Connecticut Municipal
cmeec
Electric Energy Cooperative

Via Electronic Mail and
Federal Express

September 27, 2022

Melanie Bachman, Esquire
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Petition No. 1534 Groton Utilities petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed modifications to its existing Buddington Substation located at the intersection of Buddington Road and Gold Star Highway in Groton, Connecticut, and related electric transmission line structure improvements

Dear Ms. Bachman:

Please see attached Groton Utilities responses to Council's Interrogatories, set one dated September 13, 2022.

Sincerely,

Robin Kipnis

Robin Kipnis
General Counsel

30 Stott Avenue ▸ Norwich, Connecticut 06360
p ▸ 860.889.4088 f ▸ 860.889.8158 w ▸ cmeec.org

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Groton Utilities petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed modifications to its existing Buddington Substation located at the intersection of Buddington Road and Gold Star Highway in Groton, Connecticut, and related electric transmission line structure improvements.	Petition No. 1534 September 27, 2022

Groton Utilities Responses to the September 13, 2022
First Set of Interrogatories Directed to Groton Utilities

Petitioner Groton Utilities (Petitioner) hereby submits the following responses to the Interrogatories that were directed to Petitioner by the Connecticut Siting Council on September 13, 2022.

1. What is the total estimated cost of the project? Of this total, what costs would be regionalized, and what costs would be localized? Estimate the percentages of the total cost that would be borne by Groton Utilities' ratepayers, Connecticut ratepayers, and the remainder of New England (excluding Connecticut) ratepayers, as applicable.

   The total estimated cost of the project is 5.8 million dollars. The total cost of the project will be regionalized across New England for the reason that it was identified as a critical regional reliability need in the ISO-NE System Plan and in the 2019 Eastern Connecticut Needs Assessment .

2. How do the proposed modifications improve reliability of the transmission system?

   The reliability of the transmission system will be improved by upgrading the equipment from 69kV to 115 kV at the Buddington Substation. In addition, this upgrade will do the following to improve reliability when lines are out of service:
   a. Automated switching to recover lines taken out of service by weather or system issues.
   b. Switching options for maintenance and testing at the 33kV level in the Buddington Substation.
   c. Options for delivery to other parts of the Eversource transmission system through the Buddington 115kV terminal through the addition of Tie breakers.
   d. Breakers and state of the art protection and controls equipment. New relays will replace older electromechanical relays. Faster, more reliable and enhances features will allow for sequence of events to be captured.

3. Identify all other permits required to perform the proposed work.

   Groton Utilities has obtained permits for the following: NDDB (Permit No. 202009234) and a State Road Permit. Groton Utilities also has a Sediment and Erosion Control Plan, Phase 1B cultural reconnaissance survey, a Pedestrian Survey and a Storm Water Pollution Control Permit.

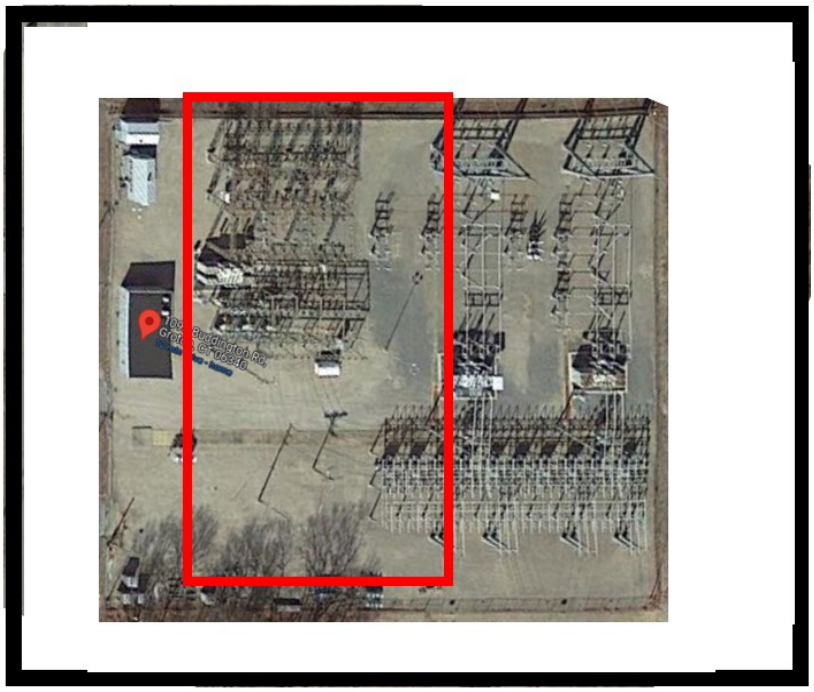
4. Referencing page 6 of the petition and Attachment E, did the Town or City of Groton express any concerns related to the project? If so, what were the concerns and how were these concerns addressed?

   There were no concerns raised by the Town or City of Groton.

5. Has there been any flooding of the substation in past storm events? Where is the 100-year flood zone in relation to the substation layout?

   There has been no flooding of the station. The substation is not within a 100-year-old flood plain. A map depicting the proximity of the substation to the 100-year-old flood is attached as Addendum A.

6. Provide an aerial photograph of existing substation conditions with a line denoting the limits of the project work area.



Old lattice steel will be removed to make for the new 115kV system with A-Frame and aluminum open bus connections.

7. Would the proposed equipment increase substation noise levels? What is the estimated noise level at the property lines and do such levels comply with DEEP Noise Control regulations? How were noise levels determined?

   Substation noise will not be increased because all equipment is being changed out with like-for-like equipment. For this reason, Groton Utilities has not measured the noise level at the substation.

8. What is the distance and direction of the existing substation fence to the nearest residential property line?

   The distance from the substation fence to the nearest residential property line is approximately 167 feet.

9. Have soils in the proposed excavation areas been tested to determine disposal characterization What construction/disposal methods would be followed for on-site soils?

   Soils samples have been taken. Coring was done for the civil project prior to civil design. It is believed the GU will be able to reuse almost all if not all of the removed materials at Buddington Substation. Any materials that are left over at the end of the project will be stored at Buddington substation and tested by VHB. Once testing is complete, GU will retain the materials if they are not contaminated to use for future Buddington substation projects. In the event that the test finds any contamination VHB and GU will contract a waste removal company to transfer the materials to an appropriate waste facility.
   GU will be following the 2002 DEEP Guidelines for Soil Erosion and Control

10. What erosion and sedimentation control measures would be utilized at the substation site during construction?

    See response to question 9. above. In addition, GU is providing a copy of its Soil and Erosion Plan as Addendum B.

11. What is the height of the tallest proposed structure?

    The tallest proposed structure will match the height in the existing A- Frame structures, which are currently 85 feet.

12. Is a mobile transfer required for this project? If yes, where would it be located? Describe containment measures for the mobile transformer to mitigate a fluid leak.

No mobile transformer will be required.

Respectfully submitted,
Groton Utilities

Robin Kipnis

Robin Kipnis
General Counsel
rkipnis@cmeec.org

ADDENDUM A

\\vhb.com\gis\proj\Vathers\field\42663.00\Project\Groton_Utilities_1410_400_1280.aprx

INDEX MAP

- Existing Structure Str
- Existing Structure to be Removed
- Proposed Structure Str
- Existing Right-of-Way (ROW)
- Overhead Line
- Existing Access (all necessary rights in place)
- Temporary Construction Matting
- Stone Work Pad
- Delineated Wetland Boundary Outline
- Delineated Ephemeral Watercourse
- Delineated Intermittent Watercourse
- Field Delineated Wetland
- FEMA 100-Year Flood Zone
- CT New England Cottontail Focus Area
- Rare Species Area (NDDB June 2020)
- Gate
- 10' Contour Line
- 2' Contour Line
- Culvert
- Map Sheet Match Line
- Parcel Boundary
- City of Groton Owned Parcel
- Municipal Boundary

Base Map Source: 2016 Aerial Imagery (CTDEP)

1 Inch = 200 feet

0 100 200 Feet

NO.	DATE	REVISIONS	BY	CHK	APP	APP

GROTON UTILITIES

400/1410/1280 Line Structure Replacement Project

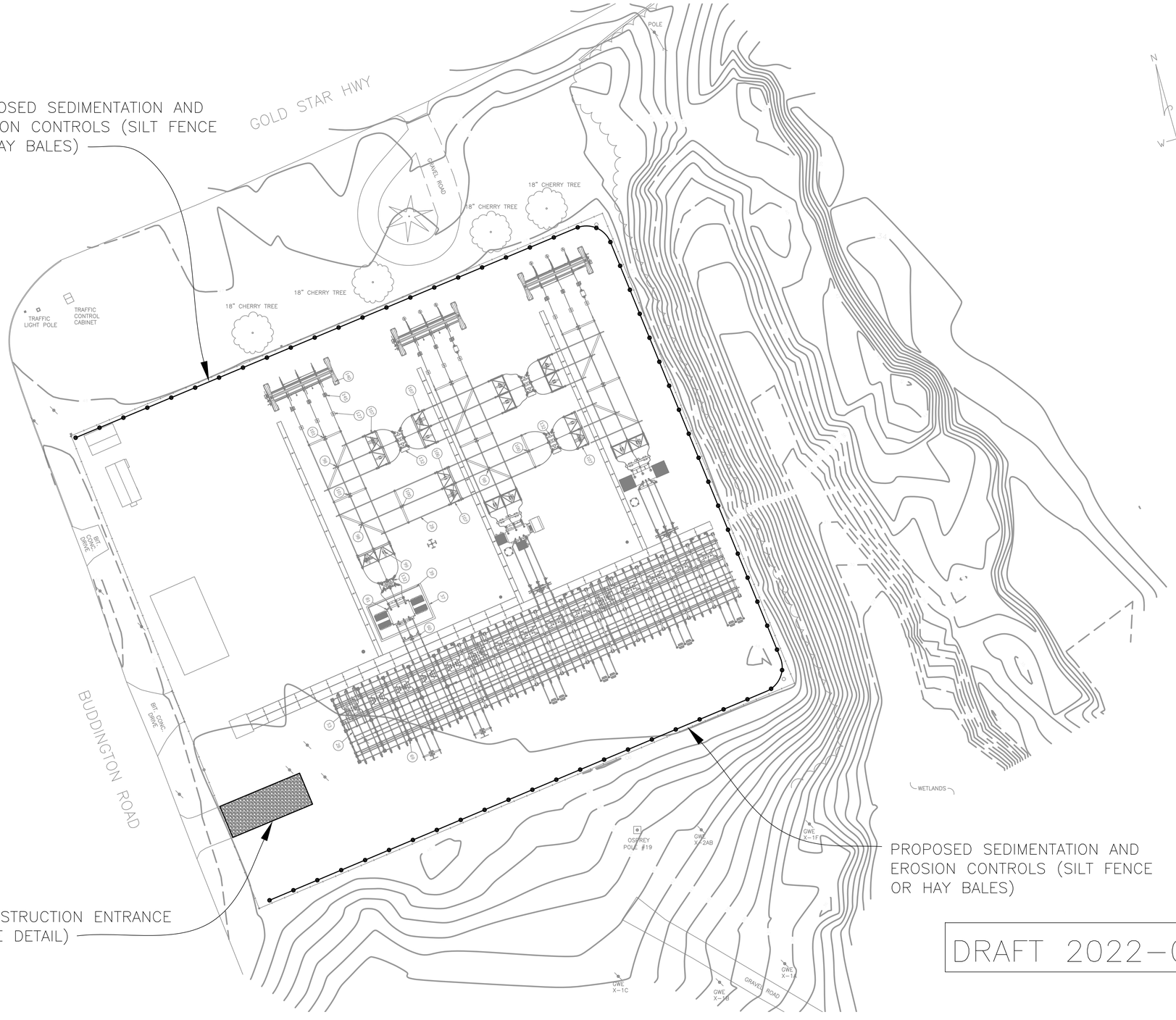
Date: June 03, 2021 | Map Author: S.Pelletier

Ledyard, CT

vhb

Map Sheet 4 of 4

ADDENDUM B

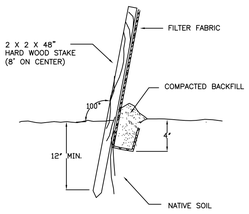


0 30 60 90

SCALE: 1" = 30'

SURVEY NOTES

1. NORTH AS SHOWN HEREON IS BASED ON THE CONNECTICUT COORDINATE GRID SYSTEM, AS DERIVED FROM THE 1983 NORTH AMERICAN DATUM (NAD 83/87).
2. THE LOT WILL BE CLEARED TO LIMITS SHOWN ON PLAN .
3. ELEVATIONS SHOWN HEREON ARE BASED ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD 88).
4. THIS PLAN AND FIELD SURVEY HAVE BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300B-1 THROUGH 20-300B-20, "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.
5. THE TYPE OF SURVEY IS A TOPOGRAPHIC SURVEY. THE HORIZONTAL ACCURACY, BASED UPON A BASELINE, CONFORMS TO CLASS A-2 AND THE CONTOURS SHOWN ON PLAN CONFORM TO CLASS T-2 AS DEFINED BY THE MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONN. AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.
6. THIS PLAN AND COPIES THEREOF ARE VALID ONLY IF THEY BEAR THE SIGNATURE AND EMBOSSED SEAL OF THE DESIGNATED LAND SURVEYOR. UNAUTHORIZED ALTERATIONS RENDER ANY DECLARATION HEREON NULL AND VOID.



NOTE: FILTER FABRIC SHALL BE MIRAFI "SILT FENCE" EXXON GTF 180, AMOCO 1380, OR APPROVED EQUAL

SEDIMENTATION FENCING

NOT TO SCALE

LEGEND

⊠ CHD	CHD FOUND (CONN. DOT SURVEY MONUMENT)
36	EXISTING CONTOURS
X — X — X	EXISTING FENCE
GWE X 1B	UTILITY POLE
	GRAVEL ROAD
	PROPOSED SILT FENCE / HAY BALES
	TREE LINE

DRAFT 2022-09-23

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

KARL F. ACIMOVIC P.E & L.S. #13032 DATE

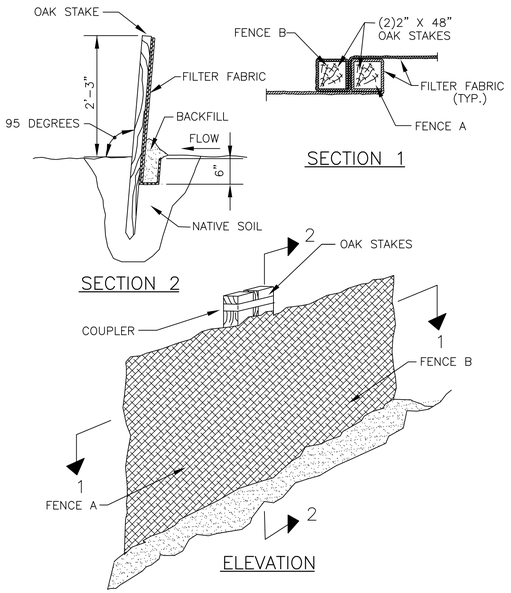
DATE	BY	REVISION

GROTON UTILITIES

SEDIMENTATION & EROSION CONTROL PLAN

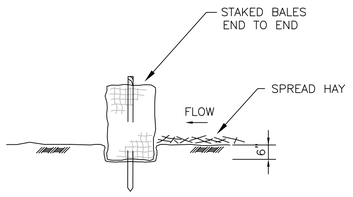
BUDDINGTON SUBSTATION
BUDDINGTON ROAD
GROTON, CONNECTICUT

SURVEY BY:	G.U.	DATE: 06/01/2022	SCALE: 1"= 30'
BASE PLAN BY:	G.U.	DATE: 06/08/2022	DWG. NO.
DESIGN BY:	G.U.	DATE: 09/23/2022	SHEET 1 OF 1

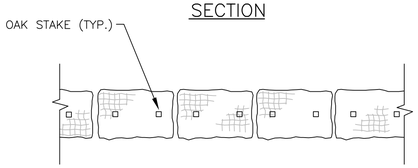


SILT FENCE DETAIL

NOT TO SCALE



SECTION



PLAN

NOTES:

1. HAYBALES TO BE PLACED PRIOR TO START OF WORK.
2. HAY BALES TO BE SECURED WITH MINIMUM TWO (2) 2" X 2" X 4' OAK STAKES PER BALE, DRIVEN 18" MINIMUM INTO GRADE.

HAYBALE DETAIL

NOT TO SCALE

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE CONNECTICUT STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT.
3. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE CONNECTICUT STANDARDS.
4. STABILIZATION SPECIFICATIONS:
   A. TEMPORARY SEEDING AND MULCHING:

      LIME – 90 LBS/1,000 SF GROUND LIMESTONE;

      FERTILIZER –14 LBS/1,000 SF; 10–20–10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4–INCHES.

      SEED – ANNUAL RYEGRASS 40 LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN APRIL 15 – JUNE 30 OR AUGUST 15 – SEPTEMBER 30.

      MULCH – SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF, TO BE APPLIED ACCORDING TO THE CT. STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).

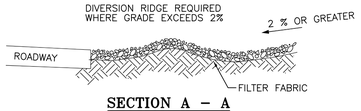
   B. PERMANENT SEEDING AND MULCHING:

      LIME – 90 LBS/1,000 SF GROUND LIMESTONE;

      FERTILIZER – 14 LBS/1,000 SF; 10–20–10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4–INCHES.

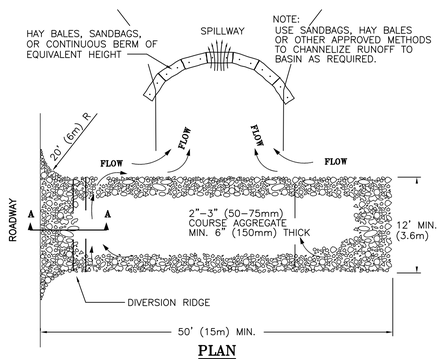
      SEED – APPLY THE FOLLOWING SEED MIXTURE PER 100 S.F. KENTUCKY BLUE GRASS AT 2 LBS. CREEPING RED FESCUE AT 1 LB AND PERENNIAL RYEGRASS AT A RATE OF 2 LBS.

      MULCH – SALT HAY OR SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF, TO BE APPLIED ACCORDING TO THE CT. STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS
5. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUN–OFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
6. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS.
7. THE CONTRACTOR OR THE CONTRACTOR'S REPRESENTATIVE AT THE TIME OF CONSTRUCTION WILL SERVE AS CONTACT PERSON FOR INSTALLATION, INSPECTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES.
8. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, ROADWAY, OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHOULD BE PROTECTED BY A HAY BALE BARRIER OR SEDIMENT FENCE.



SECTION A – A

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT–OF–WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.



PLAN

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE / EXIT

NOT TO SCALE

NARRATIVE

THIS PROPOSAL INVOLVES THE DEMOLITION OF EXISTING ELECTRICAL STRUCTURES AND THE CONSTRUCTION OF NEW ELECTRICAL FACILITIES OR THE MODIFICATION OF EXISTING STRUCTURES WITHIN THE PERIMETER FENCING OF THE CURRENT BUDDINGTON ELECTRICAL SUBSTATION. DEMOLITION OF EXISTING AND THE ERECTION OF NEW OR MODIFIED STRUCTURES IS SHOWN ON ACCOMPANYING PLANS, TO WHICH REFERENCE IS HEREBY MADE.

DRAINAGE IS INTENDED TO BE KEPT ON THE SITE, WITH NO RUNOFF TO ADJACENT STREAM OR WETLAND AREAS. NOTE THAT UNDERLYING SOILS ARE PERVIOUS AND THAT THERE IS A POSSIBILITY THAT ANY POTENTIAL SPILLS OF OILS, FUELS OR OTHER CHEMICAL SUBSTANCES MAY ENTER THE UNDERLYING GROUNDWATER TABLE, CURRENTLY CLASSIFIED AS OF DRINKING WATER QUALITY. AS SUCH. THE CONTRACTOR WILL TAKE ALL NECESSARY PRECAUTIONS TO AVOID SPILLS OF SUCH MATERIALS DURING CONSTRUCTION AND DURING FUELING OF CONSTRUCTION EQUIPMENT. THE CONTRACTOR WILL MAINTAIN, AND AT ALL TIMES HAVE ON SITE, READY FOR USE, SPILL PREVENTION AND CONTROL MATERIALS IN THE EVENT OF A SPILL.

SEDIMENTATION AND EROSION CONTROLS MUST BE INSTALLED, INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION AND PRIOR TO REMOVAL FROM THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE EVENTUAL REMOVAL OF SEDIMENTATION AND EROSION CONTROLS ONCE ALL DISTURBED AREAS ARE RESTORED AND ANY GRASS AREAS ARE STABILIZED.

CONSTRUCTION SEQUENCE

1. STAKE OUT THE LIMITS OF CONSTRUCTION, THE ENTRANCE TO THE SITE, ANY CLEARANCE LIMITS FOR ROAD SIGHT LINE OR CONSTRUCTION BUFFER AREAS, ANY GENERAL SITE GRADING, STAGING AND STORAGE AREAS AND ANY OTHER LOCATIONS AS AGREED UPON WITH THE ENGINEER.
2. STAKE OUT AND INSTALL SEDIMENTATION AND EROSION CONTROL BARRIERS AS SHOWN ON THE PROPOSED PLAN(S).
3. WHERE APPROPRIATE, REMOVE EXISTING VEGETATION AND / OR TOPSOIL WITHIN THE LIMITS OF CONSTRUCTION, INCLUDING SITE ENTRANCE AND STAGING AND STORAGE AREAS.
4. DEMOLISH AND EXCAVATE SITE STRUCTURES AS DEPICTED ON THE ACCOMPANYING PLANS AND DISPOSE OF MATERIALS AS SPECIFIED TO OFF SITE LOCATIONS.
5. CONSTRUCT NEW STRUCTURES AND / OR MODIFY EXISTING SITE FEATURES AS SHOWN ON PLANS AND AS SPECIFIED.
6. SUBSEQUENT TO CONSTRUCTION OF NEW FACILITIES, FINISH GRADE THE SITE AND RESTORE STAGING AND STORAGE AREAS, AS WELL AS ALL AREAS DISTURBED DURING THE CONSTRUCTION PROCESS, UNLESS SPECIFIED AS NEW OR MODIFIED, RESTORE REMAINING AREAS TO PRE–EXISTING CONDITIONS.
7. LOAM AND SEED ALL GRASS AREAS DISTURBED BY CONSTRUCTION AND, UPON STABILIZATION OF NEW VEGETATION, REMOVE SEDIMENTATION AND EROSION CONTROL BARRIERS AS DIRECTED BY THE ENGINEER.

DRAFT 2022–09–23

DATE	BY	REVISION

GROTON UTILITIES

SEDIMENTATION & EROSION CONTROL PLAN

BUDDINGTON SUBSTATION
BUDDINGTON ROAD
GROTON, CONNECTICUT

SURVEY BY:	G.U.	DATE: 06/01/2022	SCALE: 1"= 30'
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