State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

PUBLIC NOTICE

File Number: 2024-07-051 Date: January 6, 2025

This office has under consideration the application of:

Peter & Susan Escherich
133 Terrace Avenue
Riverside, RI 02915

for a State of Rhode Island Assent to construct and maintain: an approximately 110ft long hybrid shoreline protection facility.

Project Location:	133 Terrace Avenue
City/Town:	East Providence
Plat/Lot:	414 / 16-1
Waterway:	Providence River

Plans of the proposed work can be requested at Cstaff1@crmc.ri.gov.

In accordance with the Administrative Procedures Act (Chapter 42-35 of the Rhode Island General Laws) you may request a hearing on this matter.

You are advised that if you have good reason to enter protests against the proposed work it is your privilege to do so. It is expected that objectors will review the application and plans thoroughly, visit site of proposed work if necessary, to familiarize themselves with the conditions and cite what law or laws, if any, would in their opinion be violated by the work proposed.

If you desire to protest, you must attend the scheduled hearing and give sworn testimony. A notice of the time and place of such hearing will be furnished you as soon as possible after receipt of your request for hearing. If you desire to request a hearing, to receive consideration, it should be in writing (**with your correct mailing address**, **e-mail address and valid contact number**) and be received at this office on or before **February 6, 2025**.

Please email your comments/hearing requests to: cstaff1@crmc.ri.gov; or mail via USPS to: Coastal Resources Management Council; O. S. Government Center, 4808 Tower Hill Road, Rm 116; Wakefield, RI 02879.

/lat

SITE IMPROVEMENT PLANS for PROPOSED

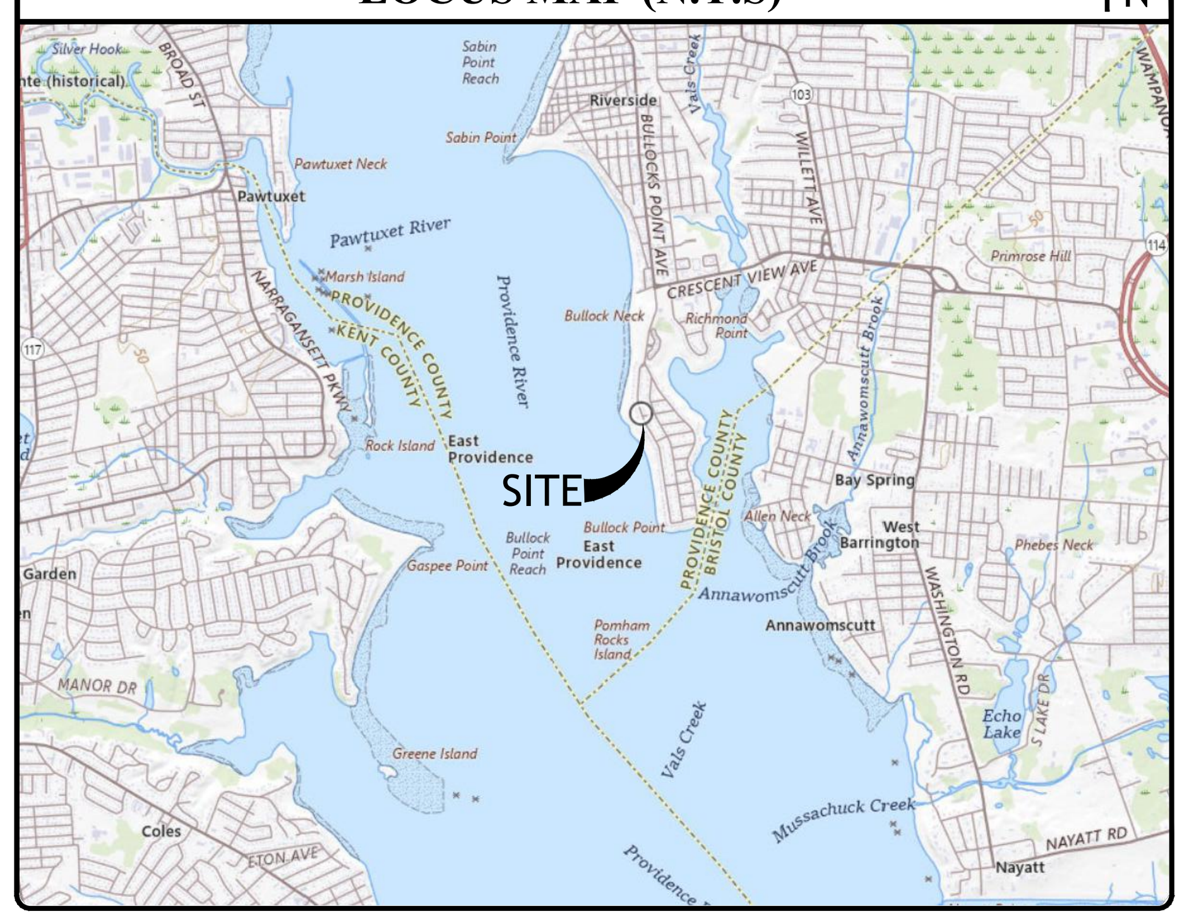
SHORELINE RESTORATION

133 TERRACE AVENUE

EAST PROVIDENCE, RHODE ISLAND

MAP 414, BLOCK 16, LOT 1

LOCUS MAP (N.T.S) N



OWNER/APPLICANT	CIVIL ENGINEER
PETER ESCHERICH SUSAN ESCHERICH 133 TERRACE AVE. E. PROVIDENCE, RI 02915	JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RI 02888 (401) 944-1300 phone (401) 944-1313 fax

WETLAND BIOLOGIST	SURVEYOR
AVIZINIS ENVIRONMENTAL SERVICES, INC. P.O. BOX 836 CHARLESTOWN, RI 02813	CHRISTOPHER G. PALMER, PLS 66 FALCON RIDGE DR. EXETER, RI 02822 (401) 474-5233 palmerc6@gmail.com

LEGEND:

- EXISTING PROPERTY LINE
- ABUTTING PROPERTY LINE
- COASTAL FEATURE EDGE
- WF-B8 COASTAL FEATURE FLAG
- MEAN HIGH WATER (MHW)
- FLOOD ZONE BOUNDARY
- COASTAL BUFFER ZONE
- CONSTRUCTION SETBACK
- RICRM JURISDICTIONAL ZONE
- 163.8x EXISTING SPOT ELEVATION
- 100 EXISTING CONTOUR
- 100 PROPOSED CONTOUR
- EXISTING CURB
- EXISTING FENCE
- UP#T2 EXISTING UTILITY POLE
- N/F NOW OR FORMERLY
- TREELINE
- SILT FENCE/STRAW WATTLE
- LOD LIMIT OF DISTURBANCE

TABLE 1: TIDAL AND STORM SURGE BENCHMARKS	
BENCHMARK	ELEVATION (FT-NAVD88)
MEAN LOW WATER (MLW)	-2.29[1]
MEAN HIGH WATER (MHW)	2.12[1]
10-YEAR STILLWATER EL.	6.8[2]
50-YEAR STILLWATER EL.	9.8[2]
100-YEAR STILLWATER EL.	12.5[2]

NOTES:
1. TIDAL BENCHMARKS REFERENCE NOAA TIDAL ELEVATIONS FOR PROVIDENCE, RI (STATION 8454000), ACCEPTED APRIL 17, 2003.
2. STORM SURGE ELEVATIONS OBTAINED FROM FLOOD INSURANCE STUDY, FEDERAL EMERGENCY MANAGEMENT AGENCY, VOLUME 1 OF 5, PROVIDENCE COUNTY, RHODE ISLAND (ALL JURISDICTIONS), FLOOD INSURANCE STUDY NO. 44007CV001D, REVISED JULY 19, 2023 BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FOR COASTAL TRANSECT NO. 23.
3. BASED ON FIRM REFERENCED ABOVE, FOR COASTAL TRANSECT NO. 23, SIGNIFICANT WAVE HEIGHT (Hs) = 4.1-ft AND PEAK WAVE PERIOD (Tp) = 4.0 SEC. 0.2% ANNUAL CHANCE STILLWATER ELEVATION = 18.4 (NAVD88).

GENERAL NOTES:

1. EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY PERFORMED BY CHRISTOPHER G. PALMER, PLS.,66 FALCON RIDGE DRIVE, EXETER, RI 02822. ADDITIONAL EXISTING CONDITIONS INFORMATION OBTAINED FROM THE RHODE ISLAND GEOGRAPHIC INFORMATION SYSTEM (RIGIS) DATABASE, THE CITY OF EAST PROVIDENCE GIS DATABASE, AND THE RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM) ENVIRONMENTAL RESOURCES MAPPING DATABASE. AERIAL IMAGERY OBTAINED FROM NEARMAP.COM. SUPPLEMENTAL TOPOGRAPHIC SURVEY OF THE SHORELINE AREA PERFORMED BY JOE CASALI ENGINEERING INC. IN NOVEMBER 2024.
2. THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL UTILITY COMPANIES AND/OR TOWN STAKEHOLDERS, WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK, TO BE PERFORMED BY THE CONTRACTOR, ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
3. ALL ELEVATIONS REFERENCE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THE HORIZONTAL DATUM FOR THIS PROJECT IS RHODE ISLAND STATE PLANE COORDINATE SYSTEM (NAD 83).
4. THIS SITE LIES PARTIALLY IN ZONE 'VE' (EL. 18) AND PARTIALLY IN ZONE X (2% ANNUAL CHANCE OF FLOOD HAZARD) AND FLOOD ZONE X (AREAS OUTSIDE THE AREA OF MINIMAL FLOOD). BASED ON THE NATIONAL FLOOD INSURANCE PROGRAM, FIRM FLOOD INSURANCE RATE MAP, PROVIDENCE COUNTY, RHODE ISLAND, CITY OF EAST PROVIDENCE, MAP NO. 44007C0338H, MAP REVISED: SEPTEMBER 18, 2013.
5. ACCORDING TO WEB SOIL SURVEY CREATED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES CONSERVATION SERVICE, SOILS EXISTING ON THE SITE CONSIST OF BEACHES AND SAND (Ba), MERRIMAC-URBAN LAND COMPLEX (MU), 0 TO 8 PERCENT SLOPES, AND WATER,SALINE (Ws)

INDEX OF DRAWINGS

1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE DONE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO ANY EXCAVATION CALL DIGSAFE AT: 1-888-DIG-SAFE 1-888-344-7233

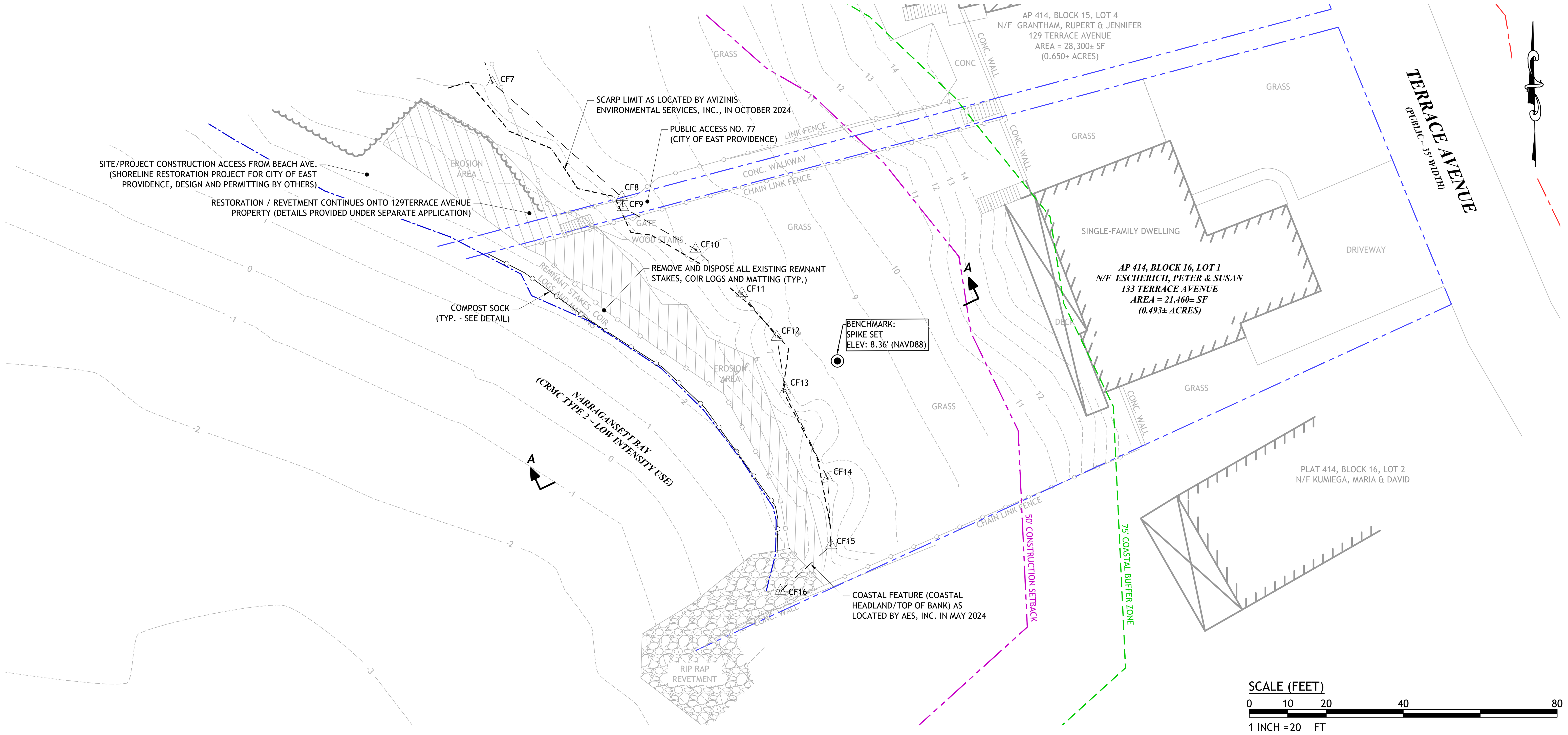
SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

1. THE LIMIT OF DISTURBANCE LINE ILLUSTRATED ON THESE PLANS SHALL SERVE AS THE STRICT LIMIT OF DISTURBANCE FOR THE PROJECT.
2. THE LIMITS OF CLEARING, GRADING, AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PLAN SHALL BE TOTALLY UNDISTURBED, TO REMAIN IN NATURAL CONDITION.
3. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL REGULARLY CHECK ALL SEEDED AREAS TO ENSURE THAT A GOOD STANDING OF VEGETATION IS MAINTAINED.
4. ALL SILT FENCE, TEMPORARY TREATMENT (HAY, STRAW, ETC.) AND TEMPORARY EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
5. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES OF NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED PER CONTRACT SPECIFICATIONS.
6. THE SILT FENCE/HAYBALES SHALL BE CHECKED BY THE CONTRACTOR ON A WEEKLY BASIS AND AFTER EACH STORM FOR UNDERMINING OR DETERIORATION. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY SILT FENCE/HAYBALES AS NEEDED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAY-BALES BECOMES FILLED WITH SEDIMENTS.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL SOIL EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITE FOR THE ENTIRE DURATION OF THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL FOLLOW THE DIRECTION OF THE RESIDENT ENGINEER, TOWN ENGINEER, OR OWNER WITH REGARD TO INSTALLATION, MAINTENANCE, AND REPAIR OF ALL SOIL EROSION AND SEDIMENTATION CONTROLS ON THE PROJECT SITE. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROLS (HAYBALES, SILT FENCE, ETC.) SHALL BE MAINTAINED UNTIL ALL EXPOSED SOILS ARE SATISFACTORILY STABILIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND/OR RESEEDING ALL AREAS THAT DO NOT DEVELOP WITHIN ONE YEAR FROM THE COMPLETION OF CONSTRUCTION.
8. ALL REFERENCED SOIL EROSION AND SEDIMENTATION CONTROLS INCLUDING MATERIALS USED, APPLICATION RATES AND THE INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE "RHODE ISLAND EROSION AND SEDIMENTATION HANDBOOK", DATED 1993 AMENDED 2014.

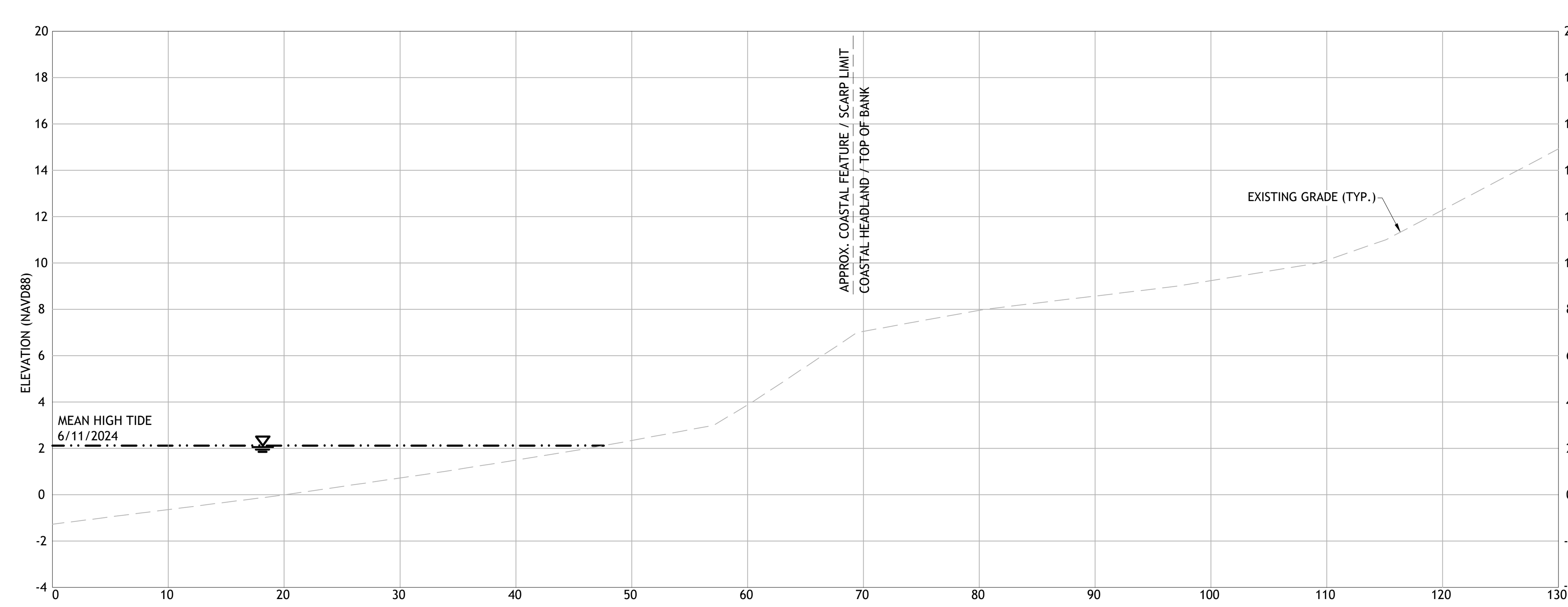
SEQUENCE & STAGING OF PROPOSED CONSTRUCTION ACTIVITIES:

THIS IS A GENERAL SEQUENCE AND STAGING OF CONSTRUCTION ACTIVITIES. A DETAILED SEQUENCE WITH TIME LINES SHALL BE ESTABLISHED BY THE CONTRACTOR IN COORDINATION WITH THE OWNER AND ENGINEER PRIOR TO THE START OF CONSTRUCTION.

1. PLACE SEDIMENTATION BARRIERS AS SHOWN ON THE PLANS AND AS STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS.
2. BEGIN SITE WORK (EXCAVATING AND GRADING ETC.). STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION BARRIERS. STOCKPILES TO BE COVERED OR TEMPORARILY SEEDED.
3. PERFORM DEMOLITION AS DEPICTED ON THE SITE PREPARATION PLAN.
4. BEGIN PROPOSED GRADING.
5. INSTALL SAND EMBANKMENT.
6. INSTALL STONE REVETMENT.
7. MAINTAIN SEDIMENT AND EROSIONS CONTROLS THROUGHOUT CONSTRUCTION, UNTIL PERMANENT STABILIZATION IS ACHIEVED.
8. FINISH LANDSCAPING AND PERMANENT STABILIZATION.
9. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE VEGETATION HAS BEEN ESTABLISHED TO ALL DISTURBED AREAS.



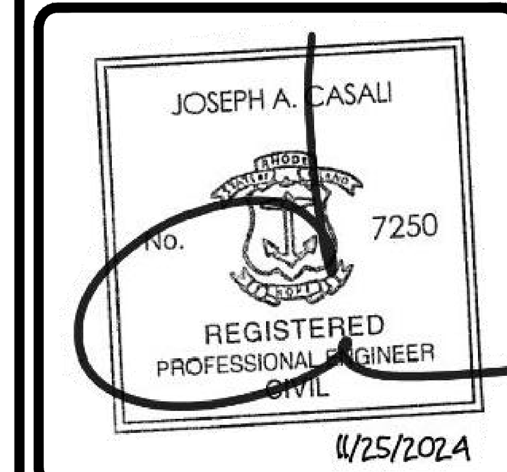
SCALE (FEET)
0 10 20 40 80
1 INCH = 20 FT



SHORELINE CROSS SECTION A-A
HORIZONTAL: 1" = 10'
VERTICAL: 1" = 5'

RECEIVED
11/25/2024
COASTAL RESOURCES MANAGEMENT COUNCIL

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401) 944-1300 (401)944-1313 FAX WWW.JOECASALI.COM



PROPOSED SHORELINE PROTECTION
133 TERRACE AVENUE
E. PROVIDENCE, RHODE ISLAND
AP 414, BLOCK 16, LOT 1

REVISIONS:

NO.	DATE.	DESCRIPTION
1	11/25/24	RICRMC REVS.

DESIGNED BY:	DRD
DRAWN BY:	MCG
CHECKED BY:	JAC
DATE:	JUNE 2024
PROJECT NO:	24-38

PRELIMINARY, NOT FOR CONSTRUCTION

EXISTING CONDITIONS AND SITE PREP. PLAN

SHEET 1 OF 2

ARMOR STONES NOTES:

1. THE CONTRACTOR SHALL LIMIT THE AMOUNT OF EXPOSED SHORELINE DURING CONSTRUCTION SO AS TO MINIMIZE THE CHANCE OF SHORELINE RECESSION SHOULD A LARGE STORM EVENT OCCUR DURING THE CONSTRUCTION. IF SUCH AN EVENT IS FORECASTED, THE CONTRACTOR SHALL TEMPORARILY PLACE ARMOR STONE MATERIAL ALONG ANY EXPOSED AREA OF SHORELINE AS A TEMPORARY PROTECTION MEASURE.
2. ARMOR STONE SHALL BE DENSE, SOUND GNEISS, DIORITE, OR BASALT, HAVING A MINIMUM DENSITY OF 165 POUNDS PER CUBIC FOOT.
3. ARMOR STONES SHALL HAVE AN AVERAGE WEIGHT OF NO LESS THAN 6,000 POUNDS (3 TONS), WITH AN AVERAGE DIAMETER OF APPROXIMATELY 4-FT; 50-PERCENT OF STONES SHALL BE LARGER THAN THESE LIMITS. ARMOR STONES SHALL BE NO LESS THAN 5,000 POUNDS (2.5 TONS), AND NO LESS THAN 3.5-FT IN DIAMETER. ARMOR STONES SHALL BE NO LARGER THAN 8,000 POUNDS (4 TONS), AND NO LARGER THAN 4.5-FT IN DIAMETER.
4. ARMOR STONE SHALL BE PLACED SUCH THAT THEY DO NOT PROTRUDE SHARPLY FROM THE SLOPE FACE; HOWEVER, THE SLOPE FACE SHALL NOT BE EXCESSIVELY FLAT AND STONES SHALL NOT BE EXCESSIVELY TIGHT.
5. FILTER STONE SHALL CONSIST OF CRUSHED DURABLE STONE, HAVING A MINIMUM DENSITY OF 165 PCF. FILTER STONE SHALL CONFORM TO THE GRADATION REQUIREMENTS FOR NATIONAL STONE ASSOCIATION MODIFIED NSA NO. R-3 RIPRAP STONE, AS PER SECTION M.10.03 OF THE RHODE ISLAND STANDARD DETAILS FOR ROAD AND BRIDGE CONSTRUCTION, WITH ALL LATEST REVISIONS AND AMENDMENTS.
6. THREE POINTS OF CONTACT ARE REQUIRED BETWEEN A STONE AND OTHER STONES WITHIN THE SAME LAYER. STONES SHOULD BE KEYED AND FITTED, MAXIMIZING CONTACT ON ALL SIDES.
7. CONTRACTOR MUST SUBMIT QUARRY SOURCE TO THE OWNER AND ENGINEER FOR ALL STONE MATERIALS PRIOR TO ORDERING OR SHIPPING TO THE SITE.
8. FILTER FABRIC SHALL BE WRAPPED BACK INTO FILTER STONE AT ALL TERMINATIONS.

LOAMING & SEEDING NOTES:

1. SEEDING ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH SECTION L.02 SEEDING OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA).
2. AFTER ROUGH GRADING IS COMPLETED, ALL DISTURBED AREAS AND AREAS LABELED AS 'LOAM AND SEED' ARE TO BE BROUGHT TO AN ELEVATION OF 6" BELOW THE PROPOSED FINISHED GRADE. SCARIFY THE SUBGRADE TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE OR A POWER RAKE TO RESULT IN AN UNCOMPACTED SUBSOIL. 6" OF GOOD QUALITY TOPSOIL IS TO BE APPLIED AND RAKED TO FINISHED GRADE.
3. THE TOPSOIL IS TO BE GOOD QUALITY LOAM, FERTILE AND FREE OF WEEDS, STICKS AND STONES OVER 3/4" IN SIZE AND OTHERWISE COMPLYING WITH SECTION M.18.01 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, 2010 EDITION (WITH LATEST ADDENDA),
4. SEEDING:

4.1. AFTER THE SEED BED IS PREPARED, SEED IS TO BE BROADCAST EVENLY OVER THE SURFACE AND WORKED INTO THE TOP 1" OF SOIL.

4.2. SEED FOR REVETMENT SLOPE AND A MINIMUM 10-FT UP-GRADIENT FROM TOP OF SLOPE SHALL CONSIST OF COASTAL/SALT TOLERANT SEED MIX, BY ALLEN'S SEED, 693 SOUTH COUNTY TRAIL, EXETER, RI, % BY WEIGHT AS FOLLOWS, APPLY AT A RATE OF 3-5 POUNDS PER 1,000 SQ. FT. OR AS OTHERWISE DIRECTED BY THE MANUFACTURER:

20% HEATHLAND CHEWINGS FESCUE
18% CREEPING RED FESCUE (COATED)
15% SALTY ALKALIGRASS
12.5% HARPOON HARD FESCUE
12.5% QUATTRO SHEEP FESCUE
12% GINGER KENTUCKY BLUEGRASS
10% ANNUAL RYE

4.3. SEED FOR ALL OTHER AREAS TO CONSIST OF URI #2 IMPROVED SEED MIX, % BY WEIGHT AS FOLLOWS, APPLY AT A RATE OF 4-5 LBS. PER 1000 SQUARE FEET OR AS OTHERWISE DIRECTED BY THE MANUFACTURER:

40% CREEPING RED FESCUE
20% IMPROVED PERENNIAL RYEGRASS
20% IMPROVED KENTUCKY BLUEGRASS
20% KENTUCKY BLUEGRASS

5. RECOMMENDED SEEDING DATES ARE MARCH 15 TO JUNE 15. ALTERNATIVE DATES ARE SEPTEMBER 15 TO NOVEMBER 15; HOWEVER ADDITIONAL EROSION CONTROLS MAY BE REQUIRED. AT THE CONTRACTORS DISCRETION, SEED MAY BE APPLIED BY HYDROSEEDING RATHER THAN THE METHOD DESCRIBED ABOVE.

SLOPE PLANTING NOTES:

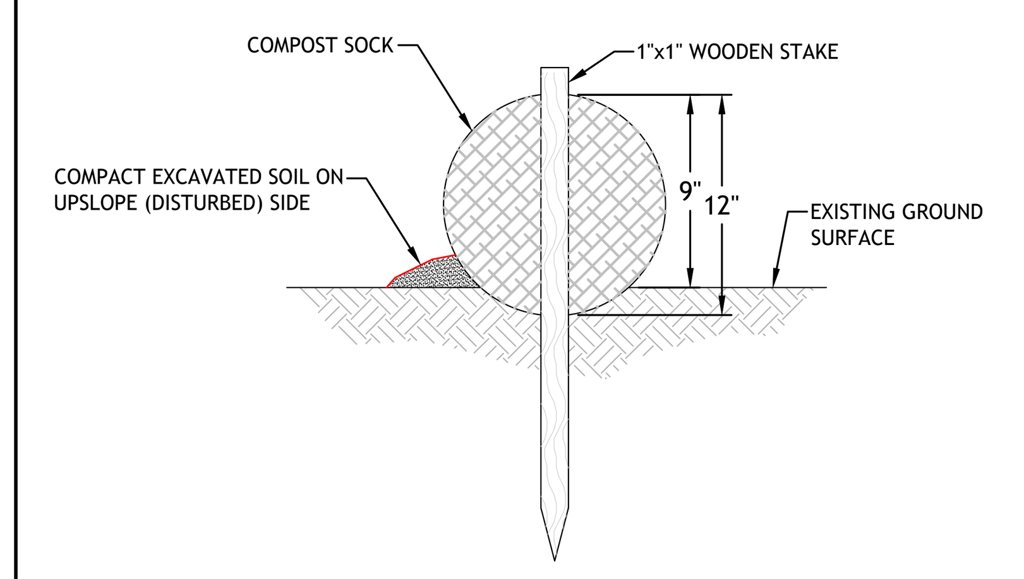
1. ALL WORK SHALL BE OVERSEEN BY A QUALIFIED WETLAND BIOLOGIST/SOIL SCIENTIST.
2. AN EROSION CONTROL LINE WILL BE ESTABLISHED AT THE MARGINS OF THE LIMIT OF DISTURBANCE AND DOWN TO THE TOE OF SLOPE THAT MEETS THE RIP-RAP AT ELEVATION 7.0. EROSION CONTROLS SHALL ALSO BE ESTABLISHED AT THE LANDWARD LIMITS OF THE PROJECT LOD WHERE THE PROPOSED BUFFER ZONE TRANSITIONS INTO MAINTAINED LAWN (OUTSIDE PROJECT LOD). THESE CONTROLS SHALL REMAIN IN PLACE THROUGHOUT THE PLANTING WORK AND SUBSEQUENT REGROWTH/MONITORING PERIOD UNTIL SUCH A POINT THAT THE SITE HAS STABILIZED. THE WETLAND BIOLOGIST SHALL MAKE THE DETERMINATION FOR REMOVAL OF THE CONTROLS.
3. EROSION CONTROLS SHALL BE MONITORED FOR EFFICACY THROUGHOUT THE PLANTING PROCESS.
4. THE PLANTING PROTOCOL SHALL TAKE PLACE AS SOON AS CRMC GRANTS APPROVAL OF THIS PLAN BUT NOT LESS THAN 3 DAYS FROM A PROJECTED 1-INCH RAINFALL.
5. THE APPROVED STRUCTURAL COMPONENTS OF THE PLAN SHALL BE IMPLEMENTED AT THIS TIME. AFTER GRADING AND TOPSOIL HAS BEEN REESTABLISHED, THE 12" COIR LOGS SHALL BE ESTABLISHED ON CONTOUR WITHIN THE SLOPE PLANTING AREA (BETWEEN ELEVATION 7.0 AND 8.0 AS SHOWN ON THE PLAN) AND STAKED WITH 1" X 1" X 1' WOODEN, BIODEGRADABLE STAKES AS NECESSARY.
6. UPON COMPLETION OF THE PLACEMENT AND IMPLEMENTATION OF THE STRUCTURAL COMPONENTS AND COIR LOGS IN ACCORDANCE WITH THE PLAN, LIVE STAKES SHALL BE STAKED THROUGHOUT THE SLOPE PLANTING AREA AND INTO THE COIR LOGS.
7. LIVE STAKES SHALL BE STORED IN WATER AND KEPT OUT OF SUNLIGHT PRIOR TO PLANTING. STAKES SHALL BE ESTABLISHED THROUGHOUT THE SLOPE PLANTING AREA PERPENDICULAR TO THE SLOPE. APPROXIMATELY 3/4 OF AN INDIVIDUAL STAKE SHOULD BE WITHIN THE SOIL WITH 1/4 OF THE STAKE PROTRUDING FROM THE SOIL. LIVE STAKE PLANTINGS SHOULD HAVE THE BARK REMOVED AT THE BASE OF THE STAKE (END GOING INTO SOIL, APPROXIMATELY ¼ OF TOTAL STAKE LENGTH) TO FACILITATE ROOT GROWTH AND PLANTING EFFICACY. LIVE STAKES SHOULD BE SPACED EVENLY THROUGHOUT THE SLOPE PLANTING AREA WITH HIGHER PLANT DENSITIES WITHIN THE COIR LOGS TO PROMOTE STABILIZATION. LIVE STAKE PLANTINGS SHALL INCLUDE:
   - 7.1. RED OSIER DOGWOOD *(CORNUS SERICEA)*
   - 7.2. SILKY DOGWOOD *(CORNUS AMOMUM)*
   - 7.3. NINEBARK *(PHYSOCARPUS OPULIFOLIUS)*
8. SHRUB PLANTINGS FROM TRADITIONAL STOCK MAY BE PLANTED WITHIN THE SLOPE PLANTING AREA AND WITHIN THE COIR LOGS IN ADDITION TO THE LIVE STAKES PROPOSED WHERE FURTHER PLANT DENSITY IS REQUIRED. TRADITIONAL NURSERY STOCK PLANTINGS SHALL BE OF THE SPECIES AND SIZE AS IDENTIFIED WITHIN THE BUFFER ZONE PLANTING NOTES.
9. THE SLOPE PLANTING AREA SHALL BE SEEDED IN ACCORDANCE WITH THE LOAMING AND SEED NOTES AND THEN TOPPED WITH A WEED-FREE LOOSE STRAW MULCH.
10. PLANTINGS THAT FAIL TO SURVIVE WITHIN THE FIRST TWO YEARS OF PLANTING SHALL BE REPLACED IN KIND.
11. A MONITORING REPORT SHALL BE PREPARED BY THE WETLAND BIOLOGIST AND SUBMITTED TO THE CRMC AT THE CONCLUSION OF THE PLANTING WORK.

BUFFER ZONE PLANTING NOTES:

1. ALL WORK SHALL BE OVERSEEN BY A QUALIFIED WETLAND BIOLOGIST/SOIL SCIENTIST.
2. AN EROSION CONTROL LINE WILL BE ESTABLISHED AT THE MARGINS OF THE LIMIT OF DISTURBANCE AND DOWN TO THE TOE OF SLOPE THAT MEETS THE RIP-RAP AT ELEVATION 7.0. EROSION CONTROLS SHALL ALSO BE ESTABLISHED AT THE LANDWARD LIMITS OF THE PROJECT LOD WHERE THE PROPOSED BUFFER ZONE TRANSITIONS INTO MAINTAINED LAWN (OUTSIDE PROJECT LOD). THESE CONTROLS SHALL REMAIN IN PLACE THROUGHOUT THE PLANTING WORK AND SUBSEQUENT REGROWTH/MONITORING PERIOD UNTIL SUCH A POINT THAT THE SITE HAS STABILIZED. THE WETLAND BIOLOGIST SHALL MAKE THE DETERMINATION FOR REMOVAL OF THE CONTROLS.
3. EROSION CONTROLS SHALL BE MONITORED FOR EFFICACY THROUGHOUT THE PLANTING PROCESS.
4. THE PLANTING PROTOCOL SHALL TAKE PLACE AS SOON AS CRMC GRANTS APPROVAL OF THIS PLAN BUT NOT LESS THAN 3 DAYS FROM A PROJECTED 1-INCH RAINFALL.
5. THE BUFFER ZONE PLANTING AREA SHALL BE SEEDED IN ACCORDANCE WITH THE LOAMING AND SEED NOTES AND THEN TOPPED WITH A WEED-FREE LOOSE STRAW MULCH.
6. PLANTINGS IN THE BUFFER PLANTING AREA (SEE ATTACHED PLAN) SHALL INCLUDE AN EQUAL COMBINATION OF THE FOLLOWING SHRUB SPECIES. SHRUBS SHALL BE PLANTED IN CLUSTERS OF 5 TO 6 LIKE (SAME SP.) INDIVIDUALS, WITH EACH CLUSTER SPACED 5-6 FEET APART. INDIVIDUAL SHRUBS WITHIN EACH CLUSTER SHALL BE SPACED 3-4 FEET ON CENTER AND 24" - 36" IN HEIGHT AFTER PLANTING.
   - 6.1. CAROLINA ROSE *(ROSA CAROLINA)* OR VIRGINIA ROSE *(ROSA VIRGINIANA)*
   - 6.2. INKBERRY *(ILEX GLABRA)*
   - 6.3. STEEPLEBUSH *(SPIREA TOMENTOSA)*
   - 6.4. LOWBUSH BLUEBERRY *(VACCINIUM ANGUSTAFOLIUM)*
   - 6.5. HIGH TIDE BUSH *(IVA FRUTESCENS)*
   - 6.6. SALT BUSH *(ATRIPLEX SP.)*
7. PLANTINGS THAT FAIL TO SURVIVE WITHIN THE FIRST TWO YEARS OF PLANTING SHALL BE REPLACED IN KIND.
8. A MONITORING REPORT SHALL BE PREPARED BY THE WETLAND BIOLOGIST AND SUBMITTED TO THE CRMC AT THE CONCLUSION OF THE PLANTING WORK.

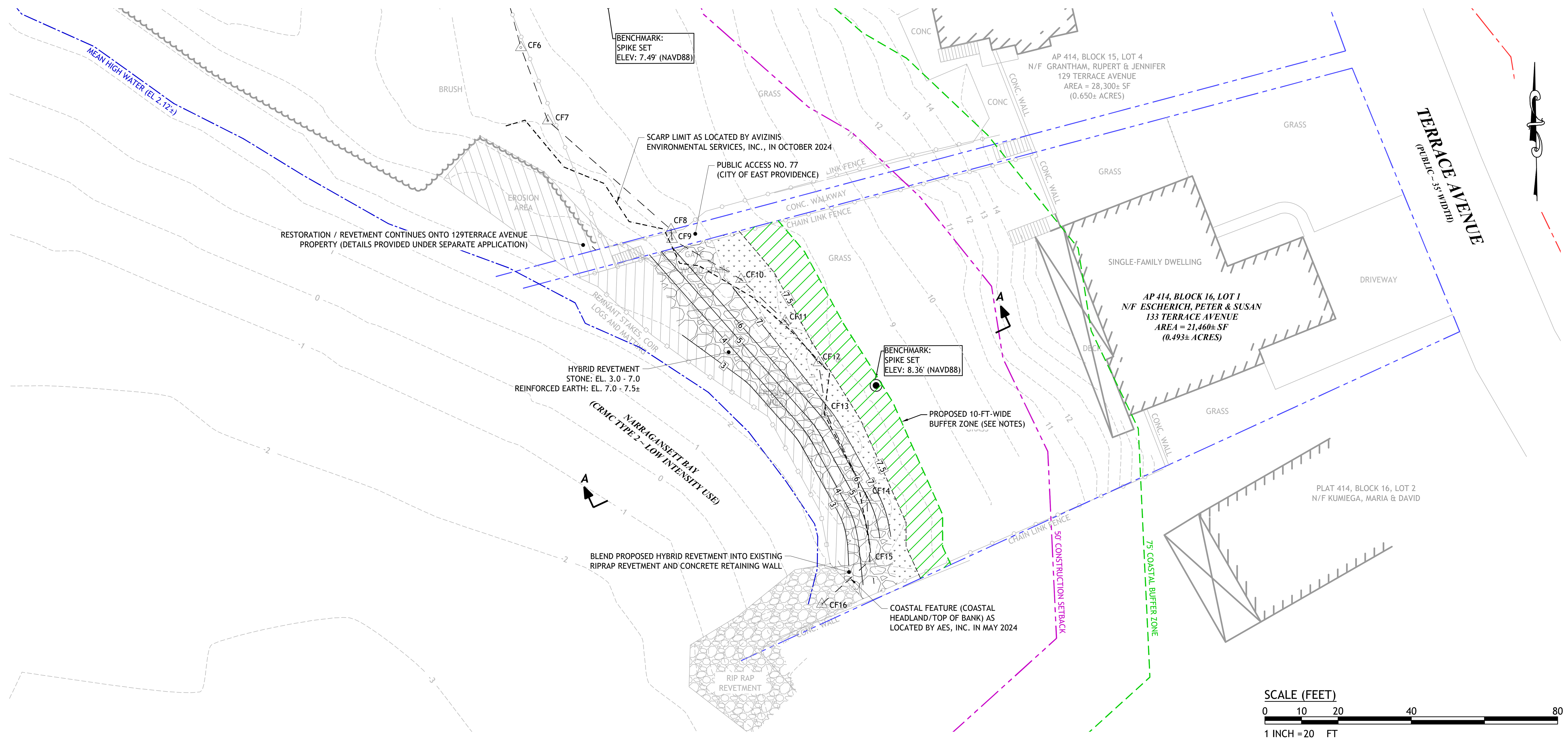
1-888-DIG-SAFE
PROTECT YOURSELF, GIVE THREE WORKING DAYS NOTICE

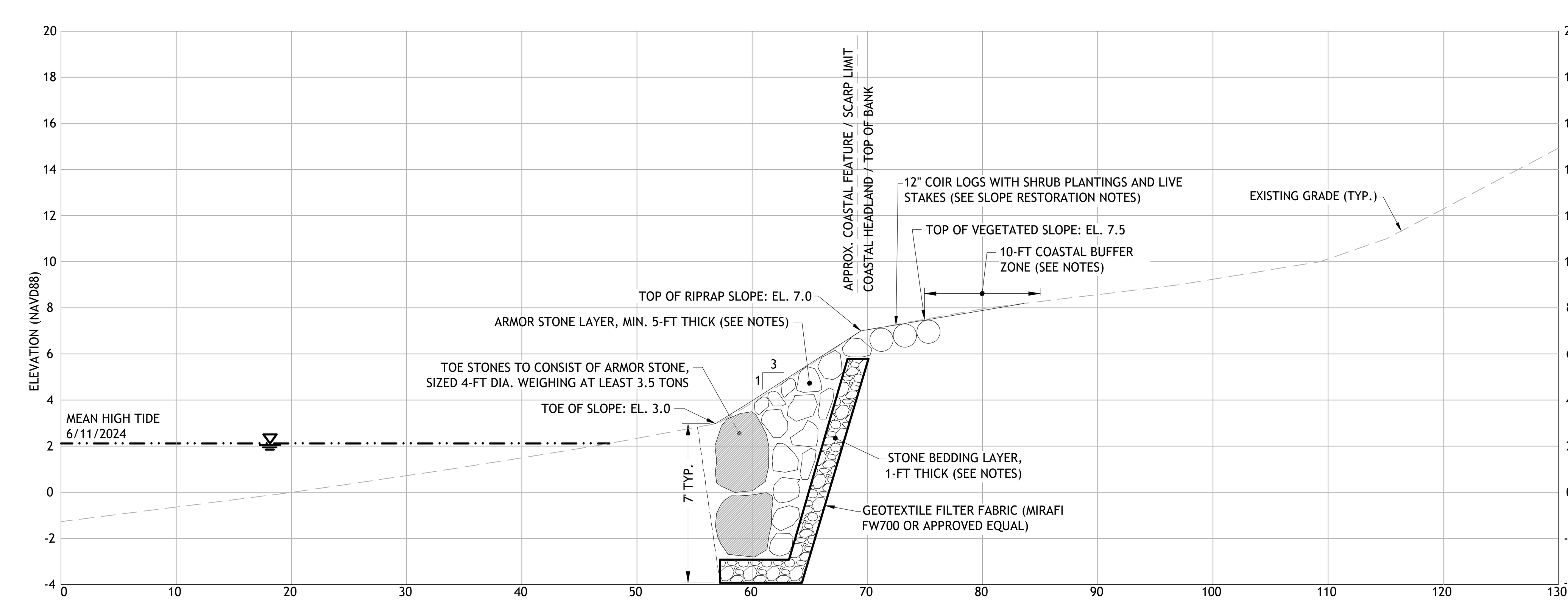
LOCATION OF EXISTING UTILITIES SHOWN, ARE FROM GATE LOCATION AND EXISTING DOCUMENTATION AND MAY NOT BE ACCURATE. EXACT LOCATION TO BE DONE BY THE APPROPRIATE UTILITY COMPANY OR MUNICIPALITY PRIOR TO ANY EXCAVATION CALL DIGSAFE AT: 1-888-DIG-SAFE
1-888-344-7233



NOTES:
1. BEGIN COMPOST SOCK INSTALLATION BY EXCAVATING A 2 TO 3-INCH-DEEP BY 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE OR ALONG THE EXISTING GROUND SURFACE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE OR ON THE DISTURBED SIDE OF THE ANCHOR TRENCH.
2. PLACE COMPOST SOCK IN THE TRENCH SUCH THAT IT CONTOURS TO THE EXISTING SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE COMPOST SOCK ON THE UP-SLOPE OR DISTURBED SIDE. ADJACENT COMPOST SOCKS SHOULD TIGHTLY ABUT.
3. SECURE COMPOST SOCK WITH 18 TO 24-INCH-LONG STAKES. INSTALL AN ADDITIONAL STAKE AT EACH END OF THE COMPOST SOCK. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE COMPOST SOCK LEAVING AT LEAST 2 TO 3 INCHES OF STAKE EXTENDING ABOVE. THE STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE OR GROUND SURFACE.

1 EROSION CONTROL COMPOST SOCK
NOT TO SCALE





SHORELINE CROSS SECTION A-A
HORIZONTAL: 1" = 10'
VERTICAL: 1" = 5'

RECEIVED
11/25/2024
COASTAL RESOURCES MANAGEMENT COUNCIL

JCE
JOE CASALI ENGINEERING, INC.
CIVIL · SITE DEVELOPMENT · TRANSPORTATION
DRAINAGE · WETLANDS · ISDS · TRAFFIC · FLOODPLAIN
300 POST ROAD, WARWICK, RI 02888
(401) 944-1300 (401)944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL
[illegible]
11/25/2024

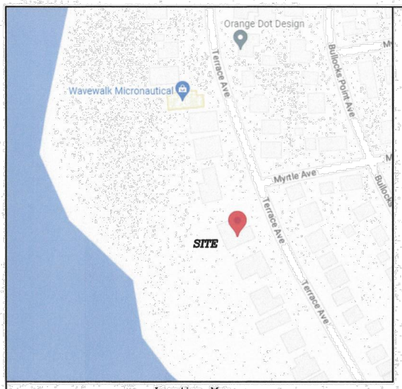
PROPOSED SHORELINE PROTECTION
133 TERRACE AVENUE
E. PROVIDENCE, RHODE ISLAND
AP 414, BLOCK 16, LOT 1

REVISIONS:		
NO.	DATE.	DESCRIPTION
1	11/25/24	RICRMC REVS.

DESIGNED BY:	DRD
DRAWN BY:	MCG
CHECKED BY:	JAC
DATE:	JUNE 2024
PROJECT NO:	24-38

PRELIMINARY, NOT FOR CONSTRUCTION

REVETMENT PLAN AND DETAILS



Location Map

LEGEND

- EDGE OF WOODS
- CHAIN LINK FENCE
- STOCKADE FENCE
- W WATER MAIN
- G GAS MAIN
- E ELECTRIC
- S SEWER MAIN
- STONE WALL
- EXISTING CONTOUR
- EDGE OF PAVEMENT
- UTILITY POLE
- DRAINAGE MANHOLE
- CATCHBASIN
- SANITARY SEWER MANHOLE
- HYDRANT
- GATE VALVE
- LIGHT POLE
- CONCRETE

N

GRID RI STATE PLANE 83

RIGL 34-13-1 INDEX
ABUTTING STREETS
Terrace Avenue

This survey has been conducted and the plan has been prepared pursuant to 435-RICR-00-00-1.9 of the Rules and Regulations adopted by the Rhode Island Board of Registration for Professional Land Surveyors on November 25, 2015, as follows:

Type of Boundary Survey	Measurement Specification:
Compilation Plan	IV

Type of Survey	
Data Accumulation Survey	III
Topography Survey	T-1

"This compilation plan has been prepared from sources of information and data whose positional accuracy and reliability has not been verified. The property liness depicted heron do not represent a boundary opinion, and other information depicted is subject to such changes as an authoritative field survey may disclose."

The purpose for the conduct of the survey and for the preparation of this plan is as follows: To prepare an existing conditions plan for the design of a potential revetment.

By: Christopher G. Palmer, PLS #2526
COA# 745

NOTES:

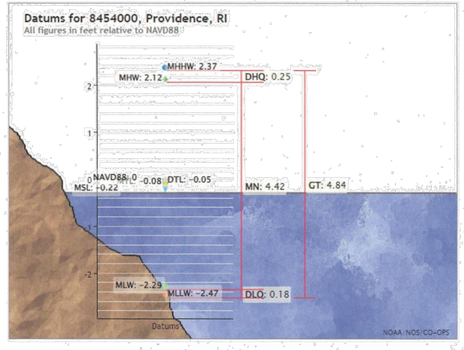
1. *The utilities shown heron are the result of field locations of visible structures at the time of the field survey and record plans acquired from the utility companies. We accept no responsibility for the accuracy or completeness of the distribution lines shown heron. Call DIG-SAFE prior to start of any construction or improvements for the exact locations of the utilities servicing this property.*
2. *This project is based and referenced upon the Rhode Island State Plane Coordinate System (currently NAD 83 and NAVD 88) as determined by data transmitted from Smartnet reference stations using the SmartNet RTK Reference Network.*

CHRISTOPHER GLENN PALMER
No. 2526
PROFESSIONAL LAND SURVEYOR
2/20/23

Narragansett Bay

Brush Area
Chain Link Fence
Grass Area
Approx. Boundary Line
Conc. Wall
Conc. Walkway
Wood Stairs
Gate
Deck
Erosion Area
Wood Posts and Matting
Bench Mark Spike Set Elev=8.36 NAVD88
Rip Rap Seawall
A.P. 414 Block 16 Lot 1
A.P. 414 Block 16 Lot 2

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.



RECEIVED
11/25/2024
COASTAL RESOURCES MANAGEMENT COUNCIL

Christopher G. Palmer, PLS
66 Falcon Ridge Drive
Exeter, Rhode Island 02822
PH: 401-474-5233
Email: palmerc6@gmail.com

Shoreline Topography Survey

133 Terrace Avenue
East Providence, Rhode Island
Assessor's Plat 414 Block 16 Lot No. 1

PREPARED FOR:
Peter C. & Susan M. Escherich
133 Terrace Avenue
Riverside, Rhode Island 02915

REVISIONS

DATE: 2/20/2023
SCALE 1"=20'
PROJECT NO: 23-007
DRAWN BY C.G.P.
CHECKED BY: C.G.P.
1 SHEET NO.