

April 14, 2020

Mr. David Price
NHDES Wetlands Bureau,
Pease Office
222 International Dr., Suite. 175
Portsmouth, NH 03801

**Re: Seacoast Reliability Project - SEC Docket 2015-04
Notification of Minor Construction-Related Changes
Submarine cable and Eastern Shore Landing**

Dear Dave;

We write to provide you with an update on construction of the Seacoast Reliability Project (SRP). As of today, Eversource and its contractors have laid the cable across Little Bay (using both jet plow and hand-burial methods, as well as excavating in the tidal flats) and installed the concrete mattresses as noted in our January 10, 2020 correspondence to you. During our review of the submarine cable as-built surveys for SRP, Eversource identified two construction topics regarding the construction of the Project:

1. The 42" cable burial depth in Little Bay, as required by the National Electrical Safety Code (NESC) and the SEC Certificate,¹ was not achieved for the three submarine cables in the eastern near shore area; therefore, Eversource's contractors must install additional supplemental protection to comply with the NESC and the SEC Certificate. As described herein, Eversource is hereby providing you with notification that it will bury open cell concrete blocks in the nearshore area above the cables. This work will occur using trenching methods previously permitted for in the area of the submarine cable installation and will only involve temporary impacts in the existing permitted temporary impact area. The installation of such additional buried protection will occur just prior to the completion of the final grading of the salt marsh restoration work.
2. The as-built cable manhole location, on the eastern side of Little Bay, is located approximately 25' farther east from the shore than originally designed and its vertical orientation results in a finish grade that is approximately 2.5' higher in elevation than was shown on the final issue for construction permit engineer plan set. As a result, the finish grades of the shore area will be

¹ The SEC Certificate requires the Project to be "constructed in accordance with all Eversource Policies, the National Electric Safety Code (NESC) requirements for transmission lines, and national and regional reliability standards." *Order And Certificate of Site and Facility With Conditions*, Docket 2015-04, at 10 (Jan. 31, 2019). See also NH DES Revised Final Decision, Wetland Bureau at 21 of 27, Finding # 10 (Oct. 29, 2018) (permitting permanent impacts to estuarine wetlands due to the placement of concrete mattresses that "are required by the National Electric [] Safety Code for submarine cables that cannot be buried to the required depth due to bedrock or other limiting materials").

slightly different than the preconstruction conditions. To address this issue, Eversource has developed a grading plan that blends the area around the manhole back to preexisting grades to the extent possible and that reestablishes a gravel access to the waterfront, consistent with pre-existing conditions.

As discussed herein, it is Eversource's opinion that these minor construction-related changes do not require an amendment to the NHDES or USACE permits or the SEC Certificate.

Cable Burial Depth and Additional Supplemental Protection

Immediately after completing the eastern nearshore cable burial, Eversource's contractor surveyed the grades in the intertidal section on December 12, 2019 to determine the location and extent of concrete mattresses needed to comply with the NESC and SEC Certificate. At that time, the cables in the vicinity of the salt marsh restoration and the landward toe of slope were determined to have adequate cover according to NESC requirements. However, after further review of the as-built survey information, a supplemental ground survey was conducted on March 18, 2020. This survey demonstrated that the cables had inadequate cover in the same area, and that additional supplemental protection would be required. Based upon the original review of site conditions when compared to the as-built survey, it is believed that a combination of subsidence and wave action have caused the substrate deficit.

Based on the survey data, the cable contractor has determined that an area approximately 60' in length at the eastern shore below the mean high water line and an area approximately 36' in length above the mean high water line will require additional supplemental protection for all three submarine cables. During construction, cover material was placed on top of the cable above the mean high water line. To finalize construction in both areas, Eversource's contractor must excavate the cover, bury concrete blocks to protect the cable, and establish final grades. More specifically, to meet NESC and SEC requirements, Eversource's contractors will bury 4.75" thick Armortec Armorflex open-cell concrete blocks to a target depth of 12" below grade to protect the cables in the layout shown on the attached plan set entitled *Newington Cable Landing and Slope Restoration*.

Each Armorflex block (refer to the Armorflex Specifications in Attachment-1) is 13" x 11.6" in area. The blocks are laced together with manufacturer-supplied cable to form a continuous surface. To provide sufficient protection, the blocks will extend approximately 2' beyond the edges of the outside cables. To install the additional protection, Eversource's contractors will employ similar trenching methods as were permitted for use in the nearshore area to install the submarine cables. A small excavator and loader will work sequentially from construction matting in the dry during low tide cycles. The contractors will side cast the sediments and subsequently lay the concrete blocks by hand at depths that allow for a target depth of 12" of sediment backfill over the blocks. Disturbed areas will be backfilled at the end of each low-tide work cycle and turbidity curtains will be installed surrounding the work area.

Eversource's contractor has supplied the following details for the installation of the Armorflex blocks as follows:

Tidal Flats Installation Process

- Excavate an anticipated 25' long x 15' wide (375 SF) x 18" deep section at start of ebb tide on tidal flats starting on the west end with excavator working on timber mats.

- Approximately 16 cubic yards of excavated material will be side cast adjacent excavation.
- The length of trench opened for each installation will be adjusted as necessary based on observed installation rates.
- Hand-place concrete blocks over the cables and thread blocks together with manufacturer supplied cord.
- The final alignment of all concrete blocks will be surveyed and shown on revised as-built drawings.
- Mark stop location on east end of work area with fiberglass rods, backfill with excavated material.
- Restore work area to match existing grade prior to flood tide.
- Move equipment off tidal flats and reinstall soil erosion and sediment controls on slope.
- Reinstall silt curtains around tidal flat work area.
- Work to resume the following day at start of ebb tide.

Slope Area Installation Process

- Excavate a 36' long x 12' wide (240 SF) x 18" deep section at start of ebb tide from toe of slope working east. Hand-placed concrete blocks will be placed over approximately 36' of power cable on the shore slope.
- Approximately 13 cubic yards of excavated material will be side cast adjacent to the excavation area for concrete blocks.
- Hand-place concrete blocks and thread blocks together with manufacturer supplied cord in a single shift.
- Backfill excavated material.
- Reinstall soil erosion and sediment controls on slope.
- Reinstall silt fence at toe of slope and silt curtain to protect from wave action.

General

- It is anticipated that the installation of the additional supplemental protection in the intertidal zone will require approximately 3 days to complete.
- The final alignment of all concrete blocks will be surveyed and shown on revised as-built drawings.
- Immediately after completion of this task, the salt marsh restoration will occur in the designated zone as described in the Salt Marsh Removal and Restoration Plan.

Shore Restoration and Grading

In January 2020, Eversource's civil contractor reported that the as built drawings that depict the location of the manhole on the eastern shore had shifted within the existing easement by approximately 25' eastward. The manhole was also installed at a higher elevation, resulting in a finish grade that is between 0.5' and 2.5' higher than the original grade depending on the location across the manhole. It became evident that Eversource's contractors made this adjustment to help alleviate some of the extensive dewatering requirements while complying with the environmental controls in the restricted construction area. This minor deviation from the original design altered the cable burial and the subsequent regrading necessary to restore the property. Eversource's submarine cable contractor completed construction splicing inside the manhole and buried the cable from the manhole to the shore

in late December 2019. Because of the wet winter and the continued need for access to the manhole for cable splicing, Eversource's contractor installed gravel on the access route and temporarily graded and stabilized side slopes until the final grades and vegetation could be completed in the spring.

The underlying landowner has requested to review the revised final design and grading and has asked that a gravel path be restored from her driveway to as close to the shore as possible to allow cartop boat and kayak launching. The original gravel path was shown in a 2015 preexisting conditions plan (Figure 1) and preconstruction photographs provided as Attachment-2. The grades shown on Figure 1 represent the original grades; they are being used to help determine the final grades at the site.

Final grades on the property will be controlled by the elevation of the manhole, the toe of slope and the amount of cover or supplemental protection that is required to protect the cables. Stormwater management is also a consideration, due to the sheet flow that drains to the area from the lawn above, and several drains from the driveway that discharge on the north side. The grades shown on Sheet 1 of the *Newington Cable Landing and Slope Restoration* plan set address those concerns and match the original 2015 grades in most locations.

The finished slope will consist of on-site subsoil with 4-6" of loam, or the pre-existing gravel conditions, as requested by the landowner in order to achieve final grades. The loam will be seeded and mulched immediately upon completion of grading. Erosion controls on the slope, including the silt fence and turbidity barrier currently in place in the intertidal zone, will be maintained until vegetation has sufficiently established to stabilize the site.

The toe of slope in the intertidal zone will be stabilized with a combination of rock and soil, similar to the shoreline restoration on the west side of the cable crossing. A 9" coir log will be installed at the intersection with the tidal flats to both stabilize the new toe and tie the work into the adjacent steep slopes as shown on Sheet 3, the Toe of Slope Detail Plan.

The gravel path will be approximately 8' wide and consist of 6-12" of gravel over the subsoil. The existing drain pipes that discharge to the area will remain in place, but shortened or extended as needed to match final grades. The ones that discharge on a steep side slope will have the same coarse gravel finish as is currently in place.

The final slope grading and stabilization work will take place following installation of the Armorflex blocks and the salt marsh restoration.

Impact Assessment

Similar to the installation of the submarine cable, the impacts from the burial of the additional supplemental protection will be temporary, within the zone of impacts permitted for the construction of the Project, and will not result in any permanent impacts. Moreover, the trenching method for installing the Armorflex blocks is the same as permitted for the cable installation in this area.

The open-cell blocks will be buried a target of 12" below the substrate surface and are in the high intertidal zone which is above the range of most burrowing benthic organisms. Shellfish such as soft-shell and razor clams, the deepest burrowing organisms, do not occur in this zone. This area is predominantly bare, and typically has a heavy wrack cover, which is also not conducive to supporting burrowing organisms. The salt marsh zone will have ample depth for *Spartina alterniflora* to grow, as it typically does not send live roots or rhizomes more than 4-6" into the underlying substrate. No

cultural resources are affected by this work.

Because the work will occur within the permitted area of temporary impact for cable burial and the project is still in the construction phase, this work does not add any additional area of temporary or permanent impacts from the Project.

In addition, there will be no impacts to protected natural or cultural resources as a result of the final grading on the shore. Similar to the supplemental cable protection, these final grades are within the permitted footprint and construction window of the current state and federal permits and does not require any additional permitting to complete.

Based on the foregoing, it is Eversource's opinion that the minor construction-related changes discussed herein do not require an amendment to the NHDES or USACE permits or the SEC Certificate.²

Schedule

To ensure that the Project meets the critical in-service date of June 1, 2020, the following schedule for the eastern shore of Little Bay will be used:

- Contractor Mobilization 4/28/20
- Delivery of the Armorflex concrete blocks on 04/30/20
- Day 1- mobilize equipment, layout tidal flat area and mark cable alignment with fiberglass rods, stage materials on site, shape access ramp to tidal flats using mats to support equipment.
- Day 2- tidal flat section
- Day 3- tidal flat section
- Day 4- tidal flat section complete & salt marsh restoration
- Day 5- salt marsh restoration complete & shoreline work includes excavate slope, install blocks, regrade slope
- Day 6- shoreline work includes place gravel for access path, topsoil and seed on slope to manhole, soil erosion & sediment control
- Day 7- pending owner approval, demobilize equipment from site

² To the extent NHDES finds that this notification requires a minor amendment to the already issued permits for this Project, Eversource respectfully requests that NHDES issue such a minor amendment for the wetland and/or shoreland permits for this Project. Pursuant to the SEC Certificate, "NHDES is authorized to monitor the construction and operation of the Project to ensure that the terms and conditions of the Wetlands Permit, the Alteration of Terrain Permit, the Shoreland Protection Permit, and the Certificate are met . . . ; NHDES is authorized to specify the use of any appropriate technique, methodology, practice or procedure approved by the Subcommittee within the Certificate, as may be necessary, to effectuate conditions of the Certificate, the Wetlands Permit, the Alteration of Terrain Permit, and the Shoreland Protection Permit; [and] NHDES is authorized to specify the use of any appropriate technique, methodology, practice or procedure approved by the Subcommittee within the Certificate, as may be necessary, to effectuate conditions of the Section 404 General Permit (the New Hampshire Programmatic General Permit)." *Order And Certificate of Site and Facility With Conditions*, Docket 2015-04, at 2-3 (Jan. 31, 2019). See also Letter from NHDES to SEC Administrator, Approving Minor Construction Related Changes (Oct. 14, 2019). Moreover, to the extent NHDES finds this notification constitutes a change to the wetland permit, it does not rise to the level of a significant amendment. See RSA 482-A:3, XIV(e).

If you have any questions regarding this notification, please contact Sarah Allen (sallen@normandeau.com, 603-637-1158) or me (kurt.nelson@eversource.com, 603-634-3256).

Sincerely,

Eversource Energy



Kurt I. Nelson
Sr. Licensing and Permitting Specialist

Cc: Lindsey Lefebvre, Project Manager, US Army Corps of Engineers

Pamela Monroe, Administrator, NH Site Evaluation Committee

LIST OF FIGURES

Newington Cable Landing and Slope Restoration

Plan Sheet 1 - Plan View

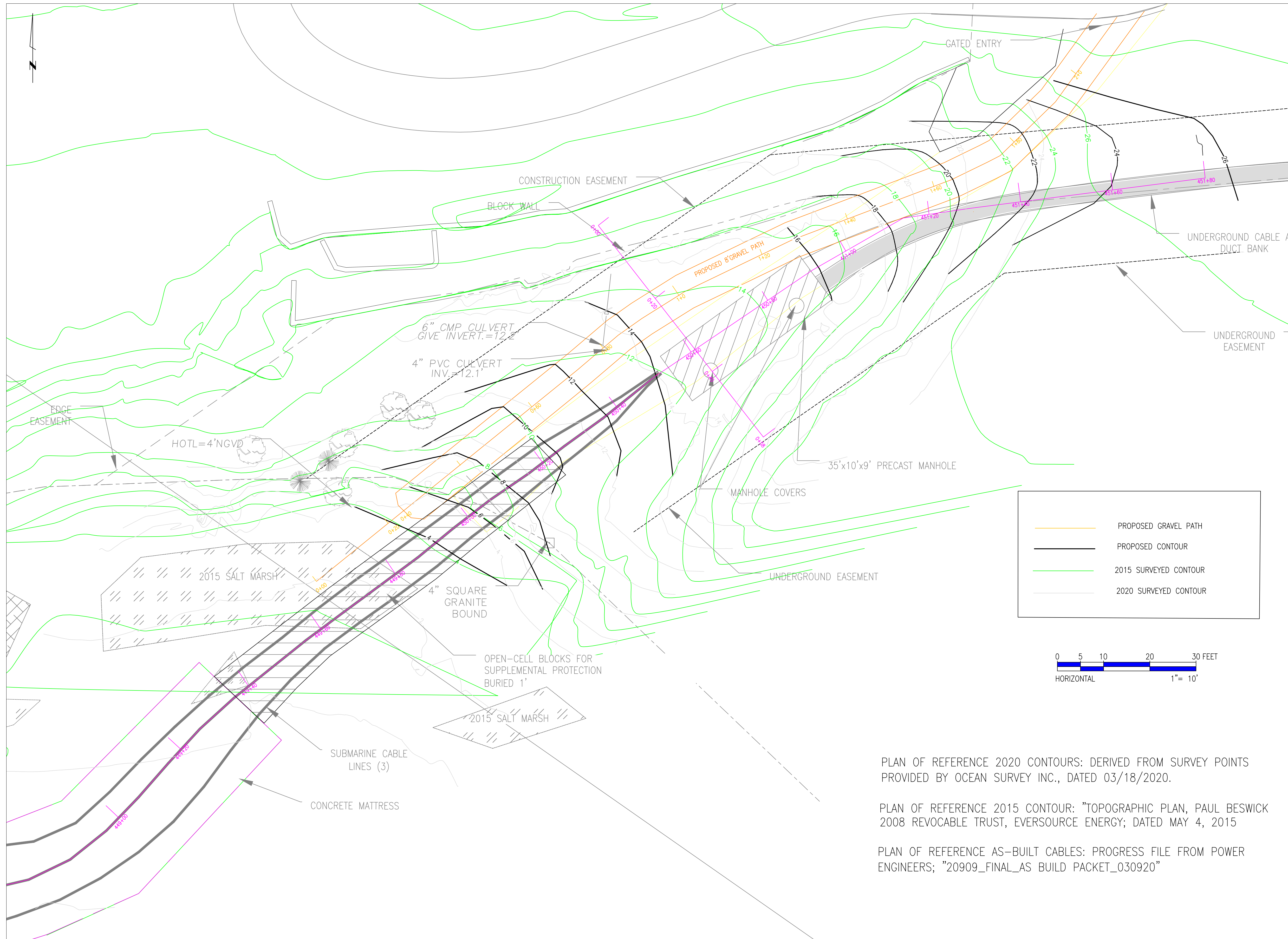
Plan Sheet 2 - Cross Sections

Plan Sheet 3 - Toe of Slope Detail

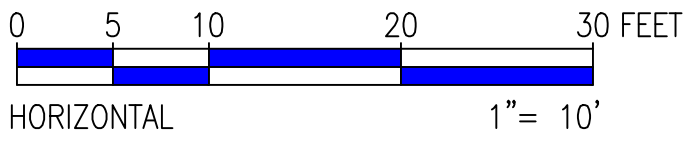
Figure 1 -2015 Beswick Topographic Plan

Attachment 1 - Armortec Armorflex Specification

Attachment 2 - Preconstruction Photographs



	PROPOSED GRAVEL PATH
	PROPOSED CONTOUR
	2015 SURVEYED CONTOUR
	2020 SURVEYED CONTOUR

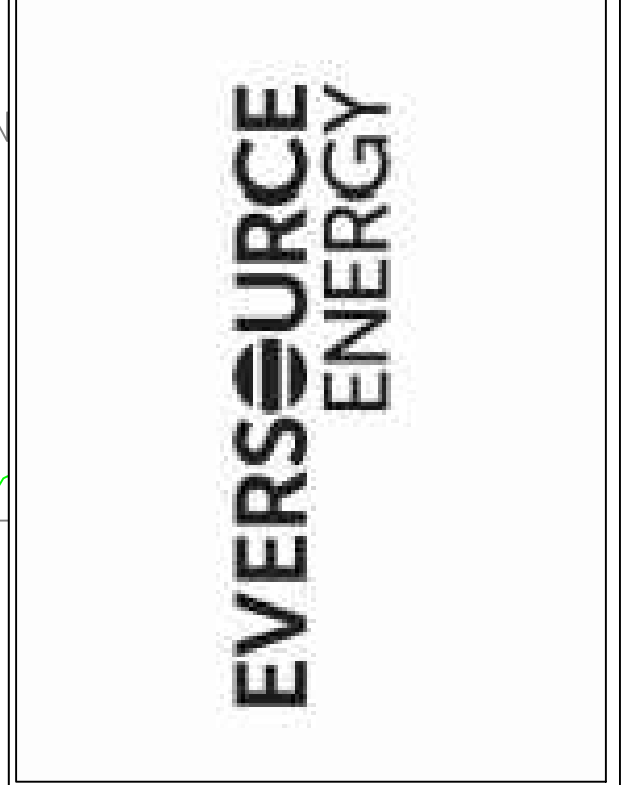


PLAN OF REFERENCE 2020 CONTOURS: DERIVED FROM SURVEY POINTS PROVIDED BY OCEAN SURVEY INC., DATED 03/18/2020.

PLAN OF REFERENCE 2015 CONTOUR: "TOPOGRAPHIC PLAN, PAUL BESWICK 2008 REVOCABLE TRUST, EVERSOURCE ENERGY; DATED MAY 4, 2015

PLAN OF REFERENCE AS-BUILT CABLES: PROGRESS FILE FROM POWER ENGINEERS; "20909_FINAL_AS BUILD PACKET_030920"

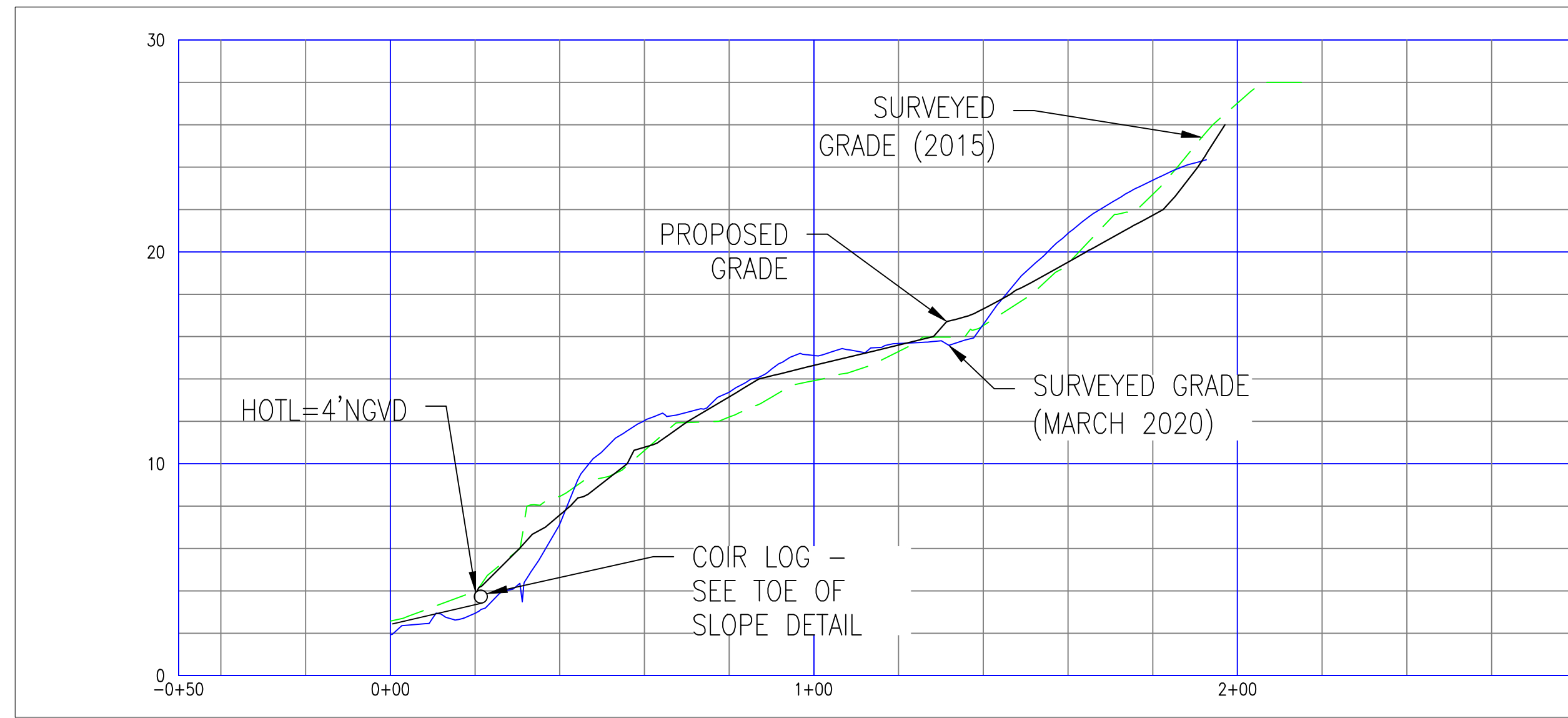
REV.	REVISION MADE	EDITOR	DATE



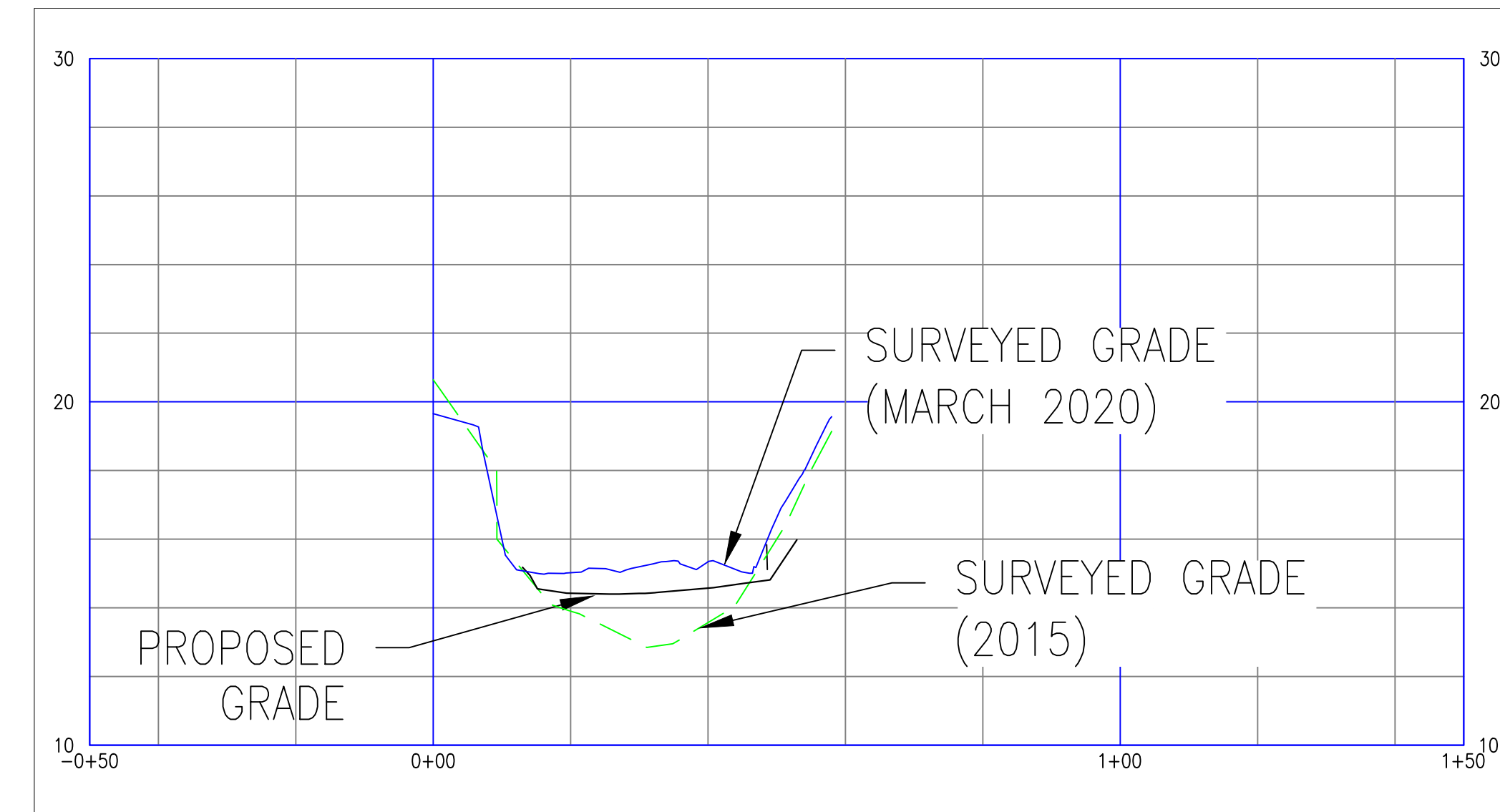
SEACOAST RELIABILITY PROJECT
 LITTLE BAY, NH
 NEWINGTON CABLE LANDING AND SLOPE RESTORATION, PLAN VIEW
 Date: 04/09/2020
 Project No: 23840.039
 Scale: As Shown
 Drawn By: DLP
 Review By: SDA

25 NASHUA ROAD - BEDFORD, NH 03110
 PHONE: (603) 472-5191 - FAX: (603) 472-7052

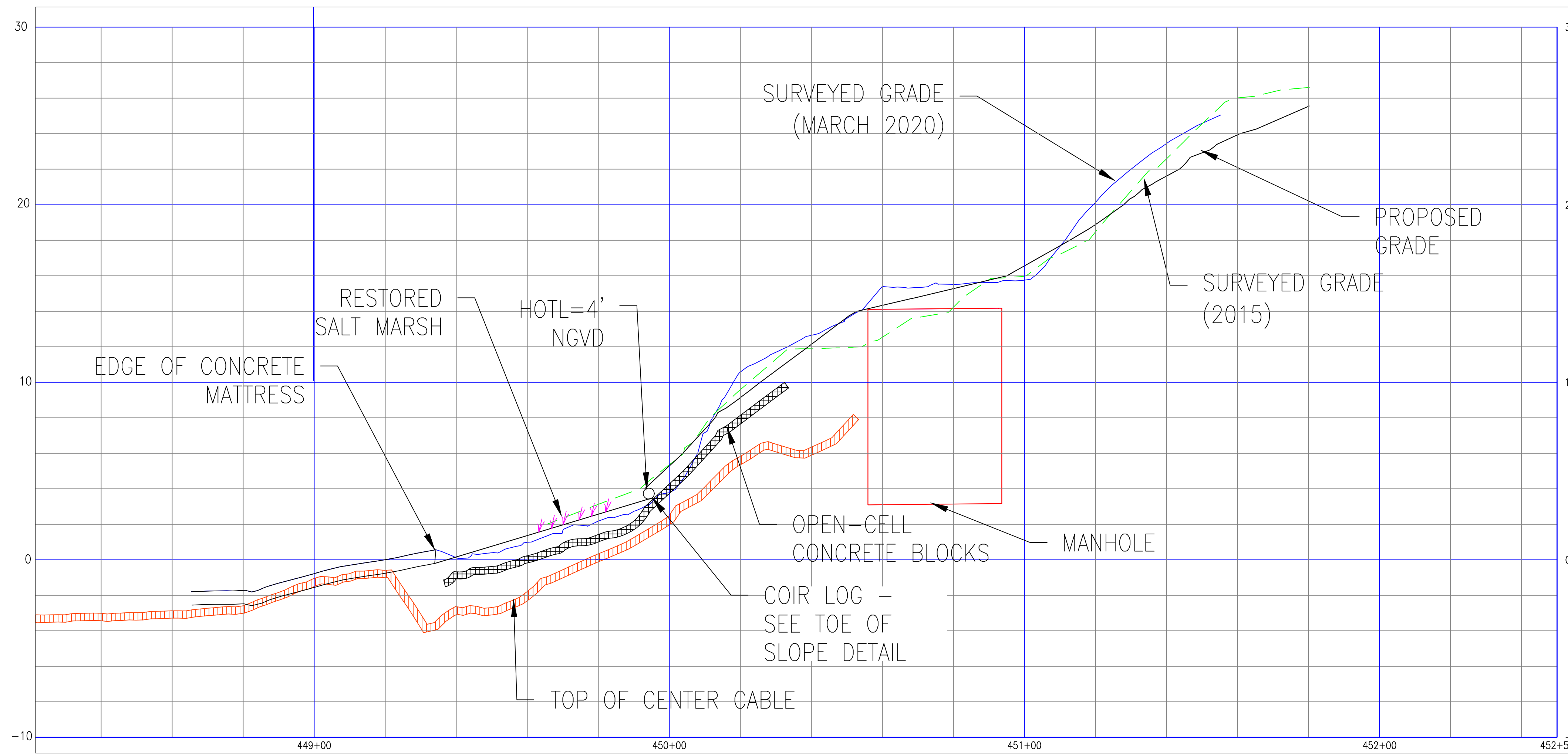
PROPOSED PATH PROFILE



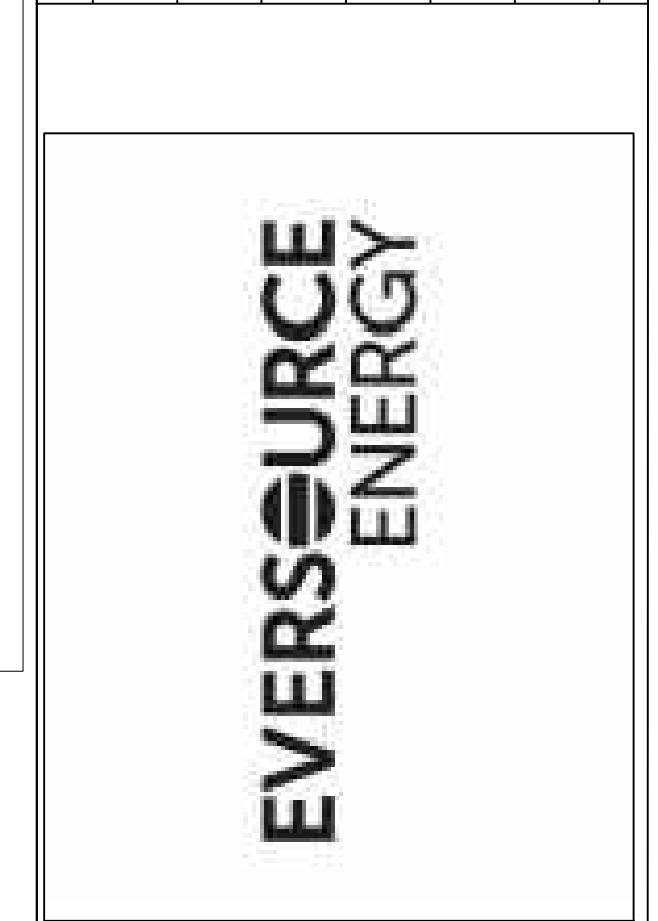
PATH CROSS-SECTION



Cable Center Line Profile



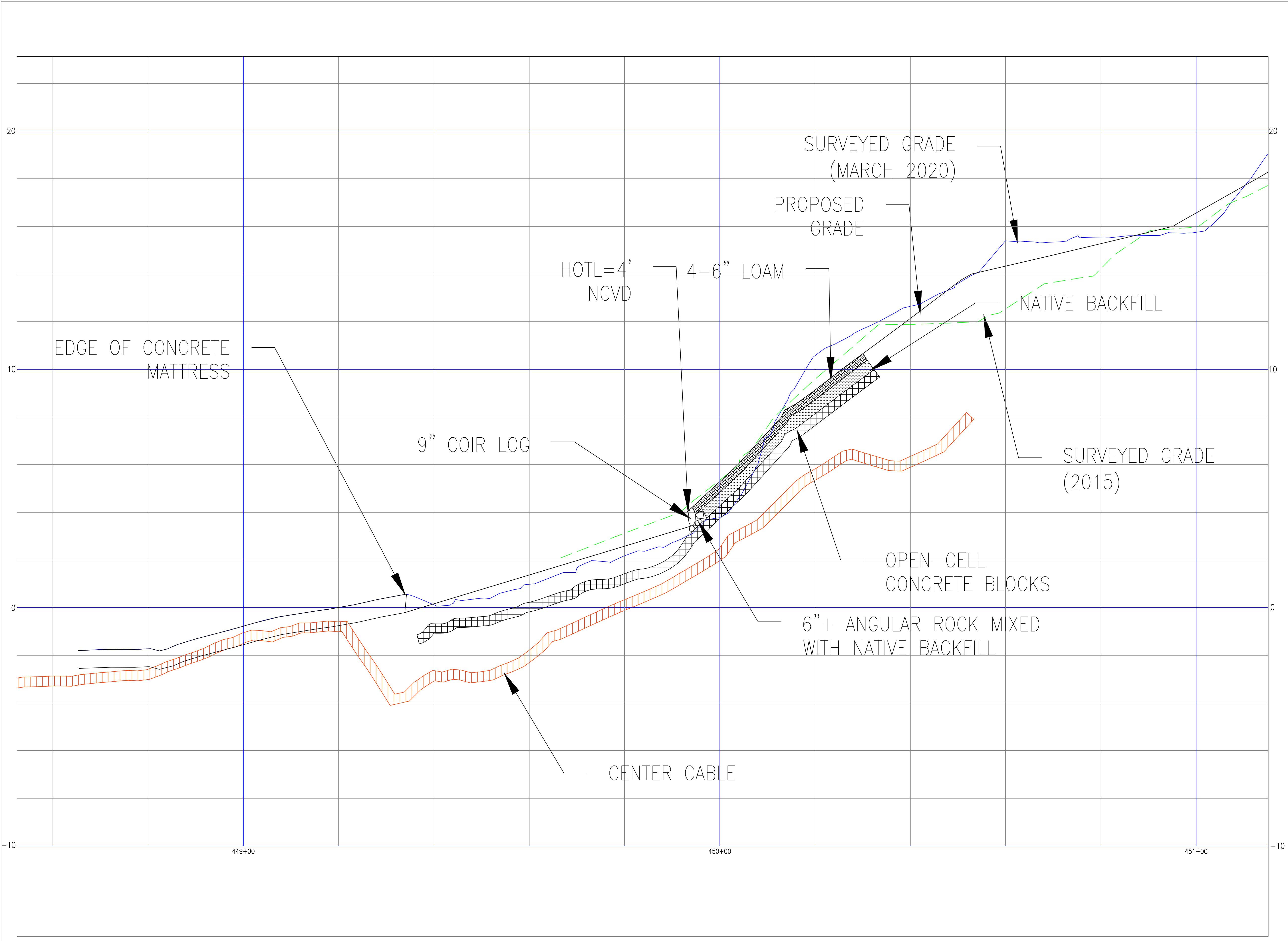
REV.	REVISION MADE	EDITOR	DATE



SEACOAST RELIABILITY PROJECT
 LITTLE BAY, NH
 NEWINGTON CABLE LANDING AND
 SLOPE RESTORATION, X-SECTIONS

Date: 04/09/2020
 Project No: 23840.039
 Scale: As Shown
 Drawn By: DLP
 Review By: SA

25 NASHUA ROAD - BEDFORD, NH 03110
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REV.	REVISION MADE	EDITOR	DATE



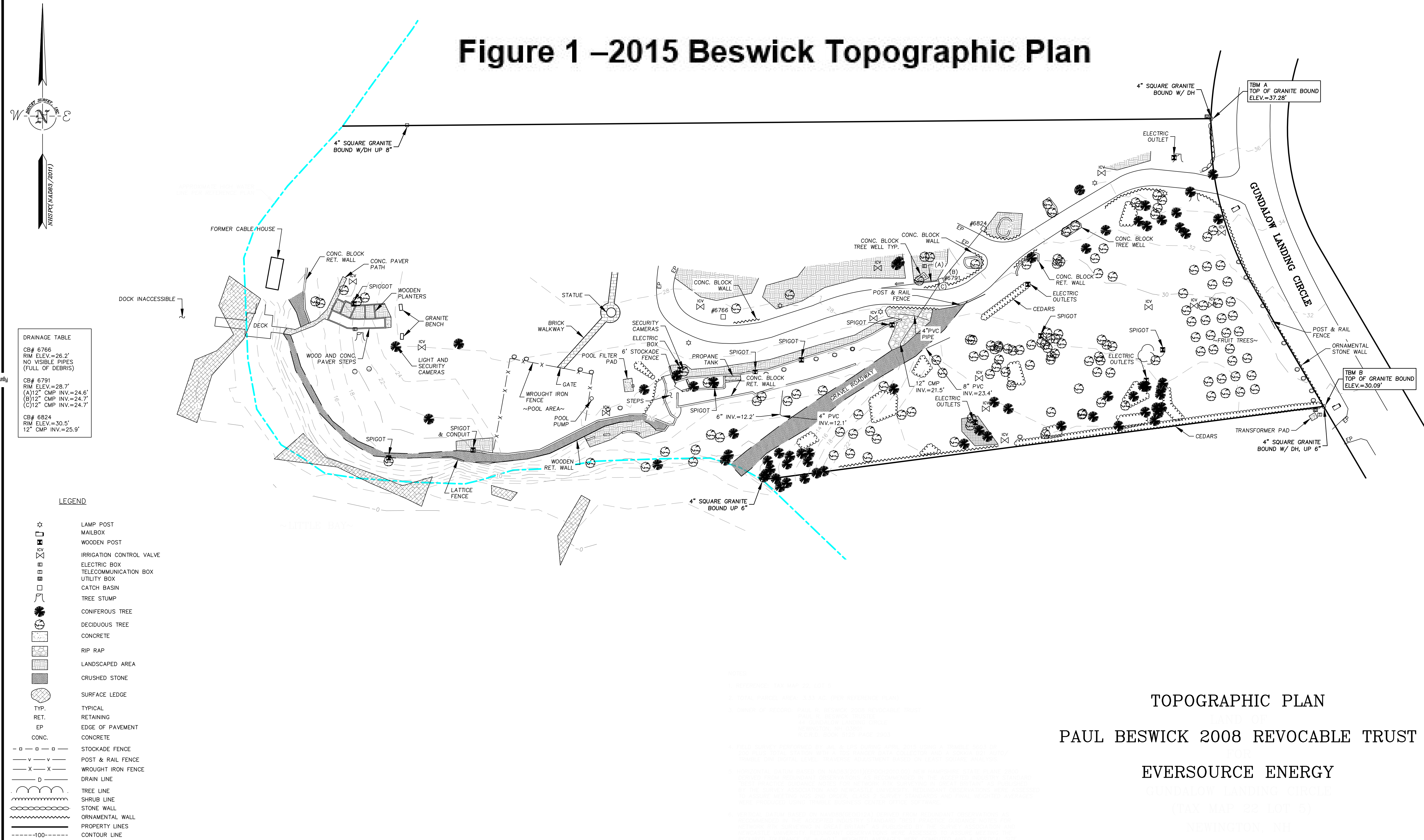
SEACOAST RELIABILITY PROJECT
 LITTLE BAY, NH
 NEWINGTON CABLE LANDING
 TOE OF SLOPE DETAIL

Date: 04/09/2020
 Project No: 23840.039
 Scale: As Shown
 Drawn By: DLP
 Review By: SA

NORMANDEAU ASSOCIATES
 ENVIRONMENTAL CONSULTANTS

25 NASHUA ROAD - BEDFORD, NH 03110
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Figure 1 –2015 Beswick Topographic Plan



DRAINAGE TABLE

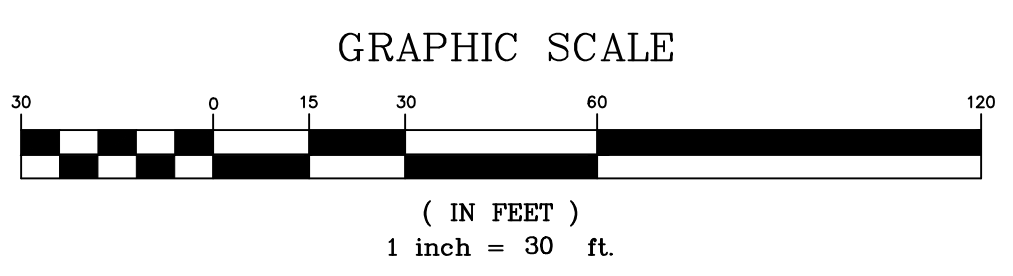
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NO VISIBLE PIPES
(FULL OF DEBRIS)

CB# 6791
RIM ELEV.=28.7'
(A)12" CMP INV.=24.6'
(B)12" CMP INV.=24.7'
(C)12" CMP INV.=24.7'

CB# 6824
RIM ELEV.=30.5'
12" CMP INV.=25.9'

LEGEND

- ☆ LAMP POST
- ☐ MAILBOX
- ☐ WOODEN POST
- ⊗ IRRIGATION CONTROL VALVE
- ⊗ ELECTRIC BOX
- ⊗ TELECOMMUNICATION BOX
- ⊗ UTILITY BOX
- ⊗ CATCH BASIN
- ⊗ TREE STUMP
- ⊗ CONIFEROUS TREE
- ⊗ DECIDUOUS TREE
- ⊗ CONCRETE
- ⊗ RIP RAP
- ⊗ LANDSCAPED AREA
- ⊗ CRUSHED STONE
- ⊗ SURFACE LEDGE
- TYP. TYPICAL
- RET. RETAINING
- EP EDGE OF PAVEMENT
- CONC. CONCRETE
- STOCKADE FENCE
- - - POST & RAIL FENCE
- X - X - WROUGHT IRON FENCE
- D - D - DRAIN LINE
- ~ ~ ~ TREE LINE
- ~ ~ ~ SHRUB LINE
- ~ ~ ~ STONE WALL
- ~ ~ ~ ORNAMENTAL WALL
- PROPERTY LINES
- - -100- - - CONTOUR LINE



TOPOGRAPHIC PLAN
PAUL BESWICK 2008 REVOCABLE TRUST

EVERSOURCE ENERGY

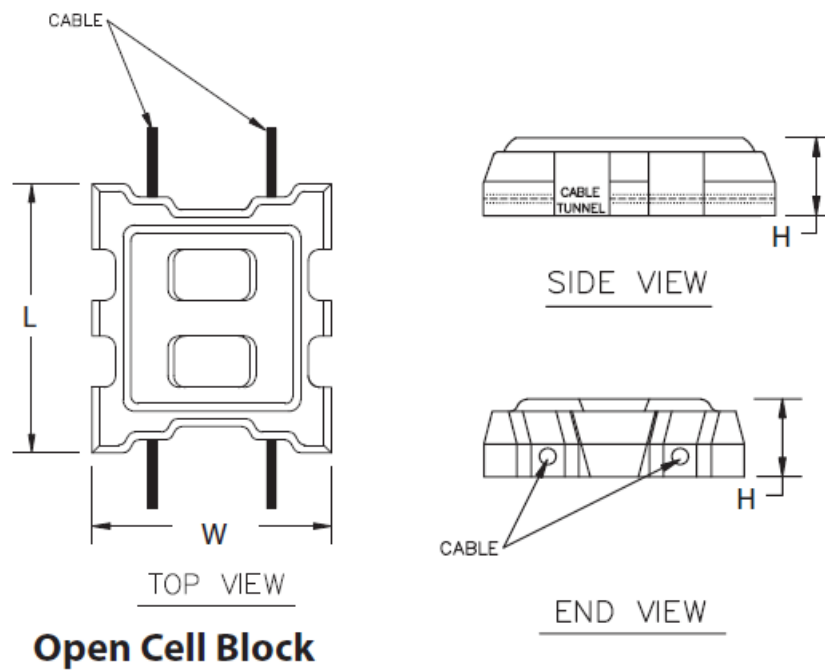
DRAWN BY:	J.P.E.	DATE:	MAY 4, 2015
CHECKED BY:	S.V.M.	DRAWING NO.:	3655F
JOB NO.:	3655	SHEET	1 OF 1



ATTACHMENT 1

ARMORFLEX BLOCK & UNIT SPECIFICATIONS

ArmorFlex Unit Specification								
Concrete Block Class	Open/Closed Cell	Nom. Dimensions (in.)			Gross Area/ (sq. ft.)	Min. Block Weight		Open Area %
		L	W	H		lbs	lbs/sq. ft.	
30S	Open	13	11.6	4.75	0.98	33	35	20



ATTACHMENT 2

PRECONSTRUCTION SHORE AREA PHOTOS



Photograph 1: Pre-construction photo of Gundalow Landing looking northeast on 03/21/17



Photograph 2: Pre-construction photo of Gundalow Landing looking southwest on 03/21/17

PRECONSTRUCTION SHORE AREA PHOTOS



Photograph 3: Preconstruction view of upper slope and gravel access looking southwest