BRUCE L. MCDERMOTT
203.772.7787 DIRECT TELEPHONE
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BMCDERMOTT@MURTHALAW.COM

May 26, 2020

VIA ELECTRONIC MAIL

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Petition No. 1401 - Revity Energy, LLC petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for a 12.25-megawatt AC solar PV facility located at 424 Snake Meadow Road, Plainfield, Connecticut

Dear Attorney Bachman:

Enclosed please find Revity Energy, LLC's responses to interrogatories in connection with the above-described petition.

I certify that a copy hereof has been furnished on this date via electronic mail and/or first class mail, postage prepaid, to all parties, intervenors and participants of record for this petition as of this date.

Please feel free to contact me with any questions concerning this submittal at (203) 772-7787.

Very truly yours,

Bruce L. McDermott

Enclosures

Interrogatory CSC-1-1

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-1: Was the Town of Plainfield Conservation Commission provided notice of the petition? If not, provide proof that such notice was sent to the Town of Plainfield Conservation Commission.

A-CSC-1-1: A copy of the Petition and notice was delivered to the Plainfield Conservation Commission on May 18, 2020. Please see Attachment CSC-1-1, for proof of delivery.

Attachment CSC-1-1

Annie W. Lau

From: UPS Quantum View <pkginfo@ups.com>
Sent: Monday, May 18, 2020 10:54 AM
To: Annie W. Lau
Subject: UPS Delivery Notification, Tracking Number 1Z3E220WNT90929218

Hello, your package has been delivered.
Delivery Date: Monday, 05/18/2020
Delivery Time: 10:51 AM
Left At: FRONT DESK
Signed by: CATHY

MURTHA CULLINA INC

FRONT DESK

Tracking Number:	1Z3E220WNT90929218
Ship To:	PLAINFIELD CONSERVATION COMMISSION 8 COMMUNITY AVENUE PLAINFIELD, CT 063741238 US
Number of Packages:	1
UPS Service:	UPS Next Day Air®
Package Weight:	3.0 LBS
Reference Number:	007663-0001

Download the UPS mobile app

Interrogatory CSC-1-2

Revity Energy LLC

Witness: Ryan Palumbo;
Mike Libertine

Petition No. 1401

Q-CSC-1-2: If Revity Energy LLC's (Revity or Petitioner) project is approved, identify all permits necessary for construction and operation and which entity will hold the permit(s)?

A-CSC-1-2: The permits necessary for construction and operation of the Project include:

(1) local building and electrical permits; and

(2) a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities from the DEEP.

All permits will be held by Revity Energy LLC.

Interrogatory CSC-1-3

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-3: Would the Petitioner participate in the ISO-NE Forward Capacity Auction? If yes, which auction(s) and capacity commitment period(s)?

A-CSC-1-3: Yes. Revity intends on participating in the ISO-NE Forward Capacity Auction, however, at this time, Revity has not yet determined the auction and commitment period in which it will participate.

Q-CSC-1-4: In the lease agreement with Joseph Vinagro, are there any provisions related to site restoration at the end of the project's useful life? If so, please provide any such provisions?

A-CSC-1-4: Yes. Please see the relevant lease agreement provisions below:

Upon the expiration or earlier termination of the Lease, Tenant shall, at its sole cost and in accordance with all Applicable Laws, commence removal of the System in accordance with the decommissioning plan described below, and restore the Premises to their original condition, exclusive of utility installations and the necessary site civil work (blasting, grading, access road upgrades, etc.) required to install the System, and complete the same by the Removal and Restoration Date; provided, further, however, that any such removal and restoration shall require the prior written consent of any lender (including Lender) having a security interest in the System and/or on the Premises, which consent may be withheld in said lender's sole discretion.

No later than ninety (90) days prior to the expiration of the Term, Tenant shall present a decommissioning plan for the removal of the System. The decommissioning plan shall include the removal of all physical material related to the System to a depth of seventy-two inches (72") (hereinafter referred to as "Restoration"). The decommissioning plan shall be prepared in final form upon the earlier to occur of: (a) the Expiration Date; or (b) within six (6) months after presentation of the decommissioning plan to Landlord. No later than ten (10) days prior to the Operating Period Rent Commencement Date, Tenant shall establish a reserve, in the form of a separate interest bearing escrow account at an FDIC-insured bank selected by Tenant, in an initial principal amount equal to Two Hundred Fifty-Two Thousand and 00/100 Dollars ($252,000.00) (the "Restoration Escrow"), to fund the cost of Restoration. The Restoration Escrow account will be held pursuant to a separate escrow agreement to which the Landlord shall be a party and in form and substance reasonably acceptable to Landlord and Tenant. In the event that Tenant fully satisfies all of its obligations with respect to the Restoration as set forth herein, Landlord shall acknowledge the same in writing, and the then current balance of the Restoration Escrow shall be released to Tenant in accordance with the terms and conditions of said escrow agreement. At Landlord's request (which request shall not be more frequent than every five years after the Commencement Date), Tenant shall, at its sole cost

and expense, provide to Landlord a cost analysis report for the decommissioning of the System and restoring the Premises from an independent third party and based on said report Tenant shall increase the amount of the Restoration Escrow accordingly (but never less the initial amount).

"Removal and Restoration Date" means the date not to be later than ninety (90) days after the expiration or earlier termination of this Lease, by which Tenant shall complete removal from the Premises of the System and all of Tenant's property, including, but not limited to, all equipment and components comprising the System, pursuant to Section 4.

Interrogatory CSC-1-5

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-5: Referencing page 3 of the Decommissioning Plan, could components of panels be reused to make photovoltaic cells or whole panels be used to make new solar panels at the end of the life of this project? Could the solar panels and/or associated components be repurposed for a different use or product?

A-CSC-1-5: The panels can be evaluated at the end of a Project's life to assess which panels could be reused or which have exceeded their useful life. Given that solar panel technology is rapidly evolving, it is likely that specific panel components may be recyclable rather than the entire panels being repurposed.

Interrogatory CSC-1-6

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-6: Have electrical loss assumptions been factored into the output of the facility? What is the output (MW AC) at the point of interconnection?

A-CSC-1-6: Yes. The output at the point of interconnection is 12.25 MW (AC).

Interrogatory CSC-1-7

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-7: Would the impact of soft or hard shading reduce the energy production of the proposed project? If so, was this included in the proposed projects capacity factor?

A-CSC-1-7: Yes, it does impact production. These losses have been considered (near shadings with electrical shading losses) in the current capacity factor.

Interrogatory CSC-1-8

Revity Energy LLC

Witness: Ryan Palumbo
Tony Morreals

Petition No. 1401

Q-CSC-1-8: Do solar facilities present a challenge for the independent system operator for balancing loads and generation (to maintain the system frequency) due to the changing (but not controlled) megawatt output of a solar facility? What technology or operational protocols could be employed to mitigate any challenges?

A-CSC-1-8: ISO-NE would be the authority on this question, but Revity offers the following based on its development/engineering experience. The amount of solar on the New England system is a small percentage (<2%) of the overall generation portfolio. System operators are not as concerned with the impact of individual solar projects, but have begun to study the impact to the transmission system for groups of projects in particular areas. This has recently resulted in the need for reconductoring of transmission lines sections.

Interrogatory CSC-1-9

Revity Energy LLC | Witness: David Russo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-9: Page 7 of the Petition states, “However, the Project will include seven equipment pads…” Sheet 6 of 19 depicts five “Concrete Equipment Pads.” Where would the remaining two pads be located? If necessary, please update the required drawing(s).

A-CSC-1-9: The remaining two concrete equipment pads have been added to the site layout plan, which equipment pads are each shown as red rectangles on Attachment CSC-1-9.

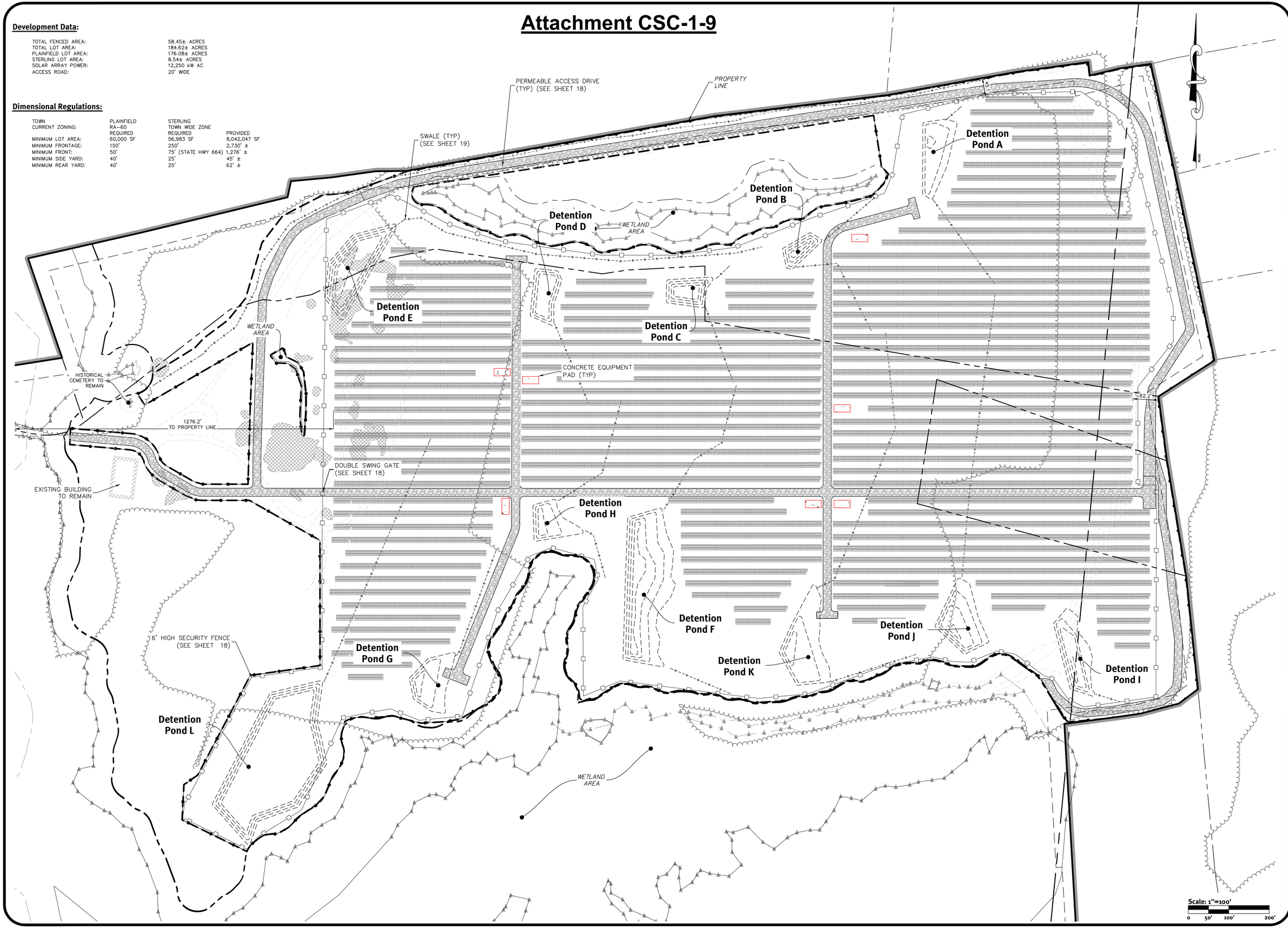
Attachment CSC-1-9

Development Data:

TOTAL FENCED AREA:	58.45± ACRES
TOTAL LOT AREA:	184.62± ACRES
PLAINFIELD LOT AREA:	176.08± ACRES
STERLING LOT AREA:	8.54± ACRES
SOLAR ARRAY POWER:	12,250 kW AC
ACCESS ROAD:	20' WIDE

Dimensional Regulations:

TOWN CURRENT ZONING:	PLAINFIELD RA-60 REQUIRED	STERLING TOWN WIDE ZONE REQUIRED	PROVIDED
MINIMUM LOT AREA:	60,000 SF	56,983 SF	8,042,047 SF
MINIMUM FRONTAGE:	150'	250'	2,730' ±
MINIMUM FRONT:	50'	75' (STATE HWY 664)	1,276' ±
MINIMUM SIDE YARD:	40'	25'	45' ±
MINIMUM REAR YARD:	40'	25'	62' ±



DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

No.	Date	Description	By:
0	5/26/2020	Viewshed Analysis	K.E.D.

Drawn By: K.E.D.

Site Layout Plan

Snake Meadow Road Solar

Plainfield and Sterling, CT

AP 35 Block 118 Lots 6A, 10 & 11, AP 36 Block 118 Lot 6, Parcel ID 4415-008-0011

Applicant
Revity Energy, LLC
117 Metro Center Boulevard, Suite 1007 Warwick, RI 02886
tel 401-562-0217

SHEET 6 OF 1

z:\plemain\projects\2437-018 snake meadow road solar\autocad drawings\2437-018 plan.dwg Plotted: 5/26/2020

Interrogatory CSC-1-10

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-10: How many panels would each rack hold?

A-CSC-1-10: There are two types of racks associated with the Project:

(1) half-racks, which hold 25 panels each; and
(2) full racks, which hold 50 panels each.

The rack type selected will vary based on final Project design.

Interrogatory CSC-1-11

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-11: Is the wiring from the panels to the inverters installed on the racking? If wiring is external, how would it be protected from potential damage from weather exposure, vegetation maintenance, or animals?

A-CSC-1-11: Some of the DC wiring from the panels to inverters will be installed on the racking. Some of the wiring will be protected by burying it in DC conduits. Additionally, the wiring is suitable for outdoor applications, including environments that experience moist conditions and the wire's insulation is comprised of a compound that is rated sunlight-resistant.

Interrogatory CSC-1-12

Revity Energy LLC | Witness: David Russo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-12: Referencing page 9 of the Petition, Revity states, “Roughly 2,017 feet of existing unpaved farm and mining operation roads will be improved…” What types of improvements (e.g. gravel) would be required to make it suitable for the construction and maintenance of this proposed solar facility?

A-CSC-1-12: The typical improvements will be the transition of unpaved dirt roads into gravel roads.

Interrogatory CSC-1-13

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-13: Referencing page 12 of the Petition, Revity notes that, “[T]he row-to-row spacing will be 15 feet.” What is the minimum row-to-row spacing or “aisle width” at which the solar panel rows could be installed?

A-CSC-1-13: The minimum row-to-row spacing that Revity has designed their projects to is 12 feet.

Interrogatory CSC-1-14

Revity Energy LLC | Witness: Mike Libertine

Petition No. 1401 | Page 1 of 1

Q-CSC-1-14: Referencing page 42 of the Environmental Assessment, a portion of the gravel access to be upgraded is located within the Federal Emergency Management Agency (FEMA) Flood Zone A. How would such flood zone impact access to the site?

A-CSC-1-14: The proposed upgrades to the existing access road would be limited to surface grading and top dressing with gravel. The existing access road is an established access that experiences use by heavy equipment similar to that anticipated for construction of the Facility. The existing access road will not be significantly altered for site development and its characteristics will remain essentially as it is today. As a result, there will be no impacts associated with the access road's presence within a flood zone.

Interrogatory CSC-1-15

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-15: Is the project interconnection required to be reviewed by ISO-NE?

A-CSC-1-15: At this time, Revity has not yet begun the interconnection application process for the Project. Revity and its interconnection consultants have recently consulted with Eversource and received preliminary guidance that the interconnection is feasible.

Interrogatory CSC-1-16

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-16: Referencing page 9 of the Petition, has the impact study application been submitted to Eversource? If no, approximately when does Revity plan to submit such application to Eversource.

A-CSC-1-16: No. Revity anticipates submitting its impact study application to Eversource by September of 2020.

Interrogatory CSC-1-17

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-17: Does the Petitioner have an Interconnection Agreement with Eversource? Provide the status of such agreement.

A-CSC-1-17: No. Revity anticipates submitting its Interconnection application to Eversource by September of 2020.

Interrogatory CSC-1-18

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-18: At what point would the underground electrical connection from the solar facility transition to an overhead progression before leaving the subject property? How many utility poles are required on the subject property for this transition? How tall would the proposed utility poles be?

A-CSC-1-18: The transition to an overhead progression would occur after Project transformers and before Project reclosers. The Eversource interconnection process will determine final design and pole quantity. Each pole would likely be 45 feet tall, and after installation they would extend about 38 to 39 feet out of the ground.

Interrogatory CSC-1-19

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-19: Referencing page 9 of the Petition, is the existing Eversource 23-kV circuit three-phase, or would it have to be upgraded from single-phase to three-phase?

A-CSC-1-19: The Eversource interconnection process will determine the circuit for interconnection, but it is Revity's assumption that the Project will require a new express feeder or feeder extension.

Interrogatory CSC-1-20

Revity Energy LLC | Witness: Mike Libertine

Petition No. 1401 | Page 1 of 1

Q-CSC-1-20: What is the status of the Federal Aviation Administration (FAA) aeronautical policy referenced on page 23 of the Petition?

A-CSC-1-20: On April 22, 2020, the FAA issued its determination that its aeronautical study revealed that the Project will not exceed obstruction standards and will not be a hazard to air navigation. Revity submitted this determination to the Council on April 28, 2020.

Interrogatory CSC-1-21

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-21: With regard to emergency response:

a. In the event of a brush or electrical fire, how would the Petitioner mitigate potential electric hazards that could be encountered by emergency response personnel?

b. Could the entire facility be shut down and de-energized in the event of a fire? If so, how?

A-CSC-1-21: a. Revity will work with the local fire departments to establish an action plan that is satisfactory to all parties involved for a response to Project emergency events.

b. Yes. The system will have a disconnect switch that will de-energize the facility, which will be located at the entrance of the facility, and can be accessed by emergency personnel. Revity will have this switch locked, but provide a key and training to the local fire departments.

Interrogatory CSC-1-22

Revity Energy LLC | Witness: Mike Libertine

Petition No. 1401 | Page 1 of 1

Q-CSC-1-22: Page 17 of the Petition states that, “No raw or hazardous materials or fuels will be delivered to or stored at the Property.” Please reconcile this statement with Appendix E of the Petition – Wetland & Vernal Pool Protection Plan, Section 3 – Petroleum Materials Storage and Spill Prevention.

A-CSC-1-22: During the course of construction, Revity’s contractor may need to refuel certain gasoline-powered equipment. Section 3 of the Wetland & Vernal Pool Protection Plan accounts for this scenario. The referenced text on page 17 of the Petition relates to post-development conditions.

Interrogatory CSC-1-23

Revity Energy LLC | Witness: David Russo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-23: Did the Petitioner conduct a Shade Study Analysis? Would shading present any challenges for the proposed project? If so, provide acreage of trees that would be removed to mitigate for shading? How were the limits of tree shading determined?

A-CSC-1-23: Yes. Tree removal has been proposed where possible to minimize shading on the solar layout. Approximately 1.5 acres of tree removal has been proposed outside the fenced areas to minimize shading. In areas where trees cannot be removed, for example within wetland areas and their buffers, solar panels have been placed outside the expected limits of shading. The limits of shading were determined by a tree height analysis. Point cloud data of the study area was downloaded from Connecticut Environmental Conditions Online. This data represents the elevations of the forest canopy. A tree height surface was created by comparing the point cloud data to the existing ground topography. Trees surrounding the site were given a shade radius according to its height and direction location relative to the site and the solar field was sited accordingly.

Interrogatory CSC-1-24

Revity Energy LLC | Witness: Mike Libertine

Petition No. 1401 | Page 1 of 1

Q-CSC-1-24: Are there any wells on the site or in the vicinity of the site? If so, how would the Petitioner protect the wells and/or water quality from construction impacts?

A-CSC-1-24: One private water supply well is located on the Site, adjacent to the existing garage, which it serves. No public water supply wells are located proximate to the site. No public potable water system is available in the area. Residences in the vicinity of the Site are served by private wells.

With the exception of top dressing the existing road with new gravel, the nearest intrusive construction activities would occur over 300 feet to the east of the garage and remote from nearby residentially-developed parcels. The project has been designed to minimize earth disturbances; grading and excavations will be limited in terms of depth, and the solar modules will be supported by a pile-mounted racking system. The Petitioner does not anticipate inserting posts into Site soils will cause excessive vibrations and would therefore not represent a concern to either the on-Site or surrounding property wells. It is likely that any potable drinking water wells in the general area are installed within the bedrock aquifer and not in the overburden material. As a result, no disruption to well water flow or water quality is anticipated and therefore no special precautions are warranted.

Interrogatory CSC-1-25

Revity Energy LLC | Witness: David Russo

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Q-CSC-1-25: What effect would runoff from the drip edge of each row of solar panels have on the site drainage patterns? Would channelization below the drip edge be expected? If not, why not?

A-CSC-1-25: The extent of the proposed array was modeled as pervious surface, as the panels will be ground-mounted on posts above grade and stormwater will runoff the panels to a grass surface below. Although the panels run perpendicular to the site's slopes, the gaps in the panes and their tilt will allow for water to runoff and sheet flow. A study of the hydrologic response of solar farms by Cook and McCuen (2013) found that as long as there is well maintained grass beneath the panels, the panels would not have a significant effect on the runoff volumes, peaks, or time to peaks. To ensure that erosion below the drip edge of panels does not occur, regular inspections of the grassed areas will occur. See the Operation and Maintenance Plan by DiPrete Engineering for more information. Revity has also installed swales along the slope areas to convey water and break up the flow patterns. *See* Cook, Lauren & McCuen, Richard, *Hydrologic Response of Solar Farms, Journal of Hydrologic Engineering*, pages 536-541 (2013).

Interrogatory CSC-1-26

Revity Energy LLC | Witness: Mike Libertine

Petition No. 1401 | Page 1 of 1

Q-CSC-1-26: Would the proposed project be consistent with the 2015 U.S. Army Corps of Engineers Vernal Pool Best Management Practices?

A-CSC-1-26: The methodology used to assess potential impacts resulting from the proposed Facility to on-Site vernal pool habitats is consistent with the 2015 U.S. Army Corps of Engineers Vernal Pool Best Management Practices (BMPs). Per these BMPs, the landscape condition of each vernal pool was evaluated to determine the existing and proposed quality of the terrestrial (non-breeding) habitat. Pools with 25% or less developed areas in the critical terrestrial habitat (CTH) are identified as having high priority for maintaining this development percentage (including site clearing, grading and construction). All four vernal pools assessed on the site currently maintain less than 25% development. Post-development, Vernal Pools 1 and 3 will remain below the 25% development guideline threshold, while Vernal Pools 2 and 4 will exceed the guideline threshold. However, the CTH surrounding both Vernal Pool 2 and 4 where development is planned are dominated by sub-optimal habitat, including actively disturbed areas. As discussed in detail in Section 3.5 of the Environmental Assessment, the long-term viability of Vernal Pool 2 is questionable due to its man-made nature within an active gravel mine and the surrounding conditions. With respect to Vernal Pool 4, incorporating the Corps' BMP's vector analysis procedure suggests that much of the optimal upland forested habitat supporting this pool within its CTH exists to the south which would remain unaltered post-development.

Interrogatory CSC-1-27

Revity Energy LLC

Witness: Mike Libertine
David Russo

Petition No. 1401

Q-CSC-1-27: What is the length of the posts and to what depth would the posts be driven into the ground to provide structural stability? Are any impacts to groundwater quality anticipated? If so, how would the petitioner manage and/or mitigate these impacts?

A-CSC-1-27: Post lengths may vary slightly, depend on soil conditions, tilt and minimum module clearance. On average, the posts would range in length somewhere between 12 and 16 feet. They will be driven approximately six feet into the ground to provide racking stability. No direct impacts to groundwater are anticipated during installation or while the Facility is operative. While buried metal infrastructure has potential to contribute to some metal levels in surrounding soils (zinc in particular is associated with galvanized steel), it is unlikely that the buried posts associated with the Project would raise local zinc concentrations substantially in soil or groundwater. The portion of galvanized post most exposed to oxidation would be that section extending from the ground surface to three or four feet down into underlying soil. Below a few feet down, the soil (and groundwater if present at that shallow a depth) quickly becomes deficient in oxygen and oxidation-reduction reactions are inhibited. Zinc coatings that are exposed to air and weather will oxidize, however this occurs very slowly (often over 75 years or more) before making its way into surface soils. After this time, the metallic zinc is completely consumed and barring any other reactions, would be present in the soil as zinc oxide (which is used routinely in sunscreen, among other products). There is minimal vertical movement of zinc in the soil, so it does not readily migrate to underlying groundwater.

Interrogatory CSC-1-28

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-28: Referencing page 24 of the Petition, it states, “Revity will provide the results of this Phase 1B to the Council once it is completed.” What is the status of the Phase 1B cultural resources assessment and reconnaissance survey?

A-CSC-1-28: The phase 1B analysis has been completed and was sent on May 18th of 2020 to the State Historic Preservation Office for its review and determination.

Interrogatory CSC-1-29

Revity Energy LLC

Witness: Mike Libertine
David Russo

Petition No. 1401

Q-CSC-1-29: Please submit photographic site documentation with notations linked to the site plans or a detailed aerial image that identify locations of site-specific and representative site features. The submission should include photographs of the site from public road(s) or publicly accessible area(s) as well as Site-specific locations depicting site features including, but not necessarily limited to, the following locations as applicable:

For each photo, please indicate the photo viewpoint direction and stake or flag the locations of site-specific and representative site features. Site-specific and representative site features include, but are not limited to, as applicable:

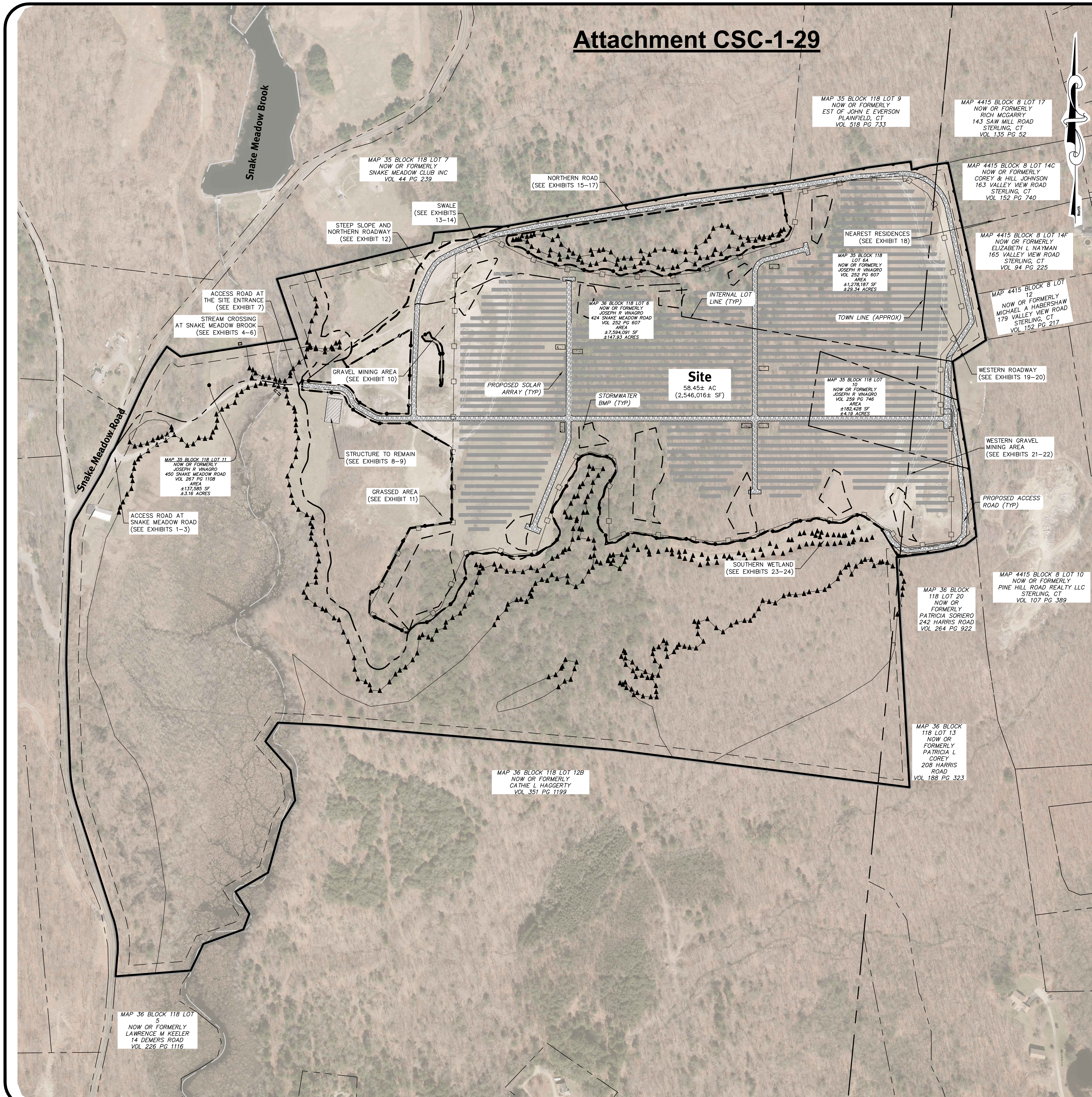
1. wetlands, watercourses and vernal pools;
2. forest/forest edge areas;
3. agricultural soil areas;
4. sloping terrain;
5. proposed stormwater control features;
6. nearest residences;
7. Site access and interior access road(s);
8. utility pads/electrical interconnection(s);
9. clearing limits/property lines;
10. mitigation areas; and
11. any other noteworthy features relative to the Project.

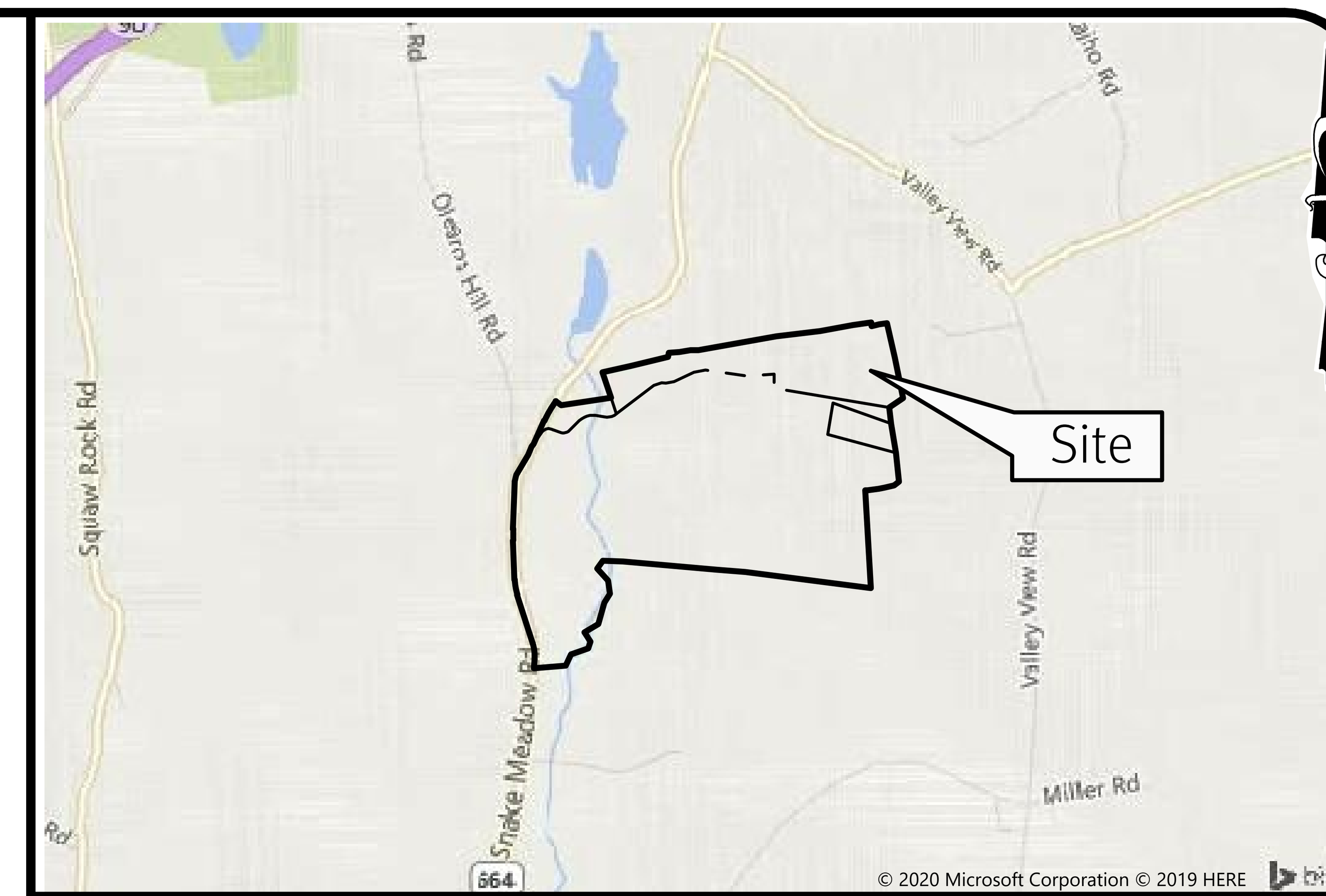
A photolog graphic must accompany the submission, using a site plan or a detailed aerial image, depicting each numbered photograph for reference. For each photo, indicate the photo location number and viewpoint direction, and clearly identify the locations of site-specific and representative site features show (e.g., physical staking/flagging or other means of marking the subject area).

The submission shall be delivered electronically in a legible portable document format (PDF) with a maximum file size of <20MB. If necessary, multiple files may be submitted and clearly marked in terms of sequence.

A-CSC-1-29: Please see Attachment CSC-1-29.

Attachment CSC-1-29





Locus Map Not To Scale

General Notes:

1. THE SITE IS LOCATED AT 424 SNAKE MEADOW ROAD AND IS IN THE TOWNS OF STERLING, CONNECTICUT AND PLAINFIELD, CONNECTICUT. THE TOTAL SITE AREA IS 184.62± ACRES:

   STERLING (8.54± ACRES) – PARCEL ID 4415–008–0011 – SINGLE ZONING DISTRICT OF STERLING.

   PLAINFIELD (176.08± ACRES) – ASSESSOR'S PLAT 35 BLOCK 118 LOTS 6A, 10, AND 11 AND ASSESSOR'S PLAT 36 BLOCK 118 LOT 6 - ZONED RA–60.

2. THE OWNER OF ALL PARCELS WITHIN THE SITE ARE OWNED BY:
   JOSEPH A. VINAGRO
   2208 PLAINFIELD PIKE
   JOHNSTON, RI 02919

3. THIS SITE IS LOCATED IN FEMA FLOOD ZONES X AND A. REFERENCE FEMA FLOOD INSURANCE RATE MAP 0901160005B, REVISED JUNE 17, 1991 AND MAP 0901180005B, REVISED MARCH 4, 1985. (FLOOD PLAIN DESCRIPTIONS SHOWN BELOW)

   ZONE A – THIS SITE IS LOCATED IN FEMA FLOOD ZONE A. ZONE A ARE AREAS OF 100–YEAR FLOOD; BASE FLOOD ELEVATIONS AND FLOOD HAZARD FACTORS NOT DETERMINED.

   ZONE X (UNSHADED) – THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE AREAS WHERE THERE IS MINIMAL FLOODING.

4. THIS PLAN HAS BEEN CREATED BY INFORMATION PROVIDED FROM LANGAN SURVEYING ON SEPTEMBER 17, 2018. THIS SURVEY SHOWN WITHIN THIS PLAN SET IS A COMPILATION PLAN CONFORMING TO A HORIZONTAL ACCURACY OF CLASS D AND A TOPOGRAPHIC SURVEY CONFORMING TO T–3 ACCURACY. THE TOPOGRAPHY AND BOUNDARY INFORMATION SHOWN IN THIS PLANSET WAS COMPILED FROM OTHER MAPS, RECORD RESEARCH, AND OTHER SOURCES OF INFORMATION. NO SURVEY OR TOPOGRAPHIC INFORMATION SHOULD BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. PLEASE REFER TO THE COMPILATION BOUNDARY SURVEY PREPARED BY LANGAN FOR MORE INFORMATION.

   THIS COMPILATION PLAN HAS BEEN PREPARED FROM SOURCES OF INFORMATION AND DATA WHOSE POSITIONAL ACCURACY AND RELIABILITY HAS NOT BEEN VERIFIED. THE PROPERTY LINES DEPICTED HEREIN DO NOT REPRESENT A BOUNDARY OPINION, AND OTHER INFORMATION DEPICTED IS SUBJECT TO SUCH CHANGES AS AN AUTHORITATIVE FIELD SURVEY MADE ON THE GROUND IN ACCORDANCE WITH THE RULES AND REGULATIONS AS STATED IN CMR 250 SECTION 6.00 MAY DISCLOSE.

Legend

NOT ALL ITEMS SHOWN WILL APPEAR ON PLANS

- PROPERTY LINE
- ASSESSORS LINE
- BUILDING
- BRUSHLINE
- TREELINE
- GUARDRAIL
- FENCE
- RETAINING WALL
- STONE WALL
- SOILS LINES
- 50' REGULATED WETLAND AREA
- 100' REGULATED WETLAND AREA
- 200' REGULATED WETLAND AREA
- FEMA BOUNDARY (ZONE X)
- STREAM
- WETLAND LINE & FLAG (B1, B2)
- LEASE LINE
- BUILDING SETBACKS
- CHAINLINK FENCE
- EDGE OF PAVEMENT
- SOLAR ARRAY
- LIMIT OF DISTURBANCE/ LIMIT OF CLEARING
- SEDIMENTATION BARRIER, SILT FENCE (PER CTDOT STANDARDS AND SPECIFICATIONS), COMPOST SOCK OR APPROVED EQUAL

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com
Boston • Providence • Newport

This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

No.	Date	Description	By:
0	5/14/2020	Viewshed Analysis	K.E.D.

Drawn By: K.E.D.

Viewshed Analysis
Snake Meadow Road Solar

Plainfield and Sterling, CT
AP 35 Block 118 Lots 6A, 10 & 11, AP 36 Block 118 Lot 6, Parcel ID 4415-008-0011

Applicant
Revity Energy, LLC
117 Metro Center Boulevard, Suite 1007 Warwick, RI 02886
tel 401-562-0217

SHEET 1 OF 1

z:\demain\projects\2437-018 snake meadow road solar\autocad drawings\2437-018-exbt-viewshed analysis.dwg Plotted: 5/14/2020

Site Photos

Snake Meadow Road Solar

424 Snake Meadow Road, Plainfield CT

Exhibit 1: Site Access at Snake Meadow Road (Looking South)

Exhibit 2. Site Access at Snake Meadow Road (Looking North)

Exhibit 3. Site Access Road (Looking Northeast)

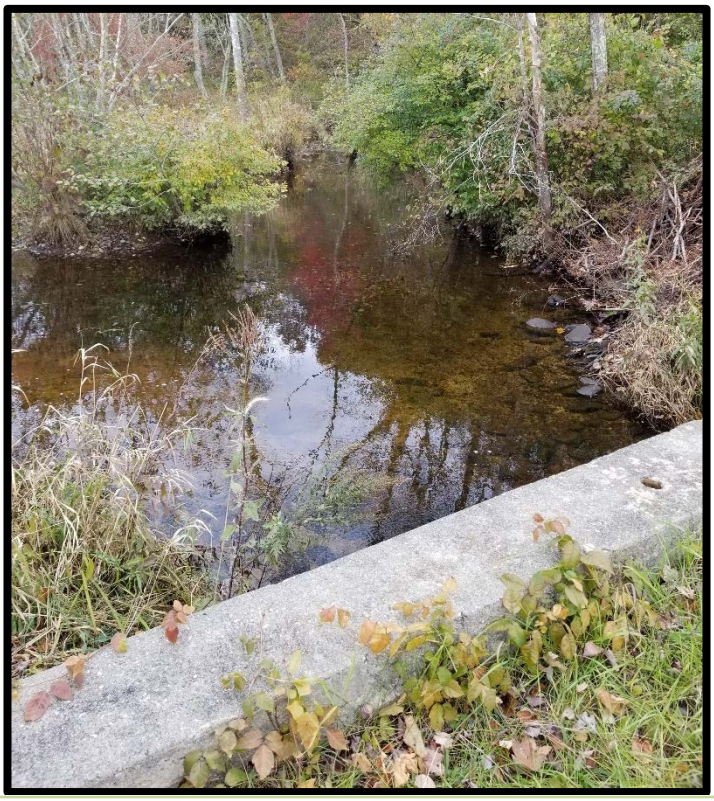


Exhibit 4. Snake Meadow Stream Crossing (Looking North)

Exhibit 5. Snake Meadow Upstream Stream Crossing (Looking South)

Exhibit 6. Snake Meadow Stream Crossing (Looking South)

Exhibit 7. Access Road at Site Entrance (Looking East)

Exhibit 8. Structure to Remain (Looking Southeast)

Exhibit 9. Structure to Remain (Looking Southwest)

Exhibit 10. Gravel Pit Panorama (Looking South)

Exhibit 11. Western Grassed Area (Looking South)

Exhibit 12. Steep Slope and Northern Roadway (Looking East)

Exhibit 13. Conveyance Pipes Under Road (Looking South)

Exhibit 14. Rip-Rap Swale (Looking Northeast)

Exhibit 15. Northern Roadway (Looking East)

Exhibit 16. Rip-Rap Swale Along Northern Road

Exhibit 17. End of Northern Roadway (Looking East)

Exhibit 18. Nearest Residences (Birdseye View)

Exhibit 19. Western Roadway (Looking South)

Exhibit 20. Rip-Rap Swale Along Western Roadway

Exhibit 21. Exposed Rock (Looking South)

Exhibit 22. Western Gravel Mining Area (Looking West)

Exhibit 23. Southern Wetland

Exhibit 24. Southern Wetland

Interrogatory CSC-1-30

Revity Energy LLC | Witness: Mike Libertine

Petition No. 1401 | Page 1 of 1

Q-CSC-1-30: Would the location of the solar array in relation to Snake Meadow Brook and its associated watercourses interrupt or otherwise impede wildlife access to the area? Please explain.

A-CSC-1-30: The proposed Facility will result in the loss of certain habitat types which will modify the ways in which some wildlife may use the site. However, those wildlife populations that may currently migrate through the site via the Snake Meadow Brook riparian corridor will remain largely unimpeded. The proposed development will not result in any significant changes to the existing access road entrance off Snake Meadow Road or the existing crossing of Snake Meadow Brook. As such, wildlife utilizing this riparian corridor will be able to continue their use of this migratory pathway without any disruption post-construction. Similarly, wetland habitat with connectivity to Snake Meadow Brook (Wetlands 1, 4, 6, 7) will not be directly impacted by the Project and remain intact post-construction. Finally, while the Project will result in the loss of some forested habitat in the central portion of the site, forested migratory pathways will remain intact to the east and west and continue to provide connectivity to the larger core-forested habitat found to the north and south.

Interrogatory CSC-1-31

Revity Energy LLC | Witness: David Russo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-31: Has the petitioner met with the DEEP Stormwater Division? If yes, when? Please describe any recommendations, comments or concerns about the project provided by the Stormwater Division. Would site construction conform to DEEP's proposed revisions to the General Permit, including draft Appendix I, Stormwater Management at Solar Array Construction Projects?

A-CSC-1-31: Revity has met with DEEP Stormwater Division on two occasions. The first meeting was to discuss the overall project and DEEP provided Revity with the "Appendix I" information. Revity then revised the plans as needed to meet these guidelines. Revity met with the DEEP on a second occasion to discuss these revisions and get any final feedback before a final submission. Revity believes the proposed project conforms to DEEP's draft "Appendix I" Stormwater Management at Solar Array Construction Projects and is awaiting any comments from the DEEP.

Interrogatory CSC-1-32

Revity Energy LLC | Witness: David Russo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-32: Has Revity considered utilizing a 100-foot wetland buffer? Explain why or why not.

A-CSC-1-32: Revity has considered utilizing a 100-foot wetland buffer. A 100-foot wetland buffer along the southern wetland would increase the area of shading and significantly decrease the useable solar area, and therefore a 50' buffer will be used. The northern wetland only requires a 15 foot buffer, however, a 25 foot buffer is proposed in order to allow additional space for fencing and emergency vehicle access. There is more than 100 feet of land between the Western wetland edge and the proposed limit of disturbance.

Interrogatory CSC-1-33

Revity Energy LLC

Witness: David Russo;
Mike Libertine

Petition No. 1401

Q-CSC-1-33: With regard to earthwork required to develop the site, provide the following:

a) In what areas would the site be graded?

b) What is the desired slope within the solar array areas?

c) Could the solar field areas be installed with minimal alteration to existing slopes?

d) If minimal alteration of slopes are proposed, can existing vegetation be maintained to provide ground cover during construction?

e) Estimate the amounts of cut and fill in cubic yards for the access road(s).

f) Estimate the amounts of cut and fill in cubic yards for solar field grading.

g) If there is excess cut, will this material be removed from the site property or deposited on the site property?

A-CSC-1-33:

a) The site will be graded in areas that have existing slopes greater than 15%. See the Grading and Drainage Plan for areas of proposed grading.

b) The desired slope within the solar array areas will be 15% or less. The existing topography will be maintained in as many areas as possible.

c) Panels are above grade and attached to ground-mounted posts that are pile driven into the ground. Therefore, where existing slopes are 15% or less, minimal alterations to the topography will occur in connection with the panel installation.

d) Existing vegetation will be maintained wherever possible.

e) Approximately 900 cubic yards of fill will be used for the access roads.

f) A negligible amount of fill will be used for solar grading.

g) There is not an excess cut on the site and no material is proposed to be removed from the site.

Interrogatory CSC-1-34

Revity Energy LLC | Witness: David Russo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-34: Would topsoil be stripped from the site prior to grading? If so, would the topsoil be spread over the disturbed areas once grading is complete? If not, how would growth of new vegetation/grasses be promoted within the graded areas if nutrient rich soils are not present?

A-CSC-1-34: Any topsoil stripped prior to grading will be stock piled, screened, and then spread over the disturbed areas once grading is complete in order to carry out revegetation.

Interrogatory CSC-1-35

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-35: How would the posts (that support the racking system) be driven into the ground? In the event that ledge is encountered, what methods would be utilized for installation?

A-CSC-1-35: Racking posts will be driven into the ground. If a ledge is encountered, Revity will either drill or blast the rock, depending on the conditions.

Interrogatory CSC-1-36

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 | Page 1 of

Q-CSC-1-36: What is the minimum road width required for post-construction use?

A-CSC-1-36: At this time such a road width has not been determined, however Revity will work with the Plainfield and Sterling fire departments in order to achieve the minimum width that they request for emergency access.

Interrogatory CSC-1-37

Revity Energy LLC
Petition No. 1401

Witness: David Russo
Page 1 of

Q-CSC-1-37: Has a comprehensive geotechnical study been completed for the site to determine if site conditions support the overall Project design? If so, summarize the results. If not, has the Petitioner anticipated and designed the Project with assumed subsurface conditions? What are these assumed conditions?

A-CSC-1-37: No, a geotechnical study has not been performed for the Site. Soil evaluations for the drainage components of the Site were completed (October 16th and 17th of 2018) and none of the soil testing revealed any ledge present. Therefore, based on the drainage testing, Revity believes it will be able to install the post driven system as designed.

On the western side of the Site in the vicinity of the existing gravel mining activity, soil textures were loose stones and gravel. On the eastern side of the property in the wooded area, soil textures were fine compacted till. Along the southern side of the site, abundant surface stones were observed. See the Existing Conditions Plans for testing locations and water table depths. These results were considered in the stormwater design. Wherever posts cannot be pile driven into the ground due to unfavorable subsurface conditions, ballast mounded panels will be proposed.

Interrogatory CSC-1-38

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-38: Describe the type and frequency of anticipated vegetation management for the site. Include areas inside and outside of the perimeter fence, as well as detention basins and swales.

A-CSC-1-38: Revity will carry out biannual vegetative management and inspections in order to maintain the vegetative growth inside the fence only.

Interrogatory CSC-1-39

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-39: Would the installed solar panels require regular cleaning or other, similar, maintenance? If so, describe cleaning procedures including substances used. Would this maintenance activity have any impacts to water quality?

A-CSC-1-39: No cleaning products or methods will be used to clean the panels. Normal weather and precipitation will be sufficient for surface debris removal.

Interrogatory CSC-1-40

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-40: If applicable, what type of methods would be employed to clean the panels and how often?

A-CSC-1-40: None. See Revity's response to A-CSC-1-39.

Interrogatory CSC-1-41

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 | Page 1 of 1

Q-CSC-1-41: Are there provisions for more frequent inspections of the Project Site in the first few years of operation to monitor and remediate areas of patchy site cover growth, site erosion and detention basin/swale integrity?

A-CSC-1-41: No. Once the site is stabilized, routine maintenance will occur and remain constant throughout the life of the Project.

Interrogatory CSC-1-42

Revity Energy LLC | Witness: Ryan Palumbo

Petition No. 1401 |

Q-CSC-1-42: Would the Petitioner store any replacement modules on-site in the event solar panels are damaged or are not functioning properly? If so, where? How would damaged panels be detected?

A-CSC-1-42: Yes. A container would be located on site within the fenced area in order to hold spare parts such as modules. At this time, the exact location has not been determined for this container. Damaged modules and other equipment are detected through performance losses notified by our Data Acquisition System ("DAS"). For this project, the DAS will most likely be provided by AlsoEnergy.