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# Stormwater Pollution Prevention Plan (SWPPP)

New York State DEC SPDES  
General Permit 0-20-001

5,000 kW Solar Energy  
Generating Facility

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For Construction Activities at:

Address: 2621 Route 5S  
Town of Glen  
County of Montgomery, New York

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SWPPP Prepared by:

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c/o Borrego Solar Systems, Inc. 55  
Technology Drive, Suite 102  
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Dated: May 2022

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Estimated Project Dates:

Project Start Date:	FALL 2022
Project Completion Date:	FALL 2023
SPDES Permit No:	TBD

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## **1.0 INTRODUCTION**

In 1972, Congress passed the Federal Water Pollution Control Act (FWPCA), also known as the Clean Water Act (CWA), to restore and maintain the quality of the nation's waterways. The ultimate goal was to ensure that rivers and streams were fishable, swimmable, and drinkable. In 1987, the Water Quality Act (WQA) added provisions to the CWA that allowed the United States Environmental Protection Agency (EPA) to govern stormwater discharges from construction sites. In 1998, EPA published the final notice for General Permits for Stormwater Discharges from Construction Activities Disturbing 5 Acres or Greater (63 Federal Register 7898, February 14, 1998). The general permit includes provisions for development of a SWPPP to maximize the potential benefits of pollution prevention and sediment and erosion control measures at construction sites.

Development, implementation, and maintenance of the SWPPP will provide the General Contractor with the framework for reducing soil erosion and minimizing pollutants in stormwater during site work construction of Covered Bridge of East Greenbush.

The SWPPP will:

- Define the characteristics of the site and the type of construction which will occur;
- Describe the site plan for the development to be constructed;
- Describe the practices that will be implemented to control erosion and the release of pollutants in stormwater;
- Create an implementation schedule to ensure that the practices described in this SWPPP are implemented and to evaluate the plan's effectiveness in reducing erosion, sediment, and pollutant levels in stormwater discharged from the site; and
- Describe the final stabilization/termination design to minimize erosion and prevent stormwater impacts after construction is complete.

This SWPPP includes the following:

- Identification of the SWPPP coordinator with a description of this person's duties;
- Description of the existing site conditions include existing land use for the site (i.e., wooded areas, open grassed areas, pavement, buildings, etc.), and if applicable the location of surface waters which are located on or immediately adjacent to the site (wetlands, streams, rivers, lakes, ponds, etc.);
- Identification of the water bodies which will receive runoff from the construction site, including the ultimate body of water that receives the stormwater;
- Identification of drainage areas and potential stormwater contaminants;
- Description of stormwater management controls and various Best Management Practices (BMP) necessary to reduce erosion, sediment and pollutants in stormwater discharge;
- Description of the facility monitoring plan and how controls will be coordinated with construction activities;
- Description of the implementation schedule and provisions for amendment of the plan.

This Storm Water Pollution Prevention Plan (SWPPP) is intended to identify measures for control of storm water runoff and for minimizing impacts resulting from onsite construction activities on a 47.6± acre site located on the south side of NYS Route 5S, Town of Glen, County of Montgomery, New York (see Figure 1 - Site Location Map). The project includes the construction of a ground mounted 5,000.00 kW solar photovoltaic energy generating facility on approximately 19.1± acres of the overall 47.6± acres. Solar

modules will be supported on racks in accordance with manufacturer's recommendations that require very little earth disturbance to install. The site does not include any significant new impervious areas aside from concrete equipment pads with an area of approximately 511 square feet each and the access road (0.99± acres) that will be constructed of #3 clean washed stone and woven geotextile fabric to create a pervious system which facilitates infiltration. This SWPPP establishes the project's approach to controlling "the pollution of storm water runoff during construction" and lists structural and non-structural Best Management Practices (BMPs) that may be employed throughout various project phases. There are no known storm water discharges associated with industrial activity other than construction.

This SWPPP has been prepared, based on the current level of design, in accordance with the regulations, guidelines, and conditions set forth by the New York State Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001). The permit and associated conditions are included in Appendix B.

## **2.0 PROJECT OPERATOR**

### **2.1 Contact Information/Responsible Parties**

In accordance with Part II and Appendix A of the General Permit (GP), the project owner and contractor are both considered Operators. The following section discusses specific Operator responsibilities in terms of the SWPPP implementation.

#### **Operator:**

Borrego Solar Systems, Inc.  
30 Century Hill Drive, Suite 301  
Latham, NY 12110  
Attention:  
Mobile:  
E-mail:

#### **Borrego Project Manager:**

TBD  
30 Century Hill Drive, Suite 301  
Latham, NY 12110  
Mobile: TBD  
E-mail: TBD Fax:

### **2.2 Project Coordinator and Duties:**

The project general contractor ("Contractor") is Borrego Solar Systems, Inc. All the same contacts as mentioned in Section 2.1 above apply.

The Operators have operational control over day-to-day activities at the site that are necessary to ensure compliance with the SWPPP, including BMP installation and SWPPP modifications. The Operator is responsible for providing a qualified inspector and performing inspections. The Contractor shall provide a "Qualified Inspector" to conduct inspections required by the GP. "Qualified Inspector" is defined as a person knowledgeable in the principles and practice of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s). It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, if person has training in the principles and practices of erosion and sediment control.

For this project, the Operators will be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from their failure to comply with the General Permit provisions. The Operators may subcontract certain portions of the proposed work; however, as an Operator, they are responsible for ensuring that subcontracted work

occurs in compliance with this SWPPP and the GP.

The Operators are responsible for ensuring compliance with the GP by implementing the erosion prevention and sediment control practices outlined in this SWPPP. However, the Operator may elect to vary the erosion and sediment control practices from those outlined in this SWPPP and/or may choose to implement alternative measures. Alternative erosion and sediment control practices not described in the SWPPP must be performed in compliance with the GP and the Operator must modify this SWPPP accordingly. SWPPP modifications must be documented using the "SWPPP Amendment Form" found in Appendix I. Alternative practices that can be anticipated can be found in Appendix O.

### **2.3 Project Subcontractors:**

Project subcontractors have not been determined at this time.

Each subcontractor engaged in activities that may generate pollution and could potentially impact stormwater runoff must sign a certification statement prior to commencing any earth disturbing activities. The subcontractor's certifications (once completed) will be in Appendix G. Please refer to Appendix G for a blank certification statement. Lumberjacks, concrete vendors, site contractors, waste disposal companies, electricians are considered subcontractors that may generate pollution.

### **2.4 Notice of Intent Filing**

All Operators must file a Notice of Intent (NOI) to obtain coverage under GP-0-20-001 prior to the start of construction. The Operator must provide a copy of the New York State Department of Environmental Conservation (DEC) Acknowledgement of NOI notification (Letter of Acknowledgment) in Appendix C of this SWPPP as soon as it becomes available.

The NOI, Letter of Acknowledgment and Construction Site Notice (see Appendix F) must be posted at the site entrance.

### **2.5 Stormwater Team**

The stormwater team will be responsible for the preparation of the SWPPP, later modifications to it, and for compliance with the GP. Each member of the stormwater team must have access to an electronic (or paper) copy of GP-0-20-001, and the most recent (updated) copy of the SWPPP.

#### **Party Responsible for preparation of SWPPP and Erosion Control Plans:**

Borrego Solar  
55 Technology Drive, Suite 102, Lowell, MA 01851  
Attention:  
Mobile:  
Fax:  
E-mail:

Following the submission of the complete NOI under the terms of the GP, the permit begins, and a permit number will be assigned by DEC within 5 business days after submission, unless notified otherwise by the DEC. Authorization to discharge under the GP will be effective when the Owner/Operator has satisfied criteria outlined in Part II.B.2 of the GP.

The NOI must be certified by a qualifying official meeting the definition provided in the NOI instructions and per GP-0-20-001. Each Operator must provide a copy of the DEC Acknowledgement of NOI notification (Notice of Coverage [NOC]) in Appendix C of this SWPPP as soon as it is available.

## 2.6 Posting Requirements

A copy of the NOI's, NOC's and a Construction Site Notice must be posted in a conspicuous location near the main entrance of the construction site. The Construction Site Notice must include the SPDES Permit Number and contact phone number for obtaining permit information. The Notice must be large enough and made visible from a public road that is nearest to the construction site.

## 3.0 SITE EVALUATION, ASSESSMENT, AND PLANNING

### 3.1 Project Site Information

Project Name: 5,000.00 kW Solar Energy Generating Facility  
Location: 2621 State Route 5S, Fultonville, New York 12072  
County: Montgomery County  
Latitude: 42°55'44.89"  
Longitude: -74°18'46.34" Source: Google Earth  
Horizontal Reference Datum: New York State Plane Coordinate System – Eastern Zone

The project site is located on the south side of NYS Route 5S, between Auriesville Road (County Rte. 122) and Noeltner Rd (County Rte. 164) in the Town of Glen, County of Montgomery, New York. The site is primarily of undeveloped grassland on the western portion and woodland along the eastern portion. There are no structures within the site to be removed prior to construction of the solar facility. The tax lot consists of a flag lot and a narrow strip of land that significantly widens approximately 0.25 mile south of Route 5S. The Site contains of a single-family residential building and accessory structure at the northern portions, followed by an access road leading to fallow, mowed agricultural fields. Several areas of undeveloped woodlands are present on the periphery of the property as well as within some interior portions. A perennial stream is present at the northeastern portions of the property. There (is an existing access drive for the parcel located at NYS 5S. The parcel is bounded by residential dwelling, undeveloped agricultural lands to the east, west and south and State Route 5S to the north. Refer to Figure 1 – *Site Locus Map* and Figure 2 – *Site Aerial Boundary Map*.

### 3.2 Discharge to Receiving Waters Information

There is one (1) Points of Analysis (POA) or discharge points for this site (See Appendix A). POA-1 is located at northeastern portion of the parcel at the intersection of the Ravine Creek and NYS Route 5S culvert crossing. At this point the flow enters roadside drainage maintained by the NYS Thruway Authority, prior to entering the Mohawk River Channel.

The proposed project consists of a photovoltaic solar array installation that will produce up to 5,000.00-kilowatt (kW) of Direct Current (DC) electricity each. The system (fenced area) will occupy approximately 18.4± acres. The solar panels will be installed on a screwed auger racking foundation and the only impervious surfaces to be constructed will be electrical equipment concrete pads.

The proposed project will consist of the following key components:

- Solar modules
- Power inverter enclosures



- Power transformers
- Underground electrical conduits
- Operations and Maintenance (O&M)
- Building supervisory control and data acquisition (SCADA) system
- Overhead interconnection electrical line
- Access and maintenance roads

Ground-mounted solar energy facilities of this type minimize the need for grading (earth disturbance) of the site. The earth disturbance for this project will total 8.79± acres which includes minor grading.; tree stumping; brush clearing; rock walls; any items removed from the surface, in addition to installation of clean stone access. Additional earth disturbance will occur during the screw installation, trenching for electrical conduits and gravel diaphragms and shallow excavation for concrete electrical equipment pads.

Gravel diaphragms located throughout the site will dissipate and redistribute the shallow concentrated flows coming off the panels throughout the steeper areas of the site.

Additionally, Per Inset A, on sheet C-4.0 of the design plans (Appendix A) the armored swale detail is intended to dissipate the energy of water coming down the existing ephemeral stream adjacent to the access road. Once the water is dissipated with the swale it will be directed through the cattleguard crossing within Wetland B (hydraulic discussion of the cattleguard crossing below). Once through the crossing the water will be allowed to spread naturally across the wetland comparable to the existing condition. Lastly an additional level spreader has been added prior to the riparian buffer which will provide temporary storage and redistribute any concentrated flows before entering the riparian buffer. This system will provide a reduction in downstream erosion and reduction in velocities leaving the site.

### **3.3 Construction Sequencing**

Soil disturbing activities associated with the site development will be phased according to the construction schedule. The sequence of major activities is shown on Erosion and Sedimentation Control Plans found in Appendix A and is expected to be as follows:

#### Phase I:

- Install temporary and permanent erosion control measures around perimeter of site.
- Install construction entrance/exit connecting to existing asphalt driveway.
- Layout construction laydown area.
- Place construction trailers (if any) and portable toilets.

#### Phase II:

- Construct gravel access roads and swales (if any).
- Remove existing trees and vegetation.
- Excavate electrical trenches. Excess material shall be disposed of properly.
- Install solar module racking.
- Construct concrete washout.
- Excavate and pour concrete electrical equipment pads.
- Install electrical equipment.
- Install perimeter security fence.

Phase III:

- Hydroseed disturbed areas once work in smaller areas are completed.
- Remove erosion control measures once proper stabilization (>80%) is achieved.

**3.4 Soil Types**

Soil information for the site was obtained from the Natural Resources Conservation Service Web Soil Survey for Montgomery County at <http://websoilsurvey.sc.egov.usda.gov>. Refer to Appendix L for information regarding onsite soils.

**3.5 Stormwater Runoff Characteristics and Management**

Runoff rates based on post-construction site conditions have been calculated for a 1-year, 10- year and 100-year storm event, and are shown below. The site contains primarily Hydrological Soil Group A well-drained soils, Soils Group B moderately-drained soils and Soil Group D poorly-drained soils. The post-construction site conditions will yield very little change in impervious surfaces resulting from the construction of the solar farm. The electrical equipment pads (511 sq. ft. total), and the cleaned stone access road are the only elements that will result in any change in runoff characteristics. The calculated weighted SCS Runoff Curve Number (CN) is 45 for the pre-development site and the resulting post-development weighted CN is 45, based on the underlying soils types and post-construction cover.

Though the mean CN value remained unchanged, the CN values for the POA-1 did not change the total runoff flow rate due to changes the runoff areas and soil characteristics within the POA-1. As shown in the HydroCad calculations the CN values for areas have changed accordingly based on the removal of trees and adding a gravel access drive. Within the drainage areas, the total HSG A is 59%, the HSG B is 26% and the HSG is 15%, thereby maintaining the post-development mean CN at 45. (See chart below for further clarification.) With the runoff discharge for post-development being equal to the pre-development discharge flows no further analysis is needed for water quantity controls.

<u>Pre-Development</u>			<u>Post-Development</u>		
Area (ac)	CN	Description	Area (ac)	CN	Description
0.418	55	Grass roads, HSG A	0.812	76	Gravel roads, HSG A
0.012	91	Gravel roads, HSG D	0.018	85	Gravel roads, HSG B
7.452	30	Meadow, non-grazed, HSG A	0.167	91	Gravel roads, HSG D
8.710	58	Meadow, non-grazed, HSG B	0.002	96	Gravel surface, HSG A
4.590	78	Meadow, non-grazed, HSG D	0.062	96	Gravel surface, HSG B
22.222	30	Woods, Good, HSG A	10.349	30	Meadow, non-grazed, HSG A
4.962	55	Woods, Good, HSG B	11.073	58	Meadow, non-grazed, HSG B
3.182	77	Woods, Good, HSG D	7.359	78	Meadow, non-grazed, HSG D
51.54	45	Weighted Average	18.928	30	Woods, Good, HSG A
			2.519	55	Woods, Good, HSG B
			<u>0.258</u>	<u>77</u>	<u>Woods, Good, HSG D</u>
			51.54	45	Weighted Average

Water Quality Management for Water Quality Volumes (WQv) and Runoff Reduction Volumes (RRv) Volumes will be provided with a combination of grass swales, level spreaders and sheet flow to buffers/filter strips. Based on design data for the RRv, there are only the equipment pads and access drives to be considered as impervious surfaces by definition. Calculated volumes have been established based on the Green Infrastructure Worksheet V1.8, accordingly the total WQv required is 0.29 acre-feet (12,822 cubic-feet) and the total RRv required is 0.07 acre-feet (1,673 cubic-feet). The equipment pads are

constructed with a pervious permitter stone diaphragm for collection of the impervious surfaces.

Utilizing the rules for Riparian Buffer to provided the necessary water quality management and treatment, the total WQv and RRv provided is equal to, or greater than the required 0.29 acre-feet (12,822 cubic-feet) and the required is 0.07 acre-feet (1,673 cubic-feet), respectively. Therefore, based on design data the WQv and RRv provided meets the criteria for no further water quality management practices to be implemented.

In addition to the Riparian Buffer, and being in accord with standard NYSDEC guidelines, gravel diaphragms, armored swales and level spreaders have been proposed to collect drainage patterns from the development and tributary areas. The gravel diaphragms located throughout the site will dissipate and redistribute the shallow concentrated flows coming off the panels throughout the steeper area of the site.

Per Inset A, on sheet C-4.0 of the design plans (Appendix A) the armored swale detail is intended to dissipate the energy of water coming down the existing ephemeral stream adjacent to the access road. Once the water is dissipated with the swale it will be directed through the cattleguard crossing within Wetland B (hydraulic discussion of the cattleguard crossing below). Once through the crossing the water will be allowed to spread naturally across the wetland comparable to the existing condition. Lastly an additional level spreader has been added prior to the riparian buffer which will provide temporary storage and redistribute any concentrated flows before entering the riparian buffer. This system will provide a reduction in downstream erosion and reduction in velocities leaving the site.

The anticipated flow through the cattle guard has been calculated using a HydroCAD model for the 10- and 100-year storms with a hydrological area of 13.657 acres. The expected peak of each storm is 0.23 cfs, and 6.97 cfs, respectfully. The open area of the cattle guard will be approximately 5.9 s.f. and will be able to accommodate the flow of each storm with ease. The Hydraflow express program was used to model each condition to confirm the performance of the cattle guard will be sufficient. The proposed rip-rap protection will prevent erosion and scour during the higher intensity storms. Please see the attached HydroCAD model report, Hydraflow model report, and related watershed sheet within Appendix K.

In conclusion, based on drainage patterns and peak flows compared relatively to pre-developed and post-developed conditions, it is believed that the improvements being proposed will not affect present or future downstream conditions relative to flow or sedimentation.

### **3.6 Slopes**

The site topography ranges in elevation from 417+/- feet National Geodetic Vertical Datum (NGVD) at the highest points to elevation 300+/- feet at the low points within the developed site. No significant grading of the site is required to accommodate the system construction.

### **3.7 Drainage Patterns**

The existing topography of the project area is generally sloping in various directions toward the Ravine Creek and NYS Route 5S in a northeast direction. The drainage patterns will be maintained after development of the site.

### **3.8 Site Features and Sensitive Areas to be Protected**

There are Federal and NYSDEC designated wetland areas located within the site, See Appendix M for specific information. Erosion and sediment control Best Management Practices (BMPs) will be implemented on site to protect the wetland resources associated with these sensitive areas.

### 3.9 Potential Pollution Sources

The materials or substances listed below are expected to be present onsite during construction activities. They represent potential pollutants, other than sediment, to storm water runoff:

- Detergents
- Cement
- Concrete and associated waste/products/additives
- Paints/solvents
- Paper products
- Petroleum products
- Rubber/plastic products
- Sanitary wastes
- Solid Construction waste

### 3.10 Allowable Non-Stormwater Discharges

- Discharges from emergency fire-fighting activities
- Fire Hydrant Flushing
- Landscape Irrigation
- Water used to wash vehicles and to control dust
- Potable water including uncontaminated water line flushing
- Routine external building wash down (solar modules)
- Pavement wash waters
- Uncontaminated non-turbid discharges of ground water or spring water
- Foundation or footing drains
- Construction dewatering water

These types of discharges will be allowed under the condition that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures which have been outlined previously in this SWPPP will be strictly followed to ensure that no contamination of these non-storm water discharges takes place or that these discharges do not result in a discharge of pollutants to waters of the US.

### 3.11 Site Maps

Site Maps are located in Appendix A of this report. The Operator must update these plans in accordance (but not limited to) the following:

- Locations where earth-disturbing activities will occur, noting changes in phases
- Approximate slopes before and after major grading activities. Note sloped areas greater than 15%.
- Show locations where sediment, soils or other construction materials, demolitions debris will be stockpiled.
- Locations of any crossing of surface waters.
- Designated points on the site where vehicles will exit onto paved roads.
- Locations of structures and impervious surfaces upon completion of construction.
- Locations of construction support activity areas covered by this permit.
- Locations of all surface waters, wetlands on or in the immediate vicinity of the Site.
- The boundary of any natural buffers; some work will occur inside of 50-foot buffer.

- Areas of federally listed critical habitat for endangered or threatened species.
- Topography of the site, existing vegetative cover (e.g., forest, pasture, pavement, structures), and drainage pattern(s) of stormwater and authorized non-stormwater flow onto, over, and from the site property before and after major grading activities.
- Stormwater and allowable non-stormwater discharge locations, including:
  - Locations of any inlets to municipal separate storm sewer systems (MS4s)
  - Locations where stormwater or allowable non-stormwater will be discharged to surface waters on or near the site.
  - Locations of all potential pollutant-generating activities
  - Locations of stormwater control measures
  - Locations where polymers, flocculants, or other treatment chemicals will be used and stored.

### **3.12 Erosion and Sedimentation Control Plans.**

The Erosion Control Plans show the direction of storm water flow and approximate slopes before and after grading activities, areas of soil disturbance and areas that will not be disturbed, natural features to be preserved, locations of non-structural BMPs identified in the SWPPP and locations where storm water discharges to a surface water (where applicable.)

### **3.13 Progress Site Maps.**

GP-0-20-001 requires that as conditions change at the construction site (such as the location of BMPs) the Contractor must update the SWPPP to reflect such changes. Progress Maps (11 x 17) are provided in Appendix A. In addition to tracking the changes associated with the BMPs, the Contractor will indicate and track the location of the following:

- Portable toilets
- Material storage areas
- Concrete washout areas
- Refueling areas
- Off-site material, waste, borrow, or equipment storage areas
- Dumpster or other trash and debris containers
- Spill kits
- Stockpiles
- Any other non-structural non-storm water management BMPs
- Any changes to structural BMPs
- Areas where final stabilization has been accomplished

If the Progress Maps become too full to easily read, it should be dated, folded, and put into the SWPPP in Appendix F for documentation and a new Progress Map should be started.

## **4.0 DOCUMENTATION OF COMPLIANCE WITH OTHER FEDERAL REQUIREMENTS**

### **4.1. Wetlands and Waterbodies**

An on-site wetland delineation was performed by Shumaker Consulting and Engineering & Land Surveying, D.P.C. on October 15, 2020 and then visited with the site with USACE and NYSDEC in 2021. USACE identified three (3) wetlands within the site. The full Wetland Delineation report is included in Appendix M.

Based on the revised wetland mapping , a Nationwide Permit was required for minor impacts to the wetlands. Shumaker applied for the permit in July of 2021 (application attached in Appendix M) and a permit was received August 16, 2021 (Appendix M). The Nationwide permit was set to expire in March 2022 so a renewed permit was requested and reissued March 9, 2022 (Appendix M).

Stream 1 is a perennial stream that originates off-site east of the property and flows approximately 667 linear feet on-site, exiting the project limits at the northeastern portions where it continues to flow north. The stream varies from 15-to-30 feet wide and three-to-24 inches deep along its length. Stream 1 is considered a Water of the United States (WOTUS) and is anticipated to be under the jurisdiction of the USACE as an (a)(8) water.

As the stream is classified as a Class C mapped streams, it is not currently subject to Article 15 of the New York State Environmental Conservation Law (ECL). This same stream continues north towards the Mohawk River, just to the east of the project boundary.

#### **4.2 Endangered Species Protection**

The project location contains no rare or state listed animals and plants in the vicinity of the site as provided by the New York National Heritage Program. This letter is included in Appendix J.

#### **4.2. Historic Preservation**

The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) reviewed the project in accordance with the New York State Historic Preservation Act and provided a response, dated February 18, 2021, that the project is an archaeologically sensitive area and a Phase 1A/1B archeological survey was warranted. Hartgen Archaeological Associates performed the Phase 1A/1B filed research and report and found no evidence of archeological sites. OPRHP concurred with the findings of the report and issued a letter of concurrence on June 23/2021. Please refer to the Hartgen Report and OPRHP letter included in Appendix N.

### **5.0 EROSION AND SEDIMENT CONTROLS**

During construction, the Operator will comply with the measures provided in this SWPPP and conduct construction activities in such a manner that is in accordance with GP-0-20-001 conditions. It is the Operator's responsibility not to undertake more than that magnitude of work that can be safely and adequately controlled by the methods at their disposal. The Operator's approach must emphasize preventing erosion before it occurs as opposed to treating sediment- laden storm water runoff.

#### **5.1. Natural Buffer or Equivalent Sediment Controls**

The Erosion Control Plan represents the suggested best management practices proposed for the project. The Contractor's approach to controlling storm water runoff from the site may vary; however, they must update this SWPPP to reflect the changes and appropriate corresponding erosion control measures using the Progress Maps and the SWPPP Amendment form (provided in Appendix I).

The use of erosion and sedimentation controls is mandatory and must be employed to minimize impacts to adjacent areas during the construction. If sediment escapes the construction site, off- site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.

The control practices which are required to control storm water pollution during construction must remain

functional until disturbed areas have been stabilized. Erosion control products are to be installed and maintained in accordance with manufacturer's specifications and good engineering practices. During all phases, the Erosion and Sediment Control BMPs outlined in the following sections must be inspected based on the inspection frequency discussed in Section 7.0. In addition, stabilization measures must be instituted on disturbed areas as soon as practicable, but no more than 14 days after construction activity has temporarily or permanently ceased on any portion of the site.

## **5.2. Construction Phasing and Best Management Practices (BMPS)**

Construction activities will be phased in order to minimize site disturbance, protect sensitive natural features, and prevent soil erosion and sediment transport (refer to Section 3.4 above). The intended construction sequence and timing of major activities is outlined below.

### **5.2.1. Phase I**

During Phase I of the project the stabilized construction entrance will be installed, perimeter erosion control protection installed, and establishment of stockpile areas.

**Stabilized Construction Exit:** At the beginning of Phase I a stabilized construction exit must be installed at the location where vehicles are expected to enter and/or exit the site in order to prevent the off-site tracking of sediment onto adjacent public roadways. The stabilized construction entrances will consist of compacted two to three inch (2"-4" thickness) crushed stone, placed over a layer of geotextile fabric (to provide separation from the underlying soil and prevent the stone from being ground down into the soil). The stabilized construction entrance must be wide enough to cover the entire width of the entrance/exit and allow two vehicles to pass comfortably, and it should be flared where it meets the public roadway to accommodate longer construction vehicles. The stabilized construction entrance must be long enough to allow mud and sediment to become dislodged from vehicle tires, and/or a minimum of fifty (50') in length.

Over the course of construction, the stabilized construction entrance will become filled with accumulated sediment. The Contractor must inspect the stabilized construction entrance and adjacent public roadways for off-site sediment tracking and repair the entrance as necessary (remove accumulated sediment and add new stone as necessary). If tracking onto public roadways does occur, the streets in the vicinity of the stabilized construction entrance shall be swept immediately. The stabilized construction entrance shall not be removed until just prior to project completion.

**Mulch Tube/Silt Fence:** At the beginning of Phase I a combination of mulch tube and silt fence or just silt fence shall be installed to prevent sediment-laden runoff from leaving the site. In addition, silt fence will be used on the down gradient sides of material stockpile areas.

The mulch tubes consist of a tube of mulch placed along a contour if possible. The tubes intercept and slow sheet flow runoff. Mulch tubes shall be firmly staked. Accumulated sediment must be removed from the tubes when it reaches ½ of the height of the tube. Silt fence is a sediment control BMP consisting of a length of geotextile fabric stretched between anchoring posts spaced at regular intervals along the site at low/down-slope areas. The geotextile fabric must be entrenched in the ground between the support posts. Silt fence is effective in treating low velocity sheet flow and is not intended for use in areas of concentrated or channelized flow. Silt fence must be inspected for rips, tears, and gaps between the fence and the ground. An adequate reserve of silt fence must be kept on site at all times for emergency and/or routine replacement. Silt fence shall be entirely removed **only** after exposed soils in the contributing drainage area are stabilized. Silt fence can also be used as an effective perimeter control to contain stockpiles of topsoil or other erodible material.

**Stockpile Management:** Stockpiles of erodible material, including any topsoil salvaged during construction, must be surrounded by a perimeter sediment control such as silt fence to prevent storm water runoff from being contaminated by eroded sediment. Stockpiles of erodible material must be stabilized utilizing a temporary stabilization technique if they remain inactive for more than fourteen (14) days. Stockpiles must be located at least 100 feet from wetland resource areas (i.e. bordering vegetated wetlands and Buffer zone). Stockpile locations must be tracked using the Site Maps included in Appendix A.

**Dust Control:** Dust control BMPs are various means and methods of preventing soil erosion by wind. During all phases of the project generation of dust must be minimized to prevent air and water pollution as well as minimize risks to human health. Earthmoving activities are the primary source of dust generation during construction, but traffic on un-stabilized access roads and sediment transport by wind blowing across exposed soil surfaces can also be contributing factors. The most effective dust control BMPs for preventing wind erosion involve stabilizing (temporary or permanent) exposed soils. However, where soil stabilization is not practical techniques that increase soil moisture and encourage the formation of soil clods or reduce wind velocity at the soil surface are also effective. The following dust control BMPs are typically used on construction sites:

- Watering/Irrigation: Sprinkling the ground surface with water until it is moist.
- Soil Stabilization: Vegetative cover, mulch, riprap or any method that covers the soil surface reduces the potential for soil particles to become airborne.
- Wind Breaks: Wind breaks are barriers (either natural or constructed) that reduce wind velocity across exposed soil surfaces and reduces the potential for soil particles become airborne. Wind breaks can be trees or shrubs left in place during site clearing or constructed barriers such as a wind fence.
- Soil Roughening: Deep tillage in large areas of exposed soil brings soil clods to the surface preventing soil particles from becoming airborne.

**Temporary Sediment Basins/Traps:** If temporary sediment basins/traps/swales are needed at the beginning of Phase 1, the temporary sediment basins must provide 3,600 cubic feet of storage per acre drained **and** disturbed. Temporary sediment basins are a sediment control BMP that consist of an excavated or natural depression that detains/retains storm water runoff allowing sediments to settle out of suspension prior to discharge via a suitably stabilized outlet. They also provide an opportunity for storm water infiltration. The temporary sediment basin's side-slopes and bottom must be appropriately stabilized prior to directing runoff to it. Accumulated sediment must be removed when it reaches 33% of the design volume capacity of the basin in order to maximize sediment settling potential and minimize the possibility of sediment washout during high intensity/long duration storm events. The basins will include a controlled outlet structure consisting of a perforated riser pipe packed in gravel which allow for further reduction of sediment prior to discharge. Traps will include a rip rap spillway.

**Temporary Stabilization-All Phases:** Stabilization measures must be initiated as soon as practicable on portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Temporary stabilization refers to a variety of erosion control BMPs that protect exposed soils from the erosive forces of precipitation (raindrop and sheet erosion) and/or prevent the formation of channelized flow (rill, gully and channel erosion). The Contractor must inspect temporarily stabilized areas



to assess the effectiveness of temporary stabilization BMPs and replace/repair them as necessary. The following temporary stabilization BMPs are typically used on construction sites and may be used by the Contractor for this project:

**Erosion Control Blankets:** Erosion control blankets are erosion control BMPs consisting of natural or synthetic geotextile fabrics formed into long sheets or mats that are rolled out over exposed soils and fastened with stakes, pegs or staples. They are used in areas where high runoff velocity makes traditional mulching ineffective. Blankets are highly effective at stabilizing steep slopes (3:1 or greater) and can be used to stabilize areas of concentrated flow such as swales.

**Soil Roughening:** Soil roughening is an erosion control BMP that involves creating grooves or impressions in exposed soil surfaces with tracked construction equipment (bulldozer, excavator, etc.). Slopes that are not fine graded or smoothed but left in a roughened condition reduce erosion by decreasing slope length and runoff velocity, increasing infiltration, trapping sediment, and allowing seed to take hold and grow. It is critically important that the impressions be made perpendicular to the slope contours (never parallel to the contour); improper use of this technique can actually accelerate erosion. Soil roughening shall be used as a last resort.

**Temporary Seeding:** Temporary seeding is an erosion control BMP that consists of using select varieties of grasses to establish vegetative cover. Temporary seeding utilizes annual species that establish quickly, are not persistent or invasive, but provide long term temporary cover (as opposed to the perennial species used in permanent seeding for final stabilization).

### 5.2.2. Phase II

During Phase II of the project construction activities will commence and include trench and concrete equipment pad excavation and pile driving or screw installation for the solar module racking solution. All of the BMPs installed to date will continue to be used during Phase II until final stabilization is achieved. In addition, the following measures will be used during Phase II.

**Temporary Diversion Ditches:** Temporary diversion ditches are an option to divert runoff away from construction area. They should be constructed prior to any work in said construction area at the beginning of Phase II. Temporary drainage ditches are a runoff control BMP consisting of a ditch or excavation installed as a means of conveying storm water runoff to temporary sediment basins/traps (or other sediment control BMPs) while soil disturbing construction activities are ongoing. The temporary drainage ditch side-slopes and bottom must be appropriately stabilized prior to directing runoff to it. The temporary ditches will include stone check dams (see below).

Temporary drainage ditches may be constructed as needed at locations determined by the Operator. This is done to account for unanticipated on-site field conditions.

**Concrete Washout Area:** Concrete washout areas consist of a prefabricated or site-built impermeable containment area sized to hold concrete wastes and wash water (including one (1) foot freeboard). Concrete washouts are used to contain concrete and liquids when the chutes of concrete mixers and hoppers of concrete pumps are rinsed out after delivery. The washout Facility consolidate solids for easier disposal and prevent runoff of liquids. The wash water is alkaline and contains high levels of chromium, which can leach into the ground and contaminate groundwater. It can also migrate to a storm drain, which can increase the pH of area waters and harm aquatic life. Solids that are improperly disposed of can clog storm drain pipes and cause flooding. The concrete washouts must be constructed prior to placement of concrete on-site. The concrete washout area must be located in an area where its likelihood of contributing

to storm water discharges is negligible. Washouts shall be located outside of any wetland resource area and 100' from buffer zones to wetlands.

These specially designated areas should be properly signed, and onsite personnel instructed in their proper use. The hardened residue from the concrete wash out area will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used onsite as appropriate. It is the responsibility of the Contractor to ensure that these procedures are followed. The Contractor must track concrete washout locations on the Progress Map if they are moved or if additional concrete washouts need to be constructed.

### **5.2.3. Phase III**

During Phase III of the project construction, electrical wiring activities will constitute the majority of the work on site. Hydroseeding of disturbed areas will be completed. All of the BMPs installed to date will continue to be used during Phase III.

All BMPS's implemented to date will continue to be used during Phase III until the site reaches permanent stabilization.

**Permanent Stabilization:** Permanent stabilization refers to a variety of erosion control BMPs that allow a construction project to achieve "final stabilization." Final stabilization is defined in Appendix A of GP-0-20-001 as: a uniform, perennial vegetative cover with a density of eighty percent (80%) over the entire pervious surface has been established, or other equivalent permanent stabilization measures have been employed.

The following permanent stabilization BMPs are typically used on construction sites:

- Permanent Seeding: Permanent seeding consists of using select varieties of grasses and/or other plants to establish vegetative cover. Permanent seeding utilizes perennial, persistent species that provide dense, long term vegetative cover.

## **6.0 POLLUTION PREVENTION STANDARDS**

### **6.1 Material Handling and Waste Management**

The following measures will be implemented to prevent the discharge of solid materials to waters of the U.S.:

- Manufacturer's recommendations for proper use and disposal will be followed.
- Contractor will perform inspections based on the frequency outlined in the GP to ensure the proper storage, use, and disposal of materials.
- Contractor will arrange for all sanitary waste to be collected from portable toilet units by a licensed sanitary waste management operator, or as required by local regulation. Pickups must be done on a regular basis. No burial or discharge of the sanitary waste may be conducted on-site.
- Contractor will be responsible for the off-site removal and disposal of all construction related debris in accordance with state and federal law. No on-site waste disposal will occur. Where the use of dumpsters is proposed, the Contractor must determine and apply specific measures to keep waste within the dumpsters from being intermixed with storm water, including closing the dumpsters and installing drain plugs.

## 6.2 Construction Material Staging Areas

Construction materials expected to be stored on-site are listed in Section 3.8. Procedures for the storage of these materials to minimize exposure of the materials to storm water are as follows:

- All materials stored on-site must be stored in a neat, orderly manner in their appropriate containers. Materials that are hazardous or toxic such as paints, solvents, pesticides, fuels and oils should be stored under a roof or other enclosure if possible. Where cover is not available, all hazardous or toxic materials should be stored in a location with secondary containment.
- Materials will be kept in their original containers with the original manufacturer's label.
- Asphalt substances used on-site will be applied according to manufacturer's recommendations.
- Petroleum products will be stored in tightly sealed containers that are clearly labeled.
- The Contractor will inspect the staging areas based on the frequency outlined in the GP.

Above noted materials shall be located outside of any wetland resource areas including buffer zone areas.

## 6.3 Spill Prevention and Control Plan (SPCP)

The Contractor will be responsible for preventing spills in accordance with applicable federal, state, and local regulations and will identify an appropriately trained site employee involved with day-to-day site operations to be the spill prevention and cleanup coordinator. The name(s) of responsible spill personnel will be posted in the material storage area(s) and in the on-site office. Each employee will be instructed that spills are to be reported to the spill prevention and cleanup coordinator.

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

## 6.4 Equipment/Vehicle Fueling and Maintenance Practices

The types of equipment typically used for this project will consist of track and rubber-tired diesel-powered vehicles (e.g., tracked hoes, front-end loaders, backhoes, graders, scrapers, bulldozers, and cranes), trucks, pumps, compressors, generators, and light vehicles. Equipment storage, cleaning, and maintenance areas are described and mapped on the site maps included in Appendix A. The following measures will be implemented:

- All equipment will be parked and/or operated within the approved and designated construction right-of-way or in staging areas.
- The contractor will monitor daily for leaking equipment. Equipment parked overnight will be inspected by the contractor and absorbent pads will be placed to catch all leaks, as necessary. If leaks are detected by the Environmental Inspector, the contractor will be notified and contaminated soil will be cleaned up immediately.
- Major equipment cleaning and maintenance will be conducted in the contractor's offsite construction yard(s), at commercial cleaning Facility, or at commercial repair shops.
- Refueling and servicing of vehicles or equipment, and minor maintenance such as oil changes and minor repairs for large equipment that cannot be easily moved, will be permitted on the construction site or right-of-way only as necessary, and must be conducted at least 200 feet away from any drainage channel, wetland resource area and also outside of the 100-foot buffer zone.
- The maintenance location will be under cover and include secondary containment.
- Drip pans, drip cloths, or absorbent pads will be used when replacing spent fluids.
- Do NOT clean surfaces by hosing the areas down.

- Vehicle or equipment fueling, service, and maintenance will be conducted only by authorized trained personnel using approved pumps, hoses, and nozzles.
- Hoses, nozzles, connectors, and pumps used for fueling will be inspected regularly by trained personnel.
- Catch-pans or absorbent pads will be placed under vehicles or equipment to catch potential spills during refueling, servicing, or maintenance.
- Service trucks will be equipped with spill-containment equipment, and all spills will be cleaned up immediately.

If the construction site will have a total above-ground oil storage capacity of more than 1,320 gallons of oil (counting only tanks that equal or exceed 55 gallons) the site is subject to DEC's spill prevention, control and countermeasure (SPCC) rules and it is the Operator/Contractor's responsibility to prepare a Spill Prevention and Control Plan.

#### **6.5 Washing of Equipment and Vehicles**

Wheel washing will occur on site at construction exits. Construction exit(s) will be used to wash wheels of construction vehicles exiting the site on an as needed basis. Wheel wash water will be potable water from nearby municipal fire hydrant and wheel wash runoff will be directed to nearest catch basin. If wheel wash water proposed to discharge on site, Contractor shall construct a temporary sedimentation basin. Maintain in accordance with the GP.

#### **6.6 Construction and Domestic Waste**

Construction and domestic waste will be controlled through the implementation of construction dumpster(s) and trash receptacles in appropriate number and size to contain the waste. This will be done on a daily basis and cleaned up immediately if overflow occurs.

#### **6.7 Sanitary Waste**

Temporary portable toilets in sufficient number will be located on-site during each of the project phases. They will be secured so that they cannot be flipped or knocked over.

#### **6.8 Washing of Applicators and Containers used for Paint, Concrete or other Materials**

Hay bale and plastic concrete washout pits will be installed at the Project site. Hay bale and plastic concrete washout pits will be installed and ready for inspection a minimum of 72 hours prior to use.

Concrete washout pits shall be inspected daily and after heavy rains to check for leaks, identify damage to plastic linings and to determine whether the pits have been filled to within 75% of capacity. Prior to heavy rains the washout pit water level should be lowered (vacuuming) or the pit covered to avoid an overflow. Damage to plastic lining shall be repaired promptly. When the washout pit is filled to over 75% of its capacity, the wash water shall be vacuumed out or allowed to evaporate to avoid overflows. When the remaining cementitious solids have hardened, they shall be removed and recycled.

#### **6.9 Spill Prevention and Response**

Spill control/containment equipment will be kept locally in the area of construction. Materials and equipment necessary for spill cleanup will be kept in the material storage area on-site. Equipment and materials will include but not be limited to absorbent booms or mats, brooms, dust pans, mops, rags, gloves, goggles, sand and plastic and metal trash containers specifically for this purpose. It is the responsibility of the Contractor to ensure the inventory will be readily accessible and maintained.

Workers will be directed to inform the on-site supervisor in the event of a spill or leak. The supervisor will assess the incident and initiate containment procedures. Workers should avoid direct contact with the spilled material during containment procedures. Notification of a spill will be to a certified cleanup operator if deemed necessary. Emergency contact phone numbers are provided in Appendix E. The specific clean-up operator to be used must be identified by the operator and listed on the Emergency Contact List in Appendix E.

The Operator/Contractor is prohibited from discharging toxic or hazardous substances from a spill or other release, consistent with Part I.B.1.e. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as the Operator/Contractor has knowledge of the discharge. Furthermore, you must notify the NYSDEC spill hotline at (800)-457-7362. The Operator/Contractor must also, within 7 calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release. State, tribal, or local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies. The Operator/Contractor must also, within 7 calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release. State, tribal, or local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies.

Spills will be contained with granular sorbent materials, sand, sorbent pads, booms, or all of the above to prevent spreading. Catch basins will be plugged and drainage channels should be protected from the spill. Manholes will not be entered unless personnel are trained in confined space entry and have the appropriate safety equipment and backup personnel. Spill clean-up should be completed by trained certified clean-up operators. Manufacturer's recommended methods for spill cleanup will be maintained and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.

#### **6.10 Hazardous Materials Spill Report**

A spill report must be prepared by the Contractor following each occurrence. The spill report must present a description of the release, including quantity and type of material, date of the release, circumstances leading to the release, location of spill, response actions and personnel, documentation of notifications, and corrective measures implemented to prevent recurrence.

The SPDES General Permit does not relieve the Contractor of the reporting requirements 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 relating to spills or other releases of oils or hazardous substances. Where a release containing hazardous substance in an amount equal to or in excess of a reporting quantity established under the federal regulations has occurred, the Contractor is required to comply with the requirement of the aforementioned regulations. Spills of oil or hazardous material (OHM) will be reported to the National Response Center, if the reportable quantity is exceeded. The Contractor must notify the DEC in writing of a reportable release within 14 days of the occurrence. Contact numbers are provided in Appendix E.

## **7.0 INSPECTIONS AND CORRECTIVE ACTION**

### **7.1 Inspections**

The Contractor shall be responsible for providing Qualified Personnel to conduct all inspections required by the GP. A "Qualified Professional" is defined as a person knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual. A "Qualified Inspector" is defined as a person that is knowledgeable in the principles and practices of erosion and sediment controls, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual. It can also mean someone working under the direct supervision of, and at the same company as, the Licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control.

### **7.2 Inspection Schedule and Procedures**

Inspections of all non-structural and structural best management practices proposed and implemented as part of the SWPPP must be conducted at least once every 7 calendar days, or in compliance with Part II.C and Part IV.C of the GP and the requirements of the New York State Standards and Specifications for Erosion and Sediment Control, latest edition. In addition, an inspection report must be prepared if any deficiencies are noted during the daily inspections.

Inspections should also be performed prior to storm events anticipated to result in substantial storm water runoff. These inspections will include areas used for storage of materials that are exposed to rainfall, structural control measures, locations where vehicles enter or exit the site, and all disturbed areas. Written records of these inspections must be kept on file for the duration of the project and be available for review. Completed forms must be maintained in Appendix I.

If site inspections indicate that BMPs are not operating effectively, need to be modified, maintenance is required, or additional BMP's are necessary, implementation must be performed as soon as possible and before the next storm event whenever practicable to maintain the continued effectiveness of the BMPs. If implementation before the next storm event is impracticable, the situation must be documented in the SWPPP and alternative BMPs must be implemented as soon as possible.

All pollution prevention measures must be maintained in good working order. If a repair is necessary, it will be initiated, if practicable, within 24 hours of report.

A blank inspection report has been provided in Appendix I. The Inspector will record the following information on an inspection report:

- On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14 days;
- Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of the sediment storage volume
- Inspect all stormwater pollution prevention practices and record all maintenance requirements such as verifying the integrity of barrier and containment systems. Identify any evidence of rill or gully erosion occurring and any loss of stabilizing vegetation or seeding/mulching
- Document excessive deposition of sediment or ponding water along barrier or diversion systems.

Record the depth of sediment within containment structures, any erosion near outlet and overflow structures.

- Inspect areas that are designated for the storage and/or transfer of fuels, lubricants or other hazardous materials
- Inspect construction equipment for leaks on a daily basis
- All deficiencies that are identified with the implementation of the SWPPP

If there are no incidents of non-compliance, then a certification that the site is in compliance with the SWPPP and the GP must be made by the Contractor. A certification is provided on the inspection form included in Appendix I.

### **7.3 Maintenance of Controls**

The following maintenance practices will be used by the Contractor to maintain erosion and sediment controls.

- All erosion and sediment control measures and other protective measures must be maintained in effective operating condition.
- Accumulated sediment within the catch basin inlet protection must be removed.
- Maintenance of pollution prevention measures must be continued on the site for as long as a portion of the site remains disturbed.
- If issues are identified at hazardous materials storage areas, corrective actions will be implemented immediately.
- If leaks or spills are identified procedures outlined in Section 6.0 will be followed.

### **7.4 Corrective Action**

For each corrective action taken in accordance with this Section 7.0, a corrective action report must be completed, which includes the applicable information provided below. Note that these reports must be maintained in the inspection records but do not need to be provided to DEC except upon request. Within 24 hours of discovering the occurrence of one of the triggering conditions in the GP, a report of the following must be completed:

- Which condition was identified at the site;
- The nature of the condition identified; and
- The date and time of the condition identified and how it was identified.

Within 7 calendar days of discovering the occurrence of one of the triggering conditions in the GP, a report of the following must be completed:

- Any follow-up actions taken to review the design, installation, and maintenance of stormwater controls, including the dates such actions occurred;
- A summary of stormwater control modifications taken or to be taken, including a schedule of activities necessary to implement changes, and the date the modifications are completed or expected to be completed; and
- Notice of whether SWPPP modifications are required as a result of the condition identified or corrective action

**Signature Requirements.** Each corrective action report must be signed and certified in accordance with the GP. Corrective Action Report Logs are provided in Appendix I.

## 7.5 Delegation of Authority

### Duly Authorized Representative(s) or Position(s):

Company: Borrego Solar Systems, Inc.

Name:

Position: Construction Superintendent

Address: 30 Century Hill Drive, Suite 301 Latham, NY 12110

Telephone: (Mobile)

E-mail:

## 8.0 RECORD KEEPING AND TRAINING

### 8.1 Record Keeping

The following is a list of records which the Operator and Contractor must maintain at the project site and made available for inspectors to review:

- Completed Inspection Reports (Appendix I) -Contractor only.
- A copy of the Construction General Permit (Appendix B).
- Signed and certified NOI (Appendix C).
- A copy of the letter from the DEC acknowledging receipt of the NOI (Appendix C).
- A copy of the Notice of Coverage from the DEC (Appendix C).

### 8.2 Modifying the SWPPP

This SWPPP must be modified as necessary to:

- Ensure permit compliance when notified by DEC that the plan does not comply.
- Include additional or modified BMPs that correct problems identified as a result of an inspection. Revisions must be completed with seven (7) calendar days following the inspection.
- Ensure the effectiveness of the SWPPP in eliminating or significantly minimizing pollutants from storm water discharges from the site.
- Prevent the reoccurrence of releases of a hazardous material or oil.
- Address a change in design, construction, operation, or maintenance which has or may have a significant effect on the potential for the discharge of pollutants.
- Changes in personnel

All modifications to the SWPPP must be recorded on the SWPPP Amendment Form found in Appendix I and retained in Appendix I, Completed SWPPP Amendment Forms.

### 8.3 Training

Training sessions must be provided by the Contractor for all construction personnel. The training will review specific BMPs used in the work area as well as reporting and response measures that may be needed by either construction personnel and/or inspectors to implement the SWPPP. A Training Log including dates, attendees, subjects covered, and length of training has been provided in Appendix I.

Suggested training topics include:

- Erosion and Sedimentation Control Plans
- Temporary Sediment Control including Tracking Control



- Wind Erosion Control
- Temporary Soil Stabilization
- Non- Storm Water Management
- Waste management and Material Pollution Control

Copies of the SWPPP and all reports required by the GP, and records of all data used to complete the Notice of Intent to be covered by this permit, must be retained by the Operators for a period of at least three (3) years from the date that the site is finally stabilized.

**9.0 CERTIFICATION AND NOTIFICATION**

**CERTIFICATION – Operator (Contractor)**

The following certification statement must be signed and dated by a person who meets the requirements of Part VII.H.1 of the GP.

This certification must be re-signed in the event of a SWPPP Modification.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: \* \_\_\_\_\_  
Signature: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company: Borrego Solar Systems, Inc.  
Date: \_\_\_\_\_

\*This form shall be signed by a responsible corporate office of the Operator or by a duly authorized representative in accordance with Part VII.H.1 of the GP.

**CERTIFICATION STATEMENT**

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Print name and title:  
\_\_\_\_\_

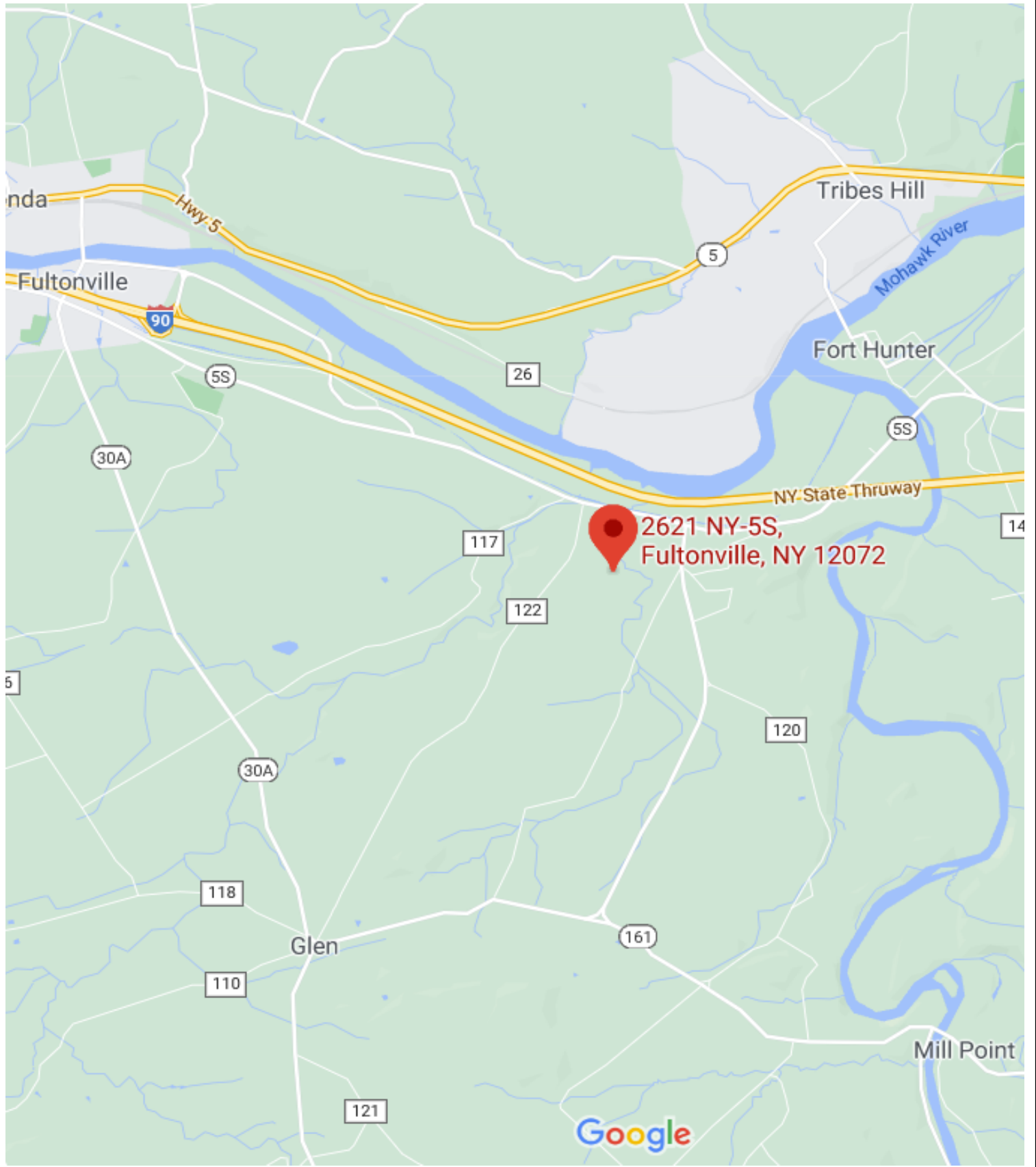
Company:  
Borrego Solar Systems, Inc.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

#### **10.0 FINAL STABILIZATION AND NOTICE OF TERMINATION**

Once construction activity has been completed a Notice of Termination must be filed with the DEC within 30 days of final stabilization on all portions of the site for which the Operator was responsible. A blank NOT has been provided in Appendix D. However, before terminating permit coverage, the following items must be accomplished:

- Remove any construction debris and trash
- Remove temporary BMPs (such as silt fence). Remove any residual sediment as needed. Seed and mulch any small bare spots. BMPs that will decompose, including some fiber rolls and blankets, may be left in place.
- Check areas where erosion-control blanket or matting was installed. Cut away and remove all loose, exposed material, especially in areas where walking or mowing will occur. Reseed all bare soil areas.
- Ensure that 80 percent of vegetation coverage has been achieved or equivalent stabilization measures have been applied.
- Repair any remaining signs of erosion
- Inspect storm drain system and any permanent sedimentation/detention basins and clean accumulated sediment or debris
- Ensure that post-construction BMPs are in place and operational. Provide written maintenance requirements for all post-construction BMPs to the appropriate party.
- Check all drainage conveyances and outlets to ensure they were installed correctly and are operational. Inspect inlet areas to ensure complete stabilization and remove any brush or debris that could clog inlets.
- Seed and mulch or otherwise stabilize any areas where runoff flows might converge, or high velocity flows are expected.
- Ensure subcontractors have repaired their work areas before final closeout.

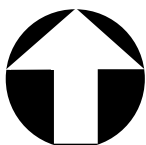
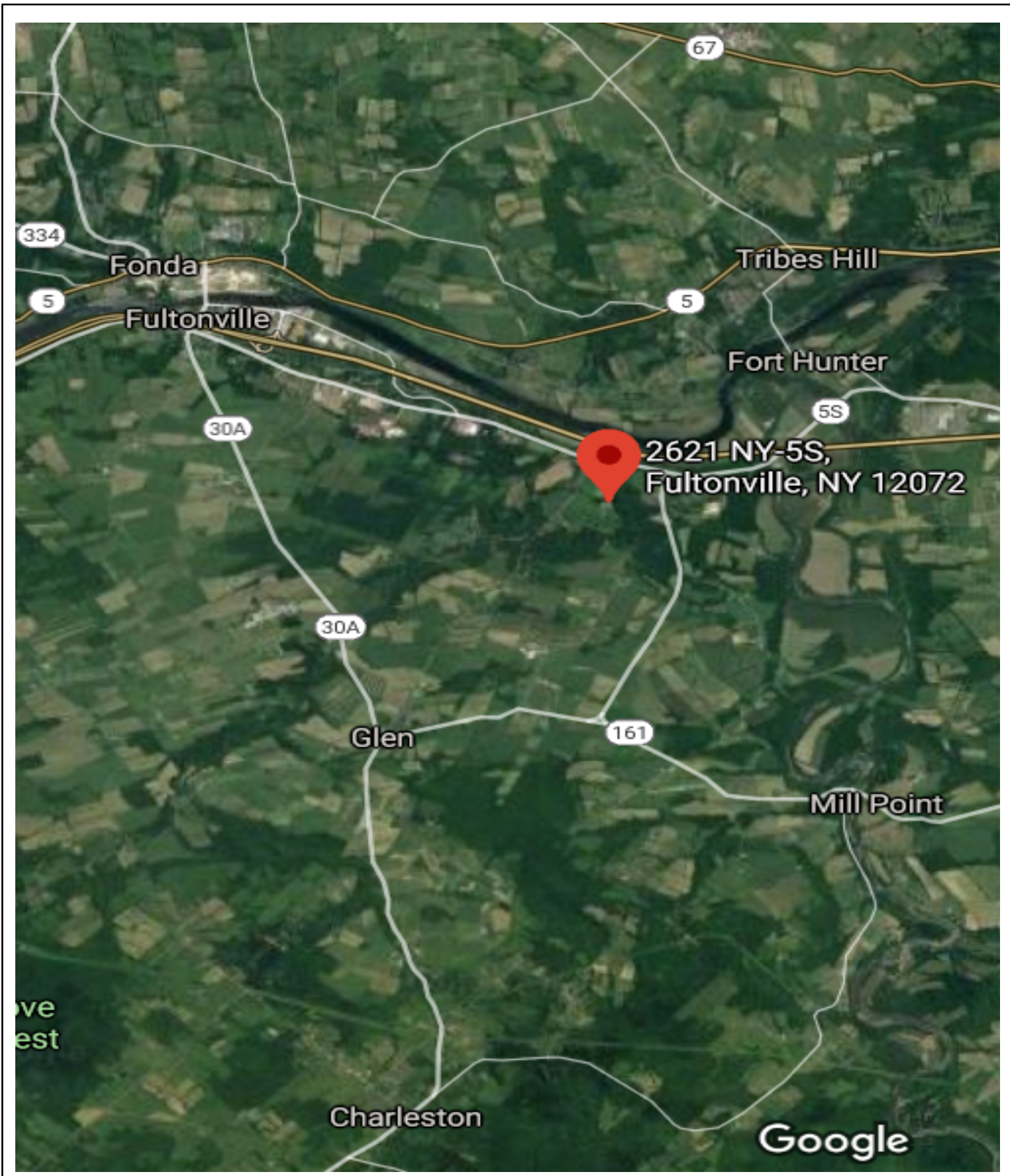


04/07/21

**FIGURE 1**  
**Site Location Map**  
**2621 State Highway 5S**  
**Fultonville, NY**

Data Source: Google Maps

PV Engineers. P.C.  
30 Century Hill Drive  
Suite #301  
Latham, NY 012110

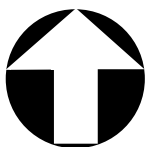
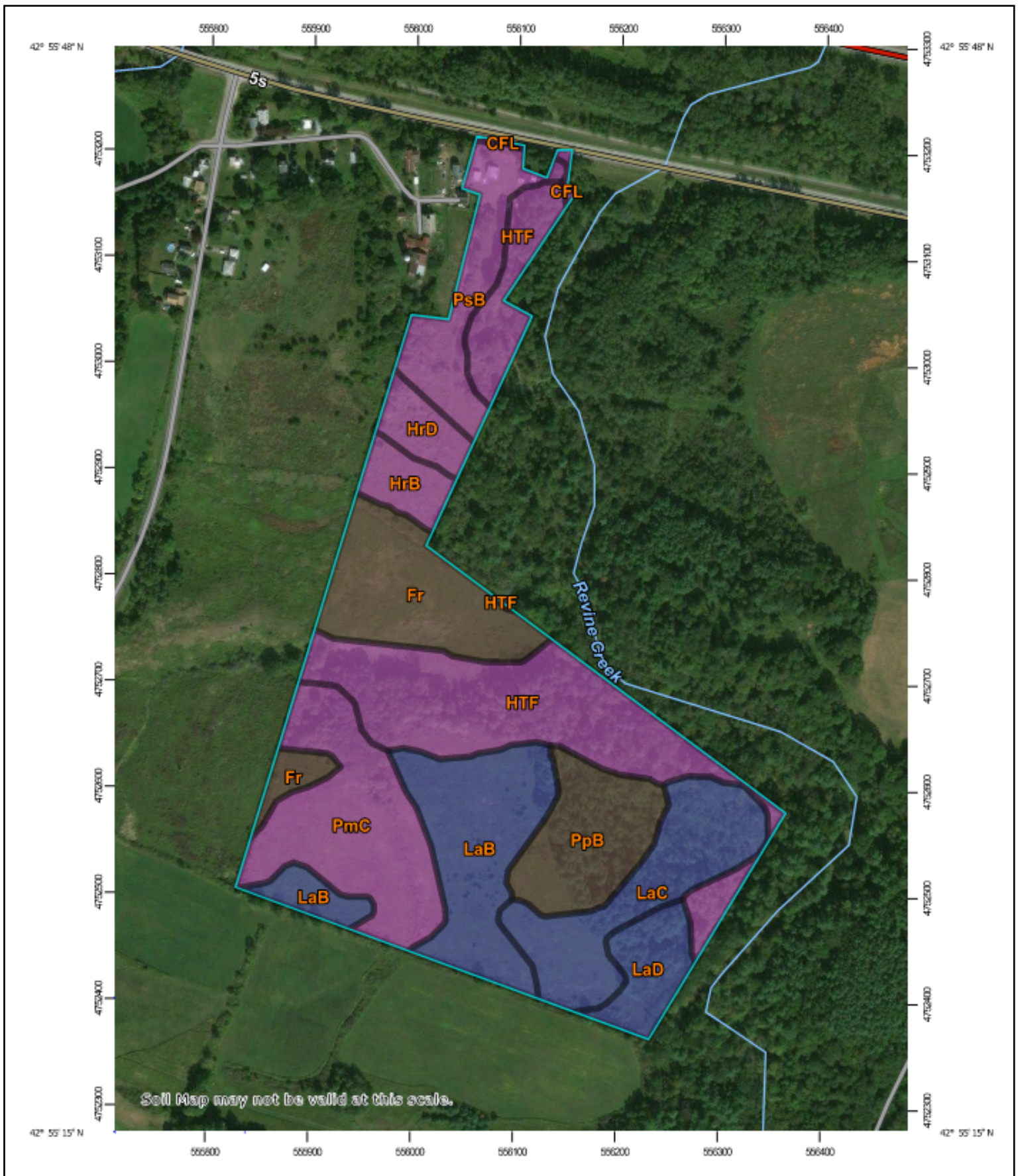


04/07/21

**FIGURE 2**  
Site Aerial Map  
2621 State Highway 5S  
Fultonville, NY

Data Source: Google Maps

PV Engineers. P.C.  
30 Century Hill Drive  
Suite #301  
Latham, NY 012110



04/07/21

**FIGURE 3**  
**Soils Map**  
**2621 State Highway 5S**  
**Fultonville, NY**

Data Source: USGS WebSoilSurvey

PV Engineers. P.C.  
 30 Century Hill Drive  
 Suite #301  
 Latham, NY 012110

**Appendix A**

**Site Maps**






# SITE USE PERMIT SET

2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072  
5000 KWAC STC RATED SOLAR ELECTRIC SYSTEM

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**GENERAL NOTES**

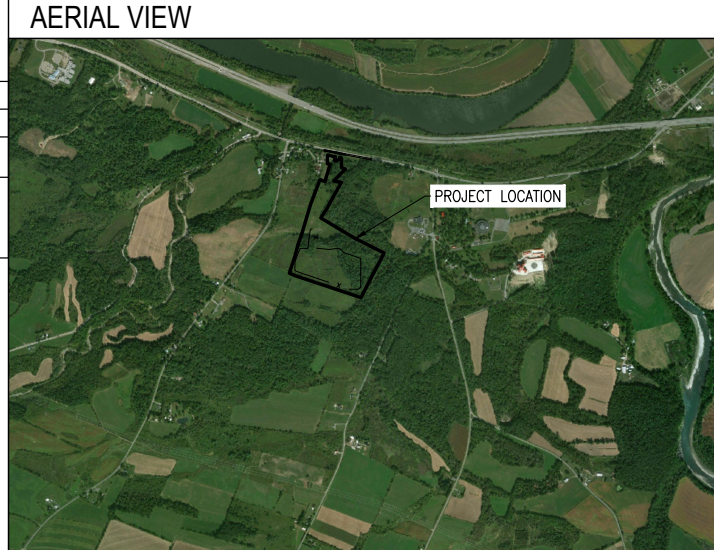
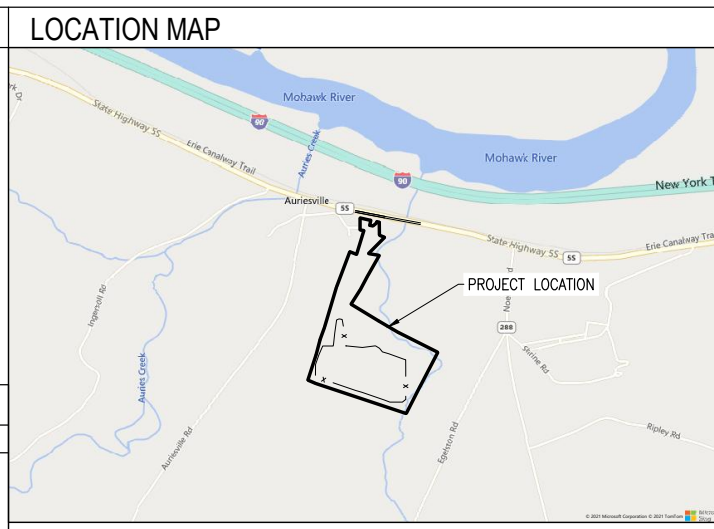
- AS CONTAINED HEREIN, "CONTRACTOR" IS ASSUMED TO BE THE EPC PROVIDER HIRED BY THE SYSTEM/PROJECT OWNER.
- WHEN THERE IS A CONFLICT BETWEEN THESE GENERAL NOTES AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
- ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING: LOCAL BUILDING CODE, LOCAL ELECTRICAL CODE, ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK AND THOSE CODES AND STANDARDS LISTED IN THESE DRAWINGS.
- THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A CONSTRUCTION LEVEL DESIGN AND ASSOCIATED DRAWINGS AND DETAILS.
- COORDINATE THESE DRAWINGS WITH SPECIFICATIONS AND MANUFACTURER INSTALLATION AND OPERATION MANUALS.
- UNLESS OTHERWISE NOTED, THE DESIGN REPRESENTED ON THESE PLANS IS BASED ON THE INFORMATION AND CRITERIA LISTED IN THE "BASIS OF DESIGN" SECTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH INFORMATION IN PREPARATION OF THE CONSTRUCTION DESIGN.
- THE EXISTING CONDITIONS REPRESENTED ON THESE PLANS ARE BASED ON PUBLICLY AVAILABLE INFORMATION AND THE SITE DISCOVERY SUMMARIZED IN THESE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF SUCH INFORMATION AND SUPPLEMENT WITH ANY ADDITIONAL REQUIRED INFORMATION.
- UNLESS INDICATED AS EXISTING (E), ALL PROPOSED MATERIALS AND EQUIPMENT SHALL BE CONSIDERED TO BE NEW.
- ALL EQUIPMENT AND COMPONENTS SHALL BE MOUNTED IN COMPLIANCE WITH THE MANUFACTURER'S REQUIREMENTS, CONSTRUCTION DETAILS, AND/OR PRUDENT INDUSTRY STANDARDS.
- TO THE EXTENT THAT TREES AND OTHER FEATURES AFFECT THE SYSTEM'S PRODUCTION, SUCH PRODUCTION MODELING IS BASED ON THE EXISTING APPROXIMATE HEIGHTS AND LOCATIONS RELATIVE TO THE SYSTEM AND MAY BE IMPACTED AS TREES GROW AND OTHER FEATURES CHANGE.

**PROJECT SCOPE**

THIS PROJECT CONSISTS OF THE INSTALLATION OF SOLAR MODULES PER THE SYSTEM DESCRIPTION, BELOW. THE MODULES WILL BE INSTALLED ON A GROUND MOUNTED RACKING SYSTEM. THE MODULES WILL BE WIRED IN SERIES STRINGS AND CONNECTED IN PARALLEL TO THE INVERTER(S), WHICH CONVERT THE PHOTOVOLTAIC OUTPUT POWER FROM DC TO AC. THE SOLAR ELECTRIC SYSTEM WILL BE INTERCONNECTED WITH THE EXISTING SITE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE APPLICABLE ELECTRICAL CODE AND NATIONAL GRID REQUIREMENTS.

**SYSTEM DESCRIPTION**

SYSTEM SIZE (DC STC)	6,234.8 KWDC	SYSTEM SIZE (AC)	5,000 KWAC
MODULES	(11440) HT-SAAE HT72-18X-545	INVERTER(S)	(40) CHINT CPS SCH125KTL-DO/US-600
STC RATING (W)	545 WDC	AZIMUTH	180°
MODULES PER STRING	26	TILT ANGLE	25°
# OF STRINGS	440	ESTIMATED FOUNDATIONS	TBD
RACKING MODEL	TERRASMART TGP2 2X12 & 2X10	RACKING QUANTITY	(465) 2x12
RACKING LEADING EDGE HEIGHT	38"		(14) 2x10



**DRAWING LIST**

SHEET NUMBER	SHEET TITLE
T-1	TITLE PAGE
<b>CIVIL</b>	
C-1.0	EXISTING CONDITIONS PLAN
C-2.0	TREE CLEARING PLAN
C-3.0	LAYOUT AND MATERIALS PLAN
C-4.0	GRADING AND EROSION CONTROL PLAN
C-5.0	CIVIL DETAILS
C-5.1	CIVIL DETAILS
C-5.2	CIVIL DETAILS
C-6.0	DRIVEWAY LAYOUT PLAN
C-6.1	DRIVEWAY GRADING & UTILITY PLAN
C-6.2	DRIVEWAY DETAILS (1 OF 2)
C-6.3	DRIVEWAY DETAILS (2 OF 2)
<b>WATERSHED</b>	
W-1.0	PRE-DEVELOPMENT WATERSHED PLAN
W-2.0	POST-DEVELOPMENT WATERSHED PLAN
W-2.1	POST-DEVELOPMENT CATTLE GUARD SIZING
<b>ELECTRICAL</b>	
E-6.0	PLACARDS

**APPLICABLE CODES AND STANDARDS**

2017 NATIONAL ELECTRICAL CODE  
2020 BUILDING CODE OF NEW YORK STATE  
UL-1703 - SOLAR MODULES  
UL-1741 - INVERTERS, COMBINER BOXES  
UL-2703 - RACKING MOUNTING SYSTEMS AND CLAMPING DEVICES FOR PV MODULES

**PROJECT DIRECTORY**

**LAND OWNER / HOST**  
JEFFREY A. LANFEAR  
3427 STATE HIGHWAY 30A  
FULTONVILLE, NY, 12072  
518-527-0373

**AUTHORITY HAVING JURISDICTION**  
TOWN OF GLEN  
7 ERIE STREET  
FULTONVILLE NY 12072

**UTILITY**  
NATIONAL GRID

**CIVIL ENGINEER**  
FIRM: BORREGO SOLAR SYSTEMS, INC  
CONTACT: GREGORY GIBBONS, P.E.  
PHONE: 315-378-9567

**ELECTRICAL ENGINEER**  
FIRM: BORREGO SOLAR SYSTEMS, INC  
CONTACT: AHARON WRIGHT, P.E.  
PHONE: 978-221-3081

**DESIGN ENGINEER**  
FIRM: BORREGO SOLAR SYSTEMS, INC  
CONTACT: STEVEN RIGGALL  
PHONE: 518-309-7837

**GENERAL ABBREVIATIONS**

(E) EXISTING	NS NORTH-SOUTH
AHJ AUTHORITY HAVING JURISDICTION	NTS NOT TO SCALE
AL ALUMINUM	OAE OR APPROVED EQUAL
APPROX APPROXIMATE	OC ON CENTER
ARY ARRAY	OD OUTSIDE DIAMETER
BLDG BUILDING	ODFCI OWNER FURNISHED CONTRACTOR INSTALLED
BSS BORREGO SOLAR SYSTEM	PV PHOTOVOLTAIC
CL CENTERLINE	PVC POLY VINYL CHLORIDE
DAS DATA ACQUISITION SYSTEM	SCH SCHEDULE
DIA DIAMETER	SS STAINLESS STEEL
DO DITTO	SSS SOLAR SUPPORT STRUCTURE
EW EAST-WEST	STC STANDARD TEST CONDITIONS
FBO FURNISHED BY OTHERS	TBD TO BE DETERMINED
FF FORWARD FACING	TP TAMPER PROOF
GALV GALVANIZED	TYP TYPICAL
HDC HOT DIP GALVANIZED	UON UNLESS OTHERWISE NOTED
HVAC HEATING VENTILATION AND AIR CONDITIONING	VIF VERIFY IN FIELD
ID INSIDE DIAMETER	WP WEATHER PROOF
MFR MANUFACTURER	
MOD SOLAR MODULE	

REV 1.0

**BASIS OF DESIGN**

**BOUNDARY & TOPOGRAPHIC SURVEY:**  
PERFORMED BY LAWSON SURVEYING & MAPPING ON JANUARY 15, 2021

**WETLAND STREAM AND DELINEATION REPORT:**  
PERFORMED BY SHUMAKER CONSULTING ENGINEERING & LAND SURVEYING, D.P.C. ON OCTOBER 27, 2020

**GEOTECHNICAL REPORT:**  
TBD

**APPLICABLE BUILDING CODE:**  
2020 BUILDING CODE OF NEW YORK STATE

**RISK CATEGORY:** I

**WIND CRITERIA:**  
EXPOSURE CATEGORY: C  
WIND SPEED (V): 101 MPH  
TOPOGRAPHIC FACTORY (K<sub>zt</sub>): 1.0

**SNOW CRITERIA:**  
GROUND SNOW (P<sub>g</sub>): 50 PSF  
MIN. FLAT ROOF SNOW (P<sub>l,min</sub>): 0 PSF  
EXPOSURE FACTOR (C<sub>e</sub>): 1.0

**SEISMIC CRITERIA**  
SITE CLASS: D  
S<sub>s</sub>: 0.216  
S<sub>i</sub>: 0.062  
S<sub>ps</sub>: 0.23  
S<sub>p</sub>: 0.1

BIDSET  
2621 STATE HIGHWAY 5S SOLAR PROJECT  
2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:  
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
06/10/21	DC	GG	GG	PLANNING BOARD SUBMISSION
06/17/21	DC	GG	GG	FOR SHUMAKER
02/07/22	DC	GG	GG	NSDOT REVISIONS
04/13/22	GG	WS	GG	GRADING AND TREE CLEARING REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" x 36"

**T-1**  
TITLE PAGE

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**2621 STATE HIGHWAY 5S SOLAR PROJECT**  
**2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072**

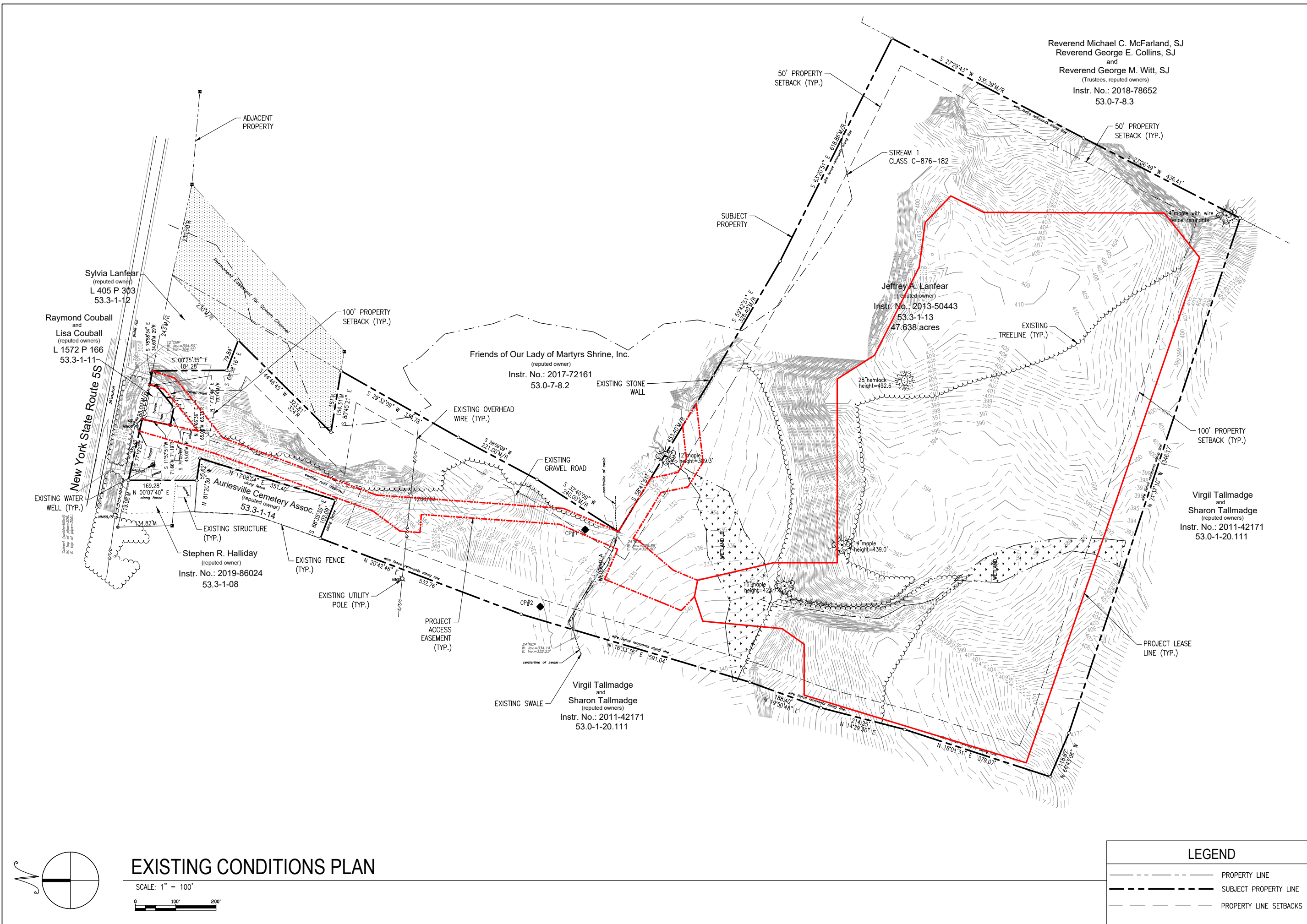
PROJECT NUMBER:  
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/10/21	DC	GG	PLANNING BOARD SUBMISSION
	06/17/21	DC	GG	FOR SHUMAKER
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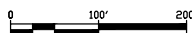
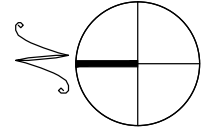
**C-1.0**  
EXISTING CONDITIONS PLAN

Reverend Michael C. McFarland, SJ  
Reverend George E. Collins, SJ  
and  
Reverend George M. Witt, SJ  
(Trustees, reputed owners)  
Instr. No.: 2018-78652  
53.0-7-8.3






**EXISTING CONDITIONS PLAN**

SCALE: 1" = 100'

**LEGEND**

-  PROPERTY LINE
-  SUBJECT PROPERTY LINE
-  PROPERTY LINE SETBACKS

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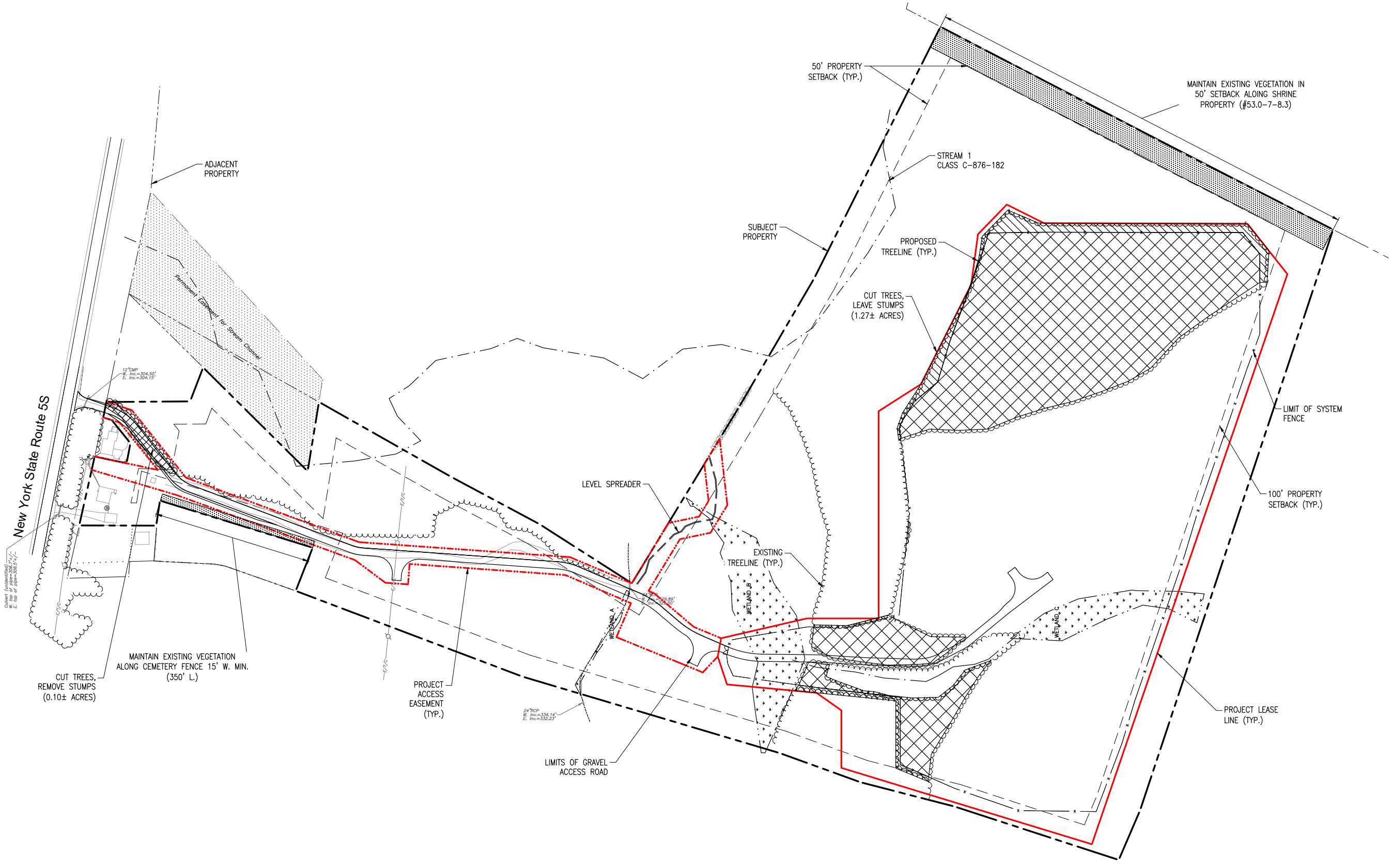
**BIDSET**  
 2621 STATE HIGHWAY 5S SOLAR PROJECT  
 2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:  
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/10/21	DC	GG	PLANNING BOARD SUBMISSION
	06/17/21	DC	GG	FOR SHUMAKER
	02/07/22	DC	GG	NSDOT REVISIONS
	04/13/22	GG	WS	GRADING AND TREE CLEARING REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

**C-2.0**  
TREE CLEARING PLAN

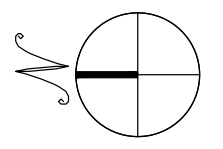


TREE CUTTING ONLY = 0.57 ACRES  
 TREE CUTTING AND STUMPING = 6.09 ACRES  
 TOTAL = 6.66 ACRES

LEGEND	
---	PROPERTY LINE
---	SUBJECT PROPERTY LINE
---	PROPERTY LINE SETBACKS
▨	TREE CUTTING ONLY
▩	TREE CUTTING AND STUMPING

# TREE CLEARING PLAN

SCALE: 1" = 100'



### SEEDING SPECIFICATIONS

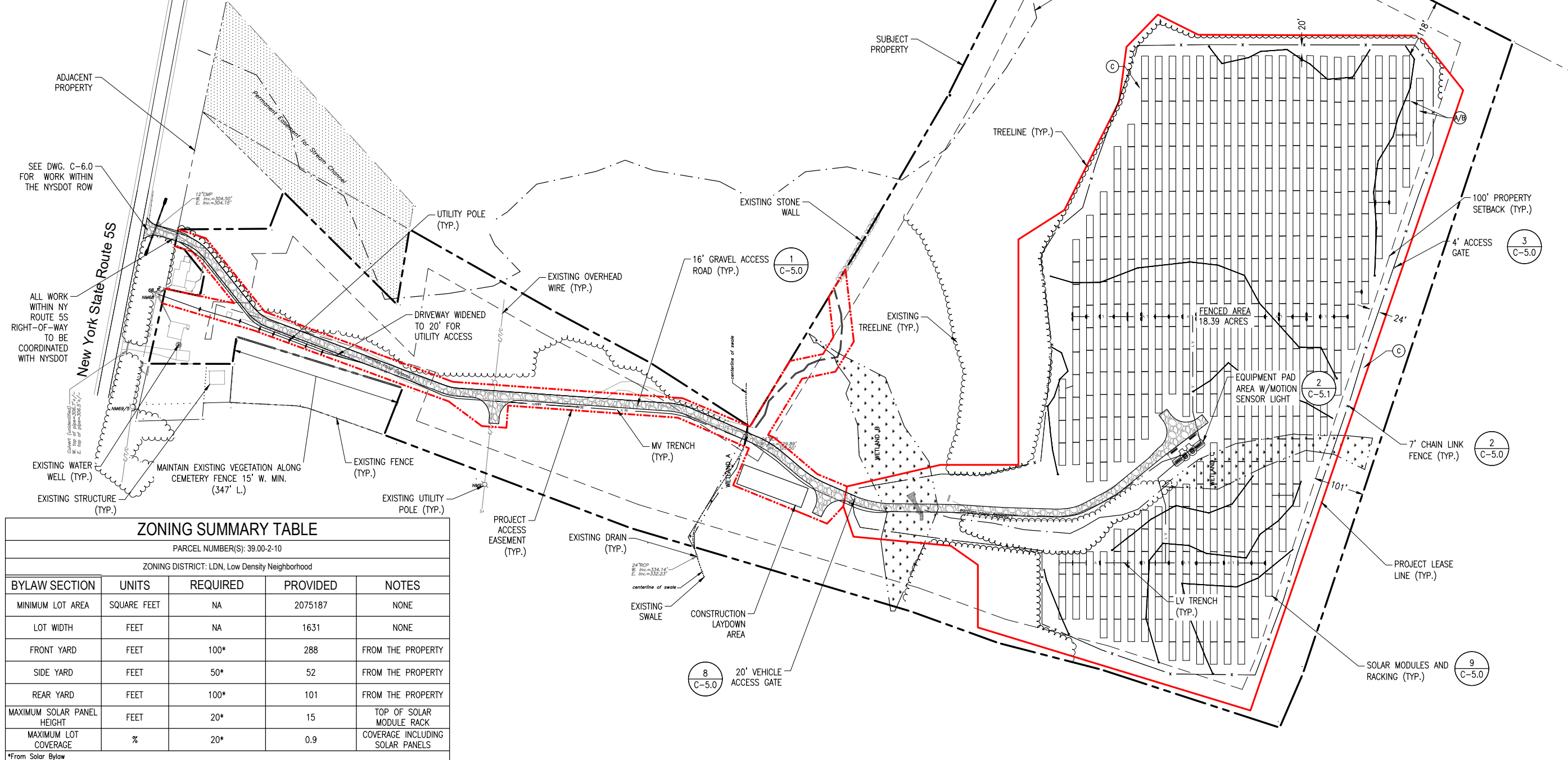
LOCATION	NAME/SPECIES	SUPPLIER	SEEDING RATE
A/B	BETWEEN AND UNDER SOLAR PANELS REBEL TALL FESCUE, CHEWINGS FESCUE OR HARD FESCUE ERNMX-129: CONSERVATION SHADE MIX	SEEDLAND.COM ERNST	5 lbs./1,000 SF
C	OUTSIDE OF FENCE ERNMX-179: BUTTERFLY & HUMMINGBIRD GARDEN MIX	ERNST	30 lbs./ACRE
D	SEE NOTE 4 GEOPERM BONDED FIBER MATRIX WITH TYPE A/B SEED	HYDROGRASS	6 LB./1,000 SF

1. BETWEEN DECEMBER 1ST AND APRIL 1ST, EACH TYPE OF SEED SHALL HAVE AN ADDITIONAL 1#/1,000 SF OF WINTER RYEGRASS OR GRAIN RYE GRASS SEED.

2. IT SHALL BE THE SUB-CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE PROJECT LIMIT OF WORK IS STABILIZED (IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS/REQUIREMENTS/PERMIT APPROVALS) DURING THE LENGTH OF THE PROJECT.

3. ALL DISTURBED AREAS SHALL BE RESTORED WITH 4" MINIMUM TOPSOIL & SEED PER SEEDING SPECIFICATIONS LISTED IN THIS TABLE.

4. ON SEEDED SLOPES OVER 20% THE CONTRACTOR SHALL ADD GEOPERM BONDED FIBER MATRIX TO TYPE A, B AND C SEED MIXES (6 LB./1000 SF)



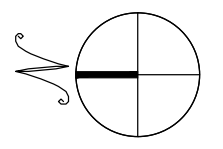
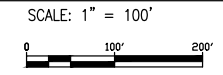
### ZONING SUMMARY TABLE

PARCEL NUMBER(S): 39.00-2-10  
ZONING DISTRICT: LDN, Low Density Neighborhood

BYLAW SECTION	UNITS	REQUIRED	PROVIDED	NOTES
MINIMUM LOT AREA	SQUARE FEET	NA	2075187	NONE
LOT WIDTH	FEET	NA	1631	NONE
FRONT YARD	FEET	100*	288	FROM THE PROPERTY
SIDE YARD	FEET	50*	52	FROM THE PROPERTY
REAR YARD	FEET	100*	101	FROM THE PROPERTY
MAXIMUM SOLAR PANEL HEIGHT	FEET	20*	15	TOP OF SOLAR MODULE RACK
MAXIMUM LOT COVERAGE	%	20*	0.9	COVERAGE INCLUDING SOLAR PANELS

\*From Solar Bylaw

### LAYOUT AND MATERIALS PLAN



### LEGEND

	PROPERTY LINE
	SUBJECT PROPERTY LINE
	PROPERTY LINE SETBACKS

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**BIDSET**  
**2621 STATE HIGHWAY 5S SOLAR PROJECT**  
**2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072**

PROJECT NUMBER: 108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
06/10/21	DC	GG	GG	PLANNING BOARD SUBMISSION
06/17/21	DC	GG	GG	FOR SHUMAKER
02/07/22	DC	GG	GG	NYSDOT REVISIONS
04/13/22	GG	WS	WS	GRADING AND TREE CLEARING REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

**C-3.0**  
LAYOUT AND MATERIALS PLAN

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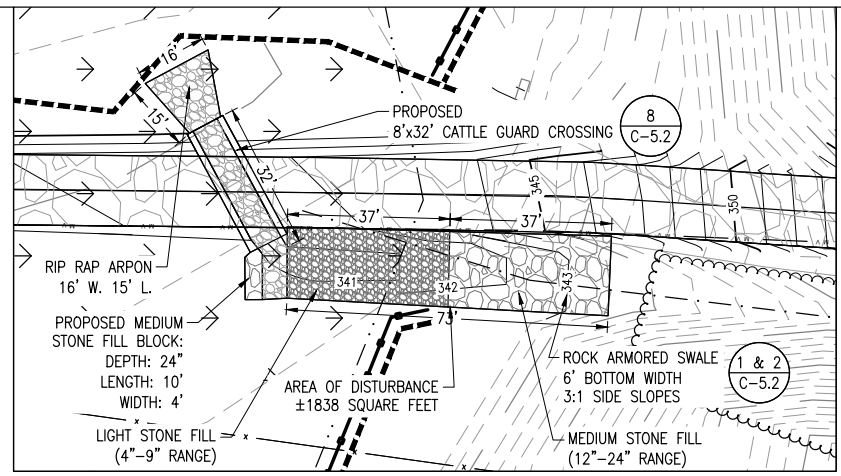
**BIDSET**  
 2621 STATE HIGHWAY 5S SOLAR PROJECT  
 2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:  
 108-4862

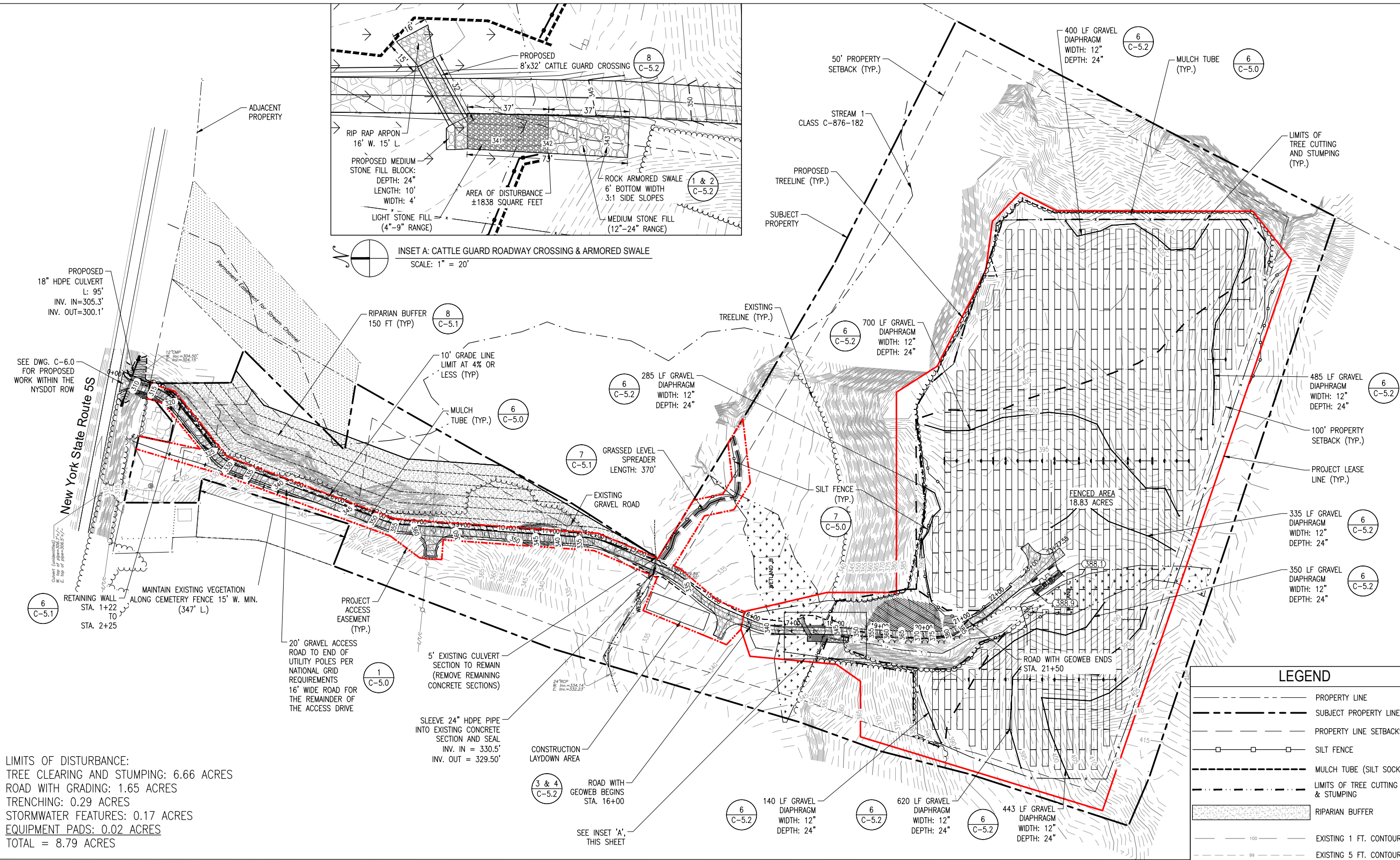
REV	DATE	DESCRIPTION	BY	CHECKED	RELEASE LEVEL
06/10/21	DC	PLANNING BOARD SUBMISSION	GG	GG	
06/17/21	DC	FOR SHUMAKER	GG	GG	
02/07/22	DC	NYSDOT REVISIONS	GG	GG	
04/13/22	GG	GRADING AND TREE CLEARING REVISIONS	GG	WS	

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" x 36"

**C-4.0**  
 GRADING AND EROSION CONTROL PLAN



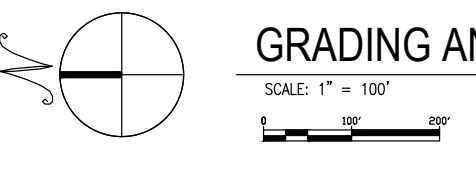
INSET A: CATTLE GUARD ROADWAY CROSSING & ARMORED SWALE  
 SCALE: 1" = 20'



LIMITS OF DISTURBANCE:  
 TREE CLEARING AND STUMPING: 6.66 ACRES  
 ROAD WITH GRADING: 1.65 ACRES  
 TRENCHING: 0.29 ACRES  
 STORMWATER FEATURES: 0.17 ACRES  
 EQUIPMENT PADS: 0.02 ACRES  
 TOTAL = 8.79 ACRES

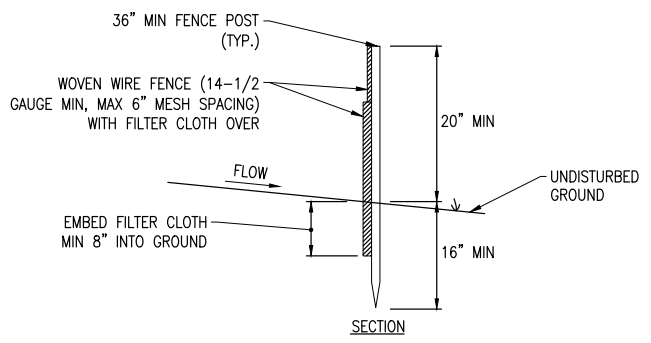
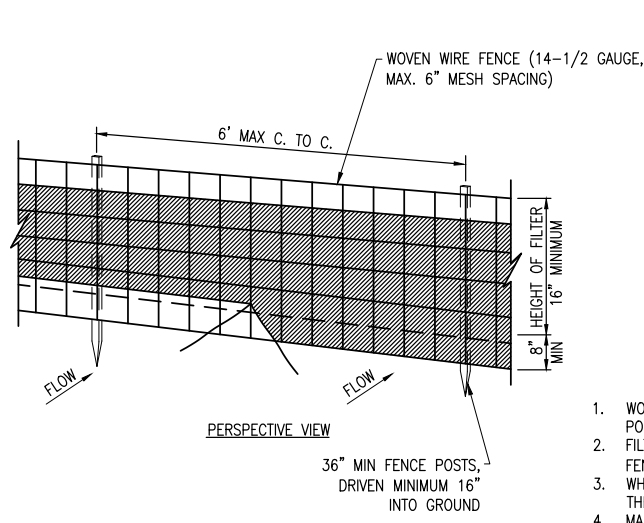
**LEGEND**

	PROPERTY LINE
	SUBJECT PROPERTY LINE
	PROPERTY LINE SETBACKS
	SILT FENCE
	MULCH TUBE (SILT SOCK)
	LIMITS OF TREE CUTTING & STUMPING
	RIPARIAN BUFFER
	EXISTING 1 FT. CONTOUR
	EXISTING 5 FT. CONTOUR
	PROPOSED 1 FT. CONTOUR
	PROPOSED 5 FT. CONTOUR
	TREELINE
	LV TRENCH
	MV TRENCH
	DRAIN CULVERT
	STATION

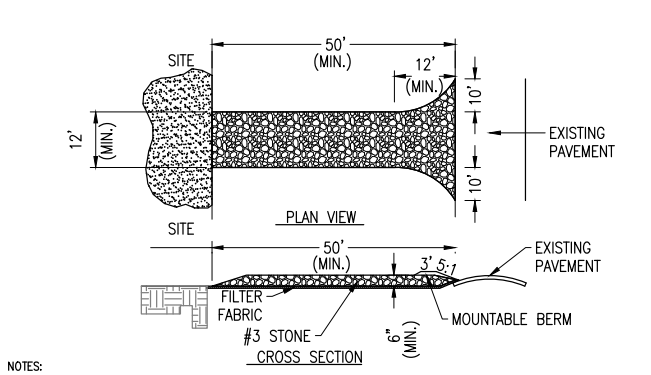


**GRADING AND EROSION CONTROL PLAN**

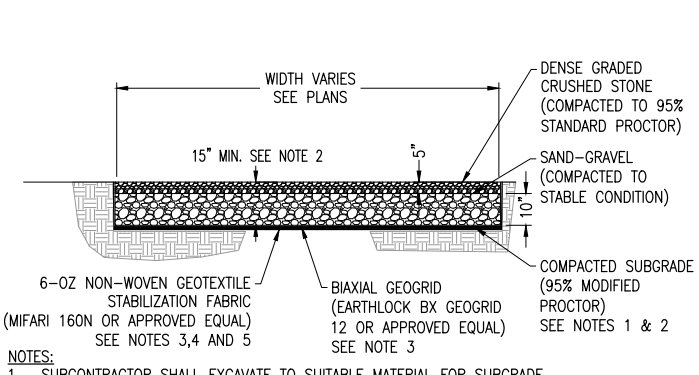
SCALE: 1" = 100'



- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
  - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.
- POSTS: STEEL, EITHER T OR U TYPE OR 2" HARDWOOD FENCE: WOVEN WIRE, 14 GAUGE 6" MAX. MESH OPENING  
 FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL  
 PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL



- NOTES:**
- STONE SIZE - USE NYSDOT 703-0201 SIZE DESIGNATION #3 STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
  - LENGTH - NOT LESS THAN 50 FEET.
  - THICKNESS - NOT LESS THAN 6 INCHES.
  - WIDTH - NOT LESS THAN 12 FEET WHERE MORE THAN ONE (1) ACCESS POINT TO THE SITE. WHERE ONE (1) ACCESS POINT A MINIMUM OF 24 FEET IS REQUIRED.
  - GEOTEXTILE - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
  - SURFACE WATER - SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
  - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
  - WHEN WHEEL WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
  - PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

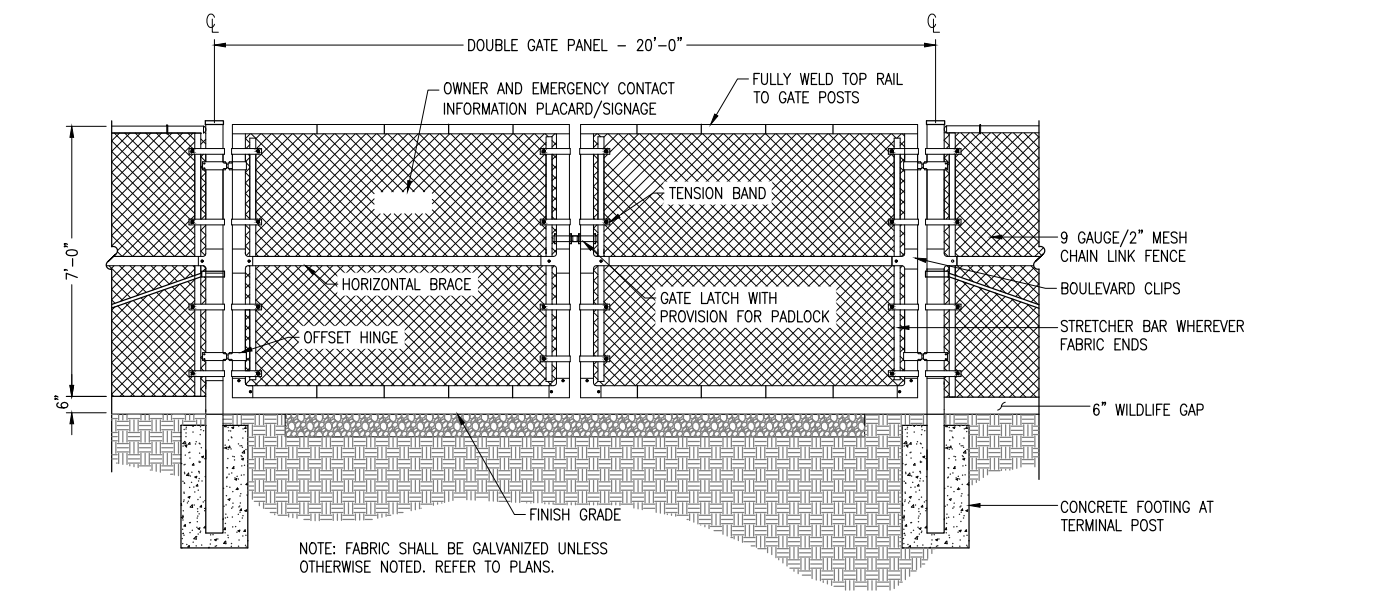


- NOTES:**
- SUBCONTRACTOR SHALL EXCAVATE TO SUITABLE MATERIAL FOR SUBGRADE.
  - SUBCONTRACTOR SHALL COMPACT SUBGRADE TO PROVIDE SUITABLE SURFACE TO PLACE ROAD. REFER TO GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION CRITERIA.
  - SUBCONTRACTOR SHALL FOLLOW MANUFACTURER INSTALLATION PROCEDURES.
  - WHERE OVERLAPPING OF GEOTEXTILE FABRIC IS REQUIRED, SUBCONTRACTOR SHALL OVERLAP A MINIMUM OF 24".
  - SUBCONTRACTOR SHALL REMOVE TEMPORARY CONSTRUCTION ACCESS ROADS, AND RESTORE TO PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CEOR AND THE GOVERNING AGENCIES.
  - SUBCONTRACTOR SHALL INSTALL CONDUITS FOR ALL ELECTRICAL CONDUIT CROSSINGS PRIOR TO INSTALLATION OF THE GEOGRID MATERIAL. THE GEOGRID SHALL NOT BE HORIZONTALLY CUT ONCE INSTALLED.

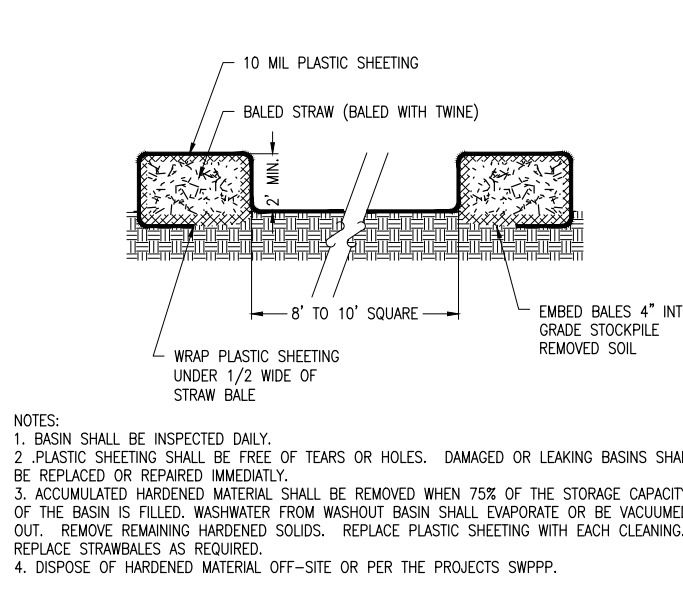
**7 SILT FENCE DETAIL**

**4 STABILIZED CONSTRUCTION EXIT**

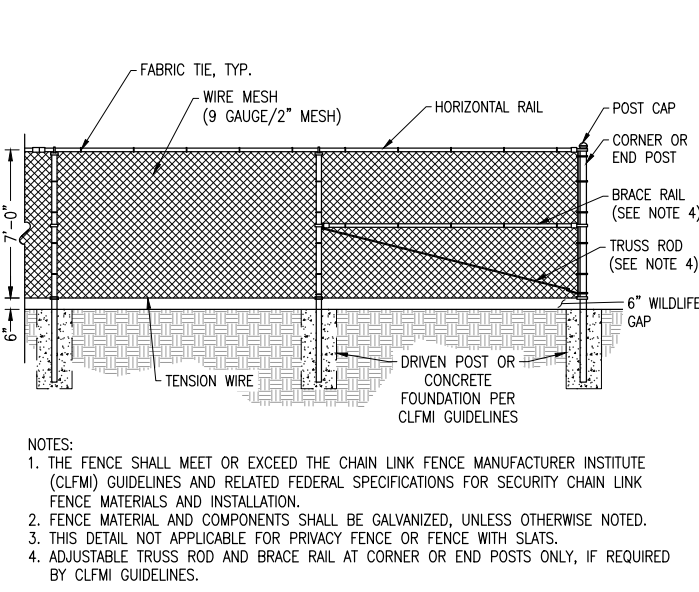
**1 GRAVEL ACCESS ROAD**



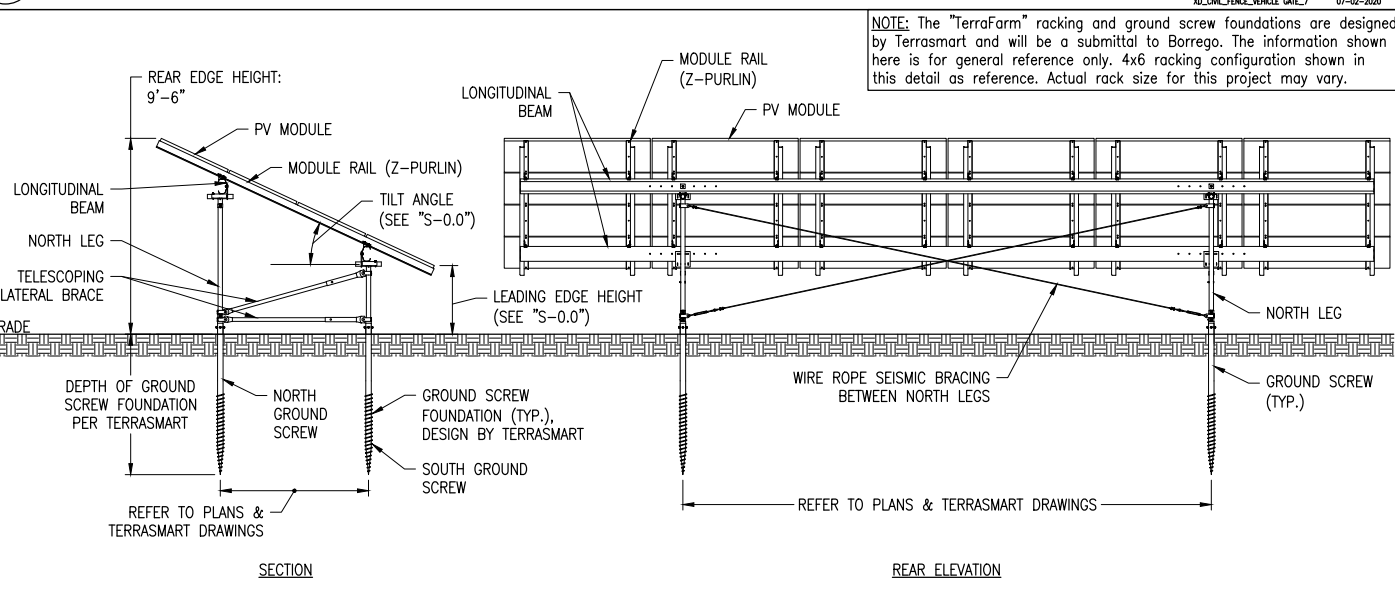
**8 VEHICLE GATE WITH WILDLIFE GAP**



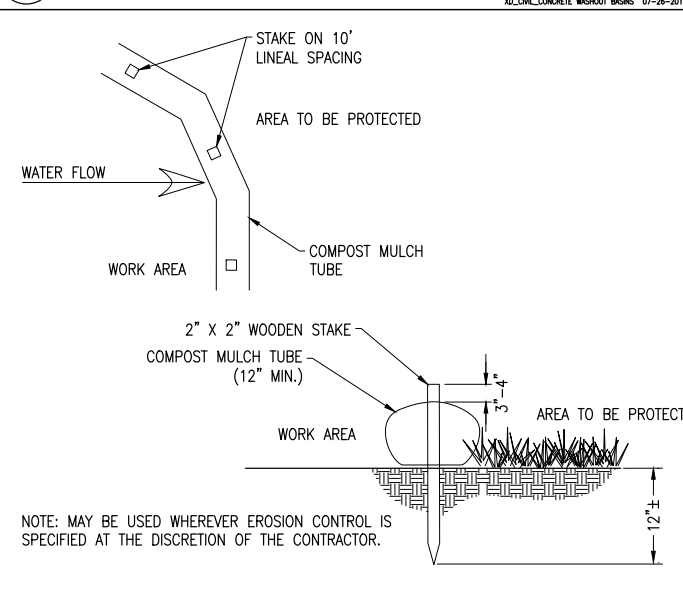
**5 CONCRETE WASHOUT BASINS**



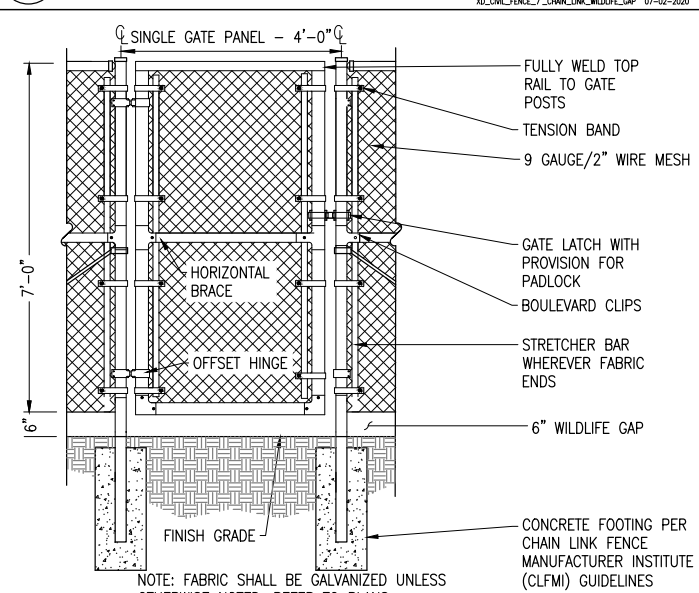
**2 CHAIN LINK FENCE WITH WILDLIFE GAP**



**9 TYPICAL RACK SECTION & REAR ELEVATION**



**6 MULCH TUBE**



**3 4' ACCESS GATE WITH WILDLIFE GAP**

NOT FOR CONSTRUCTION

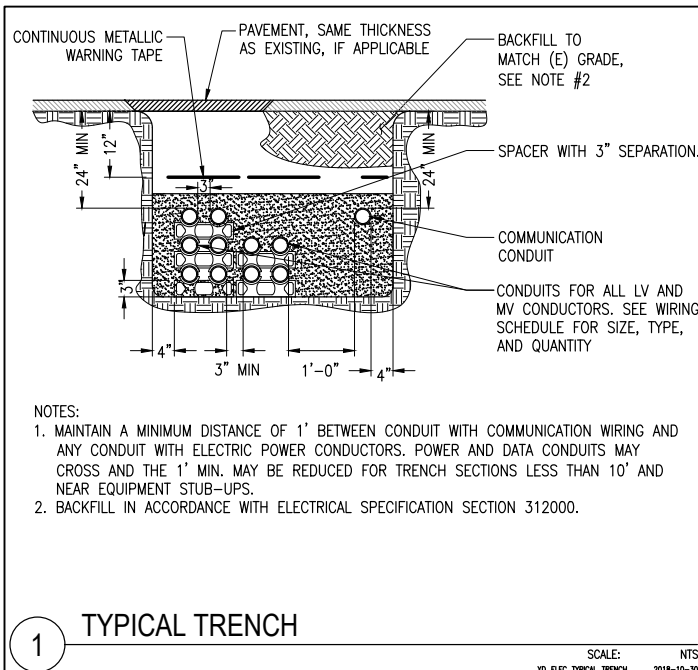
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BIDSET  
 2621 STATE HIGHWAY 5S SOLAR PROJECT  
 2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER: 108-4862

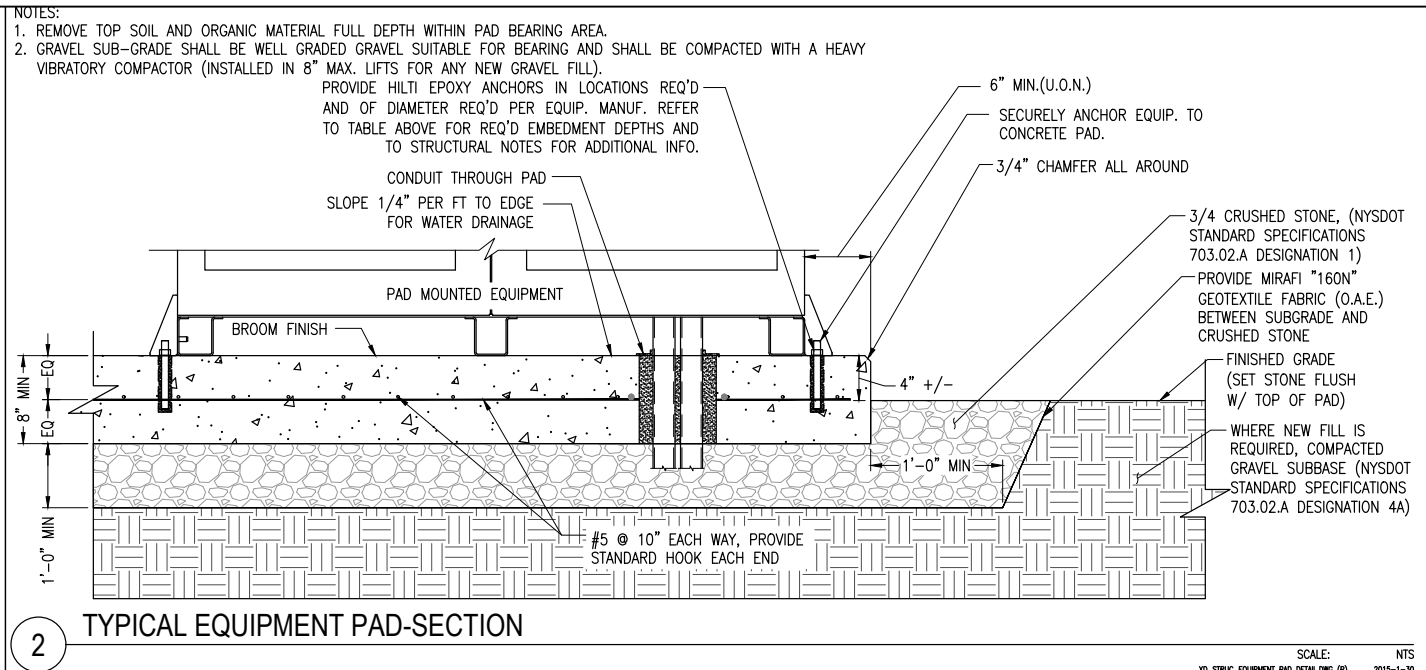
REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
06/10/21	DC	GG	GG	PLANNING BOARD SUBMISSION
06/17/21	DC	GG	GG	FOR SHUMAKER
02/07/22	DC	GG	GG	REVISIONS
04/13/22	GG	WS	WS	NSDOT REVISIONS GRADING AND TREE CLEARING REVISIONS

SOLES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"



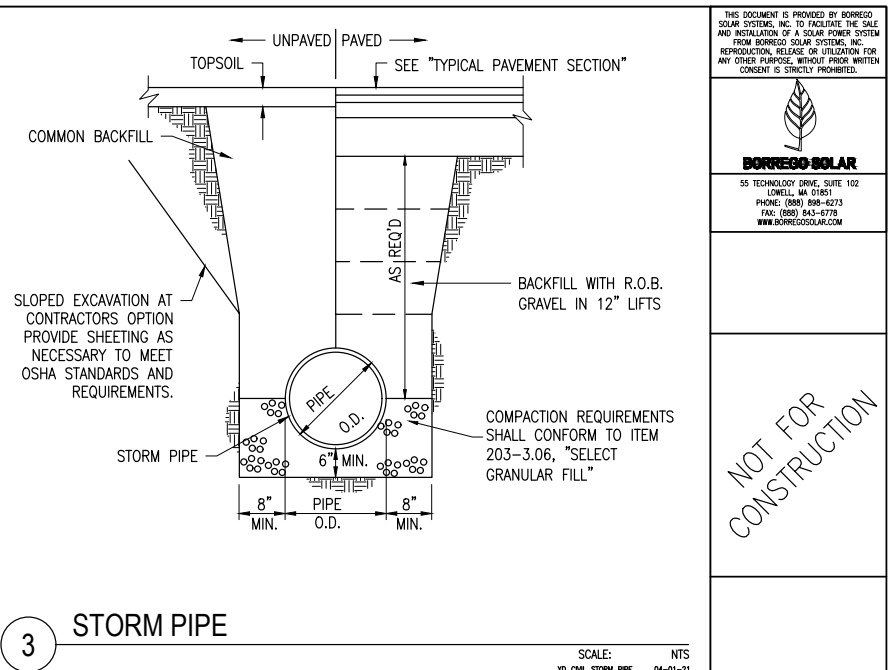
1 TYPICAL TRENCH

SCALE: NTS  
XD\_ELEC\_TYPICAL\_TRENCH 2018-10-30



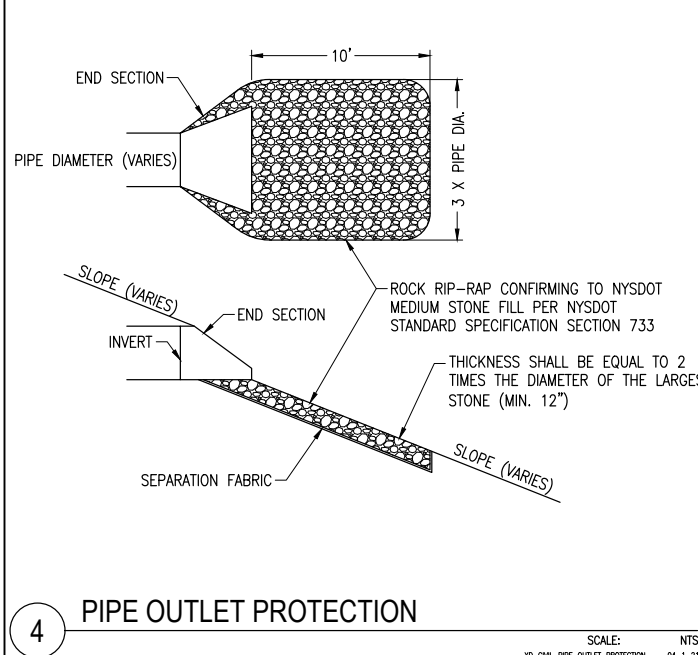
2 TYPICAL EQUIPMENT PAD-SECTION

SCALE: NTS  
XD\_STRUCT\_EQUIPMENT\_PAD\_DET.DWG (P) 2015-1-30



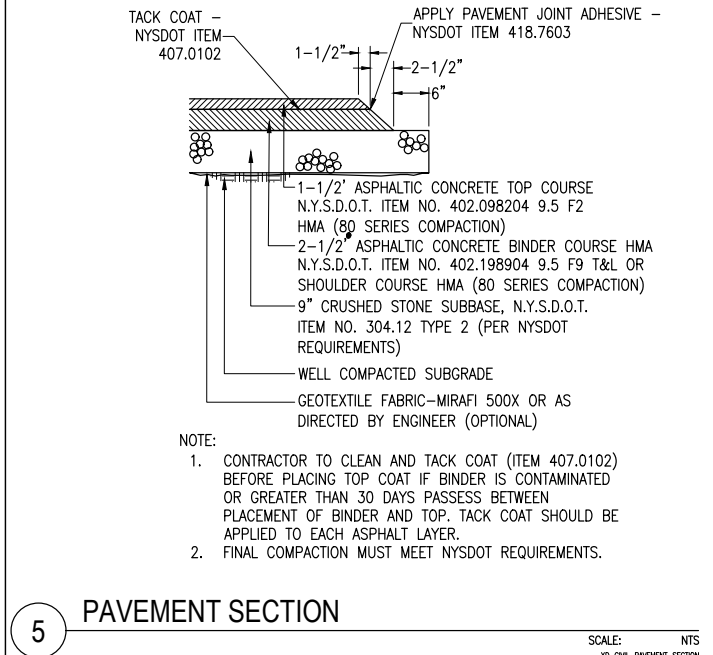
3 STORM PIPE

SCALE: NTS  
XD\_CML\_STORM\_PIPE 04-01-21



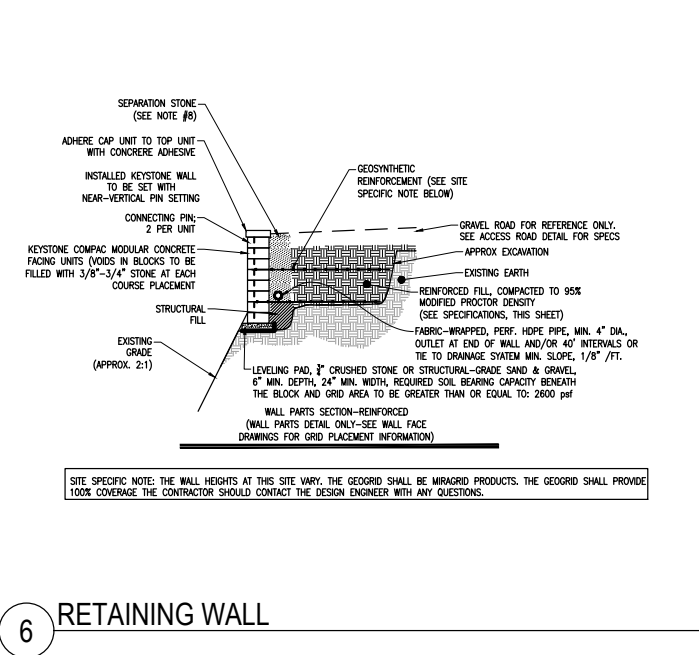
4 PIPE OUTLET PROTECTION

SCALE: NTS  
XD\_CML\_PIPE\_OUTLET\_PROTECTION 04-1-21



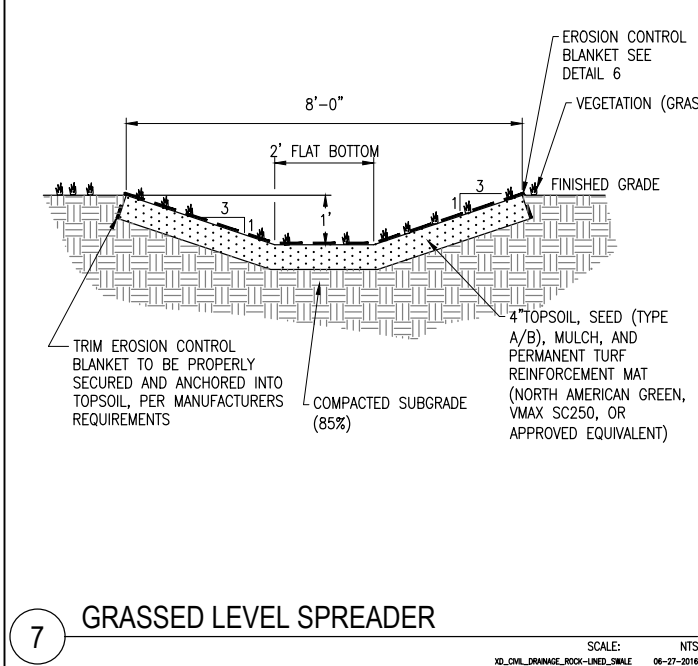
5 PAVEMENT SECTION

SCALE: NTS  
XD\_CML\_PAVEMENT\_SECTION



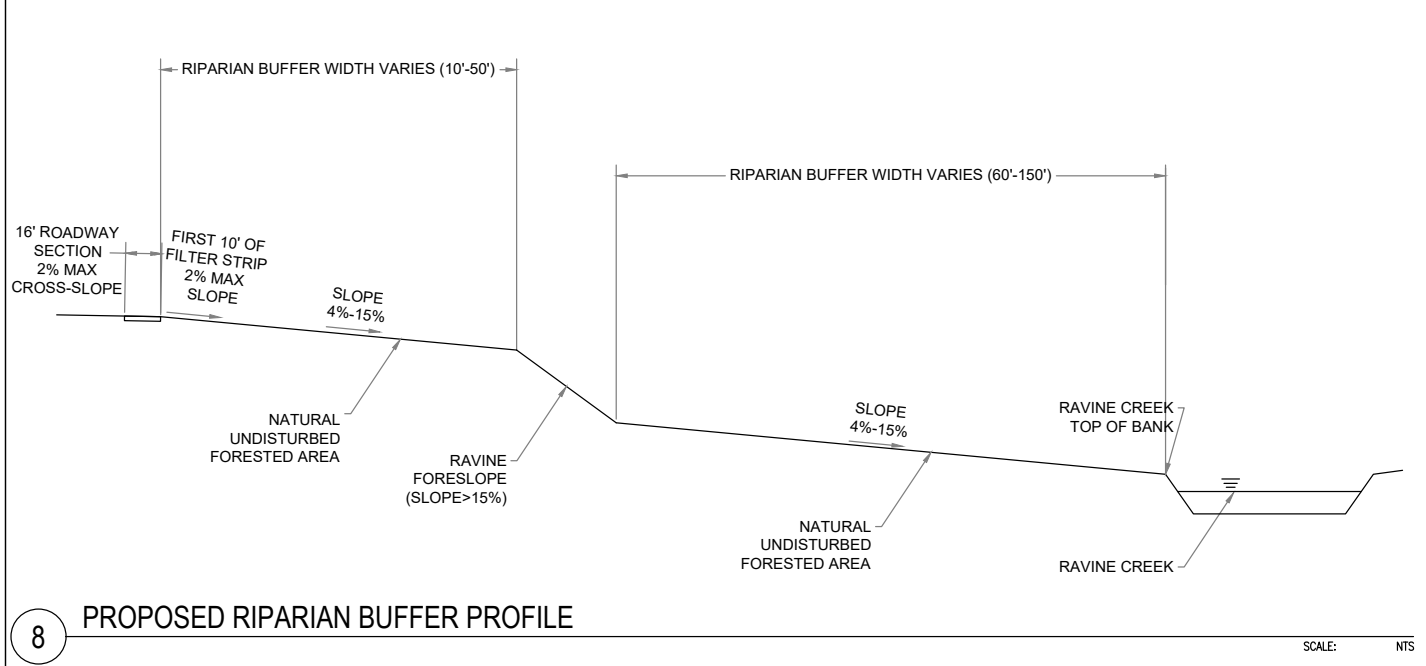
6 RETAINING WALL

SCALE: NTS



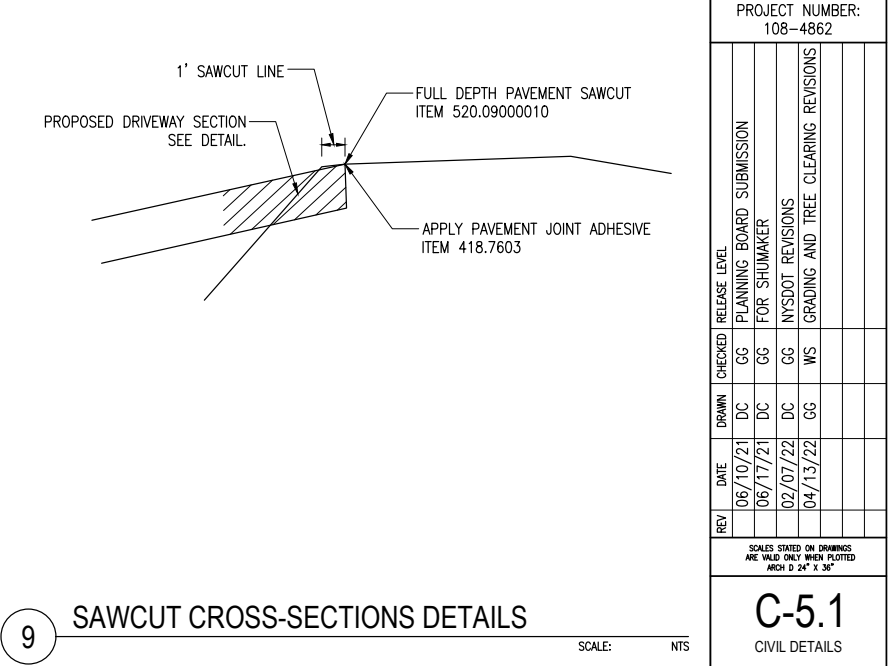
7 GRASSED LEVEL SPREADER

SCALE: NTS  
XD\_CML\_DRAINAGE\_ROCK-LINED\_SWALE 06-27-2016



8 PROPOSED RIPARIAN BUFFER PROFILE

SCALE: NTS



9 SAWCUT CROSS-SECTIONS DETAILS

SCALE: NTS

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55 TECHNOLOGY DRIVE, SUITE 102  
LOWELL, MA 01851  
PHONE: (978) 838-4273  
FAX: (978) 843-6778  
WWW.BORREROSOLAR.COM

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2621 STATE HIGHWAY 5S SOLAR PROJECT  
2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:  
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
06/10/21	DC	GG	GG	PLANNING BOARD SUBMISSION
06/17/21	DC	GG	GG	FOR SHUMAKER
02/07/22	DC	GG	GG	NYS DOT REVISIONS
04/13/22	GG	WS	WS	GRADING AND TREE CLEARING REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-5.1  
CIVIL DETAILS

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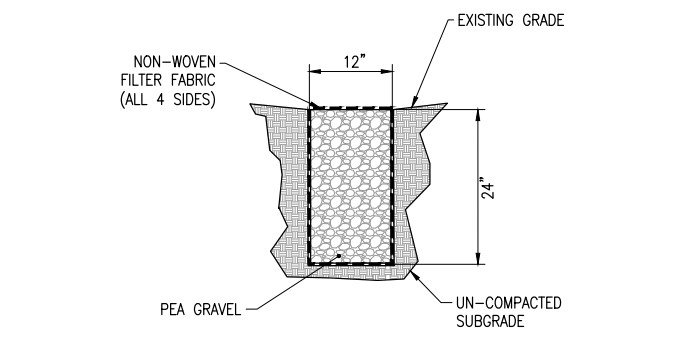
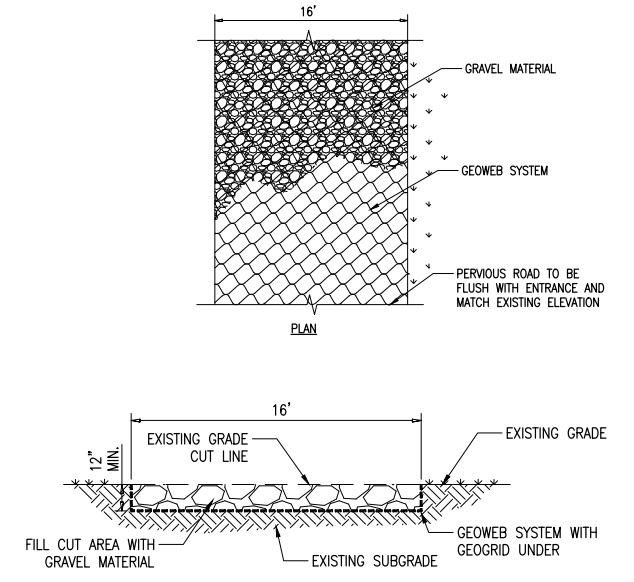
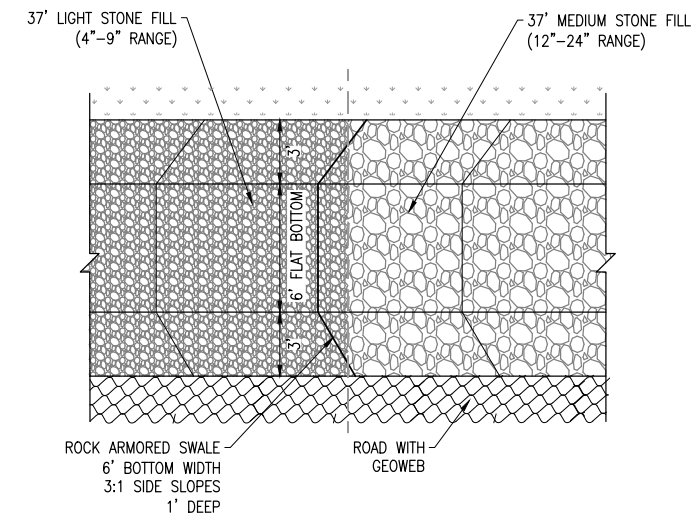
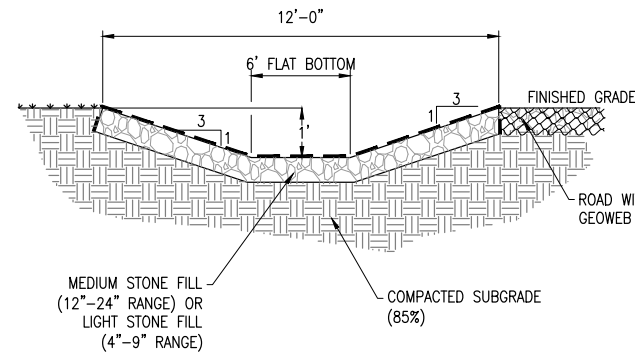
BIDSET  
2621 STATE HIGHWAY 5S SOLAR PROJECT  
2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

PROJECT NUMBER:  
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
06/10/21	DC	GG	GG	PLANNING BOARD SUBMISSION
06/17/21	DC	GG	GG	FOR SHUWAKER
02/07/22	DC	GG	GG	REVISIONS
04/13/22	GG	WS	WS	GRADING AND TREE CLEARING REVISIONS

SCALE: NTS  
X0\_CIVIL\_CATTLEGUARD\_NY  
2022-02-05

C-5.2  
CIVIL DETAILS



1 ROCK ARMORED SWALE SECTION VIEW

2 ROCK ARMORED SWALE PLAN VIEW

3 NYSDEC LIMITED USE PERVIOUS ACCESS ROAD W/GEOWEB

7 GRAVEL DIAPHRAGM

SCALE: NTS  
X0\_CIVIL\_ROCK ARMORED SWALE\_SECTION VIEW  
06-27-2016

SCALE: NTS  
X0\_CIVIL\_ROCK ARMORED SWALE\_PLAN VIEW  
06-27-2016

SCALE: NTS

SCALE: NTS  
X0\_CIVIL\_DIAG\_EDGE\_TRENCH  
02-16-2018

MATERIAL NOTES:

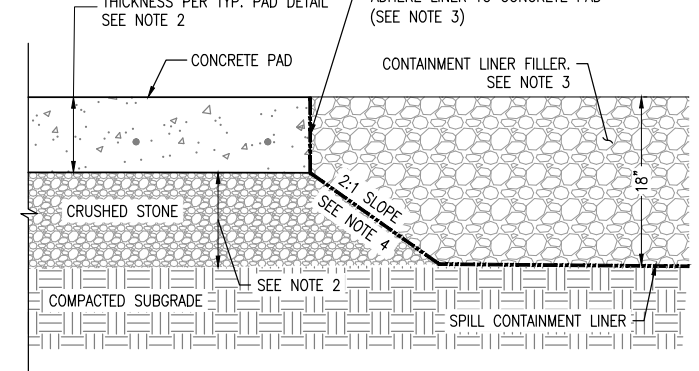
1. THE GEOGRID, OR COMPARABLE PRODUCT, IS INTENDED FOR USE FOR ALL CONDITIONS, IN ORDER TO ASSIST IN MATERIAL SEPARATION FROM NATIVE SOILS AND PRESERVE ACCESS LOADS.
2. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02. SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
3. GEOGRID SHALL BE MIRAFI BXG110 OR APPROVED EQUAL. GEOGRID SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
4. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF SIX INCHES.
5. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.

WOVEN GEOTEXTILE MATERIAL NOTES:

1. SPECIFIED GEOTEXTILE WILL ONLY BE UTILIZED IN PLACID SOILS. PLACID SOILS CONSIST OF POORLY DRAINED SOILS COMPOSED OF FINELY TEXTURED PARTICLES AND ARE PRONE TO RUTTING. PLACID SOILS ARE TYPICALLY PRESENT IN LOW-LYING AREAS WITH HYDROLOGIC SOILS GROUP (HSG) OF C OR D, OR AS SPECIFIED FROM AN ENVIRONMENTAL SCIENTIST, SOIL SCIENTIST, OR GEOTECHNICAL DATA.
2. THE CONCERN FOR POTENTIAL REDUCTION OF NATIVE INFILTRATION RATES DUE TO THE GEOTEXTILE MATERIAL WOULD NOT BE A SIGNIFICANT CONCERN IN POORLY DRAINED SOILS WHERE SEGREGATION OF PERVIOUS STONE AND NATIVE MATERIALS IS CRUCIAL FOR LONG TERM OPERATION AND MAINTENANCE.

BASIS OF DESIGN: TENCATE MIRAFI RS#--- SERIES WOVEN GEOSYNTHETICS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, CA; 800--685--9990 OR 706--693--2226; WWW.MIRAFI.COM

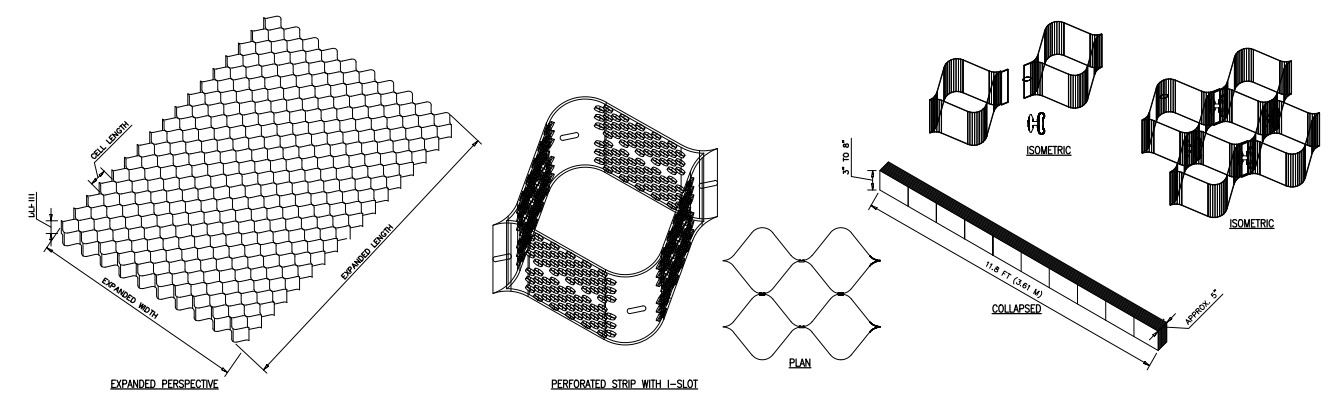
SECONDARY CONTAINMENT IS ONE METHOD FOR COMPLIANCE WITH SPCC REGULATIONS (40 CFR PART 112). ALTERNATIVE MEASURES AND SELF-CERTIFICATION OF THE SPCC PLAN MAY BE AVAILABLE UNDER SECTION 112.7(k).



- NOTES:
1. THIS DETAIL APPLICABLE AT EQUIPMENT PADS WITH SPILL CONTAINMENT ONLY.
  2. REFER TO CONCRETE EQUIPMENT PAD SECTION FOR ADDITIONAL INFORMATION.
  3. REFER TO SPILL CONTAINMENT DETAIL(S) ON DRAWINGS BY OTHERS FOR ADDITIONAL INFORMATION.
  4. EXCAVATE OUT FROM THE CONCRETE PAD AT A 2:1 (HORIZONTAL TO VERTICAL) SLOPE TO AVOID UNDERMINING EQUIPMENT PAD.

6 SECONDARY SPILL CONTAINMENT LINER

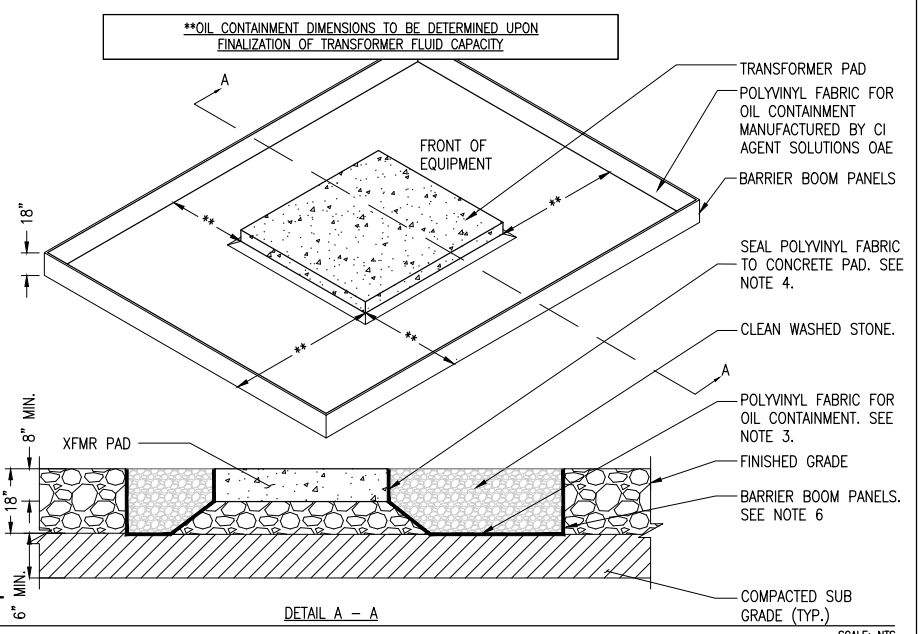
SCALE: NTS  
X0\_STRUCT\_EQUIPMENT PAD SPILL CONTAINMENT  
2019-12-13



4 GEOWEB SYSTEM

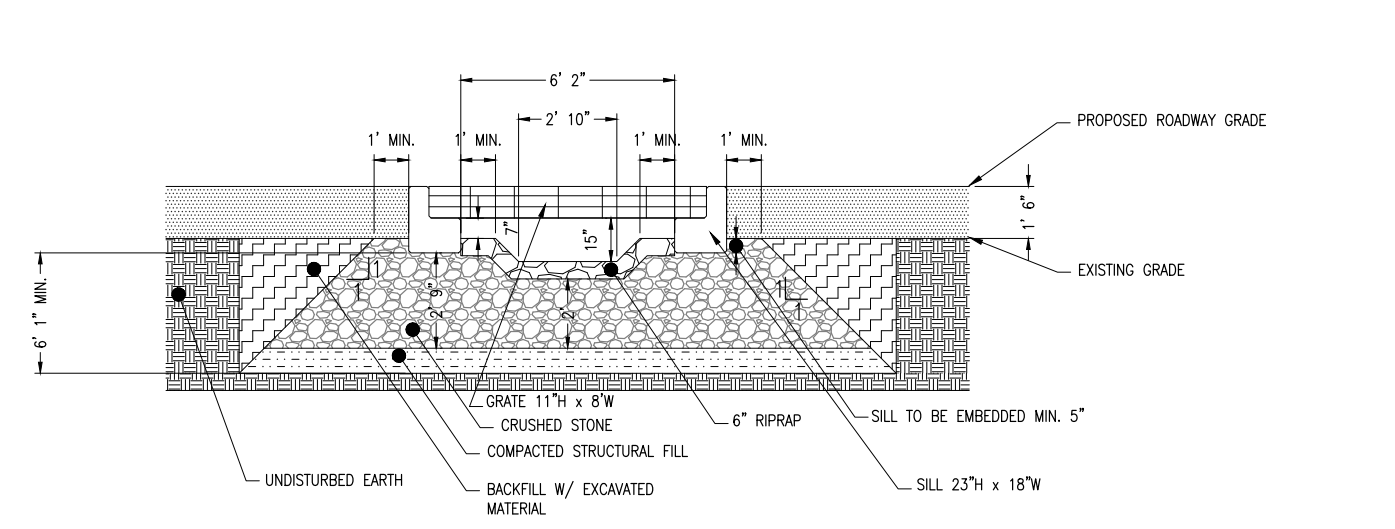
SCALE: N.T.S.

- NOTES:
1. PRIOR TO INSTALLATION, SUBCONTRACTOR SHALL CONTACT CONTAINMENT DISTRIBUTOR, SO THAT A REPRESENTATIVE CAN BE ON SITE DURING CONSTRUCTION. DOCUMENTING INSTALLATION IS REQUIRED TO VALIDATE OIL CONTAINMENT PROTECTION POLICY.
  2. EXCAVATION AREA TO BE MINIMUM OF 1' LARGER THAN SIZE OF CONTAINMENT UNIT AND MINIMUM OF 6" DEEPER THAN THE FLOOR OF THE CONTAINMENT UNIT.
  3. CONTRACTOR SHALL SEAM POLYVINYL FABRIC WITH ADHESIVE AND INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
  4. AFTER ALL FLOOR SEAMING IS COMPLETE, SUBCONTRACTOR SHALL SEAL POLYVINYL LINER TO CONCRETE PAD USING BENTONITE GRANULAR CLAY IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
  5. SUBCONTRACTOR SHALL SEAL ALL CONDUIT PENETRATIONS WITH FIELD CONSTRUCTED POLYVINYL BOOTS AND BRIMS PER MANUFACTURERS SPECIFICATIONS. A SINGLE BOOT SHALL BE PLACED AROUND GROUPS OF CONDUIT.
  6. SUBCONTRACTOR SHALL PROVIDE 2" WOODEN STAKES TO SUPPORT THE CONTAINMENT WALLS. INSTALLATION OF OUTSIDE BARRIER BOOM USING STAKES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  7. PRIOR TO BACKFILLING THE FABRIC THE CONTRACTOR SHALL NOTIFY THE BORREGO SOLAR CIVIL ENGINEER AND PROVIDE SUBMITTAL FOR BACKFILL MATERIAL. PROVIDE A MINIMUM OF 48 HOURS NOTICE.
- SECONDARY CONTAINMENT IS ONE METHOD FOR COMPLIANCE WITH SPCC REGULATIONS (40 CFR PART 112). ALTERNATIVE MEASURES AND SELF-CERTIFICATION OF THE SPCC PLAN MAY BE AVAILABLE UNDER SECTION 112.7(k)



5 SECONDARY SPILL CONTAINMENT LARGE

SCALE: NTS  
X0\_ELEC\_TRANSFORMER OIL CONTAINMENT SINGLE LARGE  
2020-7-1



8 FOOTING DETAIL FOR CATTLE CROSSING

SCALE: NTS  
X0\_CIVIL\_CATTLEGUARD\_NY  
2022-02-05



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BIDSET  
2621 STATE HIGHWAY 55 SOLAR PROJECT  
2621 STATE HIGHWAY 55, FULTONVILLE, NY, 12072

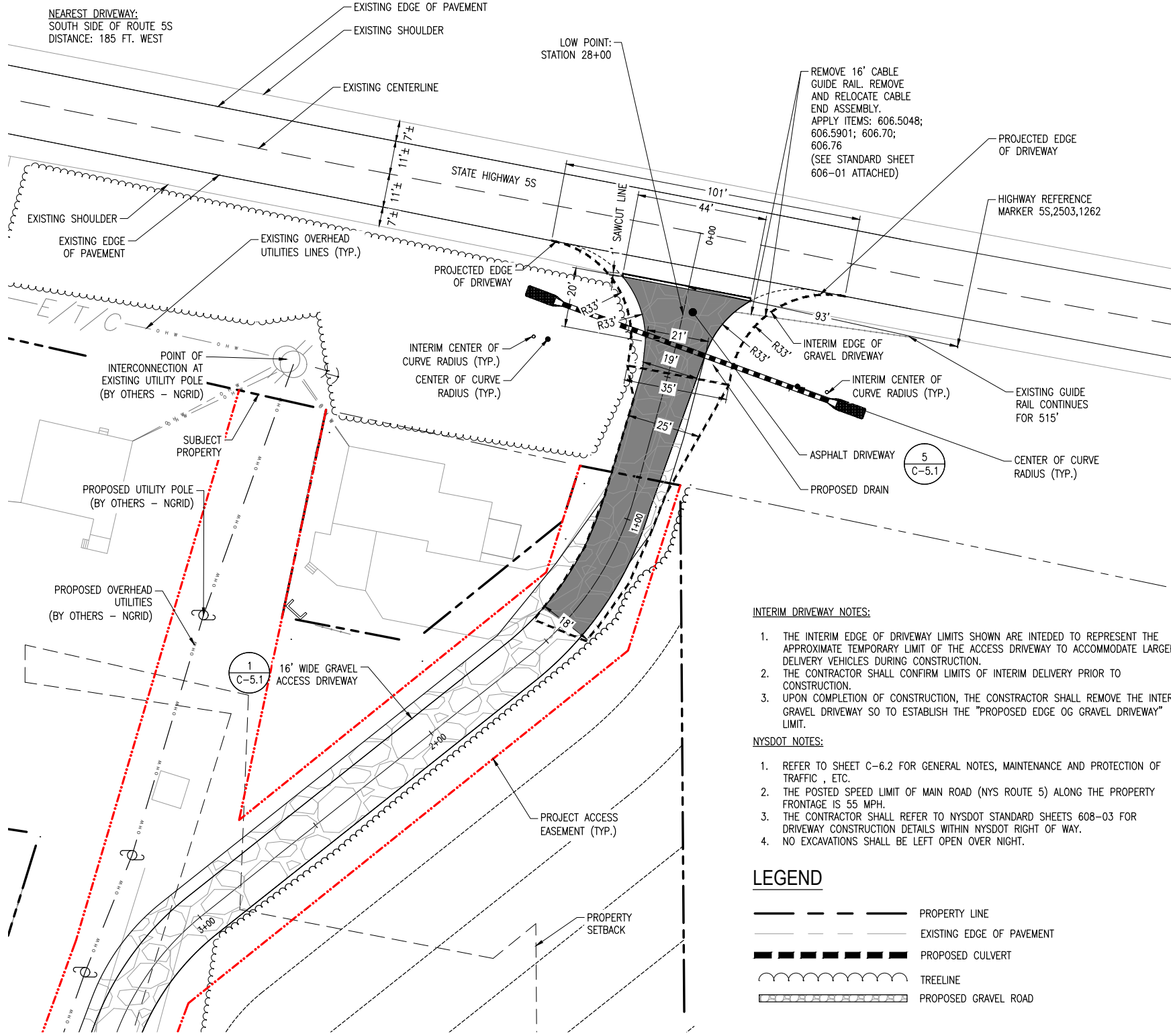
PROJECT NUMBER:  
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/10/21	GG	GG	PLANNING BOARD SUBMISSION
	06/17/21	DC	GG	FOR SHUMAKER
	02/07/22	DC	GG	NYSDOT REVISIONS
	04/13/22	GG	WS	GRADING AND TREE CLEARING REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" x 36"

C-6.0  
DRIVEWAY LAYOUT PLAN

SIGHT DISTANCES  
EAST: >1400 FT  
WEST: >1500 FT  
NEAREST SIDE ROAD:  
AURIESVILLE ROAD  
DISTANCE: 970 FT. WEST  
NEAREST DRIVEWAY:  
SOUTH SIDE OF ROUTE 55  
DISTANCE: 185 FT. WEST



**INTERIM DRIVEWAY NOTES:**

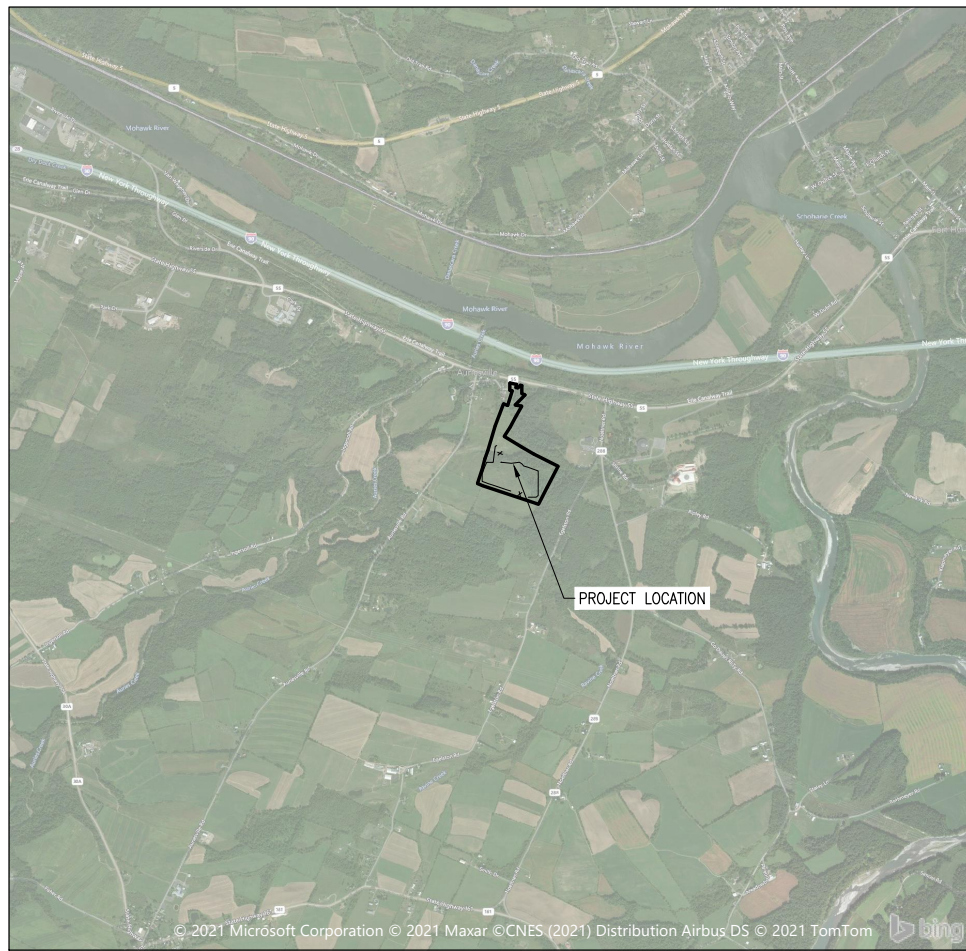
- THE INTERIM EDGE OF DRIVEWAY LIMITS SHOWN ARE INTENDED TO REPRESENT THE APPROXIMATE TEMPORARY LIMIT OF THE ACCESS DRIVEWAY TO ACCOMMODATE LARGER DELIVERY VEHICLES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL CONFIRM LIMITS OF INTERIM DELIVERY PRIOR TO CONSTRUCTION.
- UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE THE INTERIM GRAVEL DRIVEWAY SO TO ESTABLISH THE "PROPOSED EDGE OF GRAVEL DRIVEWAY" LIMIT.

**NYSDOT NOTES:**

- REFER TO SHEET C-6.2 FOR GENERAL NOTES, MAINTENANCE AND PROTECTION OF TRAFFIC, ETC.
- THE POSTED SPEED LIMIT OF MAIN ROAD (NYS ROUTE 5) ALONG THE PROPERTY FRONTAGE IS 55 MPH.
- THE CONTRACTOR SHALL REFER TO NYSDOT STANDARD SHEETS 608-03 FOR DRIVEWAY CONSTRUCTION DETAILS WITHIN NYSDOT RIGHT OF WAY.
- NO EXCAVATIONS SHALL BE LEFT OPEN OVER NIGHT.

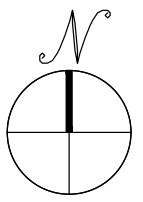
**LEGEND**

- — — — — PROPERTY LINE
- — — — — EXISTING EDGE OF PAVEMENT
- — — — — PROPOSED CULVERT
- — — — — TREELINE
- — — — — PROPOSED GRAVEL ROAD



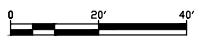
**GENERAL PLAN NOTES**

- ROAD TO BE KEPT CLEAN OF MUD AND DEBRIS AT ALL TIMES.
- ROADSIDE DRAINAGE TO BE MAINTAINED AT ALL TIMES.
- MATERIALS, EQUIPMENT AND VEHICLES ARE NOT TO BE STORED OR PARKED WITHIN THE NEW YORK STATE RIGHT-OF-WAY.
- MAINTENANCE AND PROTECTION OF TRAFFIC MUST COMPLY WITH THE CURRENT NATIONAL MUTCD WITH NYS SUPPLEMENT, SECTION 619 OF THE CURRENT NYSDOT STANDARD SPECIFICATIONS. THESE PLANS AND AS ORDERED BY THE ASSISTANT RESIDENT ENGINEER. ON A NYSDOT CONSTRUCTION PROJECT, MAINTENANCE AND PROTECTION OF TRAFFIC MUST COMPLY WITH THESE PLANS AND BE IN ACCORDANCE WITH THE NYSDOT CONTRACT DOCUMENTS AS DEEMED NECESSARY BY THE ENGINEER-IN-CHARGE.
- NOTIFY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION'S ASSISTANT RESIDENT ENGINEER AT THE NUMBER BELOW, THREE (3) WORK DAYS PRIOR TO WORKING WITHIN THE STATE RIGHT-OF-WAY. CLINT KING, (518)-853-3441.
- ALL MATERIALS USED WITHIN THE RIGHT-OF-WAY MUST COMPLY WITH THE CURRENT NEW YORK STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS ALONG WITH ANY APPROPRIATE CURRENT NYS DEPARTMENT OF TRANSPORTATION STANDARD SHEETS.
- QUALITY CONTROL OF ASPHALT CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 401 OF THE STANDARD SPECIFICATIONS. ALL ASPHALT PRODUCED AS PART OF SECTION 401 WILL BE PAID AT A FINAL QUANTITY ADJUSTMENT FACTOR 1.0. ASPHALT COURSE DEPTHS SHOWN ON THE PLANS ARE COMPACTED DEPTHS.
- NO NIGHT WORK SHALL BE ALLOWED UNLESS APPROVED PRIOR TO START OF PROJECT. ADDITIONAL MAINTENANCE AND PROTECTION OF TRAFFIC MAY BE REQUIRED INCLUDING THE ADDITION OF REFLECTIVE MATERIALS AND LIGHTING.
- HAZARDOUS WASTE NOTIFICATION - THE PERMITTEE ACCEPTS THE RIGHT-OF-WAY OF THE STATE HIGHWAY IN ITS "AS IS" CONDITION. THE DEPARTMENT OF TRANSPORTATION MAKES NO REPRESENTATION AS TO THE ABSENCE OF UNDERGROUND TANKS, STRUCTURES, FEATURES OR SIMILAR IMPEDIMENTS TO THE COMPLETION OF THE WORK PERMITTED HEREUNDER. SHOULD PERMITTEE FIND SOME PREVIOUSLY UNKNOWN UNDERGROUND IMPEDIMENTS TO ITS WORK, THE DEPARTMENT OF TRANSPORTATION SHALL HAVE NO OBLIGATION TO CURE, REMOVE, REMEDY OR OTHERWISE DEAL WITH SUCH PREVIOUSLY UNKNOWN UNDERGROUND IMPEDIMENTS. THE PERMITTEE IS REQUIRED TO REMOVE, MODIFY, OR OTHERWISE DEAL WITH SUCH UNDERGROUND TANKS, STRUCTURES, FEATURES OR IMPEDIMENTS IN A MANNER WHICH MEETS ACCEPTABLE ENGINEERING PRACTICE AND IS APPROVED BY THE DEPARTMENT OF TRANSPORTATION.
- ROADWORK REPORTING FORM SHALL BE SUBMITTED 7 DAYS PRIOR TO ANY WORK.
- ANY WORK ZONE INTRUSION SHALL BE REPORTED TO THE TMC, (315)-733-2111, AND THE POLICE IMMEDIATELY.
- DIGSFE SHALL BE NOTIFIED PRIOR TO ANY EXCAVATION.
- CABLE GUIDE RAIL WILL REQUIRE BARRELS WHILE BEING WORKED ON, THE PERIOD SHALL BE NO MORE THAN TWO (2) CONSECUTIVE DAYS.
- ALL WORK WITHIN NYSDOT ROW SHALL MEET NYSDOT STANDARDS.
- CABLE GUIDE RAIL ANCHOR SHALL BE REPLACED IF THERE IS ANY DEGRADING.



**DRIVEWAY LAYOUT PLAN**

SCALE: 1" = 20'



NOT FOR CONSTRUCTION

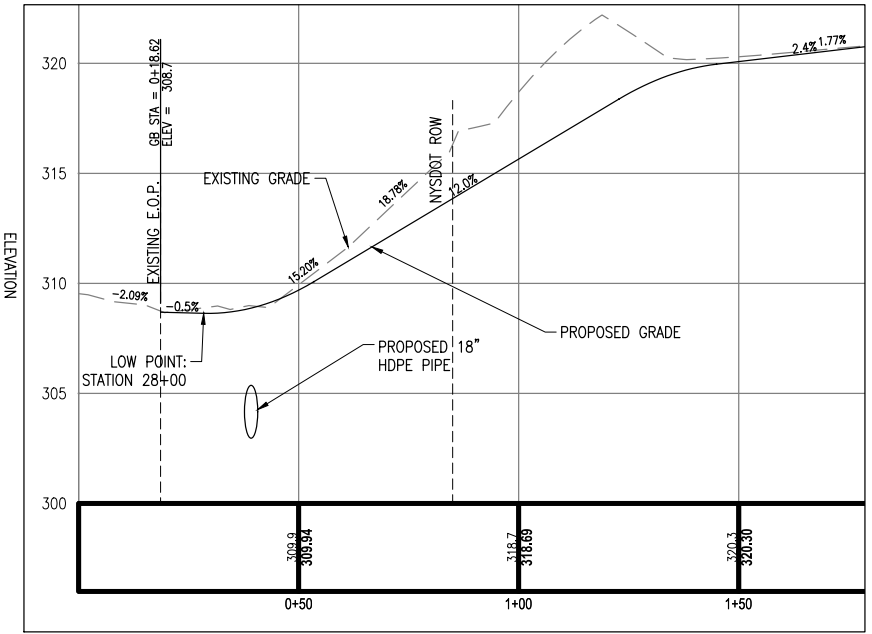
IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER ANY DOCUMENT WHICH BEARS THE SEAL OF A PROFESSIONAL ENGINEER, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

**BIDSET**  
 2621 STATE HIGHWAY 5S SOLAR PROJECT  
 2621 STATE HIGHWAY 5S, FULTONVILLE, NY, 12072

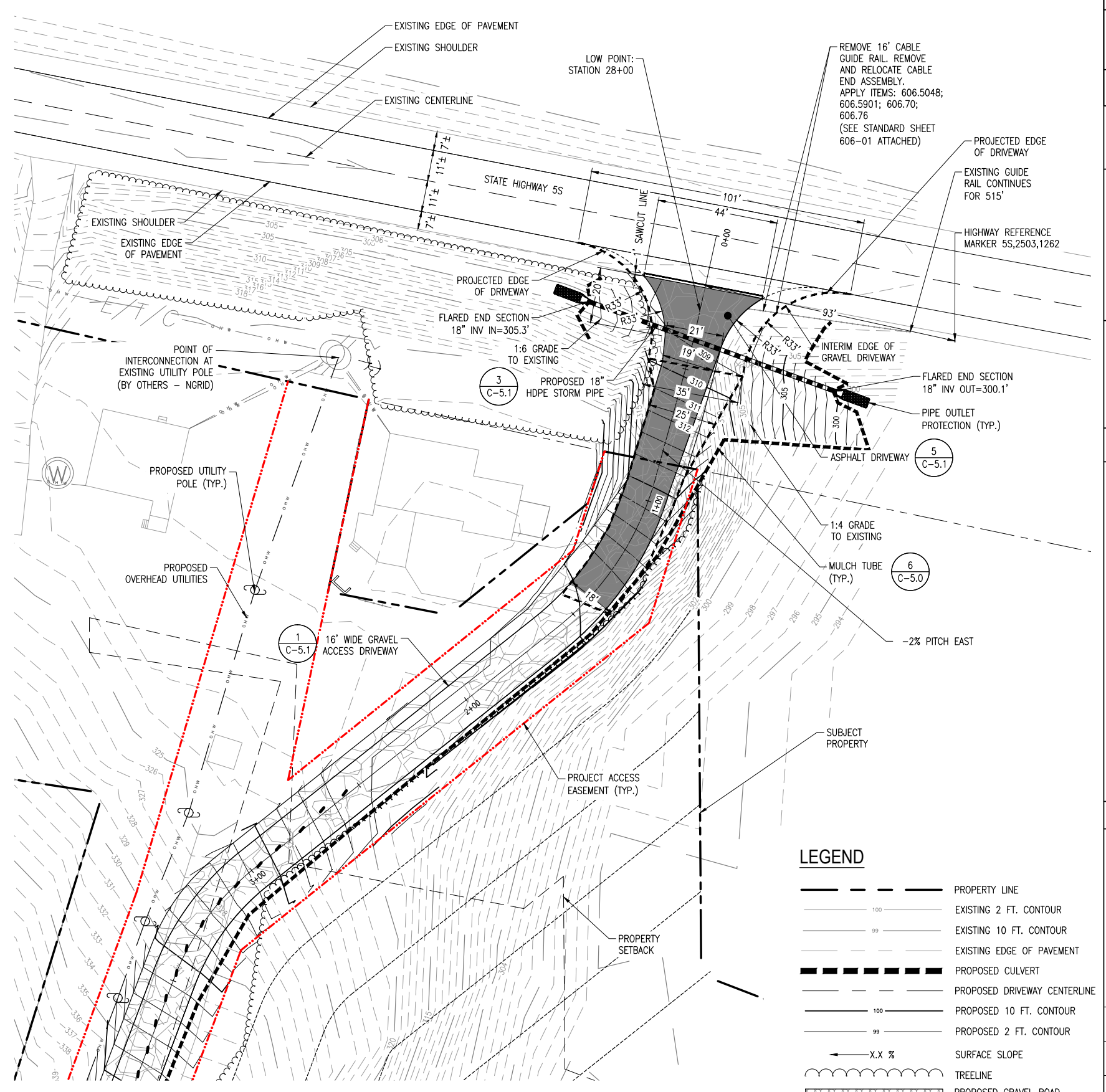
PROJECT NUMBER:  
108-4862

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
06/10/21	DC	GG	GG	PLANNING BOARD SUBMISSION
06/17/21	DC	GG	GG	FOR SHUMAKER
02/07/22	DC	GG	GG	NYSOT REVISIONS
04/13/22	GG	WS	WS	GRADING AND TREE CLEARING REVISIONS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" x 36"  
**C-6.1**  
 DRIVEWAY GRADING & UTILITY PLAN

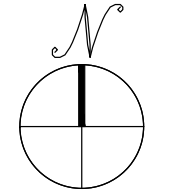


- NOTES:**
- REFER TO SHEET C-6.0 FOR GENERAL HIGHWAY NOTES, MAINTENANCE AND PROTECTION OF TRAFFIC, ETC.
  - THE POSTED SPEED LIMIT OF MAIN ROAD (STATE HIGHWAY 5S) ALONG THE PROPERTY FRONTAGE IS 55 MPH.
  - THE CONTRACTOR SHALL REFER TO NYSOT STANDARD SHEETS 608-03 FOR DRIVEWAY CONSTRUCTION DETAILS WITHIN NYSOT RIGHT OF WAY.
  - THE CONTRACTOR SHALL REFER TO NYSOT STANDARD SHEET 606-01 FOR GUIDE RAIL CONSTRUCTION DETAILS.
  - NO EXCAVATIONS SHALL BE LEFT OPEN OVER NIGHT.
- NYSOT EARTHWORK, TOPSOIL, AND TURF SPECIFICATIONS**
- EARTHWORK: PERFORM EXCAVATION & BACKFILL WITHIN NYSOT RIGHT-OF-WAY ACCORDANCE WITH NYSOT STANDARD SPECIFICATION SECTION 200 (TYP.)
  - NYSOT TOPSOIL: TOPSOIL PLACED WITHIN RIGHT-OF-WAY SHALL CONFORM TO NYSOT ITEM# 610.14X
  - ESTABLISH TURF: GRASS TURF ESTABLISHMENT WITHIN NYSOT RIGHT-OF-WAY SHALL CONFORM TO NYSOT ITEM# 610.16X
  - CONTRACTOR SHALL IMMEDIATELY STABILIZE DISTURBED AREAS PER SECTION 610 OF THE NYSOT SPECIFICATIONS.



**LEGEND**

— — — — —	PROPERTY LINE
— 100 —	EXISTING 2 FT. CONTOUR
— 99 —	EXISTING 10 FT. CONTOUR
— — — — —	EXISTING EDGE OF PAVEMENT
— — — — —	PROPOSED CULVERT
— — — — —	PROPOSED DRIVEWAY CENTERLINE
— 100 —	PROPOSED 10 FT. CONTOUR
— 99 —	PROPOSED 2 FT. CONTOUR
— X.X % —	SURFACE SLOPE
~~~~~	TREELINE
▨ ▨ ▨ ▨ ▨	PROPOSED GRAVEL ROAD



**DRIVEWAY GRADING & UTILITY PLAN**

