

SITE PLANS
FOR
MILL RIVER TOWNHOUSES

ASSESSOR'S MAP 21, LOT 214

ZONING DISTRICT: R-4
HIGH DENSITY SINGLE & MULTI-FAMILY RESIDENTIAL DISTRICT
256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND

OWNER/APPLICANT:

CT RENOVATION AND DESIGN, LLC
25 CRAWFORD STREET
WOONSOCKET, RI 02895

ENGINEERS and LAND SURVEYORS



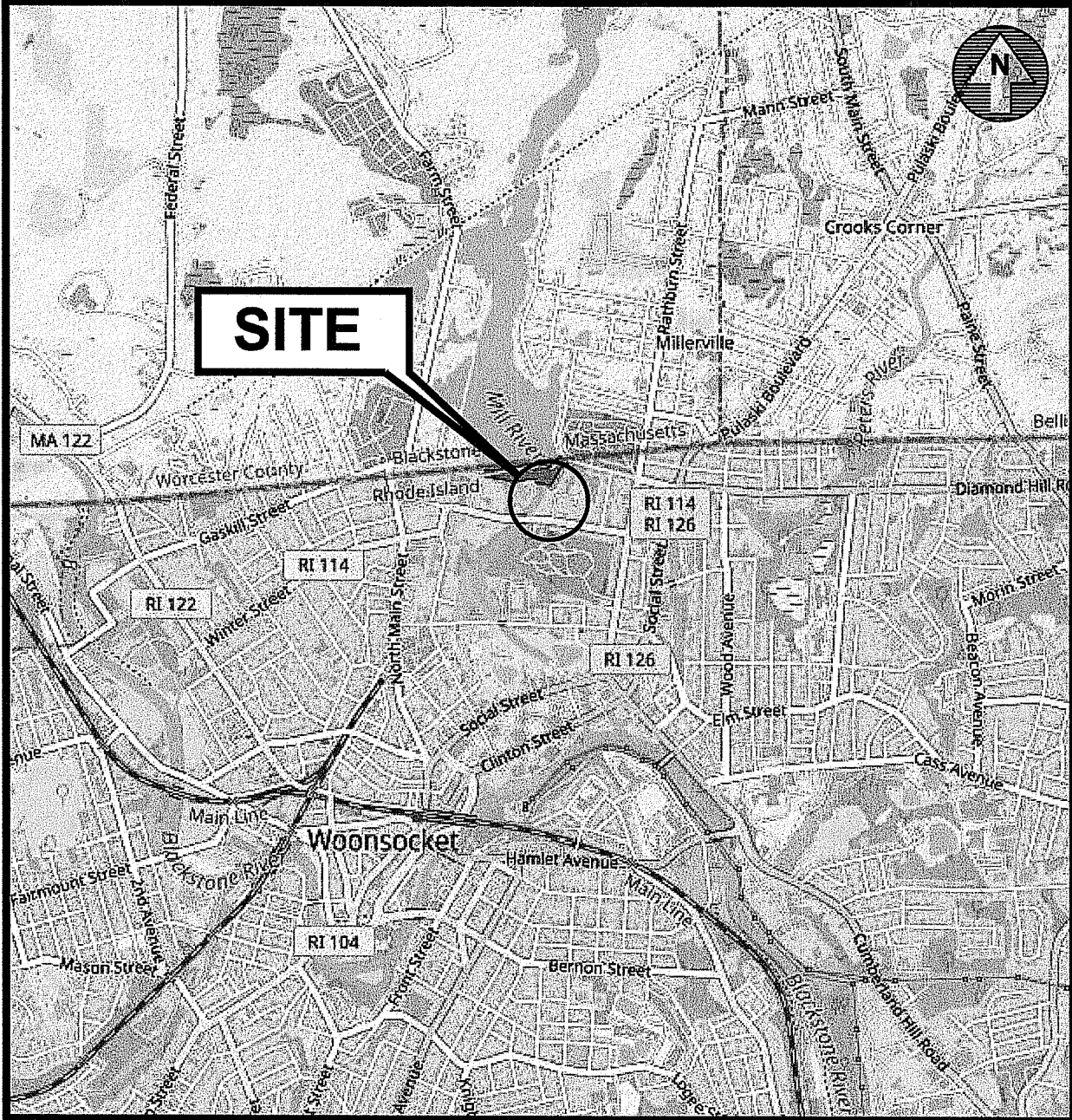
- Civil
- Transportation
- Environmental
- Site Planning
- Surveying
- Permitting
- Landscape Architecture

Crossman Engineering

Rhode Island
100 Jefferson Blvd,
Suite 200
Warwick, RI 02888
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Email: cel@crossmaneng.com

Massachusetts
1 George Leven Drive,
Suite 200
North Attleboro, MA 02760
Phone (508) 695-1700

MARCH 2024
SHEET 1 of 19

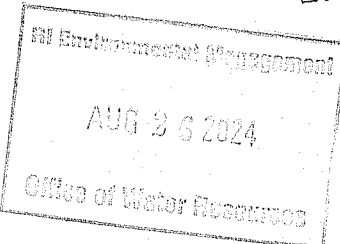


LOCATION MAP
NOT TO SCALE

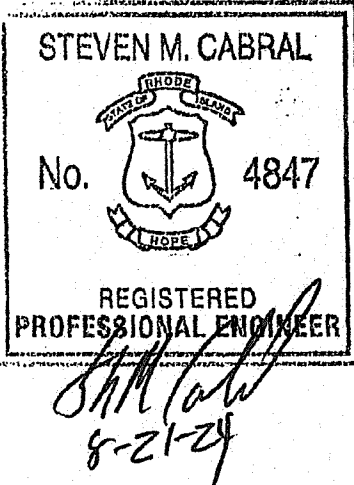
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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED: SEP 26 2024 FILE #: 24-010
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
NOTE PER DEM:
Kindly be advised that this Permit
is not equivalent to a
verification of the type or extent
of freshwater wetlands on site



REVISIONS:

No.:	DATE:	DESCRIPTION:
1	05-20-24	PRELIMINARY PLAN
2	07-15-24	RIDEM COMMENTS

THERE MAY BE ADDITIONAL UNKNOWN UTILITIES ON SITE. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY THE R.I. LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY CITY, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE PLANS MAY NOT DEPICT ALL UNDERGROUND UTILITY SYSTEMS.

2. FOR ALL EXCAVATION, PLACEMENT OF FILL, BITUMINOUS PAVEMENT, CURB, CONCRETE AND SAWCUTTING, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED MARCH 2018, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. THE "METHOD OF MEASUREMENT" AND "BASIS OF PAYMENT" WITHIN THE R.I.D.O.T. SPECIFICATIONS ARE NOT APPLICABLE. THESE SPECIFICATIONS CAN BE OBTAINED ON--LINE AT:

[HTTP://WWW.DOT.R.I.GOV/BUSINESS/BLEUBOOK.PHP](http://www.dot.r.i.gov/business/bluebook.php)

3. FOR ALL EXCAVATION AND PLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE R.I. STANDARD SPECIFICATION SECTION 202.

4. RHODE ISLAND STANDARDS REFERENCED ARE ACCORDING TO THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS "RHODE ISLAND STANDARD DETAILS" DATED June 21, 2021, WITH ALL REVISIONS AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION.

5. THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS 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 ASPECTS OF ON--SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING ITEMS OUTSIDE THE SCOPE OF WORK.

6. 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. THE BID PRICE SHALL INCLUDE ALL LABOR, INCIDENTALS, TOOLS EQUIPMENT, TESTING, 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 ACCEPTABLE TO THE ENGINEER AND OWNER.

7. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS, GRADES AND DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.

8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT PRIOR TO THE INITIATION OF WORK. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS, RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

9. ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN.

10. ADDITIONAL CURB AND SIDEWALK REMOVAL AND REPLACEMENT MAY BE REQUIRED WHEN MATCHING NEW CURB AND SIDEWALK TO EXISTING AT EXPANSION JOINTS. IF REQUIRED, THIS TASK SHALL BE INCLUDED IN THE PROJECT SCOPE AT NO ADDITIONAL COST TO THE OWNER.

11. ADA RAMPS SHALL HAVE A DETECTABLE WARNING DEVICE/PAD IN ACCORDANCE WITH LOCAL AND STATE GUIDELINES (R.I. STD. 48.1.0) OR APPROVED EQUAL.

THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN, AND PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL LAND SURVEYOR (PLS) REGISTERED IN THE STATE TO SET AND VERIFY ALL LINES AND GRADES. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEM FOUND WHICH DOES NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.

1. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AND OWNER TO OBTAIN THE LOCATION OF ALL UTILITIES PRIOR TO BEGINNING WORK. THE MARKED LOCATIONS SHALL BE PRESERVED BY THE CONTRACTOR DURING THE COURSE OF THE WORK, UNTIL SUCH TIME AS THEY ARE NO LONGER NEEDED.
2. ALL UTILITIES INTERFERED WITH OR DAMAGED BY THE CONTRACTOR SHALL BE IMMEDIATELY AND PROPERLY RESTORED BY THE CONTRACTOR. THE CONTRACTOR SHALL FULLY COMPACT ALL BACKFILL MATERIAL AROUND AND UNDER ALL EXISTING UTILITIES ENCOUNTERED OR CROSSED.
3. THE CONTRACTOR SHALL BE AWARE THAT THERE MAY BE AN UNDERGROUND UTILITIES INCLUDING ELECTRIC ON SITE WITHIN THE SIDEWALK LOCATION. THE CONTRACTOR SHALL CONTACT DIG SAFE AND THE APPLICABLE UTILITY COMPANIES TO COORDINATE DEMOLITION AND CONSTRUCTION OPERATIONS ON SITE.

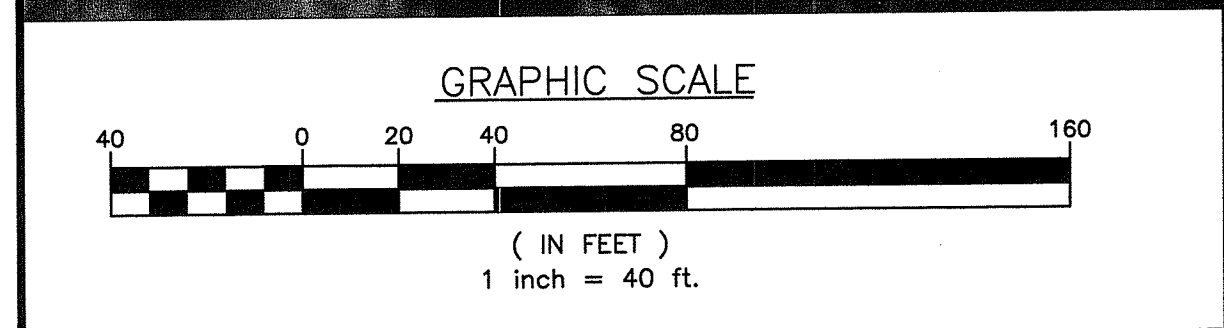
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING POLICE PROTECTION IF REQUIRED. ALL TEMPORARY CONSTRUCTION SIGNS, BARRICADES AND LANE CLOSURES SHALL BE IN CONFORMANCE WITH THE LATEST REVISIONS OF MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
2. TEMPORARY CONSTRUCTION SIGNS AND ALL APPLICABLE PEDESTRIAN AND VEHICLE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF WORK IN ANY AREA OPEN TO PEDESTRIAN OR VEHICLE TRAFFIC.
3. THE CONTRACTOR IS REQUIRED TO COORDINATE WORK WITH OWNER AND CITY PRIOR TO CONSTRUCTION.
4. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELLING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION, INCLUDING REVISION 2, MAY 2012, AND SUBSEQUENT ADDENDA.
5. SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE STATE D.O.T. SPECIFICATIONS FOR TEMPORARY CONSTRUCTION SIGNS.
6. SPECIAL CARE SHALL BE GIVEN TO THE CONSTRUCTION OF THE SIDEWALK AREAS USED BY PEDESTRIANS. CONTRACTOR SHALL CLOSE OFF SIDEWALKS TO PREVENT POTENTIAL HAZARD CONDITIONS TO PEDESTRIANS UNAWARE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROTECTION AROUND WORK AREAS.

THE SITE IS LOCATED IN ZONE AE, SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD. OTHER FLOOD AREAS ZONE X AND OTHER AREA ZONE X, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, PROVIDENCE COUNTY, RHODE ISLAND, MAP NUMBER 44007C0069G, PANEL 69 OF 451, MAP REVISED MARCH 2, 2009.

SOIL EVALUATIONS WERE CONDUCTED BY CROSSMAN ENGINEERING ON OCTOBER 18, 2021.

SEASONAL HIGH WATER TABLE WAS INCONCLUSIVE DUE TO
FILL OVER HYDRIC CONDITIONS AND DEPTH OF FILL.







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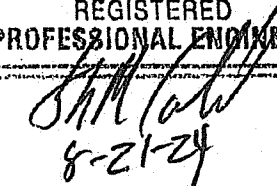
Email: cei@crossmaneng.com

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STEVEN M. CABRAL

No. 4847

REGISTERED PROFESSIONAL ENGINEER


8-21-24

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 26 2024 FILE # 24-0163
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



PROJECT TITLE:
**MILL RIVER
TOWNHOUSES**

**PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND
MULTI-FAMILY RESIDENTIAL
DISTRICT**

**256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND**

PREPARED FOR:

**CT RENOVATION &
DESIGN, LLC**

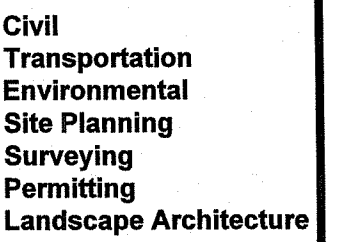
**25 CRAWFORD STREET
WOONSOCKET, RI 02895**

DRAWING TITLE:
AERIAL MAP

DATE: MARCH 2024 SCALE: 1"=40'
DWG. NAME: 2556-03-AERIAL.dwg

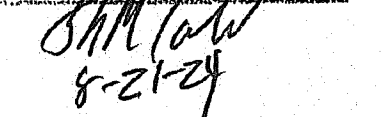
REVISIONS		
NUMBER	REMARKS	DATE
1	PRELIMINARY PLAN	05/20/24
2	RIDEM COMMENTS	07/16/24

DRAWING NUMBER
C2
SHEET: 3 OF 19



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PROJECT TITLE:

**MILL RIVER
TOWNHOUSES**

**PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND
MULTI-FAMILY RESIDENTIAL
DISTRICT**

**256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND**

DRAWING TITLE:

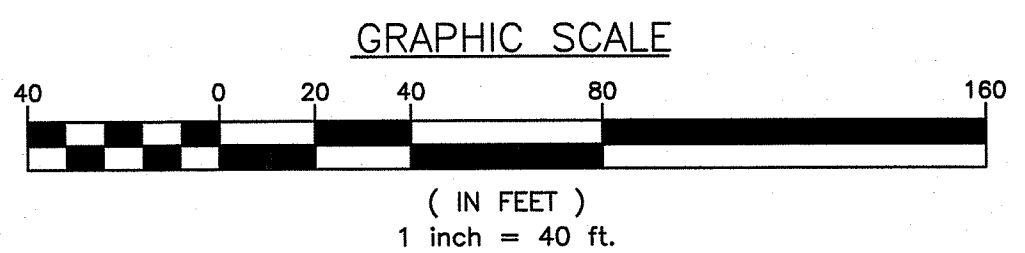
200'

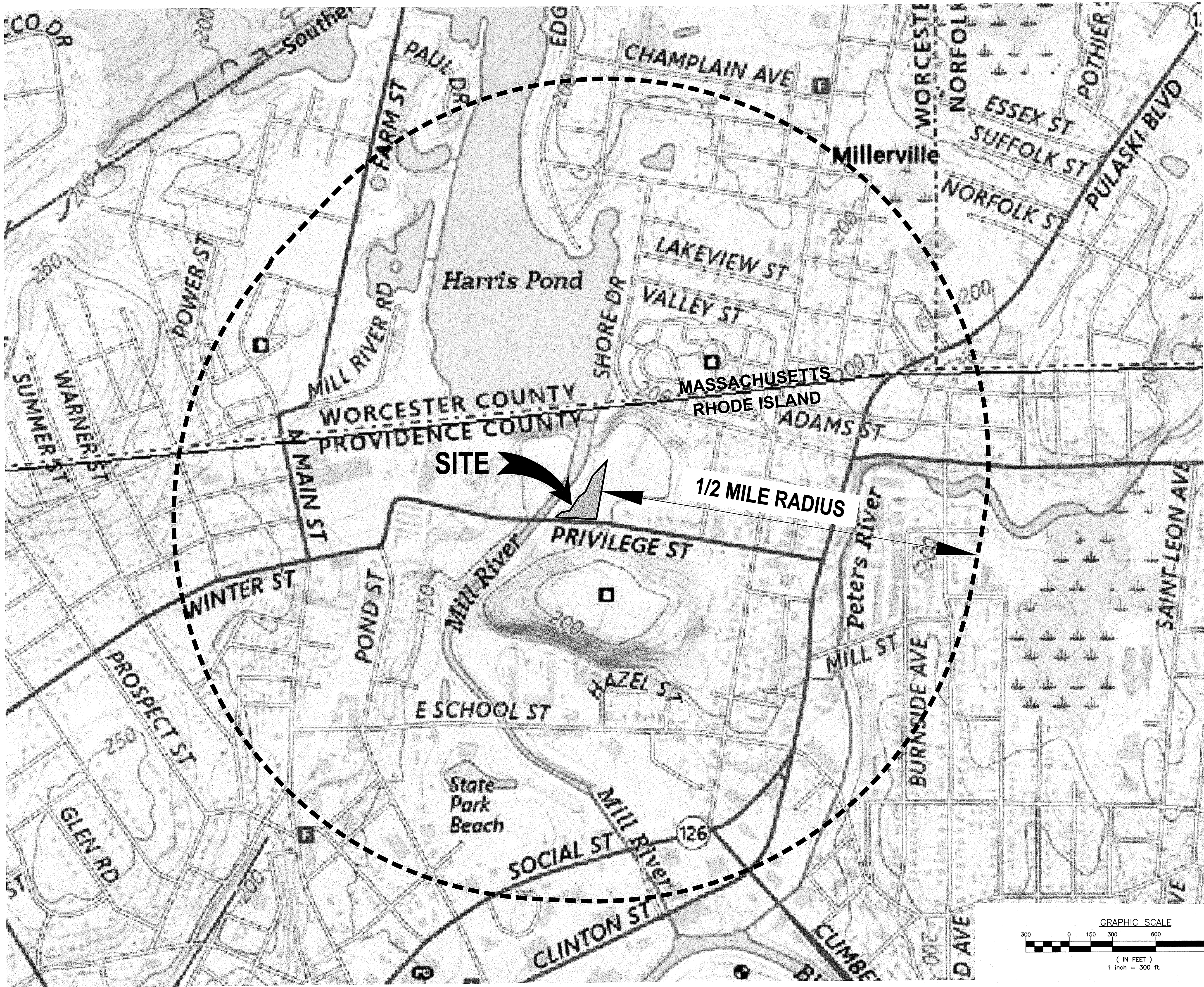
RADIUS MAP

DWG. NAME: 2556-04-RADIUS.dwg

DRAWING NUMBER

SHEET: 4 OF: 19





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STEVEN M. CABRAL

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8-21-24

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATE: SEP 26 2024 FILE #: 24-0103
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT TITLE:

MILL RIVER TOWNHOUSES

PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND
MULTI-FAMILY RESIDENTIAL
DISTRICT

256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

**CT RENOVATION &
DESIGN, LLC**

25 CRAWFORD STREET
WOONSOCKET, RI 02895

DRAWING TITLE:

VICINITY MAP

DATE: MARCH 2024 SCALE: 1"=300'

DWG. NAME: 2556-05-VICINITY.dwg

REVISIONS		
NUMBER	REMARKS	DATE
1	PRELIMINARY PLAN	05/20/24
2	RIDEM COMMENTS	07/15/24

DRAWING NUMBER

C4

SHEET: 5 OF 19

THE SITE IS LOCATED IN SPECIAL FLOOD HAZARD AREA ZONE AE (BASE FLOOD ELEVATION = 141.00), OTHER FLOOD AREA ZONE X AND OTHER AREA ZONE X, AS SHOWN ON THE FLOOD INSURANCE RATE MAP, PROVIDENCE COUNTY, RHODE ISLAND, MAP NUMBER 44007C0069G, PANEL 69 OF 451, MAP REVISED MARCH 2, 2009.

FLOOD_ZONE_AE: SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, BASE FLOOD ELEVATION = 141.00. THE 1% ANNUAL CHANCE FLOOD (100 YEAR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALLED OR EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. THE BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVATION OF THE 1% ANNUAL CHANCE FLOOD.

FLOOD_ZONE_X: AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

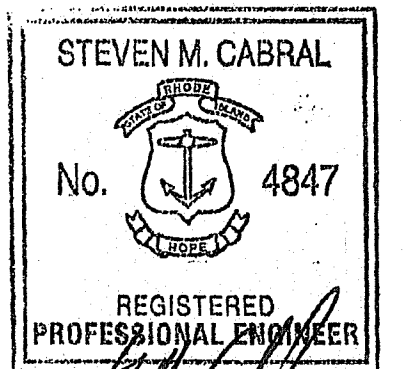
ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD.

1. WASTE/GARBAGE DISPOSAL FOR EACH UNIT WILL BE BY INDIVIDUAL ROLL-OUT TRASH AND RECYCLING CONTAINERS.
2. A.P. 21 LOT 3 HAS ACKNOWLEDGED TO CT RENOVATION AND DESIGN LLC THAT AN ACCESS EASEMENT IS POSSIBLE.



<u>Rhode Island</u>	<u>Massachusetts</u>
100 Jefferson Blvd, Suite 200 Warwick, RI 02888 Phone (401) 738-5660	1 George Leven Drive, Suite 200 North Attleboro, MA 02760 Phone (508) 695-1700
Email: cei@crossmaneng.com	

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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED: SEP 26 2024 FILE #: 04-0103
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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**PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND
MULTI-FAMILY RESIDENTIAL
DISTRICT**

256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

**CT RENOVATION &
DESIGN, LLC**

**25 CRAWFORD STREET
WOONSOCKET, RI 02895**

DRAWING TITLE:

SITE LAYOUT PLAN

DATE: MARCH 2024	SCALE: 1"=20'
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DWG. NAME: 2556-07-SITE.dwg

REVISIONS

[illegible]

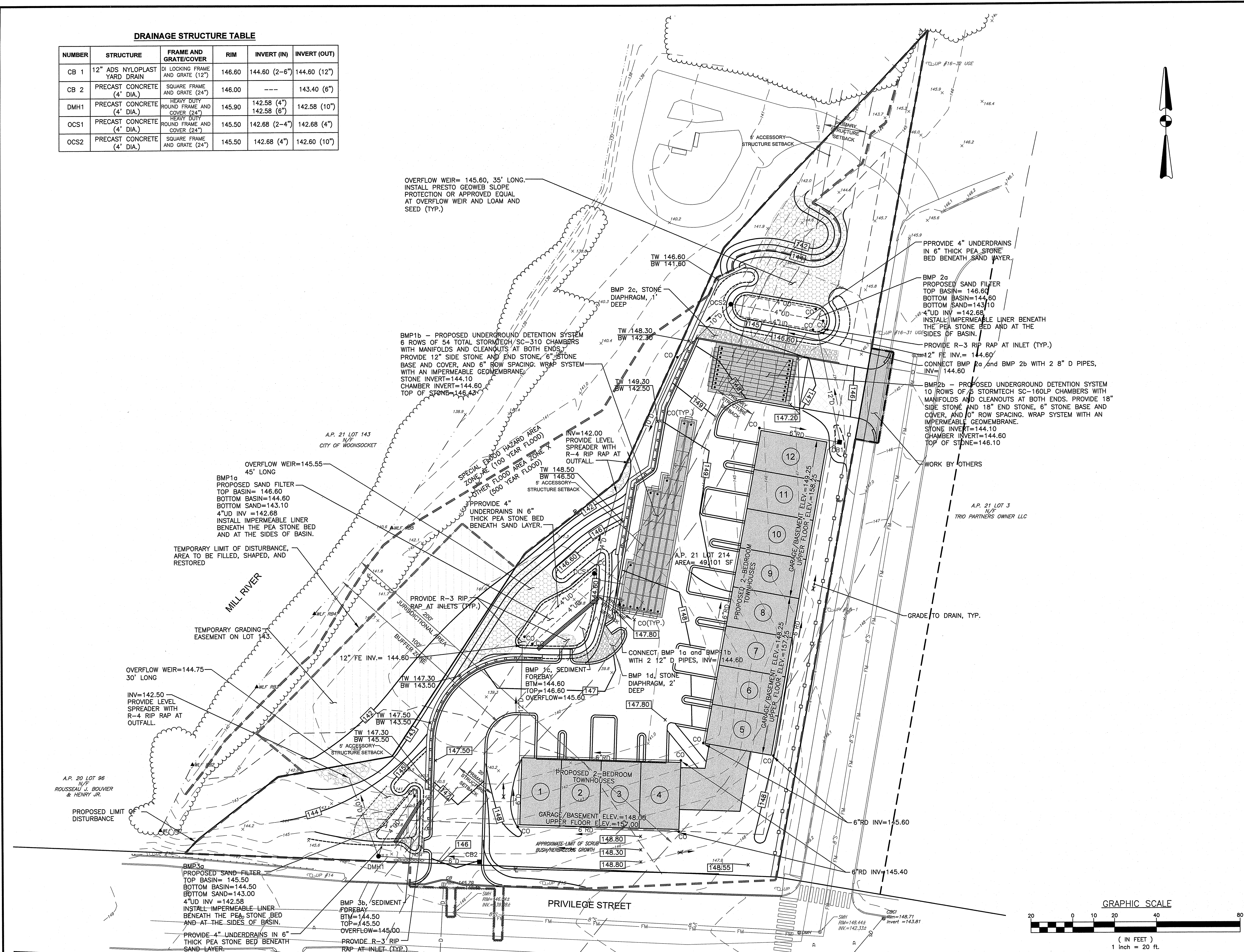
DRAWING NUMBER

C6

SHEET: 7 OF: 19

DRAINAGE STRUCTURE TABLE

NUMBER	STRUCTURE	FRAME AND GRATE/COVER	RIM	INVERT (IN)	INVERT (OUT)
CB 1	12" ADS NYLOPLAST YARD DRAIN	DI LOCKING FRAME AND GRATE (12")	146.60	144.60 (2-6")	144.60 (12")
CB 2	PRECAST CONCRETE (4' DIA.)	SQUARE FRAME AND GRATE (24")	146.00	---	143.40 (6")
DMH1	PRECAST CONCRETE (4' DIA.)	HEAVY DUTY ROUND FRAME AND COVER (24")	145.90	142.58 (4") 142.58 (6")	142.58 (10")
OCS1	PRECAST CONCRETE (4' DIA.)	HEAVY DUTY ROUND FRAME AND COVER (24")	145.50	142.68 (2-4")	142.68 (4")
OCS2	PRECAST CONCRETE (4' DIA.)	SQUARE FRAME AND GRATE (24")	145.50	142.68 (4")	142.60 (10")



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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-21-24

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ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND
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WOONSOCKET, RI 02895**

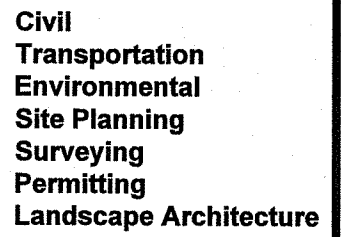
DRAWING TITLE:
**GRADING and
DRAINAGE PLAN**

DATE: MARCH 2024 SCALE: 1"=20'
DWG. NAME: 2556-08-GRADE.dwg

REVISIONS

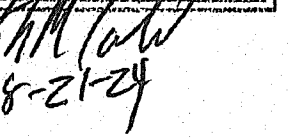
NUMBER	REMARKS	DATE
1	PRELIMINARY PLAN	05/20/24
2	RIDEM COMMENTS	07/15/24

DRAWING NUMBER
C7
SHEET: 8 OF 19



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Only Chapter

REPAIRED FOR:

**CT RENOVATION &
DESIGN, LLC**

**25 CRAWFORD STREET
WOONSOCKET, RI 02895**

DATE:	SCALE:
MARCH 2024	1"=20'

WG. NAME: 2556-09-UTIL.dwg

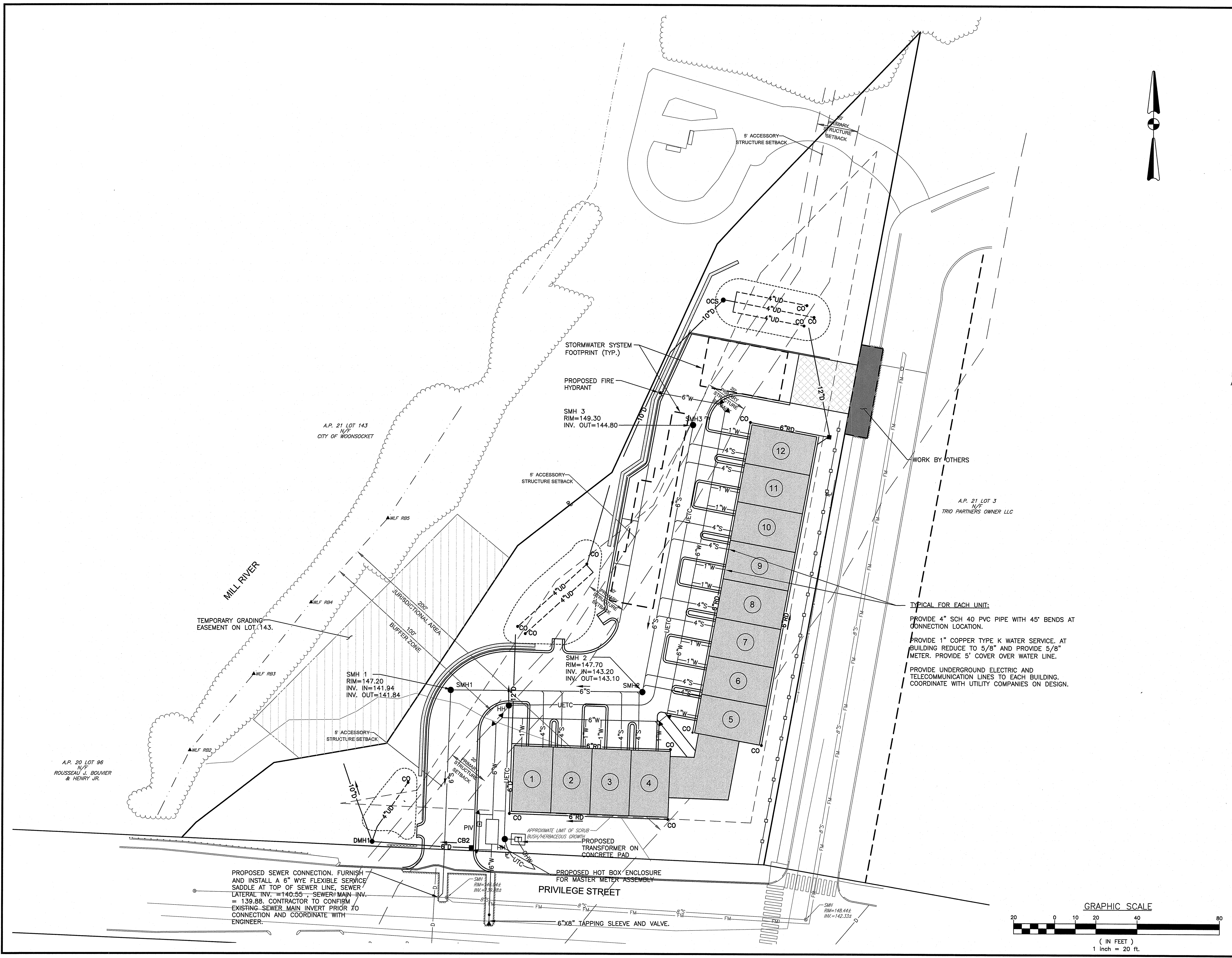
REVISIONS

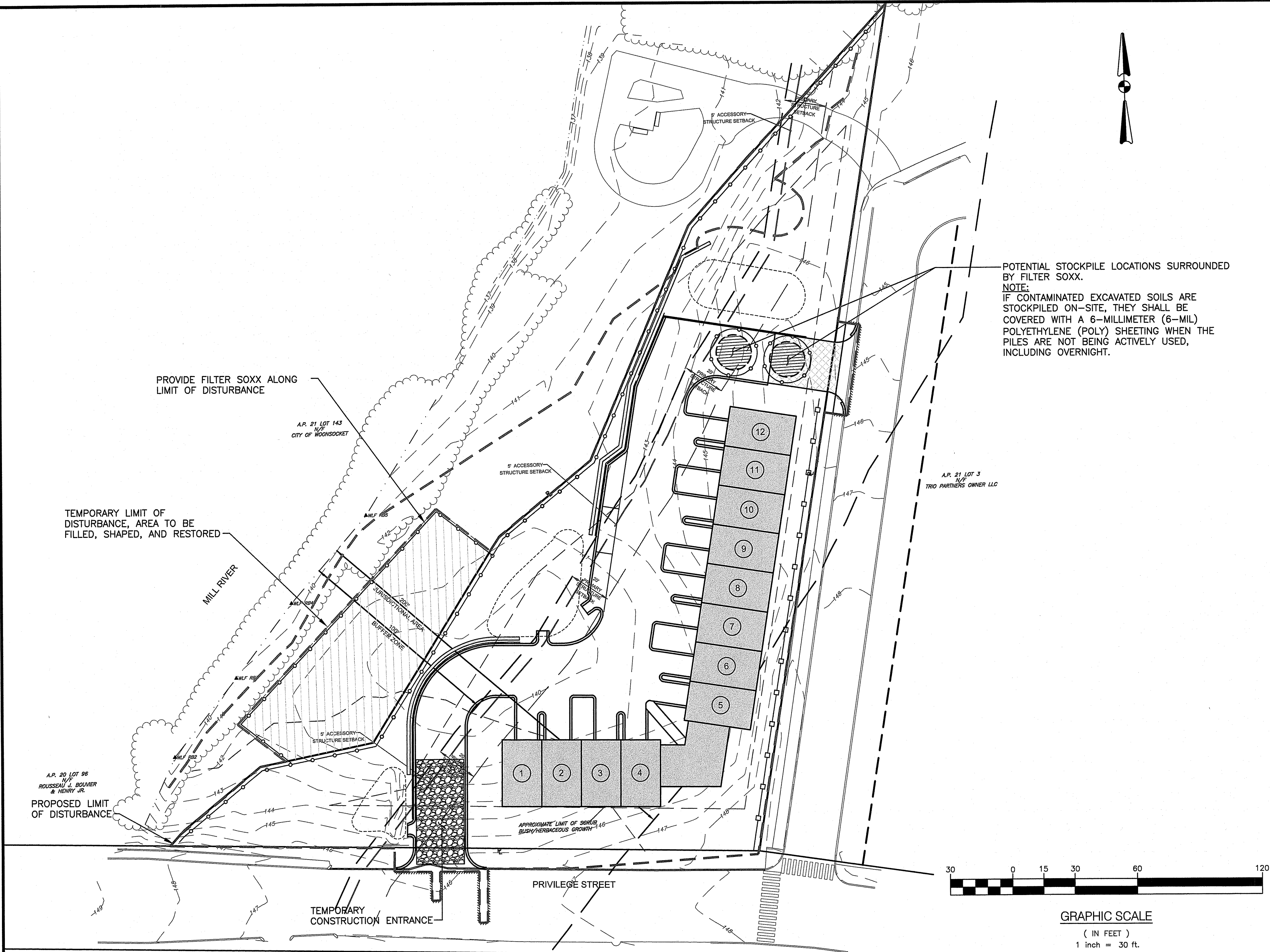
[illegible]

DRAWING NUMBER

C8

PET: 9 OF: 19





DUST CONTROL NOTES

ON AN AS-NEEDED BASIS OR AS DIRECTED BY THE CITY, RIDEM OR OWNER, 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 FLAKE FINE ENOUGH TO FEED THROUGH A SPREADER AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE.

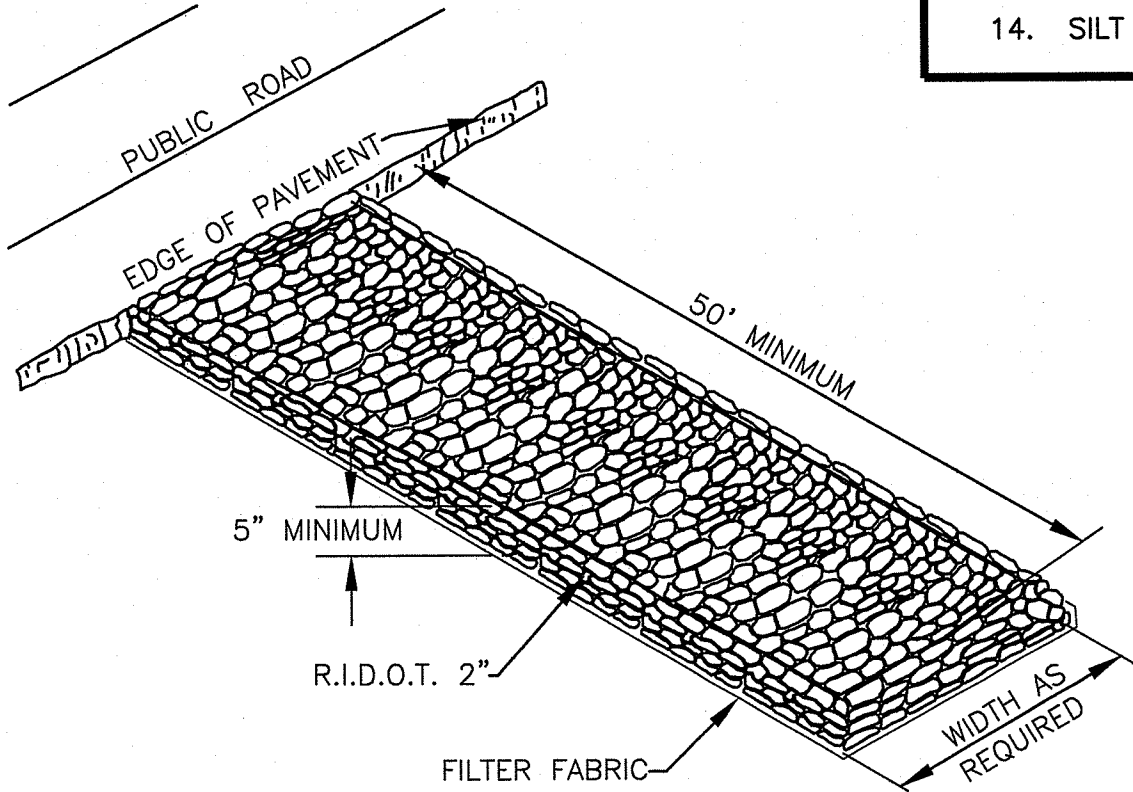
THE METHODS SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

INSPECTION/MAINTENANCE NOTES

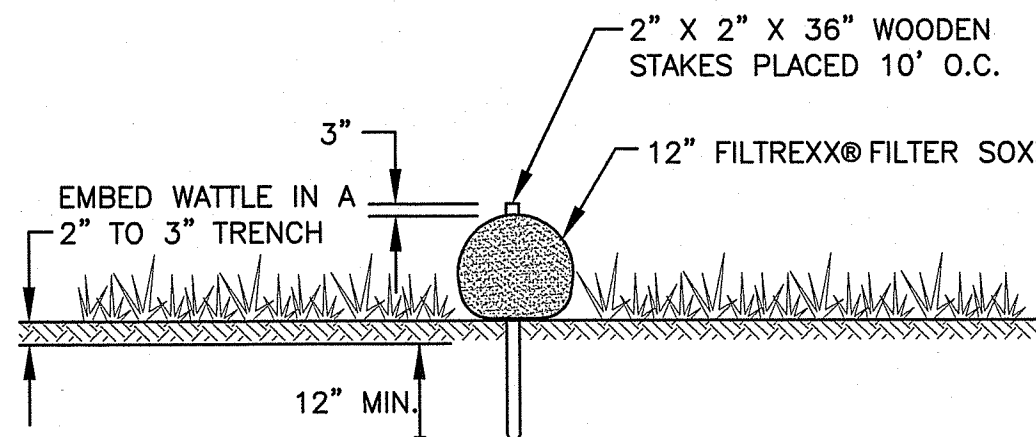
- PRIOR TO COMMENCING GRUBBING OPERATIONS AND EARTHWORK, FILTEREXX FILTER SOXX, OR APPROVED EQUAL, SHALL BE PLACED ALONG THE DOWNGRADE LIMIT OF DISTURBANCE TO PREVENT SEDIMENT FROM ENTERING EXISTING ROADWAY DRAINAGE SYSTEM, AND ADJUTING PROPERTIES AND THE CONTRACTOR SHALL INSTALL DRIPLINE TREE PROTECTION DEVICES ALONG THE PROPOSED TREELINE/EXISTING TREES TO REMAIN.
- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM, ADJACENT PROPERTY, WETLANDS, AND ROADWAYS.
- ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION - SUCH AS 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, FILTER SOXX 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, AT NO ADDITIONAL COST TO THE OWNER, 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 OBTAIN A SOIL EROSION AND SEDIMENT CONTROL PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE COMMENCEMENT OF ANY WORK ON SITE; SOIL EROSION AND SEDIMENT CONTROL MEASURES MUST BE PROPERLY MAINTAINED THROUGHOUT CONSTRUCTION.
- CONTRACTOR SHALL INSTALL TEMPORARY MEASURES SUCH AS: FIBER MATTING, CRUSHED STONE, HAY OR STRAW IN AREAS WHERE SLOPES OR STABILIZATION HAS FAILED.
- FILTEREXX 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 THE CITY 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.
- 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 FILTER SOXX, STAKED HAY BALES OR SILT FENCING.
- EXCAVATED (CONTAMINATED) SOIL SHALL BE STOCKPILED AND COVERED WITH A 6-MILLIMETER (6-MIL) POLYETHYLENE (POLY) SHEETING WHEN THE PILES ARE NOT BEING ACTIVELY USED, INCLUDING OVERNIGHT. THE POLYETHYLENE SHEETING SHALL BE PROPERLY SECURED OR WEIGHED DOWN TO PREVENT DAMAGE OR REMOVAL BY WIND. SURPLUS SOIL THAT CANNOT BE REUSED ON SITE WILL REMAIN COVERED PENDING CHARACTERIZATION FOR PROPER OFF-SITE DISPOSAL. ANY TEARS OR DAMAGE TO THE POLYETHYLENE COVERS SHALL BE REPAIRED IMMEDIATELY. STOCKPILES SHALL BE INSPECTED DAILY WITH OBSERVATIONS RECORDED ON LOGS.
- STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
- ALL CATCH BASINS ADJACENT TO THE CONSTRUCTION AREA SHALL BE PROTECTED BY SILT SACKS.
- ALL PROPOSED CATCH BASINS SHALL BE PROTECTED BY STAKED HAY BALES, SILT FENCING OR SILT SACKS.
- SILT FENCE MAY BE UTILIZED IN LIEU OF FILTEREXX FILTER SOXX, UPON APPROVAL BY ENGINEER.

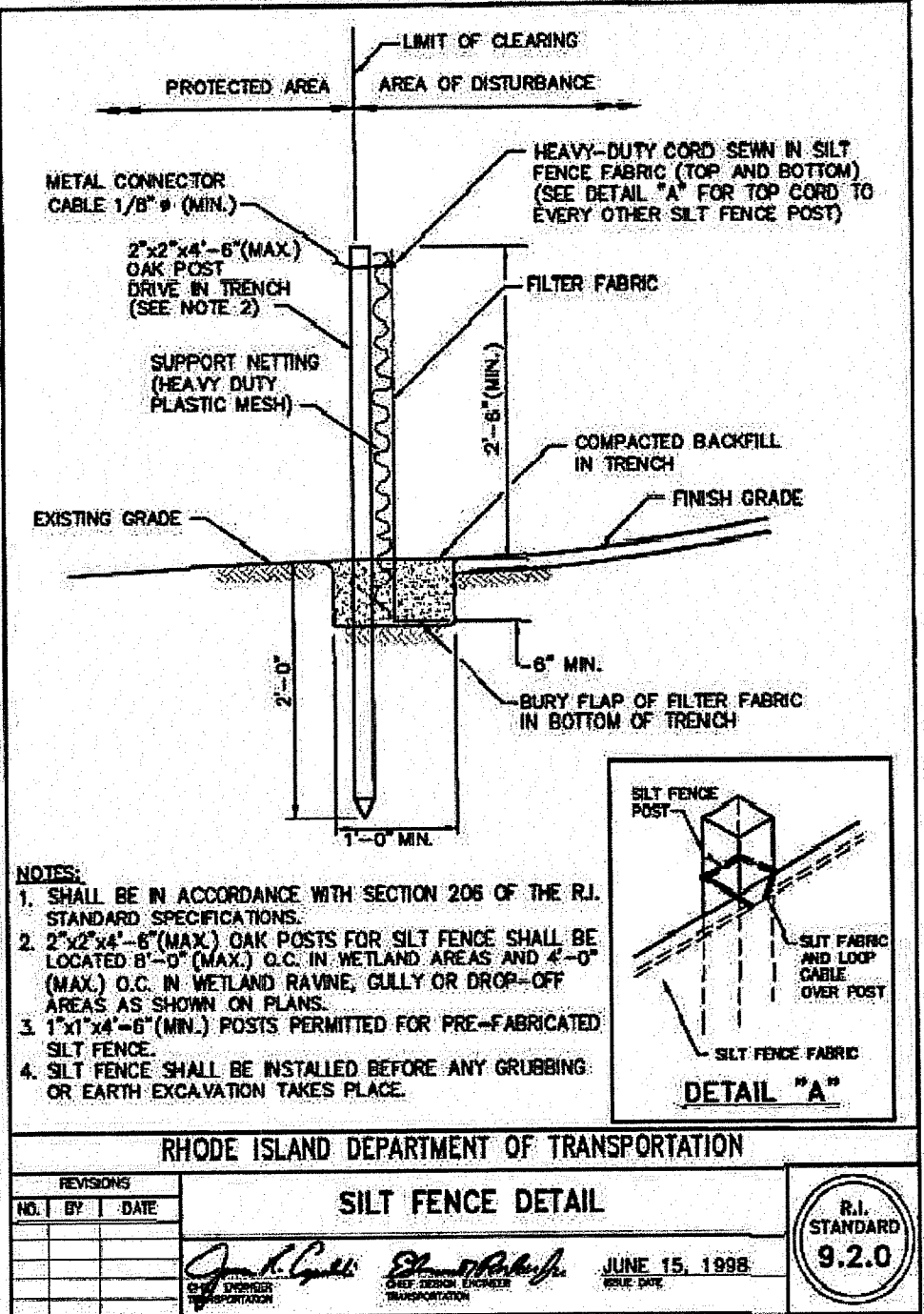


CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



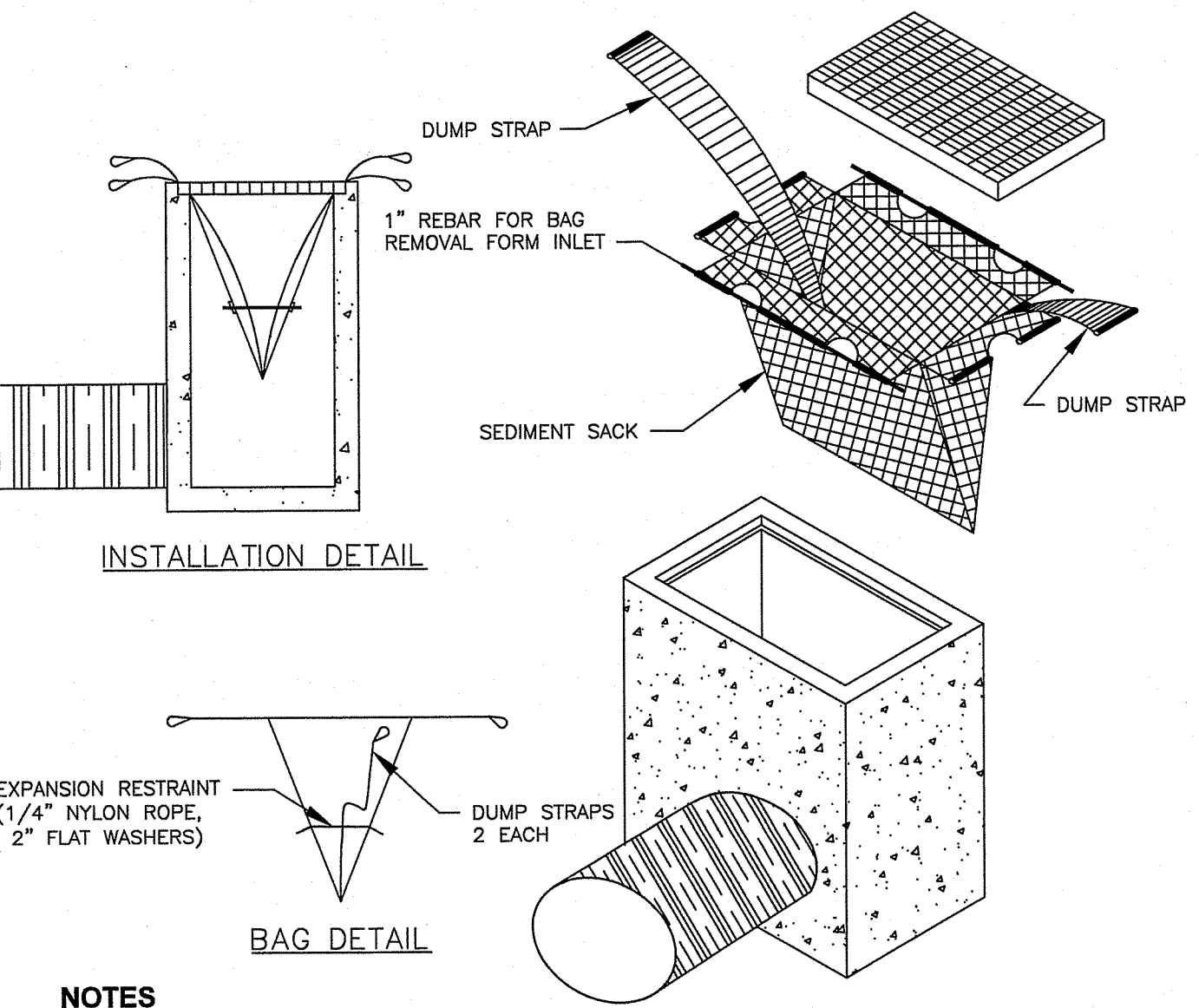
- NOTE:
- CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE FILTEREXX PRODUCTS AND COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR TO PLACEMENT.
 - ALL MATERIAL SHALL MEET FILTEREXX SPECIFICATIONS.
 - FILTEREXX SOXX TO BE REMOVED AND DISPOSED FROM THE PROJECT AS DETERMINED BY ENGINEER OR OWNER UPON SITE STABILIZATION.

FILTEREXX® FILTER SOXX™ SECTION
NOT TO SCALE



- NOTES:
- SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
 - 2"x2"x4-6" (MAX) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 10'-0" (MAX) O.C. IN WETLAND AREAS AND 4'-0" (MAX) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
 - 1"x4"x4" (MIN) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
 - SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION
SILT FENCE DETAIL
JUNE 15, 1998
R.I. STANDARD 9.2.0

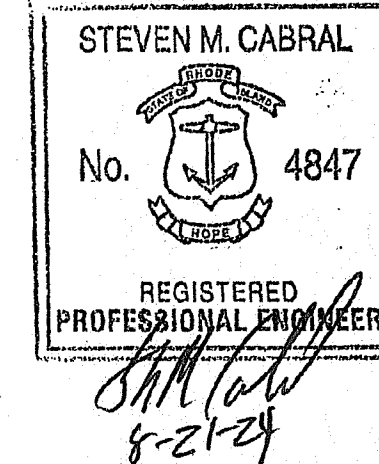


- NOTES
- INSTALL SILT SACK AT CATCH BASINS IN VICINITY OF CONSTRUCTION.
 - CONTRACTOR SHALL SUBMIT SILT SACK PRODUCT TO ENGINEER FOR APPROVAL.

TYPICAL SILT SACK DETAIL
NOT TO SCALE

Crossman Engineering
Rhode Island: 100 Jefferson Blvd., Suite 200, Warwick, RI 02888, Phone (401) 738-6660
Massachusetts: 1 George Leven Drive, Suite 200, North Attleboro, MA 02760, Phone (508) 695-1700
Email: cei@crossmaneng.com

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KEY PLAN
RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATE: SEP 26 2024 FILE #: 24-0103
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT TITLE:
MILL RIVER TOWNHOUSES
PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND MULTI-FAMILY RESIDENTIAL DISTRICT
256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND

PREPARED FOR:
CT RENOVATION & DESIGN, LLC
25 CRAWFORD STREET
WOONSOCKET, RI 02895

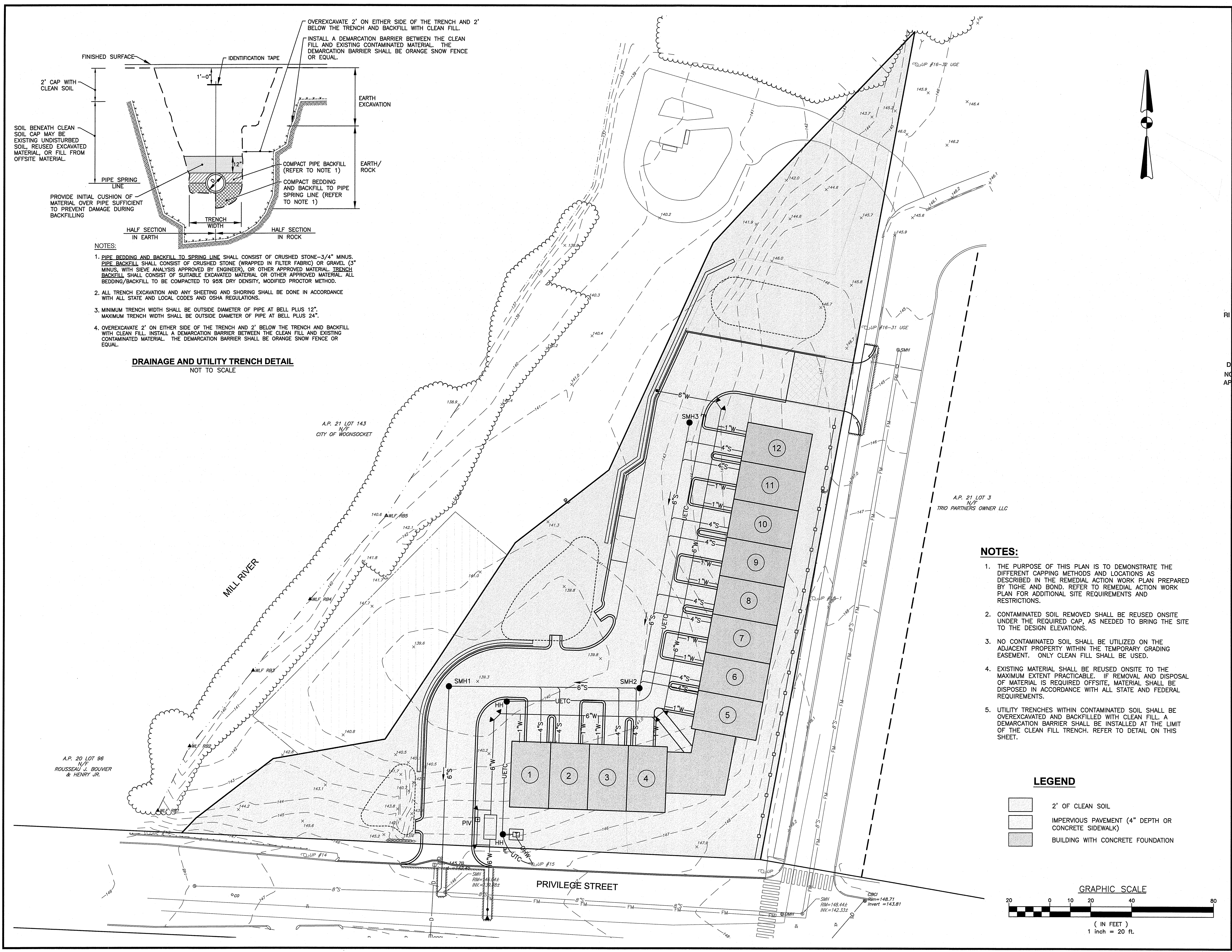
DRAWING TITLE:
SOIL EROSION and SEDIMENT CONTROL PLAN

DATE: MARCH 2024 SCALE: AS NOTED

DWG. NAME: 2556-10-SOIL.dwg

REVISIONS		
NUMBER	REMARKS	DATE
1	PRELIMINARY PLAN	05/20/24
2	RIDEM COMMENTS	07/15/24

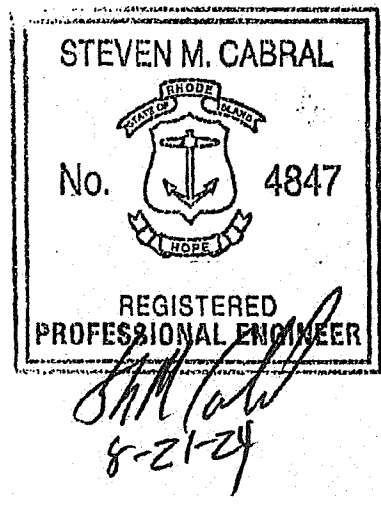
DRAWING NUMBER
C9
SHEET: 10 OF 19



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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED: SEP 26 2024 FILE #: 24-0107
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT TITLE:
**PROPOSED
SITE DEVELOPMENT**

**PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND
MULTI-FAMILY RESIDENTIAL
DISTRICT**

**256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND**

PREPARED FOR:

**CT RENOVATION &
DESIGN, LLC**

**25 CRAWFORD STREET
WOONSOCKET, RI 02895**

DRAWING TITLE:
SOIL MANAGEMENT PLAN

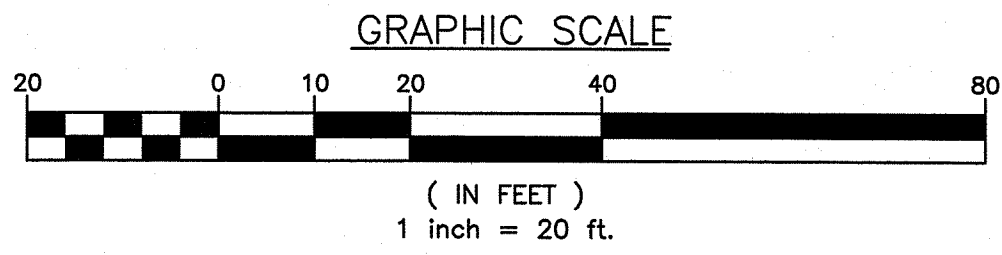
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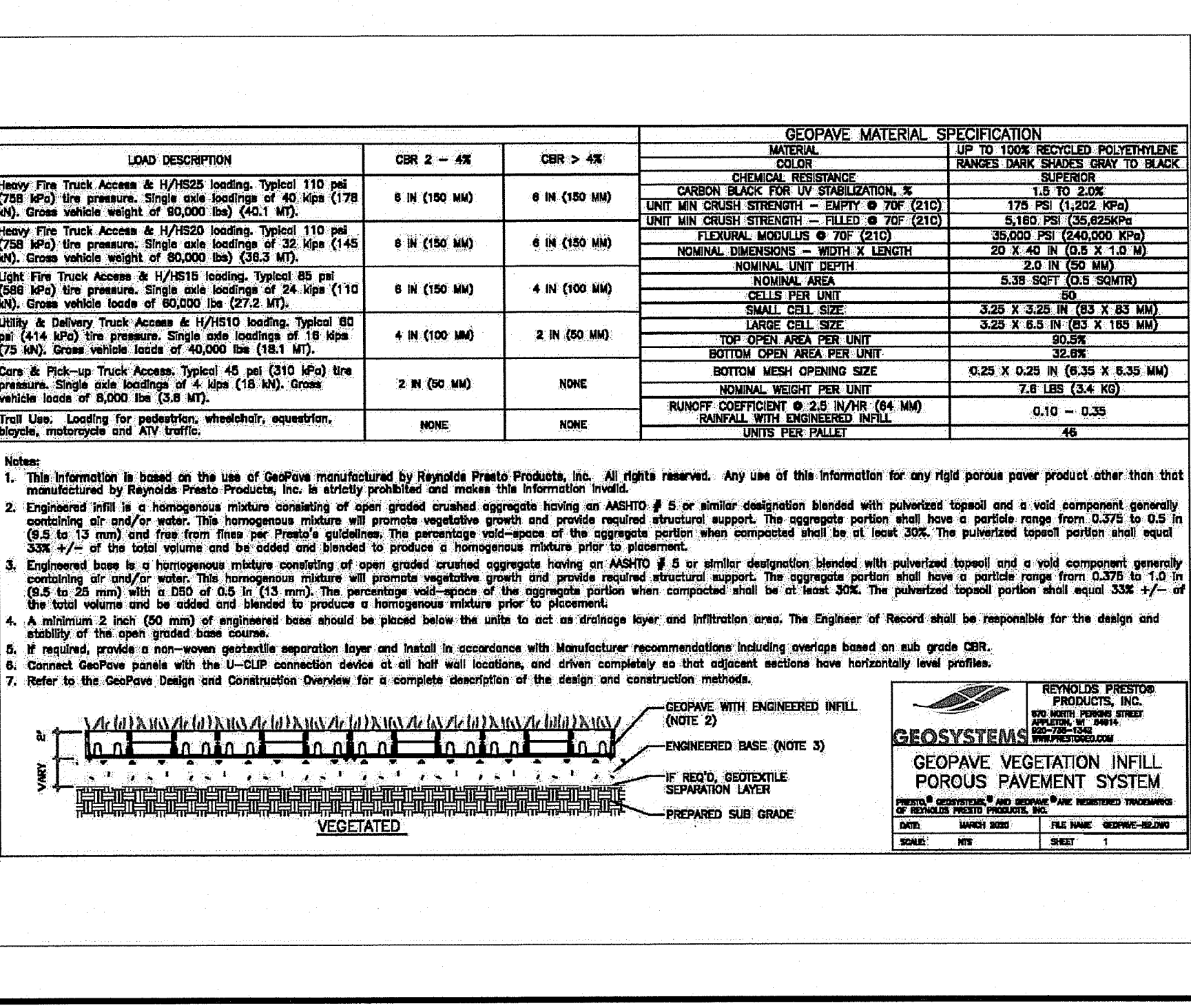
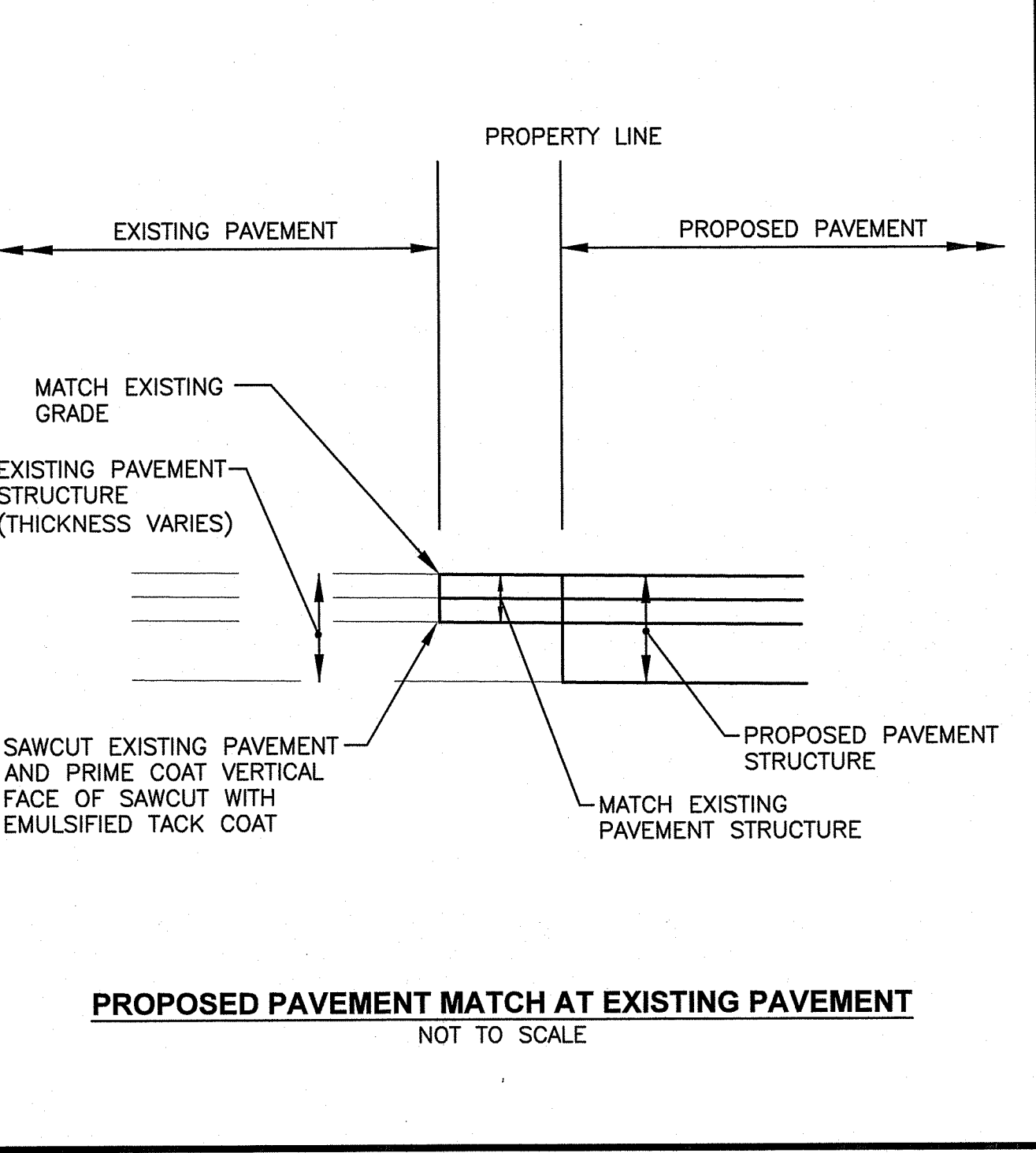
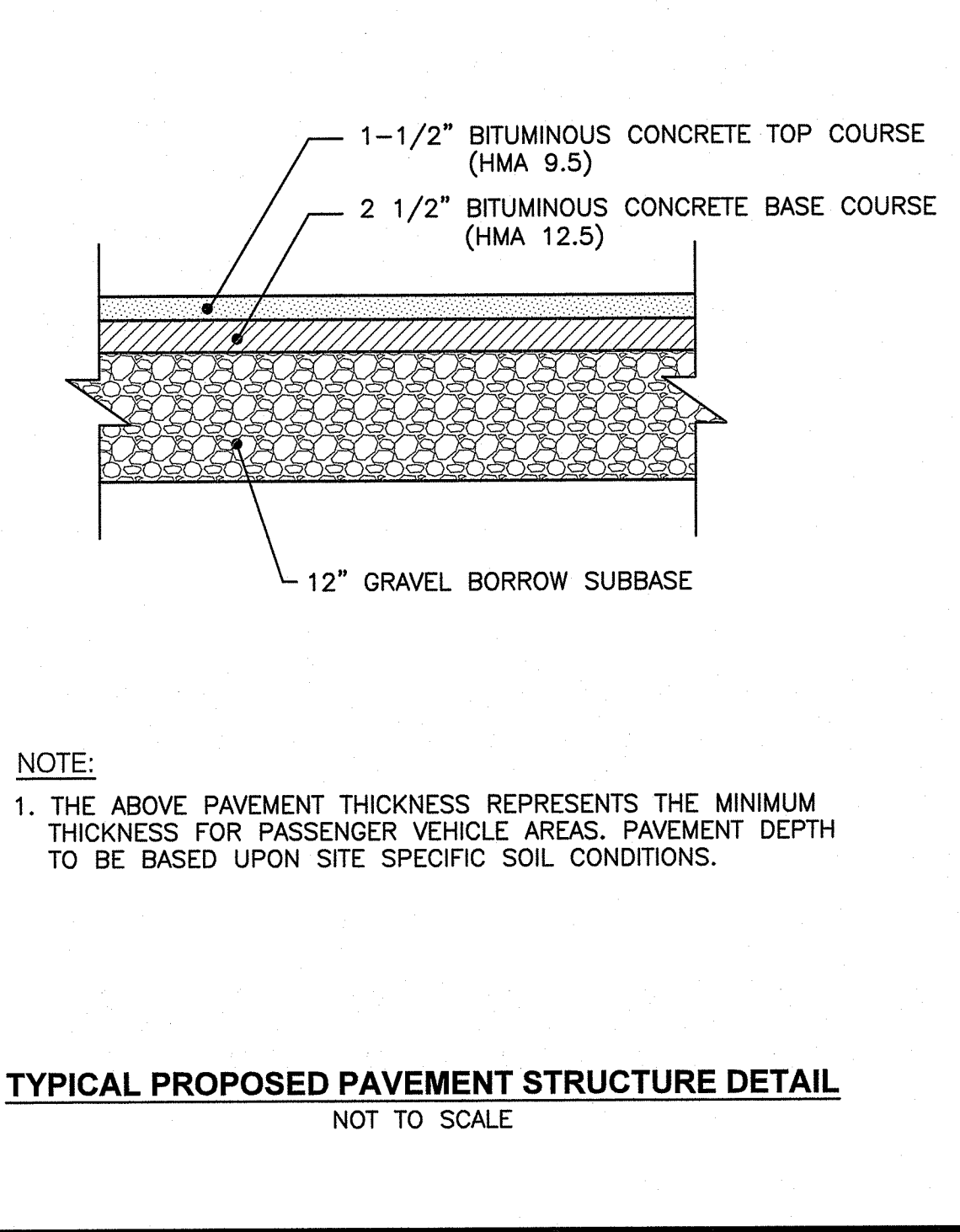
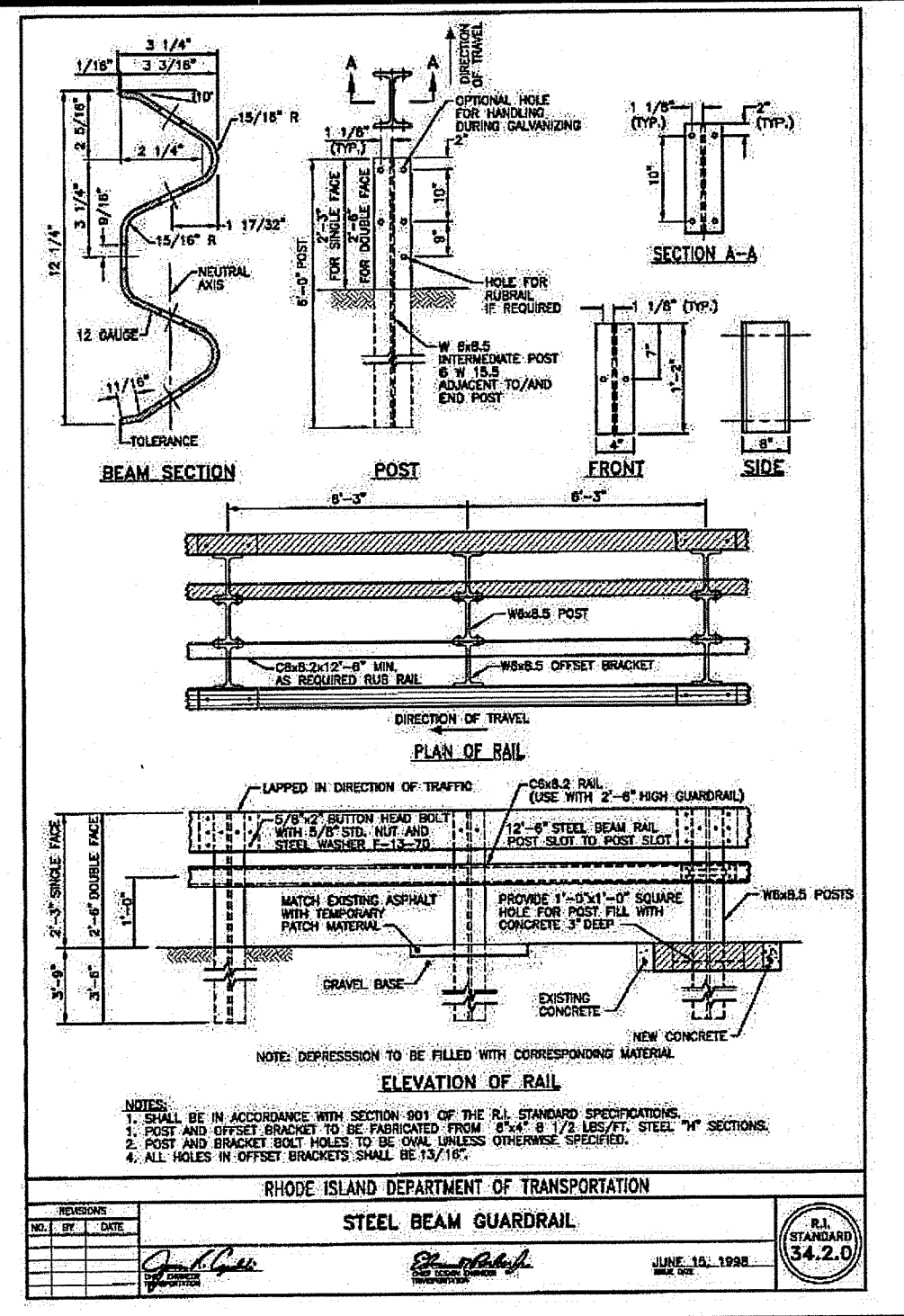
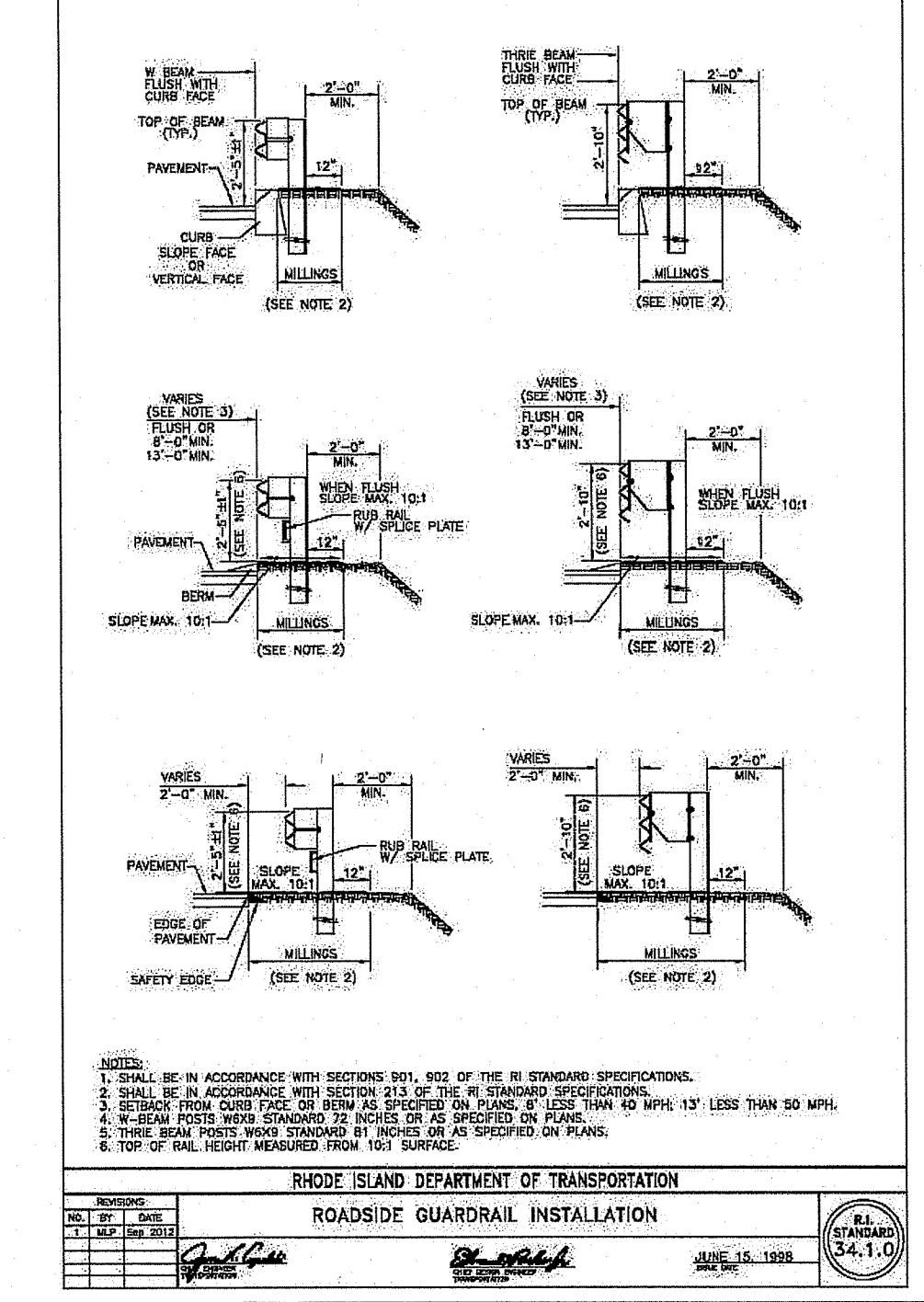
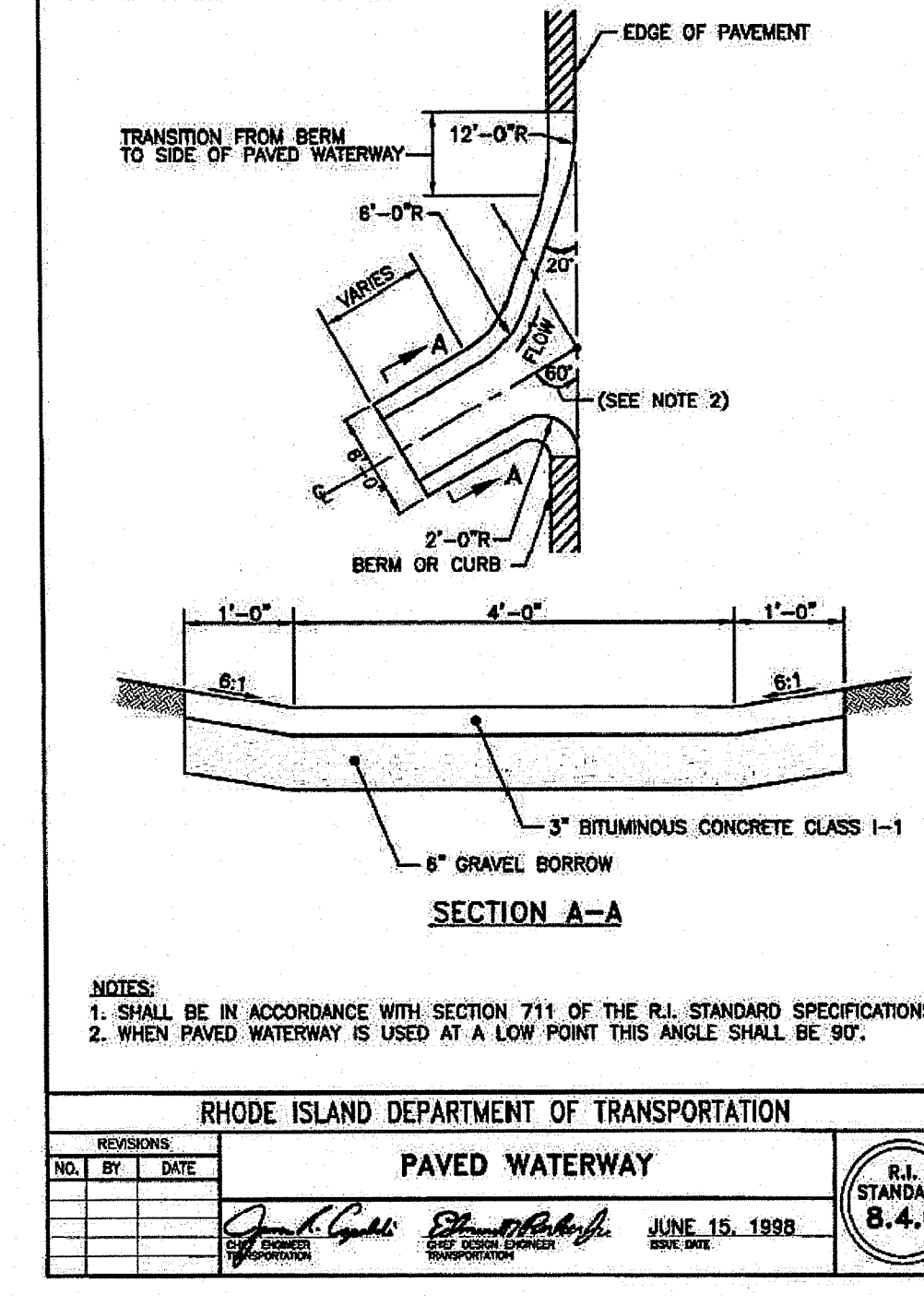
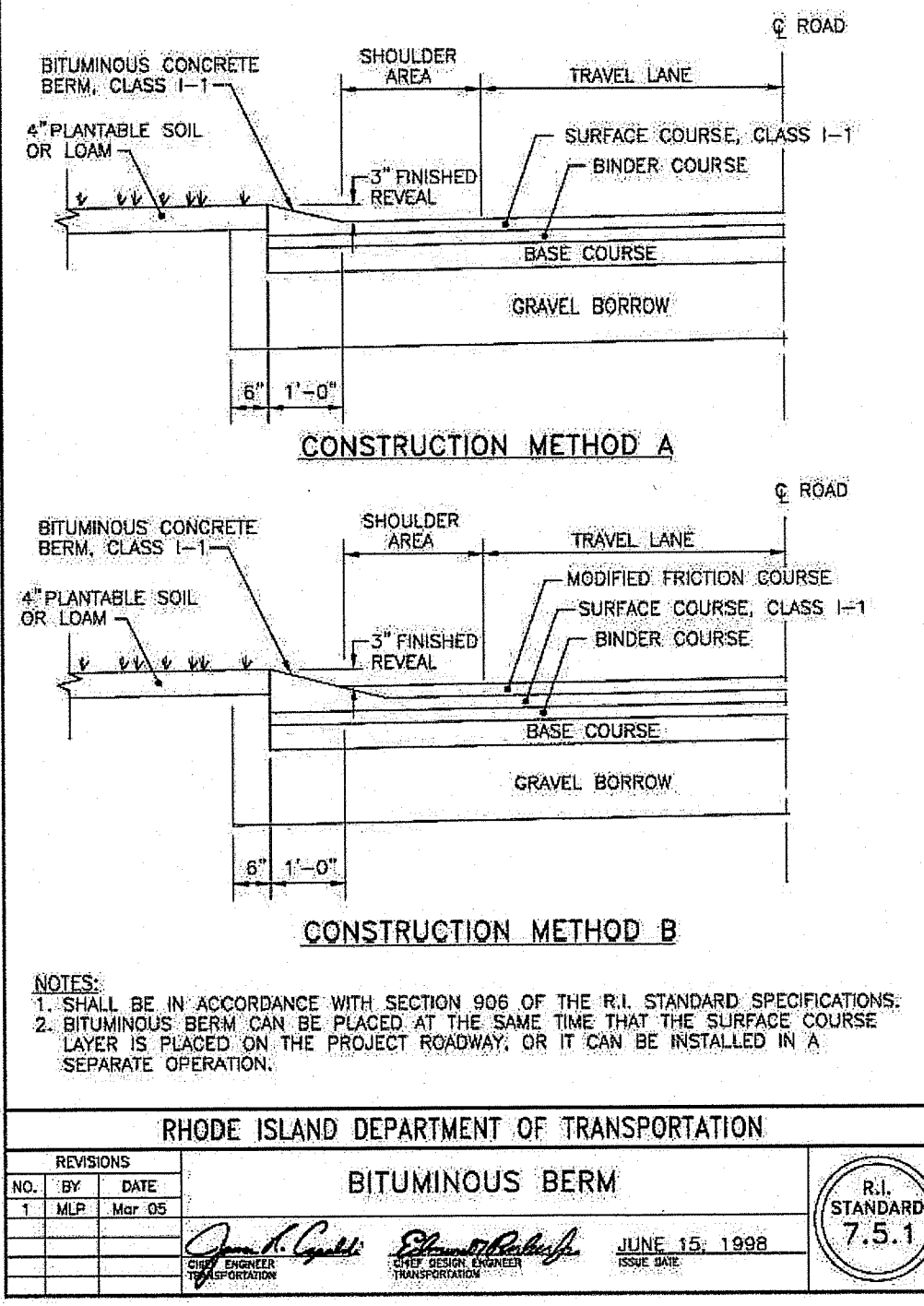
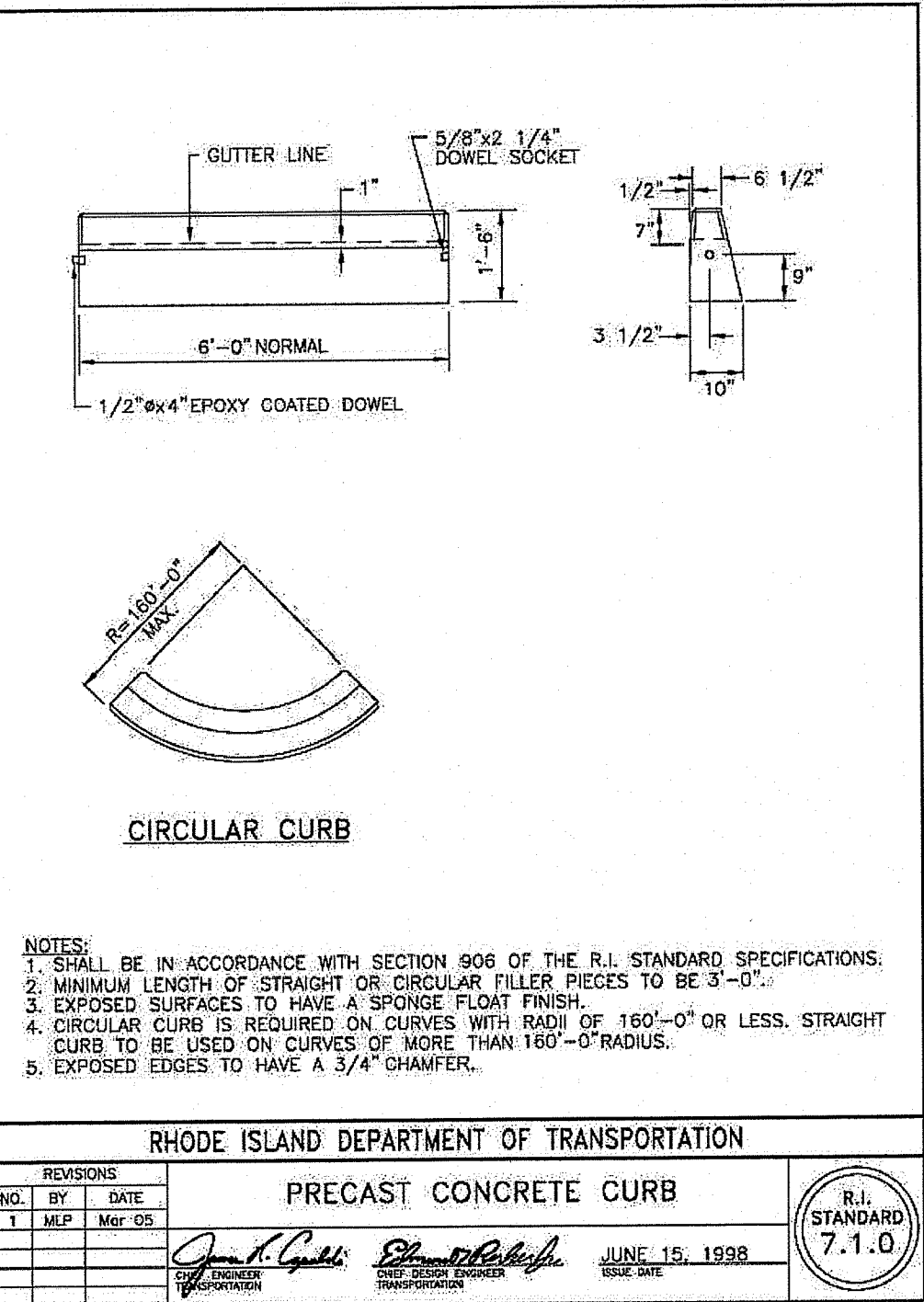
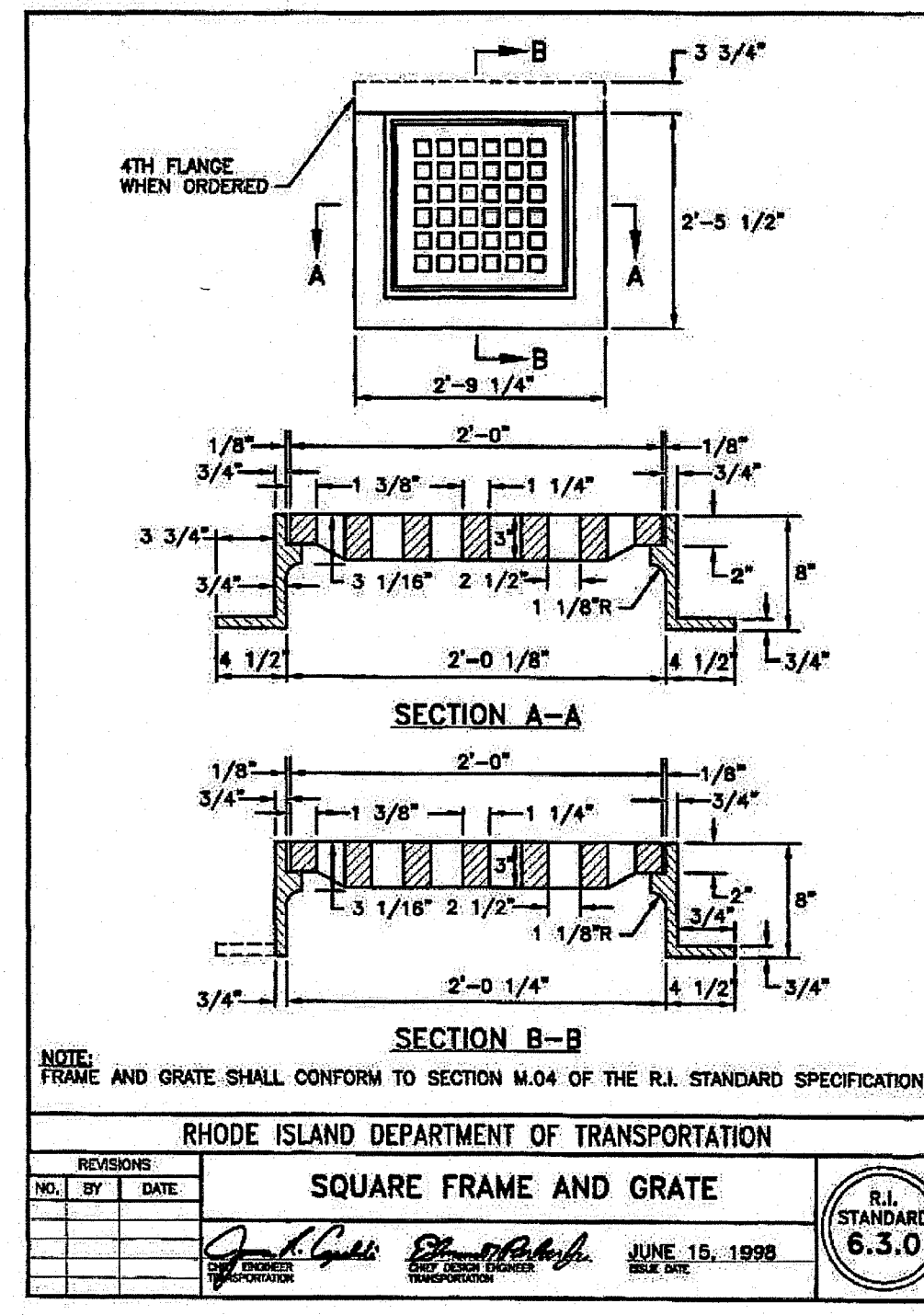
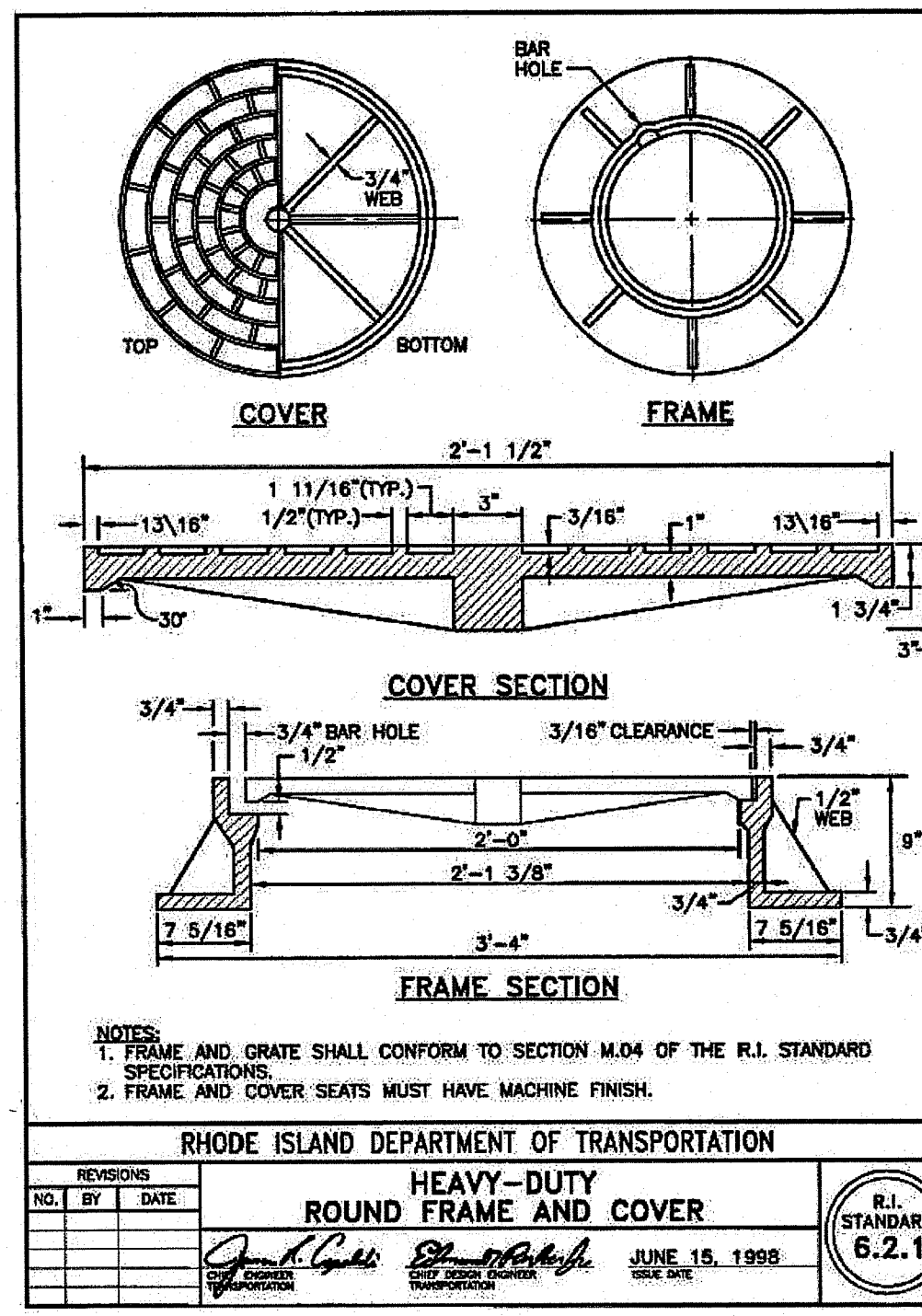
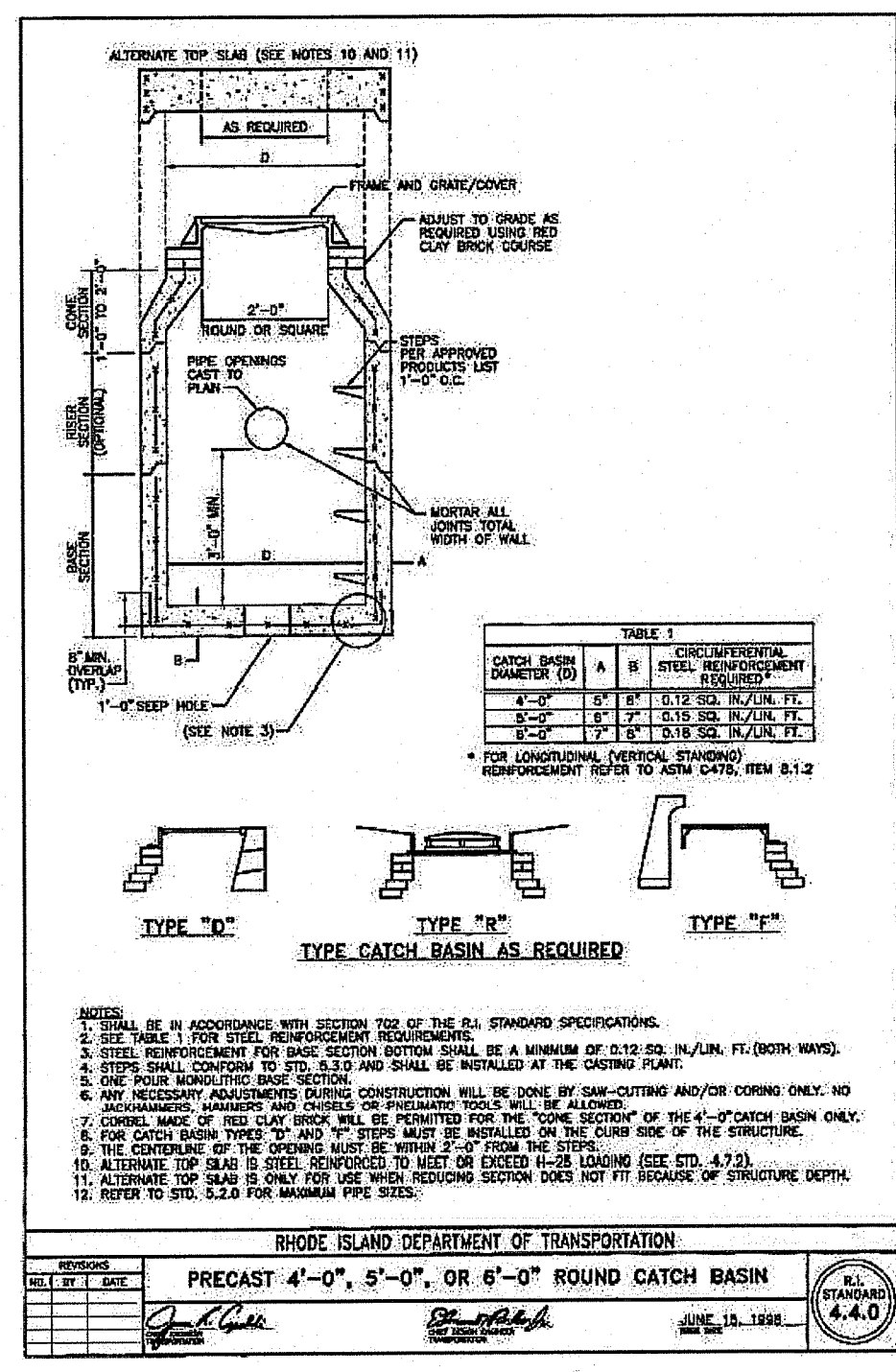
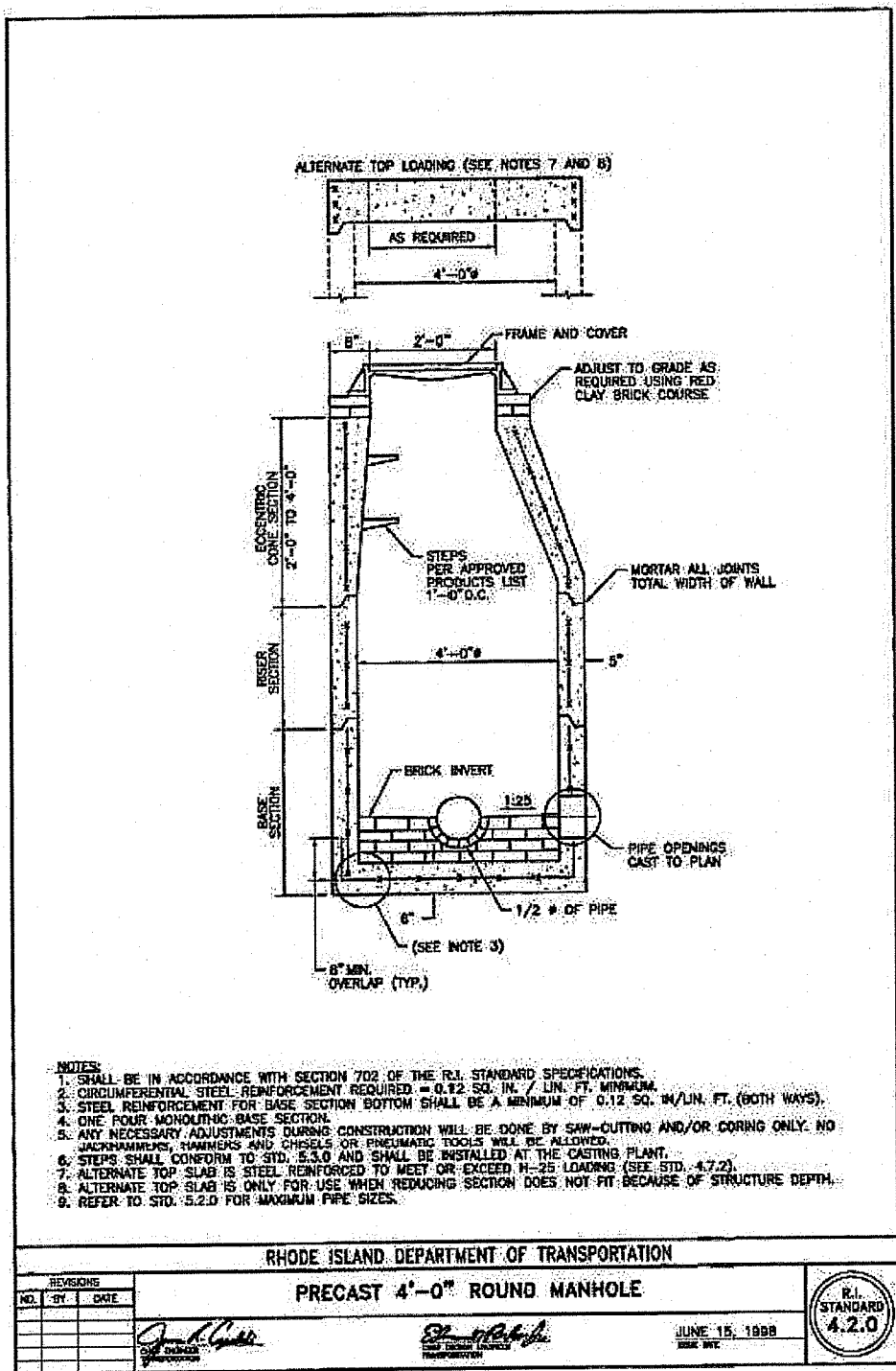
REVISIONS		
NUMBER	REMARKS	DATE
1	PRELIMINARY PLAN	05/20/24
2	RIDEM COMMENTS	07/15/24

DRAWING NUMBER
C11
SHEET: 12 OF 19

- NOTES:**
- THE PURPOSE OF THIS PLAN IS TO DEMONSTRATE THE DIFFERENT CAPPING METHODS AND LOCATIONS AS DESCRIBED IN THE REMEDIAL ACTION WORK PLAN PREPARED BY TIGHE AND BOND. REFER TO REMEDIAL ACTION WORK PLAN FOR ADDITIONAL SITE REQUIREMENTS AND RESTRICTIONS.
 - CONTAMINATED SOIL REMOVED SHALL BE REUSED ONSITE UNDER THE REQUIRED CAP, AS NEEDED TO BRING THE SITE TO THE DESIGN ELEVATIONS.
 - NO CONTAMINATED SOIL SHALL BE UTILIZED ON THE ADJACENT PROPERTY WITHIN THE TEMPORARY GRADING EASEMENT. ONLY CLEAN FILL SHALL BE USED.
 - EXISTING MATERIAL SHALL BE REUSED ONSITE TO THE MAXIMUM EXTENT PRACTICABLE. IF REMOVAL AND DISPOSAL OF MATERIAL IS REQUIRED OFFSITE, MATERIAL SHALL BE DISPOSED IN ACCORDANCE WITH ALL STATE AND FEDERAL REQUIREMENTS.
 - UTILITY TRENCHES WITHIN CONTAMINATED SOIL SHALL BE OVEREXCAVATED AND BACKFILLED WITH CLEAN FILL. A DEMARCATION BARRIER SHALL BE INSTALLED AT THE LIMIT OF THE CLEAN FILL TRENCH. REFER TO DETAIL ON THIS SHEET.

- LEGEND**
- 2' OF CLEAN SOIL
 - IMPERVIOUS PAVEMENT (4" DEPTH OR CONCRETE SIDEWALK)
 - BUILDING WITH CONCRETE FOUNDATION





Crossman Engineering

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100 Jefferson Blvd,
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Massachusetts
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Suite 200
North Attleboro, MA 02760
Phone (508) 695-1700

Email: cei@crossmaneng.com

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
6-21-04

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
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DATE: SEP 26 2024 FILE #: 24-0103
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT TITLE:
MILL RIVER TOWNHOUSES

PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND
MULTI-FAMILY RESIDENTIAL
DISTRICT

256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND

PREPARED FOR:
CT RENOVATION & DESIGN, LLC

25 CRAWFORD STREET
WOONSOCKET, RI 02895

DRAWING TITLE:
MISCELLANEOUS DETAILS PLAN No. 1

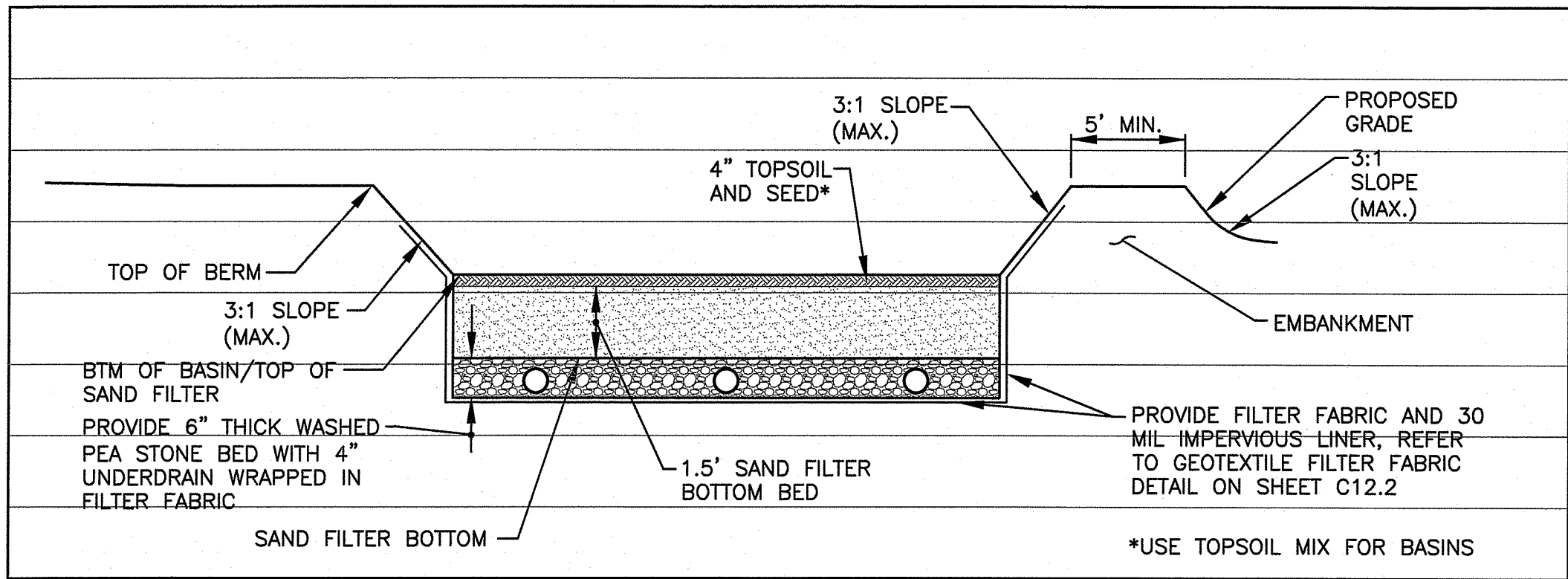
DATE: MARCH 2024 SCALE: AS NOTED

DWG. NAME: 2556-13-DET01.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	PRELIMINARY PLAN	05/20/24
2	RIDEM COMMENTS	07/15/24

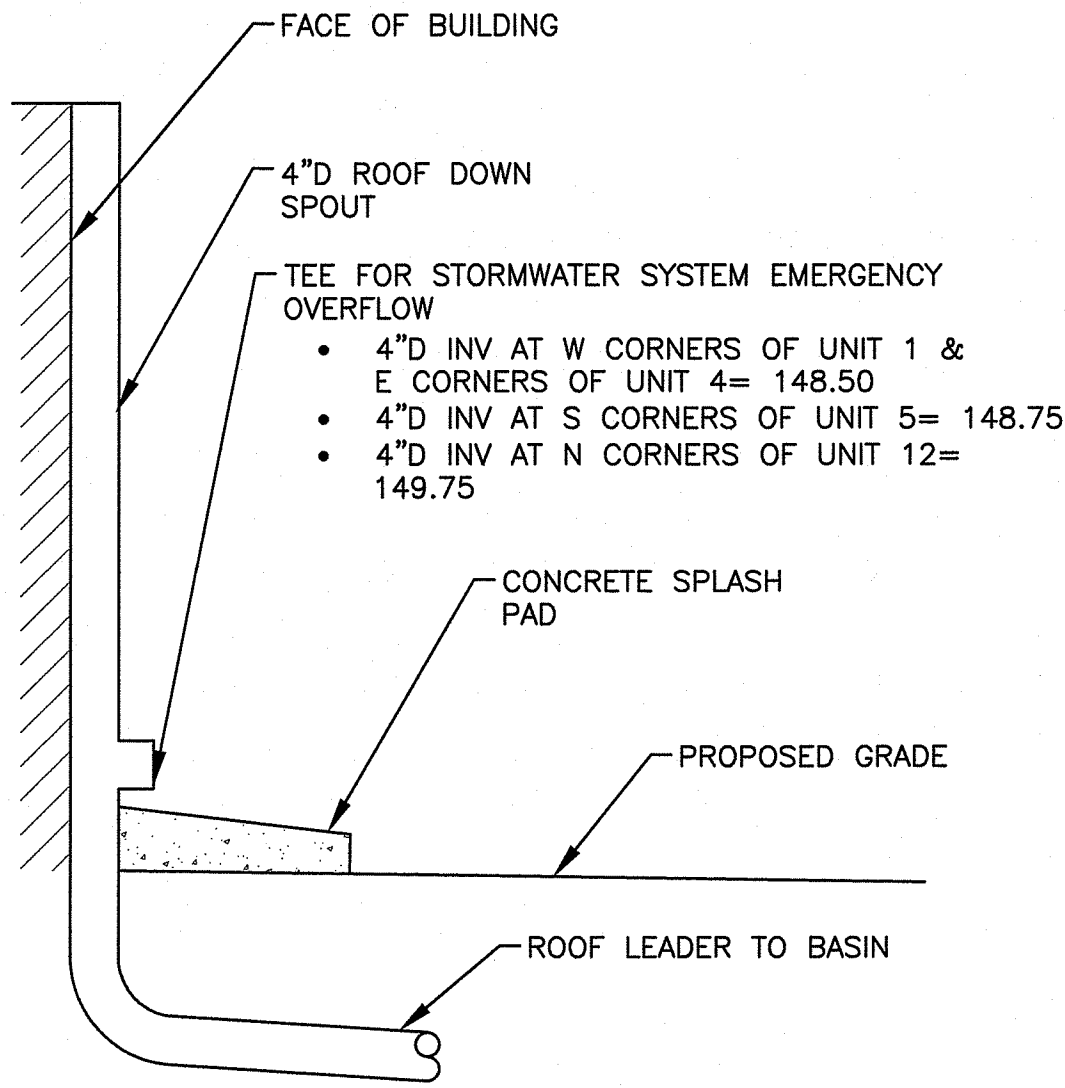
DRAWING NUMBER
C12.1
SHEET: 13 OF 19



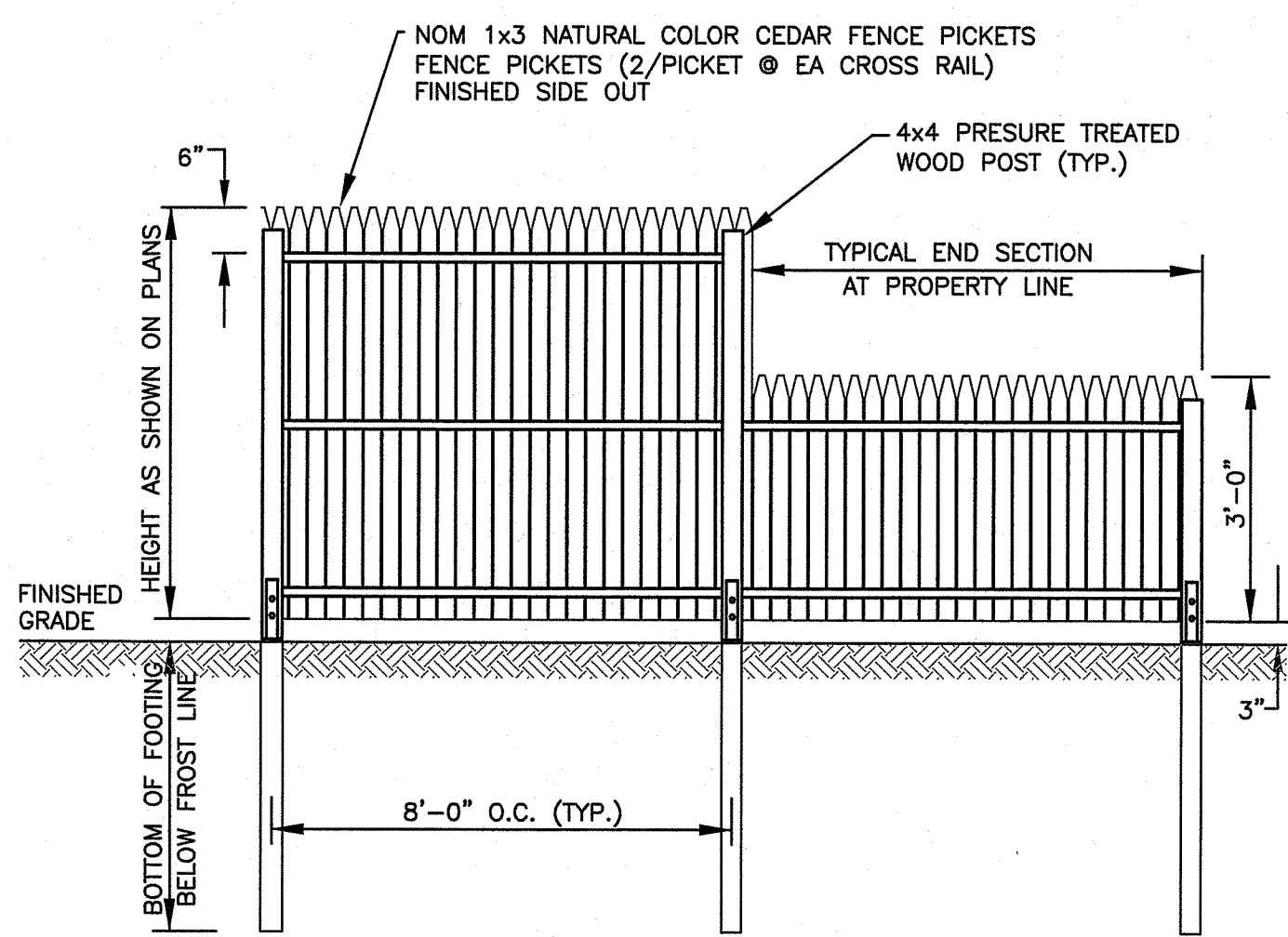
SAND FILTER TYPICAL SECTION
NOT TO SCALE

SAND FILTER SUMMARY

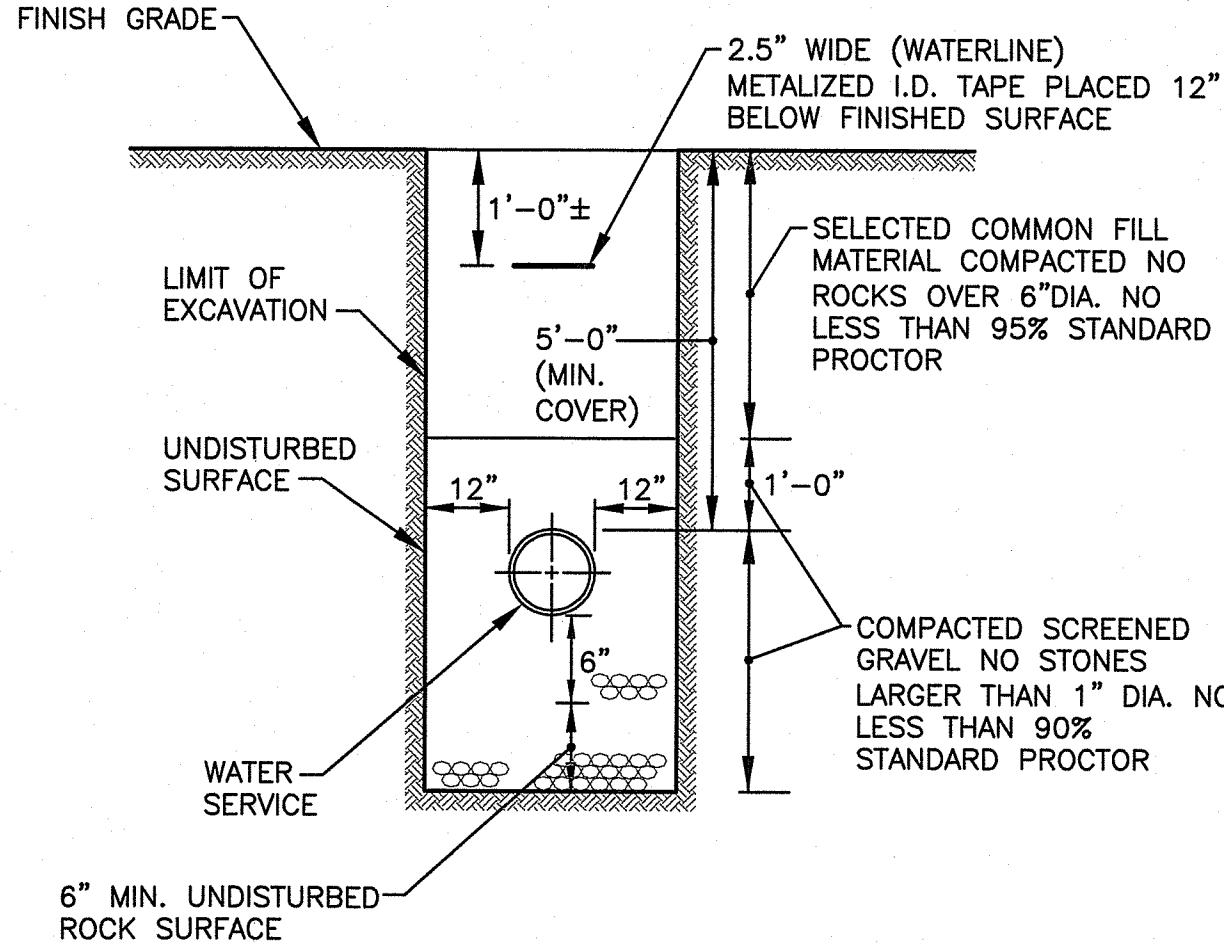
BMP NO.	TOP OF BERM	BOTTOM OF BASIN/ TOP OF SAND FILTER	SAND FILTER BOTTOM	OVERFLOW WEIR CREST ELEVATION	4" UD INV
1a	146.60	144.60	143.10	145.55	142.68
2a	146.60	144.60	143.10	145.60	142.68
3a	145.50	144.50	143.00	144.75	142.58



ROOF DOWN SPOUT DETAIL
NOT TO SCALE



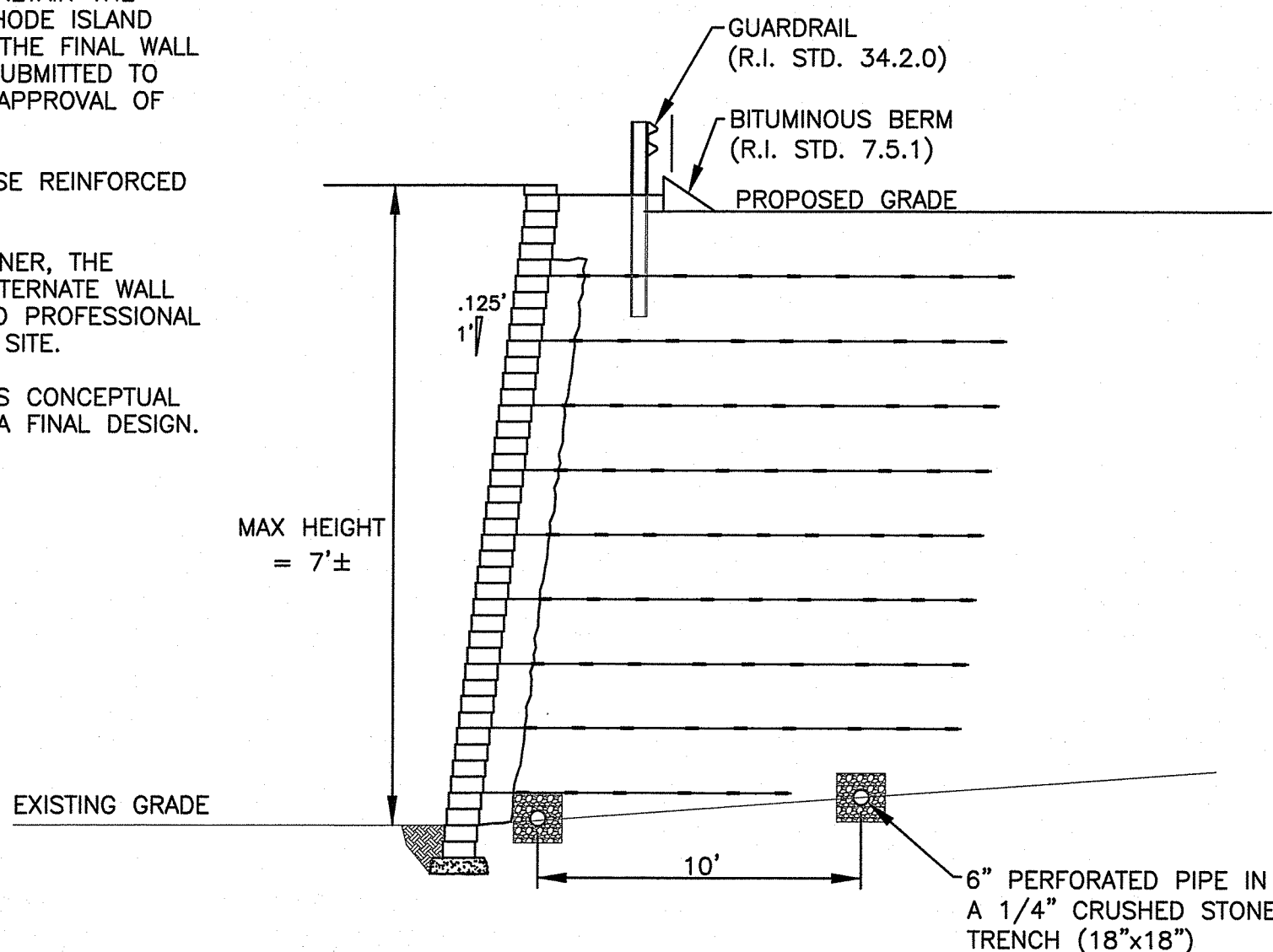
STOCKADE FENCE DETAIL
NOT TO SCALE



WATER TRENCH DETAIL
NOT TO SCALE

NOTES:

- THE WALL SUPPLIER SHALL RETAIN THE SERVICES OF A LICENSED RHODE ISLAND STRUCTURAL ENGINEER FOR THE FINAL WALL DESIGN. DESIGN SHALL BE SUBMITTED TO OWNER AND ENGINEER FOR APPROVAL OF MATERIALS.
- RETAINING WALL SHALL BE MSE REINFORCED WALL OR APPROVED EQUAL.
- UPON APPROVAL BY THE OWNER, THE CONTRACTOR MAY SUBMIT ALTERNATE WALL DESIGNS BY A RHODE ISLAND PROFESSIONAL ENGINEER FOR USE ON THE SITE.
- THE WALL SECTION SHOWN IS CONCEPTUAL AND DOES NOT REPRESENT A FINAL DESIGN.



MSE REINFORCED RETAINING WALL
NOT TO SCALE

SAND FILTER BOTTOM BED NOTE

THE SAND FILTER BOTTOM BED SHALL BE AASHTO M6 OR ASTM 33 CONCRETE SAND.

FILTER FABRIC PLACED BETWEEN SAND FILTER BOTTOM BED AND TOPSOIL LAYERS SHALL BE MIRAFI 180-N OR APPROVED EQUAL.

SAND FILTER/GRASS SWALE AND INFILTRATION BASIN SEED MIX (SEED MIX NO. 2)

APPLICATION RATE = 15-25 LBS. / ACRE (SEASONALLY FLOODED MIX) (SAND FILTER BOTTOM AREA)

- 20% FOX SEDGE, PA ECOTYPE (CAREX VULPINOIDEA, PA ECOTYPE)
16% VIRGINIA WILD RYE, PA ECOTYPE (ELYMUS VIRGINICUS, PA ECOTYPE)
15% RIVERBANK WILD RYE, PA ECOTYPE (ELYMUS RIPARIUS, PA ECOTYPE)
15% JAPANESE MILLET (ECHINOCHLOA CRUSGALLI VAR. FRUMENTACEA)
15% DEER TONGUE, 'TIOGA' (PANICUM CLANDESTINUM (DICHANTHELIUM C.), 'TIOGA')
9% BLUNT BROOM SEDGE, PA ECOTYPE (CAREX SCOPARIA, PA ECOTYPE)
5% SWITCHGRASS, 'CAVE-IN-ROCK' (PANICUM VIRGATUM, 'CAVE-IN-ROCK')
2% GREEN BULRUSH, PA ECOTYPE (SCIRPUS ATROVIRENS, PA ECOTYPE)
2% AWL SEDGE, PA ECOTYPE (CAREX STIPATA, PA ECOTYPE)
1% AUTUMN BENTGRASS, APB (AGROSTIS PERENNANS, APB)

SAND FILTER NOTES

- SAND FILTER BASIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, APPENDIX F.5, CONSTRUCTION STANDARDS/SPECIFICATIONS FOR FILTER BMP'S.
- MATERIAL USED SHALL MEET THE REQUIREMENTS OF TABLE F-16 IN APPENDIX F.5.
- THE CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE ABOVE REFERENCED MANUAL. THE MANUAL CAN BE FOUND FOUND AT <http://www.dem.ri.gov/pubs/regs/water/swrmanual.pdf>.
- CONTRACTOR IS RESPONSIBLE TO SUBMIT SHOP DRAWINGS AND SPECIFICATIONS FOR SAND FILTER MATERIAL PRIOR TO START OF CONSTRUCTION.
- FILTER FABRIC SHALL BE MARIFI 160 N OR APPROVED EQUAL.
- AS NOTED, BASIN SHALL HAVE 2 PLY FILTER FABRIC; 1 FOR UPPER MEMBRANE PROTECTION AND 1 FOR WRAPPING BASIN UNDERDRAIN SYSTEM.

TOPSOIL MIX FOR BASINS

PLANTING SOIL SHALL MEET THE BELOW COMPOSITION;

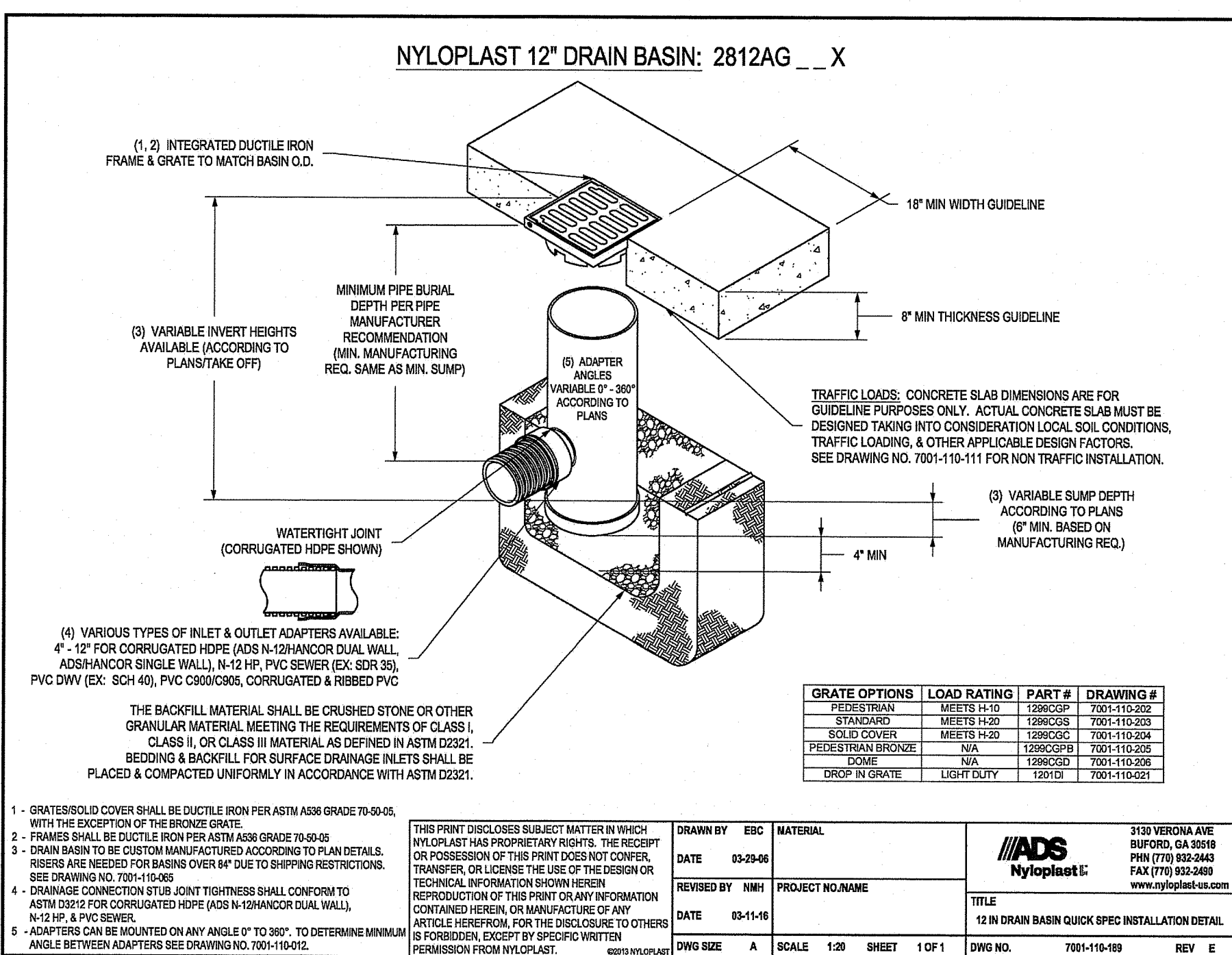
SAND: 85-88%
SOIL FINES: 8-12% (NO MORE THAN 2% CLAY)
ORGANIC MATTER: 3-5%

DRAINAGE NOTES

- CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
- CONTRACTOR IS RESPONSIBLE TO OBTAIN SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS FOR REVIEW AND APPROVAL BY THE ENGINEER, PRIOR TO ORDERING. CONCRETE MANUFACTURER SHALL REVIEW RIM TO TOP OF PIPE ELEVATIONS AND PROVIDE SPECIFIC DETAILS.
- ALL STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
- ALL CATCH BASINS SHALL BE PRECAST CONCRETE WATER TIGHT STRUCTURES. (NO WEEP HOLES)
- UNLESS OTHERWISE NOTED, ALL SOLID DRAINAGE PIPE SHALL BE ADS N-12 HDPE OR APPROVED EQUAL. PIPE BEDDING SHALL BE IN CRUSHED STONE OR GRAVEL BORROW COMPACTED TO 95% DRY DENSITY (MODIFIED PROCTOR METHOD). ADS PIPE SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' REQUIREMENTS.
- ALL ROOF DRAINS SHALL BE INSTALLED AT A 1.0% MINIMUM SLOPE.

WATER NOTES

- ALL INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CURRENT RULES AND REGULATIONS OF THE WATER WORKS DIVISION OF THE PUBLIC WORKS DEPARTMENT, CITY OF WOONSOCKET, RI AND ANSI/AWWA C600 STANDARDS.
- DOMESTIC WATER SERVICES SHALL BE 1" HDPE POLYETHYLENE PIPE CONFORMING TO ASTM D1248 TYPE III, GRADE P34, CLASS A, CATEGORY 5, COLOR BLUE WITH VIRGIN CLEAR NATURAL CENTER, AWWA C901, 200 PSI. THE DOMESTIC WATER SERVICES SHALL HAVE A METER AND BACKFLOW INSTALLED INSIDE THE PROPOSED BUILDING.
- ALL FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CLASS 350 CEMENT MORTAR LINED COMPACT STYLE (BY AMERICAN MANUFACTURER ONLY). FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C153/A21.53. MECHANICAL JOINTS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C111/A21.11.
- FOR THE DOMESTIC WATER LINES, THE CONTRACTOR SHALL INSTALL A CORPORATION STOP, 1" WATER SERVICE, AND CURB BOX TO THE LOT AND A 12" TYPE "K" COPPER WHIP AT THE POINT OF ENTRY INTO BUILDING.
- CONSTRUCTION SHALL INCLUDE ALL PIPE, JOINTS, BENDS, TEES, FITTINGS, THRUST BLOCKS (AS REQUIRED), GATE VALVES, GATE BOXES, SERVICE CONNECTIONS AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE PROPOSED DOMESTIC SERVICE CONNECTION.
- PRESSURE AND LEAKAGE TESTS AND DISINFECTING PIPES SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE TO THE WOONSOCKET WATER WORKS DIVISION REQUIREMENTS, AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS SET FORTH IN THE RULES AND REGULATIONS OF THE WOONSOCKET WATER WORKS DIVISION.
- ALL GATE VALVES, FITTINGS, PIPE, JOINTS, ETC. SHALL BE DESIGNED FOR 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 250 PSI.
- WATER PIPE SHALL BE LOCATED AT A DEPTH OF COVER EQUAL TO 5' MINIMUM. A MINIMUM OF 10'-FEET HORIZONTAL OR 18-INCH VERTICAL SEPARATION SHALL BE MAINTAINED IN THE PLACEMENT OF WATER MAINS, SERVICES, OR APPURTENANCES WITHIN THE VICINITY OF SEWAGE FACILITIES, OR VICE VERSA, WHERE THE ABOVE SEPARATION DISTANCES CANNOT BE ACHIEVED, THE SANITARY SEWER PIPE SHALL BE ENCASED WITHIN A DUCTILE IRON CARRIER PIPE FOR A DISTANCE EQUAL TO 10'-FEET ON EITHER SIDE OF THE AREA OF CONCERN. CONCRETE ENCASEMENT IS NOT ALLOWED. UTILITY SEPARATION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE WOONSOCKET WATER WORKS DIVISION.
- ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS GATE VALVE, PIPE, THRUST BLOCKS (AS REQUIRED), FITTINGS, CASTINGS, ETC. SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
- WATER LINE TRENCH TO BE AWWA TYPE 5. COMPACTION MUST BE ACCOMPLISHED IN 6" LIFTS. A METALIZED DETECTABLE IDENTIFICATION TAPE 2.5" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATERLINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS. TAPE SHALL BE SET AT APPROXIMATELY 1'-0" BELOW FINISHED GRADE.
- CORPORATION STOPS SHALL BE BALL TYPE WITH EITHER STAINLESS STEEL, SYNTHETIC COATED BRASS BALL OR NICKEL COATED BRASS BALL DESIGNED FOR POTABLE WATER SERVICE UP TO 300 PSI. BODY SHALL BE HEAVY CAST LEAD FREE "ENVIROBRASSII" UNS ALLOY NUMBER C89520 ASTM B584-98A AND/OR AWWA C800/ASTM B-62 MEETING OR EXCEEDING THE LEAD LEACHING PERFORMANCE SPECIFICATIONS OF ANSI/NSF 61 STANDARD. ALL CORPORATION STOPS SHALL MEET OR EXCEED DESIGN STANDARDS OF AWWA C800 ALONG WITH THE DESIGN AND OPEN LEFT.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COMPLETE AND SUBMIT THE "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE" FOR UNDERGROUND PIPING TO THE WOONSOCKET WATER WORKS DIVISION AND ENGINEER. IN ADDITION, THE CONTRACTOR IS REQUIRED TO SUBMIT THE FOLLOWING ITEMS TO THE ENGINEER FOR THEIR REVIEW AND APPROVAL:
 - TYPE AND MANUFACTURER OF SERVICE BOXES
 - TYPE AND MANUFACTURER OF CORPORATIONS AND CURB STOPS
 - TYPE AND MANUFACTURER OF VALVE BOXES
 - TYPE AND MANUFACTURER OF D.I. MECHANICAL JOINTS AND FITTINGS
 - TYPE AND MANUFACTURER OF TAPPING SLEEVES
 - TYPE AND MANUFACTURER OF DI PIPING
 - TYPE AND MANUFACTURER OF RESILIENT SEALED GATE VALVES
- AS-BUILT DRAWINGS MUST BE FURNISHED BY THE CONTRACTOR TO, AND APPROVED BY, WOONSOCKET WATER WORKS DIVISION PRIOR TO WATER SERVICE ACTIVATION. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE WOONSOCKET WATER WORKS DIVISION AND ENGINEER TWO (2) SETS OF AS BUILT PLANS (ONE BLUE LINE, ONE REPRODUCIBLE COPY-MYLAR OR SEPIA) WHICH INDICATES:
 - a. ALL CURB STOPS WITH APPROPRIATE LOCATING MEASUREMENTS, SUCH AS WATER MAIN TO CURB STOP OFFSET.
 - b. LOCATIONS AND TOP ELEVATIONS ON ALL BENDS, FITTINGS AND VALVES.
 - c. A SCHEDULE OF MATERIALS WHICH INDICATES:
 - 1. ITEM QUANTITY
 - 2. MANUFACTURER
 - 3. DESCRIPTION
 - a. INCLUDE SERIAL #'S AS APPLICABLE
 - b. MATERIAL
 - c. OPERATION CHARACTERISTICS
- ALL GATE VALVES TO BE RESILIENT WEDGE GATE VALVES AND SHALL OPEN LEFT. ALL CURB STOP VALVES SHALL OPEN LEFT.





- Civil
- Transportation
- Environmental
- Site Planning
- Surveying
- Permitting
- Landscape Architecture

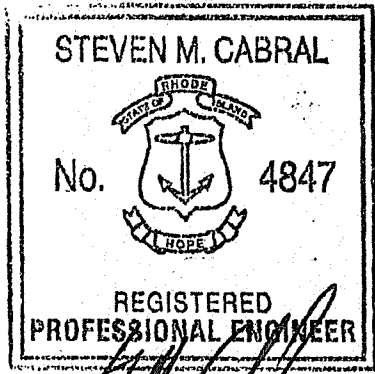
Crossman Engineering

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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED SEP 26 2024 FILE # 24-1103
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT TITLE:
**MILL RIVER
TOWNHOUSES**

**PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND
MULTI-FAMILY RESIDENTIAL
DISTRICT**

**256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND**

PREPARED FOR:

**CT RENOVATION &
DESIGN, LLC**

**25 CRAWFORD STREET
WOONSOCKET, RI 02895**

DRAWING TITLE:
**MISCELLANEOUS
DETAILS PLAN No. 3**

DATE:
MARCH 2024

SCALE:
AS NOTED

DWG. NAME:
2556-15-DET03.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	PRELIMINARY PLAN	06/20/24
2	REDEM COMMENTS	07/16/24

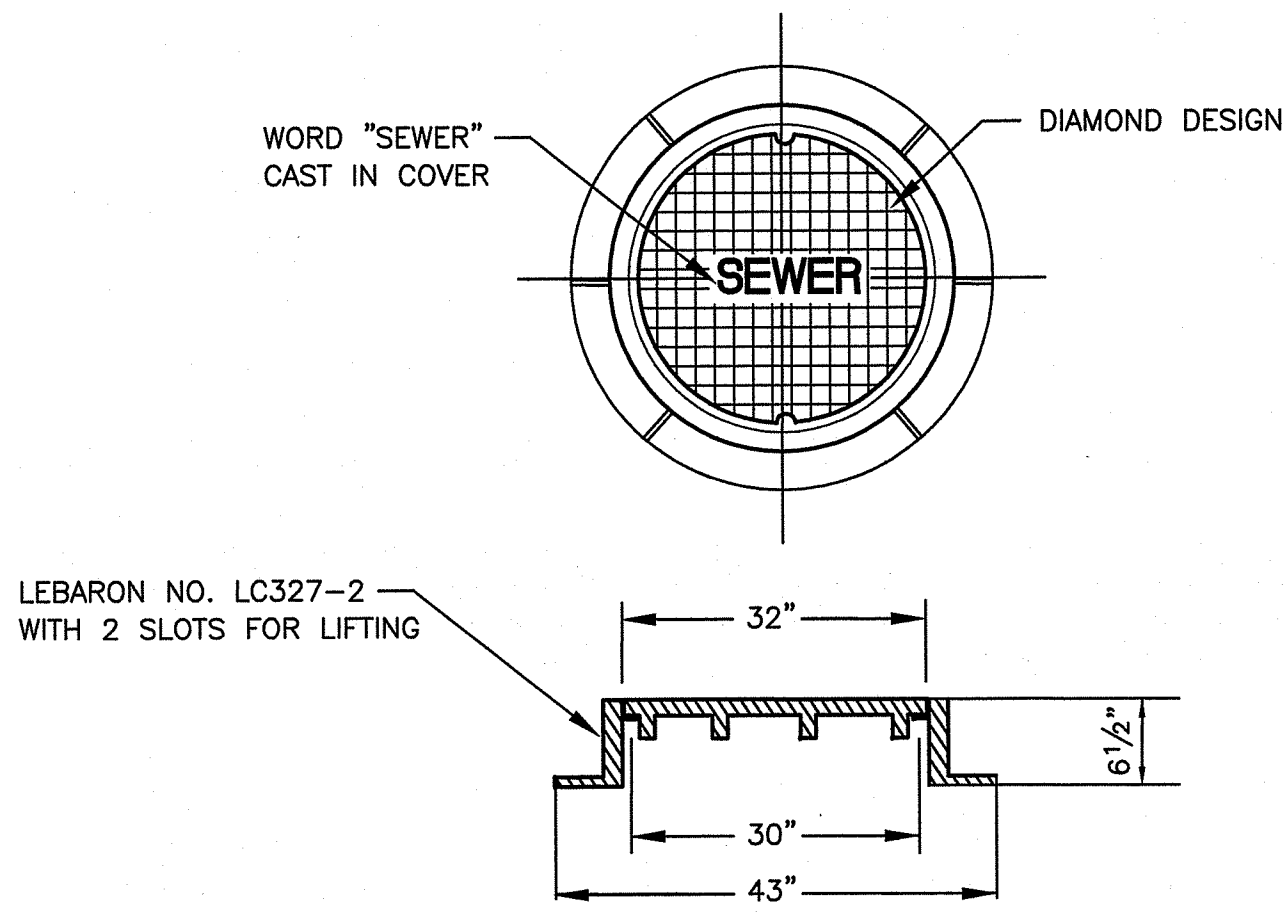
DRAWING NUMBER

C12.3

SHEET: 15 OF 19

GENERAL SEWER NOTES

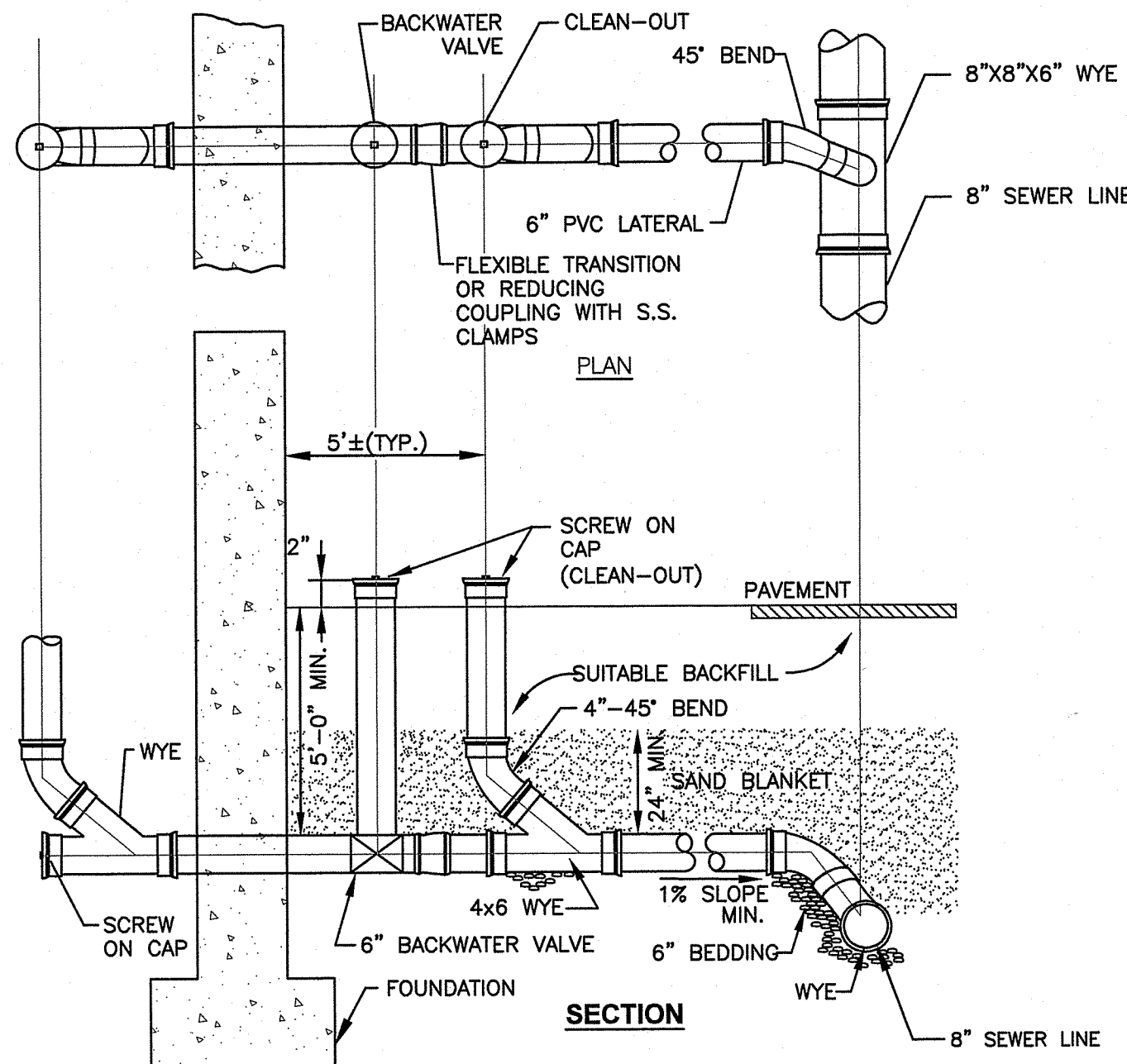
1. INSTALLATION OF THE SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE CITY OF WOONSOCKET SEWER ORDINANCE SPECIFICATIONS & REQUIREMENTS.
2. PRIOR TO RECEIVING AUTHORIZATION TO CONSTRUCT, ALL MATERIALS SHALL MEET THE STANDARDS AND RECEIVE THE WRITTEN APPROVAL, BASED ON MANUFACTURER'S DRAWINGS AND OTHER DATA, FROM THE ENGINEER.
3. ALL SEWERAGE FACILITIES SHALL MEET TESTING AND CLEANING REQUIREMENTS PRIOR TO ACCEPTANCE.
4. AS-BUILT DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR AS A CONDITION FOR OWNER ACCEPTANCE OF THE NEW SEWERAGE FACILITIES.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND MATERIALS. STANDARDS AND SPECIAL DETAILS, AND STANDARD SPECIFICATIONS. ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE IMMEDIATELY REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR SHALL CONFINE HIS OPERATIONS AND ACTIVITIES FOR CONSTRUCTION WITHIN THE LIMITS OF WORK AS SHOWN ON THE DRAWINGS.
9. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO EXTRA COST TO THE OWNER. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE LOAMED AND SEEDED.
10. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND NOTIFY THE APPROPRIATE UTILITY AUTHORITIES INCLUDING "DIG-SAFE" PRIOR TO STARTING WORK. ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COST OF REPAIRS SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
11. RELATION TO WATER LINES:
 - A. HORIZONTAL SEPARATION: WHENEVER POSSIBLE, SEWERS SHOULD BE LAID AT A MINIMUM OF 10 FEET (3.0 m), HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER LINE. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET, A SEWER MAY BE LAID CLOSER THAN 10 FEET TO A WATER LINE IF:
 1. IT IS LAID IN A SEPARATE TRENCH, OR IF
 2. IT IS LAID IN THE SAME TRENCH WITH THE WATER LINE LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND IF
 3. IN EITHER CASE THE ELEVATION OF THE TOP (CROWN) OF THE SEWER IS AT LEAST 18 INCHES (46 cm) BELOW THE BOTTOM (INVERT) OF THE WATERLINE.
 - B. VERTICAL SEPARATION: WHENEVER SEWER MUST CROSS UNDER WATER LINES, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES (46 cm) BELOW THE BOTTOM OF THE WATER LINE. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER LINE SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR RECONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET (3.0 m) ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER LINE SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.
 - C. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL AND/OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER LINE AND SEWER SHALL BE CONSTRUCTED OF MECHANICAL-JOINT CEMENT LINED DUCTILE IRON PIPE OR OTHER EQUIVALENT BASED ON WATER TIGHTNESS AND STRUCTURAL SOUNDNESS. BOTH PIPES SHALL BE PRESSURE TESTED BY AN APPROVED METHOD TO ASSURE WATER TIGHTNESS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING REQUIRED IN THE SEWER INSTALLATION.
13. THE PROPOSED GRAVITY SANITARY SEWER PIPES SHALL BE 6" SDR-35, AS SHOWN ON PLANS.
14. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ELEVATIONS OF EXISTING SEWER LINES PRIOR TO INSTALLATION.



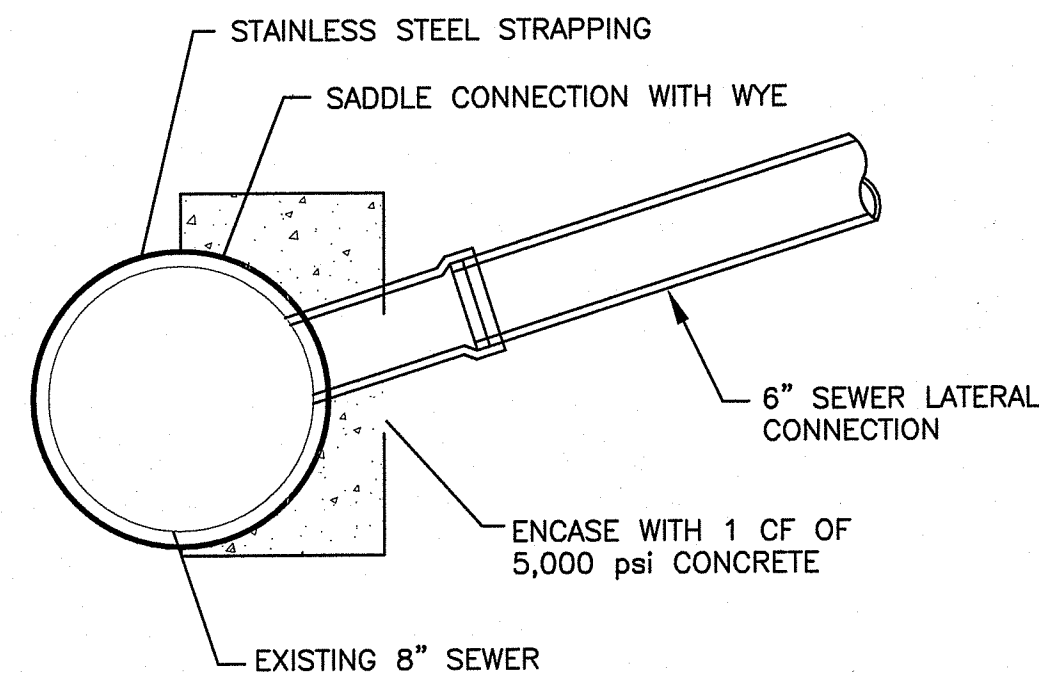
NOTES:

1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.
3. THE WORD "SEWER" SHALL BE CAST IN THE COVER.
4. VENTILATION HOLES OF ANY SIZE ARE NOT ALLOWED.

SANITARY MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE



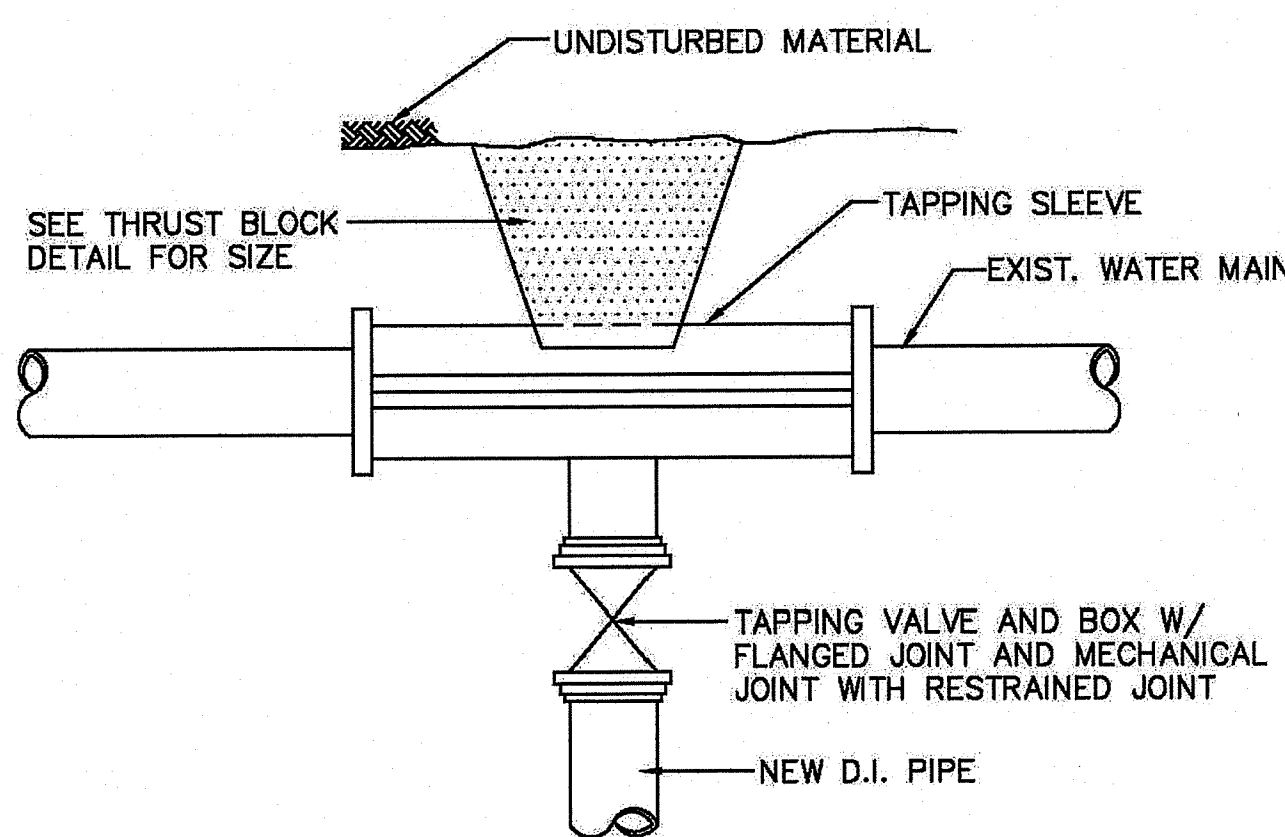
STANDARD BUILDING CONNECTION DETAIL
NOT TO SCALE



NOTES

1. FULL PVC OR IRON SADDLE MAY BE USED TO CONNECT TO EXISTING PIPE.
2. SADDLES MUST HAVE RUBBER GASKETS AND SHALL BE TIGHTENED WITH STRAPS. SADDLES WILL NOT BE CEMENTED ONTO THE PIPE.
3. FULL WYE CONNECTION FITTINGS MAY BE USED.
4. PIPE SHALL BE CUT TO CONFORM TO THE OPENING IN THE SADDLE.
5. CONNECTIONS DIRECTLY INTO THE EXISTING PIPE WITHOUT A SADDLE OR FULL WYE FITTING ARE NOT ALLOWED.

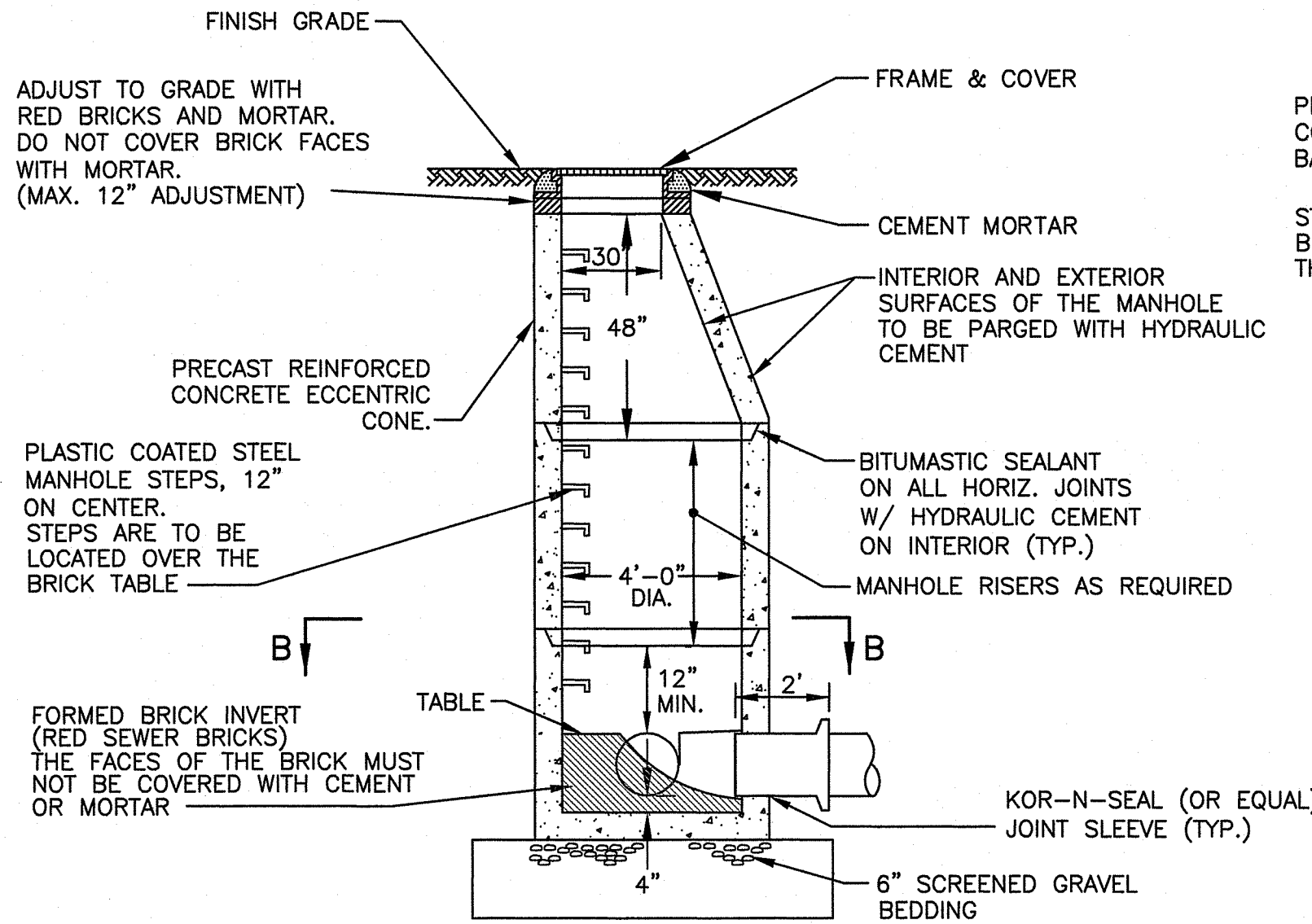
SEWER CONNECTION DETAIL
NOT TO SCALE



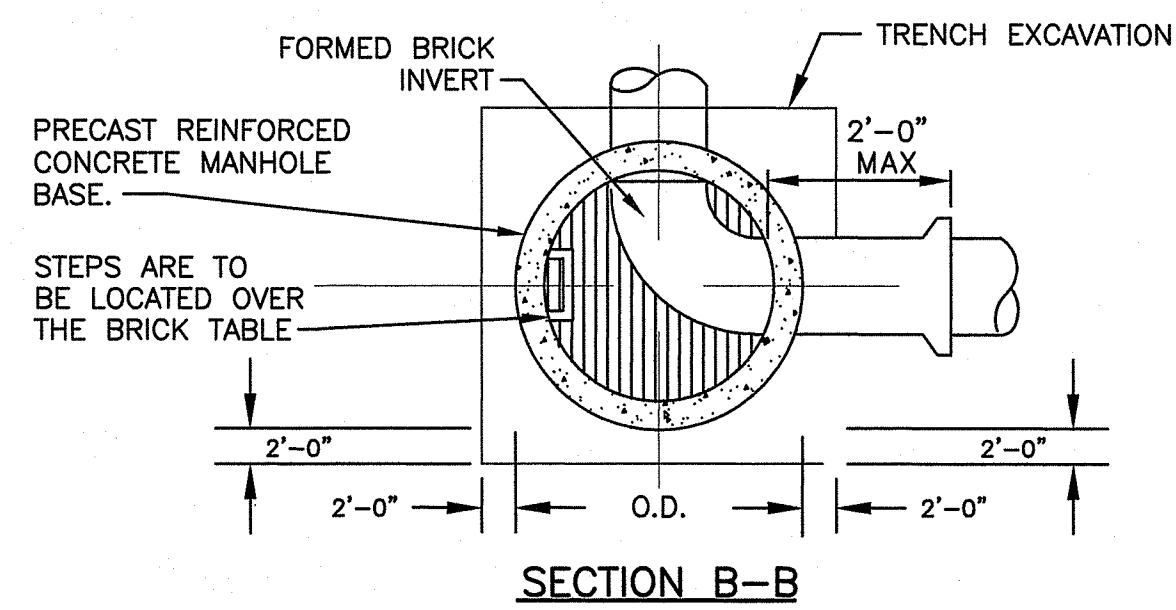
NOTE:

- 1.) TAPPING SLEEVE AND VALVE TO BE SWABBED WITH CHLORINE SOLUTION.

TAPPING SLEEVE AND VALVE DETAIL
NOT TO SCALE



SANITARY MANHOLE DETAIL
NOT TO SCALE

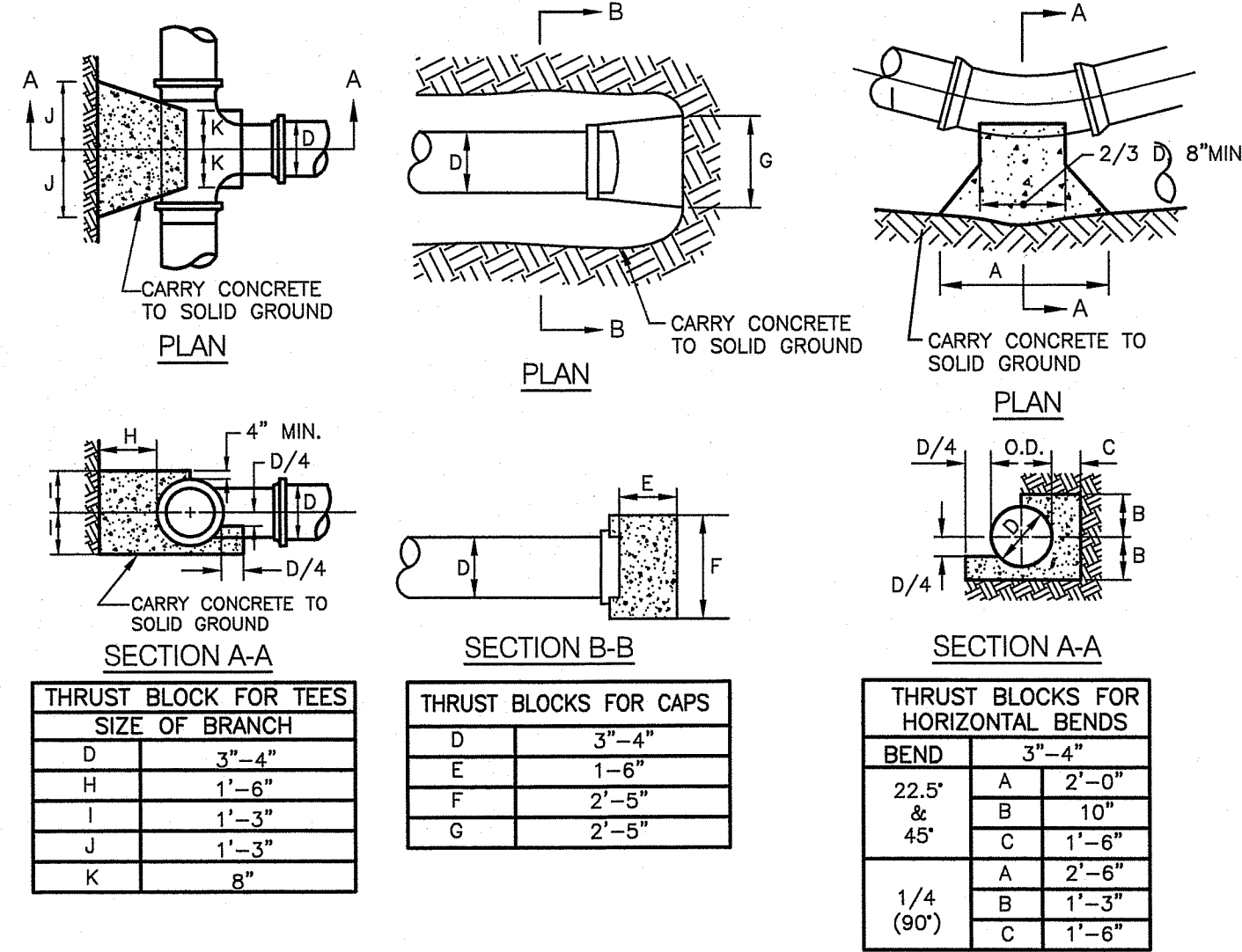


NOTES:

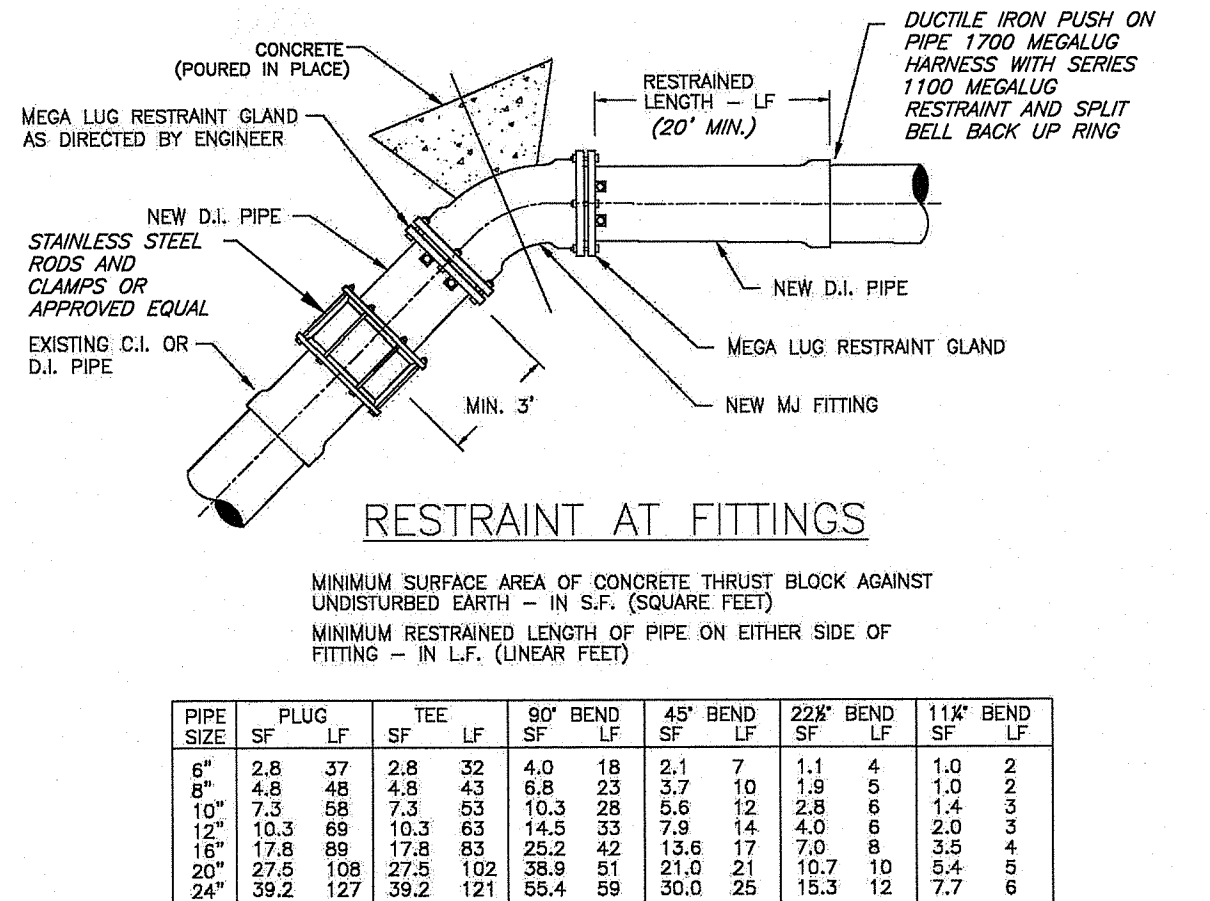
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.12 SQ. IN./L.F. MINIMUM.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN. / L.F. (BOTH WAYS).
4. ONE POUR MONOLITHIC BASE SECTION.
5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
6. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
7. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
8. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
9. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.
10. ALL JOINTS AND PINHOLES TO BE PLUGGED INSIDE AND OUTSIDE WITH HYDRAULIC CEMENT.

THRUST BLOCK NOTES

1. ALL CONCRETE TO BE CLASS B.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 1500 P.S.F. LATERAL AND STATIC WATER PRESSURE OF 150 P.S.I. WHERE PRESSURE EXCEEDS 150 P.S.I. OR WHERE SOIL BEARING PRESSURE IS LESS THAN 1500 P.S.F. LATERAL, OR SOIL CONDITIONS OR EXCAVATION LIMITS ENCOUNTERED DURING CONSTRUCTION MAKE IT UNFEASIBLE TO PLACE THRUST BLOCKS AGAINST UNDISTURBED EARTH OF THE PROPER BEARING CAPACITY. THE CONTRACTOR SHALL DESIGN, GET APPROVAL OF, AND PLACE SPECIAL REACTION BLOCKS OF SUFFICIENT WEIGHT TO RESIST THE FULL THRUST OF THE LINE UNDER TEST AND OPERATING PRESSURES. THE DESIGN OF SUCH BLOCKS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER BEFORE ACTUAL INSTALLATION TAKES PLACE.
3. ALL THRUST BLOCKS SHALL BE CONCRETE 3,000 P.S.I. @ 28 DAYS AND BEARING AGAINST UNDISTURBED EARTH.

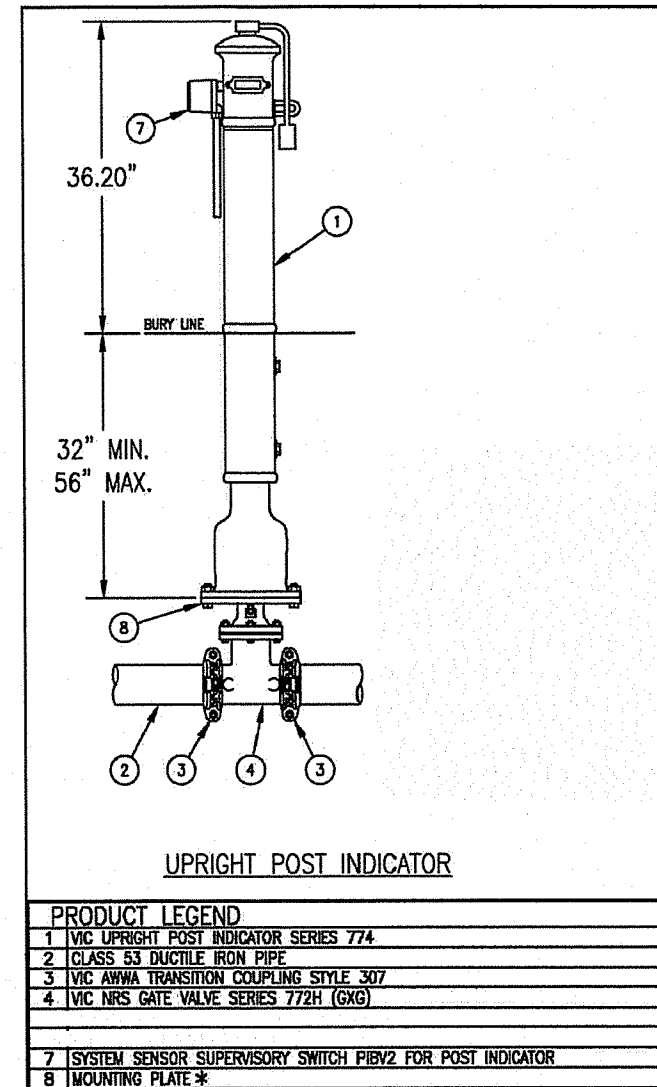


THRUST BLOCKS FOR CAPS, TEES AND HORIZONTAL BENDS
NOT TO SCALE



1. ALL CONCRETE TO BE CLASS B (A).
2. THE "SF" VALUES IN THE ABOVE TABLE ARE BASED ON 3000 p.s.i. SOIL BEARING CAPACITY, 150 p.s.i. TEST PRESSURE AND A 1.5 FACTOR OF SAFETY.
3. THE "LF" VALUES IN THE ABOVE TABLE ARE BASED ON A TYPE 3 LAYING CONDITIONS, A SAND SILT SOIL DESIGNATION, A 5 FOOT RUN LENGTH, 150 P.S.I. TEST PRESSURE AND A 1.5 FACTOR OF SAFETY AS USED IN THE "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" COMPUTER PROGRAM BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION.
4. IF SOIL CONDITIONS OR EXCAVATION LIMITS ENCOUNTERED DURING CONSTRUCTION MAKE IT UNFEASIBLE TO PLACE THRUST BLOCKS AGAINST UNDISTURBED EARTH OF THE PROPER BEARING CAPACITY, THE CONTRACTOR SHALL DESIGN AND PLACE SPECIAL REACTION BLOCKS OF SUFFICIENT WEIGHT TO RESIST FULL THRUST UNDER ALL CONDITIONS. THE DESIGN SHALL BE SUBJECT TO ENGINEER APPROVAL.
5. MINIMUM SURFACE AREAS SHALL BE INCREASED BY 50% IF DEEMED NECESSARY BY THE ENGINEER.
6. A MECHANICAL JOINT RESTRAINT SYSTEM MUST BE USED FOR VERTICAL BENDS.
7. AT THE DISCRETION OF THE ENGINEER, A JOINT RESTRAINT SYSTEM MAY BE SUBSTITUTED FOR OR USED IN COMBINATION WITH PROPER THRUST BLOCKING.
8. A 48 HR. CURING PERIOD MUST BE GIVEN BEFORE FULL LINE PRESSURE CAN BE APPLIED TO NEW CONCRETE THRUST BLOCKS.
9. ANCHOR BLOCK DESIGN FOR PIPE LARGER THAN 24" SHALL BE REVIEWED ON AN INDIVIDUAL BASIS BY THE ENGINEER.

RESTRAINT AT FITTINGS DETAIL
NOT TO SCALE



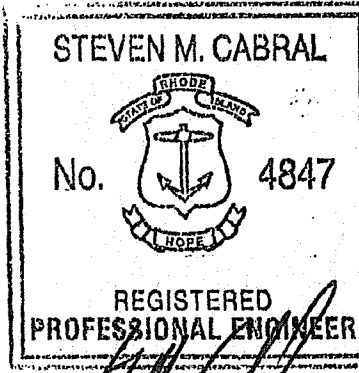
NOTES

1. THE CONTRACTOR SHALL SUBMIT PIV MAKE AND MODEL TO THE ENGINEER FOR APPROVAL.
2. PROVIDE A 18"x18"x4" CONCRETE COLLAR ON 6" GRAVEL BASE AROUND PIV STEM.

POST INDICATOR VALVE SCHEMATIC DETAIL
SCALE: NTS

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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATE: SEP 26 2024 FILE #: 24-015
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT TITLE:
MILL RIVER TOWNHOUSES
PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND MULTI-FAMILY RESIDENTIAL DISTRICT
256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND

PREPARED FOR:
CT RENOVATION & DESIGN, LLC
25 CRAWFORD STREET
WOONSOCKET, RI 02895

DRAWING TITLE:
MISCELLANEOUS DETAILS PLAN No. 4

DATE: MARCH 2024 SCALE: AS NOTED
DWG. NAME: 2556-16-DET04.dwg

REVISIONS		
		
NUMBER	REMARKS	DATE
1	PRELIMINARY PLAN	05/20/
2	RIDEM COMMENTS	07/16/

DRAWING NUMBER
C12.4
SHEET: 16 OF 19

	MOWED AREAS (SEED MIX NO. 1)
	SHRUB AND GRASS MIX REPLANTING AREA
	GRASS MIX REPLANTING AREA
	STORMWATER FEATURES (SEED MIX NO. 2)
	SCREENING VEGETATION: RHODODENDRON MAXIMUM

1. PLANTINGS IN THE SHRUB AND GRASS MIX REPLANTING AREA SHALL INCLUDE AN EQUAL COMBINATION OF THE FOLLOWING SHRUB AND TREE SPECIES. SHRUBS SHALL BE PLANTED 5' ON CENTER AND 3' IN HEIGHT AFTER PLANTING. SHRUBS SHALL CONSIST OF:

ONCE SHRUB PLANTINGS HAVE BEEN INSTALLED WITHIN THE SHRUB AND GRASS MIX REPLANTING AREA SHALL BE SEEDED WITH A WILDLIFE CONSERVATION SEED MIX (NEW ENGLAND WETLAND PLANTS, INC. OR SIMILAR NATIVE MIX).

2. GRASS MIX REPLANTING AREA TO BE PLANTED WITH A NATIVE GRASS SEED MIX. THE NATIVE GRASS MIX PROPOSED DEPENDS ON THE RELATIVE EXPECTED WETNESS OF THE AREA, HOWEVER PROPOSED MIXES INCLUDE NEW ENGLAND WETLAND PLANTS, INC. SHOWY WILDFLOWER SEED MIX, NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX, AND NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES. COORDINATE WITH BIOLOGIST ON SEED MIX TYPE AND LOCATIONS.

<u>TYPE</u>	<u>% BY WEIGHT</u>
NASSAU KENT BLUE	60
JAMESTOWN CHEWINGS FESCUE	20
PALMER PERENNIAL RYE GRASS	20

SEED MIX NO. 2

APPLICATION RATE = 15-25 LBS. / ACRE
(SEASONALLY FLOODED MIX)
(SAND FILTER BOTTOM AREA)

20% FOX SEDGE, PA ECOTYPE (CAREX VULPINOIDEA, PA ECOTYPE)
16% VIRGINIA WILD RYE, PA ECOTYPE (ELYMUS VIRGINICUS, PA ECOTYPE)
15% RIVERBANK WILD RYE, PA ECOTYPE (ELYMUS RIPARIUS, PA ECOTYPE)
15% JAPANESE MILLET (ECHINOCHLOA CRUSGALLI VAR. FRUMENTACEA)
13% DEER TONGUE, 'TIOGA' (PANICUM CLANDESTINUM (DICHTANHELMIUM C.), 'TIOGA')
9% BLUNT BROOM SEDGE, PA ECOTYPE (CAREX SCOPARIA, PA ECOTYPE)
5% SWITCHGRASS, 'CAVE-IN-ROCK' (PANICUM VIRGATUM, 'CAVE-IN-ROCK')
2% GREEN BULRUSH, PA ECOTYPE (SCIRPUS ATROVIRENS, PA ECOTYPE)
2% AUL SEDGE, PA ECOTYPE (CAREX STIPATA, PA ECOTYPE)
1% AUTUMN BENTGRASS, APB (AGROSTIS PERENNANS, APB)

SHRUB AND GRASS MIX-
REPLANTING AREA (TYP.)

7 RHODODENDRON —
SPACED 5' OC (TYP.)

A.P. 21 LOT 3
N/F
TRIO PARTNERS OWNER LLC

INTERIOR LANDSCAPING WITH
MULCH AREAS (TYP.),
COORDINATE WITH OWNER AND
LANDSCAPE ARCHITECT ON
PLANTINGS

14 RHODODENDRON —
SPACED 5' OC (TYP.)

1 RHODODENDRON

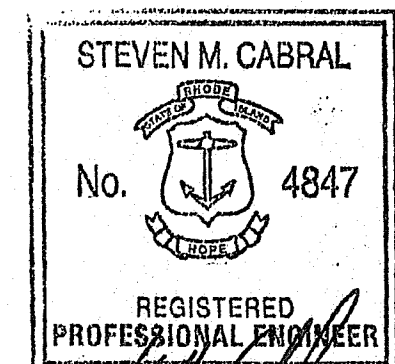
PRIVILEGE STREET

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.



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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS
SPECIFIED IN THE LETTER OF APPROVAL
DATED: SEP 26 2024 FILE #: 24-0103
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT TITLE:

**PROPOSED
SITE DEVELOPMENT
PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND
MULTI-FAMILY RESIDENTIAL
DISTRICT AND SPECIAL FLOOD
HAZARD OVERLAY DISTRICT**

PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

**CT RENOVATION &
DESIGN, LLC**

**25 CRAWFORD STREET
WOONSOCKET, RI 02895**

DRAWING TITLE:

LANDSCAPE and BUFFER MITIGATION PLAN

DATE: MARCH 2024	SCALE: 1"=20'
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DWG. NAME: 2556-18-LAND.dwg

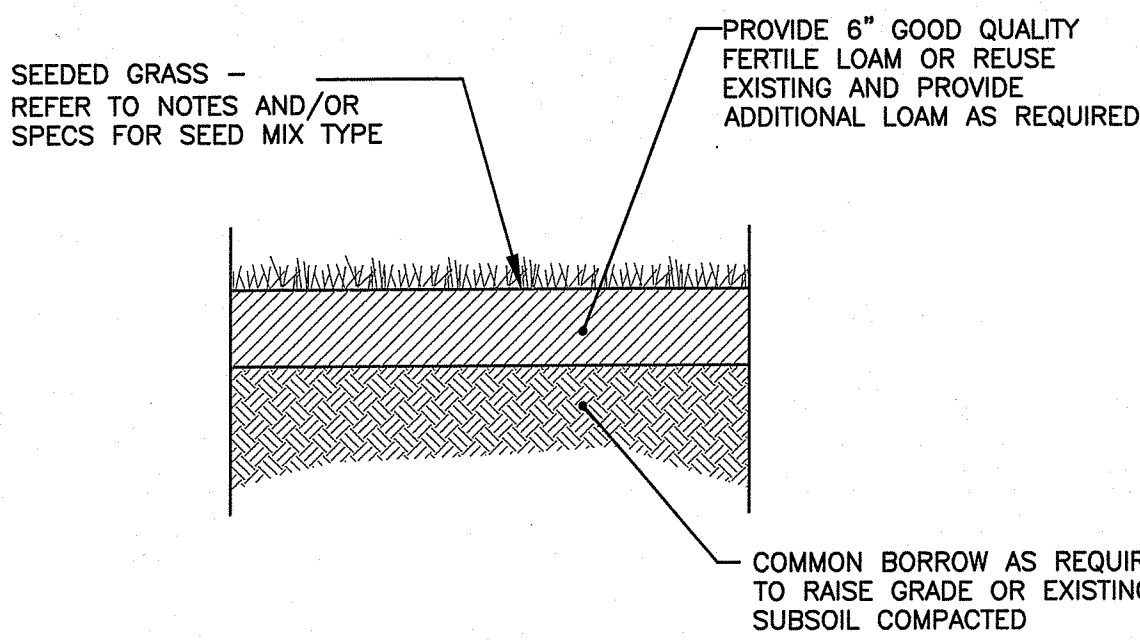
REVISIONS

[illegible]

DRAWING NUMBER

L1

SHEET. 18 OF 19



NOTE:
THE CONTRACTOR WILL BE RESPONSIBLE FOR WATERING LAWN DURING THE COURSE OF THE GROWING SEASON FOR A PERIOD OF ONE (1) YEAR.

LOAM-SEED DETAIL
NOT TO SCALE

SEED MIX No. 1
(MOWED AREAS)

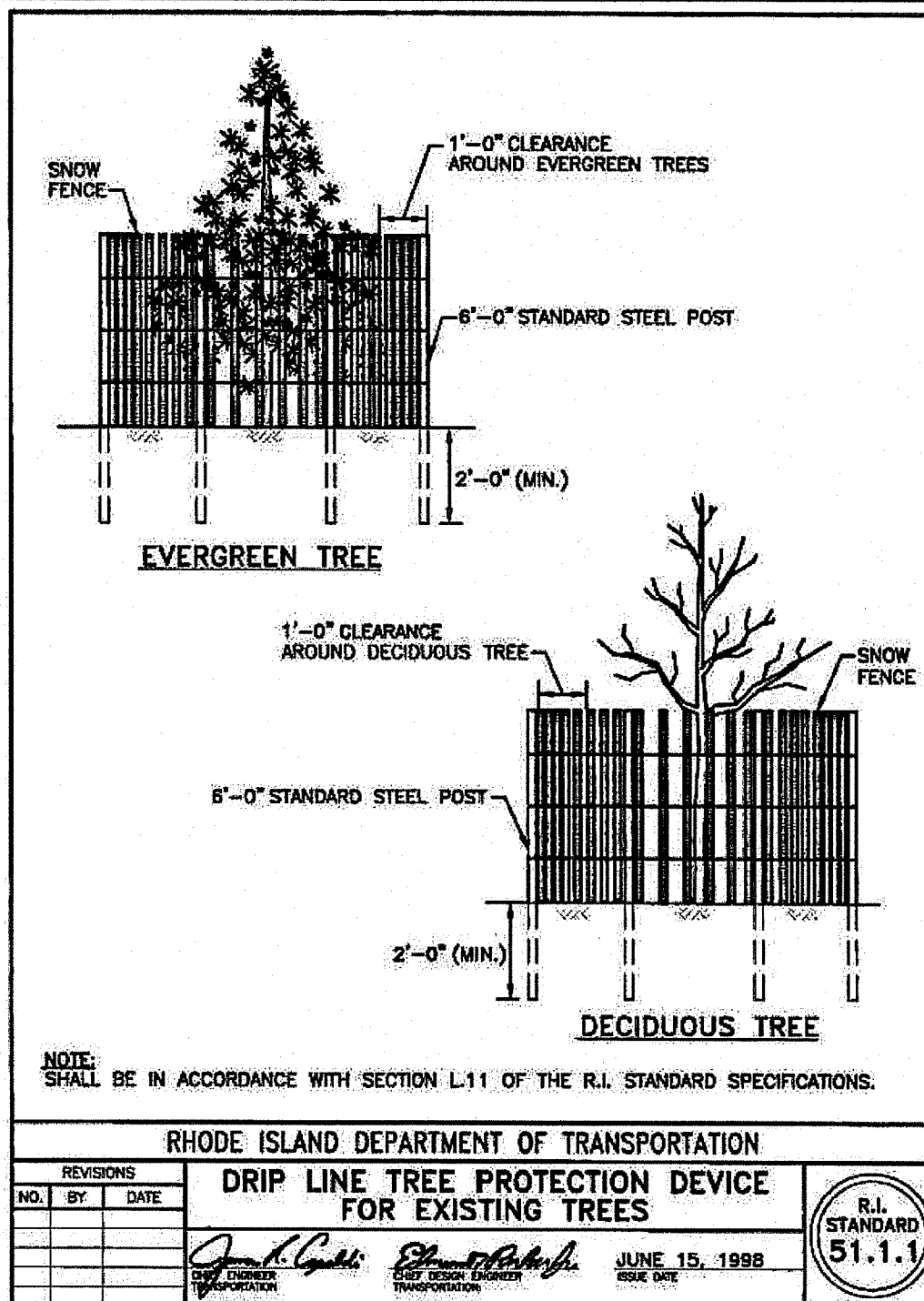
TYPE	% BY WEIGHT
NASSAU KENT BLUE	60
JAMESTOWN CHEWINGS FESCUE	20
PALMER PERENNIAL RYE GRASS	20

APPLICATION RATE = 200 lbs. / ACRE

SEED MIX NO. 2

APPLICATION RATE = 15-25 LBS. / ACRE
(SEASONALLY FLOODED MIX)
(SAND FILTER BOTTOM AREA)

20% FOX SEDGE, PA ECOTYPE (CAREX VULPINOIDEA, PA ECOTYPE)
16% VIRGINIA WILD RYE, PA ECOTYPE (ELYMUS VIRGINICUS, PA ECOTYPE)
15% RIVERBANK WILD RYE, PA ECOTYPE (ELYMUS RIPARIUS, PA ECOTYPE)
15% JAPANESE MILLET (ECHINOCHLOA CRUSGALLI VAR. FRUMENTACEA)
15% DEER TONGUE, 'TIOGA' (PANICUM CLANDESTINUM (DICHANTHELIUM C.), 'TIOGA')
9% BLUNT BROOM SEDGE, PA ECOTYPE (CAREX SCOPARIA, PA ECOTYPE)
5% SWITCHGRASS, 'CAVE-IN-ROCK' (PANICUM VIRGATUM, 'CAVE-IN-ROCK')
2% GREEN BULRUSH, PA ECOTYPE (SCIRPUS ATROVIRENS, PA ECOTYPE)
2% AML SEDGE, PA ECOTYPE (CAREX STIPATA, PA ECOTYPE)
1% AUTUMN BENTGRASS, APB (AGROSTIS PERENNANS, APB)



SEEDING NOTES

- LOAM SHALL BE SPREAD TO A MINIMUM DEPTH OF 4" OVER ALL AREAS DESIGNATED ON PLANS.
- SHAPE AND SMOOTH THE SURFACE TO THE LINES AND GRADES AS SHOWN ON PLANS.
- FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN A SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 3 TO 4 INCHES OF THE PLANTING SOIL. APPLY AT THE RATE OF 8 POUNDS PER 1,000 SQUARE FEET AT SEEDING.
- LIME: SPREAD EVENLY AND WORK INTO THE SOIL DURING PREPARATION OF SEED BED AT THE RATE OF ONE TON PER ACRE. INCORPORATE INTO THE SOIL BY DICING OR OTHER APPROVED METHOD. DISTRIBUTE LIME UNIFORMLY AND WORK INTO TOP 4 INCHES OF TOP SOIL (MINIMUM) AND UNIFORMLY BLEND BY DICING OR ROTOTILLING.
- APPLICATION OF SEED:
 - RATE OF APPLICATION OF SEED SHALL BE 8 POUNDS PER 1,000 SQUARE FEET OR AS INDICATED ON PLANS.
 - SEEDING SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS, AND ONLY DURING THE FOLLOWING DATES:
SPRING SEEDING: MARCH 15 TO MAY 31
FALL SEEDING: AUGUST 15 TO OCTOBER 15
 - THE CONTRACTOR SHALL KEEP ALL SEEDING AREAS WATERED AND IN GOOD CONDITION, RESEEDING IF AND WHEN NECESSARY FOR AN 8 WEEK PERIOD OR UNTIL A GOOD, HEALTHY, UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA. THE CONTRACTOR SHALL ALSO MAINTAIN THESE AREAS IN AN APPROVED CONDITION UNTIL PROVISIONAL ACCEPTANCE.
 - DURING THIS PERIOD, WATER TURF AS NECESSARY TO MAINTAIN AN ADEQUATE SUPPLY OF MOISTURE WITHIN THE ROOT ZONE. AN ADEQUATE SUPPLY OF MOISTURE IS EQUIVALENT OF ONE INCH OF ABSORBED WATER PER WEEK THAT IS DELIVERED AT WEEKLY INTERVALS IN THE FORM OF NATURAL RAIN OR IS AUGMENTED AS REQUIRED BY PERIODIC WATERING.
 - OVERSEED WHEN NECESSARY TO PROMOTE GRASS GROWTH.
 - REPLANT AREAS VOID OF TURF ONE SQUARE FOOT OR LARGER.
- SEED:
 - SEED ALL AREAS DESIGNATED ON PLAN AS WELL AS ALL DISTURBED EXISTING AREAS WITH THE FOLLOWING SEED MIX:

LANDSCAPE CONSTRUCTION NOTES

- FURNISH AND INSTALL ALL PLANTS SHOWN ON THE DRAWINGS SPECIFIED HEREIN, AND IN THE QUANTITIES LISTED ON THE PLANT LIST. NO SUBSTITUTIONS WILL BE PERMITTED, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT.
- LOAM TO BE SCREENED, GOOD QUALITY, FERTILE, FREE OF WEEDS, STICKS, STONES OVER 3/4", AND ROOTS. SPREAD TO A MINIMUM OF 4" OVER ALL PLANTED AREAS.
- NURSERY STOCK SHALL MEET THE STANDARDS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION AS TO GRADING AND QUALITY. CALIPER MEASUREMENTS FOR ALL NEW PLANT STOCK TO BE TAKEN SIX (6) INCHES ABOVE GRADE FOR TREES UNDER FOUR (4) INCHES AND TWELVE (12) INCHES ABOVE GRADE FOR TREES OVER FOUR (4) INCHES. ALL TREES SHALL BE A MINIMUM OF SEVEN (7) FEET ABOVE FINISHED GRADE WHEN TREES ARE LOCATED WITHIN VEHICULAR AND PEDESTRIAN TRAVEL WAYS.
- ONLY NURSERY-GROWN PLANTS, GROWN IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES, AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS, WILL BE ACCEPTED.
- SET PLANTS PLUMB AND AT A LEVEL THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. SETTLE BACKFILL MATERIAL FOR PLANTS, THOROUGHLY AND PROPERLY BY FIRING OR TAMPING. FORM SAUCERS, CAPABLE OF HOLDING WATER ABOUT INDIVIDUAL PLANTS, BY PLACING RIDGES OF PLANTING SOIL AROUND EACH.
- STAKE ALL TREES OVER 5 FEET AS SHOWN ON PLANS. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
- WATERING: WATER ALL PLANTS WITHIN 48 HOURS AFTER PLANTING. IF CONDITIONS WARRANT, AND AS MANY TIMES THEREAFTER TO SUSTAIN HEALTHY CONDITIONS UNTIL LANDSCAPE INSTALLATION IS COMPLETED. SATURATE THE SOIL AROUND EACH PLANT THOROUGHLY AT EACH WATERING.
- PRUNING: PRUNE PLANTS, AS DIRECTED BY OWNER, AT THE PROJECT SITE BEFORE OR IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE BEST HORTICULTURAL PRACTICE. CUT BROKEN, DEAD OR INJURED BRANCHES IMMEDIATELY ABOVE THE STEM COLLAR ON THE TRUNK OR LIMB. PRUNE ALL BROKEN ROOTS ON THE PLANT SIDE OF THE BREAK. PAINT CUTS OVER 3/4" IN DIAMETER WITH TREE WOUND PAINT. PRUNING SHALL NOT DEFORM OR OTHERWISE DESTROY THE TYPICAL SHAPE OR SYMMETRY OF THE PLANT, AND SHALL NOT REDUCE THE HEIGHT BY MORE THAN ONE-THIRD. DO NOT CUT BACK THE LEADER OF THE PLANT UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.
- FERTILIZING: FERTILIZE SHRUB BEDS WITH 10-6-4 FERTILIZER BROADCAST AT A RATE OF THREE POUNDS PER 100 SQUARE FEET OF SURFACE AREA BROADCAST. APPLY THE FERTILIZER UNIFORMLY TO THE SURFACE BEDS AND WORK INTO THE UPPER TWO INCHES OF SOIL. FERTILIZE INDIVIDUAL TREES AT A RATE OF ONE AGRIFORM PELLET PER INCH OF TRUNK DIAMETER (FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS). APPLY A SECOND APPLICATION OF FERTILIZER TO ALL PLANT ITEMS AT THE SAME SPECIFIED RATES OVER THE MULCH AT THE END OF AN EIGHT WEEK PERIOD.
- LIMING: ADD POWDERED LIME EVERY SIX MONTHS - OR SLOW RELEASE GRANULAR LIME-AS PER MANUFACTURER'S INSTRUCTION.
- MULCHING: WITHIN A 72 HOUR PERIOD AFTER PLANTING, COVER ALL PLANTED AREAS WITH 3" DARK HEMLOCK MULCH. NO RED OR DYED MULCH IS TO BE USED. MULCH SHOULD BE PULLED ONE INCH AWAY FROM PLANT TRUNK OR STEM, AND NOT ALLOWED TO REST DIRECTLY AGAINST THE TRUNK OR STEM.
- GUARANTEE: ALL PLANTS FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER PRELIMINARY INSPECTION AND SHALL BE ALIVE AND IN SATISFACTORY GROWTH AT THE END OF THE GUARANTEE PERIOD. ALL DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED AT ONCE BY THE CONTRACTOR, FREE OF CHARGE.
- NO DISPOSAL OF PAINT SOLVENTS OR OTHER FOREIGN MATTER WITHIN TREE DRIP LINE.
- LANDSCAPE CONTRACTOR OR OWNER SHALL REMOVE TREE STAKES AFTER ONE YEAR OF INSTALLATION. MAINTAIN ALL LANDSCAPING THROUGHOUT THE ENTIRE LIFE OF THE PROJECT.



- Civil
- Transportation
- Environmental
- Site Planning
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- Permitting
- Landscape Architecture

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STEVEN M. CABRAL

No. 4847

REGISTERED PROFESSIONAL ENGINEER

8-21-24

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: SEP 26 2024 FILE #: 24-0103
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PROJECT TITLE:
MILL RIVER TOWNHOUSES
PLAT MAP 21, LOT 214
ZONING DISTRICT R-4
HIGH DENSITY SINGLE AND MULTI-FAMILY RESIDENTIAL DISTRICT
256 PRIVILEGE STREET
WOONSOCKET, RHODE ISLAND

PREPARED FOR:
CT RENOVATION & DESIGN, LLC
25 CRAWFORD STREET
WOONSOCKET, RI 02895

DRAWING TITLE:
LANDSCAPE DETAILS

DATE: MARCH 2024 SCALE: AS NOTED
DWG. NAME: 2556-19-LAND-DET.dwg

REVISIONS		
NUMBER	REMARKS	DATE
1	PRELIMINARY PLAN	05/20/24
2	RIDEM COMMENTS	07/16/24

DRAWING NUMBER
L2
SHEET: 19 OF 19