



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

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

PUBLIC NOTICE

File Number: 2023-04-007 Date: May 11, 2023

This office has under consideration the application of:

City of East Providence
145 Taunton Avenue
East Providence, RI 02914

for a State of Rhode Island Assent to construct and maintain: a 250 +/- linear foot hybrid shoreline protection to protect a coastal bluff that has experienced major erosion. The hybrid shoreline protection will consist of a stone revetment backed by coir log system and a vegetated slope.

Project Location:	701 Bullocks Point Avenue
City/Town:	East Providence
Plat/Lot:	13 / 7,8
Waterway:	Providence River

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

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

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

If you desire to protest, you must attend the scheduled hearing and give sworn testimony. A notice of the time and place of such hearing will be furnished you as soon as possible after receipt of your request for hearing. If you desire to request a hearing, to receive consideration, it should be in writing (**with your correct mailing address, e-mail address and valid contact number**) and be received at this office on or before **June 10, 2023**.

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

/lat

EMERGENCY SLOPE REPAIRS

SOUTHERN SHORELINE

ROSE LARISA MEMORIAL PARK

701 BULLOCKS POINT AVENUE

EAST PROVIDENCE, RHODE ISLAND

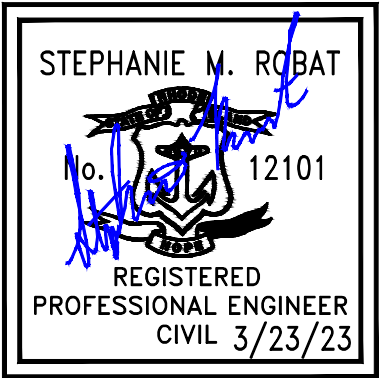
SHEET	DESCRIPTION
C-1	TITLE SHEET
C-2	GENERAL NOTES
C-3	EXISTING CONDITION - PRE-STORM - OVERALL PLAN
C-4	EXISTING CONDITIONS PLAN - PRE-STORM - 1 OF 2
C-5	EXISTING CONDITIONS PLAN - PRE-STORM - 2 OF 2
C-6	SLOPE EROSION LOCATIONS - POST-STORM
C-7	DEMOLITION PLAN
C-8	PROPOSED CONDITIONS PLAN
C-9	TYPICAL SLOPE REPAIR SECTION
C-10	TYPICAL DETAILS - 1 OF 2
C-11	TYPICAL DETAILS - 2 OF 2

INDEX



VICINITY MAP
(NOT TO SCALE)
(GENERATED FROM GOOGLE EARTH)

PREPARED FOR
CITY OF EAST PROVIDENCE
145 TAUNTON AVENUE
EAST PROVIDENCE, RI 02914



FRENGINEERING
GROUP

2346 Post Road, Suite 202
Warwick, RI 02886
401-575-1669
stephanie.robato@fr-eng.com

REVISION DESCRIPTION	DATE	BY

ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND

TITLE SHEET

PERMIT PLAN SET
NOT FOR CONSTRUCTION

DATE:
MARCH 23, 2023
DESIGN BY: SMR
DRAWN BY: SJR
CHECKED BY: SMR
PROJECT NUMBER:
22006.00

C-1
SHEET 1 OF 1

RECEIVED
3/29/2023
COASTAL RESOURCES
MANAGEMENT COUNCIL

GENERAL NOTES:

1. LANDSIDE TOPOGRAPHY AND EXISTING CONDITIONS PLAN INFORMATION FOR THE AREA WHERE THE WORK IS PROPOSED IS DEVELOPED FROM THE SURVEY PERFORMED, PREPARED AND PROVIDED BY CITY OF EAST PROVIDENCE (THE CITY). FR ENGINEERING GROUP HAS APPROXIMATED AREAS OF EROSION OBSERVED FROM THE DECEMBER 23, 2022 STORM. EXISTING GRADING IN THESE AREAS MAY DIFFER FROM WHAT IS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMATION OF ACTUAL SITE GRADES AND LAYOUT CONDITIONS. FREG ACCEPTS NO RESPONSIBILITY FOR EXISTING TOPOGRAPHIC AND SITE INFORMATION.

2. THERE IS LIMITED HYDROGRAPHIC SURVEY INFORMATION AVAILABLE FOR THIS SITE AS SHOWN ON THE CITY'S SURVEY PLAN. CHANGES TO ELEVATIONS ALONG THE SHORELINE SHOULD BE EXPECTED.

3. SOUNDINGS AND UPLAND TOPOGRAPHY ARE REFERENCED TO NAVD88. BENCHMARKS ARE INDICATED ON THE CITY'S SURVEY PLAN.

4. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN IS APPROXIMATE AND HAS NOT BEEN VERIFIED. THE DRAWINGS MAKE NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE DRAWINGS DO NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.

5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED IN SUFFICIENT DETAIL, THEREBY ENABLING THEM TO CONSTRUCT THE PROJECT IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS. SURVEY WILL BE PROVIDED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR LAYOUT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.

7. THE SOIL MANAGEMENT, EROSION CONTROL, AND SOIL STABILIZATION PROGRAMS SHALL BE ADHERED TO DURING THE ENTIRE DURATION OF CONSTRUCTION.

8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSION OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE, AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.

9. THE BEACH IS TO REMAIN OPEN TO THE PUBLIC DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO PROVIDING SIGNS WARNING THE PUBLIC OF CONSTRUCTION ACTIVITIES WHICH MAY LIMIT ACCESS TO PORTIONS OF THE BEACH. CONTRACTOR CANNOT BLOCK PUBLIC ACCESS TO THE BEACH.

10. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS OR SPECIFICATIONS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE, AND THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND MUST BE ACCEPTED AND APPROVED BY THE OWNER'S REPRESENTATIVE.

11. THE CONTRACTOR SHALL PROVIDE TREE PROTECTION DEVICE (RI STD. 51.1.0) AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

12. ALL REMOVE AND STOCKPILE OR REMOVE AND SALVAGE ITEMS SHALL BE TRANSPORTED BY THE CONTRACTOR TO A DESIGNATED CITY SITE. THE COST FOR HAULING ITEMS DESIGNATED AS "REMOVE AND STOCKPILE" SHALL BE INCLUDED IN THE COST FOR THE ITEM.

13. PROVIDE ALL MATERIAL, EQUIPMENT, AND TOOLS NECESSARY TO COMPLETE THE WORK. THE OWNER WILL NOT PROVIDE SECURITY AND ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY MATERIALS, EQUIPMENT OR TOOLS STORED AT ITS PROPERTY.

14. ALL TYPES OF WASTE GENERATED AT THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH FEDERAL, STATE AND LOCAL REGULATIONS.

15. EXCAVATIONS SHALL CONFORM TO CURRENT OSHA REGULATIONS.

16. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN UNANTICIPATED OR APPARENTLY DANGEROUS CONDITIONS ARE UNCOVERED DURING CONSTRUCTION OR DEMOLITION.

17. CONTRACTOR SHALL MAINTAIN ADEQUATE SURVEY CONTROL AT ALL TIMES TO ESTABLISH AND MAINTAIN ALL LINES AND ELEVATIONS.

18. CONTRACTOR SHALL AT ALL TIMES BE SOLELY RESPONSIBLE FOR EXERCISING REASONABLE PRECAUTION TO PROTECT THE HEALTH, SAFETY AND WELFARE OF ALL ON-SITE PERSONNEL, THE PUBLIC AND THE ENVIRONMENT DURING PERFORMANCE OF THE WORK DESCRIBED WITHIN THE CONTRACT DOCUMENTS. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF FEDERAL, STATE AND LOCAL HEALTH AND SAFETY AND OCCUPATIONAL HEALTH AND SAFETY STATUTES AND CODES.

GENERAL NOTES (CONTINUED):

19. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS, LICENSES, CERTIFICATES OF INSPECTION AND PAY ALL LEGAL FEES IN CONNECTION WITH THE WORK OF THIS CONTRACT. THE OWNER HAS OBTAINED NECESSARY REGULATORY PERMITS REQUIRED FOR THE WORK IN REGULATED AREAS. THE CONTRACTOR SHALL REQUEST COPIES OF THOSE REGULATORY PERMITS AND MAKE PROVISION IN THIS WORK AND IN THE COST OF THE WORK FOR ALL APPLICABLE CONDITIONS OF THOSE PERMITS. FAILURE TO CONSIDER ANY CONDITION OF THE REGULATORY PERMITS AS A PART OF THE BID SHALL NOT RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITY TO APPLY THOSE CONDITIONS TO THEIR WORK AT NO ADDITIONAL COST TO THE OWNER.

20. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE PROJECT REGULATORY PERMITS AND ALL CONDITIONS OF THOSE PERMITS. THE CONTRACTOR IS ADVISED THAT THE REGULATORY PERMITS FOR THIS PROJECT MAY CONTAIN ADDITIONAL REQUIREMENTS THAT, AFTER ANY ADDENDUM, SUPERSEDE THE DRAWING NOTES. THE CONTRACTOR IS FURTHER ADVISED THAT IN THE CASE OF ANY DISCREPANCIES WITHIN THE CONTRACT DOCUMENTS FOUND BEFORE CONSTRUCTION, THE FINAL DECISION AS TO WHAT INFORMATION TAKES PRECEDENCE WILL BE MADE BY THE ENGINEER OF RECORD ON THE BASIS OF THAT INTENT.

21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT & POSITIONING OF ALL PROPOSED STRUCTURES AS SHOWN ON THE PROJECT DRAWINGS.

DRAINAGE AND UTILITY NOTES:

1. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL CHECK AND VERIFY LOCATIONS OF ALL EXISTING UTILITIES, BOTH UNDERGROUND AND OVERHEAD. ANY DAMAGE TO EXISTING UTILITIES SHALL BE BORN BY THE CONTRACTOR. NO EXCAVATION SHALL BE DONE UNTIL ALL INVOLVED UTILITY MEMBER COMPANIES ARE NOTIFIED.

2. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.

3. CONTRACTOR SHALL CONTACT DIGSAFE (811 OR DIGSAFE.COM) TO NOTIFY MEMBER UTILITIES TO HAVE THE SITE MARKED PRIOR TO START OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK WITH SUCH UTILITIES.

EROSION CONTROL AND SOIL STABILIZATION:

1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE PROVIDENCE RIVER AND ANY PORTION OF THE CITY DRAINAGE SYSTEM AND/OR ADJACENT PROPERTY.

2. STAKED HAY BALES OR SILT FENCES SHALL BE INSTALLED AS REQUIRED TO PREVENT SEDIMENTATION INTO THE PROVIDENCE RIVER AND/OR ONTO ADJACENT PROPERTIES.

3. DISTURBED SLOPES SHALL NOT BE EXPOSED FOR EXCESSIVE PERIODS OF TIME. THE ONSITE SOILS HAVE A HIGH EROSION POTENTIAL. EXCAVATED SLOPES SHALL BE PROTECTED FROM EROSION (PLASTIC SHEETING, RIP RAP WITH FILTER FABRIC, OR OTHER EFFECTIVE MEASURES).

4. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED HAY BALES. STOCKPILES ARE NOT TO BE LEFT ON THE BEACH.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE DURING CONSTRUCTION AND SHALL INSPECT/REPLACE AS NEEDED.

6. SANDBAGS SHALL BE USED TO DIVERT STORM WATER RUNOFF AWAY FROM EXPOSED SLOPES AND INTO A NEARBY CATCH BASIN.

7. ADDITIONAL HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER, CITY REPRESENTATIVES OR REGULATORY AGENCY HAVING JURISDICTION.

8. THE CONTRACTOR SHALL REGULARLY SWEEP AND MAINTAIN BEACH ROAD AND BULLOCKS POINT AVENUE, KEEPING THEM FREE OF TRACKED SEDIMENT AND DEBRIS.

MAINTENANCE AND PROTECTION OF SITE:

1. ANY COST ASSOCIATED WITH ALL MAINTENANCE, POSITONING AND PROTECTION OF THE SITE PROTECTION COMPONENTS SUCH AS FENCING AND EROSION CONTROL SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.

2. ALL MAINTENANCE, POSITIONING AND PROTECTION OF SITE PROTECTION COMPONENTS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE PLANS AND AS SITE CONDITIONS DICTATE. CONSULT THE OWNER'S REPRESENTATIVE IN REGARD TO RESTRICTING PUBLIC ACCESS TO THE BEACH FRONT PORTION OF THE WORK ZONE. ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO PERFORMING ANY CONSTRUCTION OPERATIONS WHICH MAY POSE A HAZARD TO TRAFFIC.

3. TEMPORARY CONSTRUCTION SIGNS SHALL NOT BE PLACED SO THEY ENCR OACH ON OPEN LANES OF TRAFFIC.

4. ALL SIGNS AND BARRICADES ARE TO BE PLACED AND RELOCATED BY THE CONTRACTOR AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE COST FOR THE RELOCATIONS SHALL BE INCLUDED IN THE BASE BID.

5. ANY SUBCONTRACTORS EMPLOYED BY THE CONTRACTOR OR THE CITY OF EAST PROVIDENCE ON THIS PROJECT SHALL WORK WITHIN THE SAME PROTECTED WORK AREAS AS THE CONTRACTOR.

6. TEMPORARY CONSTRUCTION SIGNS AND DRUMS SHALL BE IN PLACE PRIOR TO THE START OF WORK.

REVETMENT DESIGN CRITERIA

1. ALL DIMENSIONS ARE IN DECIMAL FEET UNLESS OTHERWISE NOTED. ELEVATIONS ARE IN FEET REFERENCED TO NAVD88.

2. TIDAL RANGE IS 4.41 FEET ACCORDING TO THE NOAA STATION IN PROVIDENCE, RHODE ISLAND.

3. FEMA 100 YEAR (1%) SWL IS EL 11.6 FT NAVD88.

4. FEMA 100 YEAR (1%) MAXIMUM WAVE CREST ELEVATION IS 16.9 FT NAVD88 ALONG THIS PORTION OF SHORELINE.

5. BASE FLOOD ELEVATION (BFE) IS 20 FEET NAVD88 ALONG THIS PORTION OF THE SHORELINE.

6. THE CORRESPONDING 100 YEAR (1%) SIGNIFICANT WAVE HEIGHT IS 7.6 FT.

7. THE REVETMENT AREA IS DESIGNED FOR THE SIGNIFICANT WAVE HEIGHT OF 7.6 FT AND A MAXIMUM SLOPE OF 1:5.1.

8. FEMA HAS ISSUED THE PRELIMINARY FIS NO. 44007CV001D, REVISED JULY 19, 2023. THE TOP OF THE REVETMENT STONE HAS BEEN SET TO EL. 20 FEET TO REFLECT BFE PROVIDED FOR THE SITE IN THE PRELIMINARY FIS REPORT.

REVETMENT CONSTRUCTION NOTES

1. THE REVETMENT IMPROVEMENTS FOR THIS PROJECT SHALL INCLUDE THE SHORELINE BETWEEN THE EXISTING REVETMENT ALONG THE SOUTHERN PORTION OF THE PARK'S SHORELINE AND THE EXPERIMENTAL EROSION CONTROL AREA.

2. THE ARMOR STONES SHALL GENERALLY BE PLACED IN A TWO-LAYER THICKNESS.

3. ALL STONES USED IN THE CONSTRUCTION OF THE NEW REVETMENT SHALL BE HARD, DURABLE, AND CLEAN, WITHOUT CRACKS, CLEAVAGES OR LAMINATIONS. THEY SHOULD BE CHEMICALLY STABLE IN FRESH OR SALT WATER AND SHOULD NOT WEATHER DUE TO TEMPERATURE CHANGES OR WET/DRY CYCLES.

4. ARMOR STONES SHALL BE GRADED SUCH THAT THE SMALLEST DIMENSION SHOULD NOT BE LESS THAN ONE-THIRD OF THE LARGEST DIMENSION.

5. THE SIZE OF THE ARMOR STONES SHALL BE A MAXIMUM OF 1.25 W AND A MINIMUM OF 0.75 W (WHERE "W" IS THE AVERAGE WEIGHT SPECIFIED FOR THE PROJECT HEREIN). APPROXIMATELY 50 PERCENT OF THE STONES SUPPLIED FOR THIS PROJECT SHALL BE EQUAL TO, OR LARGER THAN, W.

6. ALL STONES SHALL BE MARKED WITH THEIR WEIGHT AT THE QUARRY BEFORE LOADING. THIS SHALL BE SPRAY PAINTED ON THE INDIVIDUAL STONES. ANY STONE NOT MARKED WILL BE REJECTED AND MUST BE RETURNED TO THE QUARRY.

7. ARMOR UNITS IN THE COVER LAYER SHALL BE PLACED IN AN ORDERLY MANNER TO OBTAIN GOOD WEDGING OR INTERLOCKING ACTION BETWEEN INDIVIDUAL UNITS. THE SAME IS REQUIRED FOR THE UNDERLAYER PLACEMENT, IF REQUIRED.

8. ARMOR STONES IN THE TOP LAYER SHALL BE PLACED TO CREATE A ROUGHENED SURFACE AT THE TOP. THEY SHALL NOT BE PLACED TO CREATE A SMOOTH SURFACE. A SMOOTH SURFACE WOULD PROMOTE GREATER RUNUP FROM WAVES. THE SURFACE SHOULD BE IRREGULAR TO BETTER REDUCE WAVE ENERGY TO PROVIDE RUNUP CONTROL AND WAVE DISSIPATION.

9. ARMOR UNITS SHALL BE PLACED IN A TIGHT MANNER TO ADJACENT STONES TO AVOID LARGE VOIDS. THIS SHALL REQUIRE THE OPERATOR PLACING THE STONES TO SELECT STONES WITH THE APPROPRIATE GEOMETRY. THE POROSITY OF THE NEW ARMOR LAYER SHALL NOT BE GREATER THAN 37% AFTER PLACEMENT. POROSITY IS DEFINED AS THE VOLUME OF THE VOIDS DIVIDED BY THE TOTAL VOLUME MULTIPLIED BY 100.

REVETMENT CONSTRUCTION NOTES CONTINUED

10. THE SOIL SUBGRADE REQUIRES THE USE OF GEOTEXTILE FABRICS BEFORE ARMOR STONE PLACEMENT. THREE LAYERS OF GEOTEXTILE FABRIC ARE REQUIRED AGAINST ALL SOIL/COBBLE INTERFACES ABOVE 0.0' MLW. THIS SHALL BE COMPRISE OF 2 LAYERS OF MIRAFI 140N OR EQUIVALENT PLACED ON THE SOIL WITH A LAYER OF MIRAFI 600X OR EQUIVALENT PLACED ABOVE. THE 140N IS REQUIRED TO ACT AS A FILTER TO STOP THE MIGRATION OF FINE SOIL INTO/THROUGH THE REVETMENT STONE. THE 600X IS REQUIRED TO PROTECT THE 140N FROM BEING DAMAGED BY THE LARGE STONES AND CONSTRUCTION ACTIVITY. ADDITIONAL LAYERS OF GEOTEXTILE FABRIC SHALL BE REQUIRED IF IT IS DETERMINED THAT THE 3 LAYER FABRIC SYSTEM IS BEING DAMAGED DURING CONSTRUCTION. CONTRACTOR SHALL NOT PUSH OR DRAG ARMOR STONE ON FILTER FABRIC AFTER PLACEMENT. A MINIMUM 12" OVERLAP AT SEAMS IS REQUIRED AFTER ALL STONE IS IN PLACE. THIS WILL REQUIRE AN INITIAL OVERLAP OF MORE THAN 12" PRIOR TO PLACEMENT OF STONE. FABRIC SHALL BE INSTALLED LOOSELY.

DEMOLITION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) ALL MATERIALS INDICATED ON THE PLANS UNLESS OTHERWISE NOTED HEREIN. R&D MATERIALS TO INCLUDE BUT NOT LIMITED TO PAVEMENT, EXCESS SOIL, TEMPORARY RIP-RAP, VEGETATION, TIMBER STAIRS, AND DEBRIS ON BEACH ALONG THE ALIGNMENT OF THE REVETMENT. THE EXISTING CONDITIONS SHOWN ON THE PLAN ARE ASSUMED BASED ON THE SURVEY PLAN PROVIDED TO FREG. CONTRACTOR SHOULD CARRY CONTINGENCY IN PRICING FOR DIFFERENCES IN CONDITIONS SHOWN, INCLUDING BUT NOT LIMITED TO:

1.1. DISCOVERY OF ABANDONED STRUCTURES OR FOOTINGS.

1.2. PAVEMENT, CURBING, OR CONCRETE AREAS WITH ATYPICAL DEPTHS OR FOOTINGS

1.3. DISCOVERY OF ABANDONED OR ACTIVE UTILITIES

2. HOURS OF CONSTRUCTION OPERATIONS ARE TO BE PER LOCAL ORDINANCES. WEEKEND WORK MAY BE LIMITED BY THE CITY. CITY TO PROVIDE WRITTEN APPROVAL FOR ALL WEEKEND WORK.

3. CLEARING AND GRUBBING IS NOT TO EXTEND BEYOND THE LIMIT OF WORK.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND PROTECTING ALL EXISTING SITE FEATURES TO REMAIN. ANY DAMAGE TO SAID FEATURES SHALL BE REPAIRED OR REPLACED AT THE OWNER'S DISCRETION AND AT THE CONTRACTOR'S EXPENSE.

5. CONTRACTOR SHALL INSTALL TEMPORARY PROTECTION MEASURES WHILE WORKING NEAR THE TIMBER STAIRCASE. ANY DAMAGE TO THE STAIRS WILL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE CITY.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DUMPED MATERIALS FROM THE PROJECT, INCLUDING BUT NOT LIMITED TO GARBAGE, TRASH AND LIKE MATERIAL. THE PROPER DISPOSAL OF MATERIAL SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING UTILITIES TO REMAIN AND PROTECTING DAMAGE DURING DEMOLITION OPERATIONS. THE SITE CONTRACTOR IS RESPONSIBLE FOR ALL REPLACEMENT AND COORDINATION COSTS ASSOCIATED WITH ANY DAMAGE TO EXISTING ACTIVE UTILITIES.

8. CONTRACTOR SHALL COORDINATE WITH THE CITY TO LOCATE AND REPAIR IRRIGATION LINES WHICH BECOME DAMAGED DURING DEMOLITION.

9. ALL INACTIVE UTILITY LINES, PIPES, AND STRUCTURES DISCOVERED TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED AND DISPOSED UNLESS OTHERWISE NOTED.

10. INACTIVE UTILITIES NOT IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR ANY UNDERGROUND STRUCTURES MAY BE ABANDONED IN PLACE UNLESS OTHERWISE NOTED ON THE PLANS.

11. ACTIVE UTILITY LINES AND STRUCTURES NOT SPECIFICALLY NOTED ON THE PLANS, SHALL BE LOCATED AND THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER AND OWNER. NO WORK TO RELOCATE, REMOVE OR ABANDON THESE UTILITIES SHALL BE PERFORMED UNLESS WRITTEN APPROVAL FROM THE UTILITY COMPANIES AND ENGINEER IS OBTAINED.

12. CONTRACTOR SHALL COORDINATE THE CUTTING AND CAPPING OF ALL EXISTING UTILITY CONNECTIONS WITH ALL APPLICABLE COMPANIES HAVING JURISDICTION.

PLANTING NOTES:

1. DELIVER SHRUBS WHICH ARE BALLED AND BURLAPPED OR IN NURSERY CONTAINERS. ALL PLANTS ARE TO BE HEALTHY, VIGOROUS AND FREE OF INSECTS AND DISEASE.

2. ALL PLANTINGS BEDS ARE TO BE COVERED WITH 2" OF SHREDDED HARDWOOD BARK MULCH.

3. RECOMMENDED PLANTING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.

4. THE CONTRACTOR SHALL WARRANTY ALL PLANTS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS INCLUDING DEPTH AND UNSATISFACTORY GROWTH.

5. ANY PLANT WHICH IS NOT HEALTHY AND GROWING VIGOROUSLY AFTER ONE YEAR SHALL BE REPLACED BY THE CONTRACTOR.

LOADING AND SEEDING

1. AFTER ROUGH GRADING IS COMPLETED, ALL DISTURBED AREAS WHICH ARE LABELED AS GRASS OR WAS PREVIOUSLY GRASS COVERED, ARE TO BE BROUGHT TO AN ELEVATION OF 4" BELOW FINISHED GRADE. IF COMPACTED, THE SUBGRADE IS TO BE SCARIFIED TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE TO RESULT IN AN UNCOMPACTED SUBSOIL. THEN 6" OF GOOD QUALITY TOPSOIL IS TO BE APPLIED AND RAKED TO FINISHED GRADE.

2. THE TOPSOIL IS TO BE GOOD QUALITY LOAM, FERTILE AND FREE OF WEEDS, STICKS, AND STONES OVER 3/4" IN SIZE AND OTHERWISE COMPLYING WITH SECTION M.18.01 OF THE RI DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

3. PRIOR TO SEEDING OR SODDING, FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 2" OF THE PLANTING SOILS. APPLY AT A RATE OF 8 LBS. PER 1000 SQUARE FEET.

4. LIME IS TO BE APPLIED AT A RATE OF ONE TON PER ACRE AND UNIFORMLY INCORPORATED INTO THE TOP 2" OF TOPSOIL.

5. SEED SHALL BE URI #2 IMPROVED MIX OR APPROVED EQUAL. APPLY AT A RATE OF 5 TO 7 POUNDS PER 1000 SQUARE FEET.

6. RECOMMENDED SEEDING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.

7. RATHER THAN SEEDING AS DESCRIBED ABOVE, THE CONTRACTOR MAY HYDROSEED USING AN EQUIVALENT SEED MIX.

REFERENCE PLANS, DESIGN AND DETAIL/SPEC DOCUMENTS

1. EXISTING TOPOGRAPHIC AND GENERAL CONDITIONS INFORMATION IN THE ANTICIPATED CONSTRUCTION AREA IS FROM THE AUTOCAD FILE TITLED "2020050.DWG", PROVIDED ELECTRONICALLY TO FREG ON MARCH 31, 2021 BY THE CITY OF EAST PROVIDENCE. A LIMITED SURVEY OF THE EMERGENCY REVETMENT WORK WAS CONDUCTED DECEMBER 14, 2021 PRIOR TO COMPLETION OF THE EMERGENCY WORK. THE AUTOCAD FILES PROVIDED, WAS USED TO CREATE THE BASE PLAN FOR THESE DRAWINGS. EXISTING CONDITIONS SHOWN ARE APPROXIMATE.

2. HORIZONTAL CONDITIONS, PROPERTY LINES AND BUILDING LOCATIONS, ETC, ARE SHOWN ON THE SURVEY PLANS REFERENCED ABOVE.

3. EXISTING SITE GRADES MAY VARY FROM WHAT IS SHOWN DUE TO RECENT EROSION FROM DEC. 23, 2022 STORM. VARIATIONS MAY INCLUDE, BUT NOT LIMITED TO SITE GRADE, EXISTING STRUCTURE GEOMETRY AND STRUCTURE LOCATION.

4. FEMA FLOOD INSURANCE STUDY 44007CV001C, PROVIDENCE COUNTY, RHODE ISLAND, REVISED OCTOBER 2, 2015.

5. FEMA FLOOD INSURANCE STUDY 44007CV001D, PROVIDENCE COUNTY, RHODE ISLAND, REVISED JULY 19, 2023.

6. US ARMY CORPS OF ENGINEERS SHORE PROTECTION MANUAL, 1984

7. COASTAL CONSTRUCTION MANUAL, FEMA 55

ABBREVIATIONS

N.I.C.

NOT IN CONTRACT

U.O.N.

UNLESS OTHERWISE NOTED

N.T.S.

NOT TO SCALE

I.A.W.

IN ACCORDANCE WITH

TYP.

TYPICAL

R&D

REMOVE AND DISPOSE

F&I

FURNISH AND INSTALL

BIT.

BITUMINOUS CONCRETE

N/F

NOW OR FORMERLY

F.F.

FINISH FLOOR

T.O.F.

TOP OF FOUNDATION

M.P.L.

MARINA PERIMETER LINE

FREG

FR ENGINEERING GROUP, INC.

S.F.

SQUARE FOOT

A.P.

ASSESSORS PLAT

EXTG

EXISTING

SMH

SEWER MANHOLE

DMH

WATER MANHOLE

MIN.

MINIMUM

MHW

MEAN HIGH WATER

MHHW

MEAN HIGHER HIGH WATER

MTL

MEAN TIDE LEVEL

MSL

MEAN SEA LEVEL

MLW

MEAN LOW WATER

MLLW

MEAN LOWER LOW WATER

SWL

STILL WATER LEVEL

DATUM INFORMATION

INFORMATION FOR NOAA TIDAL ELEVATION STATION 8454000 LOCATED IN PROVIDENCE, RHODE ISLAND - VERTICAL DATUM IS NAVD88

STEPHANIE M. ROBAT

REGISTERED PROFESSIONAL ENGINEER CIVIL 3/23/23

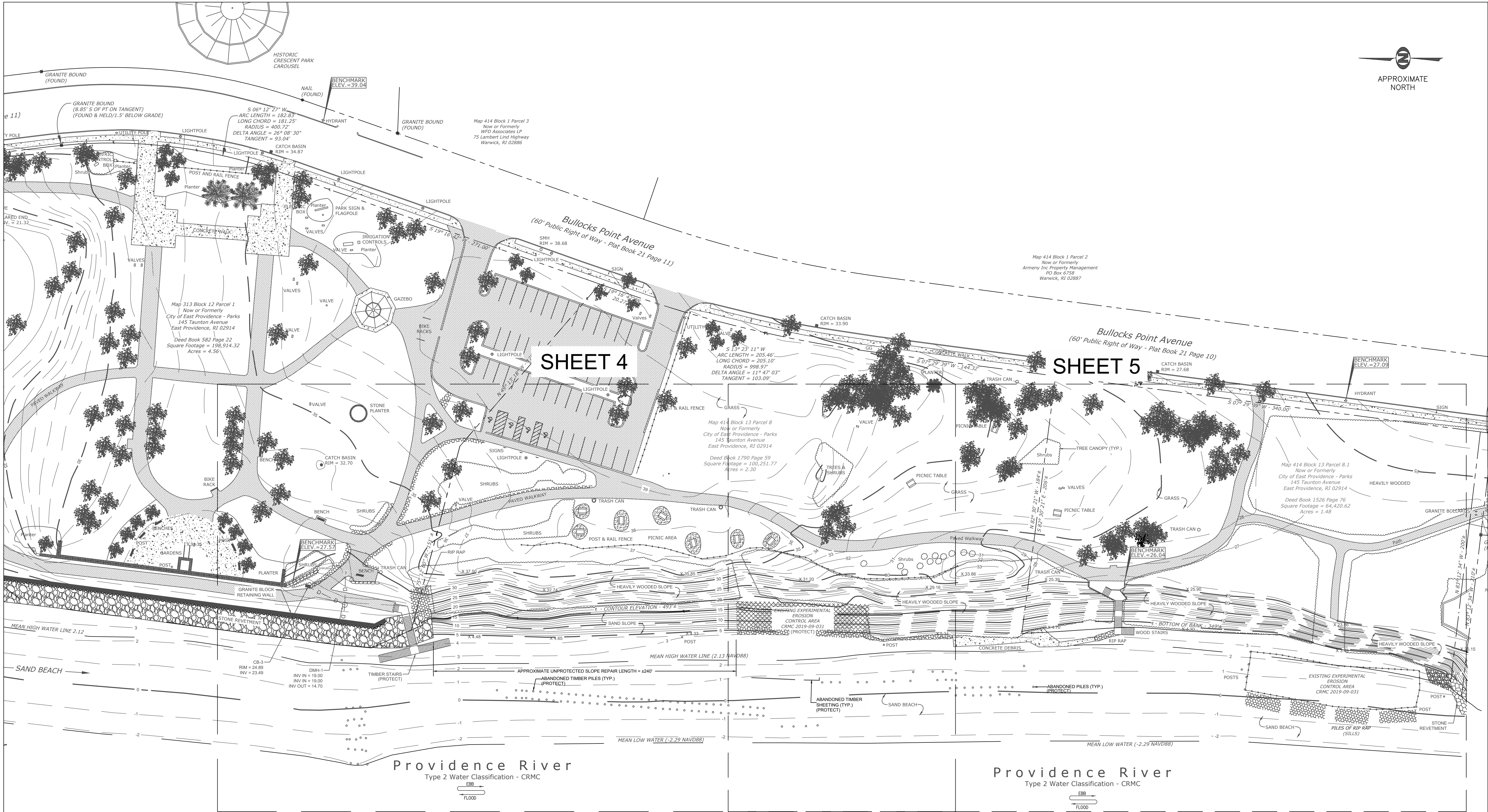
ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND

GENERAL NOTES

PERMIT PLAN SET
NOT FOR CONSTRUCTION

DATE:
MARCH 23, 2023
DESIGN BY: SMR
DRAWN BY: SJR
CHECKED BY: SMR
PROJECT NUMBER:
22006.00

C-2
SHEET 2 OF 1



LEGEND

- | | | | | | |
|--|------------------------------|--|--------------------------|--|---------------|
| | EXISTING (PRE-STORM) CONTOUR | | EXISTING STONE WALL | | PROPERTY LINE |
| | EXISTING OVERHEAD WIRES | | EXISTING UTILITY POLE | | |
| | EXISTING SEWER MANHOLE | | EXISTING LIGHT POLE | | |
| | EXISTING DRAINAGE MANHOLE | | EXISTING WATER GATE | | |
| | EXISTING CATCH BASIN | | EXISTING HYDRANT | | |
| | EXISTING BUILDING | | EXISTING RIP RAP | | |
| | EXISTING SPOT GRADE | | EXISTING STONE REVETMENT | | |

1 EXISTING CONDITIONS - PRE-STORM
SCALE: 1" = 40'

NOTES:

- THIS BASE PLAN WAS DEVELOPED FROM THE FOLLOWING AUTOCAD DWG FILE:
A. '2020050.DWG' BY THE CITY OF EAST PROVIDENCE DEPARTMENT OF PUBLIC WORKS - ENGINEERING DEPARTMENT.
- THE FIELD SURVEY FOR THE BASE PLAN WAS COMPLETED BY THE DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION ON AUGUST 7, 2020 AND DOES NOT REFLECT RECENT CHANGES TO SITE CONDITIONS. SEE C-5 FOR APPROXIMATE LIMITS OF AREAS WITH RECENT EROSION.



0 20 40 80
FULL SCALE (22X34 PRINT): 1" = 40'
HALF SCALE (11X17 PRINT): 1" = 80'

FR ENGINEERING GROUP
2346 Post Road, Suite 202
Warwick, RI 02886
401-575-1669
stephanie.rob@fr-eng.com

REVISION DESCRIPTION	DATE	BY

ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND
EXISTING CONDITIONS PLAN
PRE-STORM OVERALL PLAN

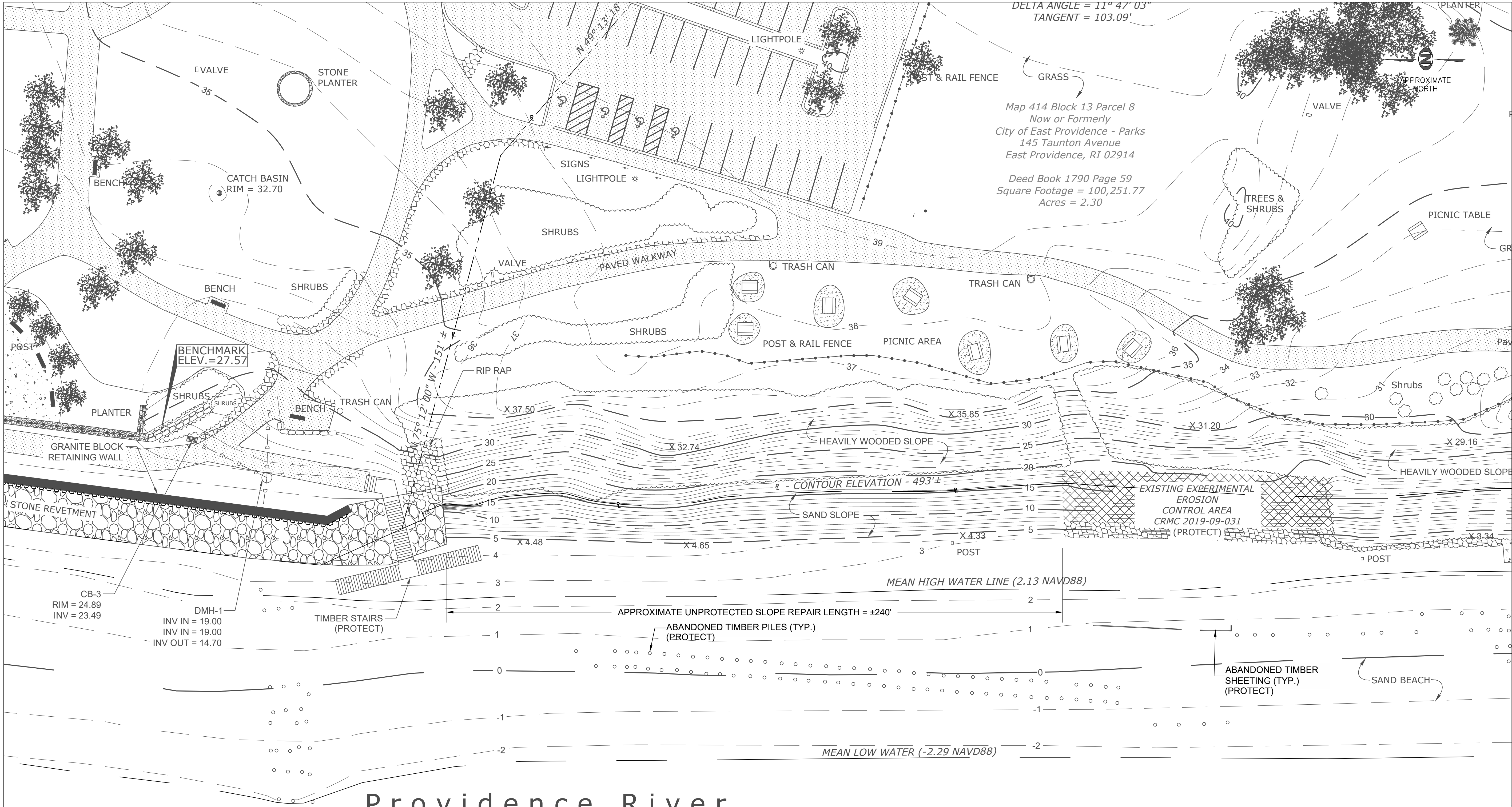
PERMIT PLAN SET
NOT FOR CONSTRUCTION

DATE:
MARCH 23, 2023
DESIGN BY: SMR
DRAWN BY: SJR
CHECKED BY: SMR

PROJECT NUMBER:
22006.00

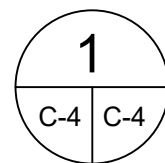
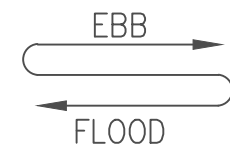
C-3
SHEET 3 OF 11





Providence River

Type 2 Water Classification - CRMC



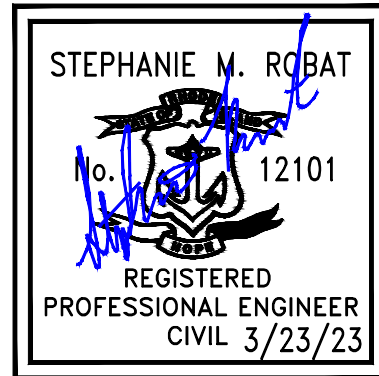
EXISTING CONDITIONS - PRE-STORM

SCALE: 1" = 20'

- LEGEND**
- EXISTING PRE-STORM CONTOUR
 - EXISTING OVERHEAD WIRES
 - EXISTING SEWER MANHOLE
 - EXISTING DRAINAGE MANHOLE
 - EXISTING CATCH BASIN
 - EXISTING BUILDING
 - EXISTING SPOT GRADE
 - PROPERTY LINE
 - EXISTING STONE WALL
 - EXISTING UTILITY POLE
 - EXISTING LIGHT POLE
 - EXISTING WATER GATE
 - EXISTING HYDRANT
 - EXISTING RIP RAP
 - EXISTING STONE REVETMENT

NOTES:

- THIS BASE PLAN WAS DEVELOPED FROM THE FOLLOWING AUTOCAD DWG FILE:
A. '2020050.DWG' BY THE CITY OF EAST PROVIDENCE DEPARTMENT OF PUBLIC WORKS - ENGINEERING DEPARTMENT.
- THE FIELD SURVEY FOR THE BASE PLAN WAS COMPLETED BY THE DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION ON AUGUST 7, 2020 AND DOES NOT REFLECT RECENT CHANGES TO SITE CONDITIONS. SEE C-5 FOR APPROXIMATE LIMITS OF AREAS WITH RECENT EROSION.



0 10 20 40
FULL SCALE (22X34 PRINT): 1" = 20'
HALF SCALE (11X17 PRINT): 1" = 40'

FR ENGINEERING GROUP

2346 Post Road, Suite 202
Warwick, RI 02886
stephanie.rob@fr-eng.com
401-575-1669

ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND

EXISTING CONDITIONS PLAN - PRE-STORM
1 OF 2

PERMIT PLAN SET
NOT FOR CONSTRUCTION

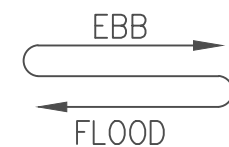
DATE:
MARCH 23, 2023
DESIGN BY: SMR
DRAWN BY: SJR
CHECKED BY: SMR

PROJECT NUMBER:
22006.00

C-4
SHEET 4 OF 11



Type 2 Water Classification - CRMC



SCALE: 1" = 20'

1. THIS BASE PLAN WAS DEVELOPED FROM THE FOLLOWING AUTOCAD DWG FILE:
A. '2020050.DWG' BY THE CITY OF EAST PROVIDENCE DEPARTMENT OF PUBLIC WORKS - ENGINEERING DEPARTMENT.
2. THE FIELD SURVEY FOR THE BASE PLAN WAS COMPLETED BY THE DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION ON AUGUST 7, 2020 AND DOES NOT REFLECT RECENT CHANGES TO SITE CONDITIONS. SEE C-5 FOR APPROXIMATE LIMITS OF AREAS WITH RECENT EROSION.

0 10 20 40
FULL SCALE (22X34 PRINT): 1" = 20'
HALF SCALE (11X17 PRINT): 1" = 40'

FRENGINEERING
GROUP

2346 Post Road, Suite 202 401-575-1569
Warwick, RI 02886 stephanie.robat@fr-eng.com

[illegible]

ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND

EXISTING CONDITIONS PLAN - PRE-STORM
2 OF 2

**PERMIT PLAN
SET**

**NOT FOR
CONSTRUCTION**

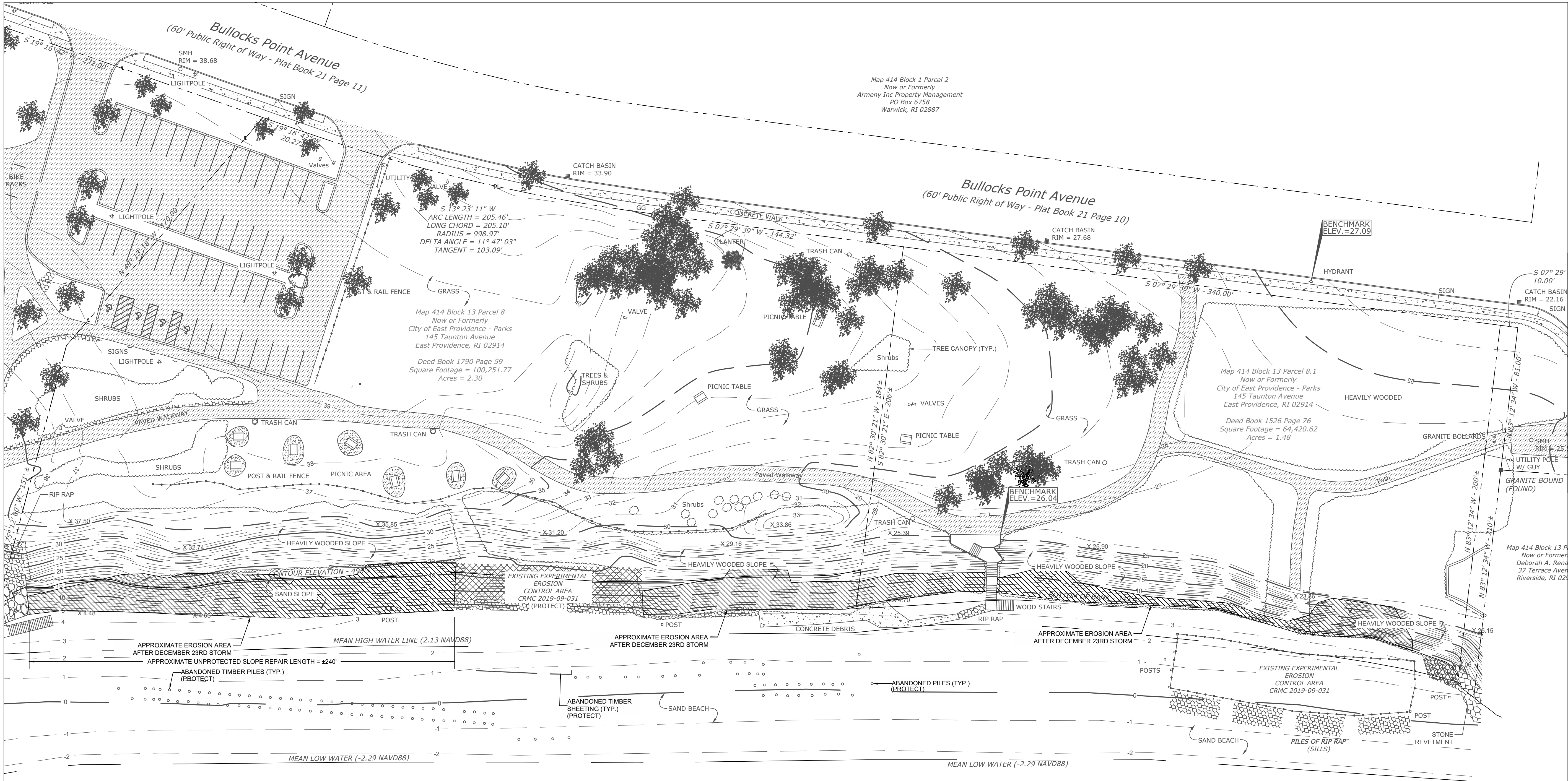
DATE:
MARCH 23, 2023

DESIGN BY: SMR
DRAWN BY: SJR
CHECKED BY: SMR

PROJECT NUMBER:
22006.00

C-5
SHEET 5 OF 11

RECEIVED
3/29/2023
COASTAL RESOURCES
MANAGEMENT COUNCIL



Providence River
Type 2 Water Classification - CRMC

Providence River
Type 2 Water Classification - CRMC

- LEGEND**
- | | | | |
|--|---------------------------|--|--|
| | EXISTING CONTOUR | | EXISTING STONE WALL |
| | EXISTING OVERHEAD WIRES | | EXISTING UTILITY POLE |
| | EXISTING SEWER MANHOLE | | EXISTING LIGHT POLE |
| | EXISTING DRAINAGE MANHOLE | | EXISTING WATER GATE |
| | EXISTING CATCH BASIN | | EXISTING HYDRANT |
| | EXISTING BUILDING | | EXISTING RIP RAP |
| | EXISTING SPOT GRADE | | EXISTING STONE REVETMENT |
| | PROPERTY LINE | | INDICATES APPROXIMATE AREAS OF EROSION FROM 12/23/22 STORM |

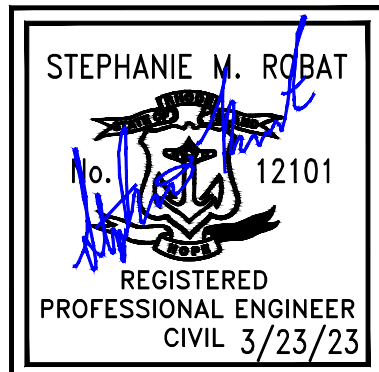
1
C-6 C-6

EXISTING CONDITIONS WITH APPROXIMATE AREAS OF EROSION

SCALE: 1" = 30'

NOTE:

1. APPROXIMATE AREAS OF EROSION FROM VISUAL SURVEY ON DECEMBER 29, 2022.



0 15 30 60
FULL SCALE (22X34 PRINT): 1" = 30'
HALF SCALE (11X17 PRINT): 1" = 60'

FR ENGINEERING GROUP

2346 Post Road, Suite 202
Warwick, RI 02886
401-575-1669
stephanie.robato@fr-eng.com

REVISION	DESCRIPTION	DATE	BY

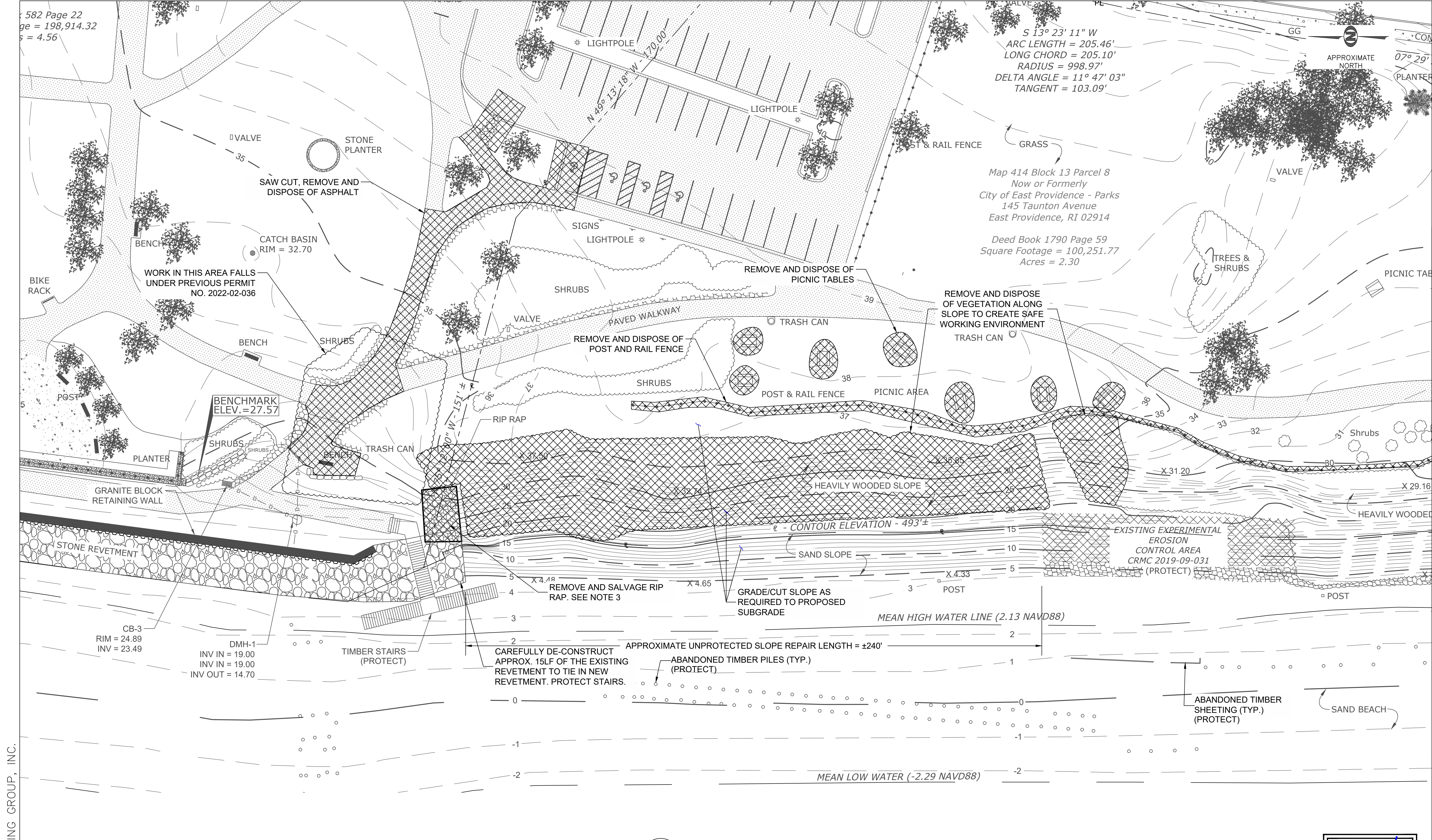
ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND
SLOPE EROSION LOCATIONS
POST-STORM

PERMIT PLAN SET
NOT FOR CONSTRUCTION

DATE:
MARCH 23, 2023
DESIGN BY: SMR
DRAWN BY: ADS/SJR
CHECKED BY: SMR
PROJECT NUMBER:
22006.00

C-6
SHEET 6 OF 11





- NOTES:
- THIS BASE PLAN WAS DEVELOPED FROM THE FOLLOWING AUTOCAD DWG FILE:
A. '2020050.DWG' BY THE CITY OF EAST PROVIDENCE DEPARTMENT OF PUBLIC WORKS - ENGINEERING DEPARTMENT.
 - THE SURVEY FOR THE BASE PLAN WAS CONDUCTED PRIOR TO THE COMPLETION OF THE NORTHERN REVETMENT. THE LOCATION OF THE NORTHERN REVETMENT IS APPROXIMATE.
 - CONTRACTOR SHALL CAREFULLY REMOVE ARMOR STONES AT ABUTTING REVETMENT WITHOUT DAMAGING THE EXISTING FILTER FABRIC AND STAIRS. A CRANE OR SPECIALTY EXCAVATOR IS REQUIRED TO PICK UP THE STONES. USE OF AN EXCAVATOR WITHOUT A THUMB WILL NOT BE ALLOWED. DAMAGE TO ANY EXISTING STRUCTURE WILL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY AND CITY'S ENGINEER AT NO COSTS TO THE CITY. SALVAGED ARMOR STONE TO BE USED TO CONSTRUCT NEW REVETMENT.

LEGEND:
INDICATES AREA IS INCLUDED IN DEMOLITION PLAN

1 DEMOLITION PLAN
SCALE: 1" = 20'



0 10 20 40
FULL SCALE (22X34 PRINT): 1" = 20'
HALF SCALE (11X17 PRINT): 1" = 40'

ENGINEERING GROUP
2346 Post Road, Suite 202
Warwick, RI 02886
401-575-1669
stephanie.rob@fr-eng.com

REVISION	DATE	BY

ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND

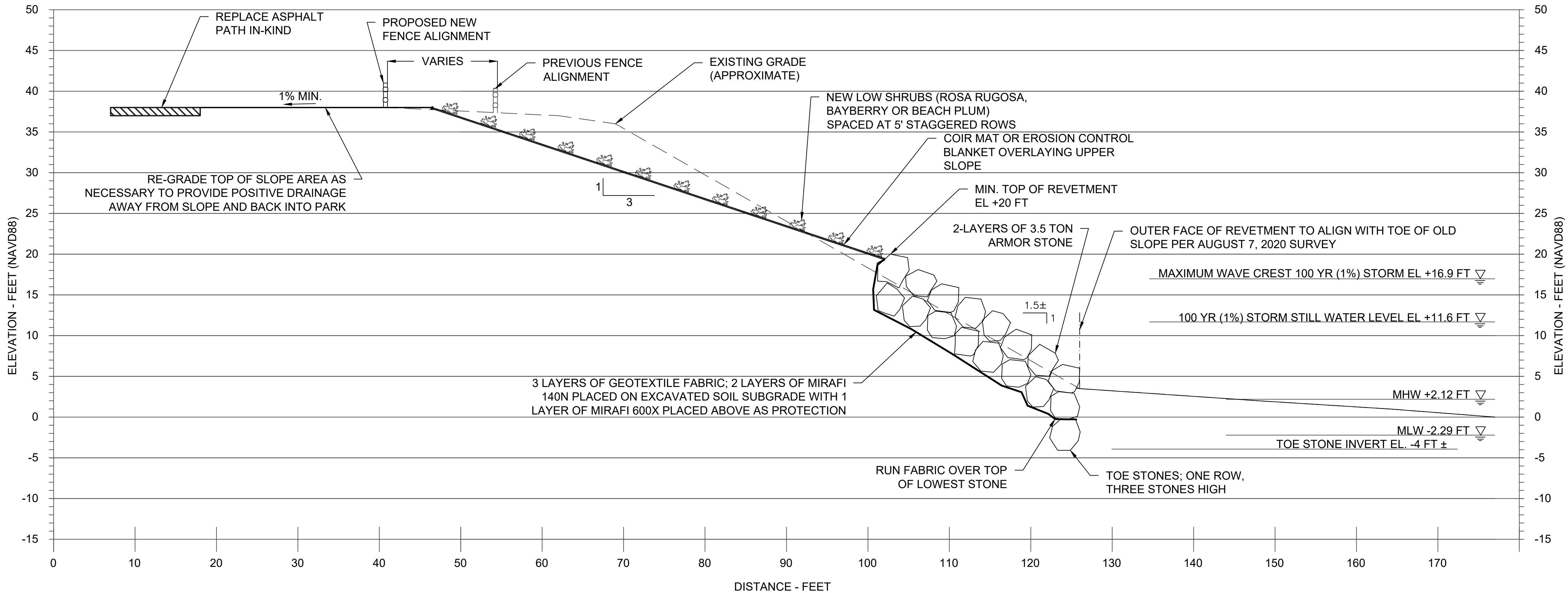
DEMOLITION PLAN

PERMIT PLAN SET
NOT FOR CONSTRUCTION

DATE: MARCH 23, 2023
DESIGN BY: SMR
DRAWN BY: SJR
CHECKED BY: SMR
PROJECT NUMBER: 22006.00

C-7
SHEET 7 OF 11

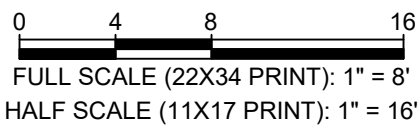
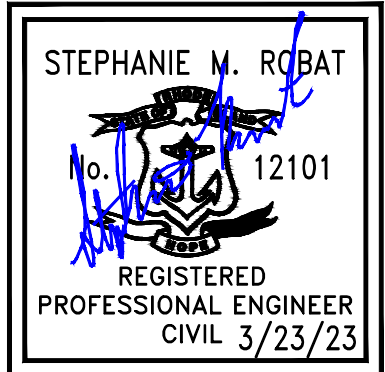




1 TYPICAL REVETMENT SECTION
SCALE: 1" = 8'

NOTES:

1. A TWO ARMOR STONE LAYER REVETMENT SYSTEM IS SHOWN. A THIRD LAYER OF STONE MAY BE REQUIRED DEPENDING ON THE ACTUAL SIZE AND GEOMETRY OF THE STONES PLACED TO MEET THE MINIMUM TOP OF REVETMENT ELEVATION.
2. RECENTLY ERODED AREAS ARE NOT REFLECTED IN THE SHOWN APPROXIMATE EXISTING GRADE.
3. FEMA HAS ISSUED THE PRELIMINARY FIS NO. 44007CV001D, DATED JULY 19, 2023 FOR PROVIDENCE COUNTY, RHODE ISLAND. THE TOP OF THE REVETMENT STONE HAS BEEN SET TO EL. +20 FT TO REFLECT THE BFE PROVIDED FOR THE SITE IN THE PRELIMINARY REPORT.



REVISION DESCRIPTION	DATE	BY

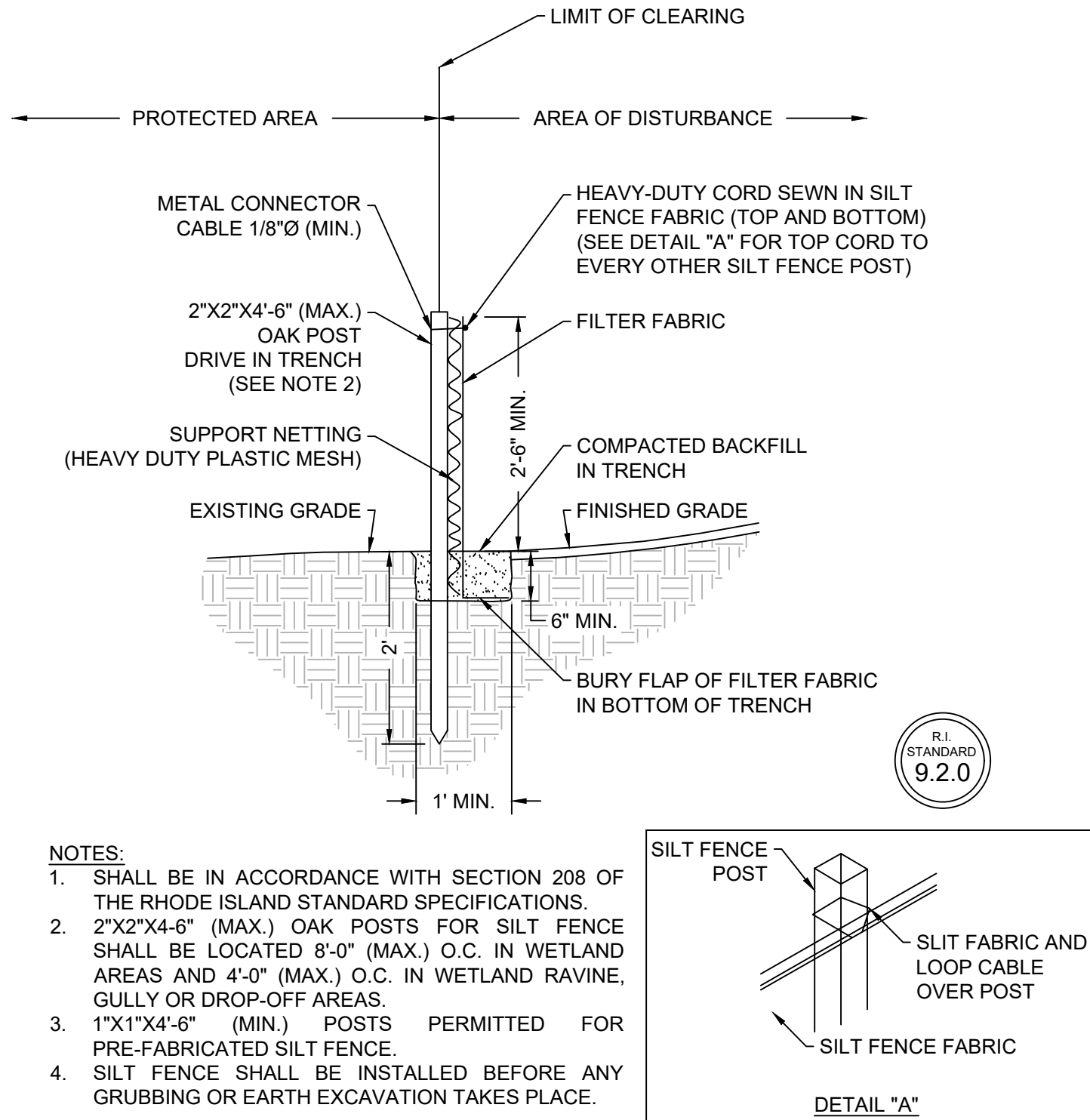
ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND
TYPICAL SLOPE REPAIR SECTION

PERMIT PLAN SET
NOT FOR CONSTRUCTION

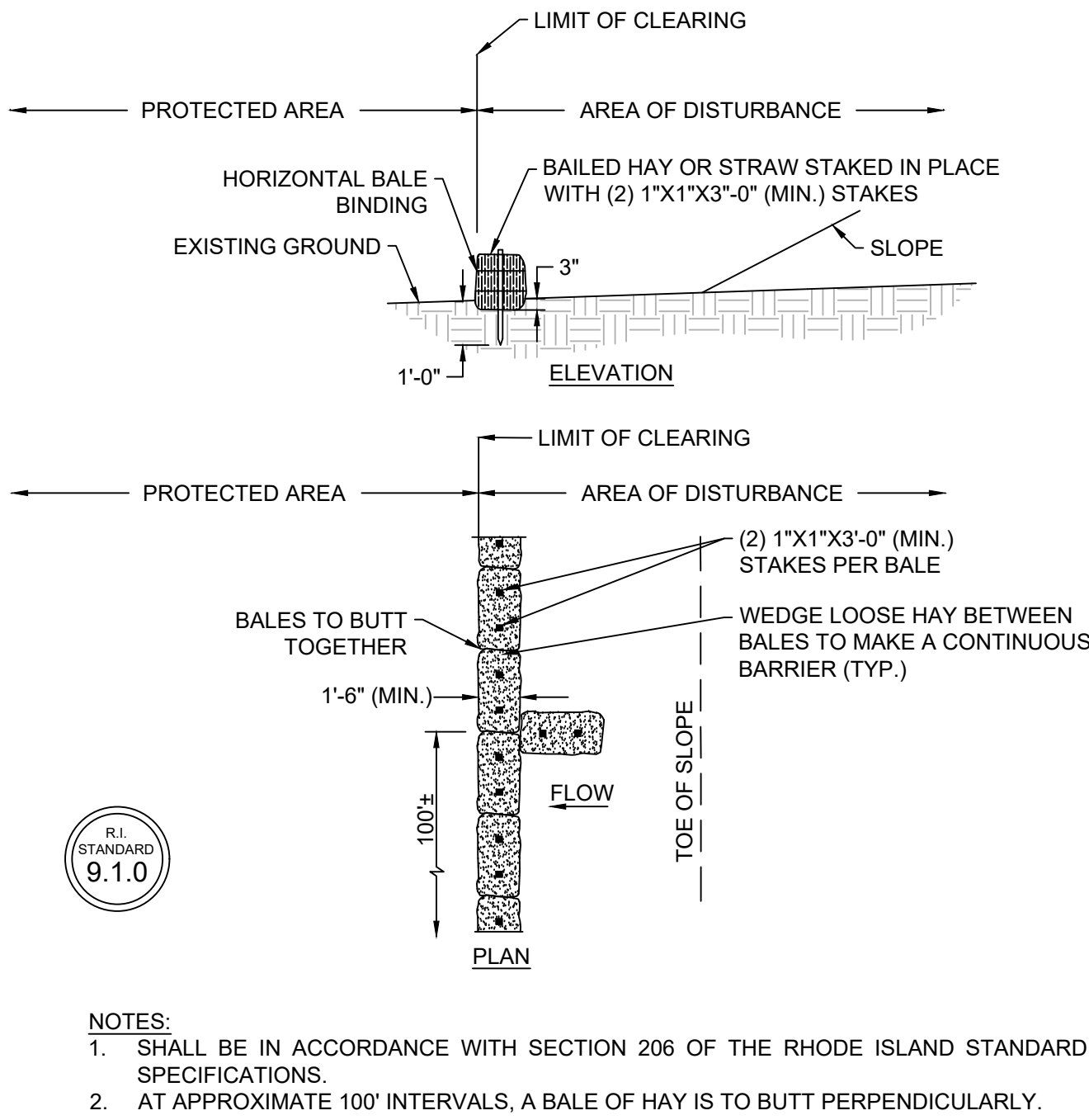
DATE:
MARCH 23, 2023
DESIGN BY: SMR
DRAWN BY: SMR
CHECKED BY: SJR
PROJECT NUMBER:
22006.00

C-9
SHEET 9 OF 11

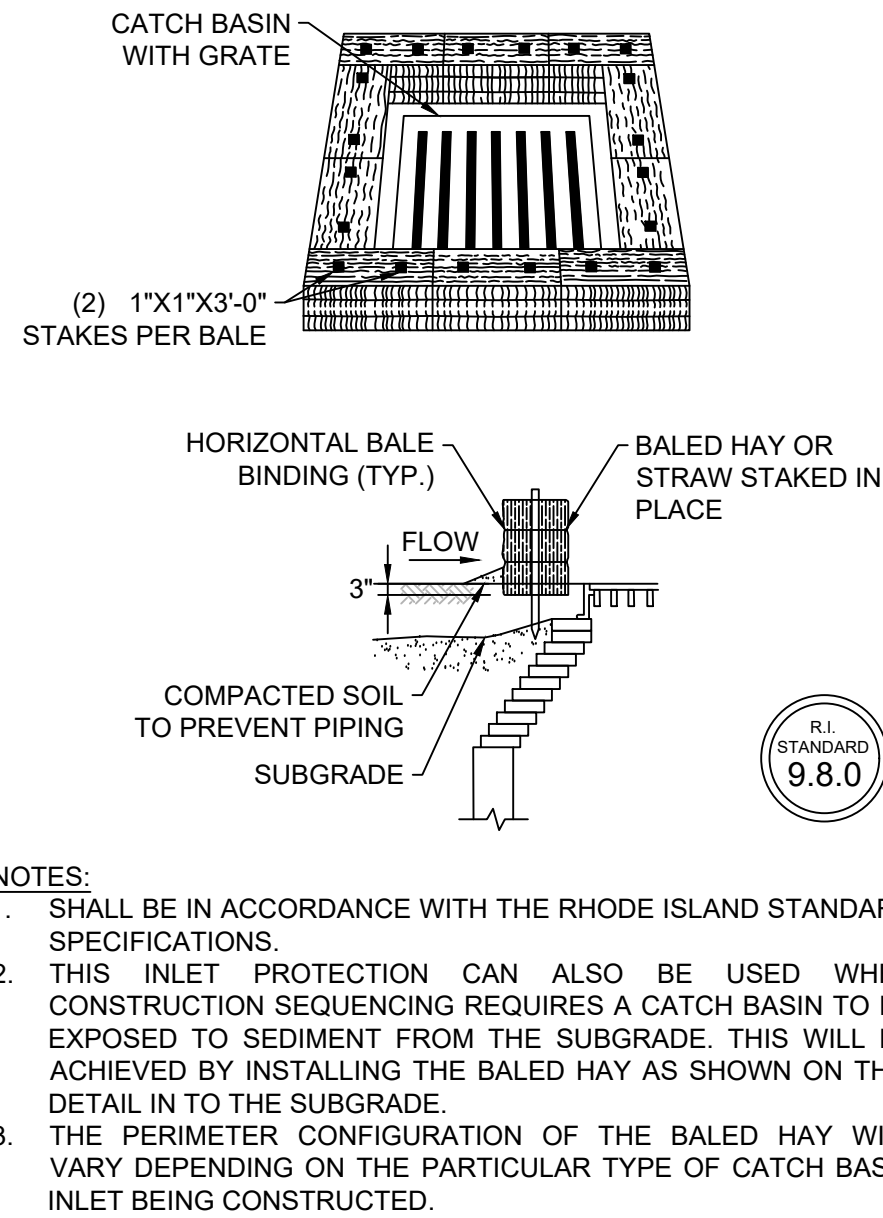




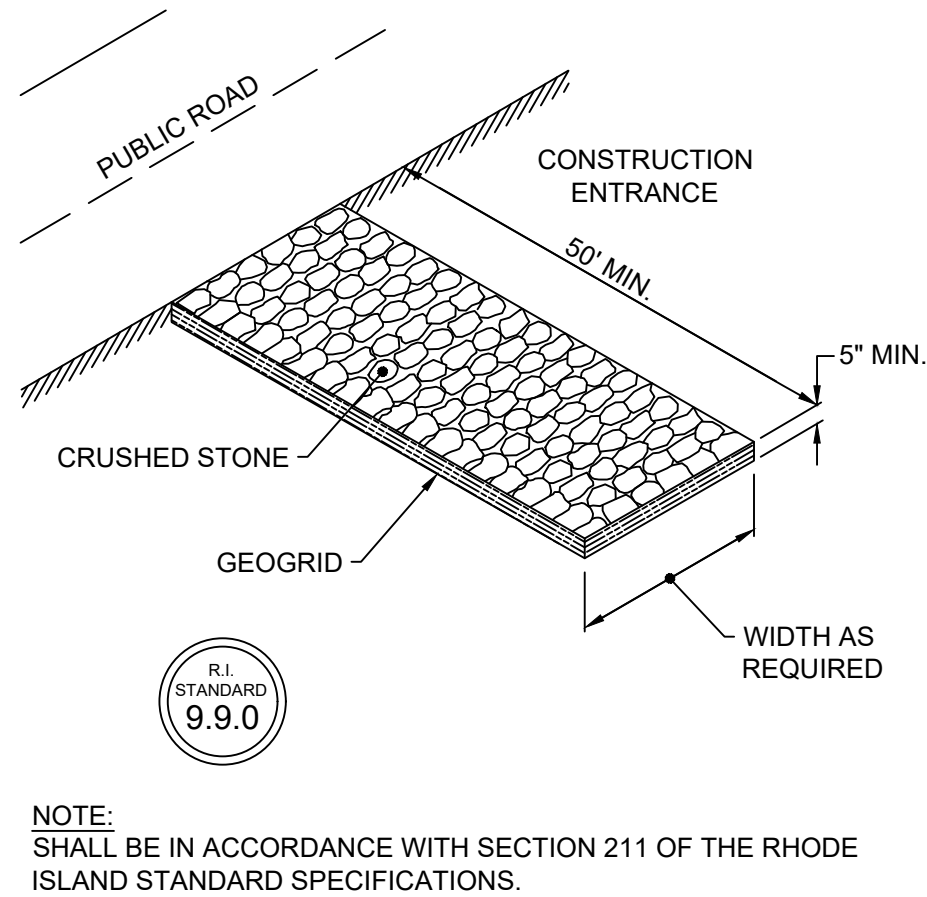
A SILT FENCE
C-10 C-10 SCALE: NTS



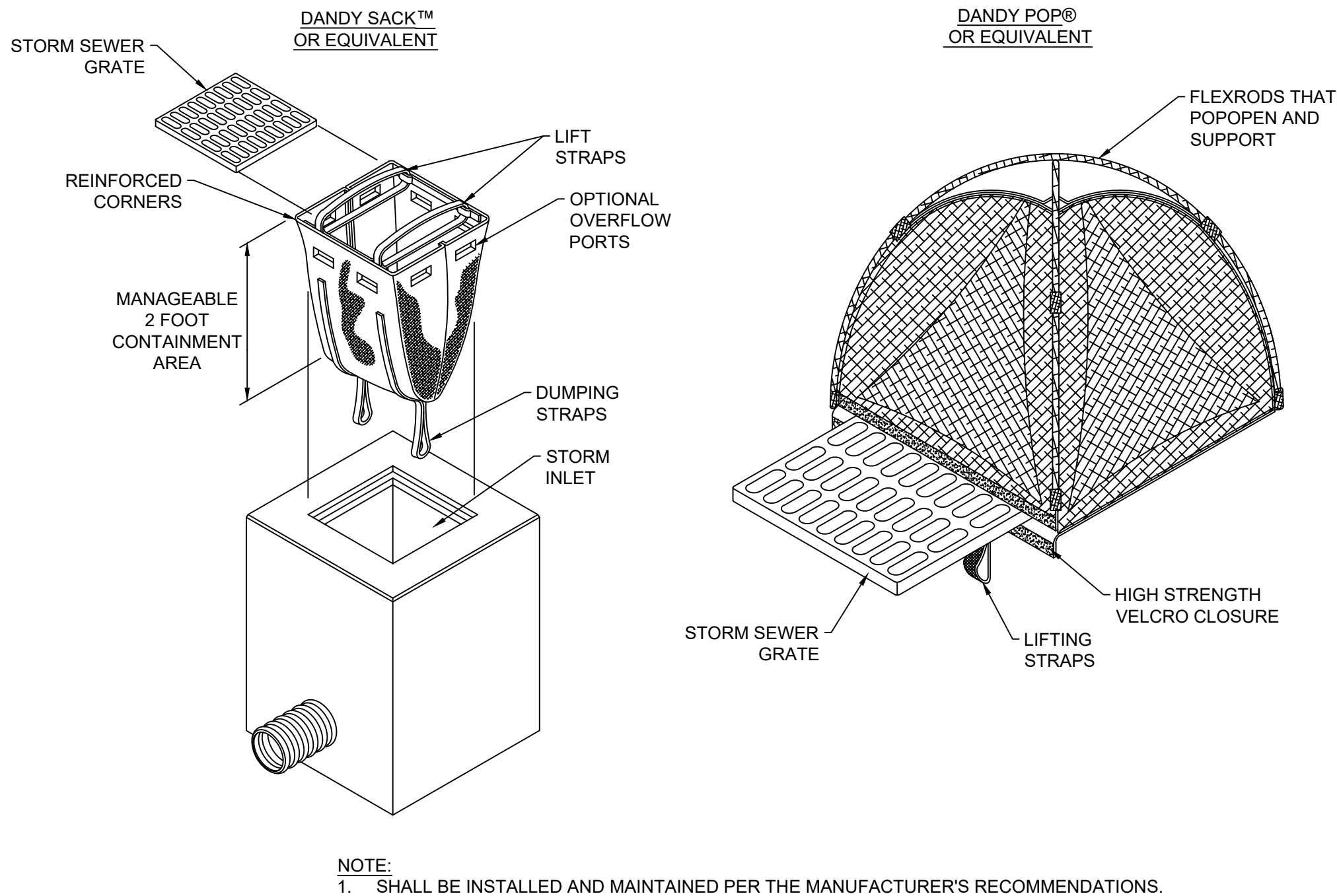
B BALED HAY EROSION CHECK
C-10 C-10 SCALE: NTS



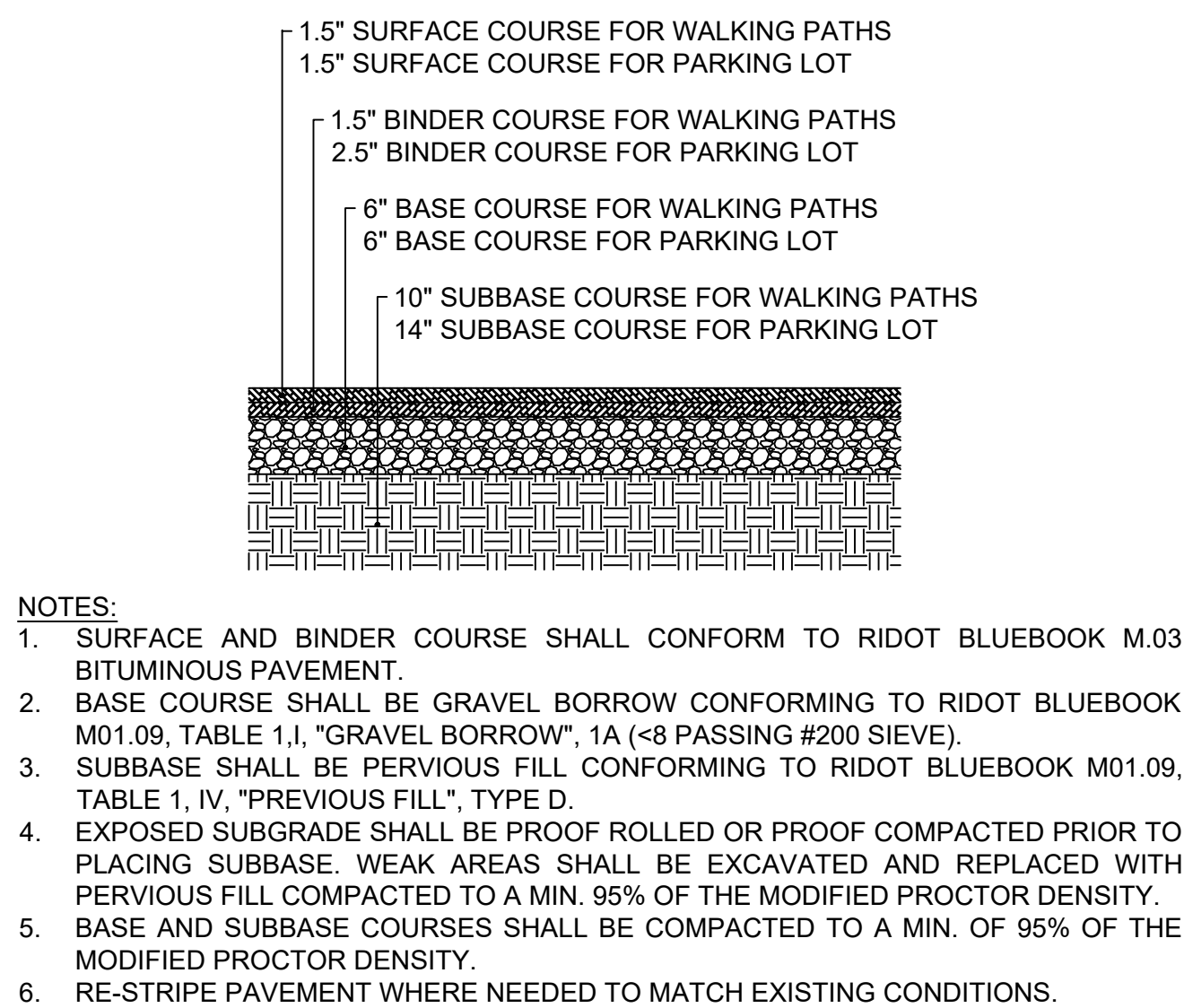
C BALED HAY CATCH BASIN INLET PROTECTION
C-10 C-10 SCALE: NTS



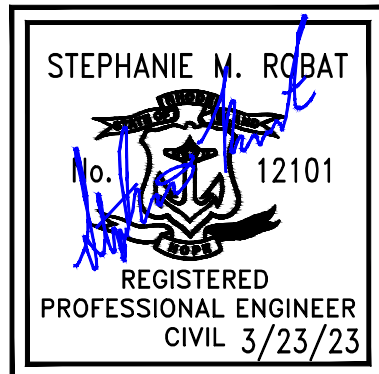
D CONSTRUCTION ENTRANCE
C-10 C-10 SCALE: NTS



E CATCH BASIN SEDIMENT PROTECTION
C-10 C-10 SCALE: NTS



F PAVEMENT
C-10 C-10 SCALE: NTS



REVISION DESCRIPTION	DATE	BY

ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND

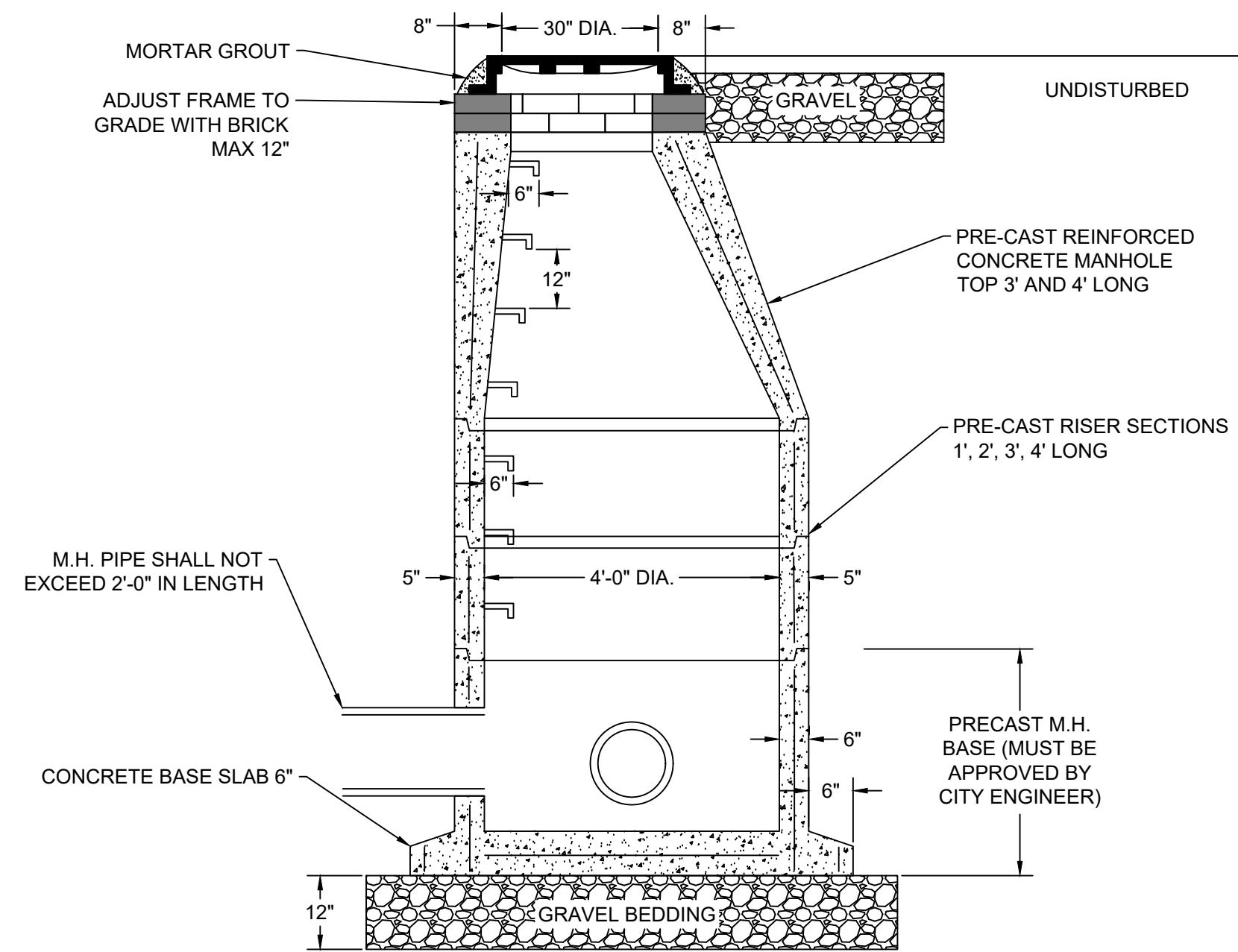
TYPICAL DETAILS
1 OF 2

PERMIT PLAN SET
NOT FOR CONSTRUCTION

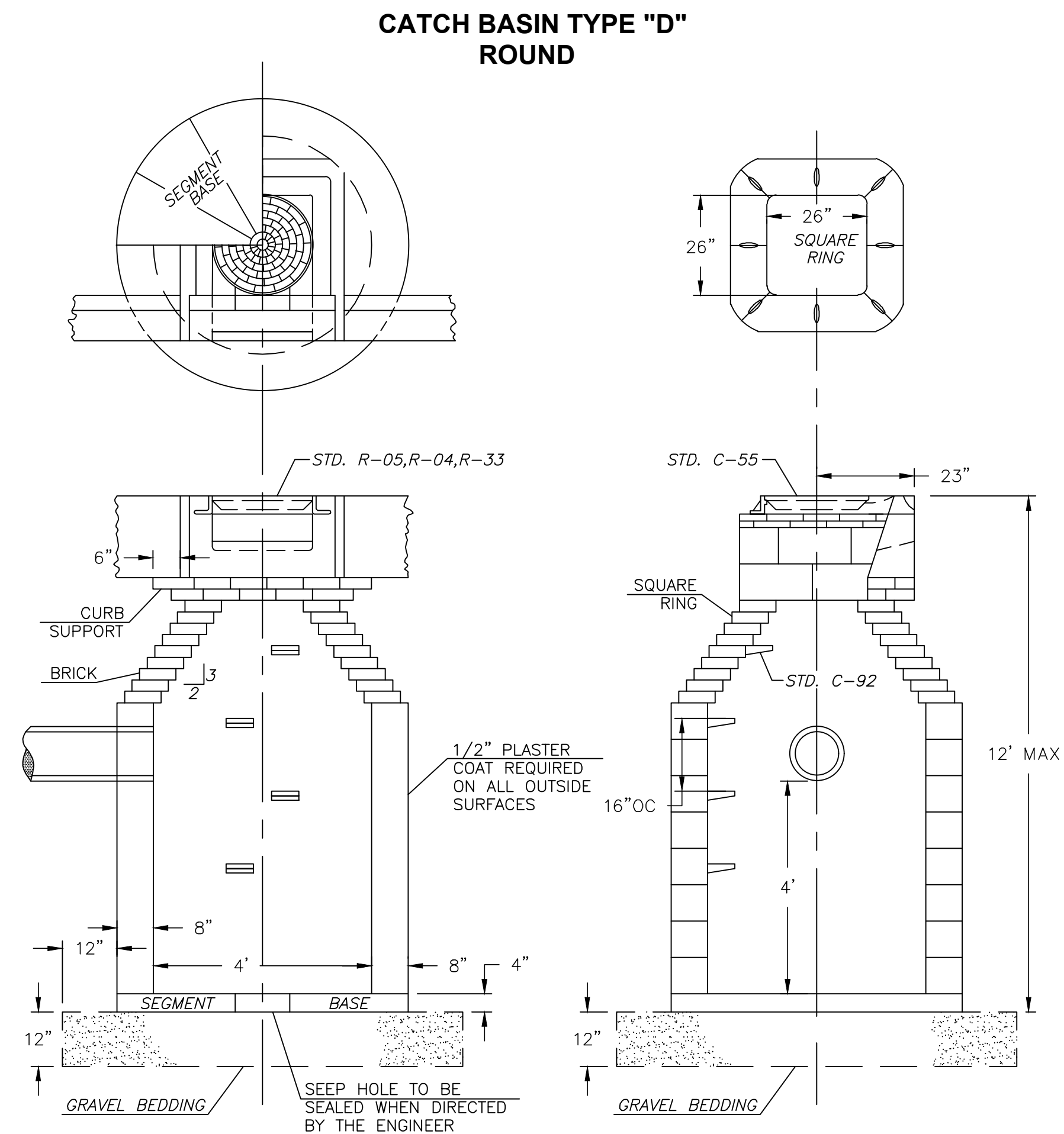
DATE:
MARCH 23, 2023
DESIGN BY: SMR
DRAWN BY: SJR
CHECKED BY: SMR
PROJECT NUMBER:
22006.00

C-10
SHEET 10 OF 11



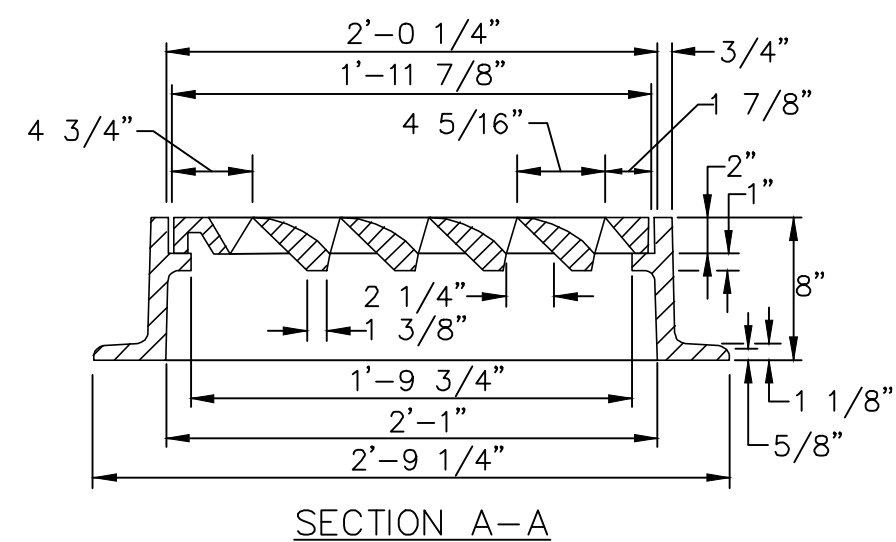
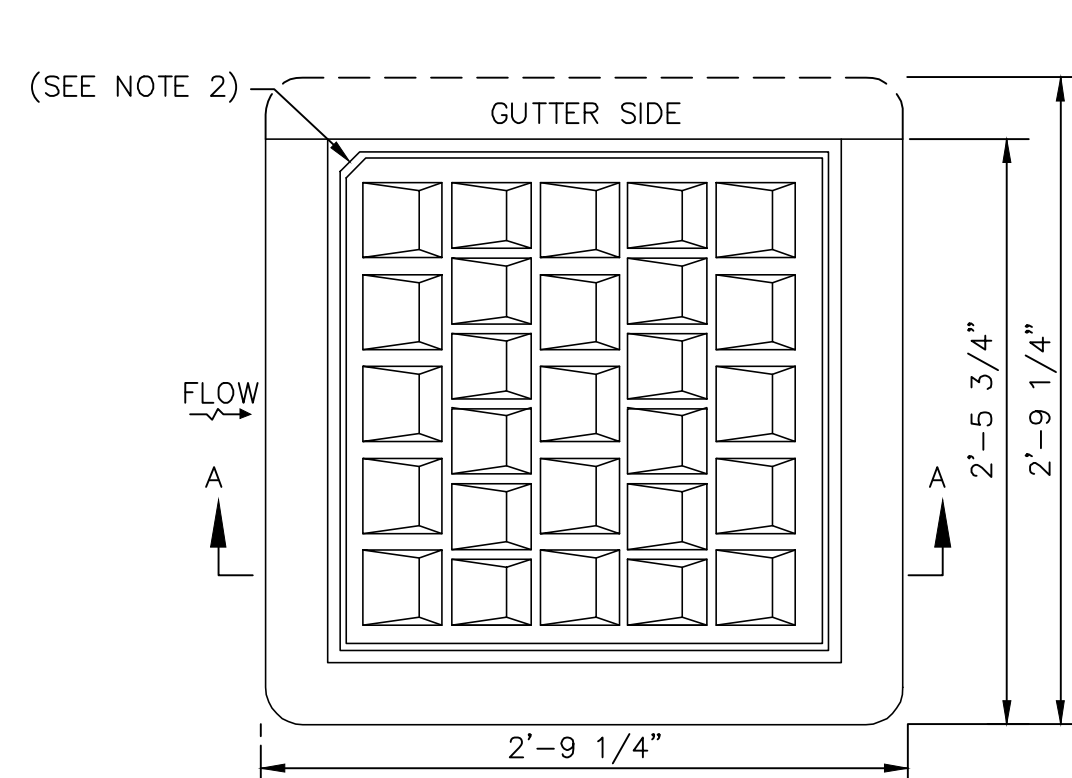


DRAINAGE MANHOLE



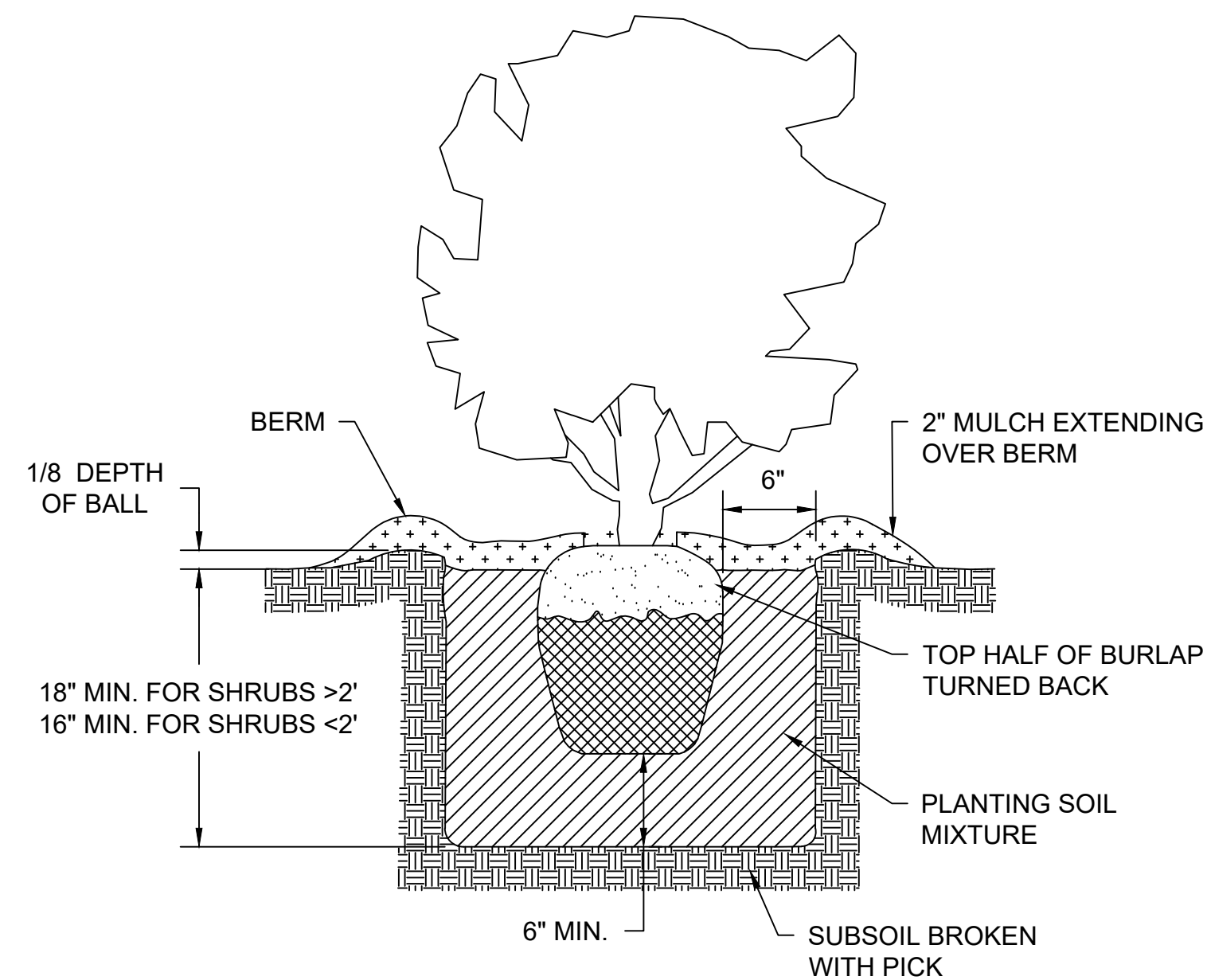
CATCH BASIN DETAIL

SCALE: NTS



- NOTES:
1. FRAME AND COVER SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
 2. THIS CORNER LEFT FOR "LEFT" GRATE, DIAGONALLY OPPOSITE CORNER FOR "RIGHT" GRATE TO FIT IN KEYED FRAME.

Technical drawing of a bicycle safe frame and grate. The drawing shows a circular frame with a central grate. The frame is labeled "C-11" on both sides. The grate is labeled "I" at the top and "C-11" at the bottom. The drawing is titled "HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)" and "SCALE: NTS".



J **SHRUB DETAIL**
C-11 C-11 SCALE: NTS

ENGINEERING
GROUP

2346 Post Road, Suite 202
Warwick, RI 02886

401-575-1569
stephanie.robata@fr-eng.com

[illegible]

ROSE LARISA MEMORIAL PARK
EMERGENCY SLOPE REPAIRS
EAST PROVIDENCE, RHODE ISLAND

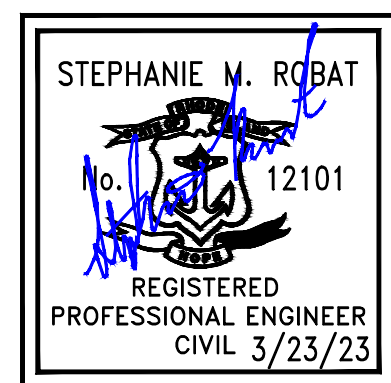
TYPICAL DETAILS
2 OF 2

**PERMIT PLAN
SET**

**NOT FOR
CONSTRUCTION**

DATE: MARCH 23, 2023
DESIGN BY: SMR DRAWN BY: SJR CHECKED BY: SMR
PROJECT NUMBER: 22006.00

C-11



1 RECEIVED
3/29/2023
COASTAL RESOURCES
MANAGEMENT COUNCIL