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Memorandum

To: Tom McIlwaine – Zoning Analyst
Cypress Creek Renewables

From: Stephen Loss, P.E.
Senior Engineer

Subject: Aegis Solar, LLC.: Compliance with Town of Canandaigua's Steep Slope Ordinance

Date: October 20, 2017

CC: Harrison Netz, Joe Schaffer, Stephen Karl, Jonathan Hotstream

Project No.: 264645.CENG

Cypress Creek Renewables is proposing a large scale solar energy system located at 5932 Monks Road, Canandaigua, New York 14424. TRC developed preliminary drawings which were submitted for town review. A letter dated September 10, 2017 from Lance Brabant, CPESC with MRB Group addressed to Doug Finch the Town Manager for the Town of Canandaigua provides comment on the preliminary drawings. Comment number 15 stated:

“The Planning Board will need to discuss how this application complies with the Town’s Steep Slope Protection Law. The design engineer should consider providing written notice to the Town Planning Board describing how the proposed application complies.”

This memorandum has been developed to respond to the comment and describe compliance with the Steep Slope Protection Law.

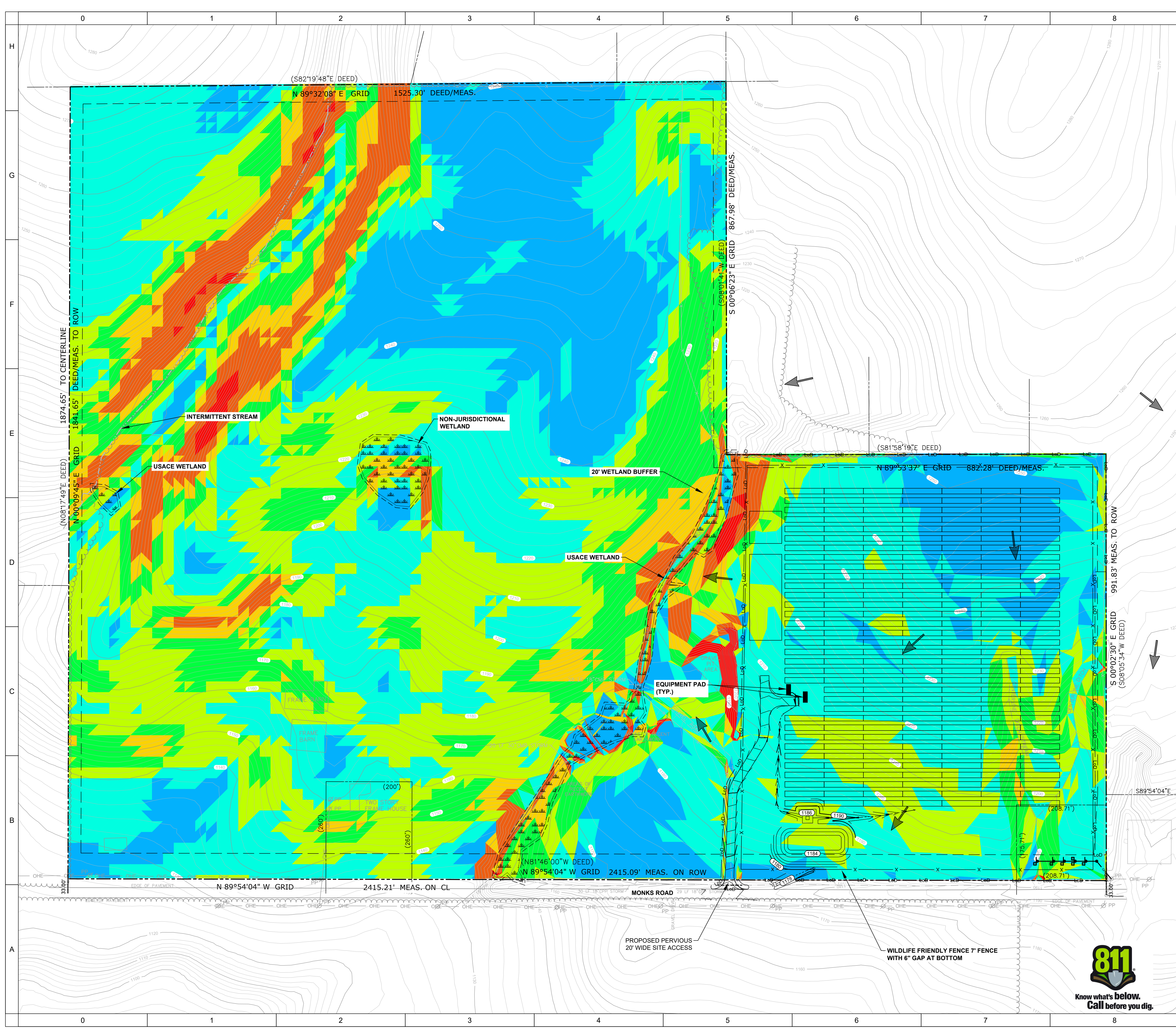
TRC reviewed the Steep Slope Protection Law, Chapter 220-8 of the town’s zoning regulations. In an effort to protect sensitive steep slope areas, the Town of Canandaigua enacted a Steep Slope Protection. The Town specifies that all slopes 15% or greater shall be protected by the Steep Slope Protection. Further, slopes are categorized as moderately steep (15% to less than 25%), very steep (25% to less than 40%), and extremely steep (greater than 40%). There are some areas on the site where existing conditions provide slopes classified as moderately steep. Steep Slope Zones determine how much disturbance can take place before the Steep Slope Protection goes into effect. The proposed development would be classified Zone C, where 2,000 square feet of disturbance or greater must follow the Steep Slope Protection Law.

After review of the Steep Slope Protection Law, the proposed development complies with the protections for the following reasons:

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- The SWPPP and Stormwater Management Practices chosen are designed to comply with the Steep Slope Protection Law and to provide water quality treatment for up to a one year storm event.
- The site features have also been designed to comply with the Steep Slope Protection Law. Clearing and grubbing will be limited to the construction of equipment pads and the extended detention pond. These features are located to avoid steep slope protection areas, taking place only where the slope is less than 15%, refer to Figure 1. Proposed grading and tree removal follows the same constraints and does not occur in areas of steep slope protection.
- The proposed access road will be graded to incorporate existing conditions at the site, road slope will be between 5-10%, refer to Figure 1. The access road layout will use the alignment of the existing road to limit disturbance areas.
- Photovoltaic (PV) solar panel placement will not alter the natural topography as no grading is proposed within the panel placement area. Existing ground cover will not be removed for panel placement. The ground disturbance associated with PV solar panel construction will include post driving and traffic from tracked and rubber tired equipment.
- Trenching will take place for the underground conduit running from the panels to the equipment pads. Trenching will have a minimal disturbance area and will be approximately two feet deep. Temporary erosion and sediment control practices (e.g., silt fence or compost filled erosion control logs) will be used until permanent stabilization is provided.
- Proposed construction activities will have minimal impact steep slope areas and features are designed to fit natural topography. Site design has been performed with the steep slope protection in consideration and will comply with the related code.

Attachments: Figure 1



Slopes Table				
Number	Minimum Slope	Maximum Slope	Area (SF)	Color
1	0.00%	5.00%	679,620	■
2	5.00%	10.00%	1,346,018	■
3	10.00%	15.00%	847,337	■
4	15.00%	20.00%	421,844	■
5	20.00%	25.00%	177,092	■
6	25.00%	40.00%	203,718	■
7	40.00%	Vertical	25,926	■

NOTE: THE SLOPE RANGE 10% TO 15% INDICATES 10.0% TO 14.99% SLOPES

- GENERAL NOTES
1.

THE TOWN OF CANANDAIGUA HAS A STEEP SLOPE PROTECTION REGULATION (220-8) REQUIRING STEEP SLOPE PROTECTIONS ON LAND AREAS HAVING SLOPES OF 15% OR GREATER. THE SLOPE PROTECTION AREAS ARE CATEGORIZED AS MODERATELY STEEP - 15% TO LESS THAN 25%; VERY STEEP - 25% TO LESS THAN 40%; AND EXTREMELY STEEP - 40% OR GREATER."
2.

THE IMPROVEMENTS WERE DESIGNED TO COMPLY WITH § 220-8 AND HAVE BEEN DESIGNED TO FIT THE EXISTING NATURAL ELEMENTS OF THE SITE INSTEAD OF ALTERING THE SITE TO FIT THE DEVELOPMENT GOALS. GRADING IS NOT PROPOSED IN AREAS WITH SLOPES GREATER THAN 15%.

- GENERAL GRADING AND DRAINAGE NOTES
1.

THIS PLAN WAS PRODUCED UTILIZING GIS RESOURCES AND INFORMATION FROM MULTIPLE SOURCES, INCLUDING USGS, GOOGLE EARTH, AND A BOUNDARY AND TOPOGRAPHIC SURVEY.
2.

AREAS WITH SLOPES GREATER THAN 15% OR MORE ARE CONSIDERED STEEP SLOPE PROTECTION AREAS §220-8 B.

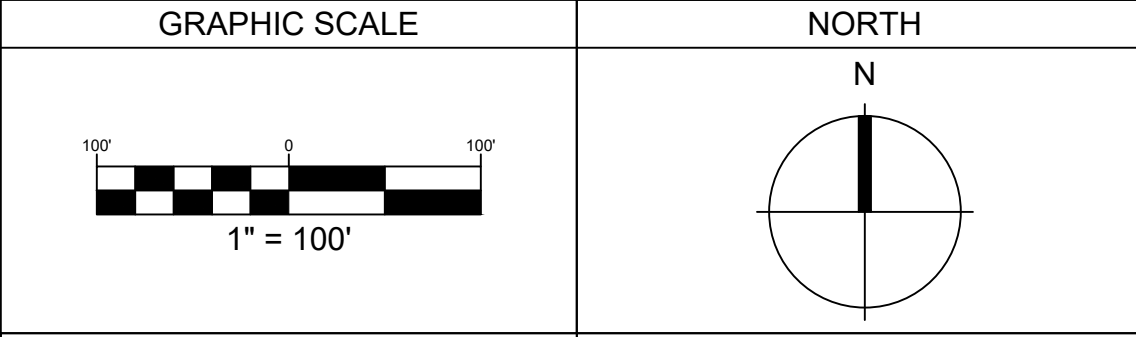
LEGEND	
EXISTING CONDITIONS	PROPOSED CONDITIONS
PROPERTY LINE	SECURITY FENCE
SETBACK	SITE ACCESS
ELECTRICAL (OVERHEAD)	LIMITS OF DISTURBANCE
NON-JURISDICTIONAL STREAM	CULVERT
MAJOR CONTOURS	DITCH
MINOR CONTOURS	FLOW DIRECTION
ADJACENT PROPERTY LINE	
WETLAND	
WETLAND ADJACENCY BOUNDARY	
TREELINE	
UTILITY POLE	

SIGNATURE BLOCK

PLANNING BOARD CHAIRPERSON

TOWN ENGINEER

HIGHWAY & WATER SUPERINTENDENT



CYPRESS CREEK RENEWABLES

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CONSULTANT

TRC

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JOHN J. STORMER, P.E.
REGISTERED PROFESSIONAL ENGINEER
SECTION 2200.02, E. AS A VIOLATION OF THE NYS EASY ACCESS LAW, THIS DOCUMENT IS NOT VALID FOR THE EXISTING PROJECT.
TERRAZZANO, 10/24/2017 10:23 AM 25656/000018.DWG

AEGIS SOLAR, LLC

5932 MONKS ROAD
CANANDAIGUA, NY 14424

DATE: 10/24/2017
DRAWN BY: L. STORMER
CHECKED BY: J. HOTSTREAM
STEEP SLOPES EXHIBIT

FIGURE 1