

State of Rhode Island and Providence Plantations 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

File No. (CRMC USE ONLY)

### APPLICATION FOR STATE ASSENT

To perform work regulated by the provisions of Chapter 279 of the Public Laws of 1971 Amended.

Project Location 0 Booth Ave, East Providence	
No. Street City/Town	2023-06-125
Owner's Name City of East Providence - Parks	Plat: 13 Lot(s): 9
Mailing Address 145 Taunton Ave., East Providence RI 02914  Address City/Town, State Zip Code	Owner's Contact: Number: 401-435-7500 x 40020 Email Address:
Contractor RI Reg. # Address	Email address: Tel. No.
Designer Derick Hopkins, PE Address 10 Dorrance St. Suite 840 Providence RI 02903	Tel. No. 401-808-8303
Name of Waterway Bullocks Cove	Estimated Project Cost (EPC): \$1,000,000 Application Fee:
for destructive erosion in the future.	
Have you or any previous owner filed an application for and/or received an	assent for any activity on this property?
(If so please provide the file and/or assent numbers): No  Is this site within a designated historic district?  Is this application being submitted in response to a coastal violation?  OY  If YES, you must indicate NOV or C	ES
(If so please provide the file and/or assent numbers): No  Is this site within a designated historic district?  OY  Is this application being submitted in response to a coastal violation?	ES
(If so please provide the file and/or assent numbers): No  Is this site within a designated historic district?  Is this application being submitted in response to a coastal violation?  OY  If YES, you must indicate NOV or C  Name/mailing addresses of adjacent property owners whose property adjoin insure proper notification.  Applicant must initial to certify accuracy of adjacent property	ES

Owner's Signature (SIGN)

### STATEMENT OF DISCLOSURE AND APPLICANT AGREEMENT AS TO FEES

The fees which must be submitted to the Coastal Resources Management Council are based upon representations made to the Coastal Resources Management Council by the applicant. If after submission of this fee the Coastal Resources Management Council determines that an error has been made either in the applicant's submission or in determining the fee to be paid, the applicant understands that additional fees may be assessed by the Coastal Resources Management Council. These fees must be paid prior to the issuance of any assent by the Coastal Resources Management Council.

The applicant understands the above conditions and agrees to comply with them.

Øwner Signature

Print Name and Mailing Address

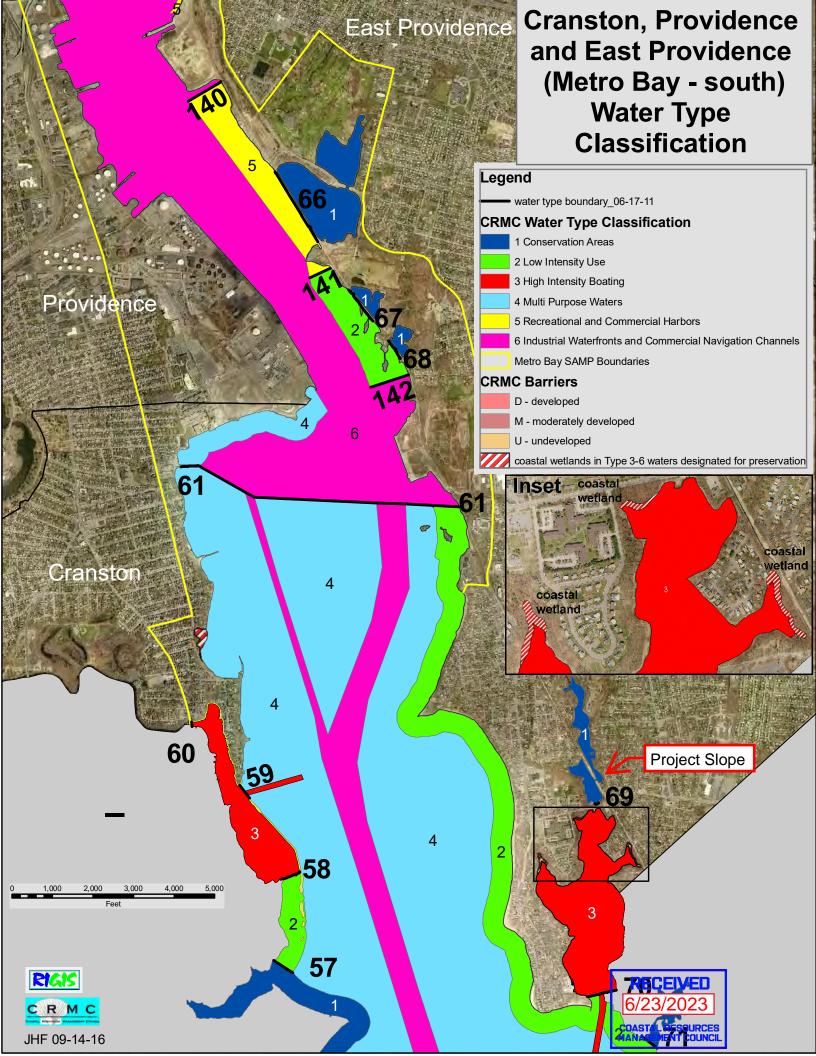
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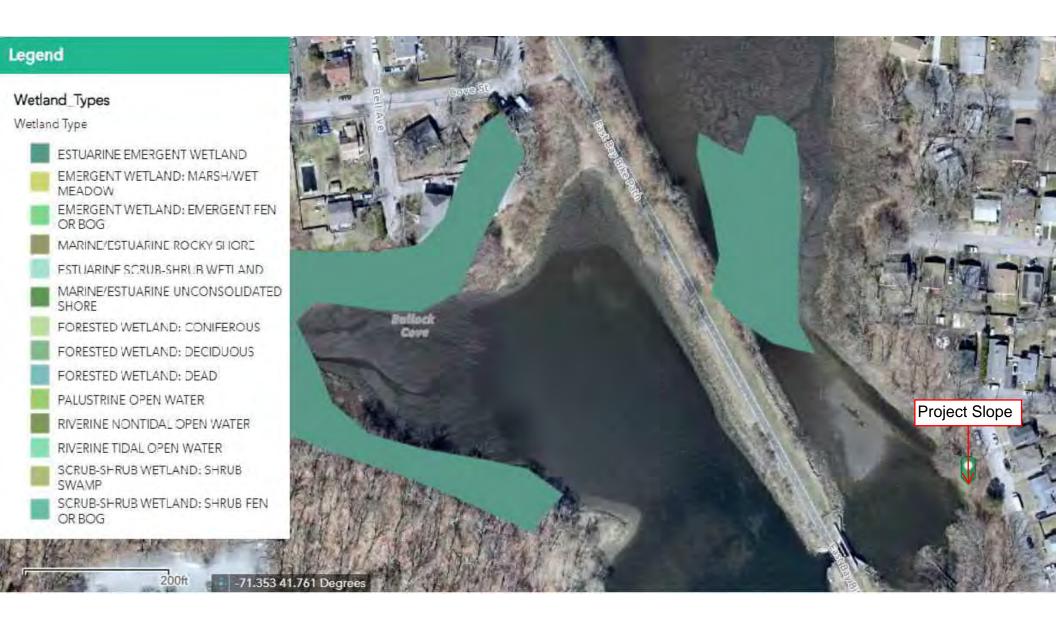
Appendix B RICRMC Water Type Classification Map





# Appendix C RIDEM Environmental Resource Map





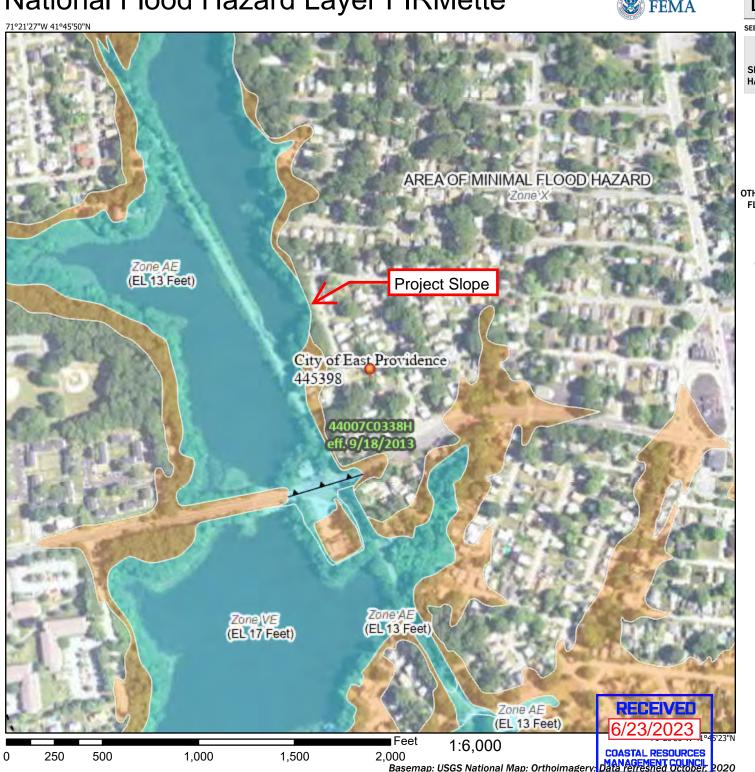


# Appendix D FEMA Firmette



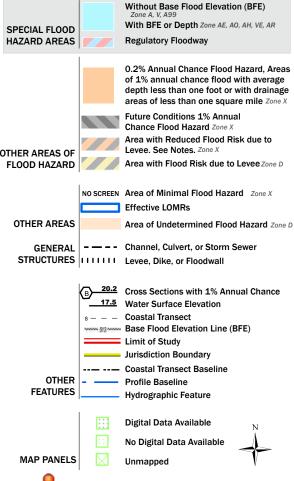
# National Flood Hazard Layer FIRMette





### Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap

accuracy standards

The pin displayed on the map is an approximate point selected by the user and does not represent

an authoritative property location.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/31/2022 at 8:56 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix E Site Plans (11" x 17")



BID SET No.

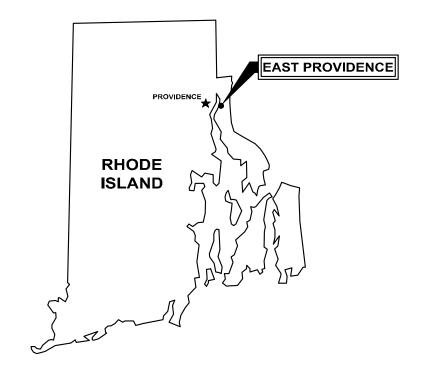
# CITY OF EAST PROVIDENCE, RHODE ISLAND

**CONTRACT DRAWINGS FOR** 

# **BOOTH AVENUE SLOPE STABILIZATION**

**JUNE 2023** 

# RICRMC PERMIT SUBMISSION



### **DRAWING INDEX**

GENERAL	
	COVER SHEET
CIVIL	
C-1	GENERAL NOTES, LEGEND, ABBREVIATIONS
C-2	SITE PLAN AND PROFILE
C-3	SECTIONS I
C-4	SECTIONS II
C-5	DETAILS I
C-6	DETAILS II
C-7	LANDSCAPE PLAN
C-8	EROSION CONTROL NOTES AND DETAILS



LOCATION PLAN
SCALE: NTS



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6/23/2023	1.0130	www.wright-pierce.com

FOR REVIEW June 2023

FOR BIDDING

WP PROJECT No. 13981

- THE CITY OF EAST PROVIDENCE WILL BE RESPONSIBLE FOR OBTAINING THE PERMITS LISTED IN THE SUPPLEMENTARY OR SPECIAL CONDITIONS. IT IS THE
  RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND
  ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL OBTAINED PERMITS ARE AVAILABLE FOR REVIEW FROM THE CITY OF EAST PROVIDENCE.
  ALL OTHER PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 2. THE CITY OF EAST PROVIDENCE SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHTS OF WAY AND EASEMENTS. THE CONTRACTOR SHALL VERIFY THAT THE NECESSARY EASEMENTS HAVE BEEN SECURED BY THE CITY OF EAST PROVIDENCE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH EASEMENT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL RIGHTS OF WAY AND EASEMENTS ARE AVAILABLE FOR REVIEW FROM THE CITY OF EAST PROVIDENCE.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW AT ALL TIMES. CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL SIGNS IN ACCORDANCE WITH THE MUTCO AND ALL STATE AND LOCAL REGULATIONS. THE CONTRACTOR IS REQUIRED TO SUBMIT AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO COMMENCING CONSTRUCTION. THE POLICE EPPARTMENT AND FIRE DEPARTMENT ARE TO BE NOTIFIED AT LEAST 24-HOURS IN ADVANCE OF ANY STREET CLOSING OR DETOUR. REFER TO SPECIFICATION SECTION 01570.
- 4. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- 5. CONTRACTOR SHALL COMPLY WITH THE COORDINATION REQUIREMENTS AND RELATED COSTS, IF ANY, AS SPECIFIED IN SPECIFICATION SECTION 01050.
- 6. CONTRACTOR SHALL NOTE THAT, IN GENERAL, ALL EXISTING CONDITION INFORMATION ON THE DRAWINGS ARE SHOWN WITH A LIGHTER LINE WEIGHT AND WITH A SLANTED TYPE TEXT.
- 7. ALL EXISTING SEWER AND STORM DRAIN LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE. ANY EXISTING SEWERS, STORM DRAIN LINES OR CULVERTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY OF EAST PROVIDENCE, EXCEPT WHEN IN DIRECT CONFLICT WITH THE NEW WORK OR WHEN NOT SHOWN OR INDICATED.
- 8. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE EXCAVATION IS BACKFILLED. INJURY TO ANY SUCH STRUCTURES CAUSED BY OR RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY.
- 9. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTICE TO THE RESPECTIVE UTILITY POLE OWNER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.
- 10. ALL TEST PITS SHALL BE EXCAVATED PRIOR TO CONSTRUCTION LAYOUT AND RESULTS REPORTED TO THE ENGINEER FOR REVIEW FOR CONFORMANCE WITH THE PLANS. TEST PITS ARE REQUIRED WHERE SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER. TEST PITS WILL BE DUG AT LEAST 10 CALENDAR DAYS PRIOR TO CONNECTING PROPOSEDS ENWERS TO EXISTING SEWERS.

#### **EXISTING SITE CONDITIONS**

- THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN, OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD WITH TEST PITS AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED.
- 11. BELOW GRADE UTILITY INFORMATION IS BASED ON INFORMATION PROVIDED BY EACH UTILITY. LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING UTILITIES IN THE FIELD WITH THE RESPECTIVE UTILITY COMPANY REPRESENTATIVE PRIOR TO COMMENCING WORK. REFER TO SPECIFICATION SECTION 01050. TEST PITS, MAY BE REQUIRED. UTILITY CONTACTS ARE AS FOLLOWS:

ELECTRIC: WATER/SEWER/DRAIN: TELEPHONE:
RI ENERGY CITY OF EAST PROVIDENCE PUBLIC WORKS VERIZON NEW ENGLAND
280 MELROSE STREET 60 COMMERCIAL WAY 6 BOWDOIN SQURE
PROVIDENCE RI 02907 EAST PROVIDENCE, RI BOSTON, MA 02114
(401)-784-7331 (401)-435-7701 (857)-415-5161

 DIG SAFE:
 GAS:

 DIG SAFE SYSTEM, INC.
 RI ENERGY

 11 UPTON DRIVE
 280 MELROSE STREET

 WILMINGTON, MA 0188
 PROVIDENCE, RI

 811 OR 1-{888}-344-7233
 1-800-870-1664

12. THERE ARE NO KNOWN HAZARDOUS ENVIRONMENTAL CONDITIONS WITHIN THE AREA OF WORK. REFER TO SPECIFICATION SECTION 00800-SC-5.306. IF THE PRESENCE OF HAZARDOUS ENVIRONMENTAL CONDITIONS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE CITY OF EAST PROVIDENCE AND THE ENGINEER IMMEDIATELY. ALL ACTIVITIES, HANDLING AND DISPOSAL OF HAZARDOUS ENVIRONMENTAL CONDITIONS AND MATERIALS SHALL BE IN ACCORDANCE WITH OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS.

### SITE DEMOLITION

- 1. REFER TO THE EXISTING SITE PLAN, FOR ADDITIONAL INFORMATION REGARDING EXISTING SITE. REFER TO THE LAYOUT DRAWING FOR LIMITS OF WORK
- 2. REFER TO SPECIFICATION SECTION 01010B, WHICH CONTAINS INFORMATION ON CONSTRAINTS OF CONSTRUCTION SEQUENCING.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE CITY OF EAST PROVIDENCE RESERVES THE RIGHT TO RETAIN ANY SUCH PIPING, EQUIPMENT AND MATERIALS DESIGNATED FOR DEMOLITION. SUCH MATERIALS TO BE RETAINED SHALL BE PROPERLY STORED IN AN ON-SITE LOCATION. COORDINATE LOCATION AND MATERIALS TO BE SALVAGED WITH THE TOWN OF CITY OF FAST PROVIDENCE/ENGINEER. REFER TO SPECIFICATION SECTION 02050A
- 4. THE CONTRACTOR SHALL KEEP A RECORD OF DEMOLITION AS PART OF THE PROJECT RECORD DOCUMENTS IN ACCORDANCE WITH SPECIFICATION SECTION 01720.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND GROUNDWATER DEWATERING OPERATIONS

### SITE CLEARING, GRUBBING AND GRADING

- 1. STRIPPING OF TOPSOIL (LOAM) SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02115. REFER TO THE LAYOUT AND GRADING DRAWINGS FOR LIMIT OF WORK AND STRIPPING.
- CONTRACTOR SHALL MINIMIZE CLEARING OPERATIONS. CLEARING AND GRUBBING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02110. CLEARING
  LIMITS SHALL BE AS INDICATED ON THE DRAWINGS, BUT AT ALL TIMES WITHIN EXISTING ROAD RIGHTS OF WAY AND PROPERTY LINES. ALL CLEARING AND
  GRUBBING MATERIAL SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT A SITE PROVIDED BY THE CONTRACTOR IN COMPLIANCE WITH
  ALL STATE AND LOCAL LAWS.
- 3. CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE ACTUAL LIMITS OF GRUBBING AND/OR GRADING, AND AS SHOWN ON THE DRAWINGS. PRIOR TO THE START OF ANY WORK THE CONTRACTOR SHALL INSTALL AN TURBIDITY CURTAIN, IN THE WATER, A THE BASE OF ANY DISTURBED SLOPES. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM, CONTRACTOR SHALL TAKE ALL OTHER NECESSARY MEASURES. EROSION CONTROL FENCE SHALL ALSO BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE TOPOSIOL STOCKPIES. ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED FRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT. REFER TO SPECIFICATION SECTION 02270.
- 4. BORING LOGS FOR THE PROJECT SITE ARE INCLUDED IN APPENDIX A OF THE SPECIFICATIONS. THESE ARE PROVIDED FOR INFORMATION PURPOSES ONLY. PLEASE NOTE THAT THE SOIL DESCRIPTIONS PROVIDED ON THE BORING LOGS DO NOT REPRESENT FIELD CONDITIONS OTHER THAN AT THE SPECIFIC TEST BORING LOCATION. THE CONDITIONS BETWEEN BORING LOCATIONS MAY VARY FROM THOSE SHOWN ON THE TEST BORING LOGS.
- 5. CONTRACTOR SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE LIMIT, AS DETERMINED BY THE ENGINEER, AND AS OUTLINED IN SPECIFICATION SECTION 01562.
- 6. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS AND PLANT DRIVES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.
- THE CONTRACTOR SHALL NOT HAVE ANY RIGHT OF PROPERTY IN ANY MATERIALS TAKEN FROM ANY EXCAVATION. SUITABLE EXCAVATED MATERIAL MAY BE INCORPORATED IN THE PROJECT, WITH EXCESS MATERIAL DISPOSED OF A TO A LOCATION PROVIDED BY THE CONTRACTOR. THESE PROVISIONS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF OBLIGATIONS TO PROPERLY DISPOSE OF AND REPLACE ANY MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE AND EXCESS MATERIAL IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT DOCUMENTS.
- 8. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY CONSTRUCTION ACTIVITIES TO AT

LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE CITY OF EAST PROVIDENCE AND ENGINEER

- WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER.
- ALL NON-ROADWAY AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE LOAMED, GRADED, LIMED, FERTILIZED, SEEDED AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 4-INCHES OF SOIL SHALL BE LOAM. REFER TO SPECIFICATION SECTION 02485, LANDSCAPING/LOA AND SEED.

#### **CIVIL SITE LAYOUT**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THIS PROVIDED LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- 2. REFER TO CIVIL PLAN SHEETS FOR ADDITIONAL LAYOUT INFORMATION.
- 3. THE LOCATIONS AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE CITY OF EAST PROVIDENCE AND ENGINEER. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING AND RESETTING ALL EXISTING PROPERTY MONUMENTATION DISTURBED BY CONSTRUCTION
  THIS WORK SHALL BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OR RHODE ISLAND AT NO ADDITIONAL COST TO THE CITY OF EAST PROVIDENCE.
- 5. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER,
- 6. ALL ELEVATIONS REFER TO THE NAVD88 DATUM. ORIENTATION IS GRID NORTH ON THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM. CONTRACTOR SHALL VERIFY ELEVATIONS PRIOR TO USING IN CONSTRUCTION.
- EXISTING CONDITIONS SITE PLAN DEVELOPED FROM SURVEY PERFORMED BY WATERMAN ENGINEERING COMPANY, DATED 09/18/2018, AND EXISTING RECORD
  DRAWING INFORMATION. ELEVATIONS AND LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD

#### **CIVIL SITE PIPING**

- 1. ALL BURIED CONNECTIONS TO STRUCTURES SHALL HAVE SLEEVE TYPE FLEXIBLE CONNECTIONS APPROXIMATELY 4-FEET FROM THE STRUCTURES. ALL SLEEVE TYPE COUPLINGS ON PRESSURE LINES SHALL BE RESTRAINED (SOLID SLEEVE). REFER TO SPECIFICATION SECTION 02655.
- 2. MANHOLES ARE 4-FEET IN DIAMETER UNLESS OTHERWISE NOTED. THE TOP OF MANHOLE FRAMES SHALL BE SET FLUSH WITH FINISH GRADE, UNLESS OTHERWISE NOTED ON DRAWINGS. SEWER MANHOLE INVERTS SHOWN ON THE DRAWINGS ARE TO THE INSIDE FACE OF THE MANHOLE.
- 3. CONTRACTOR SHALL RE-SHAPE INVERTS AS REQUIRED WHEN CONNECTING INTO EXISTING MANHOLES.
- 4. REFER TO SPECIFICATION SECTION 02200 FOR PIPE AND STRUCTURE BEDDING AND BACKFILL REQUIREMENTS.
- . COMPACTION TESTS WILL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 02200. ANY SETTLEMENT OCCURRING WITHIN ONE-YEAR OF FINAL COMPLETION OF THE WORK SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 6. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED ON THE CIVIL EXISTING CONDITIONS AND DEMOLITION PLAN. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY OF FAST PROVIDENCE.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS IN ACCORDANCE WITH SPECIFICATION SECTION 02050.

DATUM	<u> </u>					
MHW MHW	2.37 2.12		DHQ	0.25	T	
NAVD 88 MSL	0.00 -0.22		DTL	-0.05	GТ	4.84
MLW MLLW	-2.29 -2.47		DLQ	0.18		

DATUMS FOR 8454000, PROVIDENCE, RI. ALL ELEVATIONS RELATIVE TO NAVD 88

**CIVIL ABBREVIATIONS EXISTING** PROPOSED PROPERTY/ROW LINE SETBACK LINE #, NO NUMBER \_ . \_ . \_ . \_ EASEMENT LINE \_ . \_ . \_ ΔPP'D **APPROVED** CENTERI INF APPROXIMAT BRICK EDGE OF PAVEMENT CURBING CATCH BASIN EDGE OF GRAVEL CEN CENTER CUBIC FEET PER SECON EDGE OF CONCRETE CAST IRON <del>(123)</del> ---122---CONTOUR CENTERLINI BUILDING CLEANOUT 000000000 STONEWALL 000000000  $\sim\sim\sim$ TREELINE  $\sim\sim\sim$ COR CORNER CHAIN LINK FENCE CUBIC YARD STOCKADE FENCE DRAIN MANHOLI BARB WIRE FENCE DUCTILE IRON RETAINING WALL DWG DRAWING GUARDRAIL FLEVATION 8"S SEWER ELECTRIC MANHOLE \_\_4<u>"FM</u> \_\_\_ \_ SEWER FORCE MAIN FORCE MAIN 4". 4"G GAS 8"W 8" WATER HIGH DENSITY POLYETHYLENI 15"SD 15" STORM DRAIN RELINED PIPE \_\_<u>12" CMP</u>\_\_\_\_ = 12" CMP CULVERT **POUNDS** UNDERGROUND ELECTRIC -----LINEAR FOOT OVERHEAD ELECTRIC ----------MANHOLE - UNDERGROUND TELEPHONE ----------UNDERGROUND CABLE TV -IRON PIPE/REBAR NGVD NATIONAL GEODETIC VERTICAL DATUM NOT AVAILABLE/APPLICABLE DRILLHOLE NOT TO SCALE MONUMENT OUTSIDE DIAMETER SURVEY CONTROL POINT POUNDS PER SQUARE INCH SPOT ELEVATION POINT OF TANGENCY SEWER MANHOLE ♠SMH DRAINAGE MANHOLE DMH RCP REINFORCED CONCRETE PIPE CATCH BASIN ⊕св ≡св SLOPE, SEWER ELECTRIC MANHOLE **EMH** STORM DRAIN ⊡Ő TELEPHONE MANHOLE **■** TMH SHUTOFF VALVE  $\bowtie$ SANITARY SEWER MANHOLE SOUARE WATER SERVICE SHUTOFF STATION YARD HYDRANT TBM TEMPORARY BENCH MARK TOP OF STRUCTUR HYDRANT TYPICAL GAS SERVICE SHUTOFF UNDERDRAIN GAS GATE VALVE UNDERGROUN UTILITY POLE UNDERGROUND ELECTRIC VITRIFIED CLAY UTILITY POLE W/ GUY UTILITY POLE W/ LIGHT POTABLE WATER LIGHT POLE BOLLARD 0~ FLAGPOLE CONIFEROUS TREE 7/1/2 E DECIDUOUS TREE € SHRUB WETLAND FLAG **EDGE OF WATER** STREAM -----EDGE OF WETLANDS FLOODPLAIN WETLANDS DRAINAGE FLOW  $\Rightarrow$ DRAINAGE SWALE **→** & PAVEMENT MARKINGS MAILBOX TEMPORARY BENCH MARK TEST PIT TEST BORING TEST PROBE MONITORING WELL LIMIT OF WORK SILT FENCE DADADAD RIPRAP **TATATAT** RAILROAD MATCHLINE ROCK OUTCROP

**LEGEND** 

RECEIVED
6/23/2023

COASTAL RESOURCES
MANAGEMENT COUNCIL

TIDAL INFORMATION BASED ON NOAA BM DISK 3033B 1994
"BAY SPRING, BULLOCK COVE"

MEAN HIGH WATER (M.H.W.) = 1.9 ±

NAVD 88 = 0.00

MEAN LOW WATER (M.H.W.) = -2.3 ±

DRAWING C-1

TY OF BOOT

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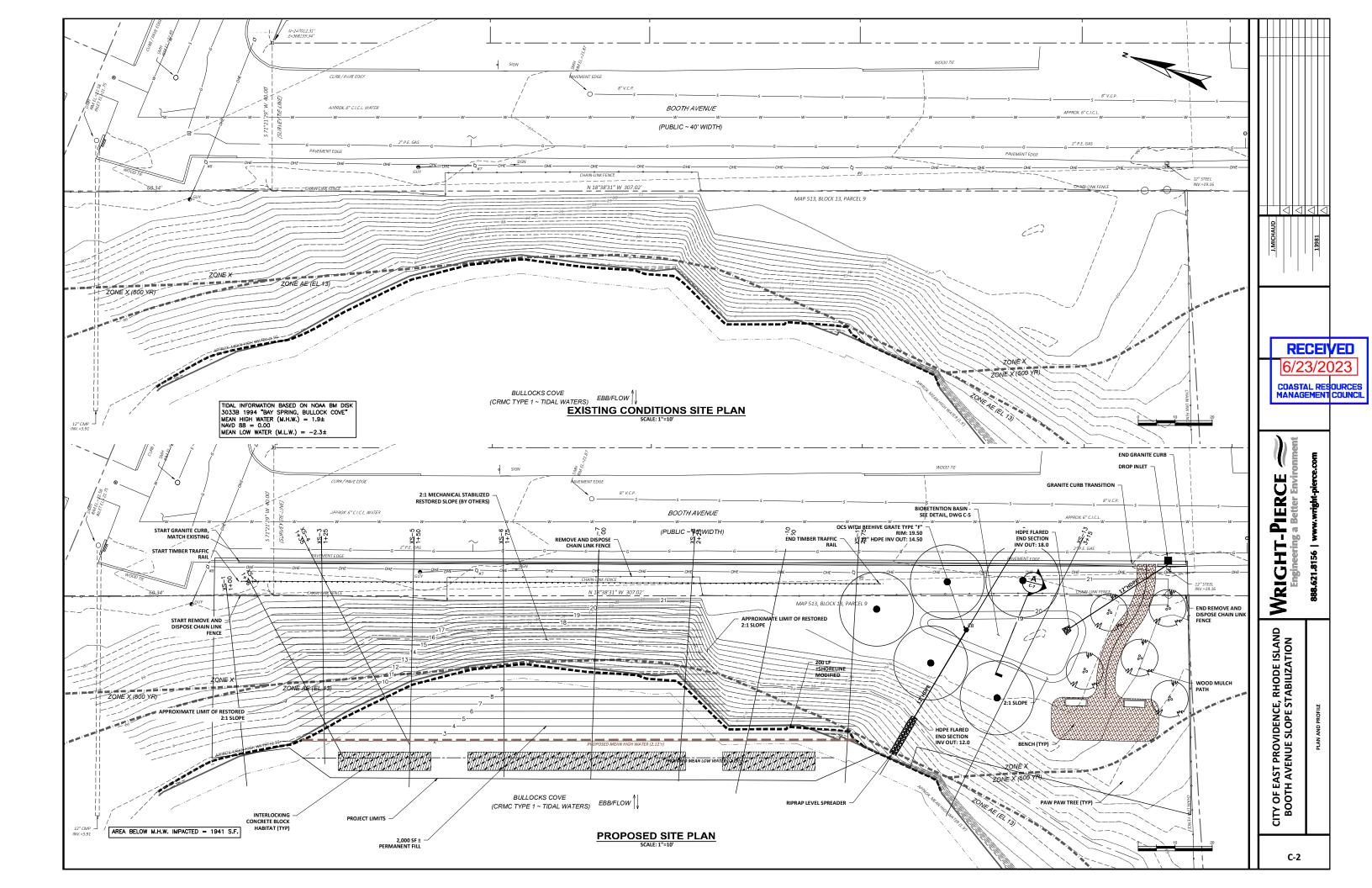
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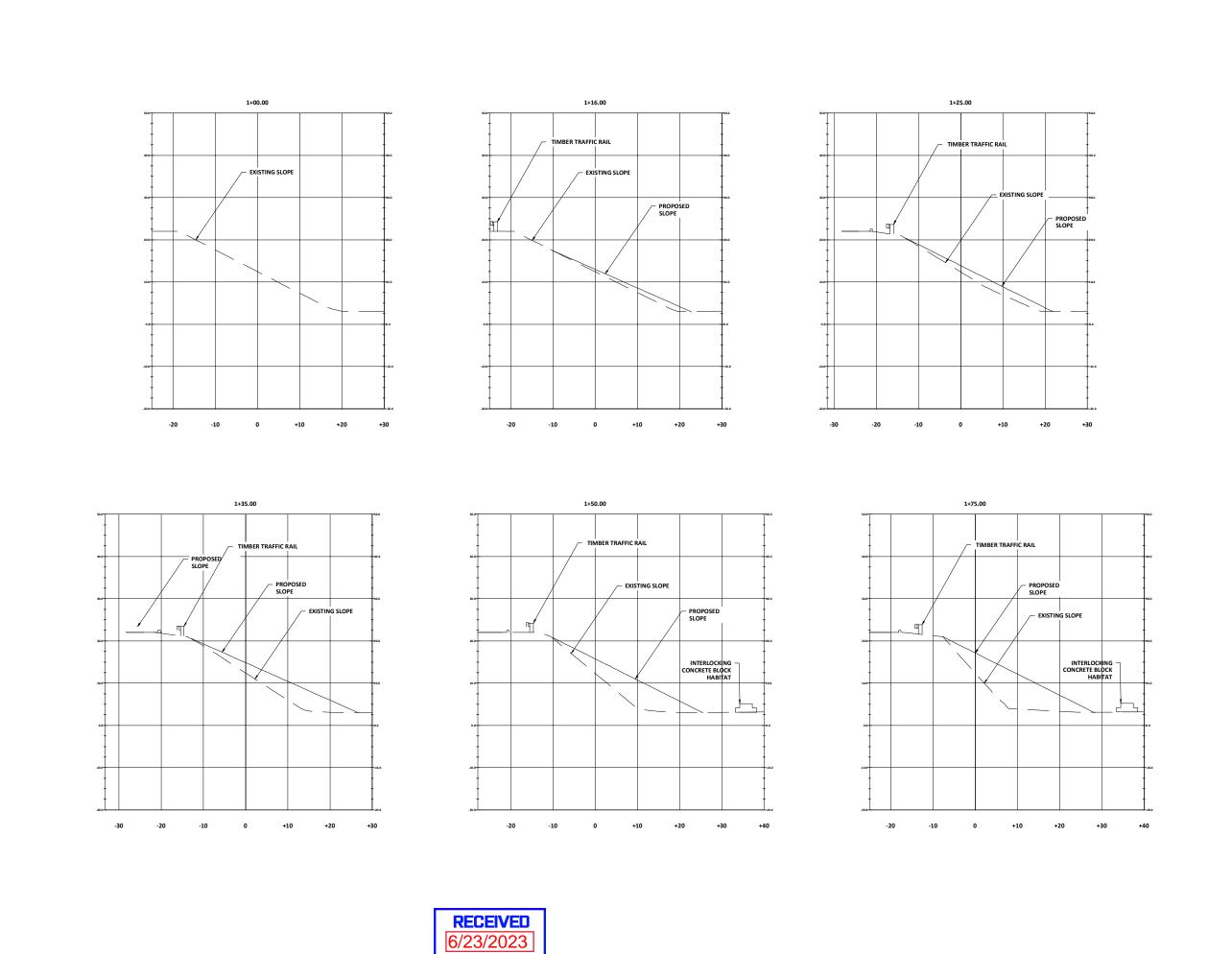
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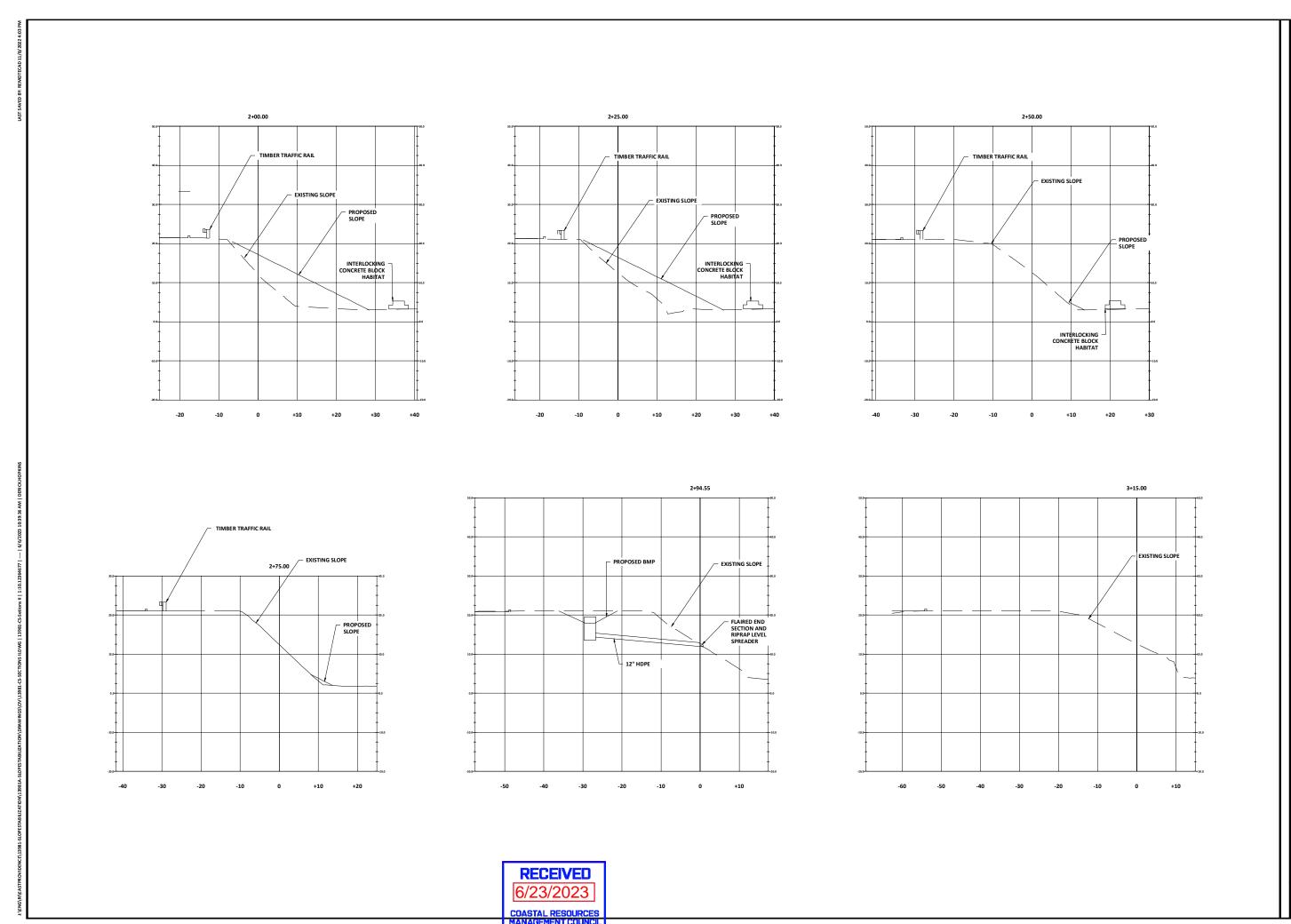


DRAWING C-3

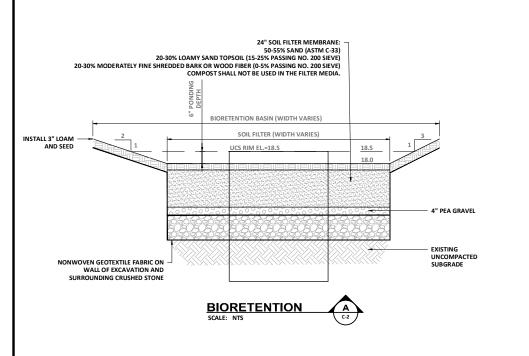
CITY OF EAST PROVIDENCE, RHODE ISLAND BOOTH AVENUE SLOPE STABILIZATION

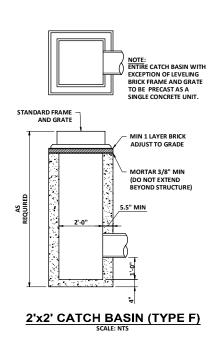
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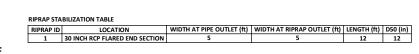


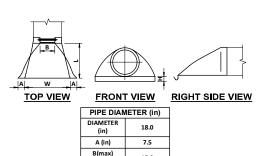
WRIGHT-PIERCE Engineering a Better Environment 888.621.8156 | www.wright-pierce.com CITY OF EAST PROVIDENCE, RHODE ISLAND BOOTH AVENUE SLOPE STABILIZATION DRAWING

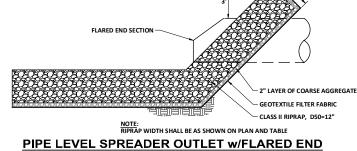












**HDPE FLARED END SECTION** 

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6.5

32.0

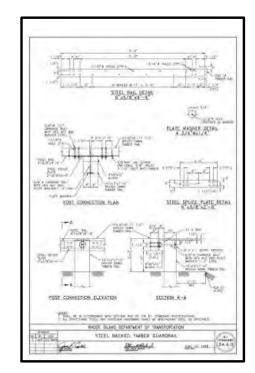
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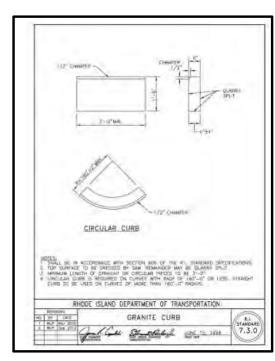
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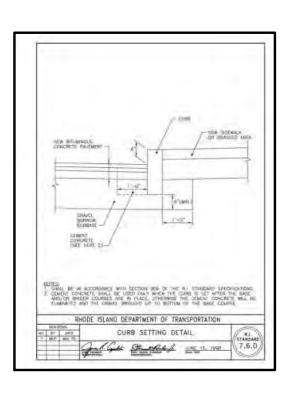
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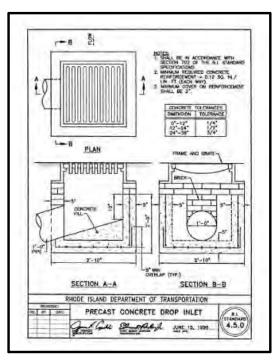
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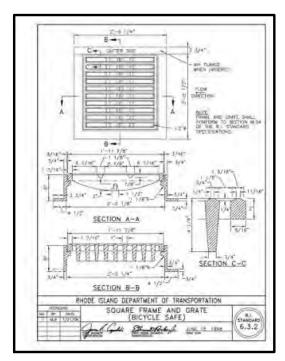
W (in)











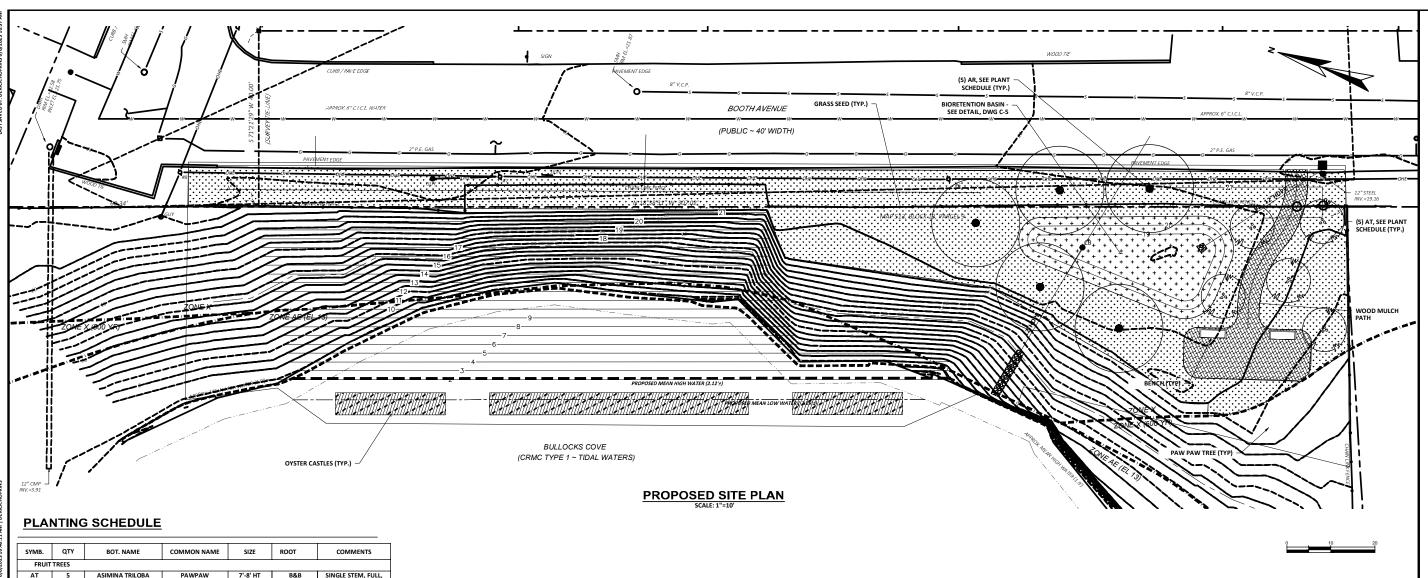
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CITY OF EAST PROVIDENCE, RHODE ISLAND BOOTH AVENUE SLOPE STABILIZATION

DRAWING



SYMB.	QTY	BOT. NAME	COMMON NAME	SIZE	ROOT	COMMENTS	
FRUIT	TREES						
AT	5	ASIMINA TRILOBA	PAWPAW	7'-8' HT	B&B	SINGLE STEM, FULL, HEAVY, MATCHED	
DECID	UOUS TREE	S					
AR	5	ACER RUBRUM	RED MAPLE	2 1/2"-3" CAL.	B&B	SINGLE STEM, FULL, HEAVY, MATCHED	
BRUS	H BRANCHE	S FOR SLOPE STABILIZATION	ı	-			
	200	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	3' BRANCH	BARE ROOT	PLANT IN FALL, 3' O.C.	
	200	SALIX DISCOLOR	PUSSY WILLOW	3' BRANCH	BARE ROOT	PLANT IN FALL, 3' O.C.	
	200	VIBURNUM DENTATUM	ARROWWOOD	3' BRANCH	BARE ROOT	PLANT IN FALL, 3' O.C.	
SEED	& LOAM					•	
	800 SF	BIORETENTION SEED MIX	SEE SPECIFICATION	IS			
	4,600 SF	GRASS SEED MIX	SEE SPECIFICATIONS				

- ALL NEW PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN, LATEST EDITION. IN ADDITION, ALL NEW PLANT MATERIAL FOR THE PROJECT SHALL BE OF THE HIGHEST SPECIMEN QUALITY.

  SEE SPECIFICATIONS FOR ITEMS NOT COVERED ON THE PLANS AND DETAILS.
  CONTRACTOR SHALL INSPECT SITE PRIOR TO BEGINNING PLANTING OPERATIONS AND NOTIFY THE ENGINEER OF ANY CONDITIONS THAT ARE NOT SUITABLE TO PERFORNING PLANTING OPERATIONS. CONTRACTOR SHALL INSPECT SITE PRIOR DETAILS AND ADDITIONS THAT WOULD PREVENT HEALTHY GROWTH OF PLANT MATERIAL.
- NO TREES SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING. TREES SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS THEY BORE TO PREVIOUS GRADE.

- PREVIOUS GRADE.
  PLANT GROUPING AND LOCATIONS ARE DIAGRAMMATIC. THE LOCATION OF PLANTS SHALL BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT. PLANTS INSTALLED PRIOR TO FIELD STAKING OR DIRECTION BY THE LANDSCAPE ARCHITECT SHALL BE REPLACED AS DIRECTED BY THE LANDSCAPE ARCHITECT AT THE CONTRACTOR'S EXPENSE.
  PLANT MATERIAL DELIVERED ON SITE SHALL BE HEALED-IN AT A SHADY LOCATION UNTIL PLANTING AREA IS PREPARED FOR INSTALLATION. ANY PLANTS REMAINING UNPLANTED ON THE SITE FOR MORE THAN 24 HOURS SHALL BE PROTECTED AND MAINTAINED INCLUDING BUT NOT LIMITED TO WATER AND SHADE. DAMAGED OR STRESSED PLANTS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
  THERE WILL BE NO SUBSTITUTIONS OF PLANT MATERIAL WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE ONLY AND PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE ONLY AND PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE ONLY AND PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE
- OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE ONLY AS APPROVED BY THE LANDSCAPE ARCHITECT/FIGNIEER.

  8. THE GENERAL CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.

  9. THE CONTRACTOR SHALL MAINTAIN ALL PREPARED PLANTING AREAS.

  10. THE CONTRACTOR IS TO USE CARE DURING EXCAVATION AND PLANTING TO AVOID DISTURBING OR DAMAGING ANY ADJACENT CONSTRUCTION SUBSURFACE DRAINAGE OR UTILITIES. ANY DAMAGER ESSULTING FROM THIS CONSTRUCTION WILL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE RESTORED AT HIS EXPENSE TO THE SATISFACTION OF THE OWNER.
- 11. STAKE LOCATION OF ALL PROPOSED PLANTING FOR APPROVAL BY THE LANDSCAPE ARCHITECT/ENGINEER PRIOR TO COMMENCEMENT OF PLANTING.

  12. THE CONTRACTOR SHALL SUPPLY PLANT MATERIAL IN THE QUANTITIES INDICATED ON THE PLANS. FOR DISCREPANCIES BETWEEN THE PLANS AND THE PLANT
- 12. THE CONTRACTOR SHALL SUPPLY PLANT MATERIAL IN THE QUANTITIES INDICATED ON THE PLANS. FOR DISCREPANCIES BETWEEN THE PLANS AND THE PLANT SCHEDULE, THE PLAN QUANTITIES SHALL PREVAIL.

  13. ALL PLANT MATERIAL IN CONTAINERS SHALL BE WELL ESTABLISHED ROOTED MATERIAL THAT OCCUPIES THE ENTIRE VOLUME OF SPECIFIED CONTAINER.

  14. PLANTS WITH GIRDLING ROOTS SHALL BE REJECTED. CONTAINER GROWN PLANTS WITH TIGHT ROOT MASSES SHALL BE SCARRIFED PRIOR TO PLANTING.

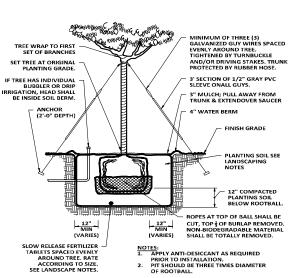
  15. THE TREE ROOT FLARE SHALL BE EXPOSED AND PLANTED EVEN WITH THE FINISH GRADE. PREPARE ALL TREE PITS WITH PLANTING SOIL TO A MINIMUM DEPTH MATCHING THE DEPTH OF TREE ROOT BALLS.

- 16. ALL PLANT BEDS ARE TO RECEIVE THREE INCHES (3") OF SHREDDED BARK MULCH AS SPECIFIED. NO SEPARATE PAY ITEM FOR MULCH OR AND/OR FERTILIZER PACKETS. PAID FOR UNDER PLANTING ITEMS.

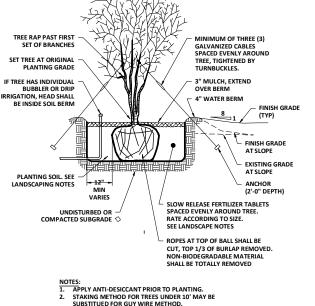
  17. ALL EXISTING TREES TO REMAIN SHALL BE PROPERLY PROTECTED, PRUNED AND FERTILIZED PER THE SPECIFICATIONS.
- 17. ALL EASTHON THESE TO REMINITIONAL SEPARATE PROTECTED, PROVIDED AND PERTURDED PER THE SPECIATIONS.

  ALL LAWN AREAS DISTURBED BY CONSTRUCTION OPERATIONS INSIDE AND OUTSIDE THE LIMIT OF WORK SHALL BE LOAMED AND SEEDED AS SPECIFIED. ALL AREAS TO BE SEEDED SHALL RECEIVE SOIL PREPARATION AS SPECIFIED PRIOR TO SEEDING, UNLESS OTHERWISE NOTED ON PLAN.

  19. ALL AREAS TO BE SEEDED WITH GRASS SEED MIX SHALL RECEIVE 6" TOPSOIL PRIOR TO SEEDING.



**TREE INSTALLATION: 10' AND TALLER** 



3. PIT SHOULD BE THREE TIMES DIAMETER OF ROOTBALL

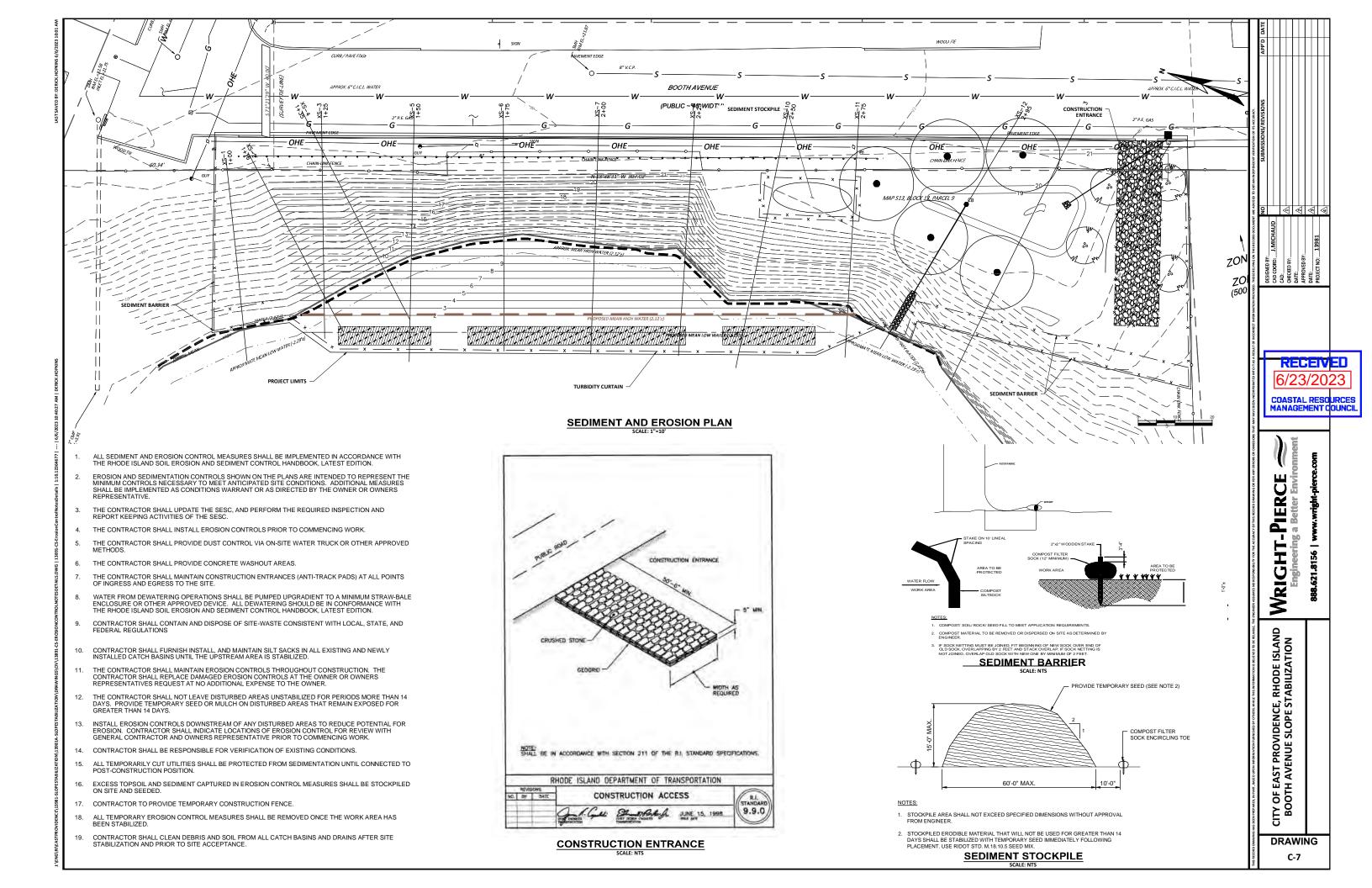
TREE INSTALLATION: MULTI-STEM

**RECEIVED** 6/23/2023 COASTAL RESOURCES
MANAGEMENT COUNCIL

IGHT-PIERCE Engineering a Better Envir .621.8156 WRI

TY OF EAST PROVIDENCE, RHODE ISLAND BOOTH AVENUE SLOPE STABILIZATION

DRAWING



Appendix F Site Plans (8 ½" x 11")



	SET	

# CITY OF EAST PROVIDENCE, RHODE ISLAND

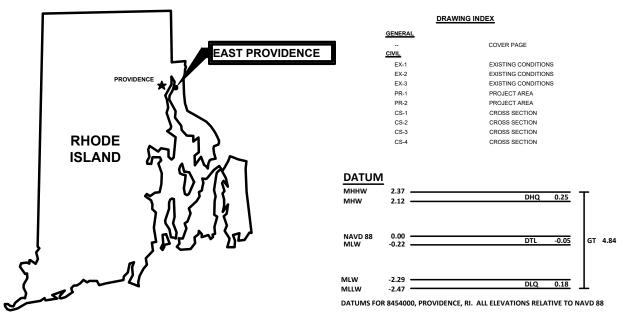
**CONTRACT DRAWINGS FOR** 

### **BOOTH AVENUE SLOPE STABILIZATION**

June 2023

### RICRMC PERMIT SUBMISSION

### FOR REGULATORY REVIEW ONLY



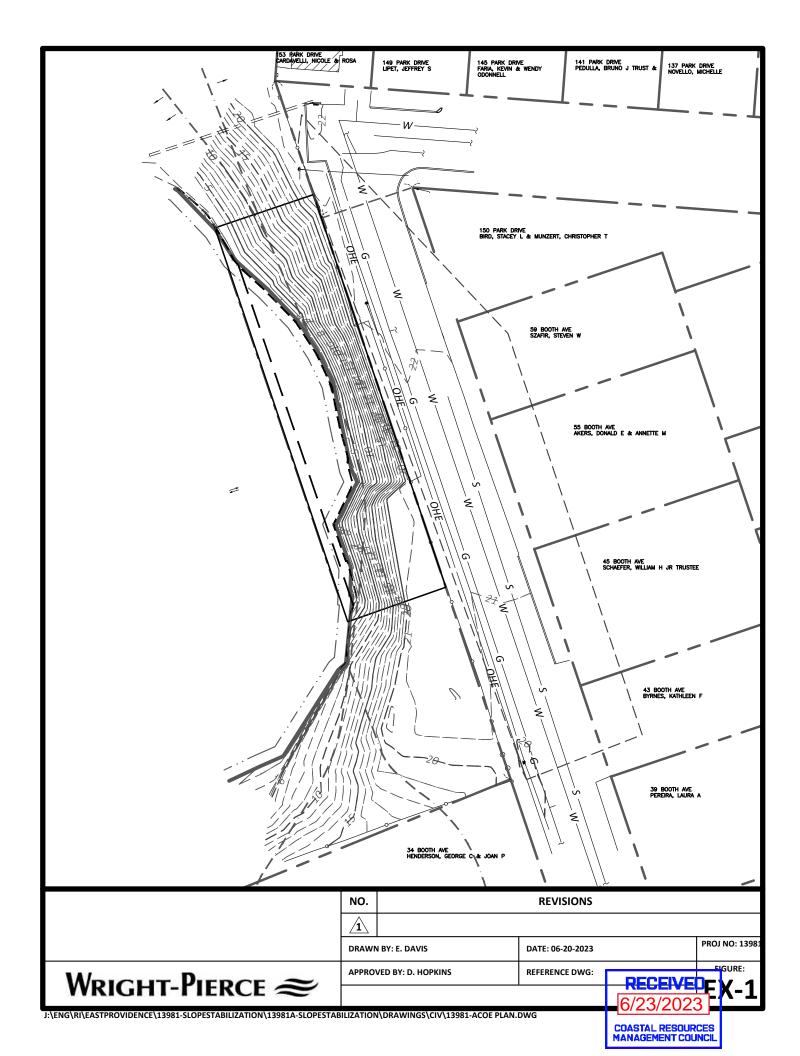


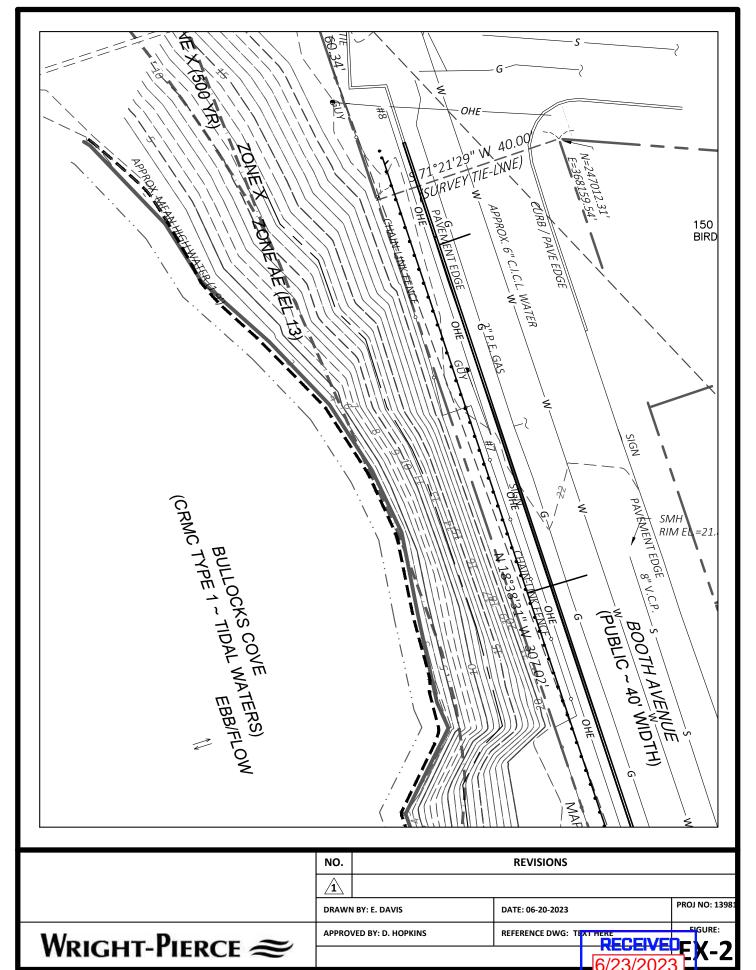
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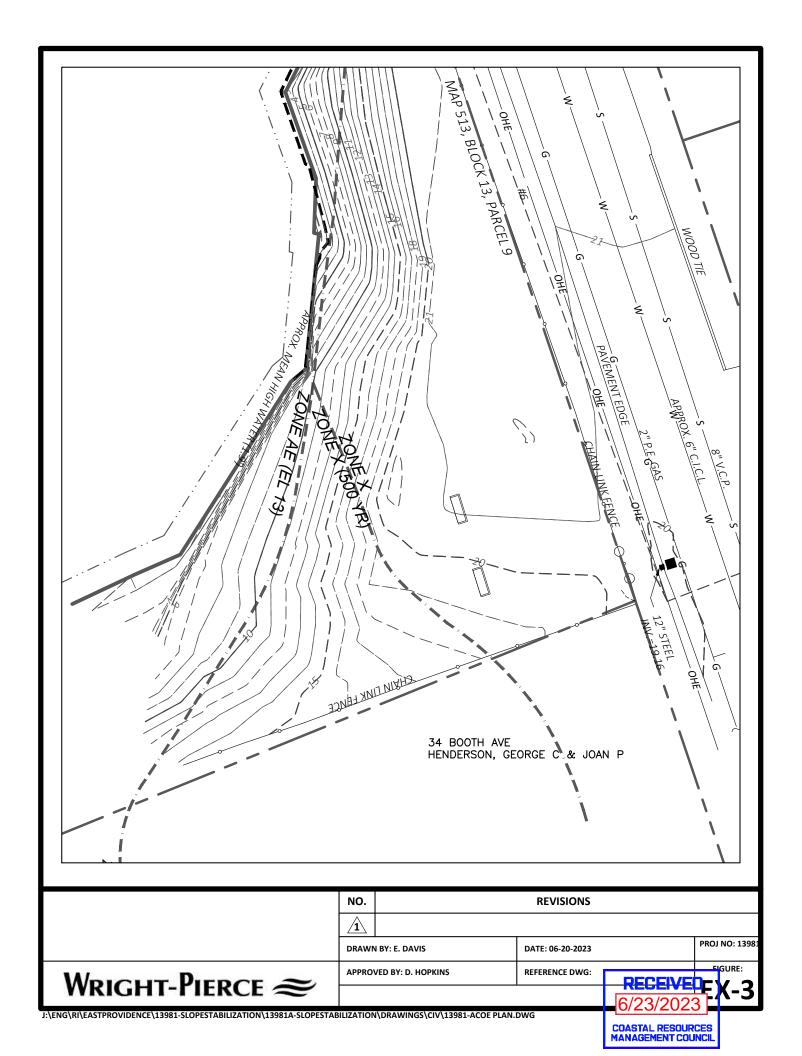
FOR REVIEW	
FOR BIDDING	
WP PROJECT No	o. 13981

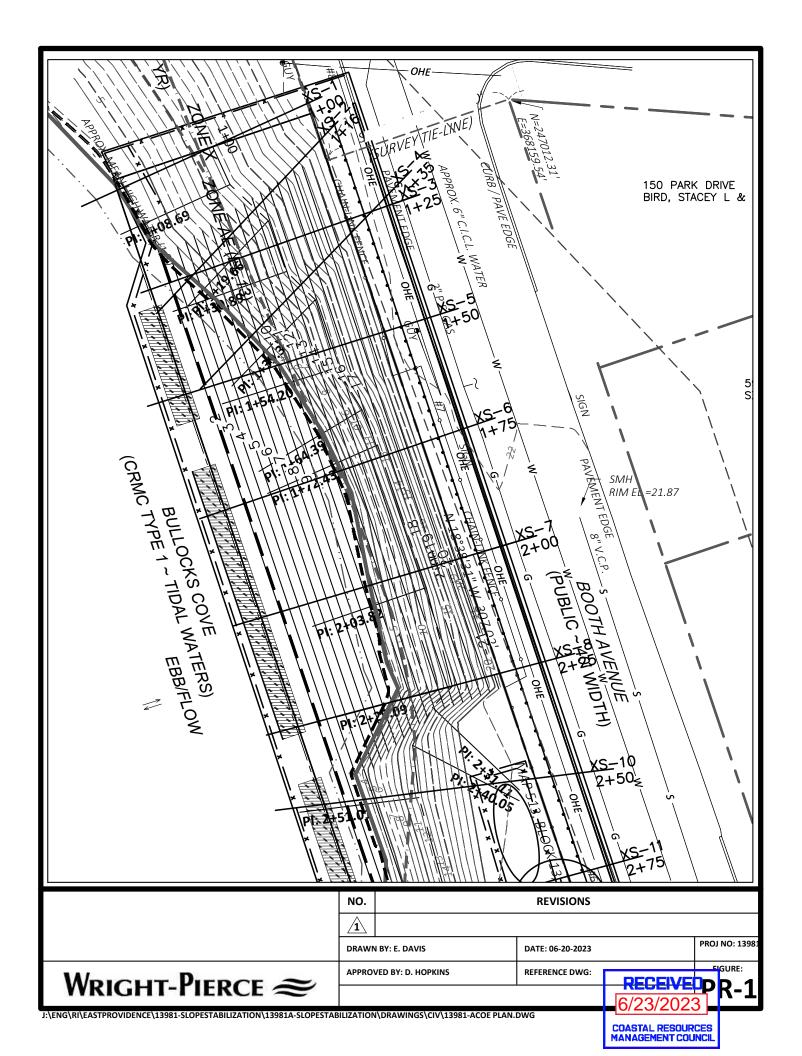


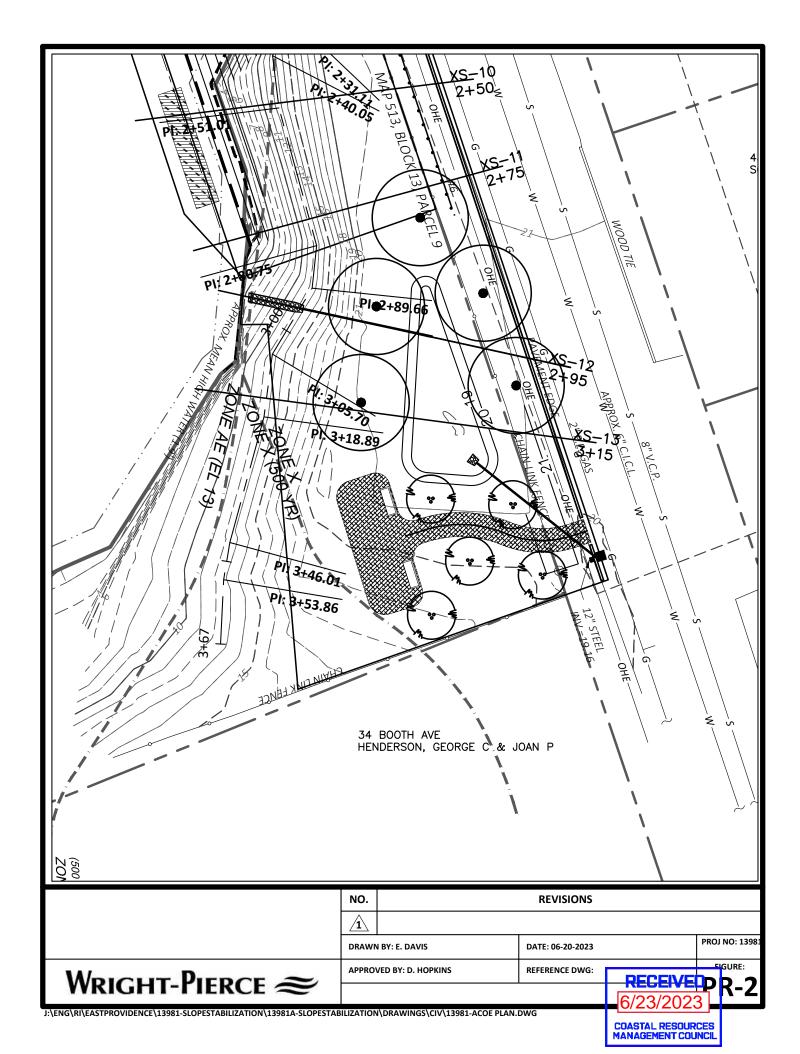


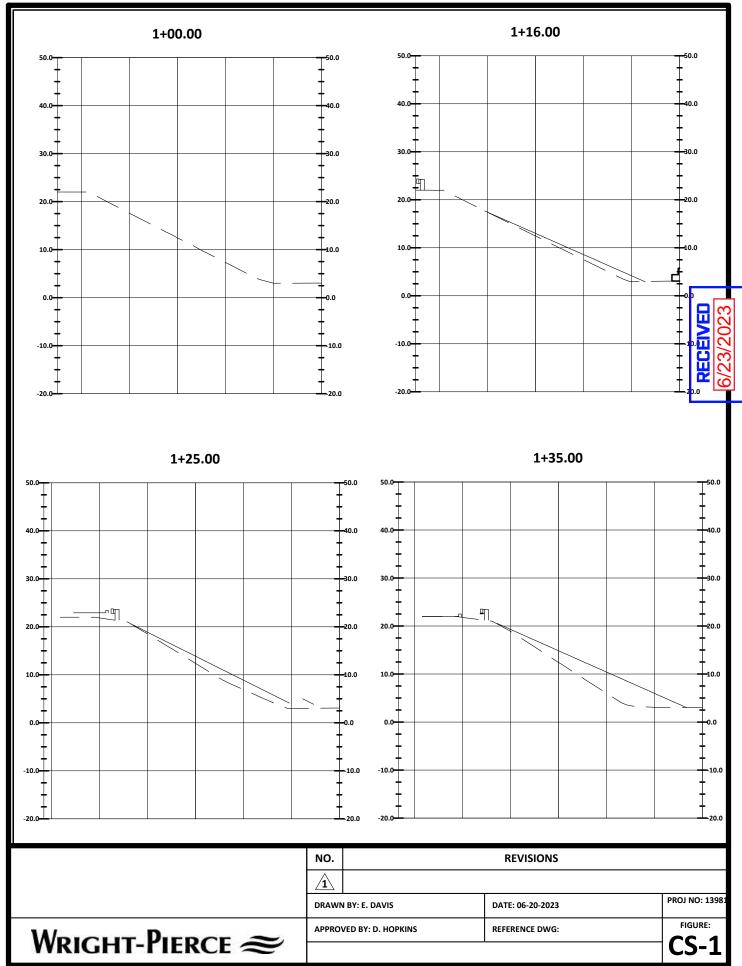


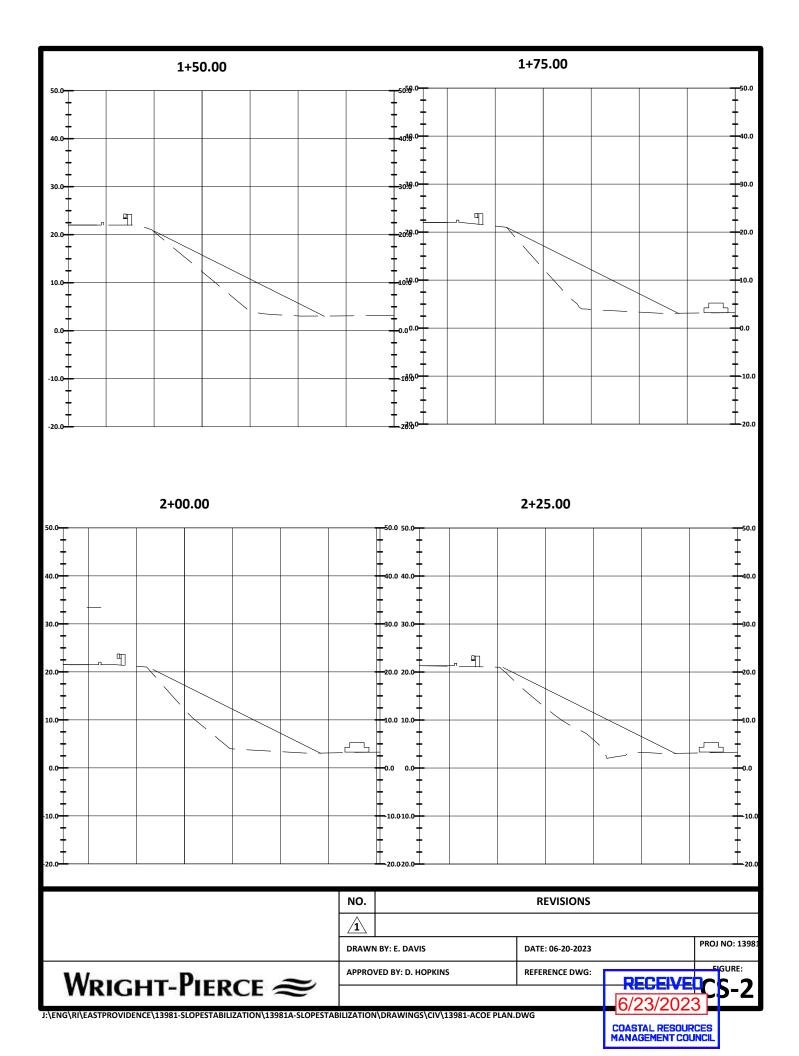
COASTAL RESOURCES MANAGEMENT COUNCIL

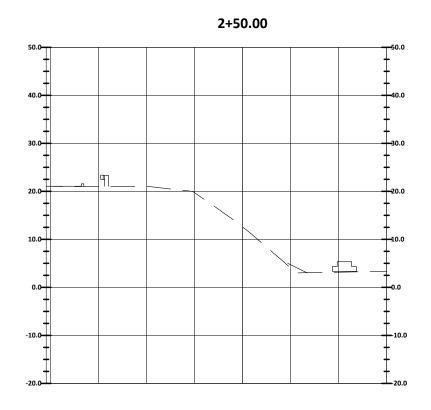




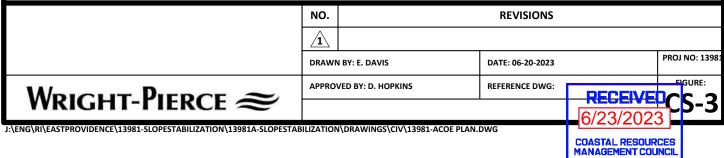


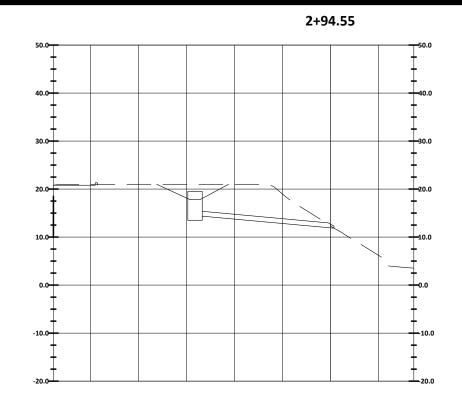


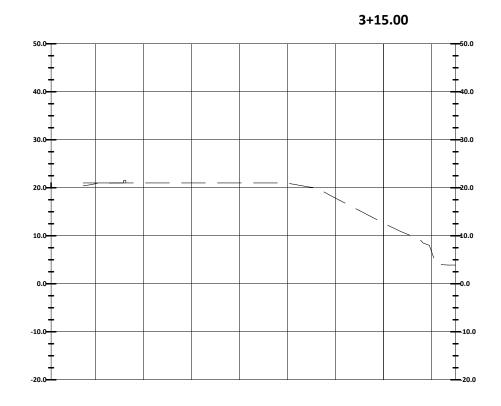












	NO.		REVISIONS			
	<u>í</u>					
	DRAWI	N BY: E. DAVIS	DATE: 06-20-2023		PROJ	I NO: 13981
Wright-Pierce ≈	APPRO	VED BY: D. HOPKINS	REFERENCE DWG:	RECEIVE		GURE:
WRIGHT-PIERCE				6/23/202	<u>=</u> 	5-4

COASTAL RESOURCES MANAGEMENT COUNCIL Appendix G Water Quality Certification from RIDEM





# RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF WATER RESOURCES
235 Promenade Street, Providence, Rhode Island 02908-5767

May 15, 2023

City of East Providence c/o Dan Borges 145 Taunton Avenue East Providence, RI 02914

RE: Water Quality Certification (WQC): Slope Stabilization

Booth Avenue, Assessor's Plat 513, Lot 13-9, East Providence

WQC/STW File No. 23-025

Dear Mr. Borges:

The Rhode Island Department of Environmental Management Office of Water Resources (RIDEM OWR) has reviewed the above-referenced project for compliance with the State Water Quality Regulations (WQR) (250-RICR-150-05-1) for Water Quality Certification (WQC) approval. The purpose of the project is to perform slope stabilization and restoration. Work will consist of new fill being deposited below Mean High Water (MHW) in order to achieve the proposed slope, which was determined based on historical photographs of the site. Interlocking concrete blocks will be placed at the base of the restored slope to provide further erosion protection and create additional habitat for marine life. Approximately 220 cubic yards (CY) of fill will be deposited below MHW, as further described in the application materials and site plans consisting of 7 sheets as prepared by Wright-Pierce, dated December 9, 2022, and received by RIDEM OWR on February 13, 2023. The State water associated with this project is Bullocks Cove, Class SB.

It has been determined that the above-referenced application is compliant with the requirements of the RI State WQR, provided that the Applicant complies with the above-referenced application materials and the following conditions:

- 1) You must notify the WQC program contact person identified below of the anticipated date of construction and your contractor's contact information, prior to any site disturbance.
- Prior to construction, proper erosion and sedimentation and turbidity controls/procedures, as identified in the above-referenced plans, are installed and maintained in functional condition for the duration of the construction project.
- 3) Prior to construction, you must erect or post a sign resistant to the weather and at least twelve (12) inches wide and eighteen (18) inches long, which identifies the initials "DEM" and the application number(s) assigned to this project. The sign must be posted in a conspicuous location near the site access and maintained until the project is complete.
- 4) All fill material shall be clean and free of matter that could cause pollution of the waters of the State.

6/23/2023

COASTAL RESOURCES MANAGEMENT COUNCIL

- 5) No sewage, refuse, or waste of any kind shall be discharged into waters of the State from activities associated with the proposed project. Any release of materials from the site associated with the project during the construction period will require immediate notification to the WQC program.
- 6) A copy of this WQC must be kept at the site at all times during site preparation, construction, and final stabilization. Copies of this WQC must be made available for review by any RIDEM or City/Town representative upon request.
- Any alterations, additions, or modifications to the project design plans from that approved herein must first be reviewed and approved by WQC program.
- 8) You must notify the WQC contact person identified below upon completion of the project.
- This WQC shall expire on May 15, 2026. Project construction is to be completed by this date. You
  are required to submit a request for any modification(s) and/or extension(s).
- 10) This WQC does not relieve your obligation to obtain and adhere to any other applicable local, state and federal permits prior to commencing construction. Should any stipulation/condition identified within any other applicable permit be in conflict with the conditions set forth in this WQC, the applicant shall notify the WQC program immediately.

You are required to adhere to all above Terms and Conditions and carry out this project in compliance with the State WQR at all times. Issuance of this certificate does not bar the RIDEM, nor any of its various Divisions, from initiating any investigation and/or enforcement actions that it may deem necessary for violations of this certificate or of any and all applicable statutes, regulations and/or permits.

This is the State's Water Quality Certification, which shall have the full force and effect of a permit issued by the Director. Violation of the Terms and Conditions of this Certification may result in violation of the State's WQR and appropriate enforcement action.

Should you have any questions or require additional information, you may contact me or Michael Arguello at Michael Arguello@dem.ri.gov or (401)222-6820 ext 277-7602, or myself as indicated below.

Sincerely,

Neal Personeus, Principal Environmental Scientist

neal.personeus@dem.ri.gov, 401-222-6820 ext 277-7610

Federal 401/State WQC Program; GWD/UIC Program

Office of Water Resources

ec: Charles Horbert, Deputy Administrator, Groundwater & Freshwater Wetlands Protection Tom Simbro, PE, Wright-Price

Rich Lucia, CRMC

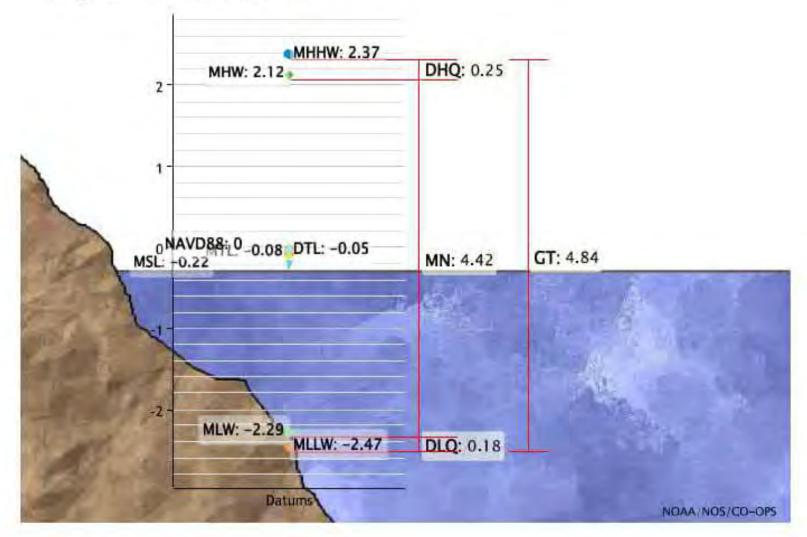


# Appendix H NOAA Datum Conversions



## Datums for 8454000, Providence, RI

All figures in feet relative to NAVD88





Appendix I Proof of Ownership









# City of East Providence Assessment Division

145 TAUNTON AVENUE

EAST PROVIDENCE, RHODE ISLAND 02914-4505

PHONE (401) 435-7574

EMAIL assessor@eastprovidenceri.gov

Roberto L. BaSilva Manor

PEIONE: (401) 435-7574

Sarah Frew Tax Assessor

· ::	344641					Wax Massant	
	****	Pr	oof of Own	iership l	Form		<del></del>
Date:	May 31, 2023						
TO W	HOM IT MAY CONC	CERN:					RECEIVED
						•	
Accord	ing to our records, as of	December 31, 2022	the pr	operty le	ocated at	0 Booth Avenue	ि है
is own	ed by:	City of East Pro	ovidence Pr	arks		The property is also kno	wn as
Map:	513	13	009-00	_			
			Land:		17,800		
			Building:			·	· · · ·
			Total:	\$	17,800		
Curren	it, and past, tax bill que	estions should be refe	rred to the	Freasury	Division at	435-7544.	
0	al L						
Signed:	T T						
						Assessment division	
		50% preconsumer co	number 1 to 10 to	á posicossumer o	content	MAY 3 1 2023	
			TED ON RECYCLED	•		CITY OF EAST PROVIDENCE	

Appendix J Contact Information



# **Contact Information**

Person who will be able to answer questions regarding this application and who should be contacted by CRMC regarding monitoring and permit compliance questions during construction:

### **Derick Hopkins**

derick.hopkins@wright-pierce.com (401) 808-8303

### Owners of Abutting Properties:

Abutting Property Address	Owner(s)	Owner's Address
0 Mildred Ave	City of E Providence	145 Taunton Ave
	Green Acres	E Providence, RI 02914
40 Booth Ave	Rebecca L. Rattey	40 Booth Ave
		Riverside, RI 02915
153 Park Dr	Nicole Cardavelli	153 Park Dr
	Rosa Cardavelli	Riverside, RI 02915
	George D. Cardavelli	
0 Booth Ave	City of E Providence- Parks	145 Taunton Ave
		E Providence, RI 02914
140 Oak Crest Dr	Christine D. Wisher	140 Oak Crest Dr
		Riverside, RI 02915
144 Oak Crest Dr	Frank Borges	144 Oak Crest Dr
	Linda A. Borges	Riverside, RI 02915
148 Oak Crest Dr	Mark S. Anter	148 Oak Crest Dr
	Joanne F. Anter	Riverside, RI 02915
152 Oak Crest Dr	Richard N. Packhem	152 Oak Crest Dr
	Threasa Packhem	Riverside, RI 02915
0 ZZ Railroad Site	State of Rhode Island	Two Capital Hill
	Dept of Transportation	Providence, RI 02903









The Westminster Building 10 Dorrance St, Ste 840 Providence, RI 02903 401.383.2276 | wright-pierce.com

tom.simbro@wright-pierce.com



BID SET No.

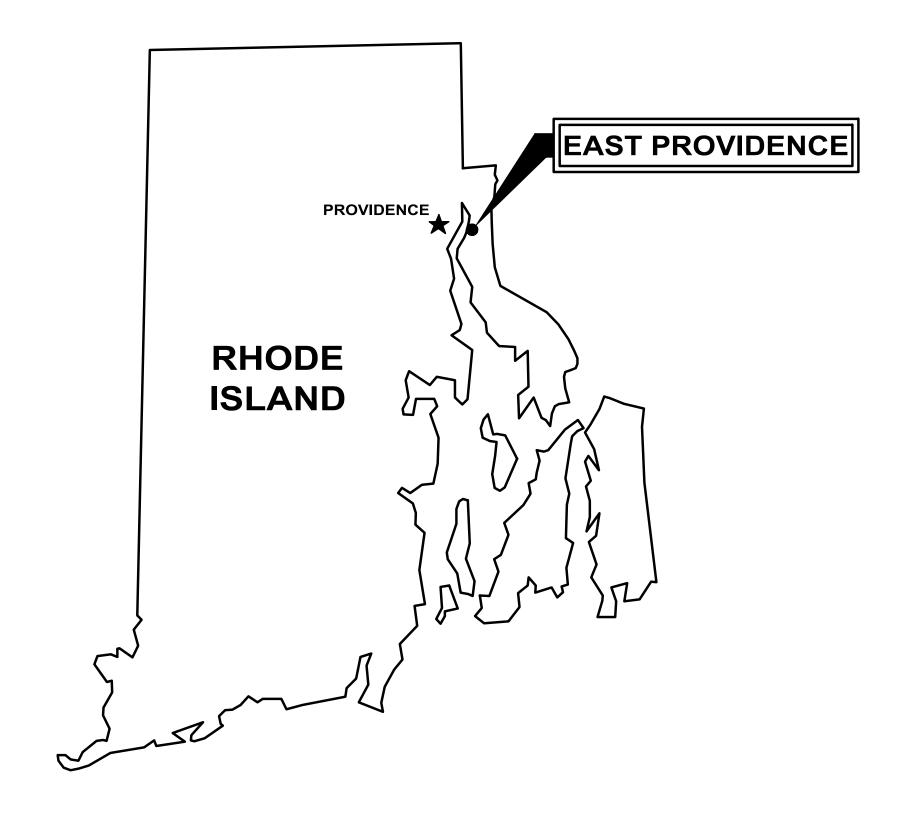
# CITY OF EAST PROVIDENCE, RHODE ISLAND

**CONTRACT DRAWINGS FOR** 

# BOOTH AVENUE SLOPE STABILIZATION

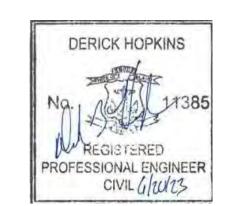
**JUNE 2023** 

# RICRMC PERMIT SUBMISSION



# **DRAWING INDEX**

<u>GENERAL</u>	
	COVER SHEET
CIVIL	
C-1	GENERAL NOTES, LEGEND, ABBREVIATIONS
C-2	SITE PLAN AND PROFILE
C-3	SECTIONS I
C-4	SECTIONS II
C-5	DETAILS I
C-6	LANDSCAPE PLAN
C-7	EROSION CONTROL NOTES AND DETAILS





LOCATION PLAN
SCALE: NTS



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FOR REVIEW

FOR BIDDING \_

WP PROJECT No. 13981

**June 2023** 

### **GENERAL NOTES**

- THE CITY OF EAST PROVIDENCE WILL BE RESPONSIBLE FOR OBTAINING THE PERMITS LISTED IN THE SUPPLEMENTARY OR SPECIAL CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL OBTAINED PERMITS ARE AVAILABLE FOR REVIEW FROM THE CITY OF EAST PROVIDENCE. ALL OTHER PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- . THE CITY OF EAST PROVIDENCE SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHTS OF WAY AND EASEMENTS. THE CONTRACTOR SHALL VERIFY THAT THE NECESSARY EASEMENTS HAVE BEEN SECURED BY THE CITY OF EAST PROVIDENCE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH EASEMENT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL RIGHTS OF WAY AND EASEMENTS ARE AVAILABLE FOR REVIEW FROM THE CITY OF EAST PROVIDENCE.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW AT ALL TIMES. CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL SIGNS IN ACCORDANCE WITH THE MUTCD AND ALL STATE AND LOCAL REGULATIONS. THE CONTRACTOR IS REQUIRED TO SUBMIT AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO COMMENCING CONSTRUCTION. THE POLICE DEPARTMENT AND FIRE DEPARTMENT ARE TO BE NOTIFIED AT LEAST 24-HOURS IN ADVANCE OF ANY STREET CLOSING OR DETOUR. REFER TO SPECIFICATION SECTION 01570.
- 4. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
- 5. CONTRACTOR SHALL COMPLY WITH THE COORDINATION REQUIREMENTS AND RELATED COSTS, IF ANY, AS SPECIFIED IN SPECIFICATION SECTION 01050.
- 6. CONTRACTOR SHALL NOTE THAT, IN GENERAL, ALL EXISTING CONDITION INFORMATION ON THE DRAWINGS ARE SHOWN WITH A LIGHTER LINE WEIGHT AND WITH A SLANTED TYPE TEXT.
- 7. ALL EXISTING SEWER AND STORM DRAIN LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE. ANY EXISTING SEWERS, STORM DRAIN LINES OR CULVERTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY OF EAST PROVIDENCE, EXCEPT WHEN IN DIRECT CONFLICT WITH THE NEW WORK OR WHEN NOT SHOWN OR INDICATED.
- 8. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE EXCAVATION IS BACKFILLED. INJURY TO ANY SUCH STRUCTURES CAUSED BY OR RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY.
- 9. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTICE TO THE RESPECTIVE UTILITY POLE OWNER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.
- 10. ALL TEST PITS SHALL BE EXCAVATED PRIOR TO CONSTRUCTION LAYOUT AND RESULTS REPORTED TO THE ENGINEER FOR REVIEW FOR CONFORMANCE WITH THE PLANS. TEST PITS ARE REQUIRED WHERE SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER. TEST PITS WILL BE DUG AT LEAST 10 CALENDAR DAYS PRIOR TO CONNECTING PROPOSED SEWERS TO EXISTING SEWERS.

### **EXISTING SITE CONDITIONS**

- THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN, OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD WITH TEST PITS AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED.
- 11. BELOW GRADE UTILITY INFORMATION IS BASED ON INFORMATION PROVIDED BY EACH UTILITY. LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING UTILITIES IN THE FIELD WITH THE RESPECTIVE UTILITY COMPANY REPRESENTATIVE PRIOR TO COMMENCING WORK. REFER TO SPECIFICATION SECTION 01050. TEST PITS, MAY BE REQUIRED. UTILITY CONTACTS ARE AS FOLLOWS:

E1 E0	TDIC	WATER (CEWER IN ALM	TELEBLICALE
ELEC	TRIC:	WATER/SEWER/DRAIN:	TELEPHONE:
RI EN	IERGY	CITY OF EAST PROVIDENCE PUBLIC WORKS	VERIZON NEW ENGLAND
280 [	MELROSE STREET	60 COMMERCIAL WAY	<b>6 BOWDOIN SQURE</b>
PRO\	VIDENCE RI 02907	EAST PROVIDENCE, RI	BOSTON, MA 02114
(401)	)-784-7331	(401)-435-7701	(857)-415-5161

DIG SAFE: GAS:
DIG SAFE SYSTEM, INC. RI ENERGY
11 UPTON DRIVE 280 MELROSE STREET
WILMINGTON, MA 0188 PROVIDENCE, RI
811 OR 1-(888)-344-7233 1-800-870-1664

12. THERE ARE NO KNOWN HAZARDOUS ENVIRONMENTAL CONDITIONS WITHIN THE AREA OF WORK. REFER TO SPECIFICATION SECTION 00800-SC-5.306. IF THE PRESENCE OF HAZARDOUS ENVIRONMENTAL CONDITIONS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE CITY OF EAST PROVIDENCE AND THE ENGINEER IMMEDIATELY. ALL ACTIVITIES, HANDLING AND DISPOSAL OF HAZARDOUS ENVIRONMENTAL CONDITIONS AND MATERIALS SHALL BE IN ACCORDANCE WITH OSHA FEDERAL. STATE, AND LOCAL REGULATIONS.

# SITE DEMOLITION

- 1. REFER TO THE EXISTING SITE PLAN, FOR ADDITIONAL INFORMATION REGARDING EXISTING SITE. REFER TO THE LAYOUT DRAWING FOR LIMITS OF WORK.
- 2. REFER TO SPECIFICATION SECTION 01010B, WHICH CONTAINS INFORMATION ON CONSTRAINTS OF CONSTRUCTION SEQUENCING.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE CITY OF EAST PROVIDENCE RESERVES THE RIGHT TO RETAIN ANY SUCH PIPING, EQUIPMENT AND MATERIALS DESIGNATED FOR DEMOLITION. SUCH MATERIALS TO BE RETAINED SHALL BE PROPERLY STORED IN AN ON-SITE LOCATION. COORDINATE LOCATION AND MATERIALS TO BE SALVAGED WITH THE TOWN OF CITY OF EAST PROVIDENCE/ENGINEER. REFER TO SPECIFICATION SECTION 02050A
- 4. THE CONTRACTOR SHALL KEEP A RECORD OF DEMOLITION AS PART OF THE PROJECT RECORD DOCUMENTS IN ACCORDANCE WITH SPECIFICATION SECTION 01720.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND GROUNDWATER DEWATERING

# SITE CLEARING, GRUBBING AND GRADING

- 1. STRIPPING OF TOPSOIL (LOAM) SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02115. REFER TO THE LAYOUT AND GRADING DRAWINGS FOR LIMIT OF WORK AND STRIPPING.
- 2. CONTRACTOR SHALL MINIMIZE CLEARING OPERATIONS. CLEARING AND GRUBBING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02110. CLEARING LIMITS SHALL BE AS INDICATED ON THE DRAWINGS, BUT AT ALL TIMES WITHIN EXISTING ROAD RIGHTS OF WAY AND PROPERTY LINES. ALL CLEARING AND GRUBBING MATERIAL SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT A SITE PROVIDED BY THE CONTRACTOR IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS.
- 3. CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE ACTUAL LIMITS OF GRUBBING AND/OR GRADING, AND AS SHOWN ON THE DRAWINGS. PRIOR TO THE START OF ANY WORK THE CONTRACTOR SHALL INSTALL AN TURBIDITY CURTAIN, IN THE WATER, A THE BASE OF ANY DISTURBED SLOPES. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM, CONTRACTOR SHALL TAKE ALL OTHER NECESSARY MEASURES. EROSION CONTROL FENCE SHALL ALSO BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE TOPSOIL STOCKPILES. ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT. REFER TO SPECIFICATION SECTION 02270.
- 4. BORING LOGS FOR THE PROJECT SITE ARE INCLUDED IN APPENDIX A OF THE SPECIFICATIONS. THESE ARE PROVIDED FOR INFORMATION PURPOSES ONLY. PLEASE NOTE THAT THE SOIL DESCRIPTIONS PROVIDED ON THE BORING LOCATION. THE CONDITIONS BETWEEN BORING LOCATIONS MAY VARY FROM THOSE SHOWN ON THE TEST BORING LOGS.
- 5. CONTRACTOR SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE LIMIT, AS DETERMINED BY THE ENGINEER, AND AS OUTLINED IN SPECIFICATION SECTION 01562.
- 6. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS AND PLANT DRIVES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.
- 7. THE CONTRACTOR SHALL NOT HAVE ANY RIGHT OF PROPERTY IN ANY MATERIALS TAKEN FROM ANY EXCAVATION. SUITABLE EXCAVATED MATERIAL MAY BE INCORPORATED IN THE PROJECT, WITH EXCESS MATERIAL DISPOSED OF AT A LOCATION PROVIDED BY THE CONTRACTOR. THESE PROVISIONS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF OBLIGATIONS TO PROPERLY DISPOSE OF AND REPLACE ANY MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE AND EXCESS MATERIAL IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT DOCUMENTS.
- 8. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY CONSTRUCTION ACTIVITIES TO AT

LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE CITY OF EAST PROVIDENCE AND ENGINEER.

- 9. WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER
- 10. ALL NON-ROADWAY AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE LOAMED, GRADED, LIMED, FERTILIZED, SEEDED AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 4-INCHES OF SOIL SHALL BE LOAM. REFER TO SPECIFICATION SECTION 02485, LANDSCAPING/LOAM AND SEED.

### **CIVIL SITE LAYOUT**

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THIS PROVIDED LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- 2. REFER TO CIVIL PLAN SHEETS FOR ADDITIONAL LAYOUT INFORMATION.
- 3. THE LOCATIONS AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE CITY OF EAST PROVIDENCE AND ENGINEER. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING AND RESETTING ALL EXISTING PROPERTY MONUMENTATION DISTURBED BY CONSTRUCTION. THIS WORK SHALL BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OR RHODE ISLAND AT NO ADDITIONAL COST TO THE CITY OF EAST PROVIDENCE.
- 5. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- 6. ALL ELEVATIONS REFER TO THE NAVD88 DATUM. ORIENTATION IS GRID NORTH ON THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM. CONTRACTOR SHALL VERIFY ELEVATIONS PRIOR TO USING IN CONSTRUCTION.
- 7. EXISTING CONDITIONS SITE PLAN DEVELOPED FROM SURVEY PERFORMED BY WATERMAN ENGINEERING COMPANY, DATED 09/18/2018, AND EXISTING RECORD DRAWING INFORMATION. ELEVATIONS AND LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD

### **CIVIL SITE PIPING**

- 1. ALL BURIED CONNECTIONS TO STRUCTURES SHALL HAVE SLEEVE TYPE FLEXIBLE CONNECTIONS APPROXIMATELY 4-FEET FROM THE STRUCTURES. ALL SLEEVE TYPE COUPLINGS ON PRESSURE LINES SHALL BE RESTRAINED (SOLID SLEEVE). REFER TO SPECIFICATION SECTION 02655.
- 2. MANHOLES ARE 4-FEET IN DIAMETER UNLESS OTHERWISE NOTED. THE TOP OF MANHOLE FRAMES SHALL BE SET FLUSH WITH FINISH GRADE, UNLESS OTHERWISE NOTED ON DRAWINGS. SEWER MANHOLE INVERTS SHOWN ON THE DRAWINGS ARE TO THE INSIDE FACE OF THE MANHOLE.
- 3. CONTRACTOR SHALL RE-SHAPE INVERTS AS REQUIRED WHEN CONNECTING INTO EXISTING MANHOLES.
- 4. REFER TO SPECIFICATION SECTION 02200 FOR PIPE AND STRUCTURE BEDDING AND BACKFILL REQUIREMENTS.
- 5. COMPACTION TESTS WILL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 02200. ANY SETTLEMENT OCCURRING WITHIN ONE-YEAR OF FINAL COMPLETION OF THE WORK SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 6. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED ON THE CIVIL EXISTING CONDITIONS AND DEMOLITION PLAN. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY OF EAST PROVIDENCE.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS IN ACCORDANCE WITH SPECIFICATION SECTION 02050.

DATUM						
MHHW MHW	2.37 2.12		DHQ	0.25	Τ	
NAVD 88 MLW	0.00 -0.22		DTL	-0.05	GT	4.84
MLW	-2.29 -2.47		DLQ	0.18		

DATUMS FOR 8454000, PROVIDENCE, RI. ALL ELEVATIONS RELATIVE TO NAVD 88

**LEGEND CIVIL ABBREVIATIONS PROPOSED EXISTING** PROPERTY/ROW LINE  $\Delta ND$ Ø, DIA DIAMETER **SETBACK LINE** #, NO NUMBER **EASEMENT LINE APPROVED** CENTERLINE **APPROXIMATE** FDGF OF PAVEMENT \_\_\_\_\_ BUILDING CURBING **CATCH BASIN EDGE OF GRAVEL** CENTER **CUBIC FEET PER SECOND EDGE OF CONCRETE** CAST IRON 123 CONTOUR CENTERLINE BUILDING **CORRUGATED METAL PIPE** CLEANOUT **STONEWALL**  $\infty$ CONCRETE  $\bigcirc$  $\sim\sim\sim$ **TREELINE** CORNER **CHAIN LINK FENCE** CY **CUBIC YARD** DEMO DEMOLITION STOCKADE FENCE DRAIN MANHOLE **BARB WIRE FENCE** \_\_\_\_X **DUCTILE IRON RETAINING WALL GUARDRAIL** DRAWING <u>8"S</u> **ELEVATION** SEWER **ELECTRIC MANHOLI** SEWER FORCE MAIN **FORCE MAIN** FEET <u>8"W</u> WATER HIGH DENSITY POLYETHYLENE 15"SD **STORM DRAIN HYDRANT** RELINED PIPE INCH INVERT **CULVERT POUNDS** LINEAR FOOT OVERHEAD ELECTRIC **MAXIMUM** MANHOLE MINIMUM UNDERGROUND CABLE TV —— ONTV —— ONTV —— NORTH **IRON PIPE/REBAR** NATIONAL GEODETIC VERTICAL DATUM NOT AVAILABLE/APPLICABLE DRILLHOLE NTS NOT TO SCALE MONUMENT **OUTSIDE DIAMETER SURVEY CONTROL POINT POUNDS PER SQUARE FOOT** 134.5 **POUNDS PER SQUARE INCH SPOT ELEVATION** POINT OF TANGENCY **SEWER MANHOLE** SMH **POLYVINYL CHLORIDE** DMH **DRAINAGE MANHOLE** REINFORCED CONCRETE PIPE **CATCH BASIN** REQ'D REQUIRED SLOPE, SEWER **ELECTRIC MANHOLE EMH** STORM DRAIN TO TMH **TELEPHONE MANHOLE SQUARE FEET** SHUTOFF VALVE M **SANITARY SEWER MANHOLE** SOUARE WATER SERVICE SHUTOFF STATION YARD HYDRANT **TEMPORARY BENCH MARK** HYDRANT TOP OF STRUCTURE TYPICAL **GAS SERVICE SHUTOFF** UNDERDRAIN **GAS GATE VALVE** UNDERGROUND **UTILITY POLE** UNDERGROUND ELECTRIC VITRIFIED CLAY **UTILITY POLE W/ GUY UTILITY POLE W/LIGHT POTABLE WATER** LIGHT POLE **BOLLARD FLAGPOLE CONIFEROUS TREE** DECIDUOUS TREE **WETLAND FLAG EDGE OF WATER** STREAM \_...\_.. -----**EDGE OF WETLANDS FLOODPLAIN** WETLANDS **DRAINAGE FLOW DRAINAGE SWALE** \_\_\_\_\_ PAVEMENT MARKINGS MAILBOX TEMPORARY BENCH MARK

TIDAL INFORMATION BASED ON NOAA BM DISK 3033B 1994
"BAY SPRING, BULLOCK COVE"

**TEST BORING** 

**TEST PROBE** 

MONITORING WELL LIMIT OF WORK

SILT FENCE

RIPRAP

RAILROAD

MATCHLINE

ROCK OUTCROP

++++++++++++++++++

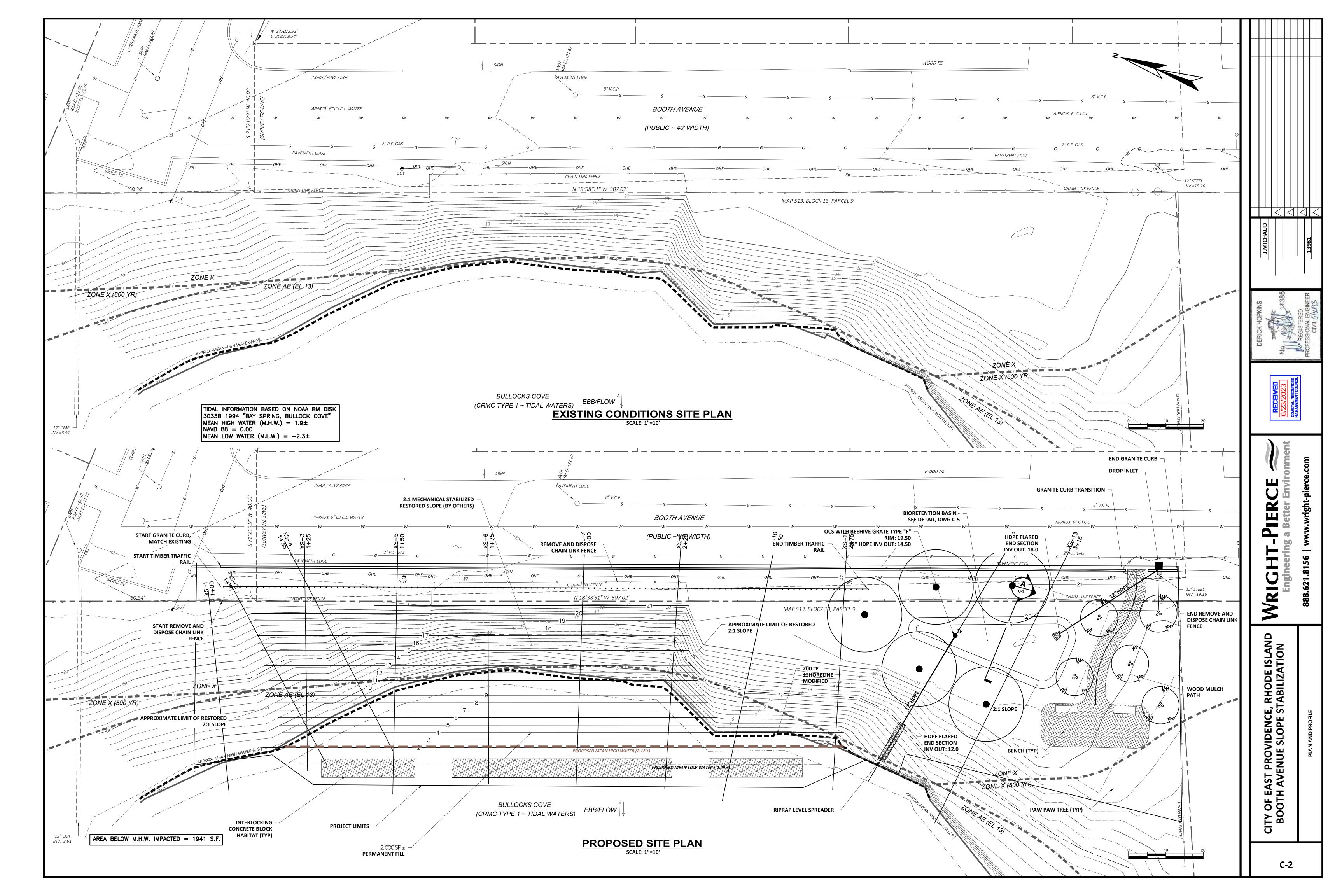
**NAVD 88 = 0.00**MEAN LOW WATER (M.L.W.) = -2.3 ±

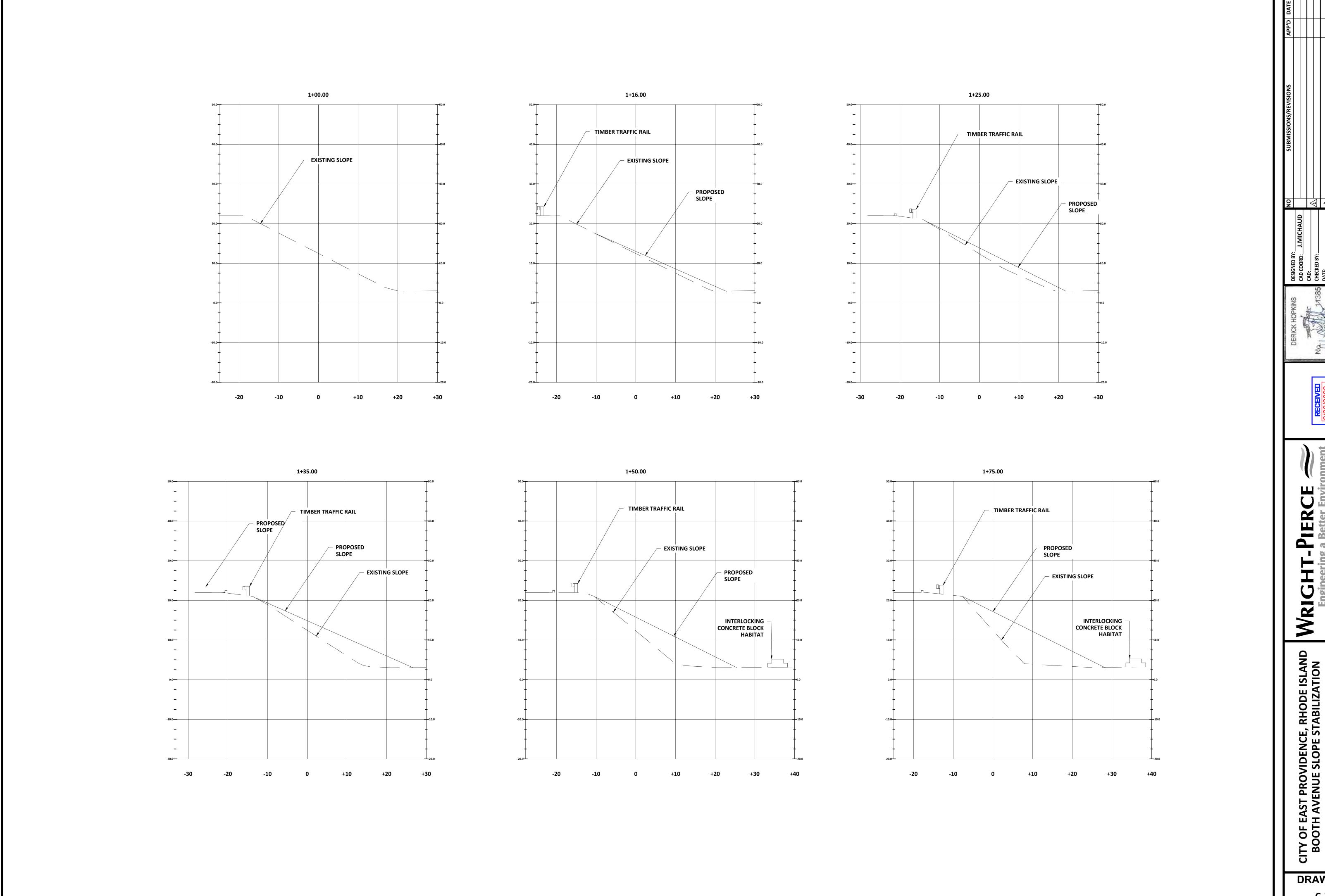
MEAN HIGH WATER (M.H.W.) = 1.9 ±

NAVD 88 = 0.00

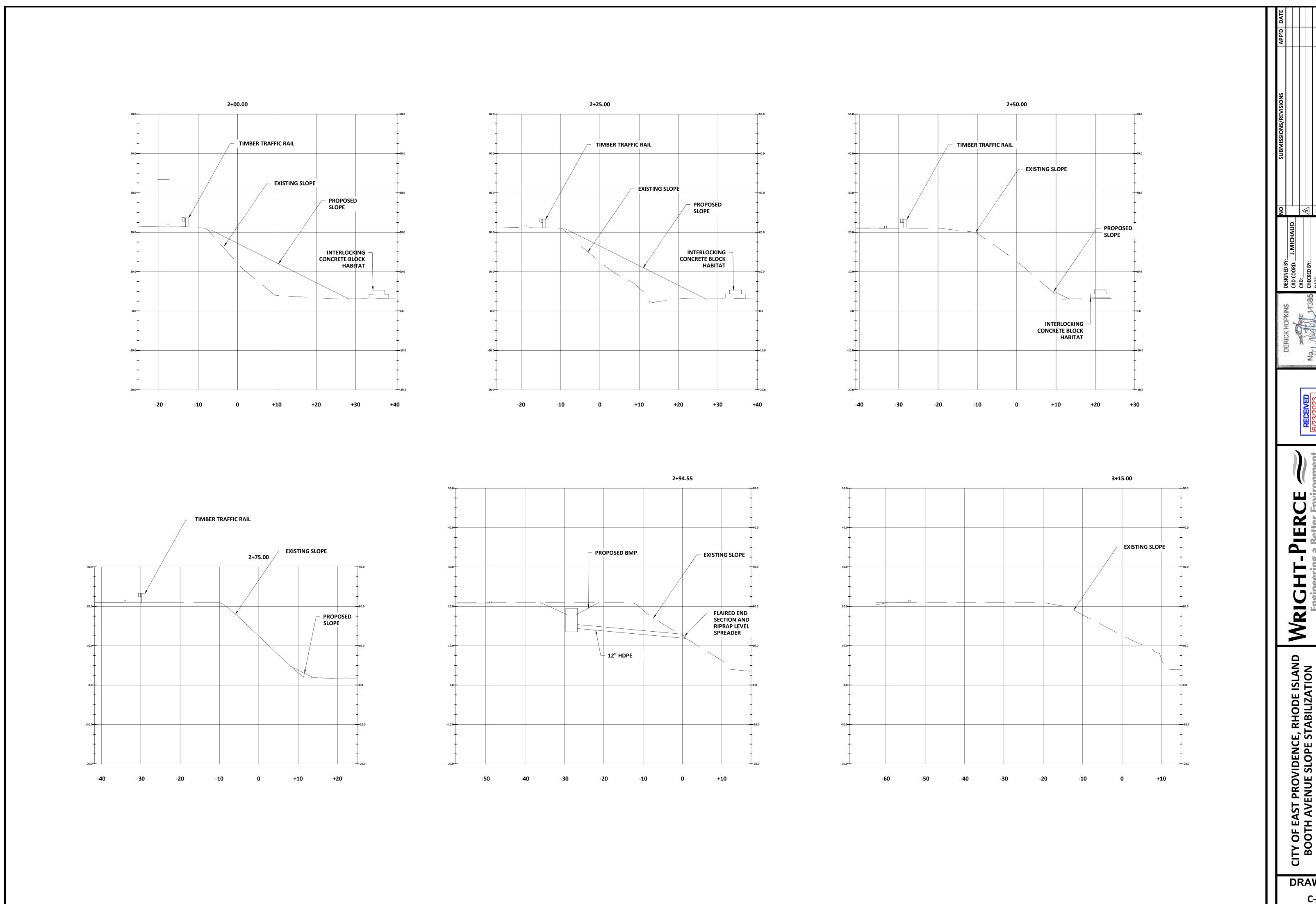
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DRAWING

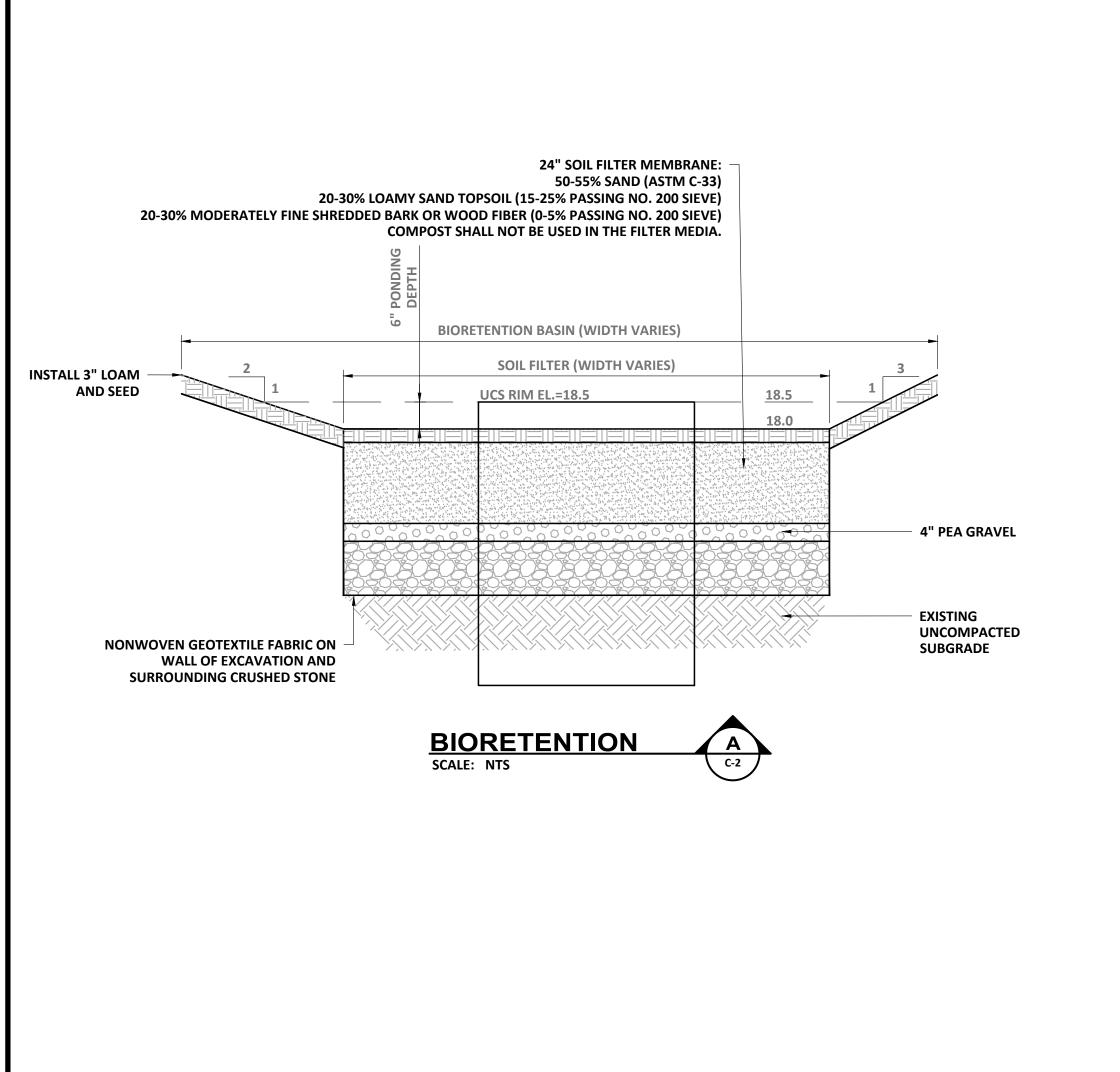




**DRAWING** 



DRAWING



1/2" CHAMFER -

CIRCULAR CURB

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.

2. TOP SURFACE TO BE DRESSED BY SAW. REMAINDER MAY BE QUARRY SPLIT.

3. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR PIECES TO BE 3'-0".

4. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

GRANITE CURB

CHIEF DIGNEER JUNE 15, 1998

CHIEF DISSIN ENGINEER ISSUE DATE
TRANSPORTATION

TRANSPORTATION

└6"±1"

STANDARD\

13/16" ø HOLES (TYP.)

PLATE WASHER DETAIL
4 3/4"Øx1/4"

1 1/2"(TYP.)

STEEL SPLICE PLATE DETAIL 6"x3/8"x2'-6"

\_5" ø ×1" DEPTH RECESS

JUNE 15, 1998 34.4.0

SECTION A-A

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

STEEL BACKED TIMBER GUARDRAIL

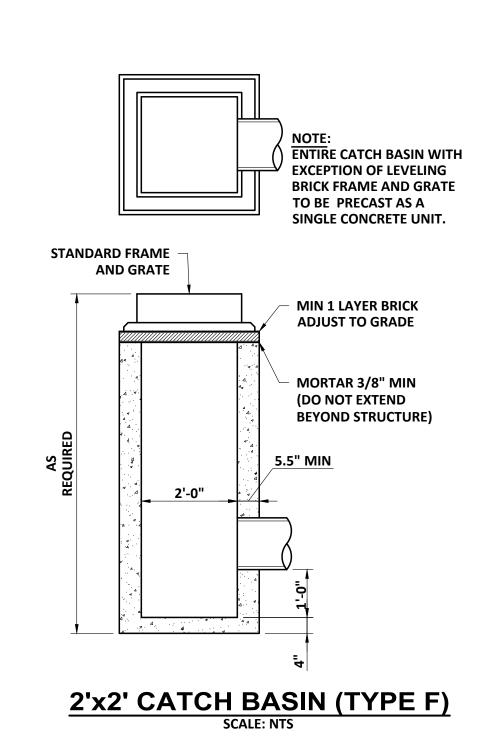
11/16"# HOLES (TYP.)

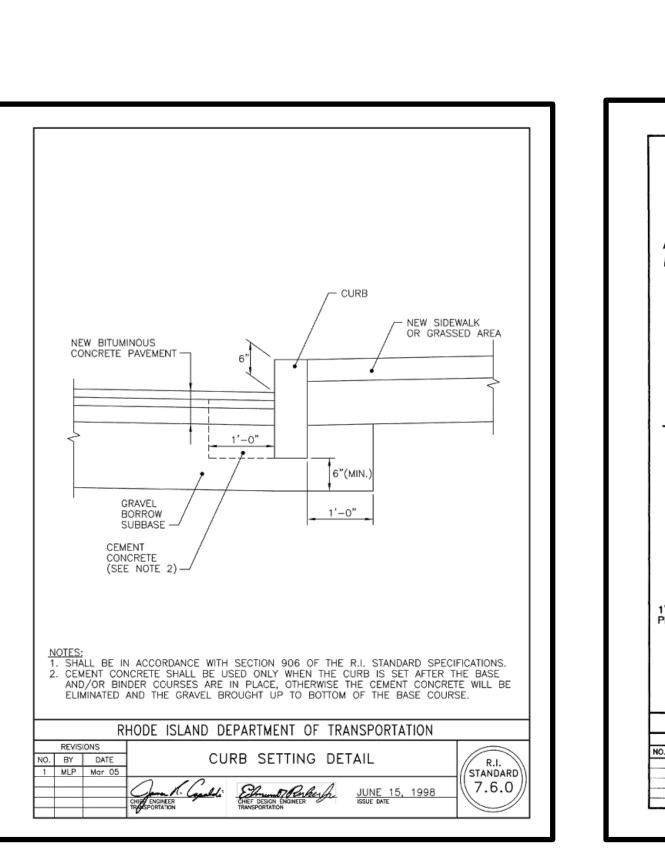
PLATE WASHER-

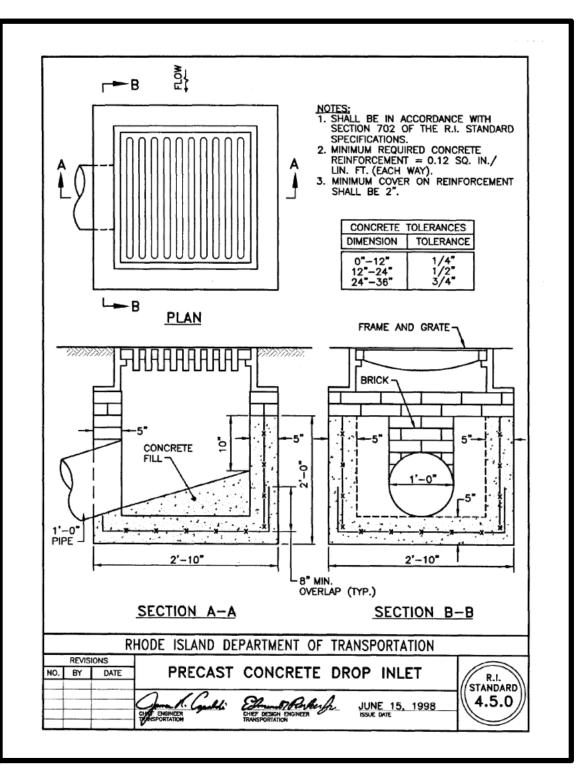
POST CONNECTION PLAN

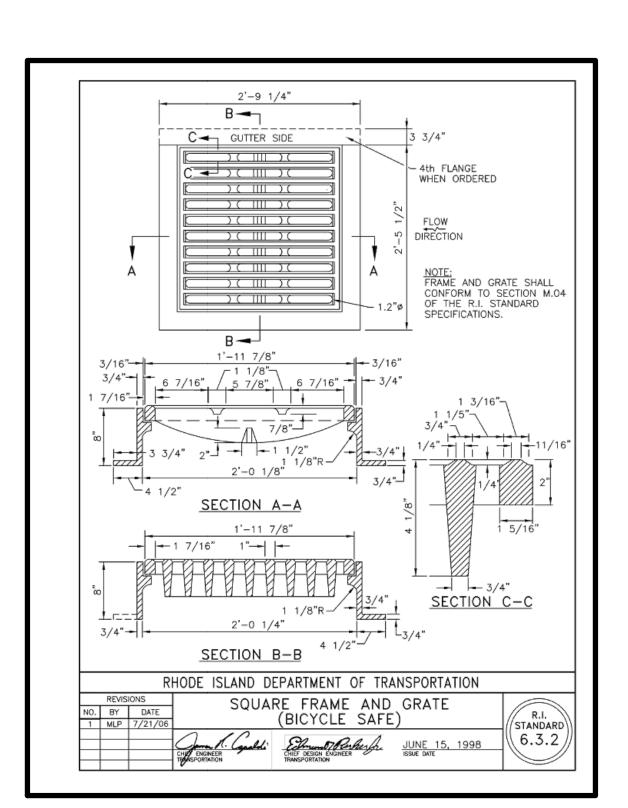
POST CONNECTION ELEVATION

6 SPACES @ 11" = 5'-6"

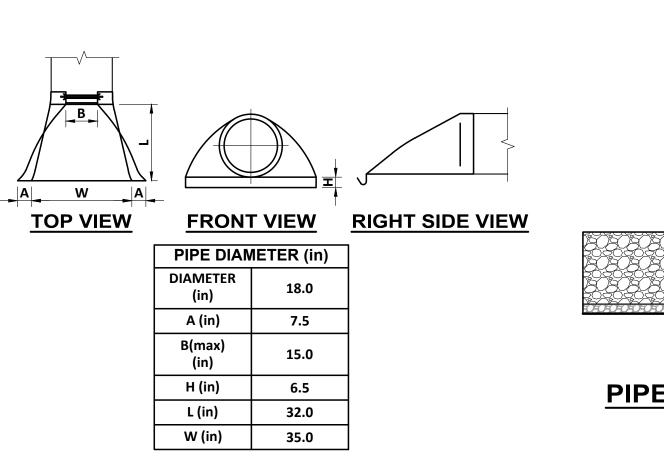










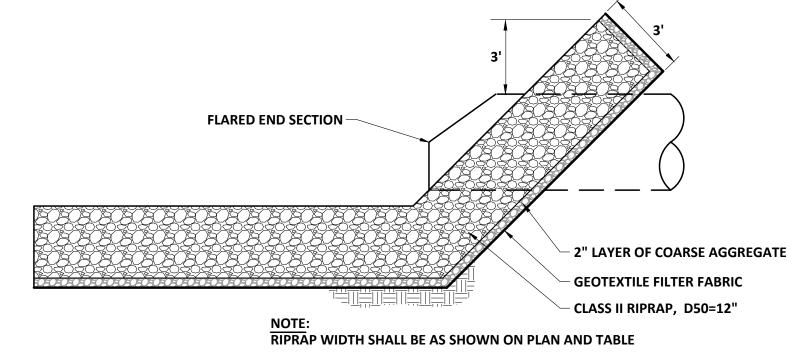


HDPE FLARED END SECTION

RIPRAP STABILIZATION TABLE

LOCATION

1 30 INCH RCP FLARED END SECTION



WIDTH AT PIPE OUTLET (ft) | WIDTH AT RIPRAP OUTLET (ft) | LENGTH (ft) | D50 (in)

12 12

PIPE LEVEL SPREADER OUTLET W/FLARED END

SCALE: NTS



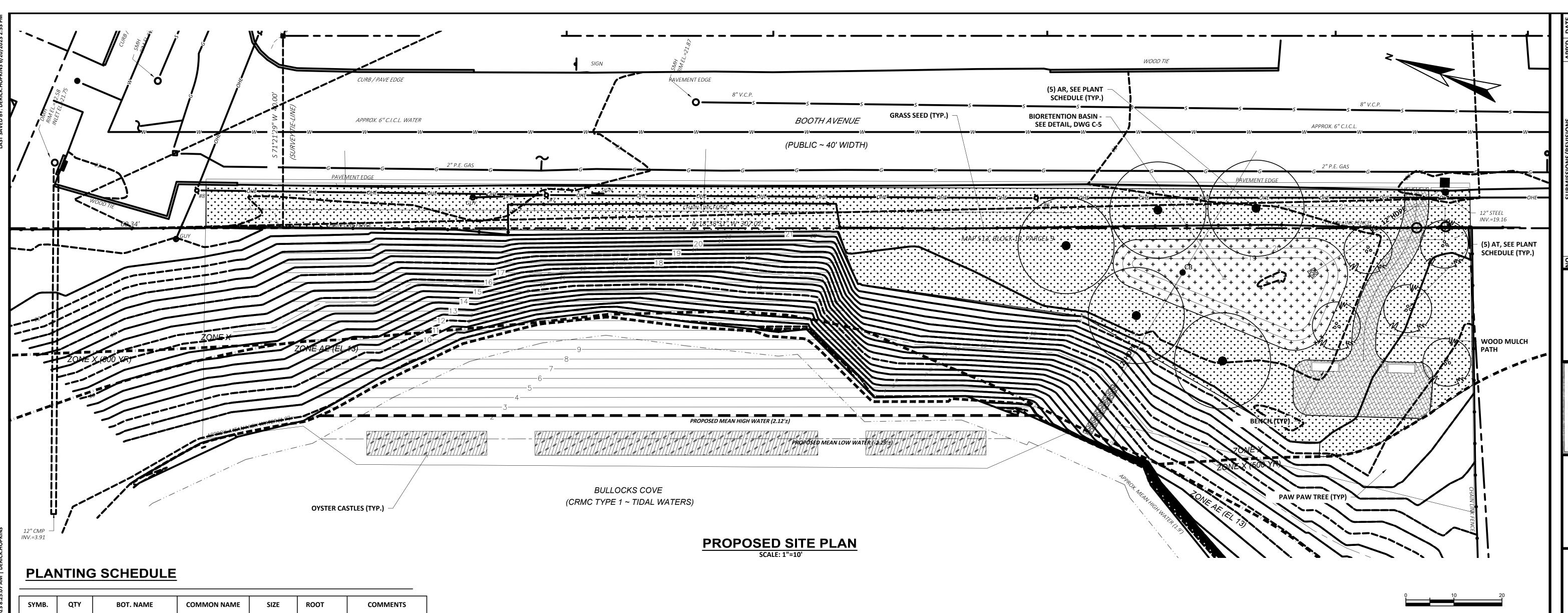
ERCE Metter Environment

WRIGHT-PIERCE Engineering a Better Envir

AST PROVIDENCE, RHODE ISLAND AVENUE SLOPE STABILIZATION

DRAWING

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SYMB.	QTY	BOT. NAME	COMMON NAME	SIZE	ROOT	COMMENTS	
FRUIT	TREES						
AT	5	ASIMINA TRILOBA	PAWPAW	7'-8' HT	B&B	SINGLE STEM, FULL, HEAVY, MATCHED	
DECIE	UOUS TREE	ES .					
AR	5	ACER RUBRUM	RED MAPLE	2 1/2"-3" CAL.	B&B	SINGLE STEM, FULL, HEAVY, MATCHED	
BRUS	H BRANCHE	S FOR SLOPE STABILIZATION	I				
	200	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	3' BRANCH	BARE ROOT	PLANT IN FALL, 3' O.C.	
	200	SALIX DISCOLOR	PUSSY WILLOW	3' BRANCH	BARE ROOT	PLANT IN FALL, 3' O.C.	
	200	VIBURNUM DENTATUM	ARROWWOOD	3' BRANCH	BARE ROOT	PLANT IN FALL, 3' O.C.	
SEED	& LOAM						
	800 SF	BIORETENTION SEED MIX	SEE SPECIFICATIONS				
	4,600 SF	GRASS SEED MIX	SEE SPECIFICATIONS				

# PLANTING NOTES:

- 1. ALL NEW PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMAN, LATEST EDITION. IN ADDITION, ALL NEW PLANT MATERIAL FOR THE PROJECT SHALL BE OF THE HIGHEST SPECIMEN QUALITY.
- 2. SEE SPECIFICATIONS FOR ITEMS NOT COVERED ON THE PLANS AND DETAILS.

ONLY AS APPROVED BY THE LANDSCAPE ARCHITECT/ENGINEER.

- 3. CONTRACTOR SHALL INSPECT SITE PRIOR TO BEGINNING PLANTING OPERATIONS AND NOTIFY THE ENGINEER OF ANY CONDITIONS THAT ARE NOT SUITABLE TO PERFORMING PLANTING OPERATIONS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONDITIONS THAT WOULD PREVENT HEALTHY GROWTH OF PLANT MATERIAL
- 4. NO TREES SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING. TREES SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS THEY BORE TO
- 5. PLANT GROUPING AND LOCATIONS ARE DIAGRAMMATIC. THE LOCATION OF PLANTS SHALL BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT. PLANTS INSTALLED PRIOR TO FIELD STAKING OR DIRECTION BY THE LANDSCAPE ARCHITECT SHALL BE REPLACED AS DIRECTED BY THE LANDSCAPE ARCHITECT AT THE CONTRACTOR'S EXPENSE.
- 6. PLANT MATERIAL DELIVERED ON SITE SHALL BE HEALED-IN AT A SHADY LOCATION UNTIL PLANTING AREA IS PREPARED FOR INSTALLATION. ANY PLANTS REMAINING UNPLANTED ON THE SITE FOR MORE THAN 24 HOURS SHALL BE PROTECTED AND MAINTAINED INCLUDING BUT NOT LIMITED TO WATER AND
- SHADE. DAMAGED OR STRESSED PLANTS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

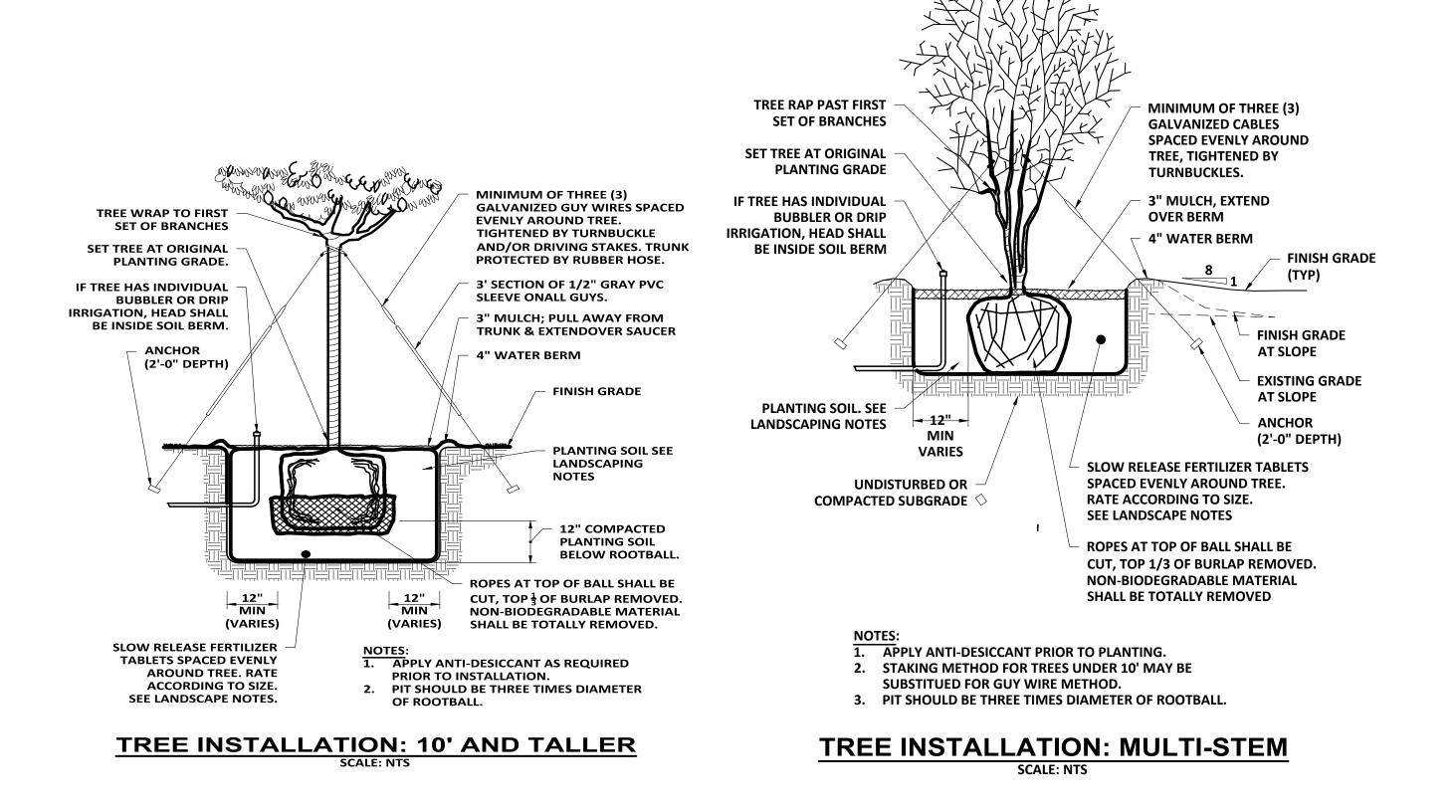
  7. THERE WILL BE NO SUBSTITUTIONS OF PLANT MATERIAL WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT. ANY PROPOSED SUBSTITUTIONS OF PLANT SPECIES SHALL BE MADE WITH PLANTS OF EQUIVALENT OVERALL FORM HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE
- THE GENERAL CONTRACTOR SHALL SUPPLY ALL NEW PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON THE DRAWINGS.
   THE CONTRACTOR SHALL MAINTAIN ALL PREPARED PLANTING AREAS FREE FROM DEBRIS. NO STORAGE OR STOCKPILING SHALL OCCUR ON PLANTING AREAS.
   THE CONTRACTOR IS TO USE CARE DURING EXCAVATION AND PLANTING TO AVOID DISTURBING OR DAMAGING ANY ADJACENT CONSTRUCTION SUBSURFACE
- DRAINAGE OR UTILITIES. ANY DAMAGE RESULTING FROM THIS CONSTRUCTION WILL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE RESTORED AT HIS EXPENSE TO THE SATISFACTION OF THE OWNER.

  11. STAKE LOCATION OF ALL PROPOSED PLANTING FOR APPROVAL BY THE LANDSCAPE ARCHITECT/ENGINEER PRIOR TO COMMENCEMENT OF PLANTING.
- 12. THE CONTRACTOR SHALL SUPPLY PLANT MATERIAL IN THE QUANTITIES INDICATED ON THE PLANS. FOR DISCREPANCIES BETWEEN THE PLANS AND THE PLANT SCHEDULE, THE PLAN QUANTITIES SHALL PREVAIL.
- 13. ALL PLANT MATERIAL IN CONTAINERS SHALL BE WELL ESTABLISHED ROOTED MATERIAL THAT OCCUPIES THE ENTIRE VOLUME OF SPECIFIED CONTAINER.

  14. PLANTS WITH GIRDLING ROOTS SHALL BE REJECTED. CONTAINER GROWN PLANTS WITH TIGHT ROOT MASSES SHALL BE SCARIFIED PRIOR TO PLANTING.
- 14. PLANTS WITH GIRDLING ROOTS SHALL BE REJECTED. CONTAINER GROWN PLANTS WITH TIGHT ROOT MASSES SHALL BE SCARIFIED PRIOR TO PLANTING.

  15. THE TREE ROOT FLARE SHALL BE EXPOSED AND PLANTED EVEN WITH THE FINISH GRADE. PREPARE ALL TREE PITS WITH PLANTING SOIL TO A MINIMUM DEPTH MATCHING THE DEPTH OF TREE ROOT BALLS.
- 16. ALL PLANT BEDS ARE TO RECEIVE THREE INCHES (3") OF SHREDDED BARK MULCH AS SPECIFIED. NO SEPARATE PAY ITEM FOR MULCH OR AND/OR FERTILIZER PACKETS. PAID FOR UNDER PLANTING ITEMS.
- 17. ALL EXISTING TREES TO REMAIN SHALL BE PROPERLY PROTECTED, PRUNED AND FERTILIZED PER THE SPECIFICATIONS.

  18. ALL LAWN AREAS DISTURBED BY CONSTRUCTION OPERATIONS INSIDE AND OUTSIDE THE LIMIT OF WORK SHALL BE LO
- 18. ALL LAWN AREAS DISTURBED BY CONSTRUCTION OPERATIONS INSIDE AND OUTSIDE THE LIMIT OF WORK SHALL BE LOAMED AND SEEDED AS SPECIFIED. ALL AREAS TO BE SEEDED SHALL RECEIVE SOIL PREPARATION AS SPECIFIED PRIOR TO SEEDING, UNLESS OTHERWISE NOTED ON PLAN.
- 19. ALL AREAS TO BE SEEDED WITH GRASS SEED MIX SHALL RECEIVE 6" TOPSOIL PRIOR TO SEEDING.



**DRAWING** 

