



State of Rhode Island  
Department of Administration / Division of Purchases  
One Capitol Hill, Providence, Rhode Island 02908-5855  
Tel: (401) 574-8100 Fax: (401) 574-8387

**ADDENDUM #1**

RFQ # 7605773

TITLE: 2019-CM-073 GREENWICH BAY COASTAL OLD  
FORGE ROAD & POST RD. EXTENSION

SUBMISSION DEADLINE: June 12, 2020 at 1:00 pm

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**Please See Attached**

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*Marisa DeFarno*

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Marisa DeFarno  
Buyer I

June 2, 2020

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
DEPARTMENT OF ADMINISTRATION

DIVISION OF PURCHASES BID NO. 7605773  
RHODE ISLAND CONTRACT NO. 2019-CM-073

**Greenwich Bay Coastal - Old Forge Rd & Post Rd Extension**

CITY OF WARWICK  
COUNTY OF KENT

NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 1 Prospective bidders and all concerned are hereby notified of the following changes in the Plans, Specifications, and Proposal for this contract. These changes shall be incorporated in the Plans, Specifications, and Proposal, and shall become an integral part of the Contract Documents.

**A. Clarification**

1. The bid opening at the Division of Purchases shall be conducted via live streaming, as detailed in the document entitled, "Covid-19 Emergency Protocol for Bid Openings" attached to this Addendum No. 1.

**B. Specifications – Job Specific**

1. Page JS-4

Delete Page JS-4 in its entirety and insert revised Page JS-4 (R-1) attached to this Addendum No. 1. The specification for Code 108.1000 "Prosecution and Progress" has been revised to update the Substantial Completion Date to December 5, 2020.

**C. Plans**

1. Sheet No. 7 – Drainage & Utility Plan No. 1

Delete Sheet No. 7 in its entirety and insert revised Sheet No. 7 (R-1) attached to this Addendum No. 1. The callout for proposed work at CB 1-2 has been revised.

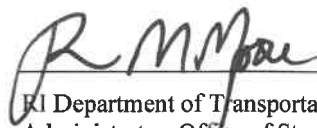

2. Sheet No. 20 – Drainage & Utility Detail Plan No. 1

Delete Sheet No. 20 in its entirety and insert revised Sheet No. 20 (R-1) attached to this Addendum No. 1.

- Infiltration System Construction Note No.2 has been revised.
- The Typical Earthen Weir Detail has been revised.
- The Typical Sediment Forebay Detail has been revised.

3. Sheet No. 22 – Drainage & Utility Detail Plan No. 3

Delete Sheet No. 22 in its entirety and insert revised Sheet No. 22 (R-1) attached to this Addendum No. 1. The Typical Earthen Berm Detail has been revised.

   
RI Department of Transportation  
Administrator, Office of Stormwater Management

**State of Rhode Island**  
**Department of Administration / Division of Purchases**  
**One Capitol Hill, Providence, Rhode Island 02908-5855**  
**Tel: (401) 574-8100 Fax: (401) 574-8387**

## **COVID-19 EMERGENCY PROTOCOL FOR BID OPENINGS**

**RFQ# 7605773 at June 12, 2020 at 1:00 pm**

Vendors and the public are advised that due to Covid-19 emergency social distancing requirements bid openings at the Division of Purchases shall be conducted via live streaming on the ZOOM website/application. Vendors and the public shall not be permitted to enter the Division of Purchases to attend bid openings. Vendors and the public who attend bid openings via live streaming shall be required to identify themselves and a record of all such attendees shall be maintained by the Division of Purchases. Vendor bid proposals shall be opened and read aloud at the date and time listed herein. The results of bid solicitations requiring a public copy for public works projects shall be posted on the Division of Purchases website as soon as possible after the bid opening. For RFP solicitations only vendor names shall be read aloud at the opening.

Vendors and the public are further advised that visitor access to the Powers Building at One Capitol Hill, Providence, RI requires pre-screening at the entrance to the building. In accordance with the Governor's Executive Order(s) and Department of Health emergency regulations all visitors to the Powers Building must wear a cloth mask which covers the nose and mouth. Vendors delivering bid proposals to the Division of Purchases should allow sufficient time for the pre-screening process. The Division of Purchases assumes no responsibility for delays caused by the screening process or any other reason. Vendors are solely responsible for on time delivery of bid proposals. The Division of Purchases shall not accept late bids for any reason.

Division of Purchases is inviting you to a scheduled Zoom meeting.

Topic: 7605773

Time: Jun 12, 2020 01:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://zoom.us/j/92911510597?pwd=eHZWbEVMcjRBRThhQXhnVINnaEhaQT09>

Meeting ID: 929 1151 0597

Password: 732769

One tap mobile

+16465588656,,92911510597#,,1#,732769# US (New York)

+13017158592,,92911510597#,,1#,732769# US (Germantown)

Dial by your location

+1 646 558 8656 US (New York)

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

+1 669 900 9128 US (San Jose)

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

888 788 0099 US Toll-free

833 548 0276 US Toll-free

833 548 0282 US Toll-free

877 853 5247 US Toll-free

Meeting ID: 929 1151 0597

Password: 732769

Find your local number: <https://zoom.us/u/a1jy4awvK>

**CODE 108.1000**  
**PROSECUTION AND PROGRESS**

In accordance with Standard Specification Section 108.08, Failure to Complete on Time, the Job Specific Completion Dates and Associated Liquidated Damages are defined as follows:

**Interim Completion** (Greenwood Creek - RI0007025R-11): Within 30 Days of Construction Start (at location)

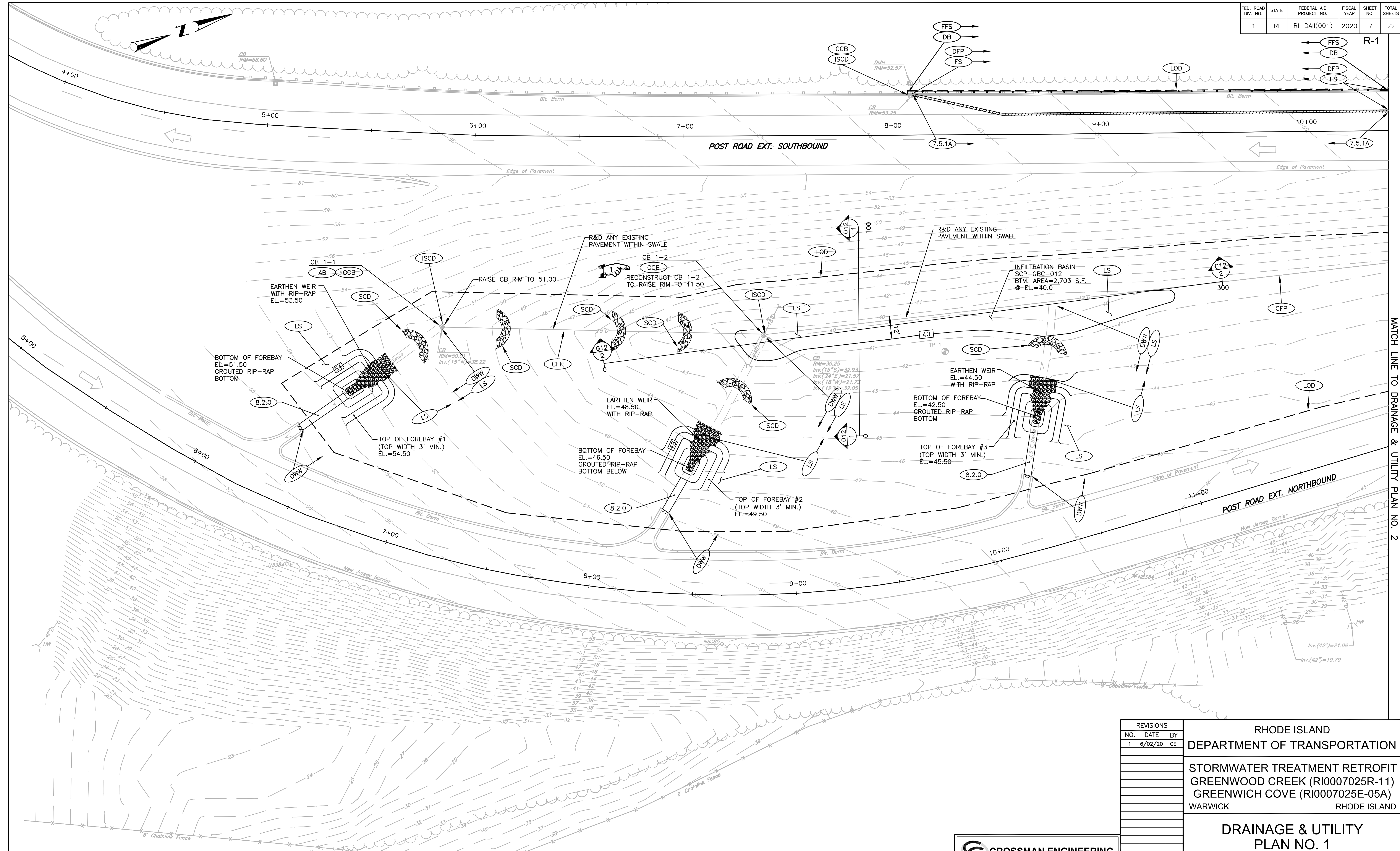
**Interim Completion** (Greenwich Cove – RI0007025E-05A): Within 30 Days of Construction Start (at location)

**Substantial Completion:** December 5, 2020

All Contract work shall be completed, as defined by Section 101.71.

Liquidated Damages: \$1,200 per calendar day.

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI	RI-DAII(001)	2020	7	22



MATCH LINE TO DRAINAGE & UTILITY PLAN NO. 2

S:\2205.04 - RIDOT On Call Stormwater, Greenwich Bay SCP\Current\CAD Dwg\DESIGN-PLANS\COMBINED (OFF-PRJ)\0197E\_V1\_007\_D&U001\_ADD01.dwg (Layout) Plotted Jun 02, 2020 at 8:54am

ADDENDUM NO. 1

**CROSSMAN ENGINEERING**  
151 Centerville Road | Warwick, Rhode Island 02886

REVISIONS		
NO.	DATE	BY
1	6/02/20	CE

**RHODE ISLAND**  
**DEPARTMENT OF TRANSPORTATION**

**STORMWATER TREATMENT RETROFIT**  
**GREENWOOD CREEK (RI0007025R-11)**  
**GREENWICH COVE (RI0007025E-05A)**  
WARWICK RHODE ISLAND

**DRAINAGE & UTILITY**  
**PLAN NO. 1**

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_ SCALE 1"=20'



FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI	RI-D411(001)	2020	20	22

R-1

**DUST CONTROL NOTES**

ON AN AS-NEEDED BASIS OR AS DIRECTED BY RIDOT OR RIDEM, THE CONTRACTOR SHALL UTILIZE ONE OF THE FOLLOWING METHODS TO CONTROL DUST:

- A. THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.
- B. CALCIUM CHLORIDE SHOULD BE EITHER LOOSE DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH A SPREADER AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE.

THE METHODS SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

**INSPECTION/MAINTENANCE NOTES**

- PRIOR TO COMMENCING EARTHWORK, FILTERSOXX SHALL BE PLACED INSIDE SAWCUT EDGE TO PREVENT SEDIMENT FROM ENTERING EXISTING ROADWAY DRAINAGE SYSTEM, WETLAND AREAS AND ABUTTING PROPERTIES. PERIMETER EROSION CONTROLS SHALL BE INSTALLED ALONG THE LIMITS OF DISTURBANCE AND WHERE SHOWN ON THE SITE PLANS.
- R.I. STD. 9.9.0 CONSTRUCTION ACCESS MUST BE INSTALLED AT ALL ENTRANCE LOCATIONS INTO THE CONSTRUCTION SITE. THE LOCATION OF THESE ACCESS POINTS MAY VARY THROUGHOUT THE CONSTRUCTION PROCESS DUE TO THE SIZE AND SCOPE OF THE PROJECT. THE CONDITION AND LOCATIONS OF THE CONSTRUCTION ACCESS PADS MUST BE MAINTAINED THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. ALL CONSTRUCTION ACCESSES SHALL BE INSTALLED PRIOR TO ANY VEHICLE TRAFFIC.
- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM.
- ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION - SUCH AS EROSION CONTROL BLANKETS OR RIP-RAP.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT / REPLACE DAILY DURING CONSTRUCTION, FOLLOWING RAINFALL AND WEEKLY DURING NON CONSTRUCTION PERIODS.
- ADDITIONAL SILT FENCE, FILTERSOXX OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- THE LATEST VERSION OF THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE R.I. STATE CONSERVATION COMMITTEE, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT-DOWN PERIODS, MUST MONITOR AND REPAIR, AS NEEDED, ALL SLOPES TO ENSURE A STABLE PRODUCT.

**GENERAL PROJECT WIDE NOTES**

- CONTRACTOR SHALL INSTALL TEMPORARY MEASURES SUCH AS; FIBER MATTING, CRUSHED STONE, HAY OR STRAW IN AREAS WHERE SLOPES OR STABILIZATION HAS FAILED.
- THE CONTRACTOR WILL BE REQUIRED TO INSTALL SILT SACK OR APPROVED EQUAL UNDER THE EXISTING CATCH BASIN GRATES WHERE PROPOSED. REMOVE AFTER CONSTRUCTION.
- SILT FENCE OR FILTREXX FILTER SOXX (OR APPROVED EQUAL) SHALL BE INSTALLED AROUND THE PERIMETER OF THE AREA TO BE DISTURBED BY CONSTRUCTION. ADDITIONAL APPLICATIONS OF THESE CONTROLS MEASURES MAY BE REQUIRED DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL INSPECT THE SITE AT A MINIMUM OF ONCE PER WEEK OR WITHIN 24 HOURS AFTER A STORM EVENT.
- IF EROSION OR EROSION TENDENCIES ARE APPARENT ON THE SITE, THE CONTRACTOR IS RESPONSIBLE TO INSTALL ADDITIONAL CONSTRUCTION BMP'S SUCH AS SAND BAGS AS DIRECTED BY RIDEM, RIDOT, OR ENGINEER DURING CONSTRUCTION.
- IF SEDIMENT OR DEBRIS IS TRACKED ONTO EXISTING PAVED AREAS ADJACENT TO THE CONSTRUCTION AREA, THE CONTRACTOR IS REQUIRED TO SWEEP THE PAVEMENT ON A DAILY BASIS. THE AREA SHALL BE INSPECTED DAILY.
- THE CONTRACTOR IS RESPONSIBLE TO KEEP THE SITE CLEAN OF TRASH. RECOMMENDED DAILY PATROL OF THE CONSTRUCTION SHOULD BE CONDUCTED TO PICK-UP TRASH. THE OPERATOR SHALL REQUIRE THE CONTRACTOR TO HAVE PORTABLE SANITARY FACILITIES ON SITE. ROUTINE CLEANING AND WASTE DISPOSAL OF THESE PORTABLE SANITARY FACILITIES IS REQUIRED.

**FILTREXX SOXX NOTE**

CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE FILTREXX PRODUCTS AND COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR TO PLACEMENT.

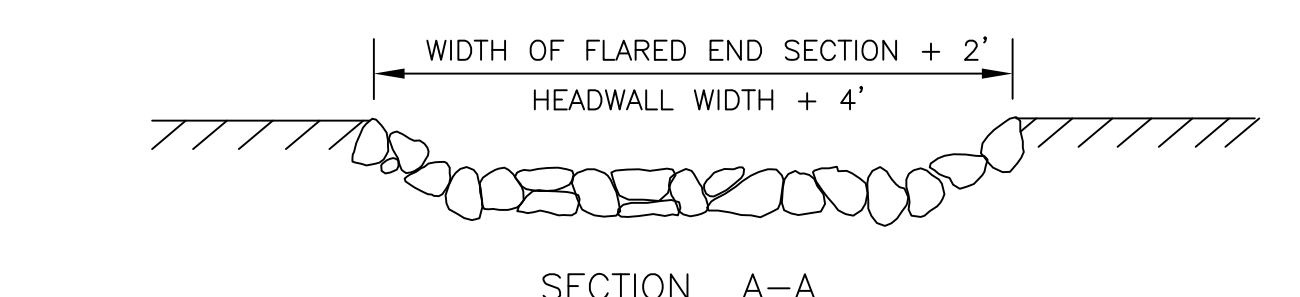
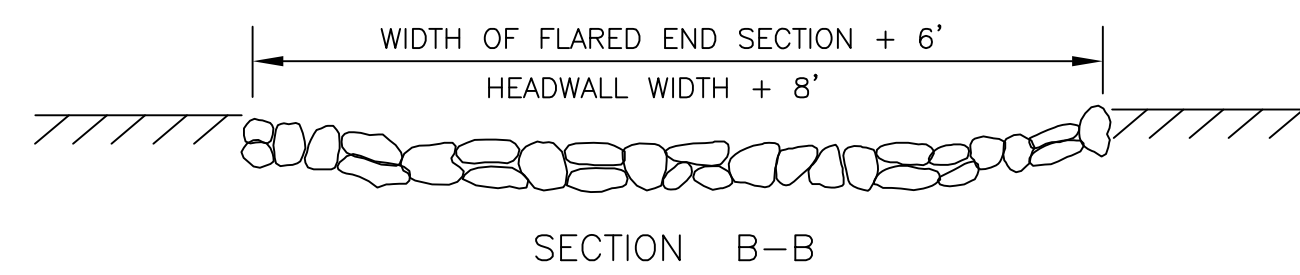
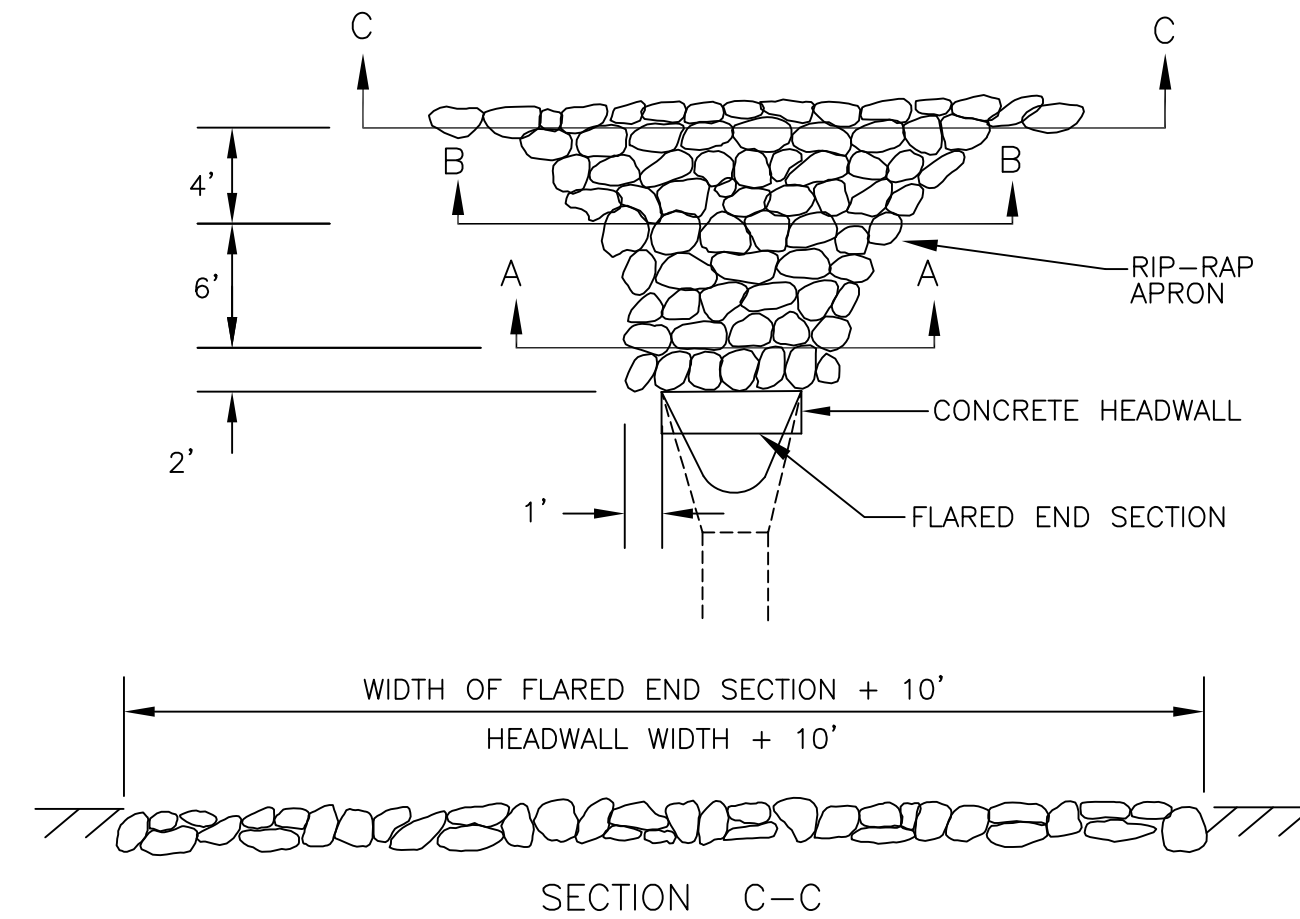
**SOIL EROSION AND SEDIMENT CONTROL PLAN NOTES**

- THE CONTRACTOR SHALL REFER TO THE DRAINAGE & UTILITY PLANS FOR THE SOIL EROSION AND SEDIMENT CONTROL MEASURES. ALL EXISTING AND PROPOSED DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS REQUIRE INLET PROTECTION. RIDEM AND RIDOT RESERVE THE RIGHT TO REQUIRE THE CONTRACTOR TO INSTALL ADDITIONAL EROSION CONTROL MEASURES WHERE DEEMED NECESSARY.
- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM, WETLAND AREAS, ADJACENT PROPERTIES, AND ROADWAYS.
- TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH PROTECTIVE COVERS, SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
- HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
- STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY 12-INCH COMPOST FILTER SOCK OR SILT FENCE.
- STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
- ADDITIONAL EROSION CONTROLS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER, MUNICIPAL REPRESENTATIVES OR LOCAL D.O.T.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST TO THE OWNER.
- ALL CATCH BASINS ADJACENT TO AND WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED BY SILT SACKS. ALL CATCH BASINS IN AREAS WITH EXPOSED SUBSOILS SHALL RECEIVE SILT SACKS.
- THE FILTREXX FILTER SOXX MAY BE INSTALLED ON THE EXISTING PAVEMENT /IMPERVIOUS AREAS WITHOUT STAKES. CONTRACTOR SHALL INSPECT DAILY, IF SOIL EROSION OR SEDIMENT IS OBSERVED IN THESE AREAS, THE CONTRACTOR SHALL RELOCATE OR INSTALL ADDITIONAL FILTREXX FILTER SOXX IN LOCATIONS THAT CAN BE STAKED.
- THE CONTRACTOR SHALL MAINTAIN (AND CLEAN) THE EXISTING DRAINAGE INFRASTRUCTURE ON AN AS NEEDED BASIS TO MAINTAIN STORMWATER RUNOFF FLOWS IN A POSITIVE DIRECTION.

**ADDENDUM NO. 1**

**INFILTRATION SYSTEM CONSTRUCTION NOTE:**

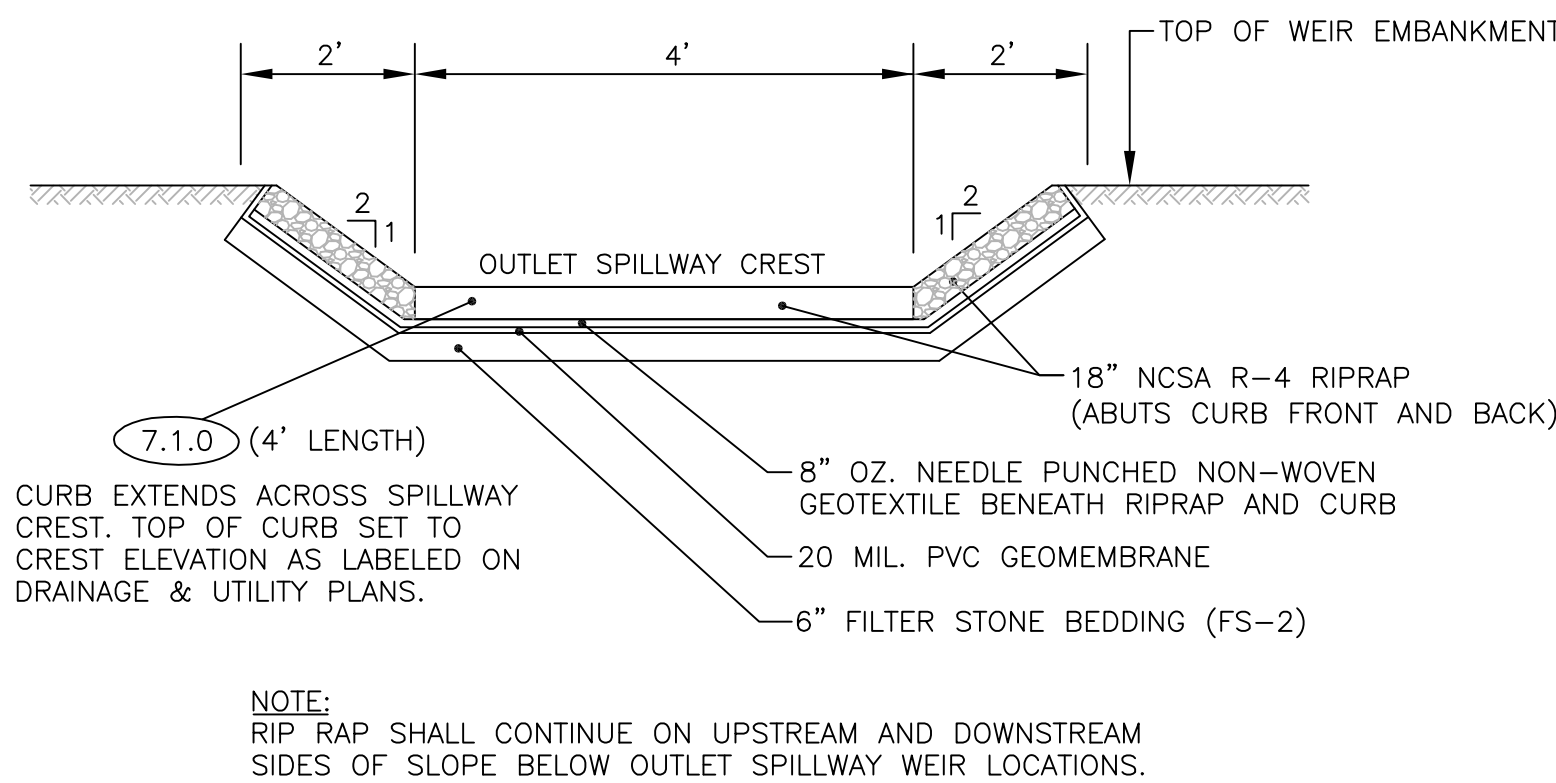
- WITHIN THE INFILTRATION BASIN/SWALE, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND SUBSOIL AREAS AND ANY EXISTING SOILS THAT YIELD A PERMEABILITY RATE <8.27 INCHES/HOUR. CONTRACTOR SHALL COORDINATE A BOTTOM BED INSPECTION WITH OWNER AND ENGINEER. IF NECESSARY THE AREA SHALL BE PREPARED WITH SAND FILL SOIL MEETING THE MEDIA REQUIREMENTS OF SAND FILTERS, AS DESCRIBED IN THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL (R.I.S.D.I.S.M.), MARCH 2015, SECTION 5.5 (ASTM C-33 SAND). THE DEPTH OF EXISTING SOIL REMOVAL SHALL BE VERIFIED BY THE ENGINEER. PLACEMENT OF THE SAND FILL (ASTM C-33 SAND), SHALL BE USED TO BRING THE BOTTOM OF BASIN TO THE DESIGN ELEVATIONS.
- INFILTRATION SYSTEM CONSTRUCTION AND MATERIALS SHALL CONFORM TO RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, MARCH 2015, APPENDIX F.3 CONSTRUCTION STANDARDS/SPECIFICATIONS FOR INFILTRATION BMP'S. FILTER FABRIC SHALL PROVIDE A MINIMUM 6-INCH TOP OVERLAP, AND SEPARATE ROLLS SHALL OVERLAP BY 2 FEET. AFTER CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE FINAL INSPECTIONS WITH THE OWNER IN ACCORDANCE WITH TABLE F-5 IN APPENDIX F.3.
- THE CONTRACTOR IS REQUIRED TO SUBMIT A LIST OF MATERIALS, GRADATIONS AND THE NAME AND ADDRESS OF THE SUPPLIERS TO THE ENGINEER FOR APPROVAL PRIOR TO BRINGING MATERIAL ON SITE. MATERIAL CERTIFICATIONS SHALL ALSO BE REQUIRED FOR REVIEW AND APPROVAL.
- THE CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE R.I.S.D.I.S.M. AND THE RIDOT LINEAR STORMWATER MANUAL.
- GREAT CARE MUST BE TAKEN TO PREVENT THE INFILTRATION AREA FROM COMPACTION BY MARKING OFF THE INFILTRATION UNDERGROUND SYSTEM LOCATION BEFORE THE START OF CONSTRUCTION, AND BY CONNECTING UPSTREAM DRAINAGE AREAS ONLY AFTER CONSTRUCTION IS COMPLETE AND THE CONTRIBUTING AREA IS STABILIZED.
- IF LARGE ROCKS OR BOULDERS ARE FOUND WITHIN 36" BELOW THE INFILTRATION SYSTEMS, OR WITHIN A 10' PERIMETER AROUND SYSTEM, THE CONTRACTOR SHALL REMOVE THE ROCKS/BOULDERS AND REPLACE WITH GRAVEL BORROW. CONTRACTOR SHALL COORDINATE WITH ENGINEER.



- NOTES:**
- UNLESS OTHERWISE SPECIFIED, PLACED RIP-RAP SHALL BE USED.
  - DIMENSIONS MAY BE SHOWN OTHERWISE ON THE PLANS AND MAY BE MODIFIED BY THE ENGINEER TO MEET FIELD CONDITIONS.
  - RIP-RAP APRONS SHALL CONSIST OF 18" DEEP NSA NO. R-4 STONE WITH A 6" THICK FS-2 BEDDING.
  - PLACE A LAYER OF FILTER FABRIC AND GEOMEMBRANE BETWEEN THE STONE AND BEDDING.
  - CONCRETE HEADWALLS SHALL CONSIST OF CLASS XX CONCRETE.

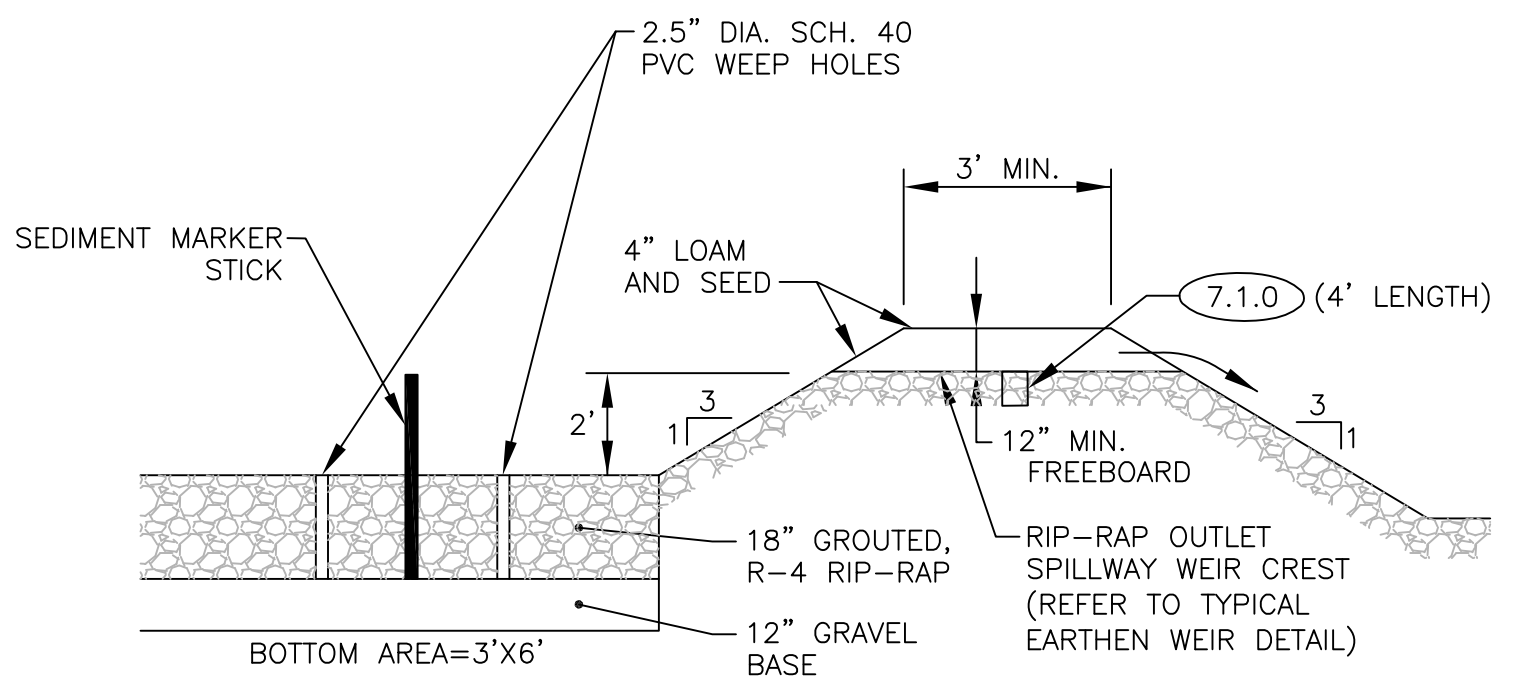
**TYPICAL LAYOUT OF RIP-RAP OUTLET PROTECTION AT FLARED END SECTIONS AND CONCRETE HEADWALLS**

NOT TO SCALE



**TYPICAL EARTHEN WEIR DETAIL**

NOT TO SCALE

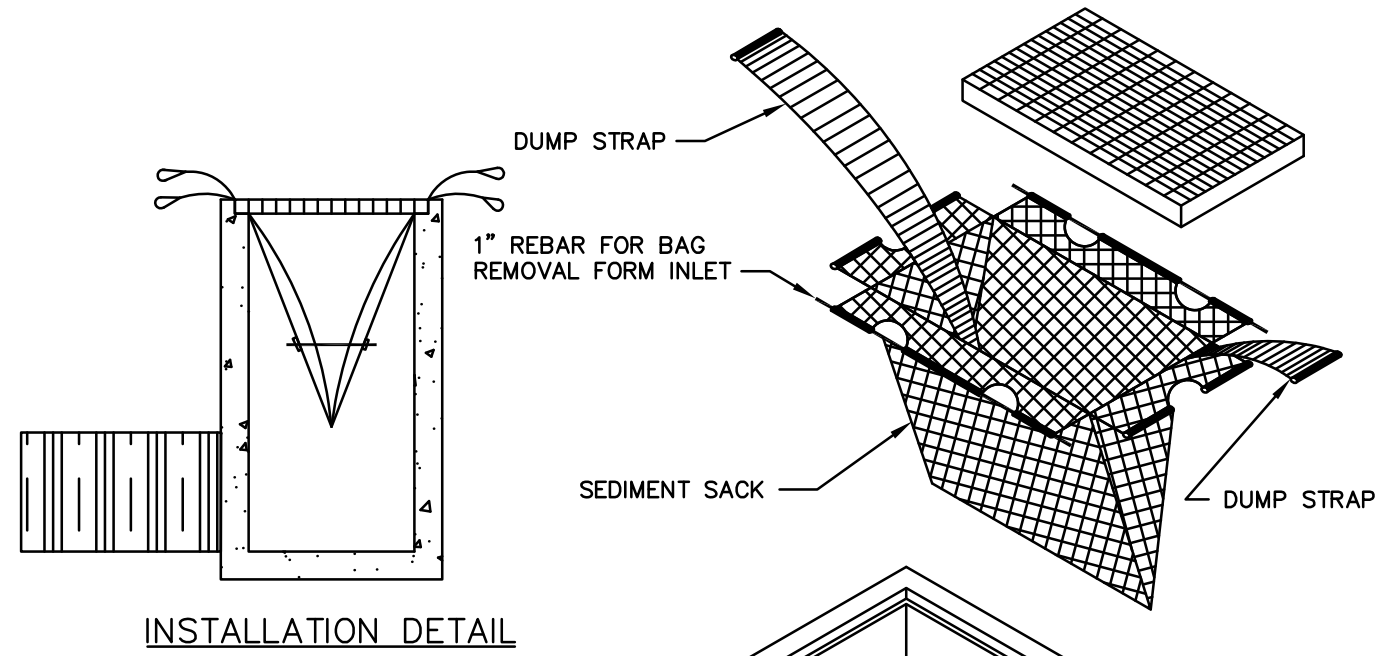


**NOTES**

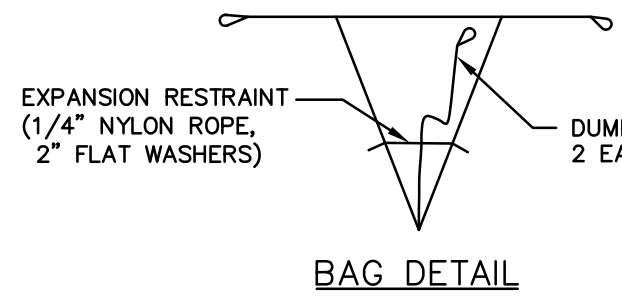
- GROUT SHALL BE NON-SHRINK GROUT HAVING 4,000 psi, 28-DAY COMPRESSIVE STRENGTH AND 2,400 psi, 7 DAY COMPRESSIVE STRENGTH.
- PROVIDE 2-2.5" DIA. SCH. 40 PVC AS WEEP HOLES IN THE BOTTOM OF EACH SEDIMENT FOREBAY.
- PROVIDE SEDIMENT MARKER STICK IN THE BOTTOM OF THE SEDIMENT FOREBAY. PROVIDE LINE ON SEDIMENT MARKER STICK 12" ABOVE BOTTOM OF FOREBAY.

**TYPICAL SEDIMENT FOREBAY DETAIL**

NOT TO SCALE



**INSTALLATION DETAIL**



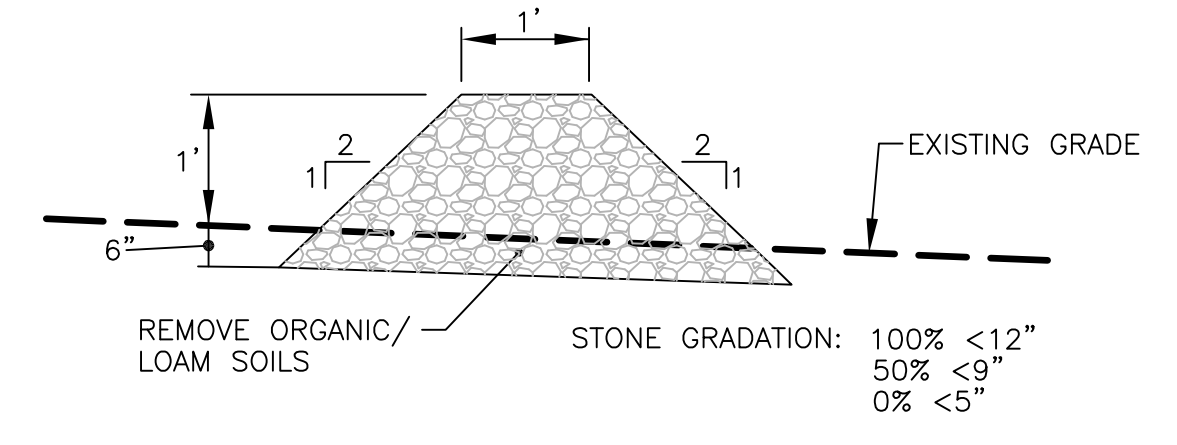
**BAG DETAIL**

**NOTES**

- INSTALL SILT SACK AT CATCH BASINS IN VICINITY OF CONSTRUCTION.
- CONTRACTOR SHALL SUBMIT SILT SACK PRODUCT TO ENGINEER FOR APPROVAL.

**SILT SACK INSTALLATION DETAIL**

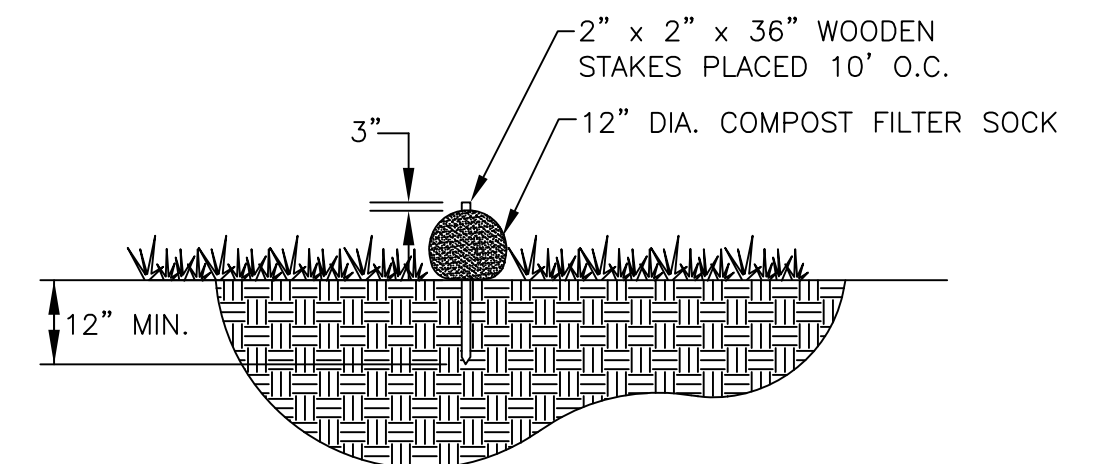
NOT TO SCALE



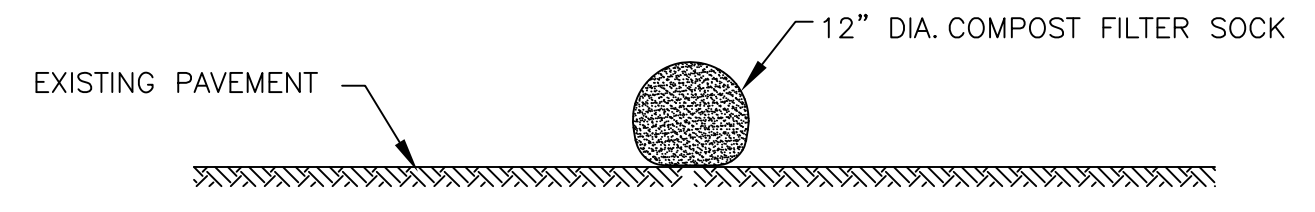
**NOTE:**  
STONE CHECK DAMS WILL BE INSTALLED EXCLUSIVELY AT SCP-GBC-012 ON D&U PLAN NO. 1.

**TYPICAL STONE CHECK DAM DETAIL**

NOT TO SCALE



**COMPOST FILTER SOCK SECTION**



**COMPOST FILTER SOCK PAVEMENT OPTION**

**NOTE**

- COMPOST FILTER SOCK MAY BE USED IN LIEU OF SILT FENCE.
- CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE MANUFACTURER'S PRODUCTS AND COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR TO PLACEMENT.
- ALL MATERIAL SHALL MEET MANUFACTURER'S SPECIFICATIONS.
- AFTER USE, COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER.

**COMPOST FILTER SOCK DETAIL**

NOT TO SCALE

REVISIONS		
NO.	DATE	BY
1	6/02/20	CE

RHODE ISLAND  
DEPARTMENT OF TRANSPORTATION  
STORMWATER TREATMENT RETROFIT  
GREENWOOD CREEK (RI0007025R-11)  
GREENWICH COVE (RI0007025E-05A)  
WARWICK RHODE ISLAND

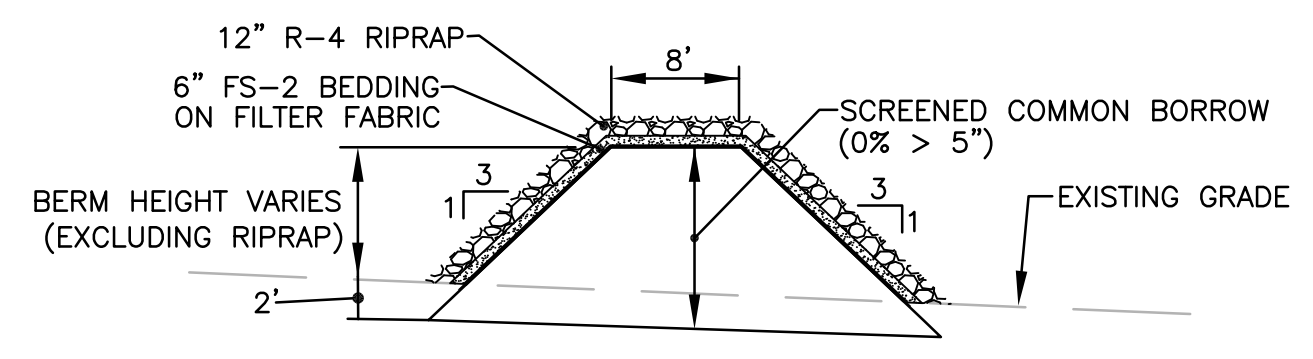
**DRAINAGE & UTILITY  
DETAIL PLAN No. 1**

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_ SCALE 1"=20'

**CROSSMAN ENGINEERING**  
151 Centerville Road | Warwick, Rhode Island 02886

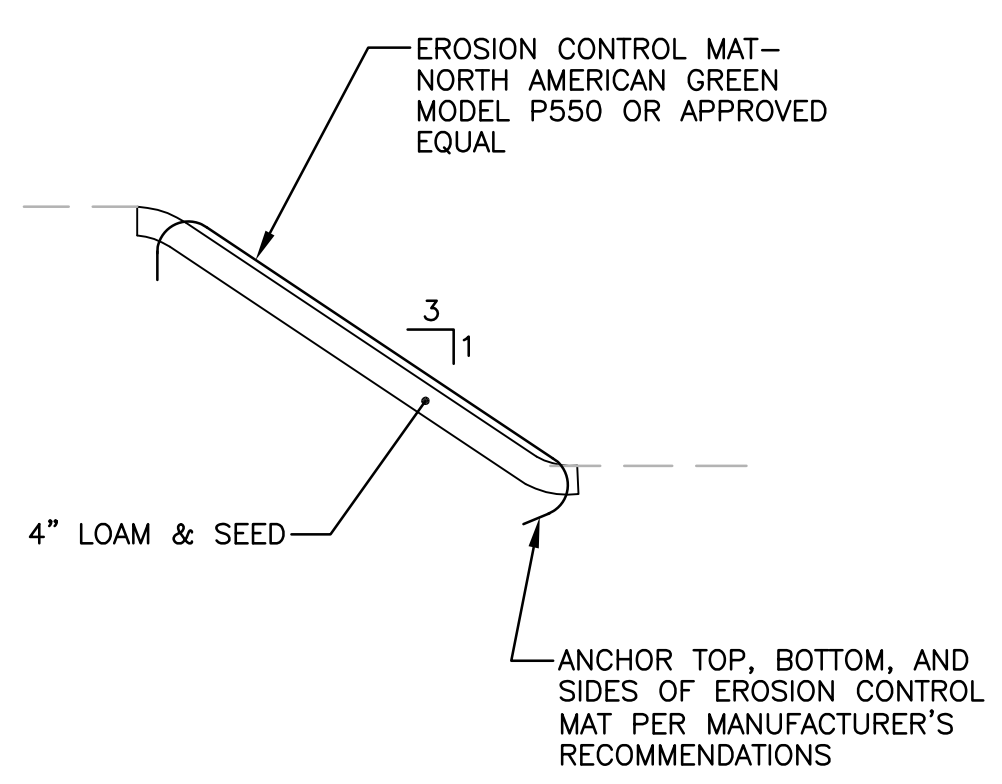
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI	RI-D411(001)	2020	22	22

R-1

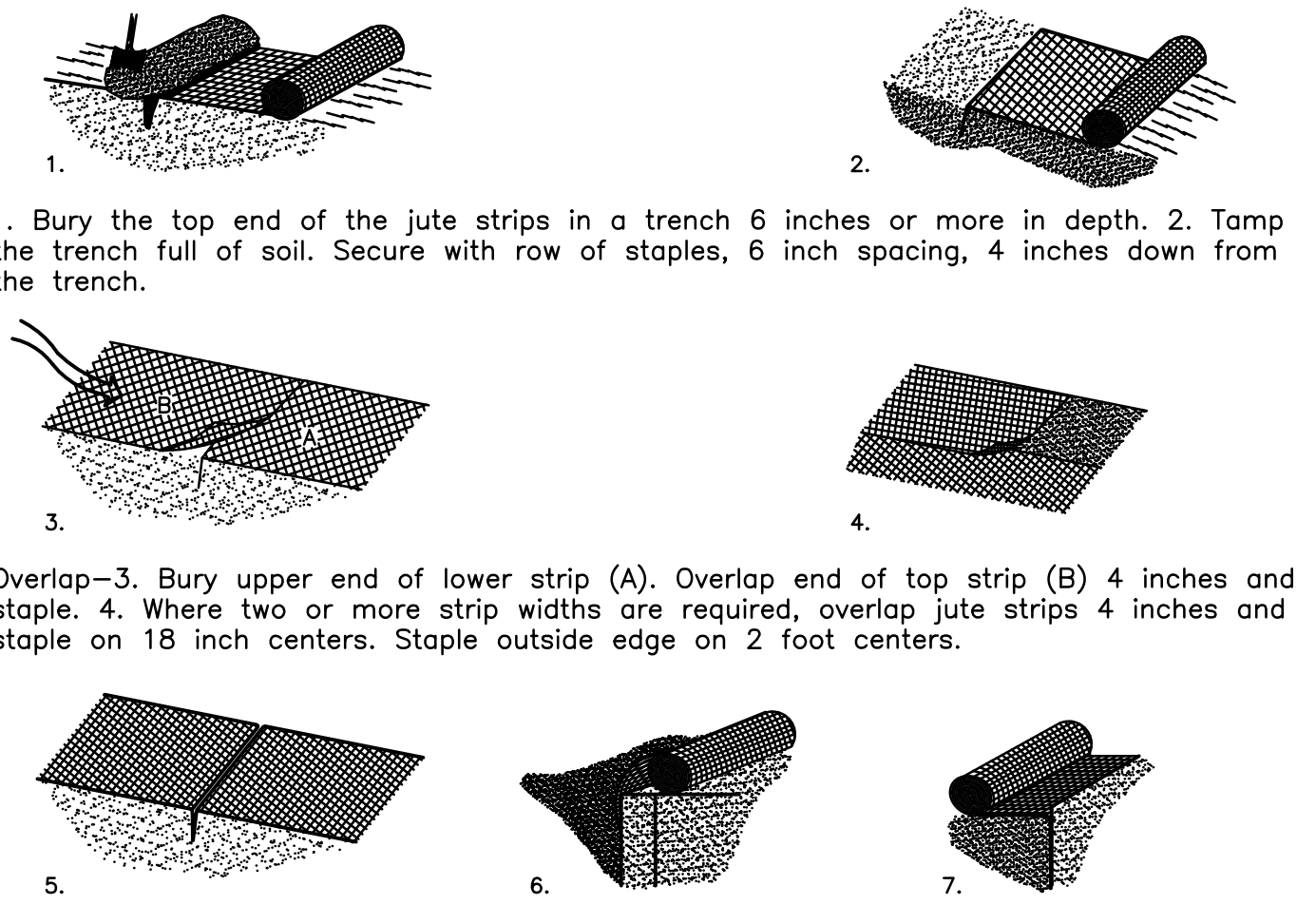


**TYPICAL EARTHEN BERM DETAIL**  
NOT TO SCALE

- NOTES:**
- BERM HEIGHT DETERMINED BY BERM TOP ELEVATION AS LABELED ON THE DRAINAGE & UTILITY PLANS.
  - BERM LENGTH TO EXTEND ACROSS SWALE WIDTH, FROM FRONT SLOPE TO BACK SLOPE, AT POINTS WHERE BERM TOP ELEVATION MEETS EXISTING SLOPE.

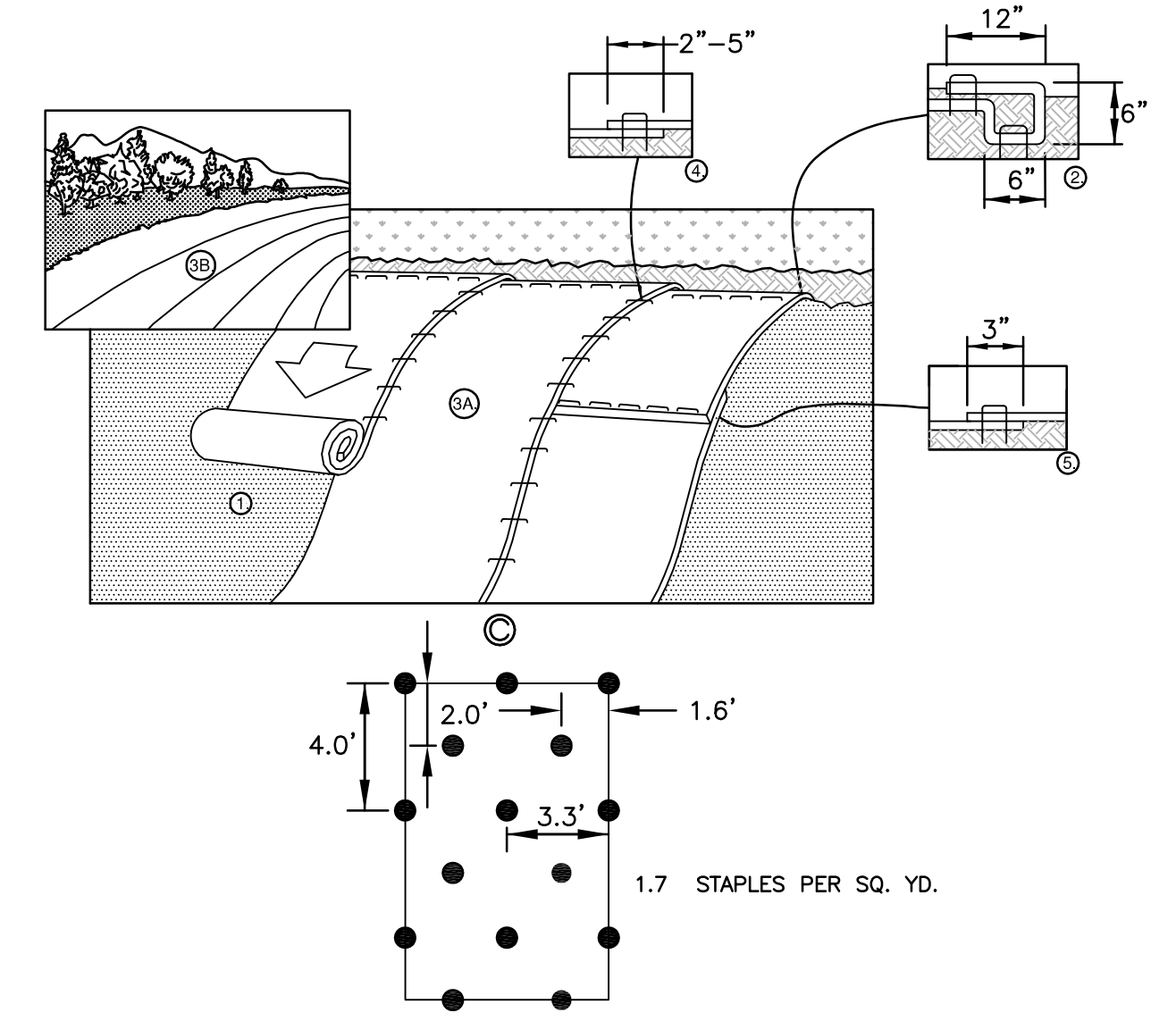


**3:1 INFILTRATION SWALE SLOPE (SCP-GBC-013)**  
**TYPICAL SECTION**  
NOT TO SCALE



- 1.** Bury the top end of the jute strips in a trench 6 inches or more in depth. 2. Tamp the trench full of soil. Secure with row of staples, 6 inch spacing, 4 inches down from the trench.
- 3.** Bury upper end of lower strip (A). Overlap end of top strip (B) 4 inches and staple. 4. Where two or more strip widths are required, overlap jute strips 4 inches and staple on 18 inch centers. Staple outside edge on 2 foot centers.
- 5.** Fold of jute buried in silt trench and tamped; double row of staples. Anchoring ends at structures - 6. Place the end of the net in a 6 inch slot on the up-channel side of the structure. Fill the trench and tamp firmly. 7. Roll the net up the channel. Place staples at 12 inch intervals along the anchor of the net.

**FIGURE 5-1 DETAIL FOR INSTALLATION OF JUTE NETTING**  
**R.I. SOIL EROSION and SEDIMENT CONTROL HANDBOOK**  
NOT TO SCALE

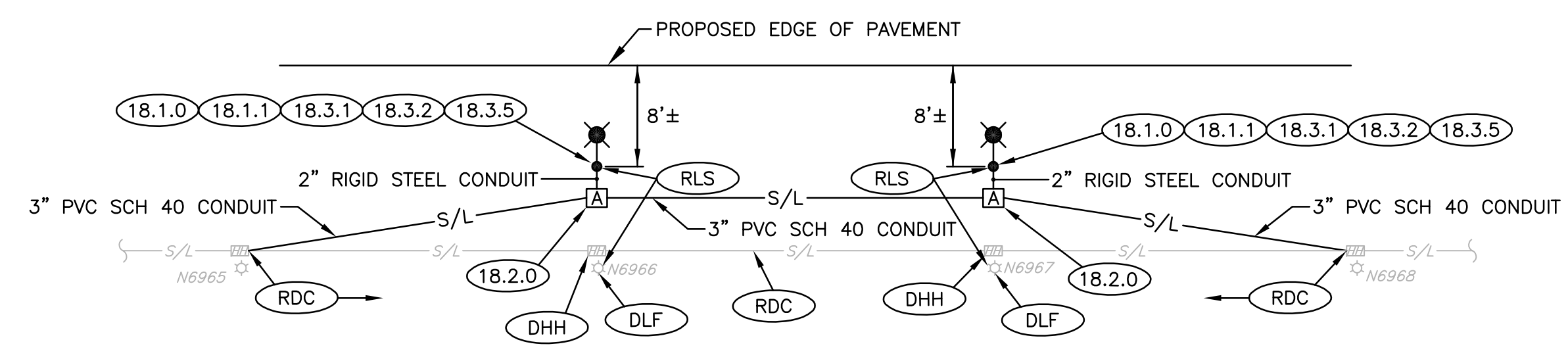


**NOTE:**

- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-0-SEED DO NOT SEED PREPARED AREA. CELL-0-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
  - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30CM) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
  - ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
  - THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
  - CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.
  - ALL REQUIRED EROSION CONTROL BLANKET (MAT) OVERLAPS AND ANCHORS SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE.
- NOTE:** \*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

**NOTE:**

- SEE REMOVE AND RELOCATE LIGHT STANDARDS NOTES ON SHEET NO. 5 "JOB SPECIFIC PLAN SYMBOLS, LEGEND AND NOTES".
- REFER TO DRAINAGE AND UTILITY PLAN NOS. 4 AND 5 FOR LOCATIONS.



**REMOVE AND RELOCATE LIGHT STANDARDS DETAIL**  
NOT TO SCALE

**EROSION CONTROL BLANKET (MAT)**  
**PERMANENT AND TEMPORARY INSTALLATION DETAIL**  
NOT TO SCALE

ADDENDUM NO. 1

**CROSSMAN ENGINEERING**  
151 Centerville Road | Warwick, Rhode Island 02886

REVISIONS			NO.	DATE	BY
NO.	DATE	BY			
1	6/02/20	CE			

RHODE ISLAND  
DEPARTMENT OF TRANSPORTATION

STORMWATER TREATMENT RETROFIT  
GREENWOOD CREEK (RI0007025R-11)  
GREENWICH COVE (RI0007025E-05A)  
WARWICK RHODE ISLAND

**DRAINAGE & UTILITY**  
**DETAIL PLAN No. 3**

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_ SCALE 1"=20'