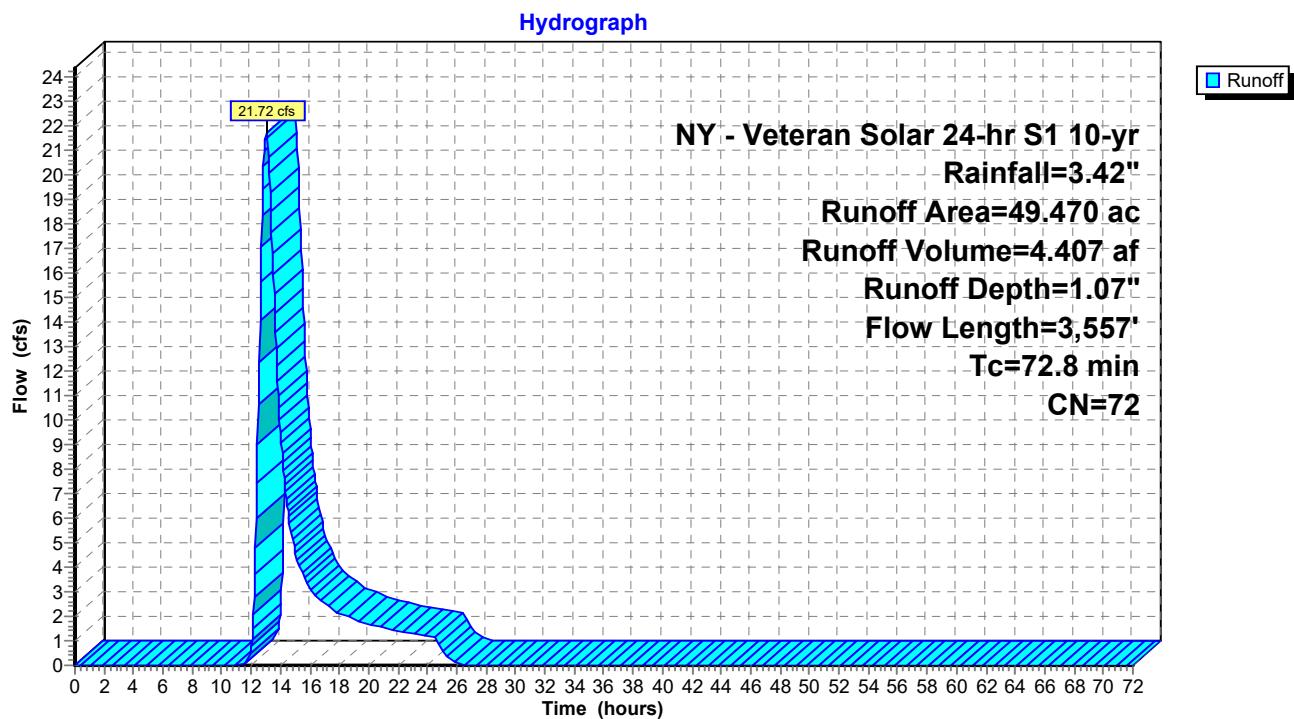
Runoff = 21.72 cfs @ 13.03 hrs, Volume= 4.407 af, Depth= 1.07"
 Routed to Reach DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
6.140	71	Meadow, non-grazed, HSG C
31.290	70	Woods, Good, HSG C
9.550	77	Woods, Good, HSG D
2.490	78	Meadow, non-grazed, HSG D
49.470	72	Weighted Average
49.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.6	150	0.0391	0.09		Sheet Flow, SEG1
					Woods: Light underbrush n= 0.400 P2= 2.34"
39.6	2,706	0.0518	1.14		Shallow Concentrated Flow, SEG2
					Woodland Kv= 5.0 fps
0.6	53	0.0418	1.43		Shallow Concentrated Flow, SEG3
					Short Grass Pasture Kv= 7.0 fps
5.8	613	0.1248	1.77		Shallow Concentrated Flow, SEG4
					Woodland Kv= 5.0 fps
0.2	35	0.1129	2.35		Shallow Concentrated Flow, SEG5
					Short Grass Pasture Kv= 7.0 fps
72.8	3,557	Total			

Subcatchment PDA3:



Summary for Subcatchment PDA4:

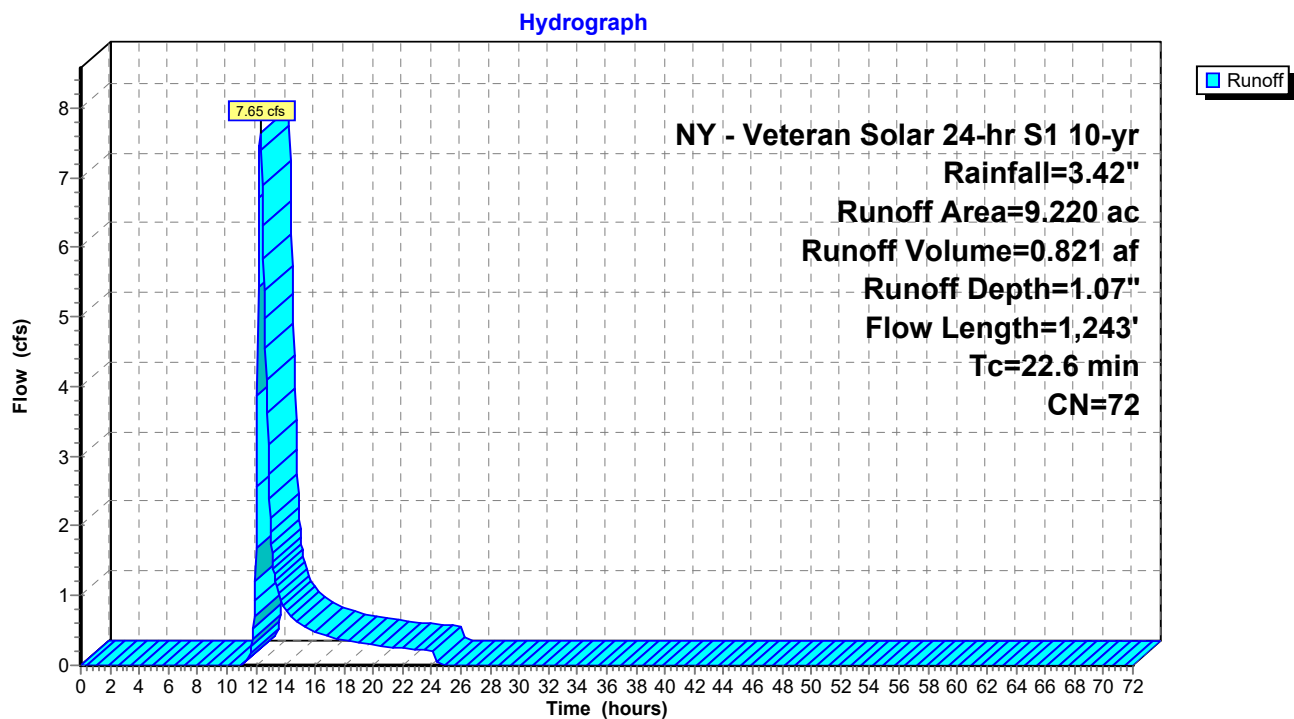
Runoff = 7.65 cfs @ 12.30 hrs, Volume= 0.821 af, Depth= 1.07"
 Routed to Reach DP3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
1.780	71	Meadow, non-grazed, HSG C
0.460	78	Meadow, non-grazed, HSG D
4.490	70	Woods, Good, HSG C
2.490	77	Woods, Good, HSG D
9.220	72	Weighted Average
9.220		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0405	0.13		Sheet Flow, SEG1 Grass: Dense n= 0.240 P2= 2.34"
2.5	234	0.0947	1.54		Shallow Concentrated Flow, SEG2 Woodland Kv= 5.0 fps
6.2	663	0.1282	1.79		Shallow Concentrated Flow, SEG3 Woodland Kv= 5.0 fps
0.2	35	0.3074	3.88		Shallow Concentrated Flow, SEG4 Short Grass Pasture Kv= 7.0 fps
0.1	65	0.1400	16.97	13.33	Pipe Channel, SEG5 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, straight & clean
0.1	33	0.4987	4.94		Shallow Concentrated Flow, SEG6 Short Grass Pasture Kv= 7.0 fps
0.9	113	0.1894	2.18		Shallow Concentrated Flow, SEG7 Woodland Kv= 5.0 fps
22.6	1,243	Total			

Subcatchment PDA4:



Summary for Subcatchment PDA5:

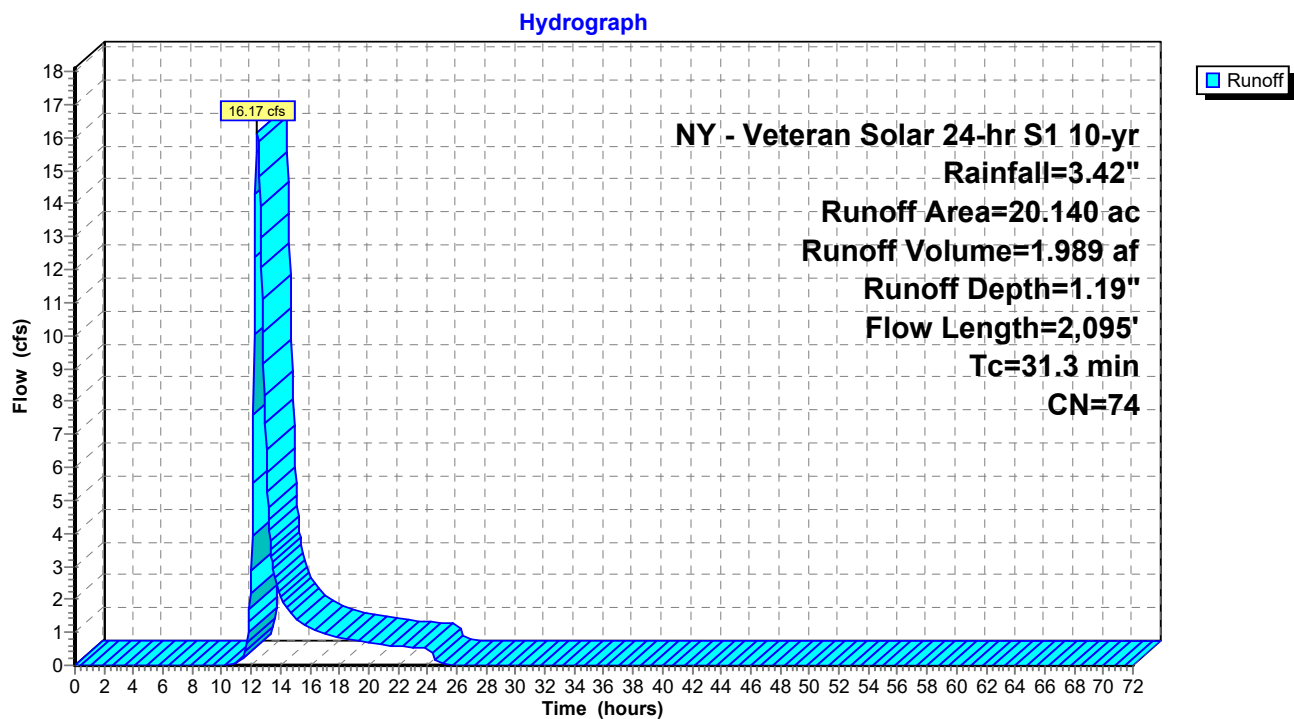
Runoff = 16.17 cfs @ 12.43 hrs, Volume= 1.989 af, Depth= 1.19"
 Routed to Reach DP4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
2.710	71	Meadow, non-grazed, HSG C
4.600	78	Meadow, non-grazed, HSG D
8.370	70	Woods, Good, HSG C
4.250	77	Woods, Good, HSG D
0.210	96	Gravel surface, HSG D
20.140	74	Weighted Average
20.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	100	0.0583	0.10		Sheet Flow, SEG1 Woods: Light underbrush n= 0.400 P2= 2.34"
7.3	555	0.0640	1.26		Shallow Concentrated Flow, SEG2 Woodland Kv= 5.0 fps
1.2	123	0.0639	1.77		Shallow Concentrated Flow, SEG3 Short Grass Pasture Kv= 7.0 fps
5.1	570	0.1396	1.87		Shallow Concentrated Flow, SEG4 Woodland Kv= 5.0 fps
0.2	39	0.2016	3.14		Shallow Concentrated Flow, SEG5 Short Grass Pasture Kv= 7.0 fps
1.1	708	0.0800	11.14	100.27	Channel Flow, SEG6 Area= 9.0 sf Perim= 11.0' r= 0.82' n= 0.033
31.3	2,095	Total			

Subcatchment PDA5:



Summary for Subcatchment PDA6:

Runoff = 9.98 cfs @ 12.05 hrs, Volume= 0.585 af, Depth= 1.64"
 Routed to Pond BB : Bioretention Basin

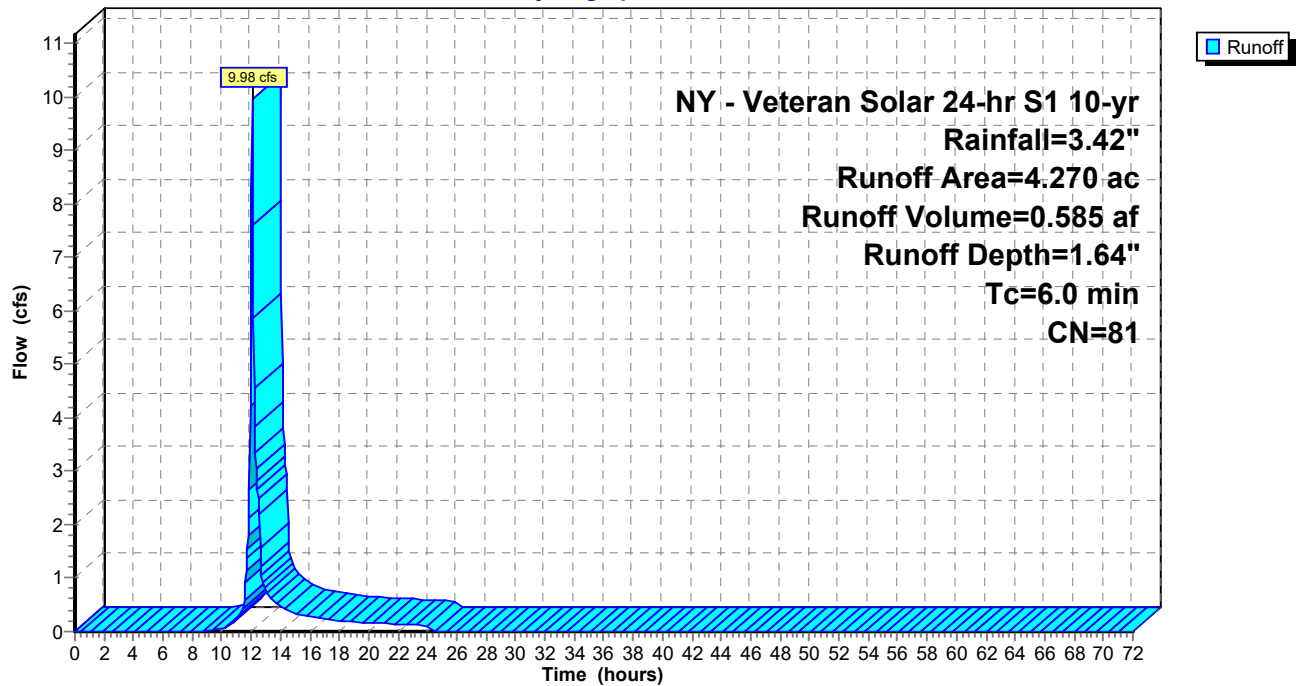
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 10-yr Rainfall=3.42"

Area (ac)	CN	Description
0.530	96	Gravel surface, HSG C
0.440	96	Gravel surface, HSG D
0.550	71	Meadow, non-grazed, HSG C
2.750	78	Meadow, non-grazed, HSG D
4.270	81	Weighted Average
4.270		100.00% Pervious Area

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

Subcatchment PDA6:

Hydrograph

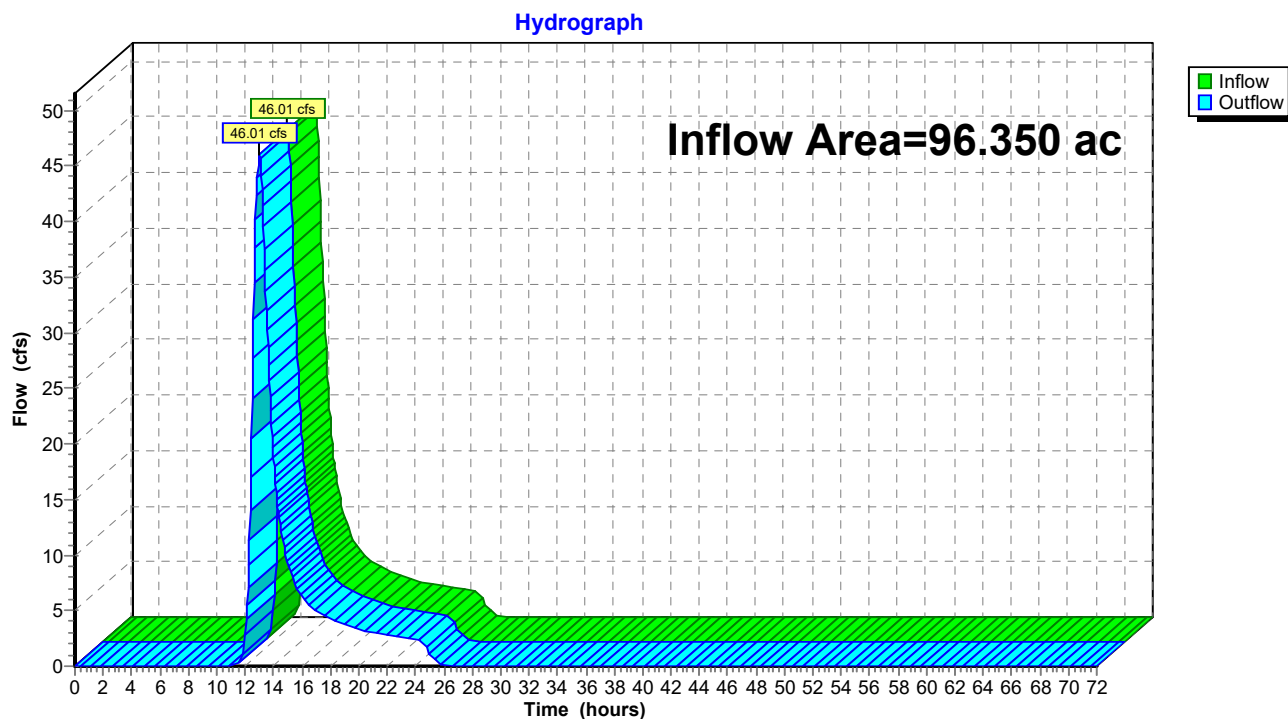


Summary for Reach DP1:

Inflow Area = 96.350 ac, 0.00% Impervious, Inflow Depth = 1.13" for 10-yr event
Inflow = 46.01 cfs @ 12.99 hrs, Volume= 9.071 af
Outflow = 46.01 cfs @ 12.99 hrs, Volume= 9.071 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP1:



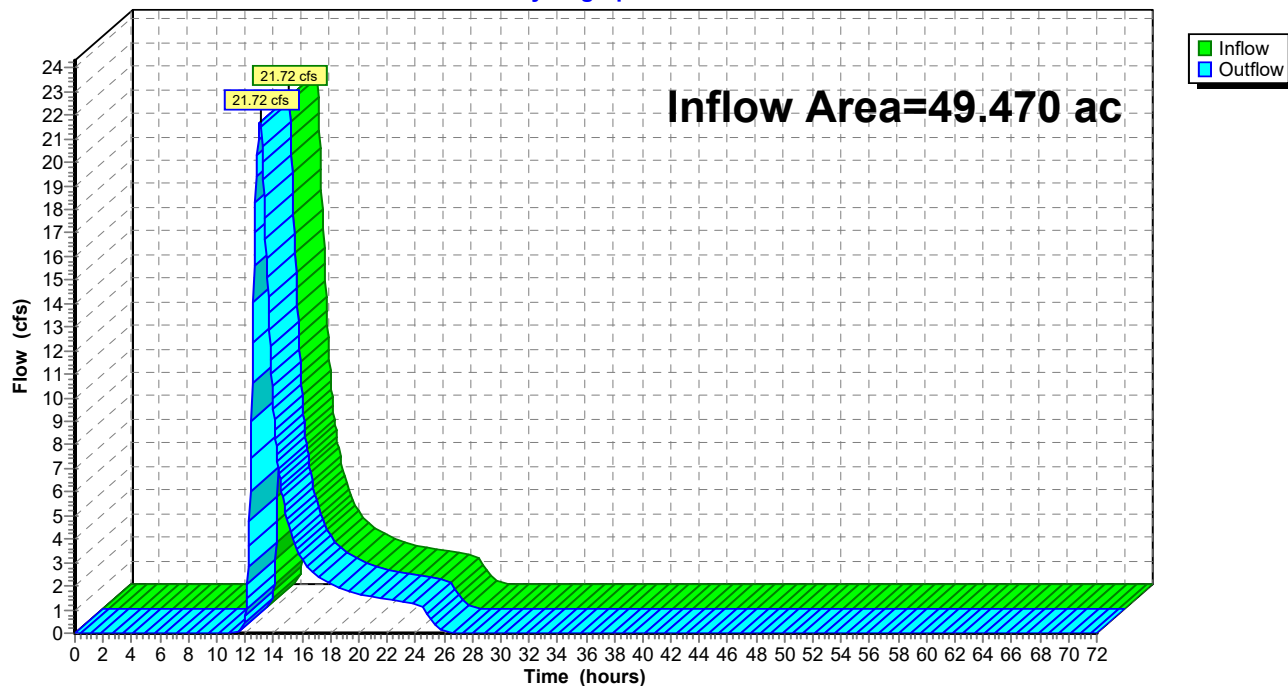
Summary for Reach DP2:

Inflow Area = 49.470 ac, 0.00% Impervious, Inflow Depth = 1.07" for 10-yr event
Inflow = 21.72 cfs @ 13.03 hrs, Volume= 4.407 af
Outflow = 21.72 cfs @ 13.03 hrs, Volume= 4.407 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP2:

Hydrograph

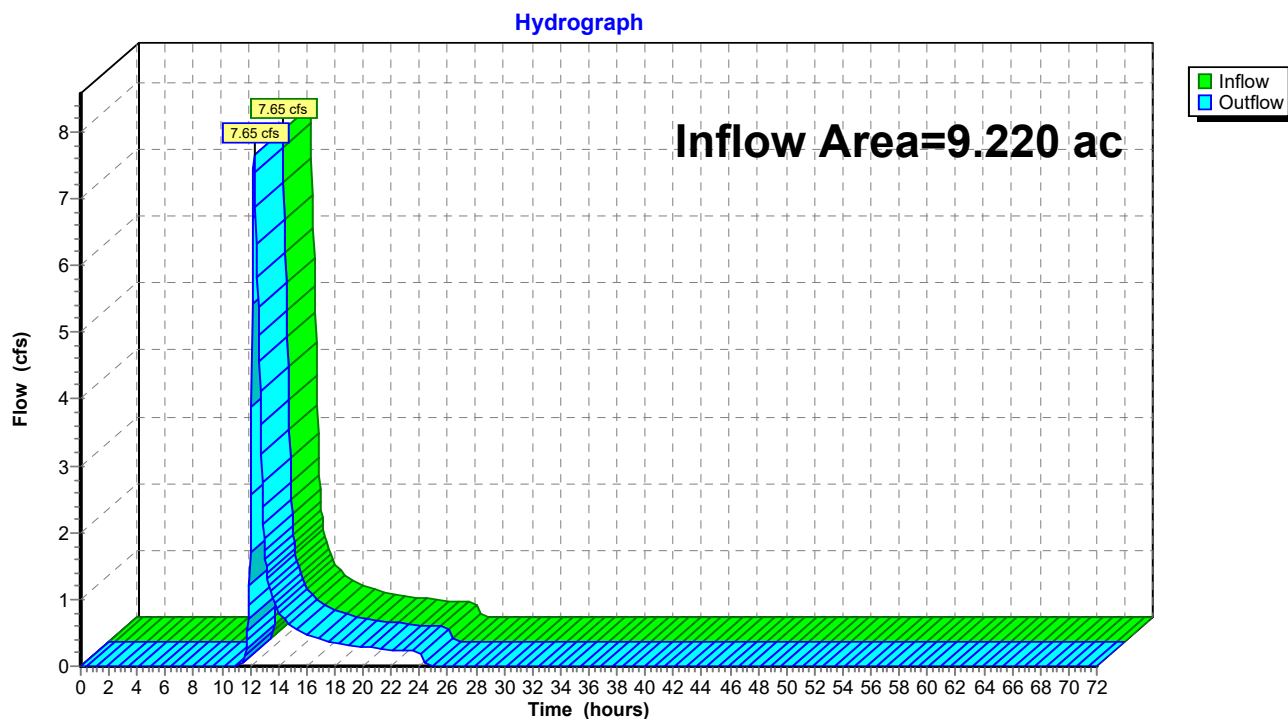


Summary for Reach DP3:

Inflow Area = 9.220 ac, 0.00% Impervious, Inflow Depth = 1.07" for 10-yr event
Inflow = 7.65 cfs @ 12.30 hrs, Volume= 0.821 af
Outflow = 7.65 cfs @ 12.30 hrs, Volume= 0.821 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP3:



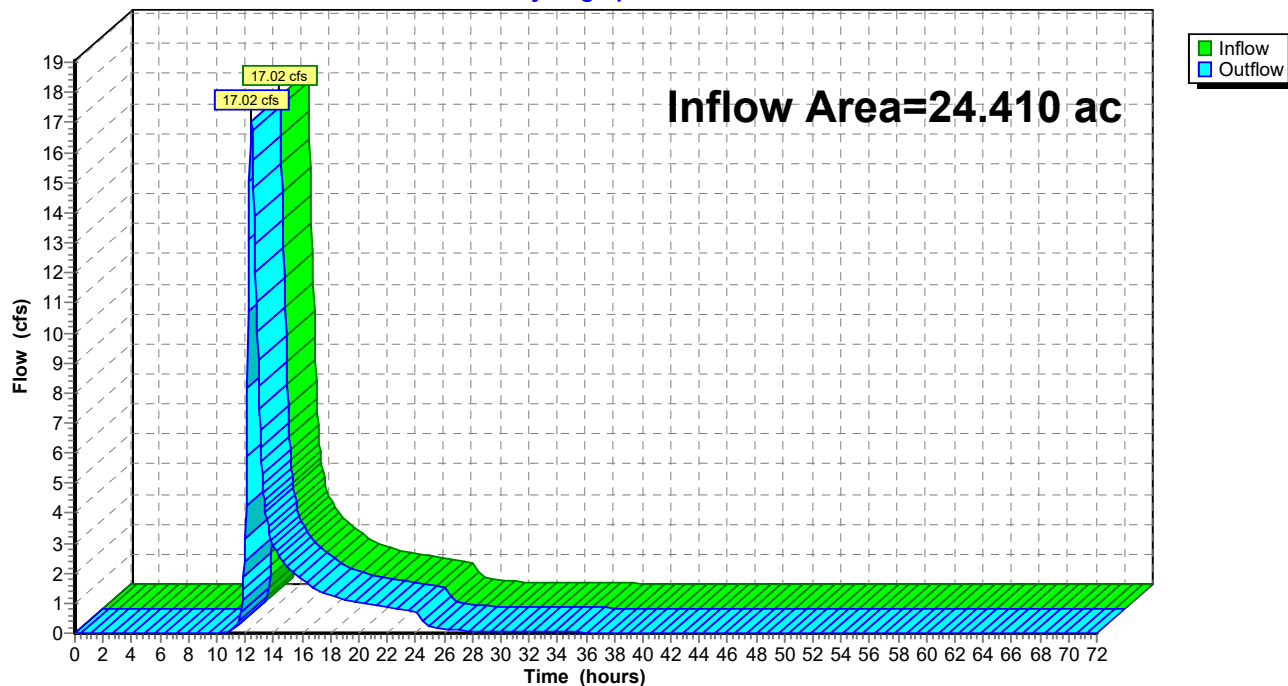
Summary for Reach DP4:

Inflow Area = 24.410 ac, 0.00% Impervious, Inflow Depth = 1.27" for 10-yr event
Inflow = 17.02 cfs @ 12.43 hrs, Volume= 2.574 af
Outflow = 17.02 cfs @ 12.43 hrs, Volume= 2.574 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP4:

Hydrograph



Summary for Pond 7P: Bioretention Basin A

Inflow Area = 0.670 ac, 0.00% Impervious, Inflow Depth = 1.64" for 10-yr event
 Inflow = 1.89 cfs @ 11.98 hrs, Volume= 0.092 af
 Outflow = 1.81 cfs @ 12.01 hrs, Volume= 0.091 af, Atten= 4%, Lag= 1.7 min
 Primary = 1.81 cfs @ 12.01 hrs, Volume= 0.091 af
 Routed to Reach DP1 :
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP1 :

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,230.12' @ 12.02 hrs Surf.Area= 971 sf Storage= 818 cf

Plug-Flow detention time= 102.8 min calculated for 0.091 af (100% of inflow)
 Center-of-Mass det. time= 101.3 min (934.8 - 833.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,229.00'	3,405 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,229.00	490	0	0
1,232.00	1,780	3,405	3,405

Device	Routing	Invert	Outlet Devices
#1	Primary	1,225.00'	15.0" Round Culvert L= 33.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,225.00' / 1,224.00' S= 0.0303 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,229.50'	3.0" Horiz. 3" Orifice C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,230.00'	48.0" x 30.0" Horiz. Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	1,225.25'	6.0" Vert. 6" Underdrain C= 0.600 Limited to weir flow at low heads
#5	Device 4	1,229.00'	0.500 in/hr Filtering Media over Surface area
#6	Secondary	1,230.50'	20.0' long Emergency Spillway 2 End Contraction(s)

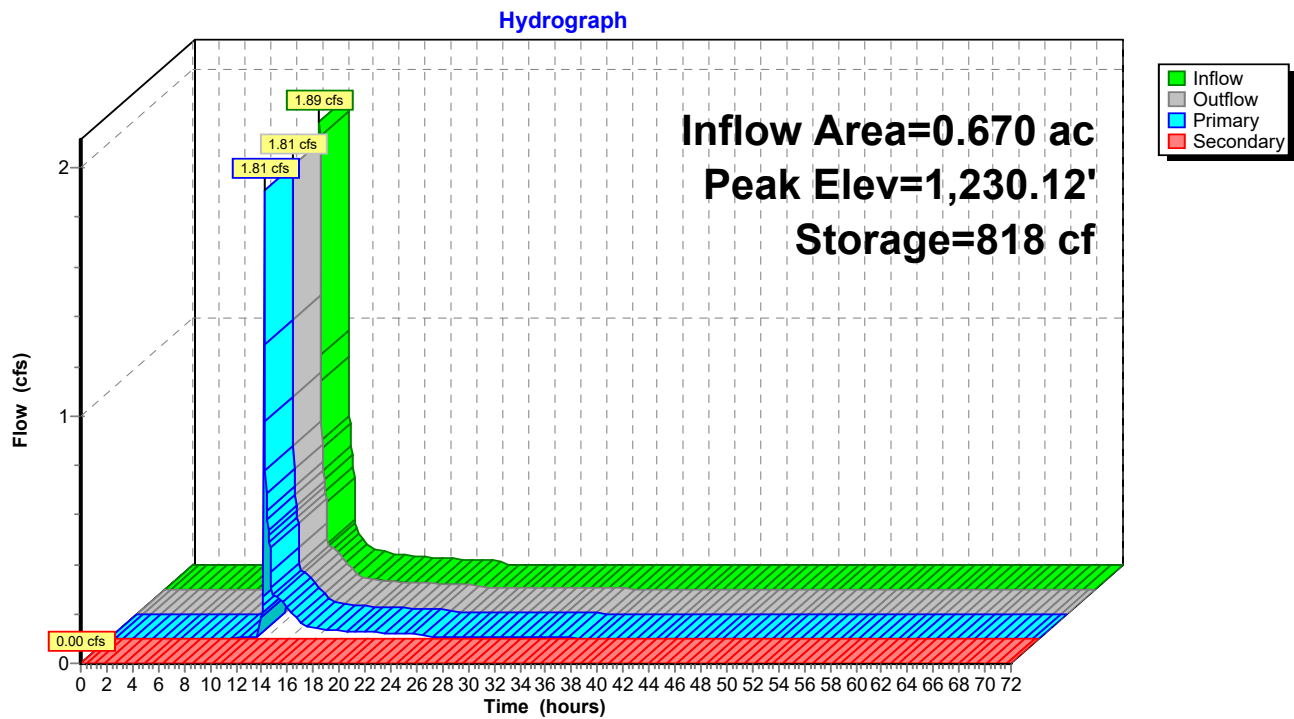
Primary OutFlow Max=1.61 cfs @ 12.01 hrs HW=1,230.10' (Free Discharge)

↑ **1=Culvert** (Passes 1.61 cfs of 12.50 cfs potential flow)
 ↑ **2=3" Orifice** (Orifice Controls 0.18 cfs @ 3.74 fps)
 ↑ **3=Grate** (Weir Controls 1.41 cfs @ 1.05 fps)
 ↑ **4=6" Underdrain** (Passes 0.01 cfs of 2.03 cfs potential flow)
 ↑ **5=Filtering Media** (Exfiltration Controls 0.01 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,229.00' (Free Discharge)

↑ **6=Emergency Spillway** (Controls 0.00 cfs)

Pond 7P: Bioretention Basin A



Summary for Pond BB: Bioretention Basin

Inflow Area = 4.270 ac, 0.00% Impervious, Inflow Depth = 1.64" for 10-yr event
 Inflow = 9.98 cfs @ 12.05 hrs, Volume= 0.585 af
 Outflow = 9.46 cfs @ 12.06 hrs, Volume= 0.585 af, Atten= 5%, Lag= 0.9 min
 Primary = 4.24 cfs @ 12.06 hrs, Volume= 0.297 af
 Routed to Pond DB : Detention Basin
 Secondary = 5.22 cfs @ 12.06 hrs, Volume= 0.288 af
 Routed to Pond DB : Detention Basin

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,061.80' @ 12.06 hrs Surf.Area= 2,835 sf Storage= 2,039 cf

Plug-Flow detention time= 57.3 min calculated for 0.585 af (100% of inflow)
 Center-of-Mass det. time= 57.7 min (895.3 - 837.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,061.00'	5,950 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,061.00	2,290	0	0
1,063.00	3,660	5,950	5,950

Device	Routing	Invert	Outlet Devices
#1	Primary	1,057.00'	15.0" Round Culvert L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,057.00' / 1,056.50' S= 0.0100 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,061.50'	24.0" x 24.0" Horiz. Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,057.20'	6.0" Vert. 6" Underdrain C= 0.600 Limited to weir flow at low heads
#4	Device 3	1,061.00'	0.500 in/hr Filtering Media over Surface area
#5	Secondary	1,061.50'	10.0' long Overflow Spillway 2 End Contraction(s)

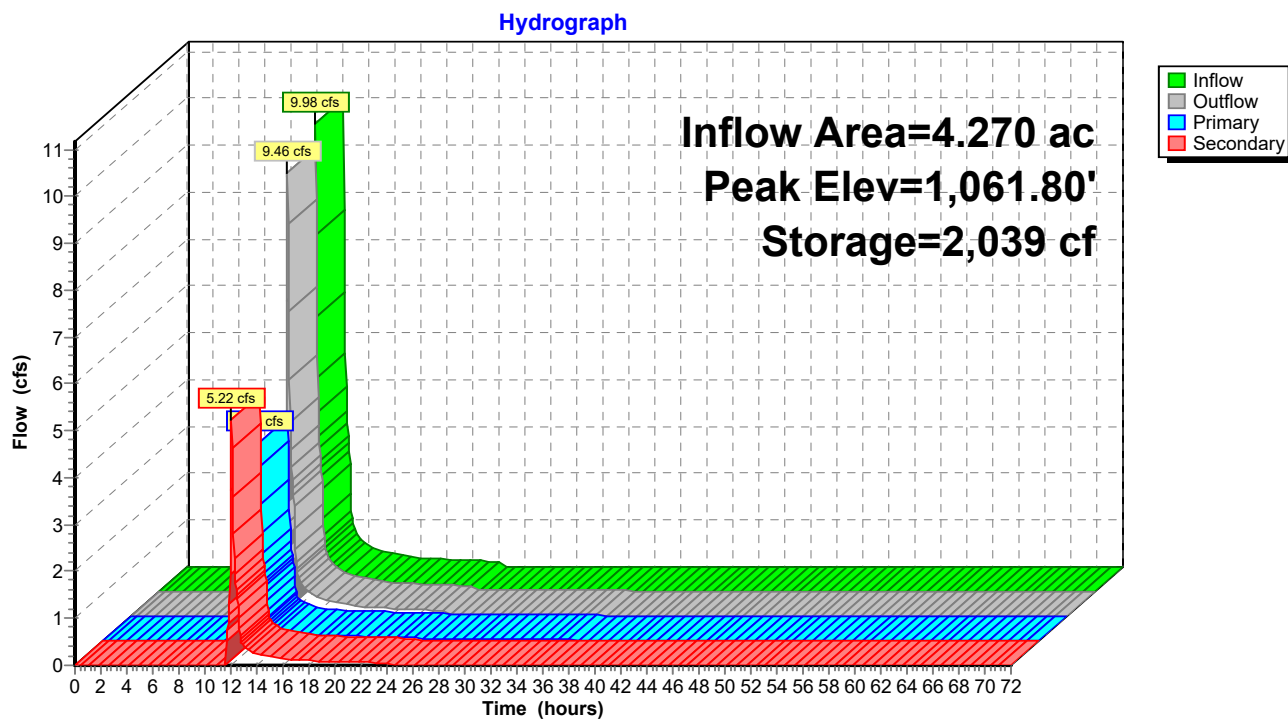
Primary OutFlow Max=4.09 cfs @ 12.06 hrs HW=1,061.79' (Free Discharge)

↑ **1=Culvert** (Passes 4.09 cfs of 12.06 cfs potential flow)
 ↑ **2=Grate** (Weir Controls 4.06 cfs @ 1.76 fps)
 ↑ **3=6" Underdrain** (Passes 0.03 cfs of 1.97 cfs potential flow)
 ↑ **4=Filtering Media** (Exfiltration Controls 0.03 cfs)

Secondary OutFlow Max=5.05 cfs @ 12.06 hrs HW=1,061.79' (Free Discharge)

↑ **5=Overflow Spillway** (Weir Controls 5.05 cfs @ 1.76 fps)

Pond BB: Bioretention Basin



Summary for Pond DB: Detention Basin

Inflow Area = 4.270 ac, 0.00% Impervious, Inflow Depth = 1.64" for 10-yr event
 Inflow = 9.46 cfs @ 12.06 hrs, Volume= 0.585 af
 Outflow = 0.92 cfs @ 12.82 hrs, Volume= 0.585 af, Atten= 90%, Lag= 45.6 min
 Primary = 0.92 cfs @ 12.82 hrs, Volume= 0.585 af
 Routed to Reach DP4 :
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP4 :

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,056.93' @ 12.82 hrs Surf.Area= 7,119 sf Storage= 11,510 cf

Plug-Flow detention time= 211.2 min calculated for 0.585 af (100% of inflow)
 Center-of-Mass det. time= 210.6 min (1,105.9 - 895.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,055.00'	44,550 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,055.00	4,810	0	0
1,060.50	11,390	44,550	44,550

Device	Routing	Invert	Outlet Devices
#1	Primary	1,055.00'	15.0" Round Culvert L= 100.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,055.00' / 1,054.00' S= 0.0100 ' /' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,055.00'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,056.00'	4.0" Vert. Orifice C= 0.600 Limited to weir flow at low heads
#4	Device 1	1,059.00'	48.0" x 30.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,059.50'	20.0' long Emergency Spillway 2 End Contraction(s)

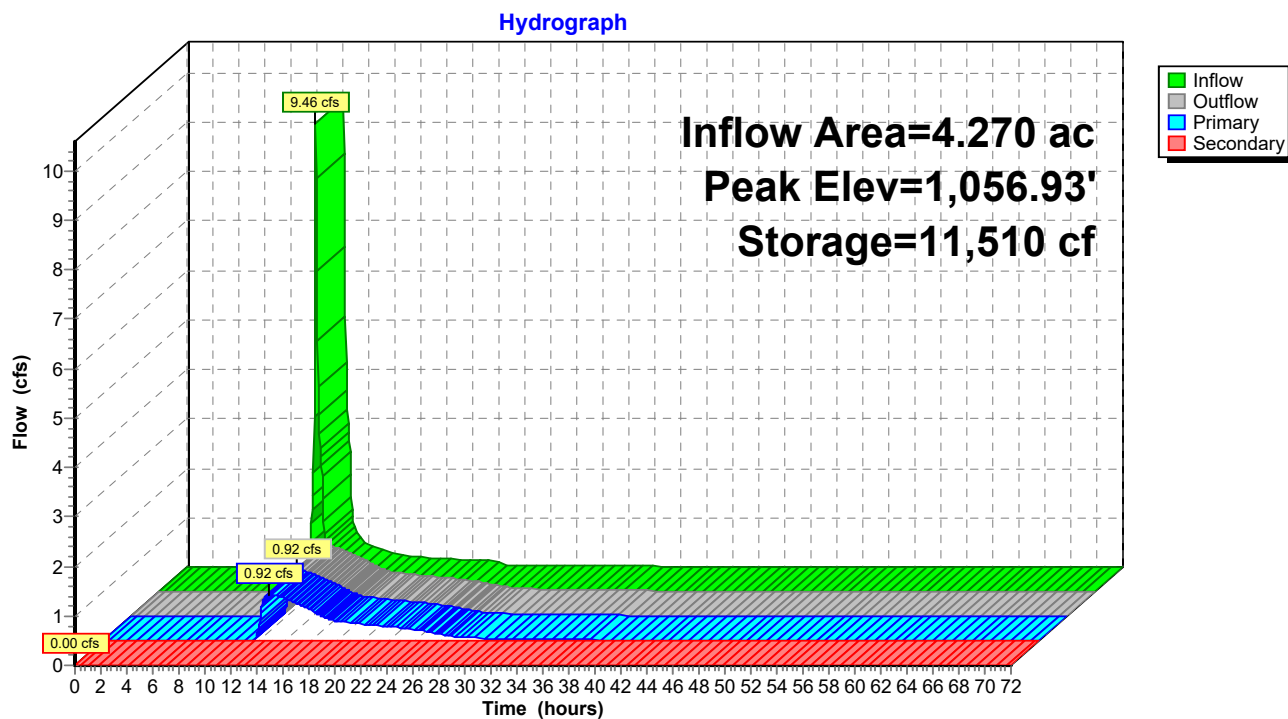
Primary OutFlow Max=0.92 cfs @ 12.82 hrs HW=1,056.93' (Free Discharge)

↑ **1=Culvert** (Passes 0.92 cfs of 6.52 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.56 cfs @ 6.39 fps)
 ↑ **3=Orifice** (Orifice Controls 0.37 cfs @ 4.21 fps)
 ↑ **4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,055.00' (Free Discharge)

↑ **5=Emergency Spillway** (Controls 0.00 cfs)

Pond DB: Detention Basin



Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentPDA1:	Runoff Area=95.680 ac 0.00% Impervious Runoff Depth=3.01" Flow Length=3,298' Tc=70.6 min CN=73 Runoff=132.58 cfs 23.967 af
SubcatchmentPDA2:	Runoff Area=0.670 ac 0.00% Impervious Runoff Depth=3.79" Flow Length=521' Tc=1.6 min CN=81 Runoff=4.13 cfs 0.212 af
SubcatchmentPDA3:	Runoff Area=49.470 ac 0.00% Impervious Runoff Depth=2.91" Flow Length=3,557' Tc=72.8 min CN=72 Runoff=64.64 cfs 12.003 af
SubcatchmentPDA4:	Runoff Area=9.220 ac 0.00% Impervious Runoff Depth=2.91" Flow Length=1,243' Tc=22.6 min CN=72 Runoff=22.29 cfs 2.237 af
SubcatchmentPDA5:	Runoff Area=20.140 ac 0.00% Impervious Runoff Depth=3.10" Flow Length=2,095' Tc=31.3 min CN=74 Runoff=44.71 cfs 5.204 af
SubcatchmentPDA6:	Runoff Area=4.270 ac 0.00% Impervious Runoff Depth=3.79" Tc=6.0 min CN=81 Runoff=22.14 cfs 1.350 af
Reach DP1:	Inflow=132.82 cfs 24.178 af Outflow=132.82 cfs 24.178 af
Reach DP2:	Inflow=64.64 cfs 12.003 af Outflow=64.64 cfs 12.003 af
Reach DP3:	Inflow=22.29 cfs 2.237 af Outflow=22.29 cfs 2.237 af
Reach DP4:	Inflow=46.22 cfs 6.554 af Outflow=46.22 cfs 6.554 af
Pond 7P: Bioretention Basin A	Peak Elev=1,230.20' Storage=896 cf Inflow=4.13 cfs 0.212 af Primary=3.95 cfs 0.212 af Secondary=0.00 cfs 0.000 af Outflow=3.95 cfs 0.212 af
Pond BB: Bioretention Basin	Peak Elev=1,062.01' Storage=2,661 cf Inflow=22.14 cfs 1.350 af Primary=9.55 cfs 0.641 af Secondary=11.77 cfs 0.709 af Outflow=21.31 cfs 1.350 af
Pond DB: Detention Basin	Peak Elev=1,059.14' Storage=30,194 cf Inflow=21.31 cfs 1.350 af Primary=3.88 cfs 1.349 af Secondary=0.00 cfs 0.000 af Outflow=3.88 cfs 1.349 af

Summary for Subcatchment PDA1:

Runoff = 132.58 cfs @ 12.95 hrs, Volume= 23.967 af, Depth= 3.01"
 Routed to Reach DP1 :

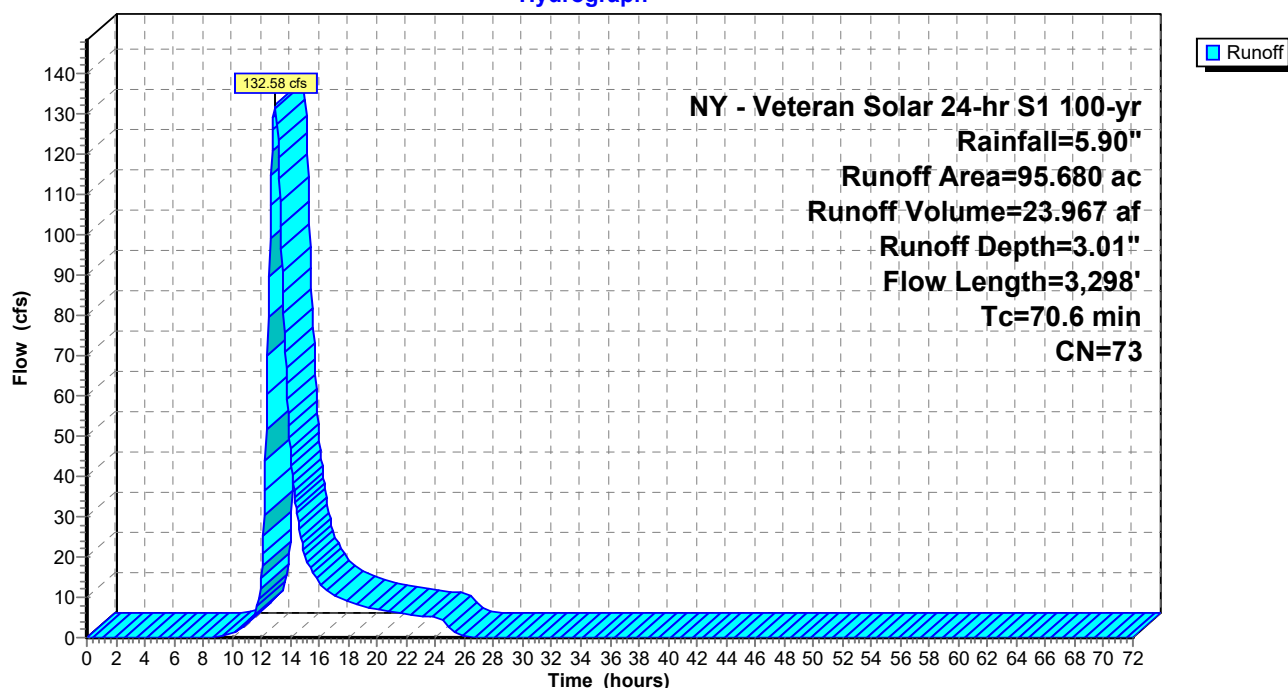
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
24.460	71	Meadow, non-grazed, HSG C
2.890	78	Meadow, non-grazed, HSG D
0.290	55	Woods, Good, HSG B
38.080	70	Woods, Good, HSG C
29.780	77	Woods, Good, HSG D
0.180	96	Gravel surface, HSG C
95.680	73	Weighted Average
95.680		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.8	150	0.0231	0.08		Sheet Flow, SEG 1
					Woods: Light underbrush n= 0.400 P2= 2.34"
37.8	3,148	0.0770	1.39		Shallow Concentrated Flow, SEG 2
					Woodland Kv= 5.0 fps
70.6	3,298	Total			

Subcatchment PDA1:

Hydrograph



Summary for Subcatchment PDA2:

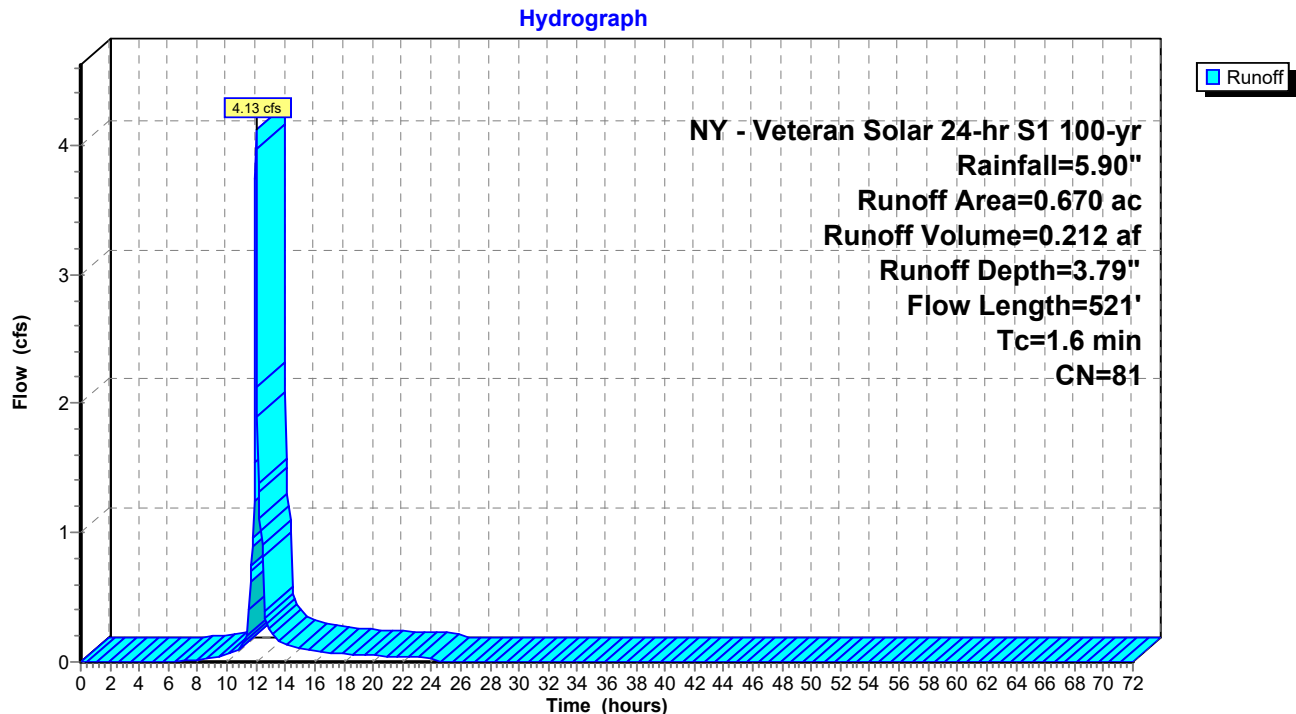
Runoff = 4.13 cfs @ 11.98 hrs, Volume= 0.212 af, Depth= 3.79"
 Routed to Pond 7P : Bioretention Basin A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
0.130	96	Gravel surface, HSG C
0.110	96	Gravel surface, HSG D
0.310	71	Meadow, non-grazed, HSG C
0.120	78	Meadow, non-grazed, HSG D
0.670	81	Weighted Average
0.670		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	100	0.0051	2.81	25.32	Channel Flow, SEG1 Area= 9.0 sf Perim= 11.0' r= 0.82' n= 0.033
1.0	421	0.0289	6.70	60.27	Channel Flow, SEG2 Area= 9.0 sf Perim= 11.0' r= 0.82' n= 0.033 Earth, grassed & winding
1.6	521	Total			

Subcatchment PDA2:



Summary for Subcatchment PDA3:

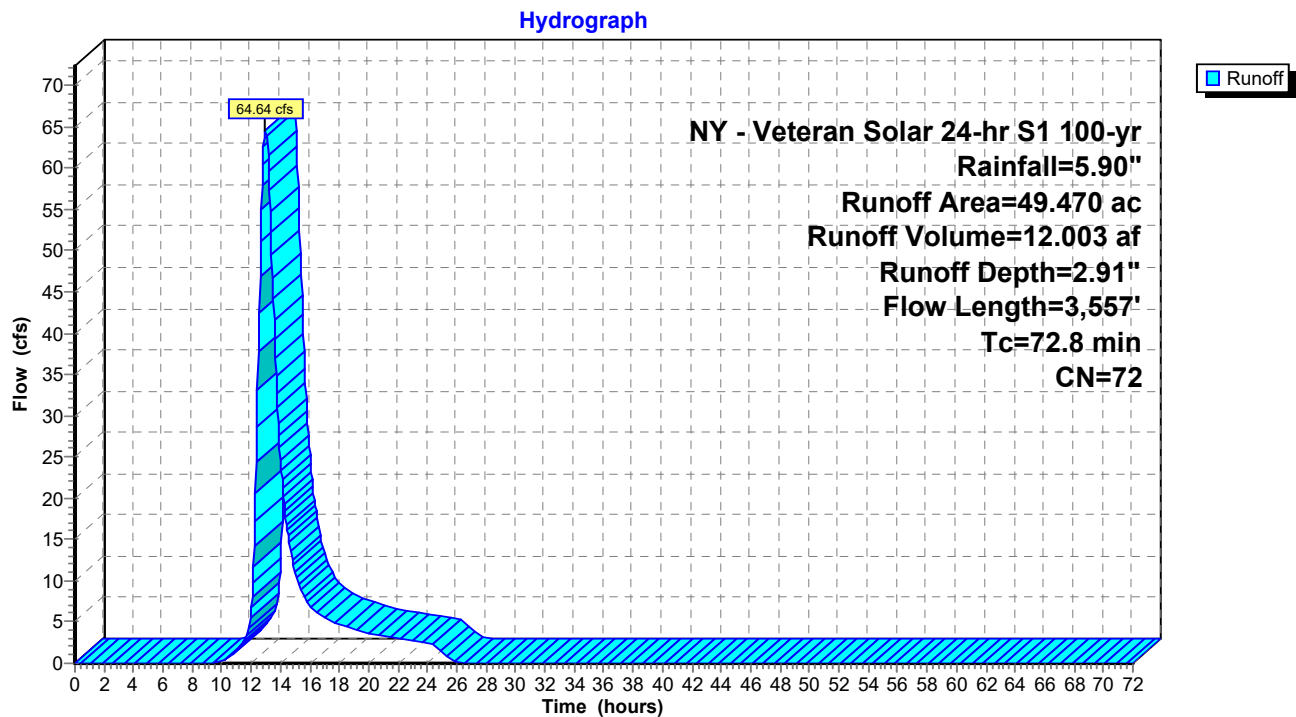
Runoff = 64.64 cfs @ 12.99 hrs, Volume= 12.003 af, Depth= 2.91"
 Routed to Reach DP2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
6.140	71	Meadow, non-grazed, HSG C
31.290	70	Woods, Good, HSG C
9.550	77	Woods, Good, HSG D
2.490	78	Meadow, non-grazed, HSG D
49.470	72	Weighted Average
49.470		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.6	150	0.0391	0.09		Sheet Flow, SEG1
					Woods: Light underbrush n= 0.400 P2= 2.34"
39.6	2,706	0.0518	1.14		Shallow Concentrated Flow, SEG2
					Woodland Kv= 5.0 fps
0.6	53	0.0418	1.43		Shallow Concentrated Flow, SEG3
					Short Grass Pasture Kv= 7.0 fps
5.8	613	0.1248	1.77		Shallow Concentrated Flow, SEG4
					Woodland Kv= 5.0 fps
0.2	35	0.1129	2.35		Shallow Concentrated Flow, SEG5
					Short Grass Pasture Kv= 7.0 fps
72.8	3,557	Total			

Subcatchment PDA3:



Summary for Subcatchment PDA4:

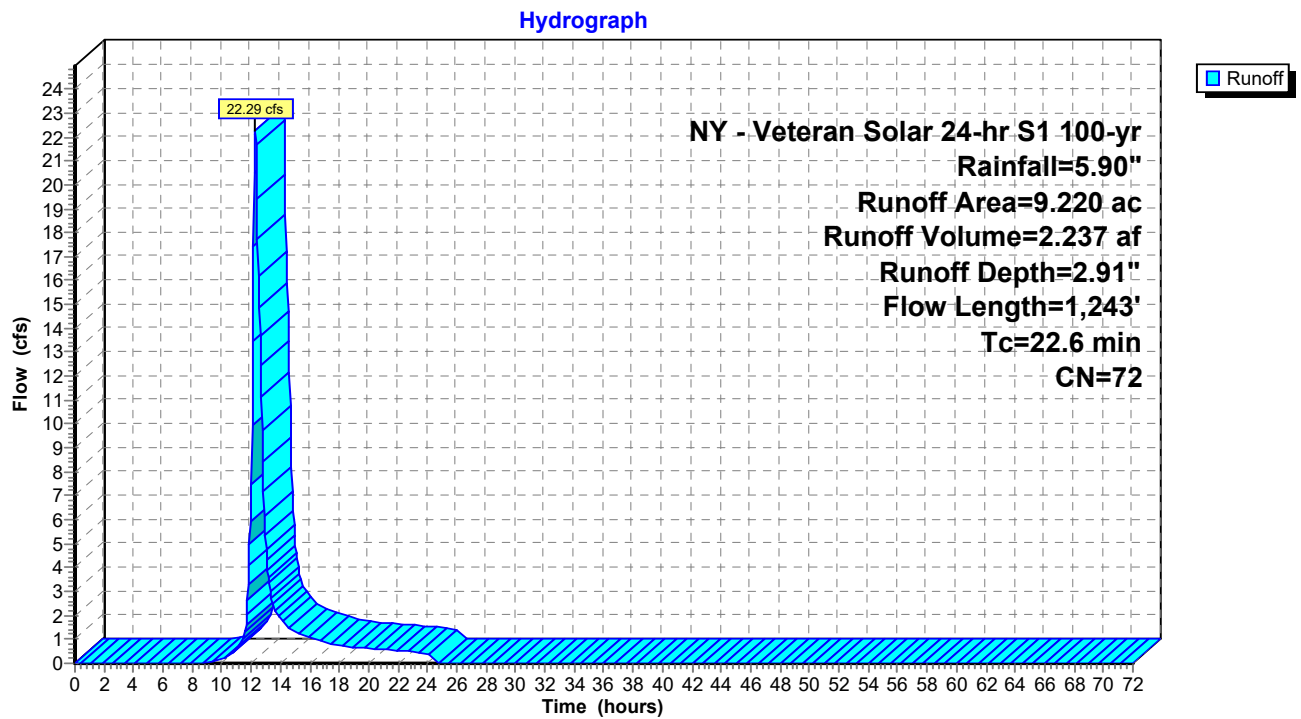
Runoff = 22.29 cfs @ 12.28 hrs, Volume= 2.237 af, Depth= 2.91"
 Routed to Reach DP3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
1.780	71	Meadow, non-grazed, HSG C
0.460	78	Meadow, non-grazed, HSG D
4.490	70	Woods, Good, HSG C
2.490	77	Woods, Good, HSG D
9.220	72	Weighted Average
9.220		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.6	100	0.0405	0.13		Sheet Flow, SEG1 Grass: Dense n= 0.240 P2= 2.34"
2.5	234	0.0947	1.54		Shallow Concentrated Flow, SEG2 Woodland Kv= 5.0 fps
6.2	663	0.1282	1.79		Shallow Concentrated Flow, SEG3 Woodland Kv= 5.0 fps
0.2	35	0.3074	3.88		Shallow Concentrated Flow, SEG4 Short Grass Pasture Kv= 7.0 fps
0.1	65	0.1400	16.97	13.33	Pipe Channel, SEG5 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, straight & clean
0.1	33	0.4987	4.94		Shallow Concentrated Flow, SEG6 Short Grass Pasture Kv= 7.0 fps
0.9	113	0.1894	2.18		Shallow Concentrated Flow, SEG7 Woodland Kv= 5.0 fps
22.6	1,243	Total			

Subcatchment PDA4:



Summary for Subcatchment PDA5:

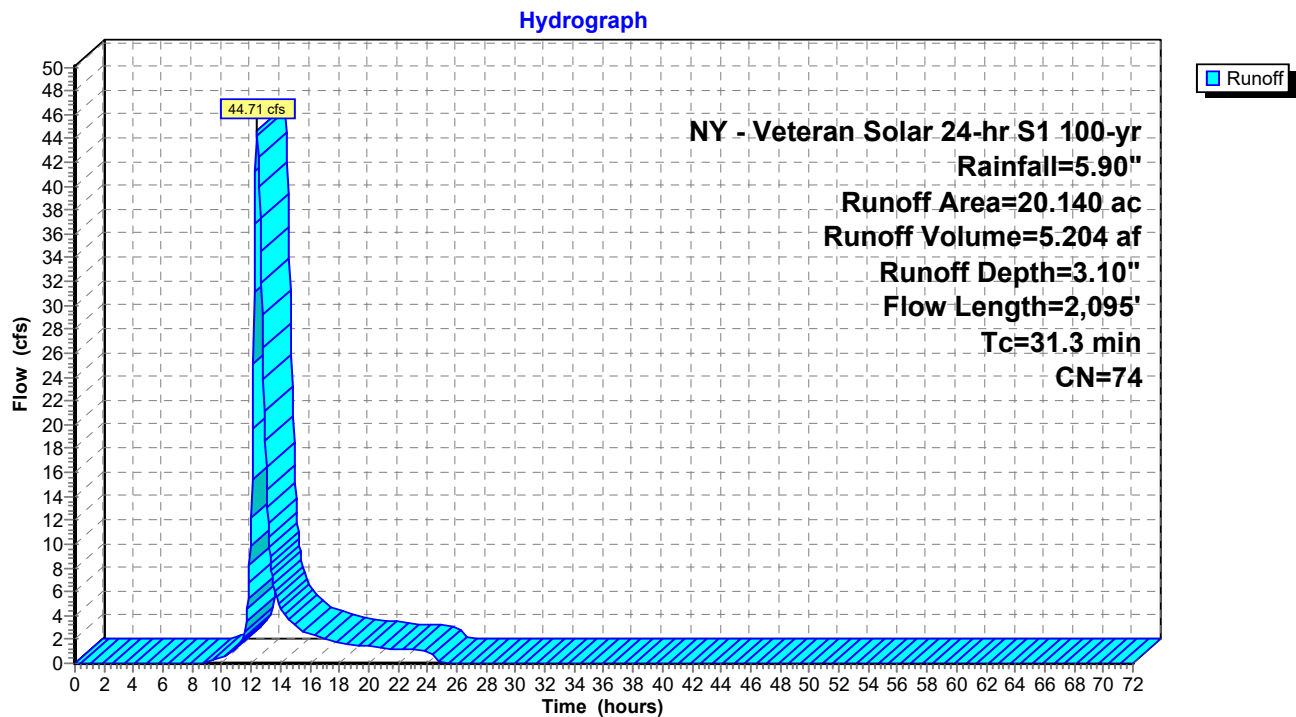
Runoff = 44.71 cfs @ 12.41 hrs, Volume= 5.204 af, Depth= 3.10"
 Routed to Reach DP4 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
2.710	71	Meadow, non-grazed, HSG C
4.600	78	Meadow, non-grazed, HSG D
8.370	70	Woods, Good, HSG C
4.250	77	Woods, Good, HSG D
0.210	96	Gravel surface, HSG D
20.140	74	Weighted Average
20.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	100	0.0583	0.10		Sheet Flow, SEG1 Woods: Light underbrush n= 0.400 P2= 2.34"
7.3	555	0.0640	1.26		Shallow Concentrated Flow, SEG2 Woodland Kv= 5.0 fps
1.2	123	0.0639	1.77		Shallow Concentrated Flow, SEG3 Short Grass Pasture Kv= 7.0 fps
5.1	570	0.1396	1.87		Shallow Concentrated Flow, SEG4 Woodland Kv= 5.0 fps
0.2	39	0.2016	3.14		Shallow Concentrated Flow, SEG5 Short Grass Pasture Kv= 7.0 fps
1.1	708	0.0800	11.14	100.27	Channel Flow, SEG6 Area= 9.0 sf Perim= 11.0' r= 0.82' n= 0.033
31.3	2,095	Total			

Subcatchment PDA5:



Summary for Subcatchment PDA6:

Runoff = 22.14 cfs @ 12.04 hrs, Volume= 1.350 af, Depth= 3.79"
 Routed to Pond BB : Bioretention Basin

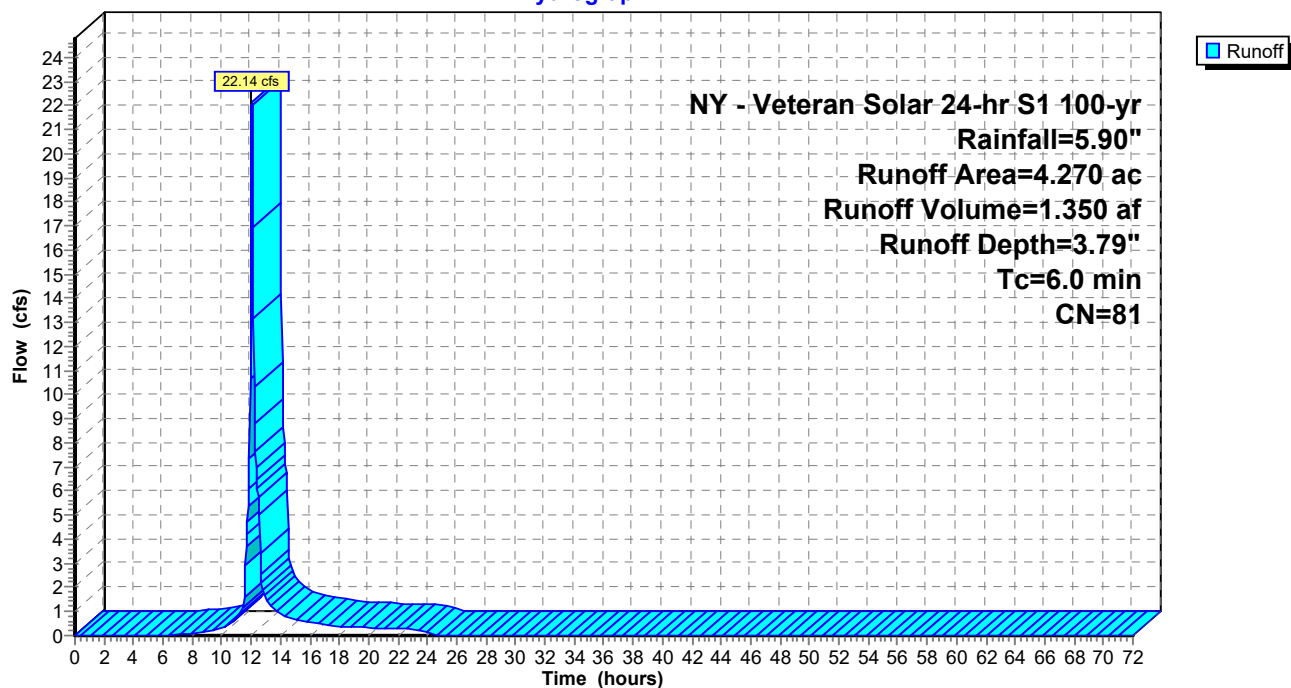
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NY - Veteran Solar 24-hr S1 100-yr Rainfall=5.90"

Area (ac)	CN	Description
0.530	96	Gravel surface, HSG C
0.440	96	Gravel surface, HSG D
0.550	71	Meadow, non-grazed, HSG C
2.750	78	Meadow, non-grazed, HSG D
4.270	81	Weighted Average
4.270		100.00% Pervious Area

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

Subcatchment PDA6:

Hydrograph

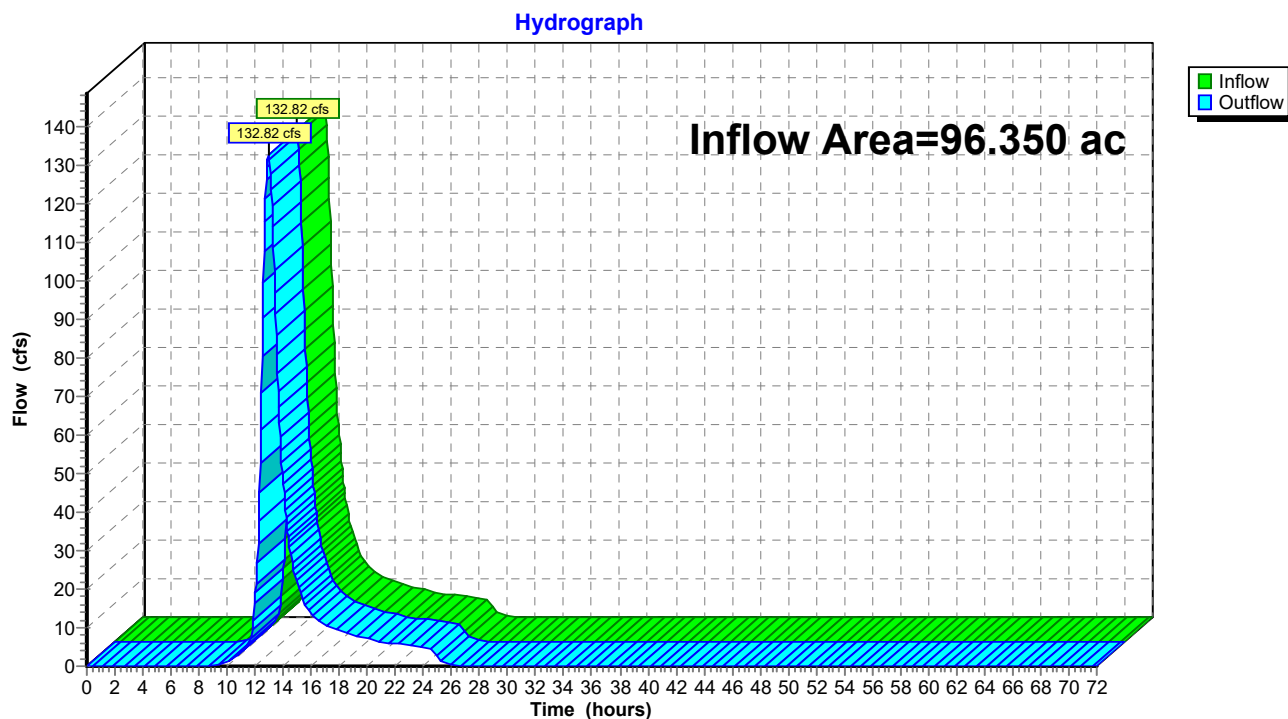


Summary for Reach DP1:

Inflow Area = 96.350 ac, 0.00% Impervious, Inflow Depth = 3.01" for 100-yr event
Inflow = 132.82 cfs @ 12.95 hrs, Volume= 24.178 af
Outflow = 132.82 cfs @ 12.95 hrs, Volume= 24.178 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP1:



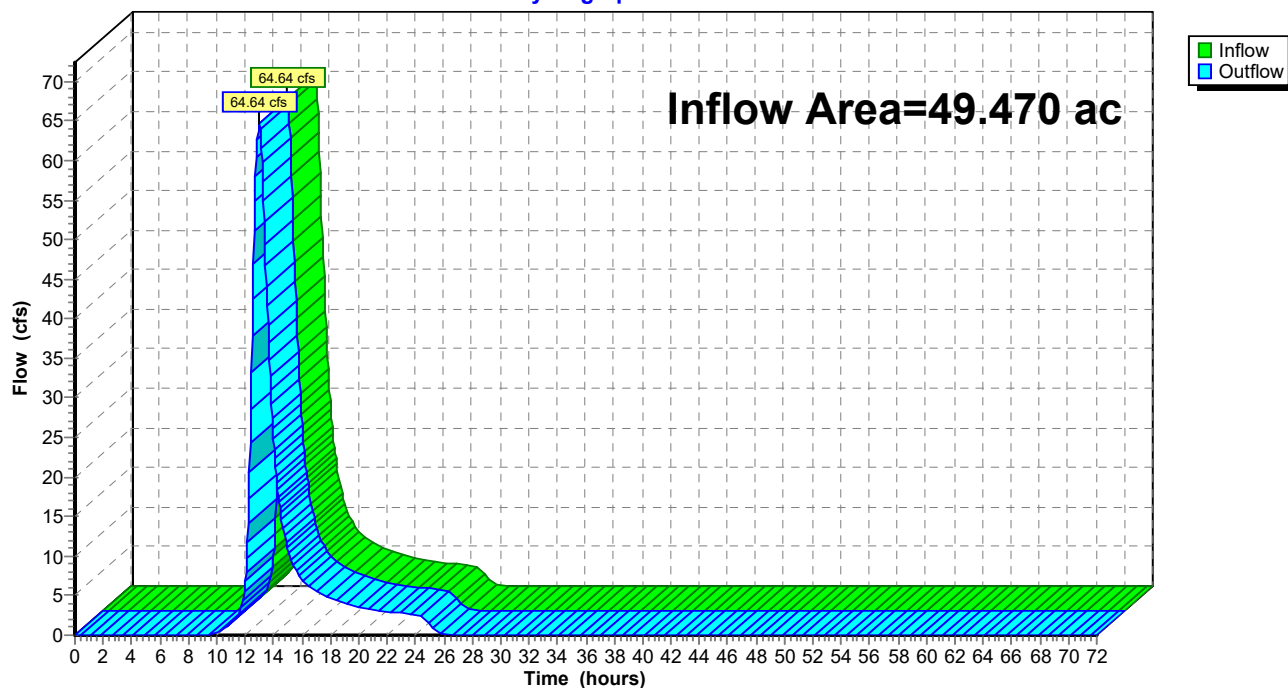
Summary for Reach DP2:

Inflow Area = 49.470 ac, 0.00% Impervious, Inflow Depth = 2.91" for 100-yr event
Inflow = 64.64 cfs @ 12.99 hrs, Volume= 12.003 af
Outflow = 64.64 cfs @ 12.99 hrs, Volume= 12.003 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP2:

Hydrograph



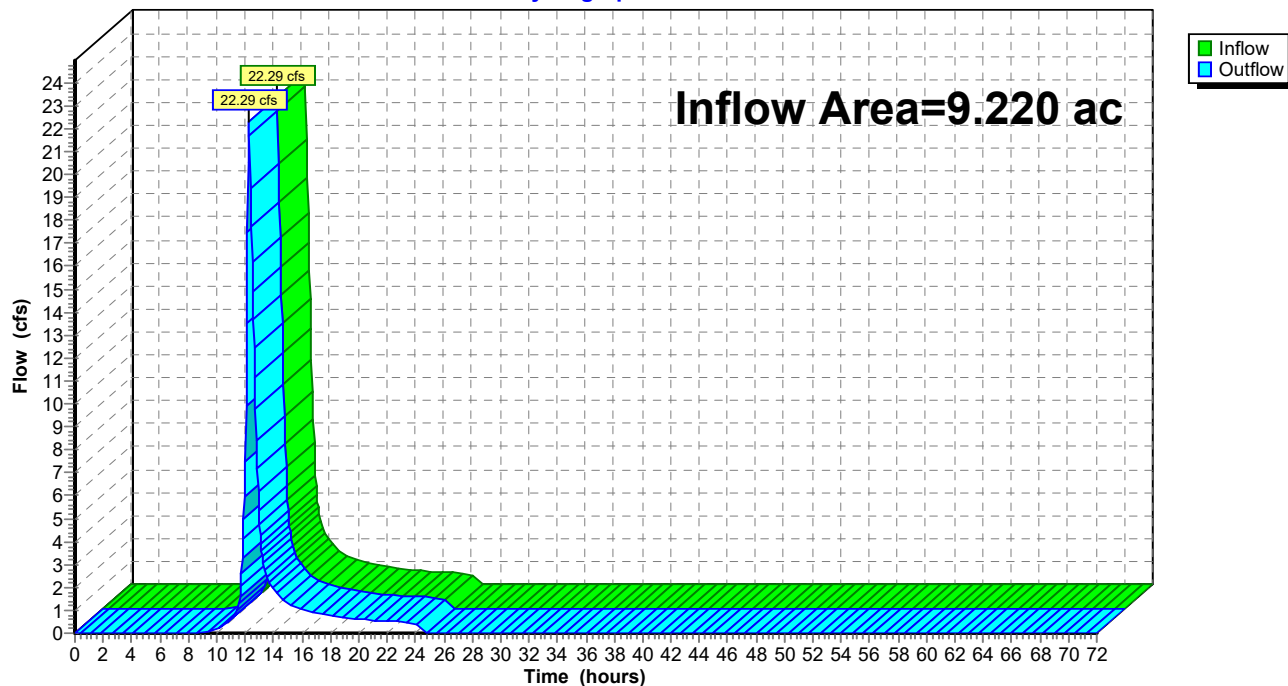
Summary for Reach DP3:

Inflow Area = 9.220 ac, 0.00% Impervious, Inflow Depth = 2.91" for 100-yr event
Inflow = 22.29 cfs @ 12.28 hrs, Volume= 2.237 af
Outflow = 22.29 cfs @ 12.28 hrs, Volume= 2.237 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP3:

Hydrograph

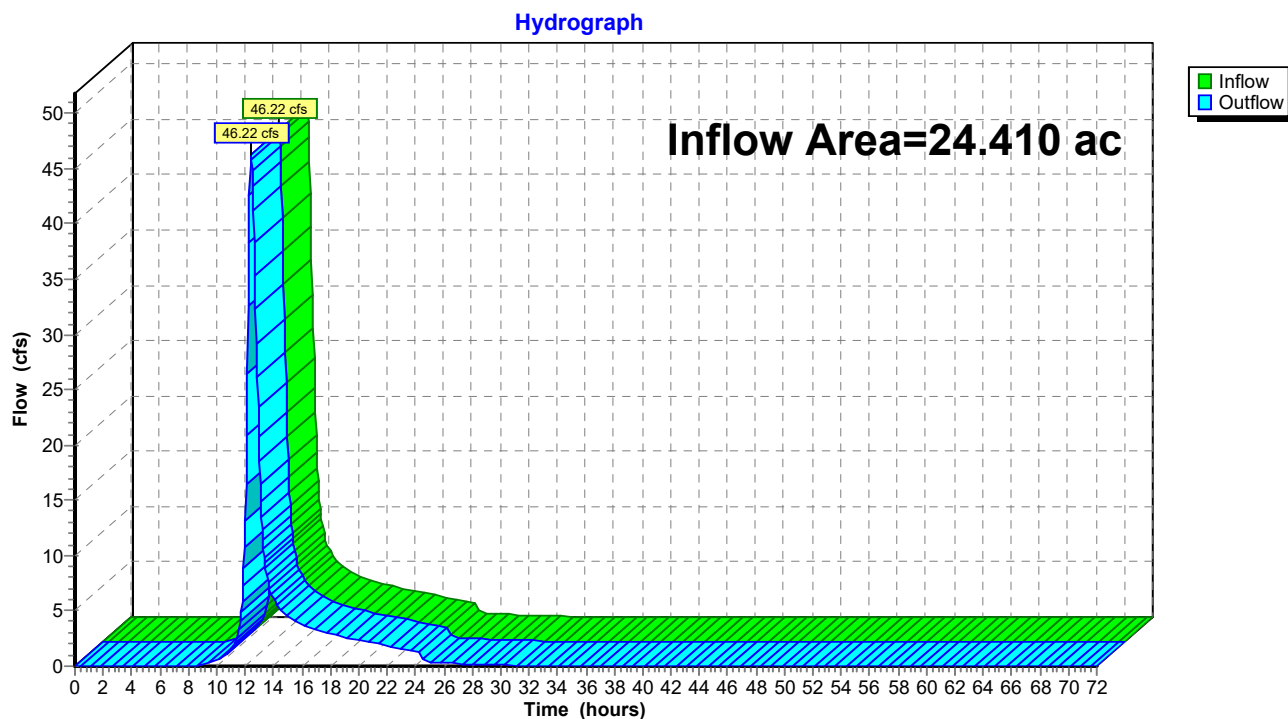


Summary for Reach DP4:

Inflow Area = 24.410 ac, 0.00% Impervious, Inflow Depth = 3.22" for 100-yr event
Inflow = 46.22 cfs @ 12.41 hrs, Volume= 6.554 af
Outflow = 46.22 cfs @ 12.41 hrs, Volume= 6.554 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP4:



Summary for Pond 7P: Bioretention Basin A

Inflow Area = 0.670 ac, 0.00% Impervious, Inflow Depth = 3.79" for 100-yr event
 Inflow = 4.13 cfs @ 11.98 hrs, Volume= 0.212 af
 Outflow = 3.95 cfs @ 11.99 hrs, Volume= 0.212 af, Atten= 4%, Lag= 0.6 min
 Primary = 3.95 cfs @ 11.99 hrs, Volume= 0.212 af
 Routed to Reach DP1 :
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP1 :

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,230.20' @ 11.99 hrs Surf.Area= 1,005 sf Storage= 896 cf

Plug-Flow detention time= 54.8 min calculated for 0.212 af (100% of inflow)
 Center-of-Mass det. time= 54.0 min (861.4 - 807.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,229.00'	3,405 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,229.00	490	0	0
1,232.00	1,780	3,405	3,405

Device	Routing	Invert	Outlet Devices
#1	Primary	1,225.00'	15.0" Round Culvert L= 33.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,225.00' / 1,224.00' S= 0.0303 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,229.50'	3.0" Horiz. 3" Orifice C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,230.00'	48.0" x 30.0" Horiz. Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	1,225.25'	6.0" Vert. 6" Underdrain C= 0.600 Limited to weir flow at low heads
#5	Device 4	1,229.00'	0.500 in/hr Filtering Media over Surface area
#6	Secondary	1,230.50'	20.0' long Emergency Spillway 2 End Contraction(s)

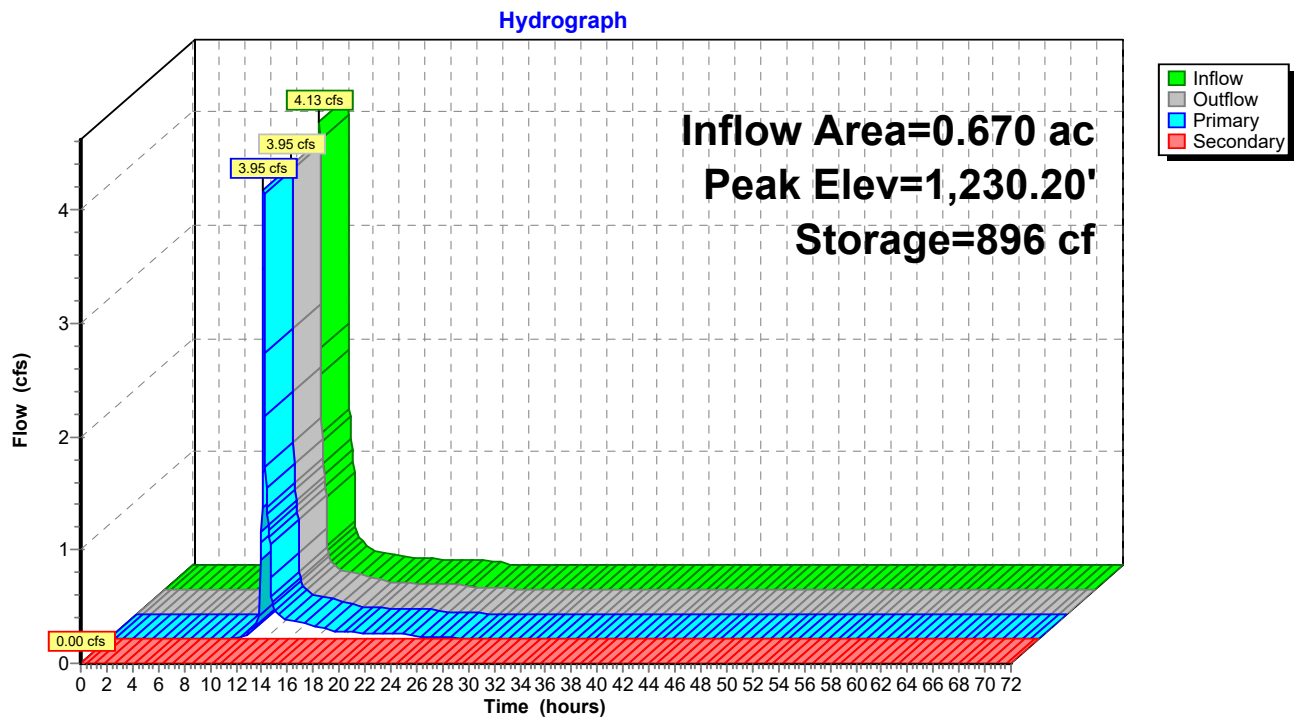
Primary OutFlow Max=3.79 cfs @ 11.99 hrs HW=1,230.19' (Free Discharge)

1=Culvert (Passes 3.79 cfs of 12.63 cfs potential flow)
 2=3" Orifice (Orifice Controls 0.20 cfs @ 4.01 fps)
 3=Grate (Weir Controls 3.59 cfs @ 1.43 fps)
 4=6" Underdrain (Passes 0.01 cfs of 2.05 cfs potential flow)
 5=Filtering Media (Exfiltration Controls 0.01 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,229.00' (Free Discharge)

6=Emergency Spillway (Controls 0.00 cfs)

Pond 7P: Bioretention Basin A



Summary for Pond BB: Bioretention Basin

Inflow Area = 4.270 ac, 0.00% Impervious, Inflow Depth = 3.79" for 100-yr event
 Inflow = 22.14 cfs @ 12.04 hrs, Volume= 1.350 af
 Outflow = 21.31 cfs @ 12.06 hrs, Volume= 1.350 af, Atten= 4%, Lag= 0.7 min
 Primary = 9.55 cfs @ 12.06 hrs, Volume= 0.641 af
 Routed to Pond DB : Detention Basin
 Secondary = 11.77 cfs @ 12.06 hrs, Volume= 0.709 af
 Routed to Pond DB : Detention Basin

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 1,062.01' @ 12.06 hrs Surf.Area= 2,981 sf Storage= 2,661 cf

Plug-Flow detention time= 28.3 min calculated for 1.349 af (100% of inflow)
 Center-of-Mass det. time= 28.8 min (840.3 - 811.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,061.00'	5,950 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,061.00	2,290	0	0
1,063.00	3,660	5,950	5,950

Device	Routing	Invert	Outlet Devices
#1	Primary	1,057.00'	15.0" Round Culvert L= 50.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,057.00' / 1,056.50' S= 0.0100 ' / ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,061.50'	24.0" x 24.0" Horiz. Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,057.20'	6.0" Vert. 6" Underdrain C= 0.600 Limited to weir flow at low heads
#4	Device 3	1,061.00'	0.500 in/hr Filtering Media over Surface area
#5	Secondary	1,061.50'	10.0' long Overflow Spillway 2 End Contraction(s)

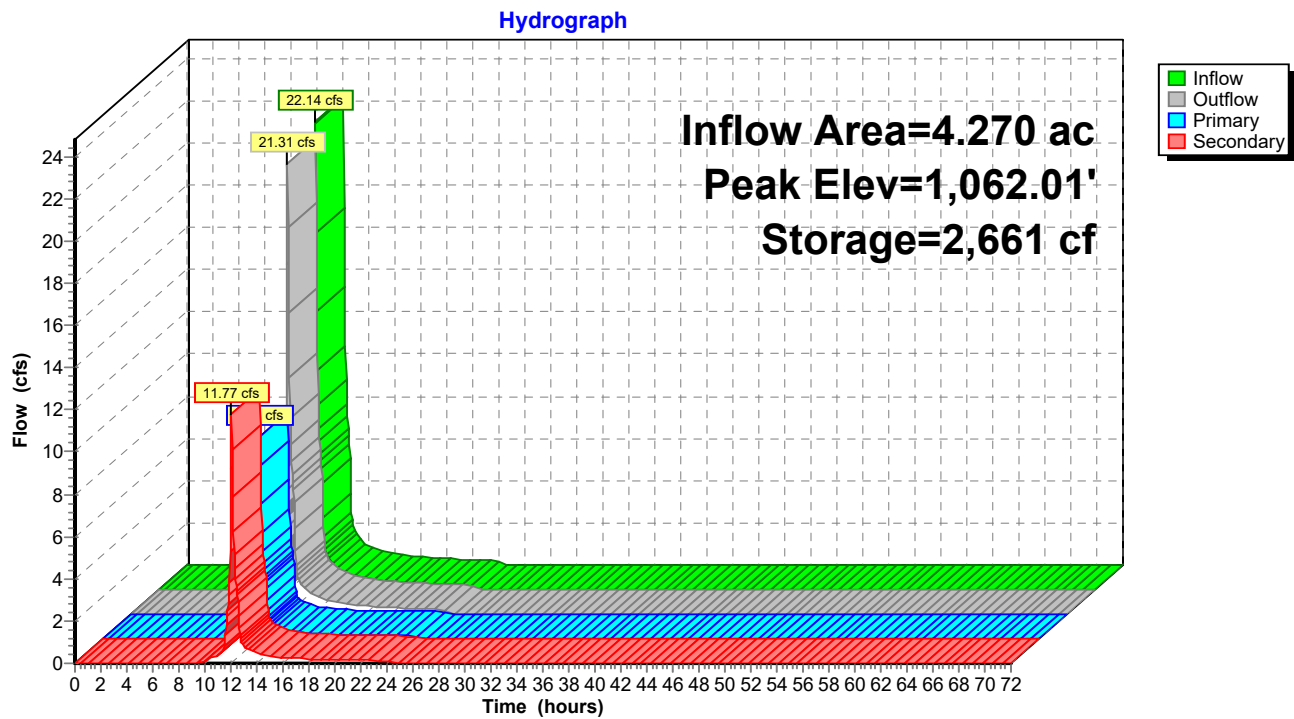
Primary OutFlow Max=9.37 cfs @ 12.06 hrs HW=1,062.00' (Free Discharge)

↑ **1=Culvert** (Passes 9.37 cfs of 12.36 cfs potential flow)
 ↑ **2=Grate** (Weir Controls 9.34 cfs @ 2.32 fps)
 ↑ **3=6" Underdrain** (Passes 0.03 cfs of 2.02 cfs potential flow)
 ↑ **4=Filtering Media** (Exfiltration Controls 0.03 cfs)

Secondary OutFlow Max=11.55 cfs @ 12.06 hrs HW=1,062.00' (Free Discharge)

↑ **5=Overflow Spillway** (Weir Controls 11.55 cfs @ 2.32 fps)

Pond BB: Bioretention Basin



Summary for Pond DB: Detention Basin

Inflow Area = 4.270 ac, 0.00% Impervious, Inflow Depth = 3.79" for 100-yr event
 Inflow = 21.31 cfs @ 12.06 hrs, Volume= 1.350 af
 Outflow = 3.88 cfs @ 12.61 hrs, Volume= 1.349 af, Atten= 82%, Lag= 33.5 min
 Primary = 3.88 cfs @ 12.61 hrs, Volume= 1.349 af
 Routed to Reach DP4 :
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP4 :

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,059.14' @ 12.61 hrs Surf.Area= 9,766 sf Storage= 30,194 cf

Plug-Flow detention time= 240.9 min calculated for 1.348 af (100% of inflow)
 Center-of-Mass det. time= 241.5 min (1,081.8 - 840.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,055.00'	44,550 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,055.00	4,810	0	0
1,060.50	11,390	44,550	44,550

Device	Routing	Invert	Outlet Devices
#1	Primary	1,055.00'	15.0" Round Culvert L= 100.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 1,055.00' / 1,054.00' S= 0.0100 ' /' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	1,055.00'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	1,056.00'	4.0" Vert. Orifice C= 0.600 Limited to weir flow at low heads
#4	Device 1	1,059.00'	48.0" x 30.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	1,059.50'	20.0' long Emergency Spillway 2 End Contraction(s)

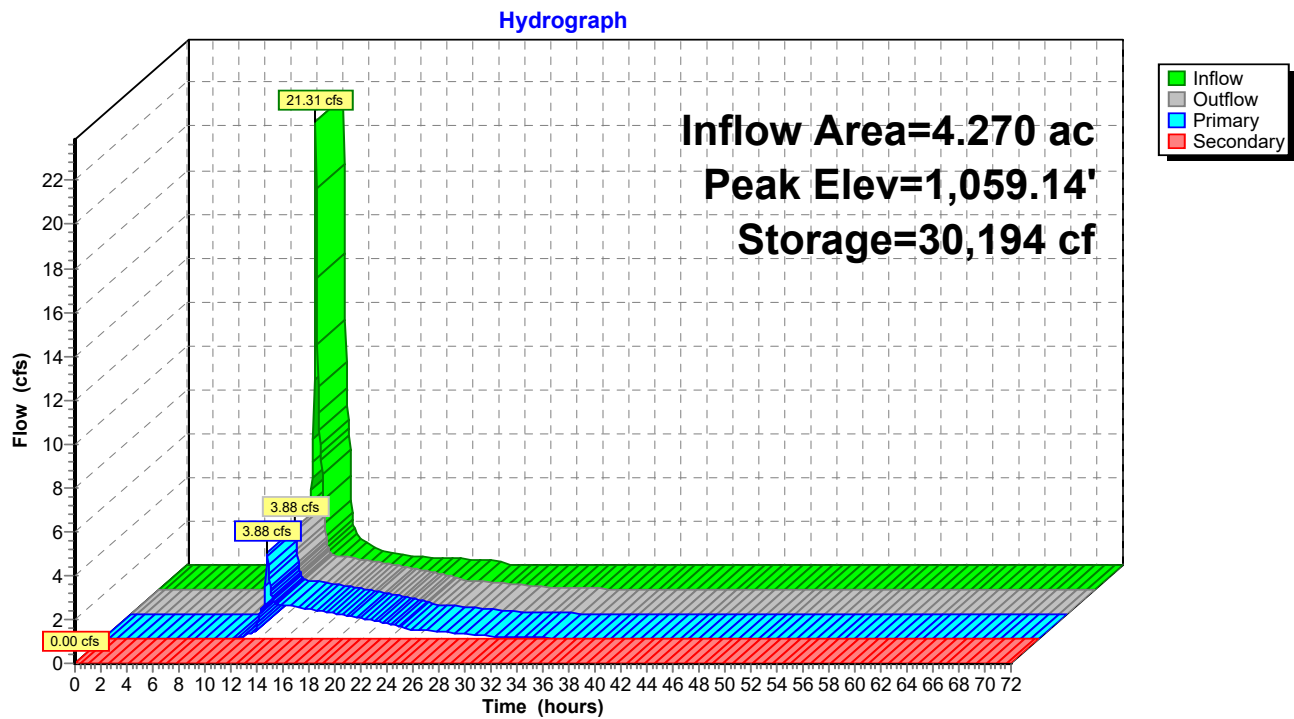
Primary OutFlow Max=3.80 cfs @ 12.61 hrs HW=1,059.14' (Free Discharge)

↑ **1=Culvert** (Passes 3.80 cfs of 9.92 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.84 cfs @ 9.60 fps)
 ↑ **3=Orifice** (Orifice Controls 0.72 cfs @ 8.30 fps)
 ↑ **4=Orifice/Grate** (Weir Controls 2.23 cfs @ 1.22 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,055.00' (Free Discharge)

↑ **5=Emergency Spillway** (Controls 0.00 cfs)

Pond DB: Detention Basin

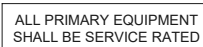


Attachment 7

Electrical Diagram and Equipment Specifications



INVERTER'S FREQUENCY RIDE THROUGH SETTINGS		
FREQUENCY RANGE (HZ)	OPERATION MODE	RIDE-THROUGH TIME (SECONDS)
$f > 62.0$	N/A	N/A
$60.6 < f < 62.0$	MANDATORY OPERATION A	299
$58.5 < f < 60.6$	CONTINUOUS OPERATION	INFINITE (C)
$56.5 < f < 58.5$	MANDATORY OPERATION B	299
$f < 56.5$	N/A	1.0



ONE-LINE DIAGRAM

- A. STEP -UP TRANSFORMER
12.5KV / 800V
PRIMARY WYE-GROUND
SECONDARY DELTA
2MVA, 3-PHASE
%Z = 5.4% MIN
X/R = 4.21
(4) 2 - 1/2 % TAPS
KNAN
65° C, 125KV BIL
- B. SURGE ARRESTERS ELBOW, MOV TYPE 10.2 KV MCOV 15 KV RATING HUBBELL 215-LA12 OR EQUAL.
- C. FUSE CUTOUT / SURGE ARRESTER RISER POLE
15KV, 110KV BIL, 300A
HUBBELL TYPE C POLYMER OR EQUAL
10KV MOV ARRESTER
- D. NOT USED.

(F.) NOT APPLICABLE.

(G.) GANG OPERATED AIR BREAK SWITCH (GOAB)
15KV, 110KV BIL, 900A
AB CHANCE AR111SF OR EQUAL
35KV MOV ARRESTER
SERVICE ENTRANCE RATED

(H.) POLE MOUNTED SURGE ARRESTERS
TYPE C POLYMER MOV
MCOV = 8.4kV
RATED = 10kV

(I.) NEUTRAL GROUNDING REACTOR
20 OHMS REACTANCE
400A RATED NEUTRAL

NOT FOR CONSTRUCTION

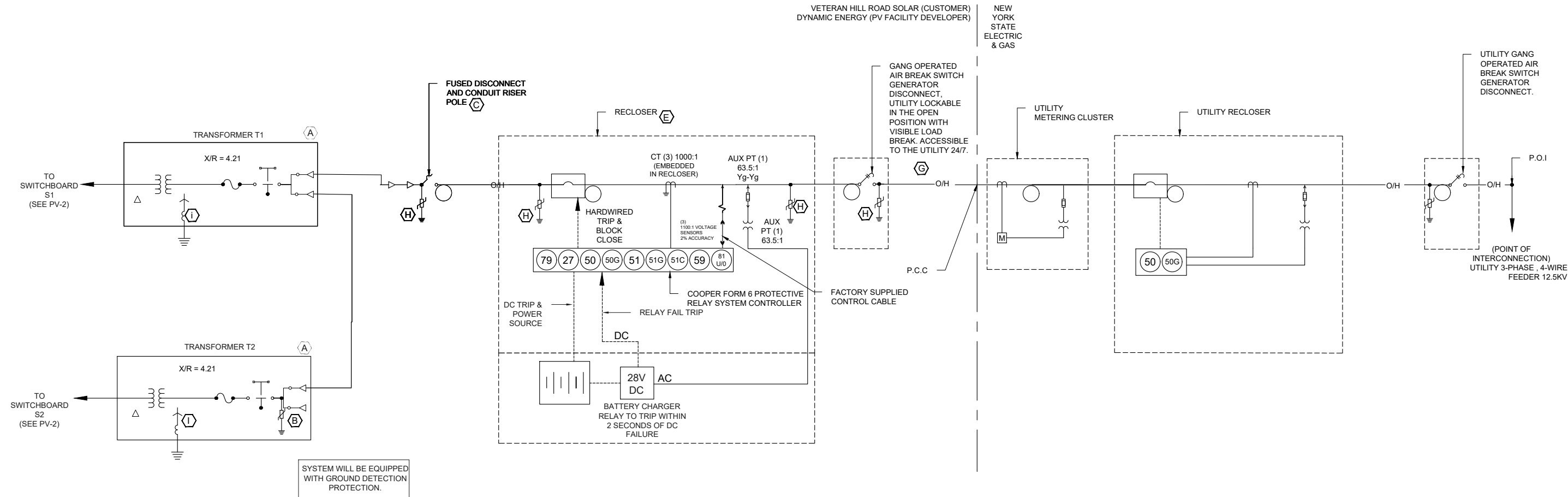
5.351MW DC / 3.800MVA AC
NUMBER OF MODULES - 525 WATTS (PER MODULE) - 10,192
NUMBER OF 525 WATTS MODULES IN SERIES PER STRING - 26
NUMBER OF STRINGS IN PARALLEL FOR 525 WATTS MODULES - 392
INVERTER RATING (kW) - 8 X 250KW (DE-RATED TO 250KW); 6 X 300KW
(DE-RATED TO 300KW)

GENERATION SUMMARY:

5.351MW DC / 3.800MVA AC
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INVERTER'S VOLTAGE RIDE THROUGH SETTINGS		
RIDE-THROUGH VOLTAGE %	OPERATION MODE	RIDE-THROUGH TIME (SECONDS)
120<=V	N/A	NO RIDE THROUGH
110<=V<120	MANDATORY OPERATION	2
88<V<110	CONTINUOUS OPERATION	INFINITE
50<=V<=88	MANDATORY OPERATION	1.9
V<50	MOMENTARY CESSATION	1.0

INVERTER'S FREQUENCY RIDE THROUGH SETTINGS		
FREQUENCY RANGE (HZ)	OPERATION MODE	RIDE-THROUGH TIME (SECONDS)
f>62.0	N/A	N/A
60.6<=f<62.0	MANDATORY OPERATION A	299
58.5<f<60.6	CONTINUOUS OPERATION	INFINITE (C)
56.5<f<=58.5	MANDATORY OPERATION B	299
f<=56.5	N/A	1.0



NOT FOR CONSTRUCTION

EQUIPMENT DESIGNATIONS-SPECS:

- (A) STEP -UP TRANSFORMER
12.5KV / 800V
PRIMARY WYE-GROUND
SECONDARY DELTA
2MVA, 3-PHASE
%Z = 5.4% MIN
X/R = 4.21
(4) 2 - 1/2 % TAPS
KNAN
65° C, 125KV BIL
- (B) SURGE ARRESTERS ELBOW, MOV TYPE 10.2 kV MCOV 15 kV RATING HUBBELL 215-LA12 OR EQUAL.
- (C) FUSE CUTOFF / SURGE ARRESTER RISER POLE
15KV, 110KV BIL, 300A
HUBBEL TYPE C POLYMER OR EQUAL
10KV MOV ARRESTER
- (D) NOT USED.

- (E) RECLOSER:
COOPER AC NOVA 15A11
3PH, 15KV, 110KV BIL
120V AC POWERED
12.5KA INTERRUPT
630A CONTINUOUS RATING
(3) VOLTAGE SENSORS
AUXILIARY TRANSFORMER
LINE & LOAD SIDE OF RECLOSER
TYPE 8400 / 14400 GY, 70:1
COOPER FORM 6 CONTROLLER
TYPE KME 6P2A
PROTECTION FUNCTIONALITY:
27 - UNDERVOLTAGE
50 - OVER CURRENT
50G - GROUND OVER CURRENT
51 - TIME OVER CURRENT
51G - GROUND TIME OVER CURRENT
59 - OVER VOLTAGE
81O - OVER FREQUENCY
81U - UNDER FREQUENCY
51-C - VOLTAGE CONTROLLED OVER CURRENT

- (F) NOT APPLICABLE.
- (G) GANG OPERATED AIR BREAK SWITCH (GOAB)
15KV, 110KV BIL, 900A
AB CHANCE AR111SF OR EQUAL
35KV MOV ARRESTER
SERVICE ENTRANCE RATED
- (H) POLE MOUNTED SURGE ARRESTERS
TYPE C POLYMER MOV
MCOV = 8.4KV
RATED = 10KV
- (I) NEUTRAL GROUNDING REACTOR
20 OHMS REACTANCE
400A RATED NEUTRAL

COOPER FORM 6 RELAY SETTINGS

DEVICE	PICK-UP SECONDARY (L-N)	PICK-UP PRIMARY (L-N)	TD (set in relay)	CLEARING RECLOSER	TOTAL CLEARING TIME
27-1	50% (60V)	3.81kV	1.075 SEC	0.025 SEC	1.1 SEC
27-2	95% (114V)	7.24kV	1.975 SEC	0.025 SEC	2.0 SEC
59-1	105% (126V)	8.01kV	1.975 SEC	0.025 SEC	2.0 SEC
59-2	120% (144V)	9.15kV	0.135 SEC	0.025 SEC	0.16 SEC
81U-1	56.5 HZ	56.5Hz	0.135 SEC	0.025 SEC	0.16 SEC
81U-2	59.3 HZ	59.3Hz	100 SEC	0.025 SEC	100 SEC
81O-1	60.5 HZ	60.5Hz	100 SEC	0.025 SEC	100 SEC
81O-2	62 HZ	62Hz	0.135 SEC	0.025 SEC	0.16 SEC
51-C (PHASE)	65 AMP (@88% 6.71KV L-N)			TM=2.2 CURVE 161	
51-C (GND)	40 AMP (@88% 6.71KV L-N)			TM=0.2 CURVE 151	
79	5 MINUTE DELAY ON RECONNECTION AFTER UTILITY RESTORATION	RECLOSE ONLY ON 27, 59 & 81 FUNCTIONS. LOCK OUT ON 51 FUNCTIONS.			

ONE-LINE DIAGRAM

DATE	DESCRIPTION
04/20/23	SYSTEM HAS BEEN DOWN SIZED TO 1.822 MW AC.
10/06/23	SYSTEM HAS BEEN UP SIZED TO 3.8 MW AC.
REV. #	DESCRIPTION
A	
B	

PROJECT NUMBER:	EC
DRAWN BY:	EC
CHECKED BY:	BW
DATE:	10-09-23

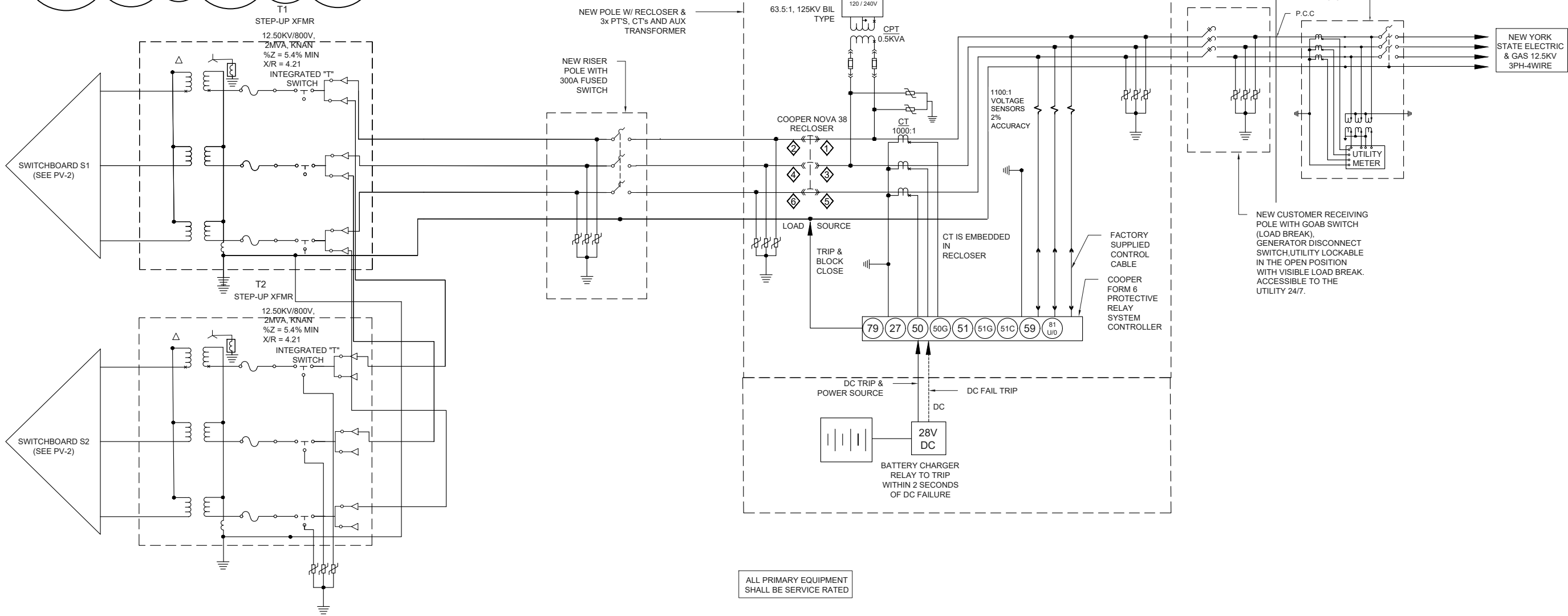
DRAWING NAME
ONE-LINE DIAGRAM (SERVICE) (MV)

DRAWING NUMBER
PV-3

GENERATION SUMMARY:

5.351MW DC / 3.800MVA AC
NUMBER OF MODULES - 525 WATTS (PER MODULE) - 10,192
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INVERTER RATING (kW) - 8 X 250kW (DE-RATED TO 250kW); 6 X 300kW (DE-RATED TO 300kW)

SEE PV-3 FOR DETAIL SPECIFICATIONS



NOT FOR CONSTRUCTION

- NOTES:
- INVERTERS SHALL BE UL1741 LISTED.

COOPER FORM 6 RELAY SETTINGS					
DEVICE	PICK-UP SECONDARY (L-N)	PICK-UP PRIMARY (L-N)	TD (set in relay)	CLEARING RECLOSER	TOTAL CLEARING TIME
27-1	50% (60V)	3.81kV	1.075 SEC	0.025 SEC	1.1 SEC
27-2	95% (114V)	7.24kV	1.975 SEC	0.025 SEC	2.0 SEC
59-1	105% (126V)	8.01kV	1.975 SEC	0.025 SEC	2.0 SEC
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81U-2	59.3 HZ	59.3Hz	100 SEC	0.025 SEC	100 SEC
81O-1	60.5 HZ	60.5Hz	100 SEC	0.025 SEC	100 SEC
81O-2	62 HZ	62Hz	0.135 SEC	0.025 SEC	0.16 SEC
51-C (PHASE)	65 AMP (@88% 6.71KV L-N)		TM=2.2 CURVE 161		
51-C (GND)	40 AMP (@88% 6.71KV L-N)		TM=0.2 CURVE 151		
79	5 MINUTE DELAY ON RECONNECTION AFTER UTILITY RESTORATION	RECLOSE ONLY ON 27, 59 & 81 FUNCTIONS. LOCK OUT ON 51 FUNCTIONS.			

ONE-LINE DIAGRAM

615W



Higher power generation better LCOE



n-type with very Lower LID



Better Temperature Coefficient



Better low irradiance response



12-year product warranty



30-year linear power output warranty

n-type Bifacial Double Glass High Efficiency Mono Module JAM66D45 LB

590-615

Comprehensive Certificates

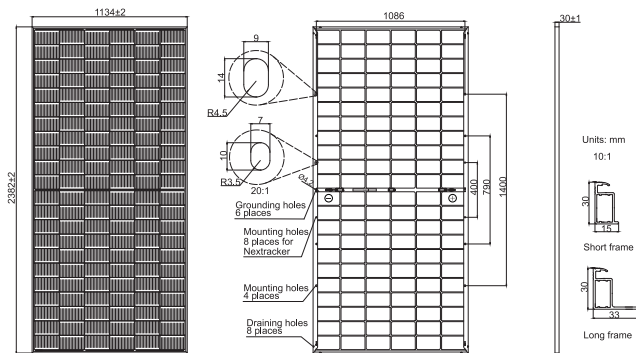
- IEC 61215, IEC 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC 62941: 2019 Terrestrial photovoltaic (PV) modules - Quality system for PV module manufacturing





615W

590-615
JAM66D45

LB
Series


Remark: customized frame color and cable length available upon request

Cell	Mono-16BB
Weight	33.1kg
Dimensions	2382±2mm×1134±2mm×30±1mm
Cable Cross Section Size	4mm ² (IEC), 12 AWG(UL)
No. of cells	132(6×22)
Junction Box	IP68, 3 diodes
Connector	QC 4.10-351/ MC4-EVO2A
Cable Length (Including Connector)	Portrait: 300mm(+)/400mm(-); 800mm(+)/800mm(-)(Leapfrog) Landscape: 1500mm(+)/1500mm(-)
Front Glass/Back Glass	2.0mm/2.0mm
Packaging Configuration	36pcs/Pallet, 720pcs/40HQ Container

ELECTRICAL PARAMETERS AT STC

TYPE	JAM66D45 -590/LB	JAM66D45 -595/LB	JAM66D45 -600/LB	JAM66D45 -605/LB	JAM66D45 -610/LB	JAM66D45 -615/LB
Rated Maximum Power(P _{max}) [W]	590	595	600	605	610	615
Open Circuit Voltage(V _{oc}) [V]	47.30	47.50	47.70	47.90	48.10	48.30
Maximum Power Voltage(V _{mp}) [V]	39.09	39.27	39.44	39.60	39.77	39.96
Short Circuit Current(I _{sc}) [A]	15.85	15.90	15.95	16.00	16.05	16.10
Maximum Power Current(I _{mp}) [A]	15.09	15.15	15.21	15.28	15.34	15.39
Module Efficiency [%]	21.8	22.0	22.2	22.4	22.6	22.8
Power Tolerance	0~+5W					
Temperature Coefficient of I _{sc} (α _{Isc})	+0.046%/ °C					
Temperature Coefficient of V _{oc} (β _{Voc})	-0.260%/ °C					
Temperature Coefficient of P _{max} (γ _{Pmp})	-0.300%/ °C					
STC	Irradiance 1000W/m ² , cell temperature 25 °C, AM1.5G					

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

ELECTRICAL CHARACTERISTICS WITH 10% SOLAR IRRADIATION RATIO

TYPE	JAM66D45 -590/LB	JAM66D45 -595/LB	JAM66D45 -600/LB	JAM66D45 -605/LB	JAM66D45 -610/LB	JAM66D45 -615/LB
Rated Max Power(P _{max}) [W]	637	643	648	653	659	664
Open Circuit Voltage(V _{oc}) [V]	47.30	47.50	47.70	47.90	48.10	48.30
Max Power Voltage(V _{mp}) [V]	39.09	39.27	39.44	39.60	39.77	39.96
Short Circuit Current(I _{sc}) [A]	17.12	17.17	17.23	17.28	17.33	17.39
Max Power Current(I _{mp}) [A]	16.30	16.36	16.43	16.50	16.56	16.62
Irradiation Ratio (rear/front)	10%					

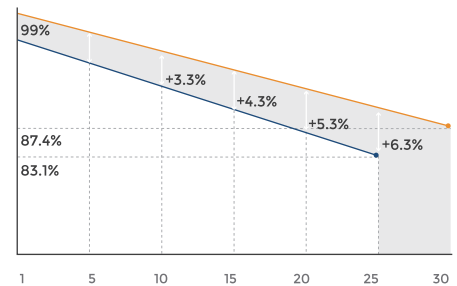
*For NexTracker installations, maximum static load please take compatibility approve letter between JA Solar and NexTracker for reference.

**Bifaciality=P_{max, rear}/Rated P_{max, front}

CHARACTERISTICS

Superior Warranty

1% 1st-year Degradation
0.4% Annual Degradation Over 30 years

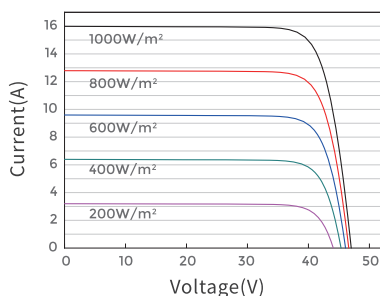


- n-type Bifacial Double Glass Module Linear Performance Warranty
- Standard Module Linear Performance Warranty

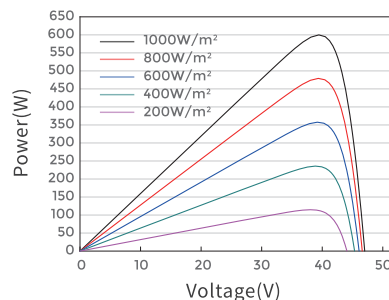
OPERATING CONDITIONS

Maximum System Voltage	1500V DC
Operating Temperature	-40 °C ~ +85 °C
Maximum Series Fuse Rating	35A
Maximum Static Load, Front*	5400Pa (112 lb/ft ²)
Maximum Static Load, Back*	2400Pa (50 lb/ft ²)
NOCT	45±2 °C
Bifaciality**	80%±10%
Fire Performance	UL Type 29

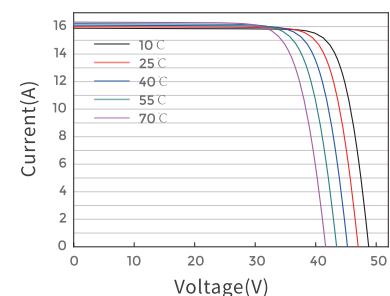
Current-Voltage Curve JAM66D45-600/LB



Power-Voltage Curve JAM66D45-600/LB



Current-Voltage Curve JAM66D45-600/LB



SOLECTRIA® XGI 1500-250 SERIES

PREMIUM 3-PHASE TRANSFORMERLESS UTILITY-SCALE INVERTERS

FEATURES

- NEW and MORE POWERFUL!
 - XGI 1500-250/250-600
 - XGI 1500-225-600 (Selectable: 225kW/225kVA or 225kW/250kVA)
 - XGI 1500-200/200-480
 - XGI 1500-175-480 (Selectable: 175kW/175kVA or 175kW/200kVA)
- Industry-leading maximum DC/AC Ratio of 2.0
- Accepts two input PV Output Circuits, with no overcurrent protection required
- Made in the USA with global components
- Buy American Act (BAA) compliant
- 99.0% peak efficiency
- Flexible solution for distributed and centralized system architecture
- Advanced grid-support functionality Rule 21/UL1741SB
- Robust, dependable and built to last
- Lowest O&M and installation costs
- Access all inverters on site via WiFi from one location
- Remote diagnostics and firmware upgrades
- SunSpec Modbus Certified
- Tested compatible with the TESLA PowerPack Microgrid System

OPTIONS

- PV Source Circuit Combiners
- Web-based monitoring
- Extended warranty



Yaskawa Solectria Solar is pleased to introduce its most powerful XGI 1500 inverters, with the XGI 1500-250 models at 600 Vac, and the XGI 1500-200 models for 480 Vac service.



The XGI 1500-250 and XGI 1500-200 feature SiC technology, high power and high efficiency that places them at the top end of the utility-scale string inverters in the market.

Yaskawa Solectria Solar designs all XGI 1500 utility-scale string inverters for high reliability and builds them with the highest quality components -- selected, tested and proven to last beyond their warranty. The XGI 1500 inverters provide advanced grid-support functionality and meet the latest IEEE 1547 and UL 1741 standards for safety.

The XGI 1500 inverters provide ideal solutions for ground-mounted utility-scale PV systems, with models available for service connections at 600 Vac and 480 Vac. Designed and engineered in Lawrence, MA, the SOLECTRIA XGI inverters are assembled and tested at Yaskawa America's facilities in Buffalo Grove, IL. The XGI 1500 inverters are Made in the USA with global components, and are compliant with the Buy American Act.

SOLECTRIA® XGI 1500-250 SERIES TECHNICAL DATA

SPECIFICATIONS

Product Specification		XGI 1500 Inverter Model							
		XGI 1500 250/250-600		XGI 1500 225-600		XGI 1500 200/200-480		XGI 1500 175-480	
DC Input	Absolute Maximum Input Voltage	1500 VDC							
	Maximum Power Voltage Range (MPPT)	860-1250 VDC				750-1250 VDC			
	Operating Voltage Range (MPPT)	860-1450 VDC				750-1450 VDC			
	Number of MPP Trackers	1 MPPT							
	Maximum Operating Input Current	296.7 A		267 A		237.3 A		207.6 A	
	Maximum Operating PV Power	255 kW		230 kW		204 kW		179 kW	
	Maximum DC/AC Ratio Max Rated PV Power	2.0 500 kW		2.22 500 kW		2.5 500 kW		2.86 500 kW	
	Max Rated PV Short-Circuit Current (ΣIsc x 1.25)	800 A							
AC Output	Nominal Output Voltage	600 VAC, 3-Phase				480 VAC, 3-Phase			
	AC Voltage Range	-12% to +10%							
	Continuous Real Output Power	250 kW		225 kW		200 kW		175 kW	
	Continuous Apparent Output Power (kVA)	250		250 225		200		200 175	
	Maximum Output Current (A _{RMS})	240.6		XGI 1500- 225/225: 216.5 225/250: 240.6		240.6		XGI 1500- 175/175: 210.5 175/200: 240.6	
	Fault Current Contribution (1 cycle RMS)	390 A		390 A 351 A		312 A		312 A 273 A	
	Conductor Compatibility	600 kcmil max, Cu or Alum, 1 or 2 conductors with lugs							
	Nominal Output Frequency	60 Hz							
	Power Factor (Unity default)	+/- 0.80 Adjustable							
	Total Harmonic Distortion (THD) @ Rated Load	< 5%							
	Grid Connection Type	3-Ph + N/GND							
	Efficiency	Peak Efficiency	99.0%						
CEC Average Efficiency		98.5%							
Tare Loss		<1 W							
Temperature	Ambient Temperature Range	-40°F to 140°F (-40°C to 60°C)							
	De-Rating Temperature	113°F (45°C)		127°F (53°C)		113°F (45°C)		131°F (55°C)	
	Storage Temperature Range	-40°F to 167°F (-40°C to 75°C)							
	Relative Humidity (non-condensing)	0 - 95%							
	Operating Altitude	9,840 ft (3 km)							
Communications	Advanced Graphical User Interface	WiFi							
	Communication Interface	Ethernet							
	Third-Party Monitoring Protocol	SunSpec Modbus TCP/IP							
	Web-Based Monitoring	Optional							
	Firmware Updates	Remote and Local							
Testing & Certifications	Safety Listings & Certifications	UL 1741, IEEE 1547, UL 1998, UL 1699b Photovoltaic Arc-Fault Circuit Protection Certified							
	Advanced Grid Support Functionality	Rule 21, UL 1741SB							
	Testing Agency	ETL							
	FCC Compliance	FCC Part 15 (Subpart B, Class A)							
Warranty	Standard and Options	5 Years Standard; Option for 10 Years							
Enclosure	Acoustic Noise Rating	73 dBA @ 1 m ; 67dBA @ 3 m							
	DC Disconnect	Integrated 2-Pole 400 A DC Disconnect							
	Mounting Angle	Vertical only							
	Dimensions	Height: 29.5 in. (750 mm) Width: 44.3 in. (1125 mm) Depth: 15.4 in. (390 mm)							
	Weight	290 lbs (131.5 kg)							
	Enclosure Rating and Finish	NEMA 4X, IEC IP66, Type 3R, Polyester Powder-Coated Aluminum							



YASKAWA
SOLECTRIA SOLAR

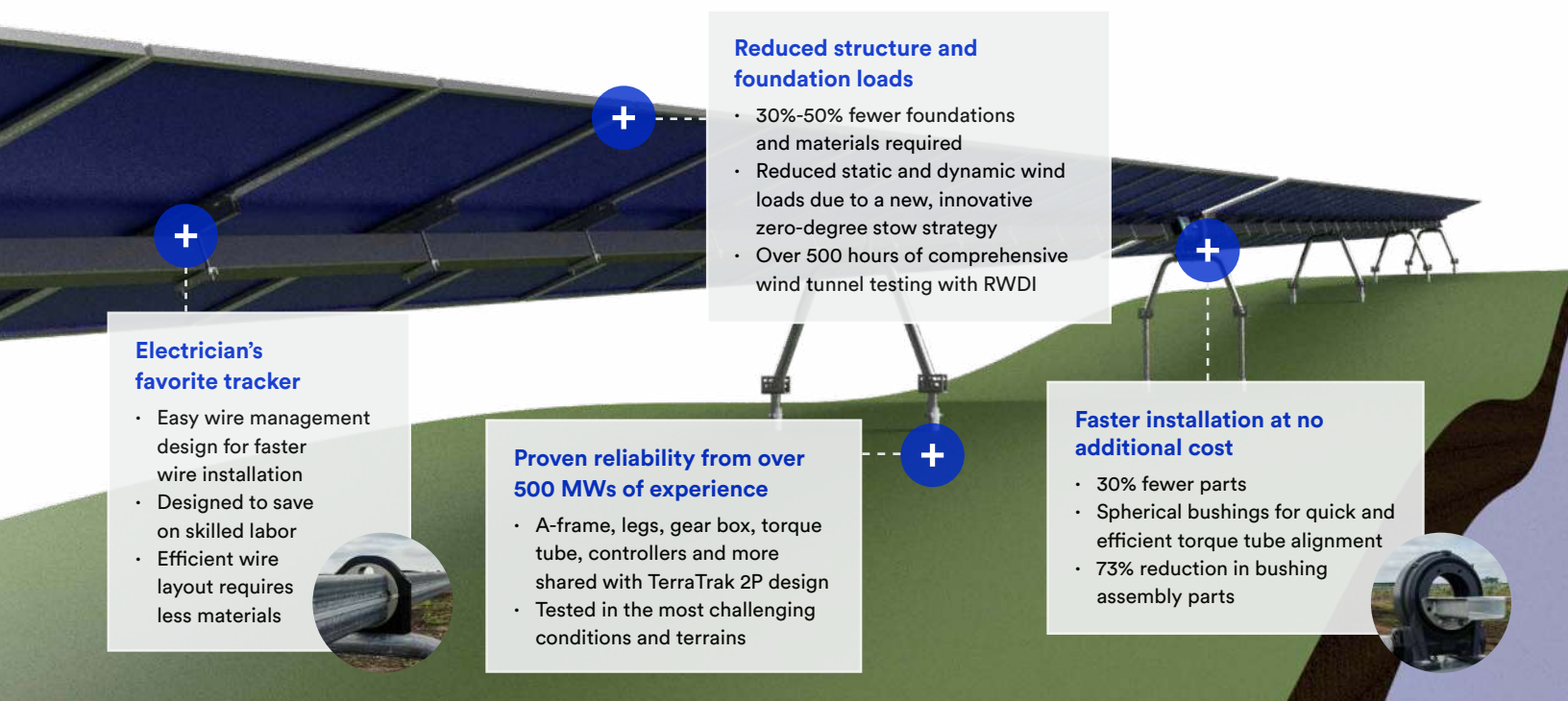
Yaskawa Solectria Solar 1-978-683-9700 | Email: sales@solectria.com | solectria.com
Document No. FL.XGI1500-04 | 10/04/2023 | © 2021 Yaskawa America, Inc.



TerraTrak 1P

Expanded offering, proven reliability

TerraTrak 1P is designed for fewer foundations per MW and reliable performance. Our smart engineering allows for fewer parts and faster installation. The foundation agnostic design ensures reliable results in any terrain. With 80% of the parts shared with TerraTrak 2P, you're ensured proven quality and performance.



Best in class controls & software

	Real-time data down to row level so you always know how your tracker is performing	 Machine learning tells us when a row isn't tracking on its normal path and alerts you immediately, enabling you to fix issues before they affect site performance
	Minimize weather risks with on-site weather stations and weather API that predicts bad weather and automatically stows when thresholds are crossed	 Faster troubleshooting without rolling a truck on site. The admin panel allows users to see inside the project site, view real-time data, and investigate historical data that often leads to identification of the issue
	Remote updates allow your system to stay up to date with the latest software innovations without requiring a person on site	 Zone controls can rotate rows for easier and faster maintenance like mowing, washing, and electrical installation, saving our customer's money and time on O&M and installation

Specifications

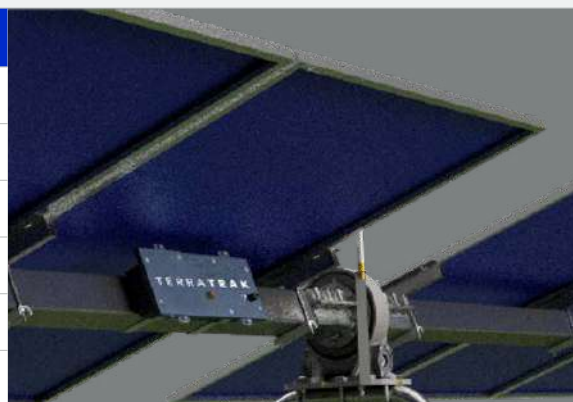
Module orientation	1 module in portrait
Tracker range of motion	100°
Torque tube slope	N/S: Up to 10%
Foundation	Driven pile and ground screw
Wind load	Up to 150 mph
Snow load	Up to 100 psf
Optimized* mechanical dimensions	18" ground clearance / 12" grade height variation
Foundations per row	≥7
Stow strategy	Reduced static and dynamic wind loads due to a new, innovative 0 degree stow strategy
Weather monitoring	Wind speed, snow depth, flood height, predictive analytics
Torque tube height	≥4 feet
Corrosion	ISO 9223 C2, C3

Drive system	Independent row design / 12 VDC motorized slew drive / zero grid power consumption
Bushings	Self-aligning spherical design / high impact polymer / lubricant-free, dry bushings
Fasteners	Standard sizes / self-locking / no special tools required
Material coating	HDG, inline, pre-galvanization, powder coating
Adjustable foundations	Flexible installation allows market leading adjustability
Electrical subsystem	Highly advanced BMS hardware & software
Modules	Compatible with large format modules
Certification	UL3703
Warranty	10 year structural, 5 year on drive and control system, 20 years on screw foundations, extended terms available

*Optimized means the design is most cost efficient in this configuration (60 modules, 2 string). Higher loads can be accommodated with an engineering review.

80% of the parts are proven on over 500 MWs of installed capacity with our TerraTrak 2P

The same quality and reliable parts:	
A-frame	Bracing
Legs	Network controller
Gear box	Row box
Torque tube	Weather station
Part of the module mounting assembly	Sensors
Self-locking hardware	TerraTrak cloud and dashboard

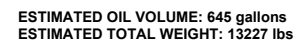
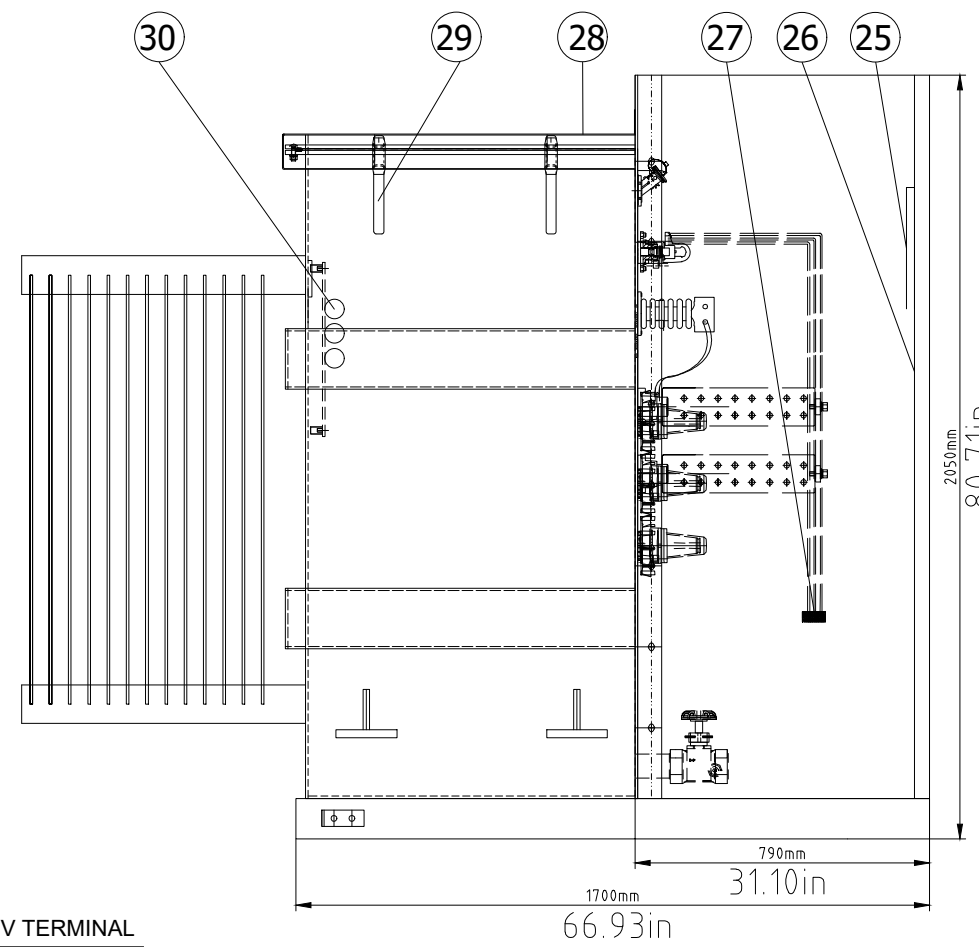


Order No. : 79853

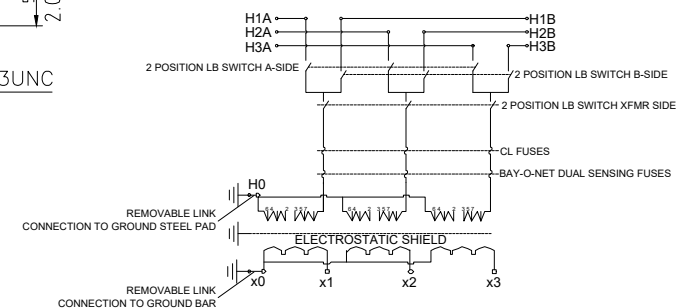
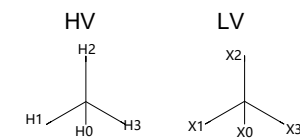
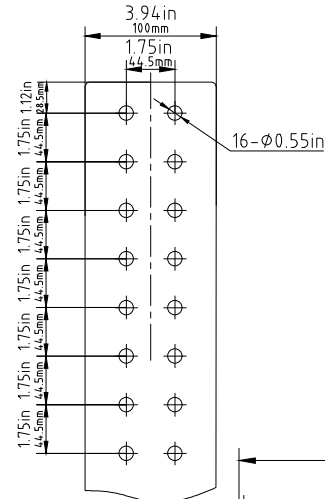
☐ APPROVED	☐ APPROVED AS NOTED
☐ REVISE AND RESUBMIT	☐ REJECTED

SUBMITTAL HAS BEEN REVIEWED FOR GENERAL CONFORMANCE WITH PLANS AND SPECIFICATIONS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING DIMENSIONS AT JOBSITE FOR TOLERANCE, CLEARANCE, QUANTITIES, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION. COORDINATION OF WORK WITH OTHER TRADES AND FULL COMPLIANCE WITH CONTRACT DOCUMENTS.

BY: _____ DATE: _____



PARTS LIST		
ITEM	DESCRIPTION	QTY
1	PARKING STAND BRACKET	6
2	25KV 600A DEADBREAK ONE-PIECE HV BUSHING	6
3	H0 BUSHING WITH REMOVABLE GROUND STRAP	1
4	TWO POSITION (ON/OFF) LOADBREAK SWITCH (ROTARY SWITCH) 25KV, 3PHASE 630AIRU, 125KV, 200A, TYPE:SID-LS2F25-3	3
5	5 POSITION TAP CHANGER +/- 2x2.5% , 3-PHASE	1
6	DRIP TRAY	1
7	BAY-O-NET DUAL SENSING FUSE 65A, 25KV ,TYPE:SID-PRNT4-25/65	3
8	1" UPPER FILL VALVE TYPE:SID-DT-1-11.5/T-1	1
9	PRESSURE RELIEF VALVE TYPE:SID-YLF-2545/T-0	1
10	VACUUM PRESSURE GAUGE WITH CONTACT FOR VACUUM TYPE:YXZC-100Z	1
11	LIQUID LEVEL GAUGE WITH CONTACTS TYPE: SID-UHZK-03-1	1
12	LIQUID TEMPERATURE GAUGE WITH CONTACTS TYPE:SID-BWPK-802-2	1
13	NEMA SPADE TYPE 10 HOLES LV BUSHING	4
14	LV BUSHING ADDITIONAL SUPPORT	2
15	750-4000 PADMOUNT LV PLATE, 304L S.S 3/16in	1
16	REMOVABLE GROUND LINK	1
17	GROUND BUS (6HOLES)	1
18	JACK	4
19	GROUND STEEL PADS	5
20	1" DRAIN VALVE WITH 3/8 SAMPLER	1
21	FIXED PROJECTING CUP	3
22	DOOR HANDLE	1
23	COOLING RADIATORS	3
24	NITROGEN BLANKET (FILLED IN THE FACTORY)	1
25	STANDARD NAMEPLATE (INSIDE LV COMPARTMENT DOOR)	1
26	HINGED DOOR	2
27	TERMINAL BLOCK	1
28	FLIP TOP COVER	1
29	LIFTING LUG	4
30	25KV 125A, CURRENT LIMITING FUSES, TYPE: SID-XRNT4-25/125	3



REMARK:
- CUSTOMER NEED TO CONNECT GROUND WIRE TO THE TRANSFORMER.

TYPE ZGS-H-2000/24.94/0.6						DWG. NAME GENERAL ASSEMBLY DRAWING				
REV	DATE	DRAWN	CHECKED	APPROVED	REVISION REMARKS	FIRST ANGLE PROJECTION	SCALE	1		
0	06.21.24	J.G.	A.U						REV. NO.	
1	10.15.24	J.G.	A.M	A.M	ADDED THE X/R RATIO					
						ISSUED FOR APPROVAL (IFA)				1

Order No. : 79853

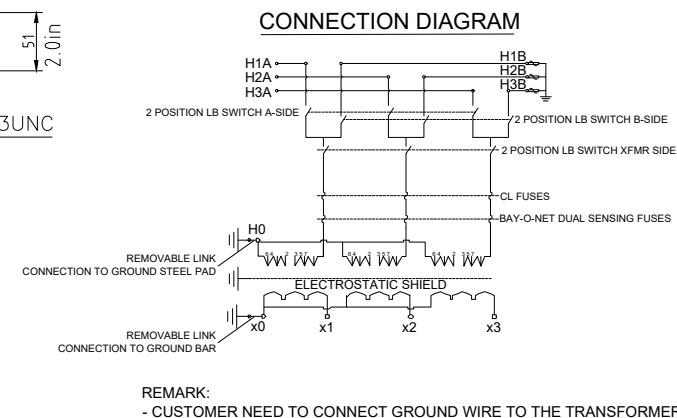
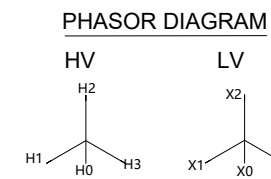
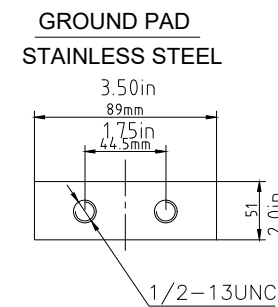
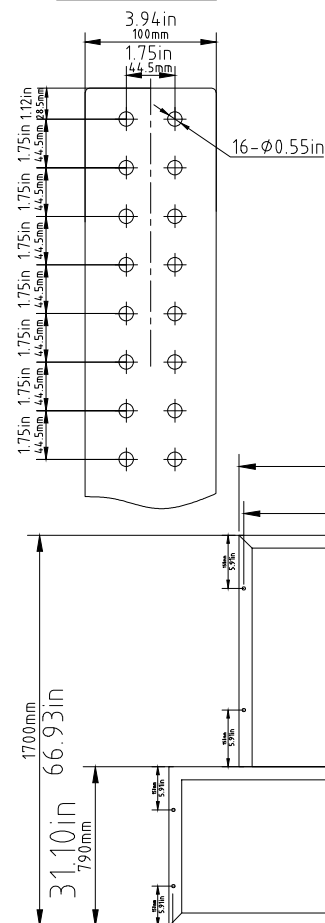
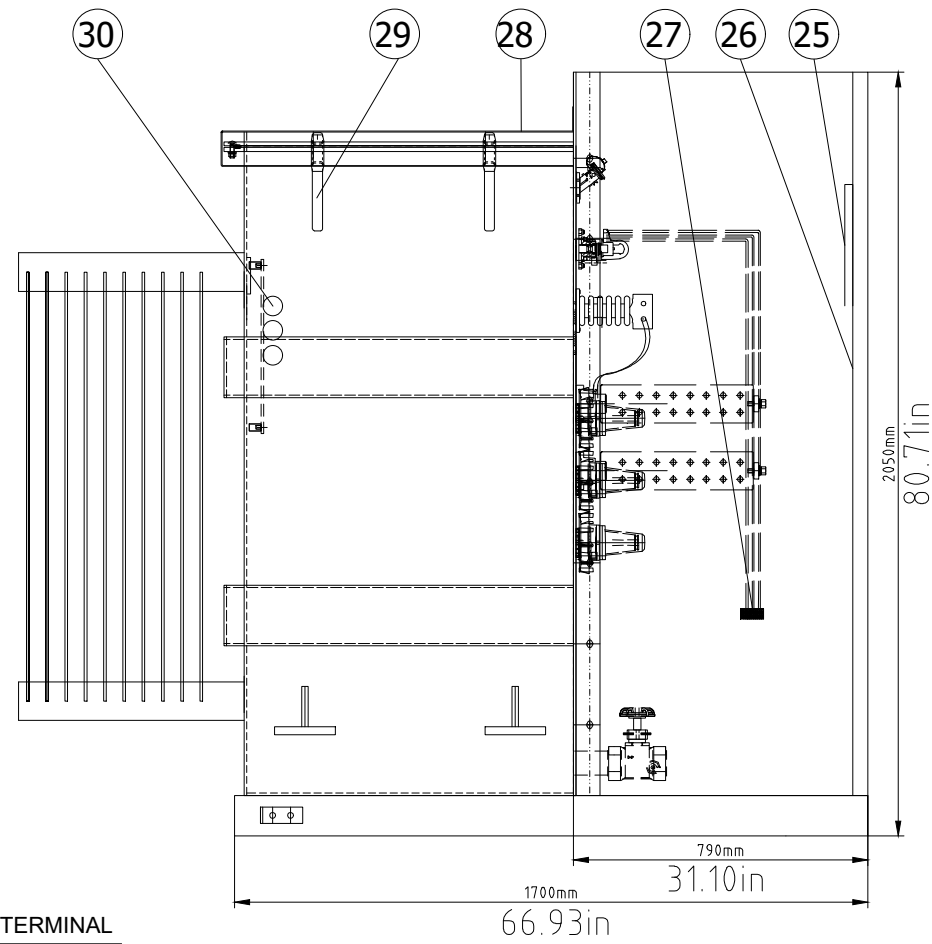
☐ APPROVED	☐ APPROVED AS NOTED
☐ REVISE AND RESUBMIT	☐ REJECTED

SUBMITTAL HAS BEEN REVIEWED FOR GENERAL CONFORMANCE WITH PLANS AND SPECIFICATIONS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING DIMENSIONS AT JOBSITE FOR TOLERANCE, CLEARANCE, QUANTITIES, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION. COORDINATION OF WORK WITH OTHER TRADES AND FULL COMPLIANCE WITH CONTRACT DOCUMENTS.

BY: _____ DATE: _____

RATING	1500kVA
PRIMARY VOLTAGE(V)	24940/14400 GrdY
SECONDARY VOLTAGE(V)	600/346 GrdY
FREQUENCY	60Hz
VECTOR GROUP	YNyn0
PRIMARY BIL VOLTAGE	125 kV
SECONDARY BIL VOLTAGE	30 kV
WINDING MATERIAL	ALUMINUM
INSULATION OIL TYPE	ENVIROTEMP FR3
COOLING CLASS	KNAN
TEMPERATURE RISE	65°C
EFFICIENCY(100% LOAD)	99%
NOMINAL PRIMARY CURRENT	34.73A
NOMINAL SECONDARY CURRENT	1443.42A
NOMINAL IMPEDANCE	5.75%
X/R RATIO	6.5
ALTITUDE	≤1000m
No. OF TAP POSITION	5
FUNCTION	STEP-UP SOLAR
COLOR	MUNSELL GREEN
CORE FORM	THREE-PHASE FIVE COLUMN
ELECTROSTATIC SHIELD	INCLUDED
LOOP FEED CURRENT	200A

ITEM	DESCRIPTION	QTY
1	PARKING STAND BRACKET	6
2	25KV 600A DEADBREAK ONE-PIECE HV BUSHING	6
3	HO BUSHING WITH REMOVABLE GROUND STRAP	1
4	TWO POSITION (ON/OFF) LOADBREAK SWITCH(ROTARY SWITCH) 25KV, 3PHASE 630A BIL 125KV, 20KA, TYPE:SID-L52P25-3	3
5	5 POSITION TAP CHANGER +/- 2x2.5% , 3-PHASE	1
6	DRIP TRAY	1
7	BAY-O-NET DUAL SENSING FUSE 50A, 25KV ,TYPE:SID-PRNT4-25/50	3
8	1" UPPER FILL VALVE TYPE:SID-DT-1-11.5/T-1	1
9	PRESSURE RELIEF VALVE TYPE:SID-YLF-2545/T-0	1
10	VACUUM PRESSURE GAUGE WITH CONTACT FOR VACUUM TYPE:YXZC-100Z	1
11	LIQUID LEVEL GAUGE WITH CONTACTS TYPE: SID-UHZK-03-1	1
12	LIQUID TEMPERATURE GAUGE WITH CONTACTS TYPE:SID-BWPK-802-2	1
13	NEMA SPADE TYPE 16 HOLES LV BUSHING	4
14	LV BUSHING ADDITIONAL SUPPORT	2
15	750-4000 PADMOUNT LV PLATE, 304L S.S 3/16in	1
16	REMOVABLE GROUND LINK	1
17	GROUND BUS (6HOLES)	1
18	JACK	4
19	GROUND STEEL PADS	5
20	1" DRAIN VALVE WITH 3/8 SAMPLER	1
21	FIXED PROJECTING CUP	3
22	DOOR HANDLE	1
23	COOLING RADIATORS	3
24	NITROGEN BLANKET (FILLED IN THE FACTORY)	1
25	STANDARD NAMEPLATE (INSIDE LV COMPARTMENT DOOR)	1
26	HINGED DOOR	2
27	TERMINAL BLOCK	1
28	FLIP TOP COVER	1
29	LIFTING LUG	4
30	25KV 100A, CURRENT LIMITING FUSES, TYPE: SID-XRNT4-25/100	3
31	25KV 600/200A BUSHING ADAPTER	3
32	15.3KV MCOV, 18KV DUTY CYCLE ELBOW TYPE SURGE ARRESTER	3



TYPE ZGS-H-1500/24.94/0.6						DWG. NAME GENERAL ASSEMBLY DRAWING			
REV	DATE	DRAWN	CHECKED	APPROVED	REVISION REMARKS	FIRST ANGLE PROJECTION	SCALE	1	
0	06.27.24	J.G.	A.U			ISSUED FOR APPROVAL (IFA)			
1	10.15.24	J.G.	A.M	A.M	ADDED THE X/R RATIO				
						REV. NO.			
						1			

Attachment 8

Operations and Maintenance Plan

Veteran Hill Road Solar Project
Town of Veteran, Chemung County, New York

Solar Facility Operations & Maintenance Plan

Prepared for:

Veteran Hill Road Solar LLC
2401 Walnut Street, Suite 503
Philadelphia, PA 19103

Prepared by:



27 Main Street, PO Box 324
Trumansburg, NY 14886

April 2026

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Attachment A. Operations and Maintenance Agreement

A. INTRODUCTION

As required by the Town of Veteran 2026 Solar Law (Local Law No. 1 of 2026), Veteran Hill Road Solar LLC (the Operator/Owner) has prepared this Solar Facility Operation and Maintenance Plan (O&M Plan) for the Veteran Hill Road Solar Project (the Facility), an approximately 3.8 megawatt alternating current (MWac) ground-mounted solar facility to be located on approximately 35 acres of an approximately 145-acre plot of land along Veteran Hill Road in the Town of Veteran, Chemung County, New York. The purpose of this plan is to outline the ongoing operations and maintenance activities that will be performed at the Project Site from the time it is operational until decommissioning.

The O&M Plan aims to outline a strategy for ensuring that the Facility operates in a sustainable and safe manner utilizing industry best practices. These facilities are designed and built to last for 30+ years of operations. Therefore, this plan outlines the necessary processes and procedures to ensure these operational objectives are achieved. This O&M Plan will be updated as necessary in the future to ensure that changes in technology, inspection, and maintenance methods will be taken into consideration.

B. SITE MONITORING, PREVENTATIVE MAINTENANCE & INSPECTIONS

Veteran Hill Road Solar LLC will work with an Operations & Maintenance contractor. The system will be remotely monitored 24/7 and responds to all alarms and/or notifications indicating the facility is not operating properly. After identifying the nature of the issue, a technician may be deployed to the site to investigate within 24 hours. Technicians servicing the site have the appropriate licenses and training to be working on this equipment to ensure both their safety and optimal performance of the site, troubleshoot, and/or repair the issue. Staff will be continuously available to communicate with NYSEG operations and local emergency personnel on a 24/7 basis.

The key to effective facility operations is to inspect equipment, clean, maintain, repair and/or replace according to approved procedures. Regular inspections are scheduled at least twice a year to ensure that the site is clean and secure, and that equipment is running properly and securely. During each maintenance visit the site will be inspected for signs of erosion. Any areas of concern will be immediately communicated to Veteran Hill Road Solar LLC to evaluate and implement corrective measures.

ROUTINE SITE INSPECTION

On a routine basis, a representative of the owner/operator will perform a site inspection with the Town's code enforcement officer. The site inspection will include the following schedule of services:

Routine Site Inspection	
Equipment	Inspection Details
PV Panel Condition	Inspect for cleanliness, cracked/chipped/scratched/shattered panels, fading/discoloration, burn marks, seal condition, frame damage or rust
PV Mounting Structure	Inspect mounts and mounting structures (loose panels, loose rack/clips missing hardware, rusted bolts, rack anchor condition)
PV Array Ventilation	Inspect conditions under panels, removal of any large debris or pests; visual check to ensure maximum ventilation under panels
PV System Foundations	Visual inspection of grounds and vegetation, identify issues related to mud, water pooling, soil erosion
Balance of System	- Inspect conduit runs (separated/cracked conduits, misaligned wire runs) - Inspect panel interconnectivity and string lines (wire/cable wear, wire fading, chewed wire due to pests, identify loose/detached wires)

Routine Site Inspection	
Equipment	Inspection Details
	- Inspect junction/combiner enclosure(s) condition (seals, rust, damage, locks) - Inspect electrical equipment enclosure(s) (seals, rust, damage, door condition, locks, equipment pad(s))
Inverter(s)	- Inspect inverter structure(s) and enclosure(s) (seals, rust, damage, door condition, switch/handle condition, locks) - Inspect inverter equipment pad(s) (cracks, base damage, soil erosion)
Data Acquisition System (DAS)	- Weather stations condition (alignment of irradiance sensor, condition of wind and temperature meters) - DAS device condition (screen, seals, rust, damage)
Shading Conditions	Visual inspection to identify any shading issues (trees/grass, landscape, structures)
System Security	- Visually inspect fence line or confinement structures for wear, damage, breach, vandalism, or other problems - Check condition of any locks, chains, or other protection measures preventing unauthorized access to the system.

DISPOSAL OF SYSTEM EQUIPMENT

All equipment and materials will be evaluated to determine the appropriate facility for salvage, recycling, or disposal. The PV modules will be disconnected from the inverters and removed from the steel racking system. The PV modules are made of silicon, glass, and aluminum and are not considered hazardous waste. PV modules will be recycled or resold on the market if determined to still be usable. All electric conductors made of copper and aluminum can be recycled. All hazardous wastes, if any, will be disposed of in accordance with laws in effect at the time disposal is performed. Any solid waste generated during dismantling will be disposed of as necessary to comply with the solid waste regulations then in place.

SNOW REMOVAL

Snow removal on access roads will be limited to times when equipment needs inspection/repair. Routine snow removal will not be necessary, as the system is monitored remotely.

C. VEGETATION MANAGEMENT PLAN

Following construction of the solar facility, the disturbed grounds will be re-seeded with low growth/low maintenance, native/non-invasive ground cover under and around the solar panels according to the Landscaping Plan. This is to provide foraging habitat beneficial to game birds, songbirds, and pollinators. The use of low growth vegetation will minimize the need for mowing. The site will be monitored so vegetation height does not reach above the lowest point of the solar modules - assumed max height of 24-30 inches. All vegetation planted for screening will be monitored during routine maintenance visits. Should any of the vegetative screening plantings need to be replaced due to declining condition, they will be replaced during the next seasonal growing cycle. Should the Town have any concerns, the Code Enforcement Officer can reach out to the Project Owner and the issue will be addressed in a timely manner. At this time, the monitoring service is still being determined. Final emergency contact information will be given to the appropriate emergency response departments and to the Code Enforcement Officer. Emergency contact information will be posted at the Site.

The vegetative maintenance contractor will be responsible for inspecting and maintaining the vegetative

integrity of the solar facility and will adjust site maintenance frequency based on time of year and weather conditions. Before mowing or cutting, maintenance staff will check the weather forecast and perform an on-site inspection to avoid rutting, erosion, and soil compaction. Any use of pesticides, herbicide, or other chemicals will follow all local, state, and federal regulations. Such treatments are not anticipated. In the event of any changes, a list will be provided to the Town to approve prior to application.

General Exterior Maintenance: The fence line will be inspected for trash. Trash will be collected and disposed of offsite. Vegetative growth along the fence line will also be trimmed and maintained to prevent the growth of weeds or tall grasses. The condition of the fence and gates will be assessed, and necessary repairs made. Evidence of irregular activity such as trespassing, tampering, illegal dumping, or wildlife intrusion will be resolved. The access roads will be monitored and inspected for sediment buildup/obstruction, drainage issues, rutting and pitting or other failures. All stormwater practices should be inspected and maintained consistent with the approved SWPPP.

Mowing: Staff will mow the site as follows. First, the mower trims the large areas. Second, trimmers are used to cut around structural elements and other places the mower could not reach. Finally, any vegetation that was thrown and stuck to the modules will be cleaned off. Additionally, staff may spot mow to reduce invasive plants while native species are becoming established. Spot-mowing will be done at a raised height to avoid damaging native plants. Should the mowing contractor notice areas of diminished/removed grass growth, they shall contact the Project Owner and ensure that this area is reseeded.

Vegetative Screening Maintenance: Vegetative screening will be planted at the facility as required by the Landscape Plan. The contractor will be responsible for monitoring the general health of each plant, weed intrusion, and general appearance. If any planting fails to establish itself, the contractor will work with the responsible nursery to redeem the warranty and replace the deceased plant with another in accordance with the approved landscaping plan. Replacement plants will be installed according to the landscaping plan on record with the Town and will occur within the following growing season.

Attachment A
Operations and Maintenance Agreement

APPENDIX A

OPERATION AND MAINTENANCE (O&M) AGREEMENT STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (SWM BMPs)

THIS AGREEMENT, made and entered into this _____ day of _____, 20____, by and between **Veteran Hill Road Solar LLC**, (hereinafter the “Developer”), and **Town of Veteran, Chemung County, New York**, (hereinafter “Municipality”);

WITNESSETH

WHEREAS, Veteran Hill Road Solar LLC has an equitable interest in certain real property as recorded by deed in the land records of Chemung County, New York, Deed Book 20200 at page 13778, (hereinafter “Property”).

WHEREAS, Veteran Hill Road Solar LLC is proceeding to build and develop the Property located at Tax Parcel 39-00-1-14.1; and

WHEREAS, the SWM BMP O&M Plan approved by the Municipality (hereinafter referred to as the “Plan”) for the property identified herein, which is attached hereto as Appendix A and made part hereof, as approved by the Municipality, provides for management of stormwater within the confines of the Property through the use of BMPs; and

WHEREAS, the Municipality, and Veteran Hill Road Solar LLC, its successors and assigns, agree that the health, safety, and welfare of the residents of the Municipality and the protection and maintenance of water quality require that on-site SWM BMPs be constructed and maintained on the Property; and

WHEREAS, the Municipality requires, through the implementation of the SWM Site Plan, that SWM BMPs as required by said Plan and the Municipal Stormwater Management Ordinance be constructed and adequately operated and maintained by the Veteran Hill Road Solar LLC, successors, and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. Veteran Hill Road Solar LLC shall construct the BMPs in accordance with the plans and specifications identified in the SWM Site Plan.
2. Veteran Hill Road Solar LLC shall operate and maintain the BMPs as shown on the Plan in good working order in accordance with the specific maintenance requirements noted on the approved SWM Site Plan.

3. Veteran Hill Road Solar LLC hereby grants permission to the Municipality, its authorized agents and employees, to enter upon the property, at reasonable times and upon presentation of proper credentials, to inspect the BMPs whenever necessary. The Municipality shall notify Veteran Hill Road Solar LLC prior to entering the property.
4. In the event Veteran Hill Road Solar LLC fails to operate and maintain the BMPs per paragraph 2, the Municipality or its representatives may enter upon the Property and take whatever action is deemed necessary to maintain said BMP(s). It is expressly understood and agreed that the Municipality is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Municipality.
5. In the event the Municipality, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, Veteran Hill Road Solar LLC shall reimburse the Municipality for all expenses (direct and indirect) incurred within 10 days of receipt of invoice from the Municipality.
6. The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite BMPs by Veteran Hill Road Solar LLC; provided, however, that this Agreement shall not be deemed to create or effect any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.
7. Veteran Hill Road Solar LLC, its executors, administrators, assigns, and other successors in interests, shall release the Municipality from all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against said employees and representatives from the construction, presence, existence, or maintenance of the BMP(s) by Veteran Hill Road Solar LLC or Municipality.
8. The Municipality shall inspect the BMPs at a minimum of once every three years to ensure their continued functioning.

This Agreement shall be recorded at the Office of the Recorder of Deeds of Chemung County, New York, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on Veteran Hill Road Solar LLC, his administrators, executors, assigns, heirs, and any other successors in interests, in perpetuity.

ATTEST:

WITNESS the following signatures and seals:

(SEAL)

For the Municipality:

For Veteran Hill Road Solar LLC:

ATTEST:

_____ (City, Borough, Township)

County of _____, New York

I, _____, a Notary Public in and for the county and state aforesaid, whose commission expires on the _____ day of _____, 20____, do hereby certify that _____ whose name(s) is/are signed to the foregoing Agreement bearing date of the _____ day of _____, 20____, has acknowledged the same before me in my said county and state.

GIVEN UNDER MY HAND THIS _____ day of _____, 20____.

NOTARY PUBLIC

(SEAL)

Attachment 9

Decommissioning Plan and Decommissioning Agreement

Veteran Hill Road Solar Project
Town of Veteran, Chemung County, New York

Solar Facility Decommissioning Plan

Prepared for:

Veteran Hill Road Solar LLC
2401 Walnut Street, Suite 503
Philadelphia, PA 19103

Prepared by:

akrf

27 Main Street, PO Box 324
Trumansburg, NY 14886

April 2026

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Use of Decommissioning Assurance	3

List of Attachments

Attachment A. Decommissioning Security Estimate
Attachment B. Decommissioning Agreement

A. INTRODUCTION

As required by the Town of Veteran 2026 Solar Law (Local Law No. 1 of 2026), Veteran Hill Road Solar LLC (the Operator/Owner) has prepared this Solar Facility Decommissioning Plan (Decommissioning Plan) for the Veteran Hill Road Solar Project (the Facility), an approximately 3.8 megawatt alternating current (MWac) ground-mounted solar facility to be located on approximately 35 acres of an approximately 145-acre plot of land along Veteran Hill Road in the Town of Veteran, Chemung County, New York. The intent of this Decommissioning Plan is to provide a general scope of decommissioning work and provide an estimate of the bond to be provided to the Town of Veteran (Town) for decommissioning assurance.

B. IMPLEMENTATION OF DECOMMISSIONING PLAN

The Decommissioning Plan will be implemented upon expiration of property rights or in the event the Facility is no longer used, is abandoned or damaged beyond repair.

EXPIRATION OF PROPERTY RIGHTS

Expiration of property rights will occur when the land lease between the Owner/Operator and landowner ends.

ABANDONMENT

Based on the Town Solar Law, the solar system will be considered abandoned if the Facility is non-operational for any continuous six-month period.

CATASTROPHIC DAMAGE

Based on the Town Solar Law, catastrophic damage is considered if the Facility is damaged beyond repair, and the Company elects not to restore operation.

END OF USEFUL LIFE

Based on the Town Solar Law, the Facility will be considered at the end of its service life estimated not to exceed thirty (30) years from initial operation.

C. DECOMMISSIONING ACTIVITIES AND SCHEDULE

In the event the Facility meets any of the above-referenced implementation of decommissioning plan definitions, the Owner/Operator, as provided for in its lease with the landowner, is responsible for restoring the property to the natural condition as it existed before the Facility was installed (excluding tree cover which will be allowed to re-propagate naturally), within six (6) months. The Owner/Operator will be responsible for obtaining any permits required for the decommissioning prior to starting work.

The Owner/Operator will coordinate with NYSEG to determine a schedule and procedure for disconnecting infrastructure from the point of interconnection, as well as removal and proper disposal of all utility-owned structures and equipment.

The Owner/Operator will have its qualified contractor(s) remove and properly dispose of all operator-owned above ground structures (equipment, concrete, conduits, structures, fencing, and foundations) and underground utilities if less than 48-inches deep. All concrete piers, footers, or other supports will be removed to a minimum depth of 48-inches below the soil surface. Electric conductors located at the respective range of depth below the ground surface will meet the following requirements:

- 48-inches plus: All underground electric conduits and direct buried conductors will be abandoned in place. Applicable conduit risers will be removed, and abandoned conduit will be sealed or capped to avoid a potential to direct subsurface drainage onto neighboring land uses.
- Less than 48-inches: All underground direct buried electric conductors and conductors in

conduit and associated conduit with less than 48-inches of cover will be removed by means of causing the least amount of disturbance as possible.

The Owner/Operator will have its qualified contractor(s) decommission the site in the following general sequence:

- Removal of solar panels and transportation to an approved recycling facility;
- Removal of transformers, inverters and other electrical equipment and transportation to an approved recycling facility;
- Removal of underground electrical wiring and conduits and transportation to an approved recycling facility;
- Removal of solar racking system and transportation to an approved recycling facility;
- Removal of concrete pads and racking system foundations and recycling of concrete (unless otherwise negotiated with landowner);
- Removal of fencing and regrade, as necessary (unless otherwise negotiated with landowner); and
- Restoration of disturbed areas with approved seed mix.

The Owner/Operator will have its qualified contractor(s) remove any solid waste caused by the Facility in accordance with local, state, and federal waste disposal regulations. The Owner/Operator will prepare a Waste Management Plan at least thirty (30) days prior to decommissioning for review by the Town.

The Owner/Operator will have its qualified contractor(s) remove all graveled areas and access drives installed specifically for the Facility unless the landowner requests for it to remain.

The Owner/Operator will be responsible for restoration of the property, including seeding lands with a low-growing species to help stabilize soil conditions post-decommissioning, unless otherwise negotiated with the landowner.

Prior to the start of construction, photographs of the existing conditions at the property will be taken and will be included in an updated Decommissioning Plan to document pre-construction conditions.

D. DECOMMISSIONING ASSURANCE

Prior to the issuance of a building permit, the Owner/Operator shall enter into a mutually acceptable security agreement (form, sufficiency, and manner of execution) with the Town, which shall require a surety to be issued by a bonding or surety company licensed and authorized to do business in the State of New York or as otherwise approved by the Town.

FORM OF DECOMMISSIONING ASSURANCE

The Owner/Operator shall provide financial security in the form of a reclamation or removal bond (or other mutually acceptable form) naming the Town of Veteran as Oblige to guarantee that funds and access to the property are available for the decommissioning of the facility should the Owner/Operator fail to decommission the facility as required. The form of assurance will be stated in the Decommissioning Agreement included as **Attachment B**.

Although the Owner/Operator, currently Veteran Hill Road Solar LLC, intends to perform the decommissioning required, unforeseen circumstances are possible. In the event Veteran Hill Road Solar LLC declares bankruptcy, goes out of business, or sells, transfers or assigns its right to another entity, it's successor shall be required by such sale, transfer or assignment to assume the obligations to decommission the facility in accordance

with this Decommissioning Plan and to keep the surety in full force and effect during the useful life of the Facility.

AMOUNT OF DECOMMISSIONING ASSURANCE

The value of the decommissioning assurance, which was prepared by a qualified engineer is included as **Attachment A** for each of the financial security options listed in **Attachment B**.

The Owner/Operator shall provide decommissioning assurance in the form agreed upon by the Town prior to issuance of a building permit. The decommissioning bond estimate shall be reviewed by a third-party engineer every five (5) years after the issuance of Town approval to ensure the adequacy of the amount.

USE OF DECOMMISSIONING ASSURANCE

The Town of Veteran shall have the right to make a claim against the decommissioning assurance in the event that the solar energy system is abandoned, considered as a period of one (1) year without continuous service, unless an extension is requested and approved by the Town Board.

Attachment A
Decommissioning Security Estimate

**Decommissioning Security Estimate
Veteran Hill Road Solar Project
Veteran Hill Road, Town of Veteran, Chemung County, NY**

April 2026

Option A. Engineer's Estimate and Surety Bond

Option B. Engineer's Estimate and Escrow

Item No.	Task	Unit Cost (\$\$) ¹	Project Capacity (MW)	Unit	Estimated Cost
001	Remove Rack Wiring	\$2,459	3.8	\$/MW	\$9,344
002	Remove Panels	\$2,450	3.8	\$/MW	\$9,310
003	Dismantle Racks	\$12,350	3.8	\$/MW	\$46,930
004	Remove Electrical Equipment	\$1,850	3.8	\$/MW	\$7,030
005	Breakup and Remove Concrete Pads	\$1,500	3.8	\$/MW	\$5,700
006	Remove Racks	\$7,800	3.8	\$/MW	\$29,640
007	Remove Cable	\$6,500	3.8	\$/MW	\$24,700
008	Remove Ground Screws and Power Poles	\$13,850	3.8	\$/MW	\$52,630
009	Remove Fence	\$4,950	3.8	\$/MW	\$18,810
010	Grading	\$4,000	3.8	\$/MW	\$15,200
011	Seed Disturbed Areas	\$250	3.8	\$/MW	\$950
012	Truck to Recycling Center	\$2,250	3.8	\$/MW	\$8,550
013	Administration of Decommissioning				\$5,400
Estimated Decommissioning Cost					\$234,194
Surety Bond/Escrow Value (125% of Cost)					\$263,468
Notes: ¹ Unit Costs taken from 2023 NYSERDA Guidance on Decommissioning Solar Panel Systems This estimate does not include salvage value					

Option C. Per Megawatt Rate + Surety Bond

Option D. Per Megawatt Rate + Escrow Account

Unit Cost (\$\$) ¹	Project Capacity (MW)	Unit	Estimated Cost
\$50,000	3.8	\$/MW	\$190,000
Estimated Decommissioning Cost (2025)			\$190,000
Estimated Decommission Cost (2045)			\$311,337²
Notes: ¹ Per Megawatt Cost provided by Town of Veteran Solar Law (Local Law 3 of 2025). ² The decommissioning security amount will increase annually 2.5% compounded. This estimate does not include salvage value			

April 2026

Attachment B
Decommissioning Agreement

TOWN OF VETERAN SOLAR ENERGY SYSTEM DECOMMISSIONING AGREEMENT

This Solar Energy System Decommissioning Agreement ("Agreement") is entered into this ____ day of _____, 2025, by and between the Town of Veteran, New York, a municipal corporation with offices at 4049 Watkins Road, Millport, New York 14864 ("Town"), and Veteran Hill Road Solar LLC, a Limited Liability Company with offices at ^{2401 Walnut Street, Suite 503 Philadelphia, PA 19103} ("Company"). Town and Company may be referred to collectively as the "Parties" or individually as the "Party", as the case may be.

ARTICLE I – DEFINITIONS

1.1 "Decommissioning" means the physical removal and proper disposal of all Facility components and infrastructure, and the restoration of land to pre-construction condition or better.

1.2 "Facility" means the solar energy system approved for construction and operation at [Insert Site Location or Tax Parcel ID].

1.3 "MSG 1–4" means Mineral Soil Groups 1 through 4 as defined by the NYS Department of Agriculture and Markets.

1.4 "Host Community Agreement" or "HCA" means the agreement entered between the Company and the Town of Veteran setting forth terms related to community compensation, emergency response, insurance, and other project-specific conditions.

ARTICLE II – FINANCIAL SECURITY

The Company shall select one of the following financial security structures to guarantee its obligations under this Agreement. Each option represents a permitted combination of valuation methodology and security mechanism. For clarity, the options are repeated in narrative and chart format.

2.1 Option A – Engineer's Estimate + Surety Bond

The decommissioning security amount shall be based on a third-party engineer's cost estimate, updated every five (5) years. The Company shall post a surety bond in an amount equal to 125% of the most recent estimate. The bond shall be maintained on a rolling five-year advance basis, such that each year, a new bond is issued to ensure five years of decommissioning costs are secured. The cost of preparing such third-party estimates—and any other professional services required by the Town in support of this Agreement—shall be at the sole cost and expense of the Company pursuant to the Town local law: A Local Law Pertaining to Professional Services Reimbursement.

2.2 Option B – Engineer's Estimate + Escrow Account

The decommissioning security amount shall be based on a third-party engineer's cost estimate, updated every five (5) years. The Company shall deposit funds into a Town-held, interest-bearing escrow account in an amount equal to 125% of the estimate. The Company shall make payment to a Town-held escrow account as part of the application process. Thereafter, the Company shall maintain the fund at its required

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adjusted balance. Interest shall remain with the escrow fund and be applied toward the decommissioning obligation.

2.3 Option C – Per-Megawatt Rate + Surety Bond

The decommissioning security amount shall be calculated at a rate of \$50,000 per MW of nameplate capacity, based on the year 2025 baseline, and shall increase annually by 2.5% compounded. The Company shall post a surety bond that reflects this valuation, updated each year to maintain compliance with the adjusted amount. Bonding terms shall follow the rolling five-year advance structure described in Option A.

2.4 Option D – Per-Megawatt Rate + Escrow Account

The decommissioning security amount shall be calculated at \$50,000 per MW of nameplate capacity (2025 baseline), increased annually by 2.5% compounded. The Company shall make payment to a Town-held escrow account as part of the application process. Thereafter, the Company shall maintain the fund at its required adjusted balance. Interest shall remain with the escrow fund and be applied toward the decommissioning obligation.

2.5 For clarity the financial security options are repeated in the Option Chart 1 below:

Option	Valuation Method	Security Type	Details
A	Engineer's cost estimate (updated every 5 years)	Rolling Surety Bond	Bond value = 125% of estimate; Maintained five (5) years in advance.
B	Engineer's cost estimate (updated every 5 years)	Escrow Account	Funded to 125% of estimate; interest remains in escrow; Town holds funds.
C	\$50,000 per MW (2025 baseline), escalated by 2.5% annually	Rolling Surety Bond	Maintained five (5) years in advance. Escalated by 2.5% annually
D	\$50,000 per MW (2025 baseline), escalated by 2.5% annually	Escrow Account	Initial contributions made to escrow; interest remains in escrow; Town holds funds. Escalated by 2.5% annually.

Option Chart 1

2.6 All financial security instruments shall be subject to Town approval and must name the Town of Veteran as beneficiary. The Company shall not modify, cancel, or reduce the security without prior written consent of the Town. The Town may require adjustments based on updated costs or market conditions.

2.7 Each option shall be memorialized in a financial security agreement approved by the Town. The Town shall retain sole authority to determine compliance, adjust security amounts after updates, and enforce all bonding or escrow obligations under this Agreement.

2.8 The Town shall not release any bond or escrowed funds until all decommissioning and restoration activities have been completed, a licensed professional certifies compliance, and the Town issues a written notice of satisfactory completion.

2.9 All unpaid decommissioning or restoration costs incurred by the Town shall constitute a lien on the Facility parcel and may be added to the Town tax roll in accordance with Town Law §64.

2.10 The Company grants the Town and its contractors the right of entry onto the Facility site, upon default, for the purpose of performing any authorized decommissioning or restoration work.

2.11 Nothing in this Agreement shall be construed to limit or waive the Company's indemnification obligations to the Town as further detailed in the Host Community Agreement.

ARTICLE III – TRIGGERING EVENTS FOR DECOMMISSIONING

3.1 Decommissioning is required upon any of the following triggering events:

- (a) Lease Expiration – The land lease expires and is not renewed or extended, and the Company has not acquired title.
- (b) Cessation of Operations – The Facility ceases to generate power for a continuous period of six (6) months.
- (c) Catastrophic Damage – The Facility is damaged beyond repair, and the Company elects not to restore operation.
- (d) End of Useful Life – The Facility reaches the end of its service life, estimated not to exceed thirty (30) years from initial operation.

3.2 Upon written notice from the Town of a triggering event, the Company must commence decommissioning within ninety (90) days and complete all removal and restoration within nine (9) months.

ARTICLE IV – DECOMMISSIONING AND SITE RESTORATION REQUIREMENTS

4.1 Infrastructure Removal – All components must be removed, including panels, supports, racking, inverters, conduit, fencing, foundations, and footers. On all sites, including MSG 1–4 or Active Agricultural Lands, removal must reach a depth of forty-eight (48) inches per NYS Department of Agriculture and Markets guidelines.

4.2 Waste Removal – Prior to decommissioning, the Company must submit a Waste Management Plan detailing materials inventory, disposal sites, and transportation protocols. Documentation proving lawful disposal must be submitted within thirty (30) days of completion.

4.3 Soil Remediation – Disturbed areas must be regraded to original contours, compacted soils ripped to 18 inches, and organic matter applied to restore fertility. Native seeding must be used for erosion control. Restoration shall comply with NYS Ag & Markets, NYSDEC, and USDA NRCS standards. A licensed professional must certify compliance.

4.4 Compliance with Agricultural Standards – For systems on MSG 1–4 or Active Agricultural Lands, decommissioning must meet the mitigation standards outlined in the Town of Veteran Solar Law. Note: deleted reference to section number.

ARTICLE V – ENFORCEMENT AND OVERSIGHT

5.1 Town Enforcement Rights – If the Company fails to act, the Town may declare default, access the financial security, complete decommissioning and restoration work, and recover costs through liens or legal action.

5.2 Transfer of Ownership – The Company shall not assign this Agreement or transfer ownership/control of the Project without the prior written consent of the Town, which shall not be unreasonably withheld. Any assignment without such consent shall be null and void. Financial security shall remain tied to the Facility and land.

5.3 Final Inspection – The Town shall conduct a final inspection, at the Company's expense, prior to the release of any bond or escrow funds.

ARTICLE VI – ROAD USE AND RESTORATION DURING DECOMMISSIONING

6.1 Compliance with Weight Restrictions – The Company shall comply with Local Law 4 of 2001: A Local Law Limiting The Gross Weight Of Motor Vehicles On Certain Towns, Highways and Roads, as amended, including restrictions on gross vehicle weight on Town roads.

6.2 Road Use Plan Required – Prior to decommissioning, the Company shall submit a Road Use Plan to the Town and Town Highway Superintendent for approval.

6.3 Road Condition Surveys – Pre- and post-decommissioning surveys shall be conducted by professional consultants retained by the Town at the Company's expense in accordance with Town's Professional Services Fee Reimbursement Law.

6.4 Road Repair and Restoration – The Company shall restore roads to equal or better condition than pre-decommissioning, subject to review and approval by the Town Highway Superintendent.

6.5 Bonding Requirement – A road use bond shall be posted prior to decommissioning in an amount determined by the Planning Board in consultation with the Highway Superintendent.

6.6 Oversight and Enforcement – The Town retains the right to inspect, monitor, and enforce compliance. Violations constitute a breach of this Agreement.

6.7 Reimbursement of Town Expenses – The Company shall reimburse the Town for all professional service costs under Local Law 1 of 2010: A Local Law Pertaining to Professional Services Reimbursement.

6.8 No Waiver of Local Authority – Nothing herein shall limit the Town's rights under Local Law 4 of 2001: A Local Law Limiting The Gross Weight Of Motor Vehicles On Certain Towns, Highways and Roads or any other applicable law.

ARTICLE VII – NOTICES

7.1 Method of Delivery – Notices shall be in writing and delivered personally, by certified mail, overnight courier, or email (for routine communications only).

7.2 Effective Date of Notice – Notices are effective upon receipt or refusal. Email is effective only upon written confirmation of receipt.

7.3 Notice Addresses – Notices shall be sent to:

If to the Town:

Town of Veteran

Attn: David Lewis

4049 Watkins Road

Millport, New York 14864

town.supervisor@townofveteranny.gov

If to the Company:

Company Name _____

Attn: Representative Name and Title _____

Company Address _____

Company Email for routine communications _____

ARTICLE VIII – GENERAL PROVISIONS

8.1 Governing Law and Venue – This Agreement is governed by New York law. Venue lies exclusively in Chemung County Supreme Court.

8.2 No Waiver – No waiver of any breach shall constitute a waiver of any subsequent breach.

8.3 Severability – If any provision is held invalid, the remainder shall remain in effect.

8.4 Entire Agreement – This Agreement and its exhibits represent the entire agreement between the Parties.

8.5 Amendment – Amendments must be in writing and signed by both Parties.

8.6 Further Assurances – The Parties agree to take any further actions necessary to effectuate this Agreement.

8.7 Successors and Assigns – This Agreement binds and benefits the Parties and their successors and permitted assigns.

8.8 Counterparts and Electronic Execution – Electronic or scanned signatures are valid as originals.

8.9 Professional Services Reimbursement – The Company shall reimburse the Town for all costs incurred for professional services in accordance with Local Law shall be reimbursed by the Company pursuant to the Town local law: A Local Law Pertaining to Professional Services Reimbursement, including but not limited to engineering, legal, consulting, enforcement, and compliance-related services.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first above written.

Town of Veteran, NY

By: _____

Name: David Lewis

Title: Town Supervisor

Date: _____

Company / Owner Name _____

By: _____

Name: _____

Title: _____

Date: _____

Attachment 10

Host Community Agreement

ATTACHMENT 2:

TOWN OF VETERAN HOST COMMUNITY AGREEMENT

Dated: _____

This **HOST COMMUNITY AGREEMENT** (the "Agreement") is made and entered into as of the [Insert Date], by and between THE TOWN OF VETERAN, a political subdivision of the State of New York, with its principal offices located at 4049 Watkins Road, Millport, New York 14864 (the "Town"), and Developer Name Veteran Hill Road Solar LLC, a State of Formation Delaware corporation / limited liability company Limited liability company with its principal offices located at Developer Address 2401 Walnut Street, Suite 503 Philadelphia, PA 19104 (the "Company"). The Town and the Company may be referred to individually as a "Party" or collectively as the "Parties."

RECITALS

WHEREAS, the Company desires to develop, construct, operate, and decommission a solar photovoltaic electric generating facility known as the [Project Name], with an approximate nameplate capacity of 3.8 megawatts (MW AC), located within the Town of Veteran, Chemung County, New York (the "Project"); and

WHEREAS, the Town has adopted local laws governing solar energy systems, including requirements for decommissioning, financial assurance, and community protections, and is authorized under New York Town Law §64(23) to enter into contracts necessary for the exercise of its powers and to mitigate the impacts of such projects; and

WHEREAS, the Parties desire to memorialize their mutual obligations, benefits, and responsibilities related to the Project through this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

ARTICLE I – DEFINITIONS

For purposes of this Agreement, the following terms shall have the meanings set forth below:

"Abandonment" means the cessation of Commercial Operation for a period defined by the Town of Veteran, unless such cessation is the result of Force Majeure or temporary repairs approved in writing by the Town.

"Agreement" means this Host Community Agreement, including all Exhibits attached hereto, as amended in writing from time to time.

"Commercial Operation" means the state in which the Project is generating and delivering electricity to the electrical grid for commercial purposes on a continuous basis, excluding temporary outages for maintenance, repair, or grid outages not attributable to the Project.

"Commercial Operation Date" means the first date on which the Project begins delivering electricity to the electrical grid on a continuous basis.

"Company" means [Developer Name], its successors, assigns, and any entity holding any ownership interest in the Project.

"Decommissioning" means the removal of the Project and restoration of the site as required by the approved Decommissioning Plan and the Town of Veteran Solar Energy Systems Law.

"Decommissioning Plan" means the plan approved by the Town describing the methods, estimated costs, financial assurances, and timeline for decommissioning the Project.

"Emergency Management Plan" or "EMP" means the comprehensive safety and emergency response protocol document required under Article XI that addresses procedures for fire suppression, hazardous materials response, extreme weather events, and other emergency scenarios related to the Project.

"Environmental Credits" means any and all credits, benefits, emissions reductions, offsets, and allowances attributable to the Project, whether or not such credits or attributes are sold, transferred, monetized, or otherwise conveyed by the Company.

"Force Majeure" means any act, event, or condition beyond the reasonable control of and not the result of the negligence of the affected Party that prevents or delays a Party from performing its obligations under this Agreement.

"Host Community Fee" means the annual payment described in Section 2.3 of this Agreement.

"Material Breach" or "Material Default" means any failure to perform an obligation under this Agreement that substantially deprives the non-breaching Party of the benefit of its bargain or significantly impacts public health, safety, or welfare.

"PILOT Agreement" means any Payment-in-Lieu-of-Tax agreement entered into by the Company and a taxing jurisdiction, including the Chemung County Industrial Development Agency ("IDA"), pursuant to New York law.

"Project" means the solar photovoltaic electric generating facility known as the Veteran Hill Road Solar (Name) Solar Energy System, with a nameplate capacity of approximately 3.8 MW AC, including solar arrays, inverters, transformers, interconnection facilities, collection lines, energy storage systems (if any), and associated infrastructure.

"Project Site" means all real property on which the Project is located or will be located, including all parcels used for solar arrays, energy storage facilities, electrical equipment, access roads, and other Project-related facilities, as depicted in Exhibit A.

"Renewable Energy Credits (RECs)" and "Carbon Credits" mean tradable environmental attributes, certificates, or offsets generated by the Project.

"Road Use Agreement" means the agreement detailed in Article XII addressing the use, maintenance, repair, and restoration of Town roads during all Project phases, including compliance with Local Law Limiting The Gross Weight Of Motor Vehicles On Certain Towns, Highways and Roads, regarding weight restrictions.

"Town" means the Town of Veteran, Chemung County, New York, including its elected officials, employees, agents, and assigns.

ARTICLE II HOST COMMUNITY FEE

The Company shall pay the Town an annual Host Community Fee of _____ per megawatt (MW AC) of Project nameplate capacity. The first payment shall be due on _____ of the year following the Commercial Operation Date and annually thereafter, escalating _____ (_____%) per year. The Host Community Fee shall be independent of and not offset by any PILOT Agreement or property tax obligations.

ARTICLE III RENEWABLE ENERGY AND CARBON CREDIT SHARING

The Company shall provide to the Town an annual payment equal to _____ (_____%) of the market value of all Environmental Credits attributable to the Project, as determined by publicly available market pricing at the time of annual reconciliation. These shall include, but not be limited to Renewable Energy Credits (RECs), carbon offsets, carbon credits, or any other tradable environmental commodities ("Environmental Credits"), whether such Environmental Credits are sold, transferred, monetized, or otherwise conveyed by the Company.

The obligation to pay shall not be contingent upon actual sale or monetization of said Environmental Credits. Such payments shall be made annually on or before _____ for the prior year and shall constitute contractual consideration, not a tax or fee.

ARTICLE IV – DISPUTE RESOLUTION

Section 4.1 Negotiation and Mediation

In the event of any dispute arising out of or relating to this Agreement, the Parties shall first attempt in good faith to resolve the dispute through negotiation. If the dispute is not resolved through negotiation within sixty (60) days after written notice of the dispute, either Party may initiate non-binding mediation through a mutually agreed-upon mediator. The costs of mediation shall be shared equally by the Parties.

Section 4.2 Legal Action

If mediation fails to resolve the dispute, either Party may pursue legal remedies available at law or in equity. Any legal action or proceeding under this Agreement shall be commenced exclusively in the Supreme Court of the State of New York, County of Chemung. Each Party irrevocably submits to the jurisdiction of such court and waives any objection to venue.

ARTICLE V – TERMINATION

Section 5.1 Termination Prior to Construction

The Company may terminate this Agreement at any time prior to the commencement of construction upon written notice to the Town, provided that the Company delivers documentation from an independent third-party financial institution or qualified engineering firm confirming that, despite the Company's commercially reasonable efforts, the Project has become economically infeasible to complete.

Section 5.2 Termination After Construction

Following commencement of construction, the Company may not terminate this Agreement except upon the occurrence of either (a) a material breach by the Town that remains uncured after sixty (60) days written notice and opportunity to cure; or (b) the enactment of any law or regulation, or a final, non-appealable order of a court or regulatory body with jurisdiction, that renders the continued operation of the Project illegal or impossible.

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Section 5.3 Effect of Termination

In the event of termination under this Article, the Company shall remain responsible for all obligations accrued through the date of termination, including any decommissioning requirements if applicable. Termination shall not relieve the Company of any financial or indemnification obligations existing prior to the termination date.

ARTICLE VI – DEFAULT AND REMEDIES

Section 6.1 Events of Default

The occurrence of any of the following events shall constitute a default by the Company under this Agreement: (a) Failure to pay any Host Community Fee, REC/Carbon Credit Payment, or any other payment when due; (b) Failure to maintain the required financial security for decommissioning; (c) Failure to provide any required report or documentation within the time periods specified; (d) Abandonment of the Project; (e) Assignment or transfer of the Agreement or the Project without Town consent; (f) Failure to comply with any material term, condition, or obligation of this Agreement.

Section 6.2 Remedies

Upon the occurrence of a default, the Town shall provide written notice of such default to the Company. If the Company fails to cure the default within thirty (30) days of receipt of such notice, or such longer period as may be reasonable under the circumstances, the Town may exercise one or more of the following remedies: (a) Enforce specific performance of the Company's obligations; (b) Draw upon any financial security, including decommissioning bonds or letters of credit; (c) Seek monetary damages, including reasonable attorney's fees and costs of enforcement; (d) Suspend or revoke any approvals or permits granted in connection with the Project to the extent legally permissible; (e) Terminate this Agreement.

ARTICLE VII – ASSIGNMENT AND TRANSFER

Section 7.1 Consent Required

The Company shall not assign this Agreement or any interest herein, nor transfer ownership or control of the Project, in whole or in part, without the prior written consent of the Town, which consent shall not be unreasonably withheld. Any assignment or transfer made without such consent shall be null and void.

Section 7.2 Assumption of Obligations

Any permitted assignment or transfer shall include a written assumption of all obligations under this Agreement by the assignee or transferee, in a form acceptable to the Town. The Company shall provide the Town with a copy of any assignment, transfer, or change in ownership documents within thirty (30) days of execution.

Section 7.3 Lender Rights

Notwithstanding the foregoing, the Company may collaterally assign this Agreement to a lender providing financing for the Project without prior consent, provided that the lender acknowledges in writing its obligation to comply with the terms of this Agreement or ensure that any successor entity assumes such obligations.

ARTICLE VIII – TAXATION AND PAYMENT IN LIEU OF TAXES (PILOT)

Section 8.1 Real Property Tax Law Section 487 Opt-Out

The Town affirms that it has exercised its right to opt out of the tax exemption provisions of New York Real Property Tax Law Section 487 and shall not be bound by any tax exemption for the Project otherwise authorized under such statute. The Parties acknowledge that the Project will be subject to local real property taxes unless otherwise addressed by a duly authorized Payment in Lieu of Taxes ("PILOT") agreement.

Section 8.2 PILOT Agreements

The Company may, at its sole discretion, seek to enter into a PILOT Agreement with the Chemung County Industrial Development Agency ("IDA") or other taxing jurisdiction in accordance with New York law. Any such PILOT Agreement shall not diminish, offset, or reduce the Company's obligations under this Agreement, including but not limited to the Host Community Fee, REC or Carbon Credit revenue sharing, or decommissioning financial assurance requirements.

Section 8.3 No Offset or Reduction

The Company acknowledges and agrees that payments made pursuant to a PILOT Agreement, or any other tax arrangement shall be separate from and in addition to the payments and obligations imposed by this Agreement. Under no circumstances shall the Town's rights under this Agreement be impaired, reduced, or compromised as a result of any PILOT Agreement or any changes in tax status of the Project.

ARTICLE IX – INSURANCE AND INDEMNIFICATION

Section 9.1 Insurance Requirements

The Company shall, at its sole cost and expense, obtain and maintain in full force and effect during the term of this Agreement, including the period of decommissioning, the following insurance coverage:

(a) Commercial General Liability insurance, including bodily injury, property damage, products-completed operations, personal and advertising injury, and contractual liability, with limits of not less than One Million Dollars (\$ 1,000,000) per occurrence and Two Million Dollars (\$ 2,000,000) in the aggregate.

(b) Environmental and Pollution Liability insurance, with limits of not less than _____ Dollars (\$ _____) per occurrence.

(c) Decommissioning Period Insurance. The Company shall maintain all insurance coverages required under Sections 9.1(a) and 9.1(b) continuously and without interruption throughout the entire decommissioning period until final site restoration is completed and formally accepted in writing by the Town. The Company shall provide updated certificates of insurance to the Town prior to the commencement of decommissioning activities and annually thereafter until final restoration is completed. Failure to maintain required insurance during the decommissioning period shall constitute a material breach of this Agreement and shall entitle the Town to make claims against the decommissioning security provided pursuant to Attachment 1 of Town of Veteran Solar Energy System Decommissioning Agreement.

Section 9.2 Additional Insured Status

The Town shall be named as an additional insured on all required insurance policies for claims arising out of or related to the Project. Certificates of insurance and policy endorsements shall be provided to the Town prior to commencement of construction and updated upon renewal.

Section 9.3 Notice of Cancellation

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All policies shall contain a provision requiring thirty (30) days written notice to the Town prior to cancellation or material modification.

Section 9.4 Indemnification

The Company shall indemnify, defend, and hold harmless the Town, its officials, employees, agents, and representatives from and against any and all claims, actions, damages, losses, liabilities, costs, and expenses, including reasonable attorneys' fees and expert witness fees, arising out of or related to the Project, including but not limited to claims of bodily injury, property damage, environmental contamination, or violations of law, except to the extent caused by the gross negligence or willful misconduct of the Town.

Section 9.5 Survival

The obligations of the Company under this Article shall survive the expiration or termination of this Agreement and shall remain in full force and effect throughout the decommissioning period and final site restoration.

ARTICLE X – COMMUNICATION AND REPORTING

Section 10.1 Annual Reporting Obligations

The Company shall submit to the Town an Annual Report no later than January 31st of each calendar year following the Commercial Operation Date. The Annual Report shall include, at a minimum, the following information:

- (a) A summary of the Project's operational status, including total electricity generated and delivered to the grid during the preceding calendar year.
- (b) A certification of compliance with the obligations set forth in this Agreement, including the status of the Decommissioning Plan and financial security.
- (c) A summary of Host Community Fee payments, and any payments related to REC or Carbon Credit sharing made during the preceding year.
- (d) An annual carbon credit report shall be provided. Per section 2.5, such payments shall be made annually on or before January 31st for the prior year and shall constitute contractual consideration, not a tax or fee.
- (e) An update on any other material events, changes, or occurrences related to the Project that could reasonably be expected to impact the Town.

Failure to submit the Annual Report by the deadline shall constitute a material default under this Agreement.

Section 10.2 Public Access and Town Rights

The Town may publish the Annual Report or any portion thereof on the Town's website or in other public forums at its sole discretion. The Town may, at any time, request additional information or clarification from the Company concerning the contents of any report, and the Company shall respond in writing within thirty (30) days of such request.

Section 10.3 Telephone Hotline

To facilitate communication, the Company shall establish and maintain a dedicated telephone hotline and email contact for the purpose of receiving and responding to complaints, inquiries, or concerns from the

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Town, residents, and neighboring property owners regarding the Project during all phases, including construction, operation, maintenance, and decommissioning.

The hotline number and email shall be: (a) Published in the local telephone directory and on the Company's website; (b) Prominently posted at the Project site entrance and any construction staging areas; (c) Provided in writing to the Town Clerk for public posting; (d) Published in local news media upon the Town's request.

The Company shall maintain a written log of all complaints received via the hotline and provide the Town with a quarterly summary of the complaints, responses, and resolution status. Failure to maintain the hotline or complaint log or to provide required reports shall constitute a material default under this Agreement.

Section 10.4 Complaint Logging and Tracking

The Company shall maintain a written log of all complaints received from the Town, residents, neighboring property owners, or other stakeholders concerning the Project. The log shall include the date of each complaint, a detailed description of the issue, actions taken by the Company in response, and the status of resolution.

The Company shall provide a copy of the complaint log including all material complaints received from residents, neighboring property owners, or other stakeholders, and the Company's response to each complaint.

The Company shall provide the Town with a copy of the complaint log quarterly during construction and operation, or more frequently upon request by the Town. Failure to maintain or provide the complaint log as required shall constitute a material default under this Agreement.

Section 10.5 Town Right to Inspect

The Town, or its authorized agents or consultants, shall have the right to inspect the Project, including Project records and documents, upon reasonable advance notice and during normal business hours, to verify compliance with the terms of this Agreement. The Town shall exercise this right in a manner that does not unreasonably interfere with the safe and efficient operation of the Project.

ARTICLE XI – EMERGENCY MANAGEMENT

Section 11.1 Emergency Management Plan (EMP)

- a) The Company shall prepare, maintain, and implement a comprehensive Emergency Management Plan (EMP) specific to the Project.
- b) The EMP shall include protocols for fire suppression, hazardous materials response, extreme weather, cybersecurity, battery failure (if applicable), mechanical failure, and any other emergency scenarios reasonably foreseeable for the Project.
- c) The Company shall submit the EMP to the Planning Board, the Town Fire Chief, and the County Emergency Services Office for review no later than sixty (60) days prior to the commencement of construction.
- d) The Company shall update the EMP at least annually and resubmit any revised version within thirty (30) days of revision.

e) The Company shall conduct at least one joint training or tabletop exercise per year with the Town's designated emergency responders; and

f) The Company shall ensure 24/7 access to all site areas for emergency response personnel, and post signage with emergency contact information at all entrances.

g) Company failure to comply with this section shall be deemed a material breach of this Agreement.

Section 11.2 Coordination with Providers

All Solar Energy Systems proposed within the Town of Veteran shall be designed, constructed, and maintained in coordination with emergency service providers responsible for fire protection. The following requirements apply to ensure appropriate access, safety measures, and emergency readiness:

a) Fire Department Notification

For any Tier 2, Tier 3, or Tier 4 Solar Energy System, the Company shall provide written notice of the proposed project to each fire department currently contracted to provide fire protection within the Town of Veteran. It is the responsibility of the Company to verify and contact the correct emergency service providers at the time of application. Notification shall occur no later than thirty (30) days prior to the public hearing or final site plan review, with proof of such notification filed with the Town.

b) Access and Safety Coordination

The Company must consult with the contracted fire protection agencies to confirm that site layout, emergency access, and system shutoffs comply with the New York State Uniform Fire Prevention and Building Code and any other applicable standards. Required elements include, but are not limited to:

- i. Clearly marked and accessible emergency disconnects.
- ii. Adequate ingress and egress routes for emergency vehicles
- iii. Lock boxes or access systems for emergency personnel, as required.

c) Emergency Response Information and Training

The Company shall provide all contracted fire departments with updated site diagrams, contact information, system shutoff procedures, and relevant emergency protocols. The Company shall offer each fire department at least one on-site walkthrough or orientation session prior to system commissioning, and annually thereafter upon request, at no cost to the Town or fire departments.

d) Ongoing Communication

System Operators must notify the Town and all affected fire departments in writing of any significant modifications to the site layout, access routes, or emergency systems within thirty (30) days of such changes. Updated emergency materials must be provided upon request.

Section 11.3 Tier 4 Systems – Enhanced Emergency Planning

For Tier 4 Solar Energy Systems, the Company shall submit a formal Emergency Response Plan (ERP) tailored to the site, reviewed in consultation with all contracted fire departments and the Town of Veteran Code Enforcement Officer. This plan shall be updated every three (3) years or upon any material change to system components or layout.

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ARTICLE XII – ROAD USE AND RESTORATION

12.1 Compliance with Weight Restrictions

The Company shall comply with Local Law of the Town of Veteran, A Local Law Limiting The Gross Weight of Motor Vehicles on Certain Towns, Highways and Roads.

12.2 Road Use Plan Required

Prior to the commencement of construction or delivery activities, the developer shall submit a Road Use Plan for approval by the Town and the Town Highway Superintendent. This Plan shall identify:

- (a) All Town roads intended for use by construction-related traffic.
- (b) The anticipated frequency, size, and gross vehicle weights of such traffic, and
- (c) Any roads listed in Schedule "A" of Local Law A Local Law Limiting The Gross Weight of Motor Vehicles on Certain Towns, Highways and Roads for which a waiver is requested.

12.3 Road Condition Surveys

In accordance with Local Law Pertaining to Professional Services Reimbursement, the Company shall reimburse the Town for the cost of engaging professional consultants to conduct:

- (a) A Pre-Construction Road Survey documenting the condition of all Town roads identified in the Road Use Plan; and
- (b) A Post-Construction Road Survey to assess any damage or degradation resulting from project-related traffic.

12.4 Road Repair and Restoration

The Company shall be fully responsible for the repair, reconstruction, and/or restoration of any Town road damaged by its operations. Repairs shall restore affected roads to a condition equal to or better than the documented pre-construction condition, subject to the review and approval of the Town Highway Superintendent.

12.5 Bonding Requirement

Prior to the commencement of construction, the Company shall post a road use bond in an amount to be determined by the Planning Board, in consultation with the Town Highway Superintendent. This bond shall serve as security for the full performance of the Developer's obligations under this Section, including road repair and restoration.

12.6 Oversight and Enforcement

The Town shall retain the right to inspect, monitor, and enforce compliance with this Section throughout the life of the Project. Any violation of Local Law; A Local Law Limiting The Gross Weight of Motor Vehicles on Certain Towns, Highways and Roads, or of the terms set forth in this Section, shall constitute a material breach of this Agreement and may result in the suspension of work, forfeiture of the road use bond, and/or other enforcement actions as allowed by law.

12.7 Reimbursement of Town Expenses

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All costs incurred by the Town in connection with road use planning, inspection, enforcement, legal review, engineering, or any related professional services shall be paid by the Company pursuant to Local Law 1 of 2010; A Local Law Pertaining to Professional Services Reimbursement.

12.8 No Waiver of Local Authority

Nothing herein shall be construed as a waiver of the Town's rights under A Local Law Limiting The Gross Weight of Motor Vehicles on Certain Towns, Highways and Roads, or any other applicable law. The Town retains full authority to revise road use restrictions, issue citations, and enforce municipal codes to protect public infrastructure and the health, safety, and welfare of Town residents.

ARTICLE XIII – NOTICES

Section 13.1 Method of Delivery

Any notice, demand, request, or other communication required or permitted to be given under this Agreement shall be in writing and shall be deemed properly given if delivered personally, sent by certified mail (return receipt requested), sent by nationally recognized overnight courier service (with proof of delivery), or sent by email (for routine communications only; formal legal notices must be delivered by one of the foregoing methods).

Section 13.2 Effective Date of Notice

Notices shall be deemed effective upon the date of receipt or refusal of delivery. Notice by email shall be effective only upon written confirmation of receipt, which may include an affirmative reply or other acknowledgment from the receiving Party.

Section 13.3 Notice Addresses

All notices required or permitted to be given under this Agreement shall be addressed as follows:

If to the Town:

Town of Veteran

Attn: David Lewis, Town Supervisor

4049 Watkins Road

Millport, New York 14864

Optional: Town Email for routine communications

If to the Company:

Company Name Veteran Hill Road Solar LLC

Attn: Company Representative Name and Title _____

Company Address 2401 Walnut Street, Suite 503 Philadelphia, PA 19103

Company Email for routine communications jason.funk@dynamicenergy.com

Each Party may change its designated address by providing written notice of such change to the other Party in accordance with this Article.

Revised Town of Veteran 2026 Solar Law(23001073.1) with New Flowchart

ARTICLE XIV – GENERAL PROVISIONS

Section 14.1 Governing Law and Venue

This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to its conflict of laws principles. Any action or proceeding arising out of or relating to this Agreement shall be brought exclusively in the Supreme Court of the State of New York, Chemung County, and the Parties hereby submit to the jurisdiction of said court.

Section 14.2 No Waiver

No waiver by either Party of any default or breach of this Agreement shall be deemed a waiver of any subsequent default or breach. The failure of either Party to enforce any provision of this Agreement shall not be construed as a waiver of such provision or any other provision.

Section 14.3 Severability

If any provision of this Agreement is determined by a court of competent jurisdiction to be invalid, illegal, or unenforceable, such provision shall be severed from this Agreement and the remaining provisions shall remain in full force and effect.

Section 14.4 Entire Agreement

This Agreement, including all attached Exhibits and Appendices, constitutes the entire agreement between the Parties regarding the subject matter hereof and supersedes all prior agreements, understandings, or representations, whether written or oral.

Section 14.5 Amendment

No amendment or modification of this Agreement shall be valid or binding unless made in writing and executed by both Parties.

Section 14.6 Further Assurances

The Parties agree to execute and deliver such further documents and take such further actions as may be reasonably necessary to carry out the provisions and intent of this Agreement.

Section 14.7 Successors and Assigns

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

Section 14.8 Counterparts and Electronic Execution.

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original and all of which shall constitute one agreement. The Parties agree that signatures transmitted electronically or by scanned PDF shall have the same force and effect as original signatures.

ARTICLE XV – SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have executed this Host Community Agreement as of the date first written above.

TOWN OF VETERAN

Revised Town of Veteran 2026 Solar Law(23001073.1) with New Flowchart

By: _____

Name: David Lewis

Title: Town Supervisor

Date: _____

Company Name

By: _____

Name: Authorized Representative Name

Title: _____

Date: _____