SITE PLAN SET

FOR

WOONSOCKET DPW WATER DIVISION FACILITY

ASSESSOR'S MAP G4, LOT 31-5

ZONING DISTRICT: R-1

VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT

ROY AVENUE

WOONSOCKET, RHODE ISLAND

OWNER

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI 02895

ENGINEERS

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

Crossman Engineering

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone (401) 738-5660

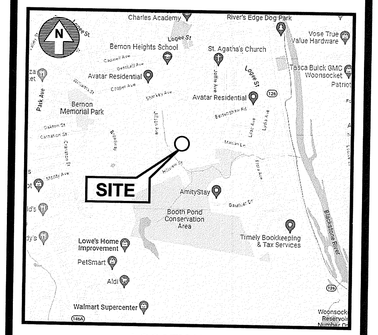
Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone (508) 695-1700

Email: cei@crossmaneng.com

AUGUST 7, 2023
(ISSUED FOR BIDDING)
SHEET 1 of 14

ARCHITECTS

Ed Wojcik architect, ltd
One Richmond Square
Providence, RI 02906
401 · 861 · 7139
Fax: 401 · 861 · 7165



LOCATION MAP
NOT TO SCALE

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0177
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
Nancy L. Freeman

INDEX OF DRAWINGS

REVISIONS

No.	DESCRIPTION	DATE
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GENERAL NOTES

1. ALL EXISTING UTILITIES HAVE BEEN PLOTTED BASED UPON BEST AVAILABLE INFORMATION AND REPRESENT APPROXIMATE LOCATIONS. 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 RHODE ISLAND LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY MUNICIPALITY, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. A MINIMUM ADVANCE NOTICE OF 72 HOURS IS REQUIRED PRIOR TO START OF CONSTRUCTION.
2. SPECIFICATIONS TO GOVERN THIS PROJECT ARE R.I.D.O.T. STANDARD INSTALLATION, SPECIFICATIONS AND DETAILS. FOR ALL EXCAVATION, PLACEMENT OF FILL, PIPE BITUMINOUS PAVEMENT, CUTTING INTO CATCHBASIN/MANHOLES, 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, 2018 EDITION, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. THE "METHOD OF MEASUREMENT" AND "BASIS OF PAYMENT" ARE NOT APPLICABLE.
3. 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 STRUCTURES.
4. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS, SPECIFICATIONS OR PAYMENT ITEM 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 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.
5. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.
6. ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN OR OTHERWISE INSTRUCTED IN WRITING BY THE OWNER.
7. CONTRACTOR SHALL EXCAVATE TEST PITS TO CONFIRM UTILITY LOCATIONS/ELEVATIONS AT POTENTIAL CONFLICT POINTS (UTILITY/DRAIN CROSSINGS).
8. THE CONTRACTOR SHALL USE CARE WHEN WORKING NEAR UTILITY POLES AND WIRING SO AS TO NOT DISTURB ELECTRICAL/TELEPHONE/CABLE SERVICE TO THE CUSTOMERS. IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN THESE SERVICES AT ALL TIMES.
9. THE CONTRACTOR SHALL, AT NO ADDITIONAL EXPENSE, BRACE UTILITY POLES IF REQUIRED, AND REPAIR ANY DAMAGE TO EXISTING UTILITIES, SIDEWALKS, GUARDRAILS, CURBS, PAVING, SHRUBS, TREES, STONE WALLS, LAWNS, ETC.
10. CHANGE ORDERS MAY ONLY BE APPROVED FOR PAYMENT BY THE OWNER.
11. ALL OPEN EXCAVATIONS SHALL BE ADEQUATELY SAFEGUARDED BY PROVIDING TEMPORARY BARRICADES, CAUTION SIGNS, LIGHTS AND OTHER MEANS TO PREVENT ACCIDENTS TO PERSONS AND DAMAGE TO PROPERTY. THE CONTRACTOR SHALL AT NO ADDITIONAL EXPENSE TO THE OWNER, PROVIDE SUITABLE AND SAFE CONDITIONS AT ALL AREAS OF THE WORK SITE AND SHALL PROVIDE SAFE VEHICULAR AND PEDESTRIAN ACCESS AROUND ALL WORK AREAS.
12. CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL EXPENSE, ADEQUATE EROSION CONTROL, FRAC TANKS OR SEDIMENTATION CONTROLS SUBJECT TO THE APPROVAL OF RIDEM FOR THE DISCHARGE OF ANY TRENCH DEWATERING.
13. ALL STRUCTURES AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS AND STANDARD SPECIFICATIONS OF THE CITY OF WOONSOCKET DEPARTMENT OF PUBLIC WORKS. ALL EXCAVATION, BACKFILL AND RESTORATION WORK SHALL MEET THE CITY'S SPECIFICATIONS.
14. THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN. 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.
15. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO REMOVAL AND/OR INSTALLATION OF UTILITIES ON SITE. THE COORDINATION IS NECESSARY FOR THE ENGINEER TO SCHEDULE SITE INSPECTIONS. INSTALLATIONS PERFORMED WITHOUT INSPECTIONS BY THE ENGINEER MAY WARRANT COMPLETE REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S SOLE EXPENSE.
16. THE CONTRACTOR IS REQUIRED TO MAINTAIN DETAILED AS-BUILT INFORMATION FOR ALL UTILITY INSTALLATIONS. AS-BUILT INFORMATION MUST INCLUDE MATERIAL LIST, PIPE DEPTH AND SWING TIE LOCATIONS (2 MINIMUM) FROM NEW PIPE TO BUILDING CORNERS. ALL PIPE BEND/ELBOW LOCATIONS SHALL BE DIMENSIONED. FINAL PAYMENT WILL NOT BE MADE UNTIL SUITABLE AS-BUILT DATA IS PROVIDED.
17. AS-BUILT AUTOCAD FILES AND HARD COPY PLANS SHALL BE PROVIDED UPON COMPLETION OF WORK. CONTRACTOR IS RESPONSIBLE FOR THIS INFORMATION. FINAL PAYMENT TO CONTRACTOR SHALL NOT BE PROVIDED UNTIL ACCEPTABLE AUTOCAD FILES OF THE AS-BUILTS ARE SUBMITTED AND APPROVED BY THE OWNER.

FLOOD ZONE NOTE

THE PROPOSED SITE IS LOCATED WITHIN FLOOD ZONE X, AREAS TO BE OUTSIDE THE 0.2% CHANCE FLOODPLAIN, ACCORDING TO FLOOD INSURANCE RATE MAP, PROVIDENCE COUNTY, RHODE ISLAND (ALL JURISDICTIONS), MAP NUMBER 44007C0157G, MAP REVISED MARCH 2, 2009.

STANDARD NOTES

1. ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CULVERTS, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE TRAVEL LANE SO AS NOT TO CAUSE A SAFETY HAZARD.
3. 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 BY THE CONTRACTOR.
4. ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO PAVEMENT PLACEMENT ON ANY NEW COURSE WHICH HAS BEEN OPEN TO TRAFFIC, OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS, AND/OR AS DIRECTED BY THE ENGINEER. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS.
5. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, 2" MULCH IN AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED.
6. CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
7. 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 ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
8. NO FUEL STORAGE, VEHICLE REFUELING, OR EQUIPMENT STORAGE SHALL TAKE PLACE IN DESIGNATED WETLANDS, NOR WITHIN 100' OF ANY WATER BODY. THIS REQUIREMENT SHALL NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION THAT APPLIES TO THE SAME, UNLESS THIS REQUIREMENT IS MORE STRINGENT THAN SAID LAW, ORDINANCE, RULE OR REGULATION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT AT THE END OF FINAL PAVING OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN REESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO PAVING OPERATIONS.
10. ALL EMBANKMENTS AND TRENCH BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12" (AFTER COMPACTION) AND SHALL BE COMPACTED AS SPECIFIED BEFORE THE NEXT LAYER IS PLACED.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

1. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION.
2. ALL SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE STATE D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.
4. ADVANCE FLAGPERSON SIGNS SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"x18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.
5. POLYETHYLENE DRUMS SHALL BE UTILIZED AS A CHANNELIZING DEVICE WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.
6. TEMPORARY CONSTRUCTION SIGNS AND OTHER WORKZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND / OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
7. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS.
8. TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.
9. THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES.

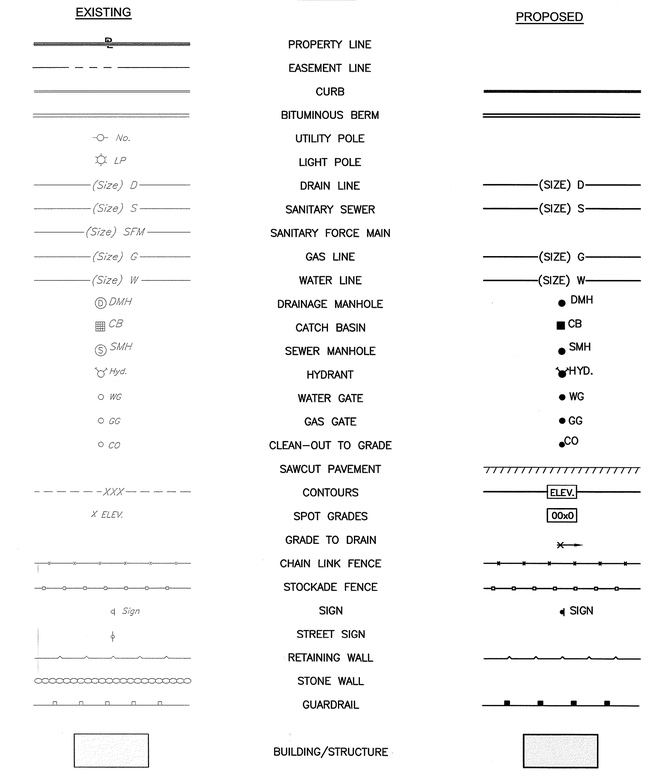
PROPOSED PAVEMENT STRUCTURE

2" HMA SURFACE COURSE, CL. 9.5
ASPHALT EMULSION TACK COAT
2" HMA BASE COURSE. CL. 12.5
12" GRAVEL BASE

PERMIT NOTE

THE PLAN SET IS SUBJECT TO REVIEW AND REVISIONS. THE RIDEM WETLANDS, STORMWATER, OWTS PERMIT APPLICATIONS ARE TENTATIVELY TO BE FILED AUGUST 2023.

LEGEND



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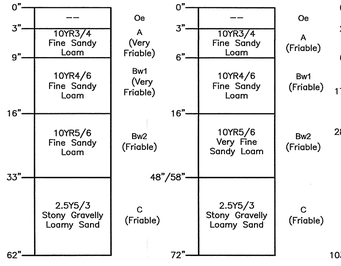

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Limiting Layer: 62"
GW Seepage Depth: N/A
SHWT Design Depth: 40"

TEST PIT B

Soil Class: Ab Till
Limiting Layer: 48"(N),72"(S)
GW Seepage Depth: N/A
SHWT Design Depth: 52"

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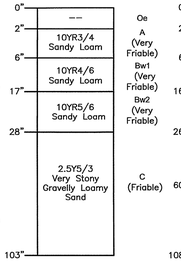

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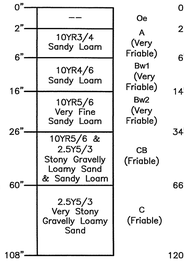

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GW Seepage Depth: N/A
SHWT Design Depth: 55"

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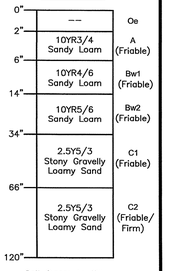

Soil Class: Ab Till
Limiting Layer: N/A
GW Seepage Depth: N/A
SHWT Design Depth: 66"

SOIL EVALUATION DATA

SOIL EVALUATIONS WERE CONDUCTED BY BRIAN KING ON MAY 11, 2023 AND JUNE 2, 2023

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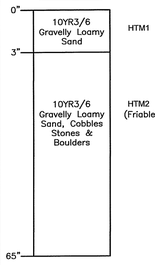

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GW Seepage Depth: N/A
SHWT Design Depth: N/A

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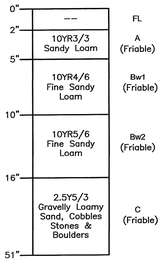

Soil Class: Ab Till
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SHWT Design Depth: 33"

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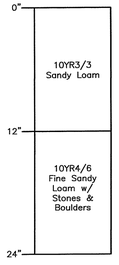

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GW Seepage Depth: N/A
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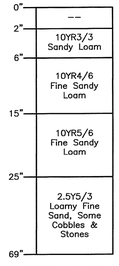

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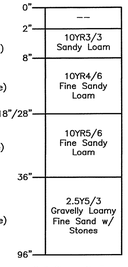

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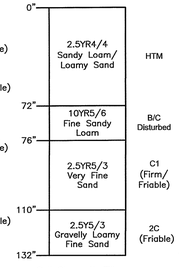

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Limiting Layer: N/A
GW Seepage Depth: 72"
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SHWT May Be Higher Than 72" But Cannot Be Confirmed Due To Fill

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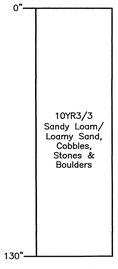

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GW Seepage Depth: 128"
SHWT Design Depth: N/A

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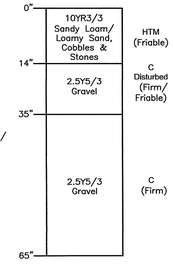

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GW Seepage Depth: 50"
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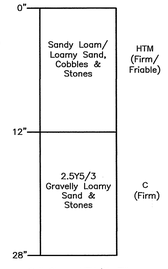

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SHWT Design Depth: 13"

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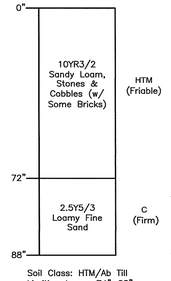

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SHWT May Be Higher Than 72" But Cannot Be Confirmed Due To Fill

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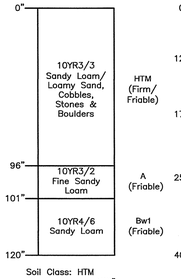

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SHWT Design Depth: N/A

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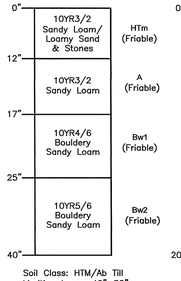

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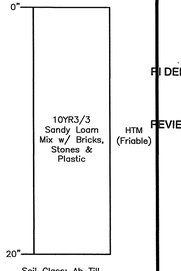

Soil Class: Ab Till
Limiting Layer: 20"
GW Seepage Depth: N/A
SHWT Design Depth: N/A
Ledge @ 20"

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0172
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
Mindy L. Freeman

RI Environmental Management
AUG 17 2023
Office of Water Resources

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No. 4847
REGISTERED PROFESSIONAL ENGINEER
8/2/23

ISSUED FOR BIDDING

KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

GENERAL NOTES and LEGEND

DATE:	SCALE:
AUGUST 7, 2023	NO SCALE

DWG. NAME: 2747-C01-NOTE-R3.dwg

REVISIONS

NUMBER	REMARKS	DATE
--	--	--

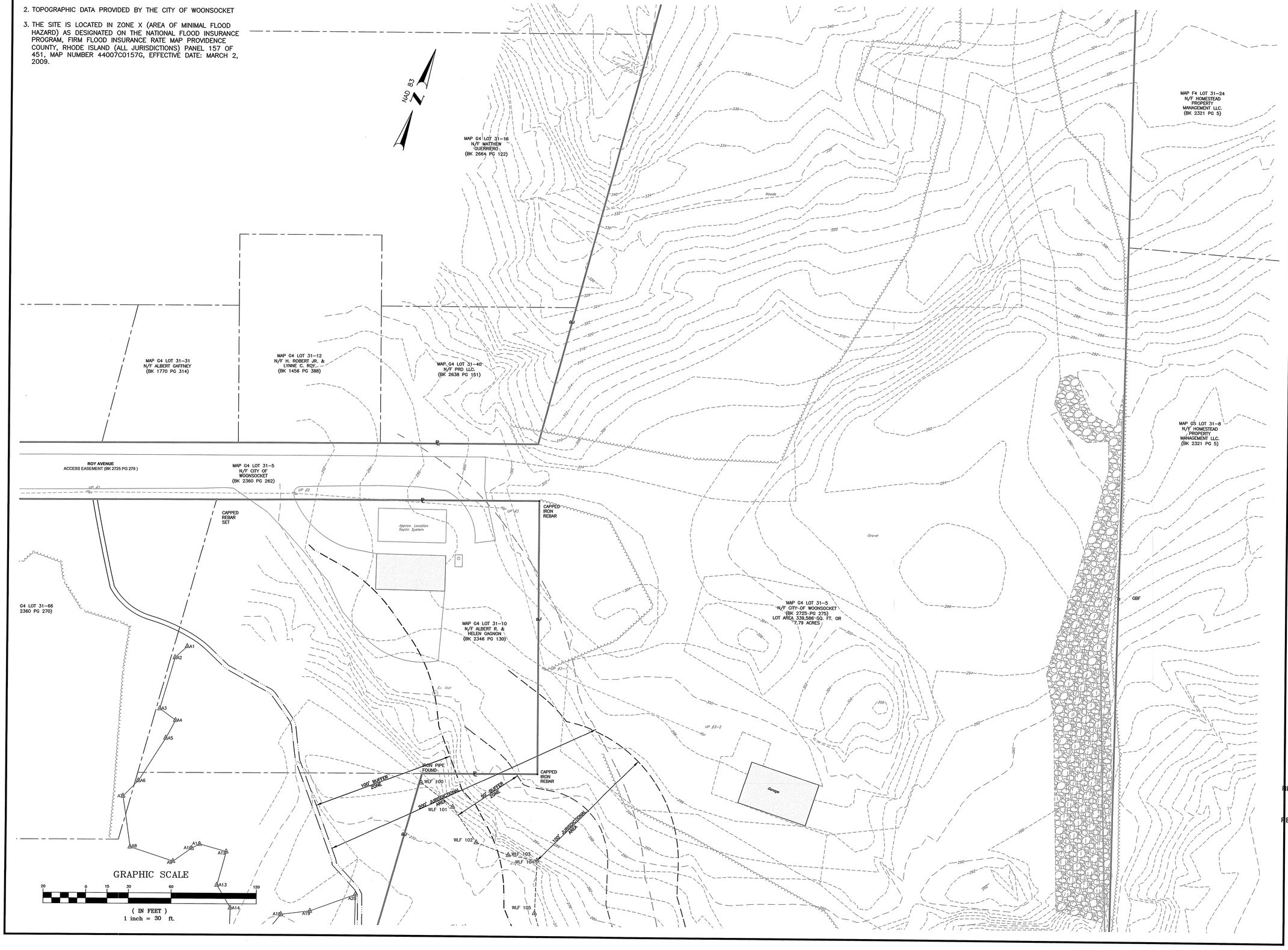
DRAWING NUMBER

C1

SHEET: 2 *OF:* 14

PLAN NOTES:

1. BOUNDARY SURVEY PERFORMED BY INSITE ENGINEERING SERVICES, LLC.
2. TOPOGRAPHIC DATA PROVIDED BY THE CITY OF WOONSOCKET
3. THE SITE IS LOCATED IN ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS DESIGNATED ON THE NATIONAL FLOOD INSURANCE PROGRAM, FIRM FLOOD INSURANCE RATE MAP PROVIDENCE COUNTY, RHODE ISLAND (ALL JURISDICTIONS) PANEL 157 OF 451, MAP NUMBER 44007C0157G, EFFECTIVE DATE: MARCH 2, 2009.



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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8/2/23

ISSUED FOR BIDDING

KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

EXISTING CONDITIONS PLAN

DATE:	SCALE:
AUGUST 7, 2023	1"=30'

DWG. NAME: 2747-C02-EXCN-R3.dwg

REVISIONS

NUMBER	REMARKS	DATE
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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0172
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
Nancy L. Freeman

DRAWING NUMBER

C2

SHEET: 3 OF: 14

RI Environmental Management
AUG 17 2023
Office of Water Resources

DIMENSIONAL REGULATIONS

ZONING DISTRICT: VERY LOW DENSITY SINGLE-FAMILY (R-1)

USE

OFFICE (MUNICIPAL)

	REQUIRED	PROPOSED
MINIMUM LOT SIZE	25,000 SF	339,586 SF
MAXIMUM LOT COVERAGE	25%	14.4%
MINIMUM STREET FRONTAGE	135 FT	41.5 FT
MINIMUM LOT WIDTH	135 FT	41.5 FT
MINIMUM FRONT YARD SETBACK	35 FT	694.4 FT
MINIMUM SIDE YARD SETBACK	25 FT	214.6 FT
MINIMUM REAR YARD SETBACK	50 FT	83.1 FT
MAXIMUM BUILDING HEIGHT (STORIES)	2.5 STORIES	1 STORY
MAXIMUM BUILDING HEIGHT (FEET)	35 FT	<35 FT

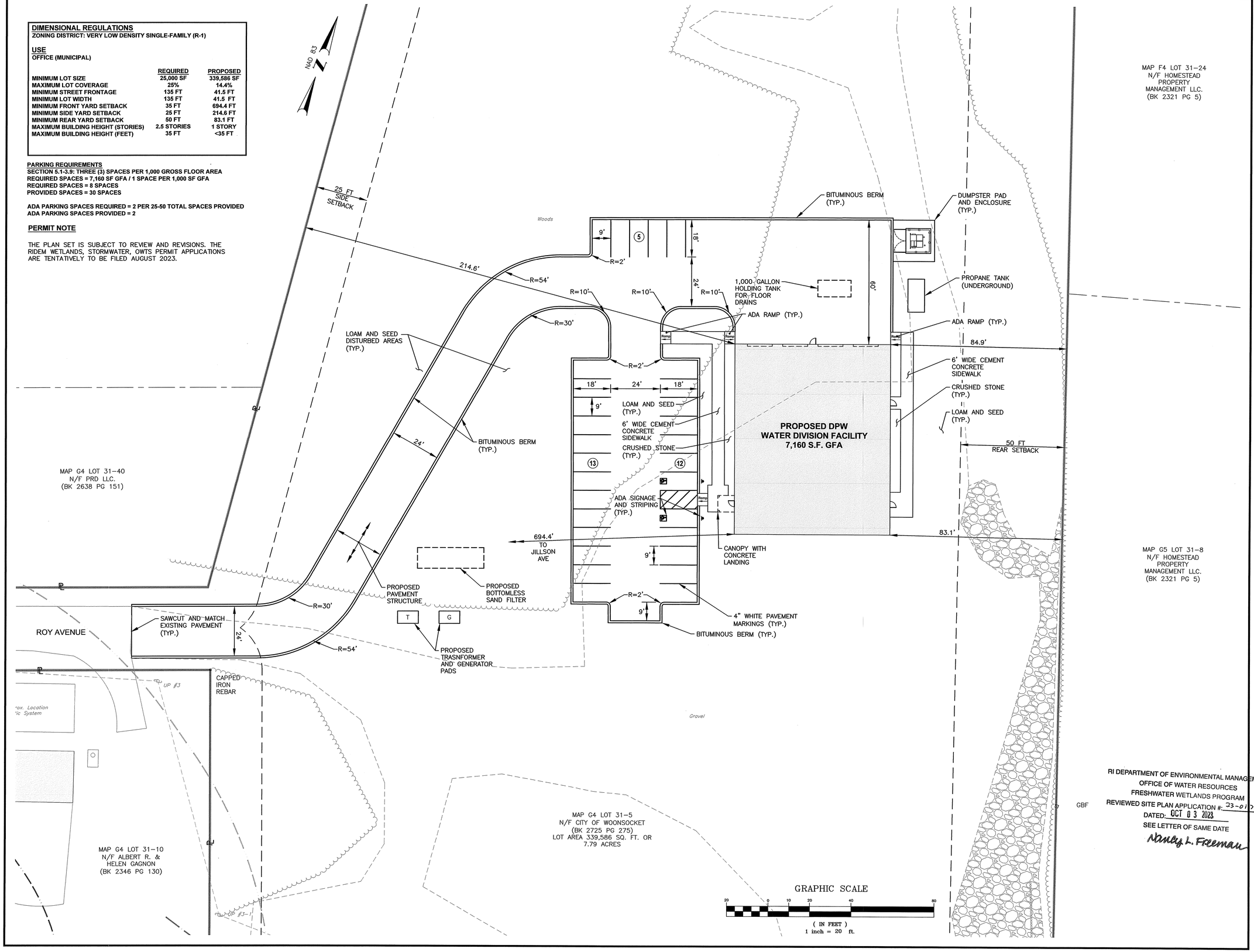
PARKING REQUIREMENTS

SECTION 5.1-3.9: THREE (3) SPACES PER 1,000 GROSS FLOOR AREA
REQUIRED SPACES = 7,160 SF GFA / 1 SPACE PER 1,000 SF GFA
REQUIRED SPACES = 8 SPACES
PROVIDED SPACES = 30 SPACES

ADA PARKING SPACES REQUIRED = 2 PER 25-50 TOTAL SPACES PROVIDED
ADA PARKING SPACES PROVIDED = 2

PERMIT NOTE

THE PLAN SET IS SUBJECT TO REVIEW AND REVISIONS. THE RIDEM WETLANDS, STORMWATER, OWTS PERMIT APPLICATIONS ARE TENTATIVELY TO BE FILED AUGUST 2023.



RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0127
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
GBF
Nancy L. Freeman

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

Crossman Engineering

Rhode Island
151 Centerville Road
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Email: cel@crossmaneng.com

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KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY

MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

SITE LAYOUT PLAN

DATE:	*SCALE:*
AUGUST 7, 2023	1"=20'

DWG. NAME: 2747-C03-SITE-R3.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
--	--	--

DRAWING NUMBER

C3

SHEET: 4 *OF:* 14

RI Environmental Management
AUG 17 2023
Office of Water Resources

DRAINAGE STRUCTURE TABLE

NUMBER	STRUCTURE	FRAME AND GRATE/COVER	RIM	INVERT (IN)	INVERT (OUT)
CB 1	PRECAST CONCRETE (5' DIA.)	DOUBLE SQUARE FRAME AND GRATE (24")	307.20	--	304.00(12")
CB 2	PRECAST CONCRETE (5' DIA.)	DOUBLE SQUARE FRAME AND GRATE (24")	305.75	--	302.55(12")
CB 3	PRECAST CONCRETE (5' DIA.)	DOUBLE SQUARE FRAME AND GRATE (24")	303.00	--	299.80(12")
CB 4	PRECAST CONCRETE (4' DIA.)	SQUARE FRAME AND GRATE (24")	299.90	--	296.70(12")
DMH 1	PRECAST CONCRETE (4' DIA.)	24" DIA. ROUND FRAME AND COVER	305.80	302.40(12")(N) 302.40(12")(S)	300.00(18")
DMH 2	PRECAST CONCRETE (5' DIA.)	24" DIA. ROUND FRAME AND COVER	302.75	296.00(12")(W) 297.00(12")(NW) 299.50(12")(NE)	295.75(18")
DMH 3	PRECAST CONCRETE (4' DIA.)	24" DIA. ROUND FRAME AND COVER	302.25	295.25(18")(W) 297.00(18")(NE)	295.00(24")(E)
DMH 4	PRECAST CONCRETE (4' DIA.)	SQUARE FRAME AND GRATE (24")	297.55	294.75 (4" ORIFICE)	291.00(12")
DMH 5	PRECAST CONCRETE (4' DIA.)	24" DIA. ROUND FRAME AND COVER	302.00	296.50(12")(N) 298.50(12")(NW)	295.50(12")

NOTES

1. DMH 4 IS AN OUTLET CONTROL STRUCTURE. REFER TO MISCELLANEOUS DETAIL SHEET No. 4 FOR DETAILS.
2. ALL DRAINAGE PIPE SHALL BE ADS N-12 OR APPROVED EQUAL.
3. ALL SLOPES AND GRASS SWALES SHALL BE LINED WITH ERONET P300 (OR APPROVED EQUAL) PERMANENT EROSION CONTROL MAT WITH 4" LOAM AND SEED.

PERMIT NOTE

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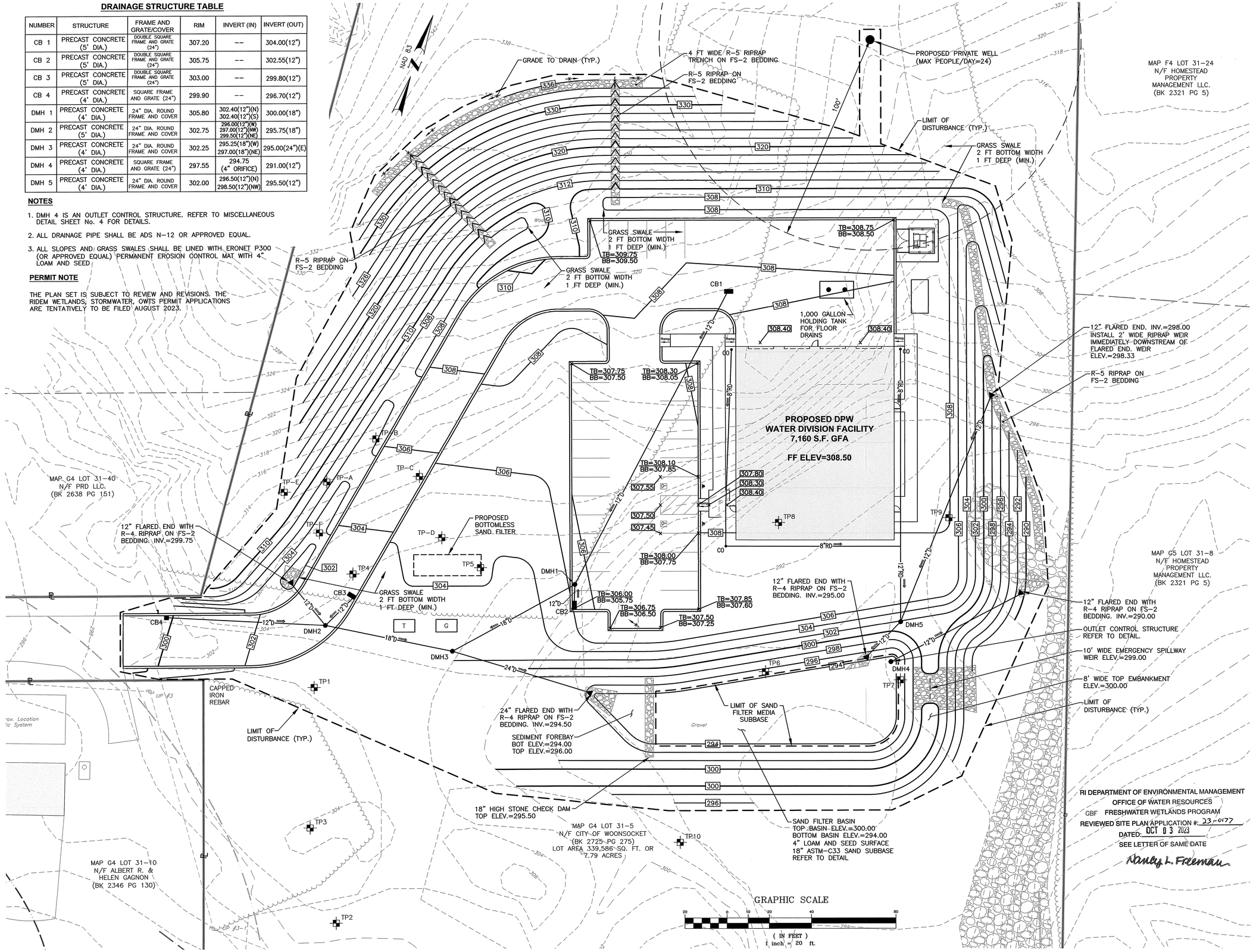

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
GBF FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0177
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
Nancy L. Freeman

- Civil
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- Site Planning
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WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

GRADING and DRAINAGE PLAN

DATE:	*SCALE:*
AUGUST 7, 2023	1"=20'

DWG. NAME: 2747-C04-GRADE-R3.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
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DRAWING NUMBER

C4

SHEET: 5 *OF:* 14

RI Environmental Management
AUG 17 2023
Office of Water Resources

UTILITY NOTES

1. PRIOR TO ANY UTILITY CONSTRUCTION, THE CONTRACTOR MUST PERFORM ADDITIONAL TESTS TO:
   A. CONFIRM THE EXISTING DEPTHS OF UTILITIES AT ALL PROPOSED CONNECTION POINTS AND POTENTIAL CROSSOVER (CONFLICT) POINTS.
   B. CONFIRM THE EXTENT OF LEDGE WHICH MAY EXIST IN ALL ANTICIPATED UTILITY TRENCH AREAS. PRIOR TO CONSTRUCTION, THE FINDINGS ARE TO BE REVIEWED BY THE OWNER AND THE ENGINEER. IF NECESSARY, ALTERNATIVES TO MINIMIZE LEDGE OVAL AND UTILITY CONFLICTS WILL BE DEVELOPED. NO CONSTRUCTION WILL BE ALLOWED WITHOUT THE OWNERS AUTHORIZATION.
2. ANY MODIFICATIONS TO THE PROPOSED UTILITIES TO AVOID CONFLICTS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. NO EXTRA PAYMENT TO THE CONTRACTOR DUE TO RELOCATIONS WILL BE AUTHORIZED.
3. THE UTILITY PLAN DOES NOT DEPICT THE NECESSARY ELECTRICAL CONDUIT/WIRING TO SERVICE THE PROPOSED LIGHTING, WHICH WILL BE INSTALLED BY THE CONTRACTOR FOR NO ADDITIONAL COST.
4. THE UTILITY PLAN DOES NOT REPRESENT THE SITE ELECTRIC/TELEPHONE/ COMMUNICATION SYSTEM DESIGNS.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL BY ENGINEER PRIOR TO ORDERING ANY MATERIAL.
6. DAMAGE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL REQUIRE FULL REPAIR OR REPLACEMENT OF DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
7. CONTRACTOR SHALL COORDINATE GAS AND ELECTRIC INSTALLATION WITH UTILITY COMPANIES. CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, TRENCHING, BACKFILLING AND COMPACTION FOR SERVICE INSTALLATION.
8. ALL PIPES AND CONDUITS ADJACENT TO THE CULVERT SHALL BE SLEEVED. USE CASING SPACERS AND SLEEVE END CAPS AT ALL LOCATIONS.

SANITARY NOTES

1. CONTRACTOR SHALL CONFIRM FINAL SANITARY PLUMBING LOCATIONS AND INVERTS WITH ARCHITECT AND ENGINEER PRIOR TO CONSTRUCTION.
2. THE SEPTIC SYSTEM AND ALL COMPONENTS DEPICTED ON THE PLAN REPRESENT A CONCEPTUAL LAYOUT AND ARE NOT INTENDED FOR CONSTRUCTION. THE OWNER AND ENGINEER SHALL FURNISH FINAL OWTS DESIGN PLANS TO THE CONTRACTOR FOLLOWING LOCAL AND STATE PERMIT APPROVALS.

ELECTRIC AND TELECOMMUNICATION NOTE

1. THE PROPOSED ELECTRIC AN TELECOMMUNICATION SERVICE DESIGN SHALL BE PERFORMED BY OTHERS AND COORDINATED WITH THE CONTRACTOR AND ENGINEER PRIOR TO CONSTRUCTION

ORENCO SYSTEM NOTES

1. THE SYSTEM SHALL BE EQUIPPED WITH AN HOUR METER AND AUDIBLE & VISUAL ALARMS TO INDICATE POWER INTERRUPTION TO THE SYSTEM. THE INDICATORS SHALL BE MOUNTED ON A N.E.P.A. APPROVED CABINET ON A POST EXTERIOR TO THE BUILDING AT A LOCATION APPROVED BY OWNER AND ALARMS (AUDIBLE & VISUAL) SHALL BE LOCATED WITHIN THE HOUSE.
2. A PUBLIC OR PRIVATE ENTITY SHALL BE RETAINED CONTINUOUSLY FOR THE LIFE OF THE SYSTEM AND BE AVAILABLE TO PERFORM NEEDED MAINTENANCE AND REPAIRS. SUCH ENTITY SHALL PERFORM AN INSPECTION OF THE SYSTEM AT LEAST TWICE ANNUALLY. THE ENTITY MUST BE APPROVED BY R.I.D.E.M. AND ADHERE TO ALL R.I.D.E.M. RECOMMENDED REPORTING REQUIREMENTS.
3. ABILITY TO CONNECT TO STANDBY POWER SUPPLY IS RECOMMENDED.
4. THE SEPTIC TANK AND PUMP CHAMBERS SHALL BE WATER–TIGHT. CONCRETE ANTI–FLOTATION COLLARS SHALL BE REQUIRED DUE TO FLUCTUATING GROUNDWATER LEVELS. A MINIMUM 8" LAYER OF GRAVEL SHALL BE SET LEVEL TO FORM A STABLE BASE.
5. A HIGH LEVEL WATER ALARM (VISUAL and AUDIBLE) POWERED BY A CIRCUIT SEPARATE FROM THE PUMP SHALL BE LOCATED IN THE HOUSE.
6. ALL PLUMBING AND ELECTRICAL WORK AND MATERIALS SHALL CONFORM TO ALL STATE, FEDERAL AND LOCAL CODES.
7. ALL PROCEDURES AND MATERIALS MUST ALSO CONFORM TO THE RECOMMENDATIONS AND REQUIREMENTS OF ORENCO SYSTEMS INCORPORATED AND ATLANTIC SOLUTIONS, LTD.
8. BOTTOMLESS SAND FILTER SHALL FOLLOW A TIMED DOSED ORENCO AX–20 ADVANCED TREATMENT SYSTEM.
9. THE CONTRACTOR AND SITE OWNER MUST BE FAMILIAR WITH AND MUST FULLY CONFORM TO THE R.I.D.E.M. "GUIDELINES FOR THE DESIGN AND USE AND MAINTENANCE OF PRESSURIZED DRAINFIELDS", NOVEMBER 2013 INCLUDING ADDENDA.
10. FILTER SAND MEDIA TO CONFORM TO ASTM 33 SAND WITH AN EFFECTIVE SIZE (D10) OF 0.3 mm AND UNIFORMITY COEF. (D60/D10) OF 3.0–4.0. MAXIMUM ALLOWABLE PERCENTAGE OF FINES PASSING NO. 200 SIEVE = 1% (ASTM D–136 AND ASTM C–117). TEST DATA SHALL BE PROVIDED TO DESIGNER PRIOR TO PURCHASE.
11. CONTROL PANEL PLACEMENT SHALL BE COORDINATED WITH THE OWNER.
12. ALL PUMP SYSTEMS, DISTRIBUTION SYSTEMS AND ADVANCED TREATMENT COMPONENTS SHALL BE MANUFACTURED BY ORENCO SYSTEMS, INC.
13. ALL PVC GRAVITY FLOW PIPING TO BE SOLID SCH. 35 OR SCH. 40 UNLESS OTHERWISE NOTED.
14. THE CONTRACTOR SHALL RETAIN THE SERVICES OF ORENCO – ADVANTEX TO INSTALL THE ADVANTEX SYSTEM INCLUDING THE TANKS, PIPING, PUMPS, WIRING AND CONTROL PANELS. CERTIFICATIONS FROM THE MANUFACTURER SHALL BE PROVIDED TO THE DESIGN ENGINEER THAT THE SYSTEM HAS BEEN INSTALLED CORRECTLY AND WILL OPERATE IN ACCORDANCE WITH RIDEM REGULATIONS AND THE MANUFACTURER'S OPERATION REQUIREMENTS.
15. TRAINING OF THE ORENCO – ADVANTEX COMPONENTS AND OPERATION REQUIREMENTS SHALL BE PROVIDED TO THE OWNER BY THE MANUFACTURER'S REPRESENTATIVE UPON INSTALLATION COMPLETION.

PERMIT NOTE

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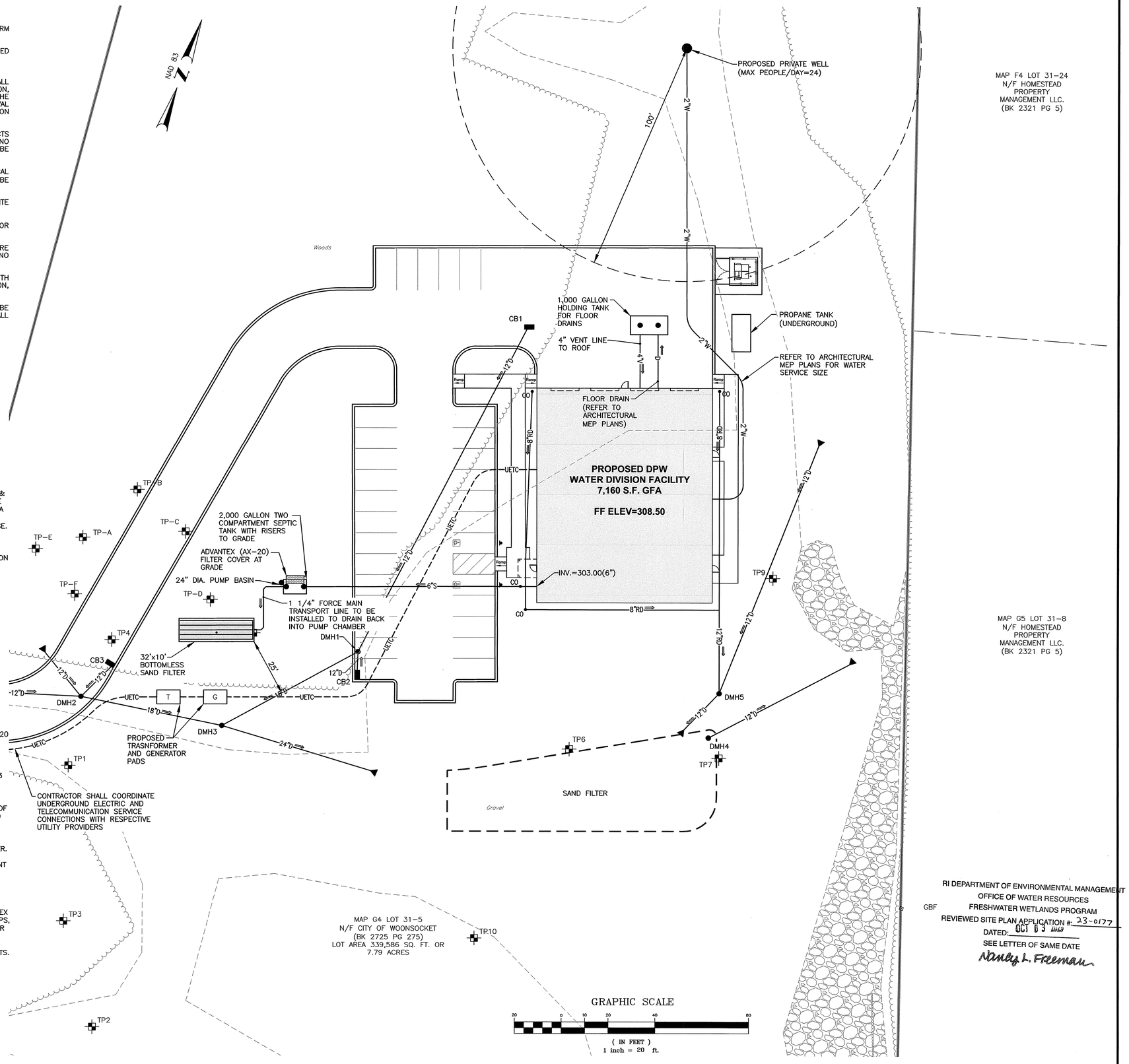

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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GBF FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0177
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KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

UTILITY PLAN

DATE:	*SCALE:*
AUGUST 7, 2023	1"=20'

DWG. NAME: 2747–C05–UTILITY–R3.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
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DRAWING NUMBER

C5

SHEET: 6 *OF:* 14

RI Environmental Management
AUG 17 2023
Office of Water Resources

EROSION CONTROL AND SOIL STABILIZATION PROGRAM

1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM, ADJACENT PROPERTY, AND ROADWAYS.
2. 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.
3. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000–4,000 LBS/ACRE.
4. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY FILTER SOXX, STAKED HAY BALES OR SILT FENCING.
5. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
6. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
7. ADDITIONAL HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER, MUNICIPAL REPRESENTATIVES OR LOCAL D.O.T.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST TO THE OWNER.
9. ALL CATCH BASINS ADJACENT TO THE CONSTRUCTION AREA SHALL BE PROTECTED BY SILT SACKS.
10. ALL PROPOSED CATCH BASINS SHALL BE PROTECTED BY STAKED HAY BALES, SILT FENCING OR SILT SACKS.
11. THE FILTREXX FILTER SOXX MAY BE INSTALLED ON THE EXISTING PAVEMENT /IMPERVIOUS AREAS WITH OUT STAKES. CONTRACTOR SHALL INSPECT DAILY, IF SOIL EROSION OR SEDIMENT IS OBSERVED IN THESE AREAS, THE CONTRACTOR SHALL RELOCATE OR INSTALL ADDITIONAL FILTREXX FILTER SOXX IN LOCATIONS THAT CAN BE STAKED. THIS WORK IS INCLUDED IN THE PROJECT SCOPE.
12. SILT FENCE OR STAKED HAYBALES MAY BE USED IN LIEU OF FILTREXX FILTER SOXX.
13. AN ALTERNATE COMPOST SOCK OR STRAW WATTLE PRODUCT MAY BE USED IN LIEU OF FILTREXX FILTER SOCK UPON APPROVAL OF THE ENGINEER.

INSPECTION/MAINTENANCE NOTES

1. PRIOR TO COMMENCING GRUBBING OPERATIONS AND EARTHWORK, FILTERSOXX SHALL BE PLACED INSIDE SAWCUT EDGE AND ALONG THE DOWNGRADIENT LIMIT OF DISTURBANCE TO PREVENT SEDIMENT FROM ENTERING EXISTING ROADWAY DRAINAGE SYSTEM, AND ABUTTING PROPERTIES AND THE CONTRACTOR SHALL INSTALL DRIPLINE TREE PROTECTION DEVICES ALONG THE PROPOSED TREELINE/EXISTING TREES TO REMAIN.
2. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM.
3. ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSIVE TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION – SUCH AS RIP–RAP.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.
5. 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.
6. ADDITIONAL FILTERSOXX OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
7. 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.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT–DOWN PERIODS, MUST MONITOR AND REPAIR, AS NEEDED, ALL SLOPES TO ENSURE A STABLE PRODUCT.

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:

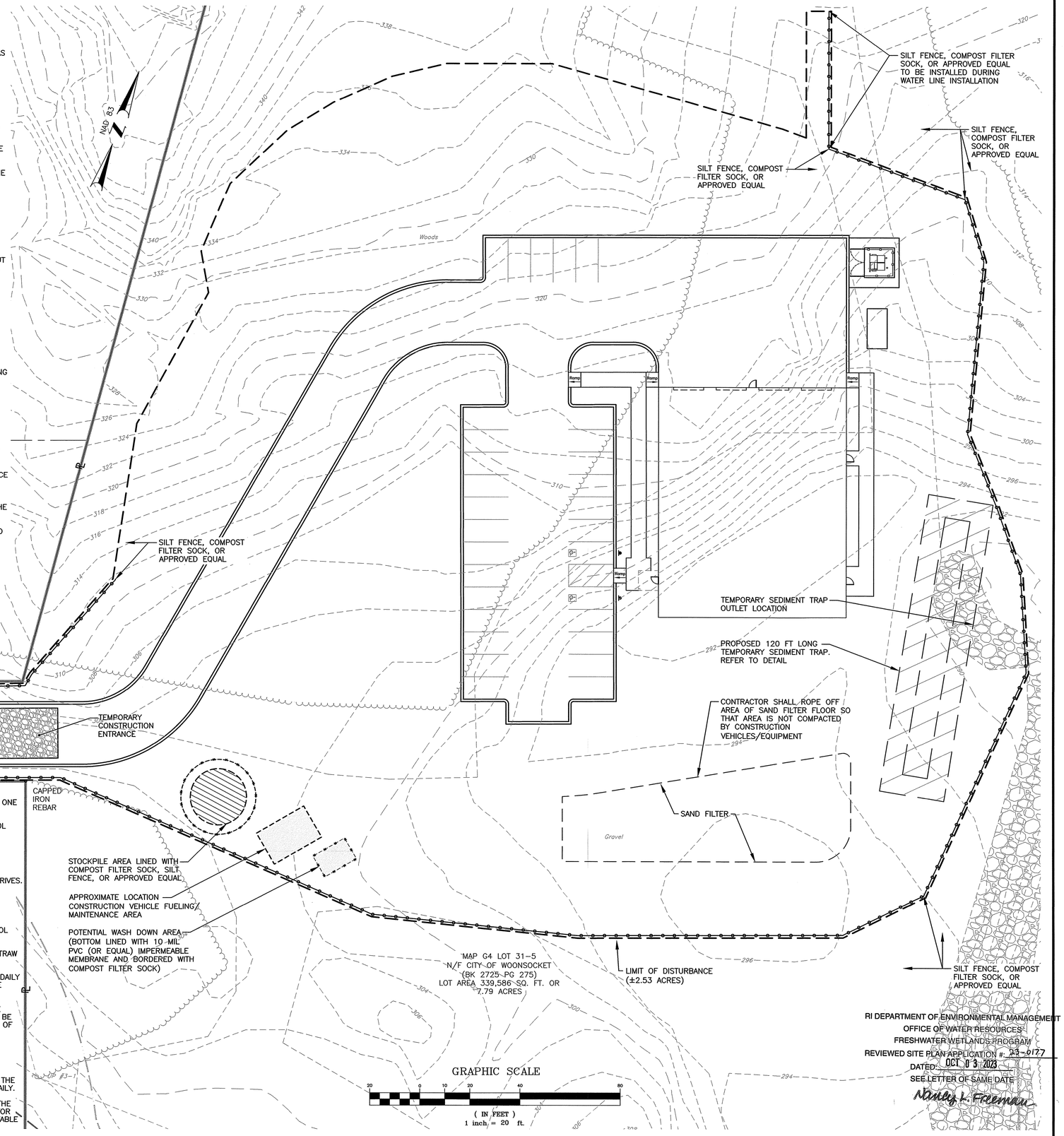
A. THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

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.

GENERAL PROJECT WIDE NOTES

1. CONTRACTOR SHALL OBTAIN A SOIL EROSION AND SEDIMENT CONTROL PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE COMMENCEMENT OF ANY WORK ONSITE; SOIL EROSION AND SEDIMENT CONTROL MEASURES MUST BE PROPERLY MAINTAINED THROUGHOUT CONSTRUCTION.
2. CONTRACTOR SHALL INSTALL TEMPORARY MEASURES SUCH AS; FIBER MATTING, CRUSHED STONE, HAY OR STRAW IN AREAS WHERE SLOPES OR STABILIZATION HAS FAILED.
3. IF SEDIMENT IS TRACKED OR ERODED INTO THE ROADWAY, THE CONTRACTOR WILL BE REQUIRED TO SWEEP DAILY AND TO INSTALL SILT SACK OR APPROVED EQUAL UNDER ADJACENT EXISTING CATCH BASIN GRATES. REMOVE AFTER CONSTRUCTION.
4. FILTER SOXX (OR SILT FENCE OR STAKED HAYBALES) 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.
5. IF EROSION OR EROSIVE TENDENCIES ARE APPARENT ON THE SITE, THE CONTRACTOR IS RESPONSIBLE TO INSTALL ADDITIONAL CONSTRUCTION BMP'S SUCH AS SAND BAGS AS DIRECTED BY THE TOWN OR ENGINEER DURING CONSTRUCTION.
6. 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.
7. 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.



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ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

SOIL EROSION and SEDIMENT CONTROL PLAN

DATE:	*SCALE:*
AUGUST 7, 2023	1"=20'

DWG. NAME: 2747–C06–SOIL–R3.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
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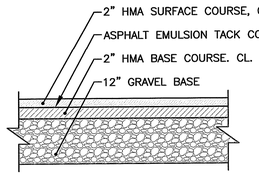
DRAWING NUMBER

C6

SHEET: 7 *OF:* 14

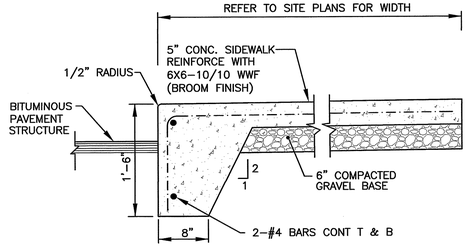
RI Environmental Management
AUG 17 2023
Office of Water Resources



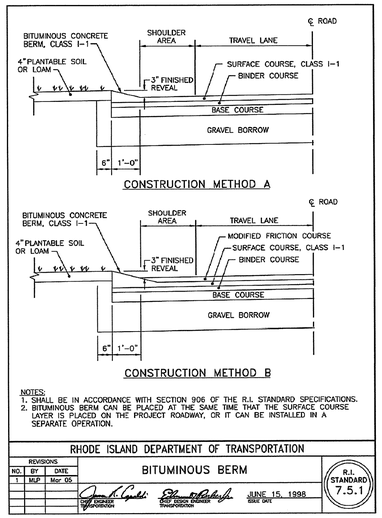
NOTES

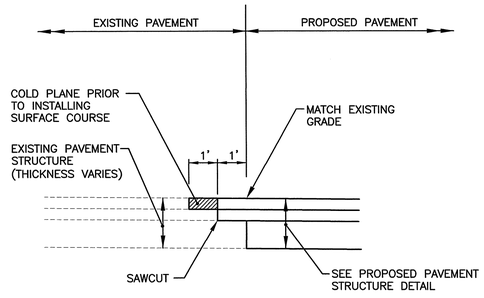
1. THE ABOVE PAVEMENT THICKNESS REPRESENTS THE MINIMUM THICKNESS FOR ROADWAY, LOADING AREA AND DRIVE LANES.
2. PROPOSED BITUMINOUS PAVEMENT SHALL BE CLASS 12.5 OR CLASS 9.5 HMA

PROPOSED PAVEMENT STRUCTURE DETAIL
NOT TO SCALE



TYPICAL CONCRETE SIDEWALK WITH CAST-IN-PLACE CURB
NOT TO SCALE

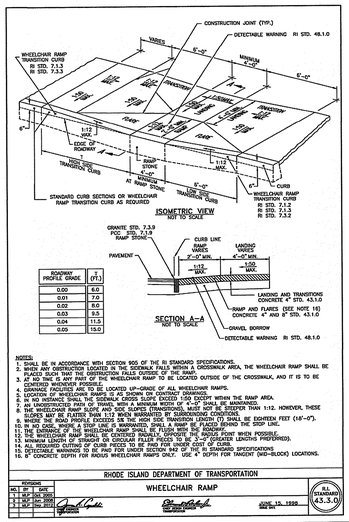


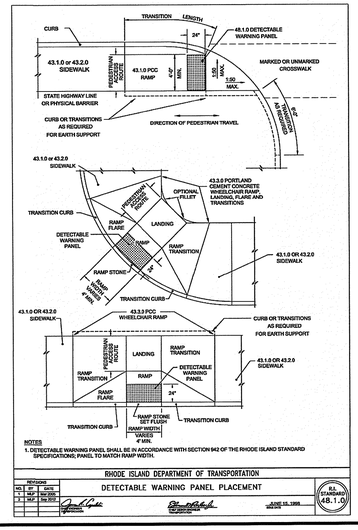


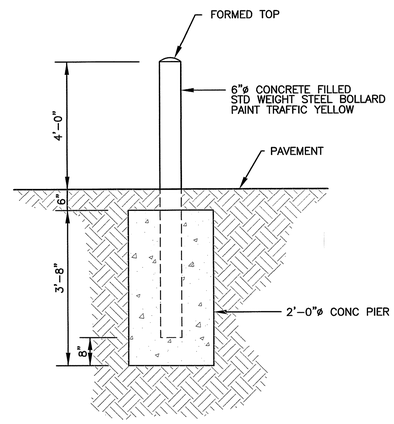
NOTE

PROPOSED BITUMINOUS PAVEMENT SHALL BE HMA CLASS 12.5 OR CLASS 9.5.1

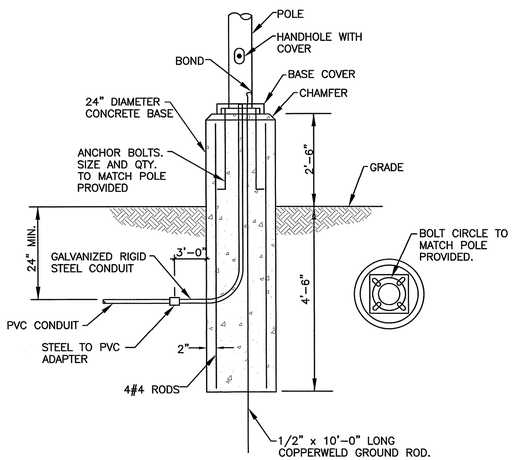
PROPOSED PAVEMENT MATCH AT EXISTING PAVEMENT
NOT TO SCALE



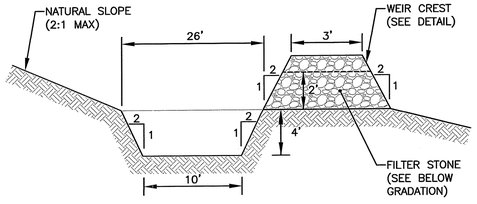




TYPICAL BOLLARD DETAIL
NOT TO SCALE



TYPICAL POLE BASE DETAIL
NOT TO SCALE



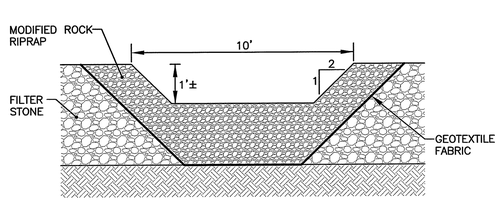
TEMPORARY SEDIMENT TRAP DETAIL
NOT TO SCALE

NOTE

FILTER STONE SHALL MEET THE REQUIREMENTS OF R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.09 TABLE 1, COLUMN V FILTER STONE.

US STANDARD SIEVE SIZE (INCHES)	FILTER STONE
1	100
3/4	70–85
1/2	10–40
3/8	0–20
#4	0–5

GRADATION OF FILTER STONE MATERIAL



TEMPORARY SEDIMENT TRAP OUTLET DETAIL
NOT TO SCALE

NOTES

1. THE TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO UNDISTURBED, STABILIZED GROUND.
2. CONTRACTOR SHALL INSTALL 1 OUTLET PER 100' LENGTH OF TEMPORARY SEDIMENT TRAP (1 OUTLET MIN. PER TEMPORARY SEDIMENT TRAP).
3. THE MODIFIED ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF THE R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.0.3.2.
4. CONTRACTOR MUST REFER TO THE INSTALLATION, INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS PROVIDED IN THE R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, AS AMENDED.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0177
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
Nancy L. Freeman

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

Crossman Engineering

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone (508) 695-1700

Email: cei@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8/2/23

ISSUED FOR BIDDING

KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 1

DATE:	*SCALE:*
AUGUST 7, 2023	AS SHOWN

DWG. NAME: 2747–C07–DETAIL1–R3.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
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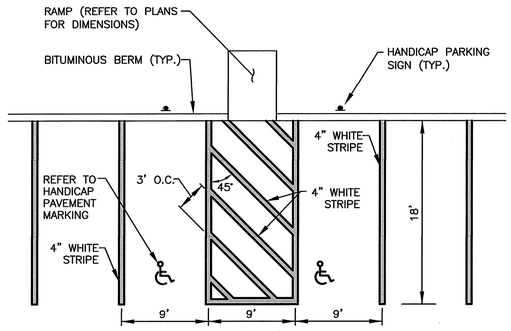
DRAWING NUMBER

C7

SHEET: 8 *OF:* 14

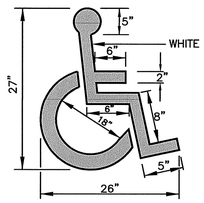
RI Environmental Management
AUG 17 2023
Office of Water Resources



NOTE

ALL HANDICAP PARKING SPACES SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE AND ADA REQUIREMENTS.

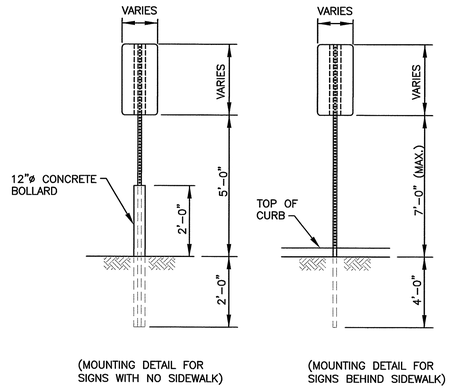
ADA PARKING STALLS
NOT TO SCALE



NOTE

ALL ADA PARKING SPACES SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE AND ADA REQUIREMENTS.

ADA PAVEMENT MARKING
NOT TO SCALE



SIGN MOUNTING DETAIL
NOT TO SCALE

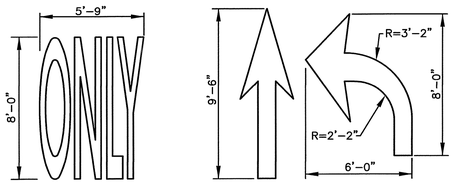
NOTE:

1. ALL LETTERS ARE 1" SERIES "C" PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.),
2. SIGN SHALL BE RETLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. CONTRACTOR SHALL VERIFY THE POSTED "FINE" AMOUNT WITH THE BUILDING OFFICIAL PRIOR TO INSTALLATION.
4. ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
5. INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE M.U.T.C.D.
6. SIGN MAY BE MOUNTED ON BUILDING/WALL, AT PROPER HEIGHT, ALIGNED WITHIN 12" OF CENTER OF THE PARKING SPACE.
7. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE.

SIGN NOTES:

1. SIGN POSTS SHALL BE GALVINIZED STEEL U-CHANNEL (3 1/2" WIDE-MIN.) AND INSTALLED IN CONFORMANCE WITH MUTCD AND LOCAL STANDARDS AND SPECIFICATIONS.
2. POSTS SHALL BE DRIVEN TO A DEPTH OF 4 FEET (MIN.)
3. THE EDGE OF THE SIGN SHALL BE 18" FROM THE FACE OF THE CURB.
4. WITHIN SIDEWALK LOCATIONS THE SIGN POST WILL BE INSTALLED WITHIN A 8"x8"x6" SQUARE BOX FORM.

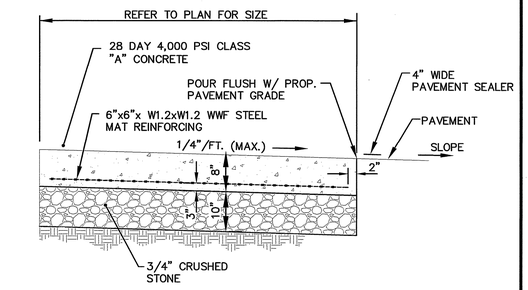
PROPOSED ADA PARKING SIGNS
NOT TO SCALE



NOTES

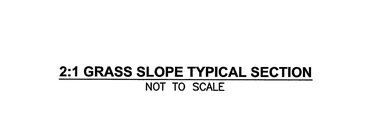
1. THE LONGITUDINAL SPACE BETWEEN LINES OR SYMBOL MESSAGES, INCLUDING ARROWS, SHOULD BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTER FOR LOW SPEED ROADS BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTER UNDER ANY CONDITIONS.
2. THE SPACING OF THE PAVEMENT MARKINGS WILL BE AS SHOWN ON THE PLAN AND AS PER THE MUTCD.
3. SYMBOLS AND WORDS SHALL MEET THE REQUIREMENTS OF THE FHWA "STANDARD ALPHABET AND SYMBOLS FOR HIGHWAY PAVEMENT MARKINGS.

PAVEMENT MARKING DETAIL
NOT TO SCALE

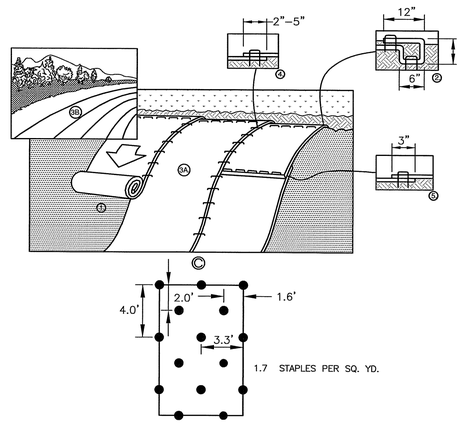


SECTION VIEW

DUMPSTER ENCLOSURE PAD DETAIL
NOT TO SCALE



2:1 GRASS SLOPE TYPICAL SECTION
NOT TO SCALE

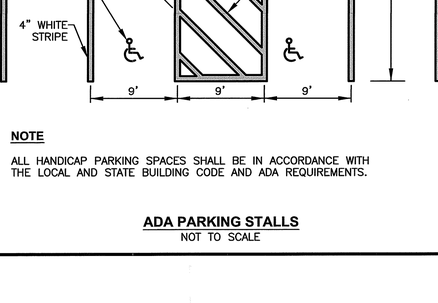


NOTE:

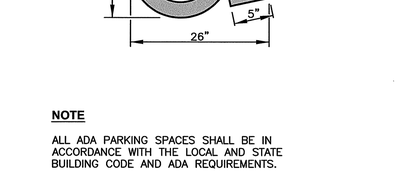
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE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

NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

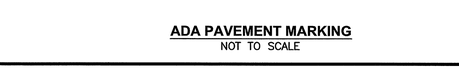
EROSION CONTROL BLANKET (MAT)
PERMANENT AND TEMPORARY INSTALLATION DETAIL
NOT TO SCALE



CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



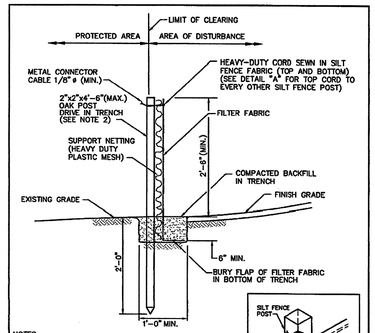
COMPOST FILTER SOCK SECTION



COMPOST FILTER SOCK PAVEMENT OPTION

NOTE: SILT FENCE (RI STD. 9.2.0) MAY BE USED IN LIEU OF COMPOST FILTER SOCK.

COMPOST FILTER SOCK DETAIL
NOT TO SCALE



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. 2"x2"x4'-6"(MAX.) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 8'-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.
3. 1"x1"x4'-6"(MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE	SILT FENCE DETAIL	R.I. STANDARD 9.2.0
			CHIEF ENGINEER / DIVISION	CHIEF DESIGN ENGINEER / ENGINEERING	JUNE 15, 1998 ISSUE DATE	

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

Crossman Engineering

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone (508) 695-1700

Email: cei@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8/2/23

ISSUED FOR BIDDING

KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 2

DATE:	SCALE:
AUGUST 7, 2023	AS SHOWN

DWG. NAME: 2747-C08-DETAIL2-R3.dwg

REVISIONS

NUMBER	REMARKS	DATE
--	--	--

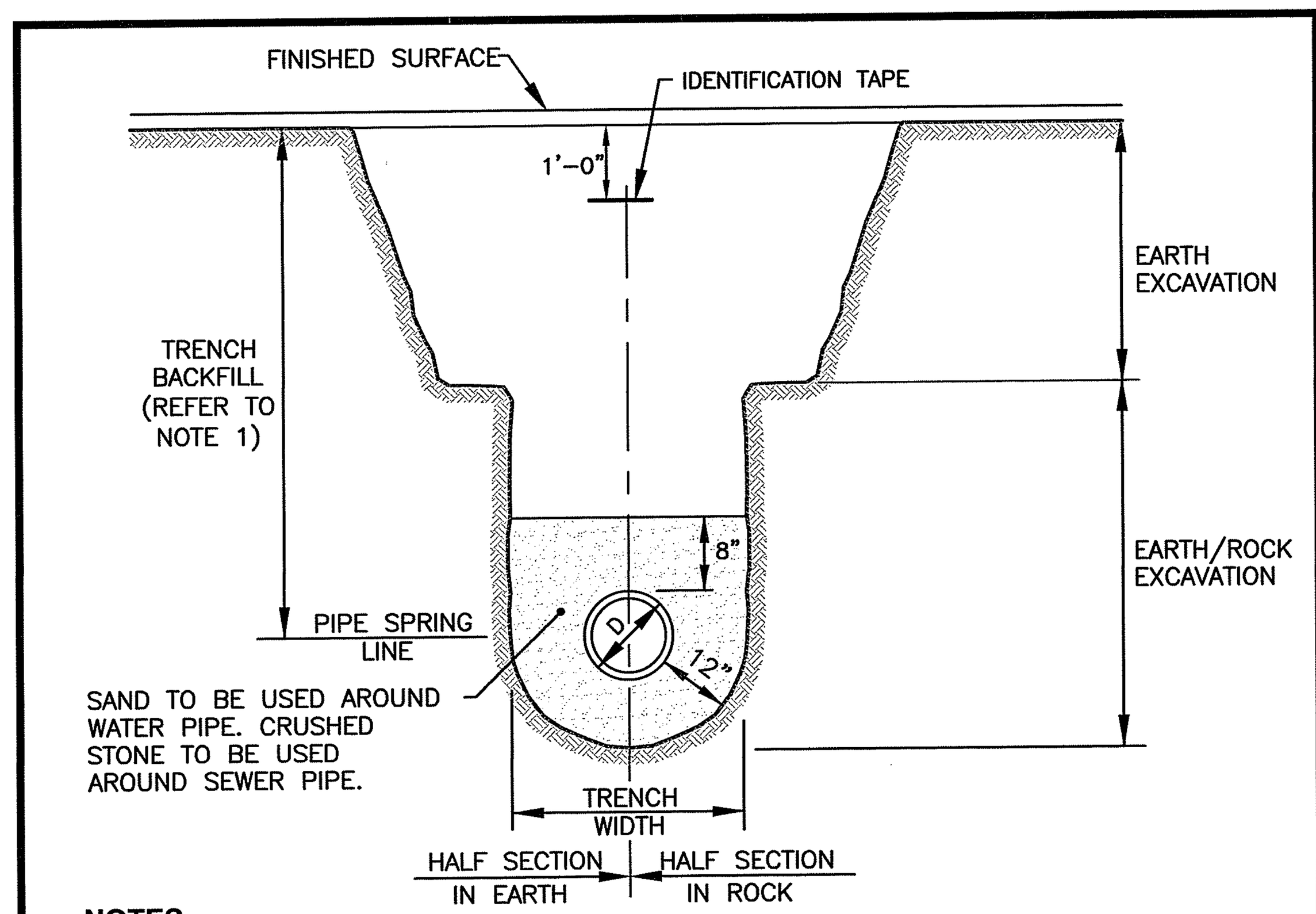
RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0177
DATED: OCT 13 2023
SEE LETTER OF SAME DATE
Audrey L. Freeman

DRAWING NUMBER

C8

SHEET: 9 *OF:* 14

RI Environmental Management
AUG 17 2023
Office of Water Resources

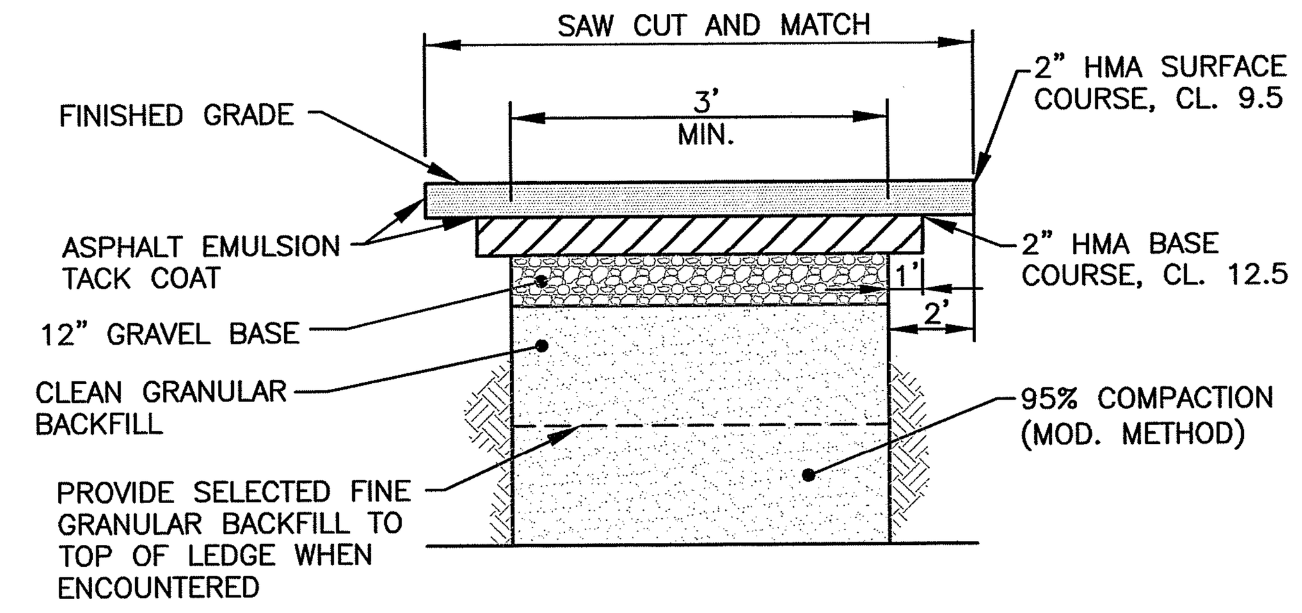


FINISHED SURFACE
IDENTIFICATION TAPE
1'-0"
EARTH EXCAVATION
TRENCH BACKFILL (REFER TO NOTE 1)
8"
EARTH/ROCK EXCAVATION
PIPE SPRING LINE
D
12"
SAND TO BE USED AROUND WATER PIPE. CRUSHED STONE TO BE USED AROUND SEWER PIPE.
TRENCH WIDTH
HALF SECTION IN EARTH
HALF SECTION IN ROCK

NOTES

1. BEDDING/BACKFILL TO BE COMPACTED TO 95% DRY DENSITY, MODIFIED PROCTOR METHOD.
2. ALL TRENCH EXCAVATION AND ANY SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND OSHA REGULATIONS.
3. MINIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 12". MAXIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 24".

TRENCH DETAIL
NOT TO SCALE



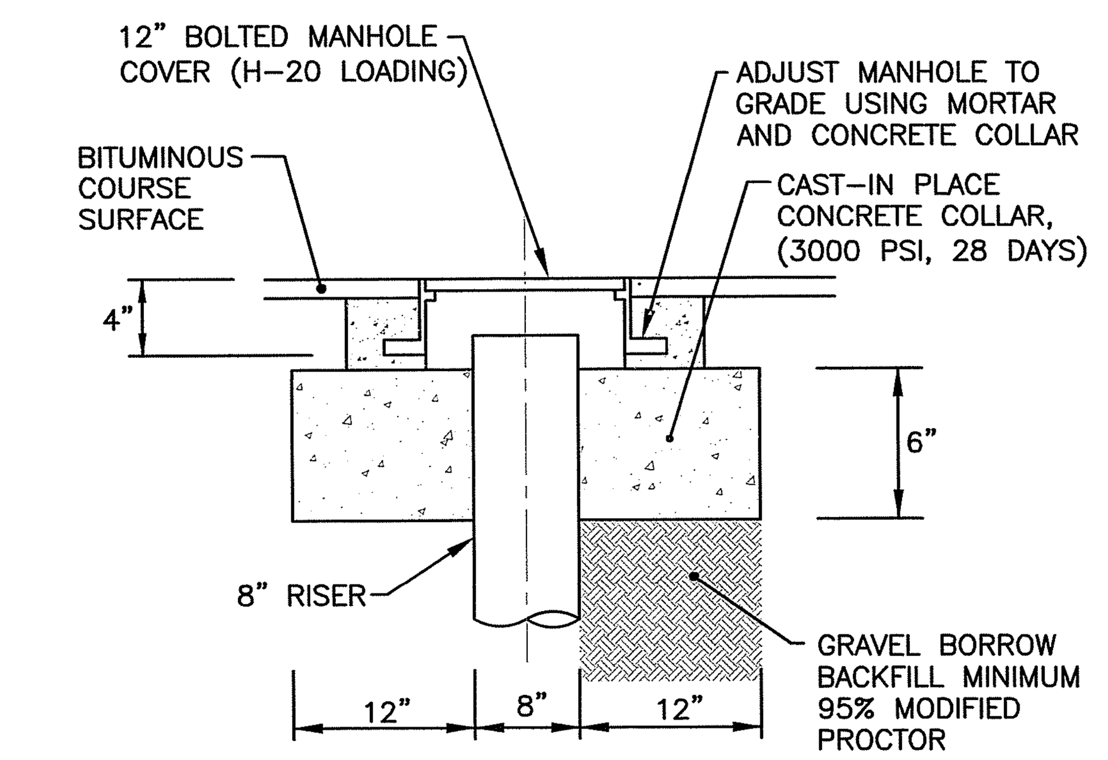
SAW CUT AND MATCH
3' MIN.
FINISHED GRADE
2" HMA SURFACE COURSE, CL. 9.5
ASPHALT EMULSION TACK COAT
2" HMA BASE COURSE, CL. 12.5
1'
2'
12" GRAVEL BASE
CLEAN GRANULAR BACKFILL
95% COMPACTION (MOD. METHOD)
PROVIDE SELECTED FINE GRANULAR BACKFILL TO TOP OF LEDGE WHEN ENCOUNTERED

NOTE

THE PAVEMENT DEPTH IN TRENCH AREAS FOR PROPOSED UTILITY PIPE AND CONNECTIONS WITHIN ROADWAY SHALL BE REPLACED IN-KIND. BASE COURSE SHALL BE PLACED IN 2" LIFTS. THE CONTRACTOR SHALL COORDINATE ALL PAVING OPERATIONS WITHIN THE ROADWAY WITH THE ENGINEER PRIOR TO PLACEMENT.

TYPICAL TRENCH PATCH DETAIL
NOT TO SCALE

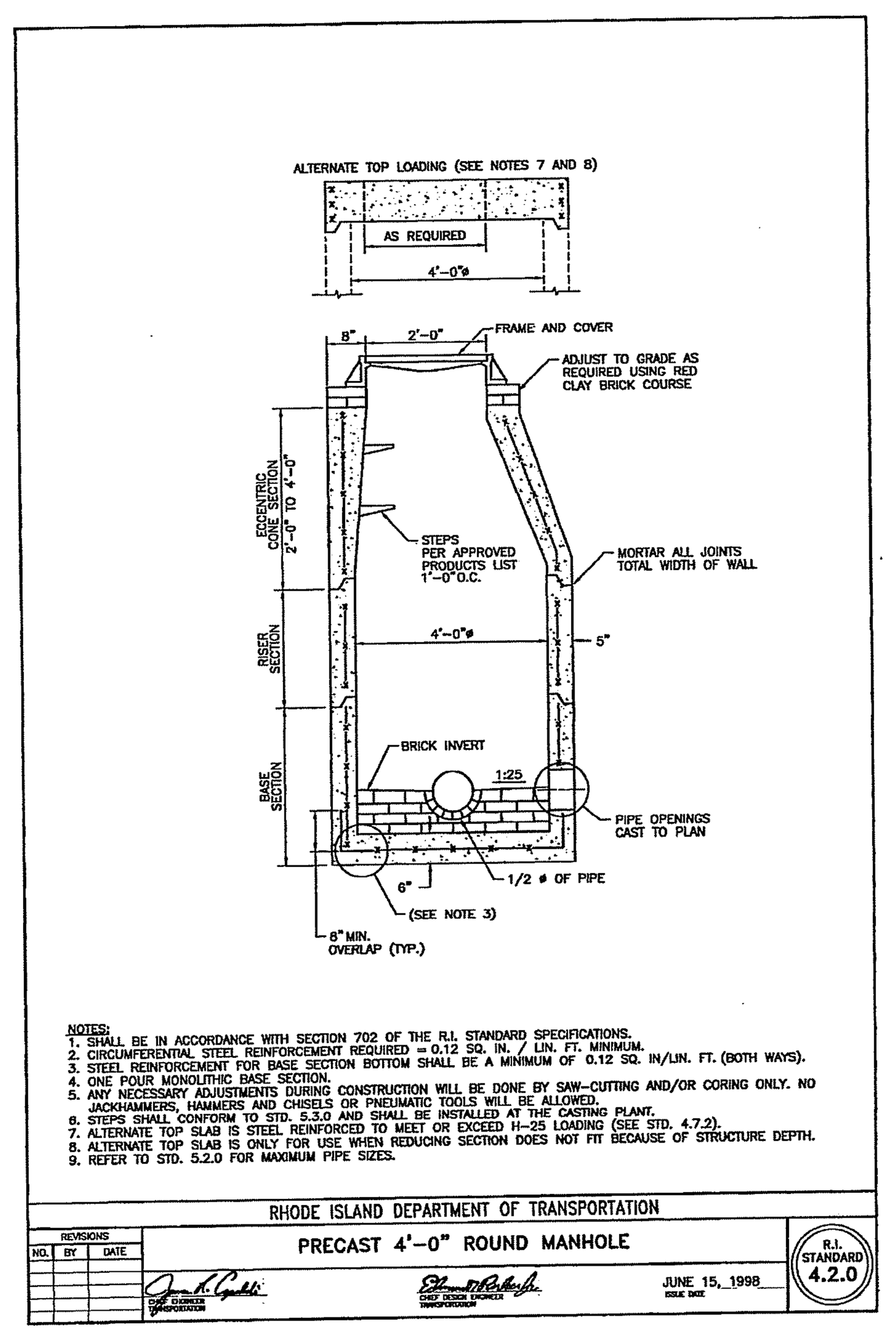
TRENCH WIDTH Ws OR Wu		
DIAMETER OF PIPE D	Wu UNSHEETED	Ws SHEETED
12" AND SMALLER	3'-4"	4'-6"
15"	3'-6"	4'-8"
18"	3'-10"	5'-0"
21"	4'-2"	5'-4"
24"	4'-6"	5'-8"
27"	4'-10"	6'-0"
30"	5'-6"	6'-8"
36"	6'-2"	7'-4"
42"	6'-10"	8'-0"
48"	7'-6"	8'-8"

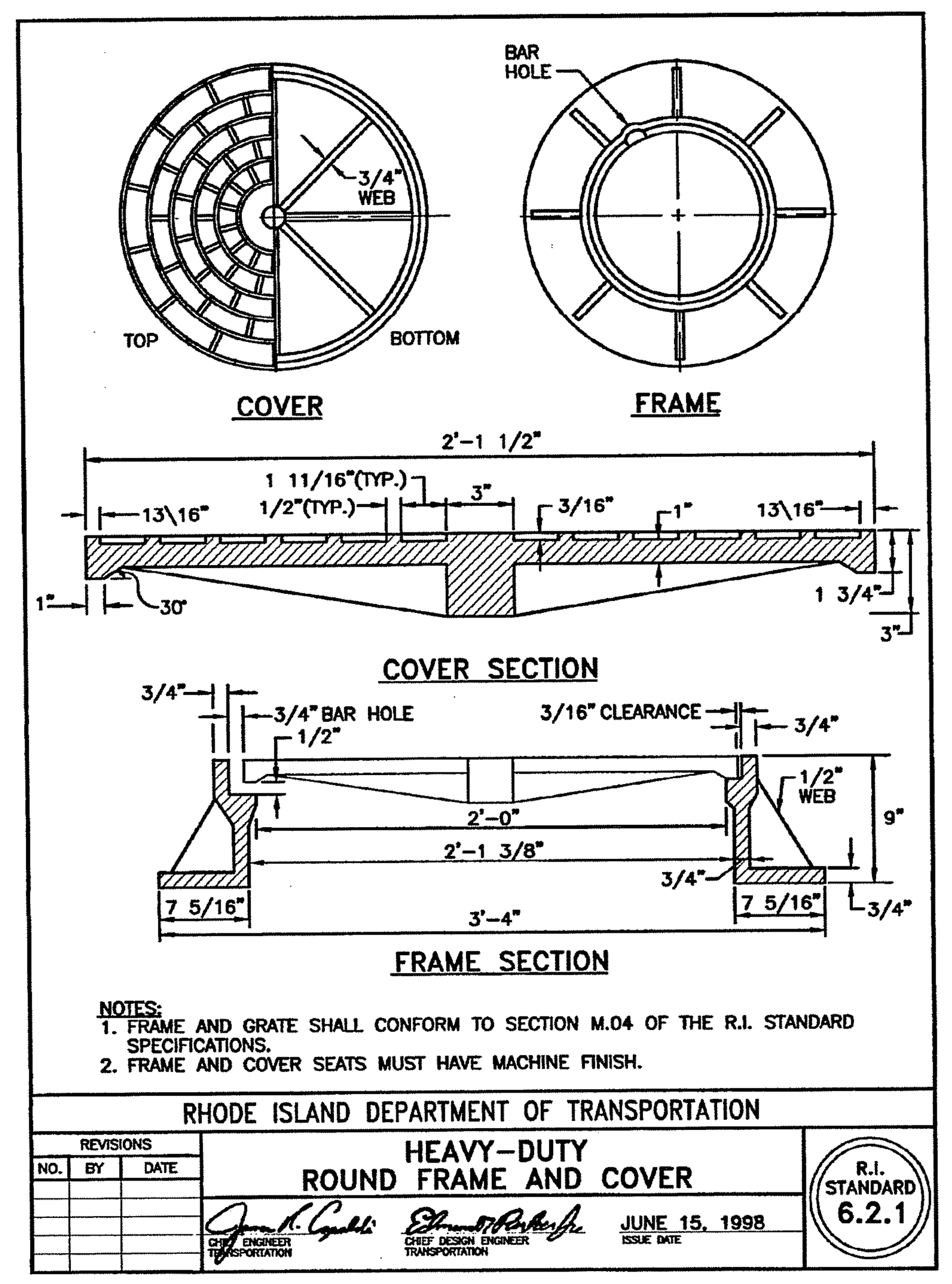


NOTE

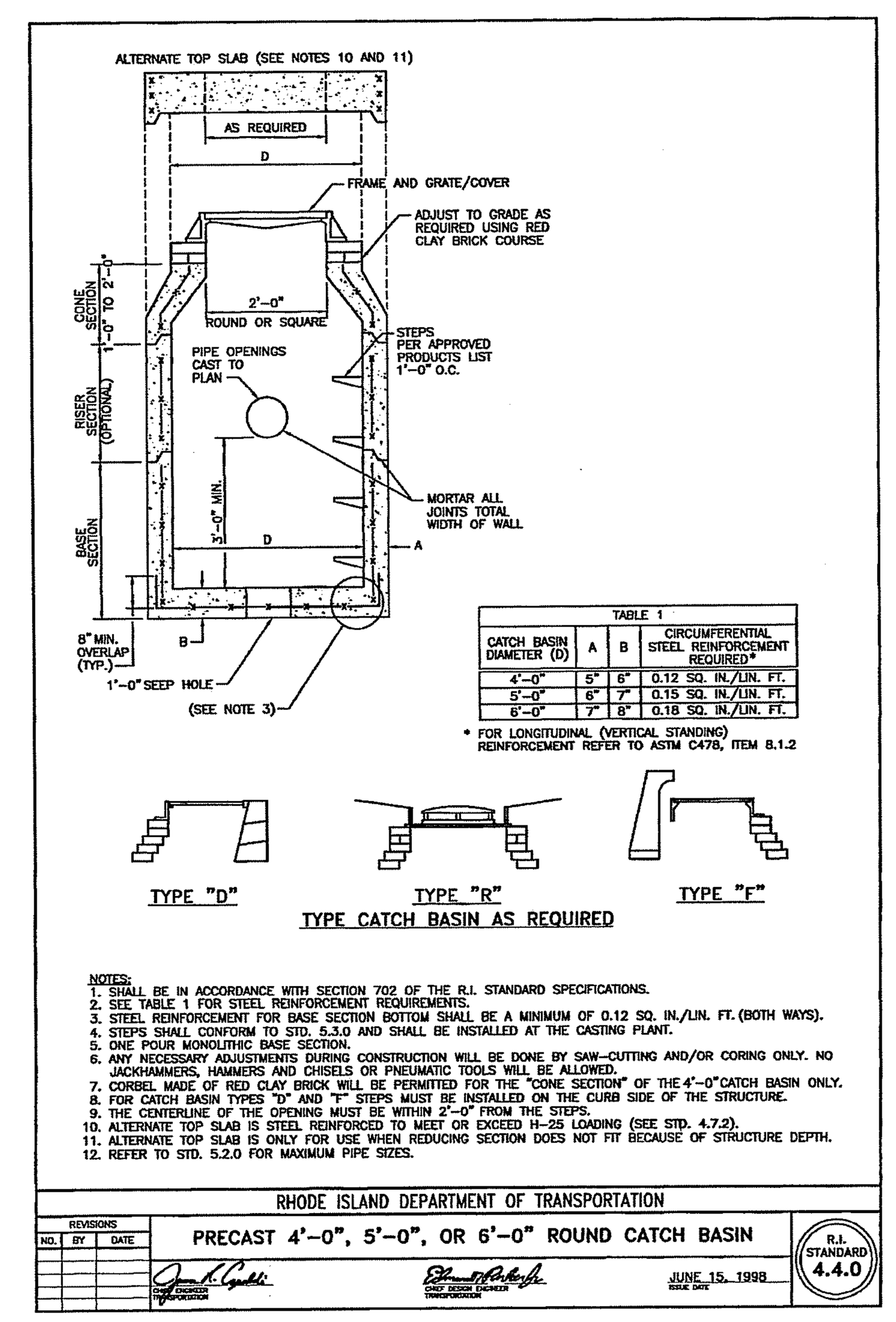
CONCRETE COLLAR IS NOT REQUIRED IN LANDSCAPE AREAS.

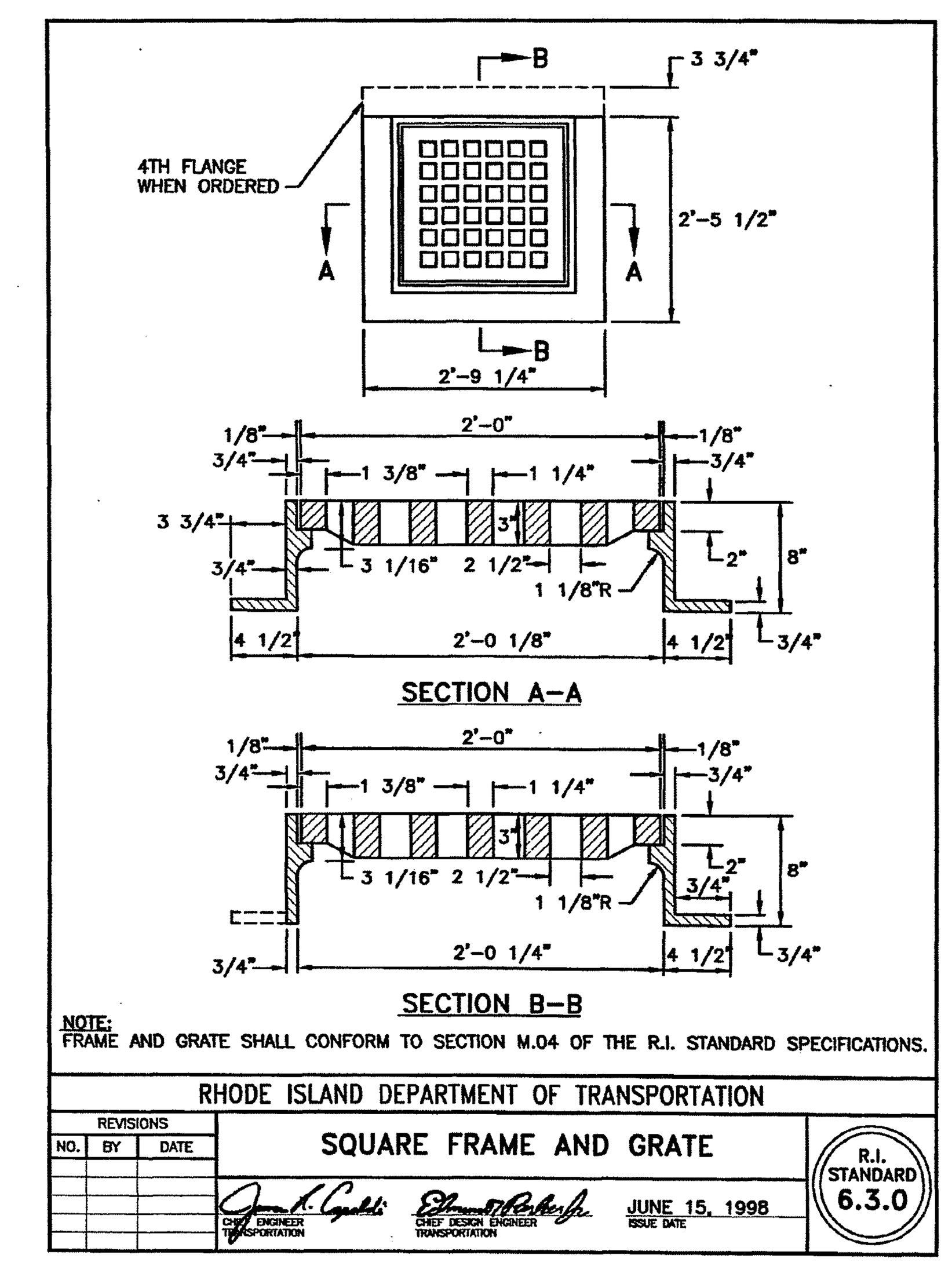
ROOF DRAIN CLEAN-OUT DETAIL IN PAVEMENT
NOT TO SCALE



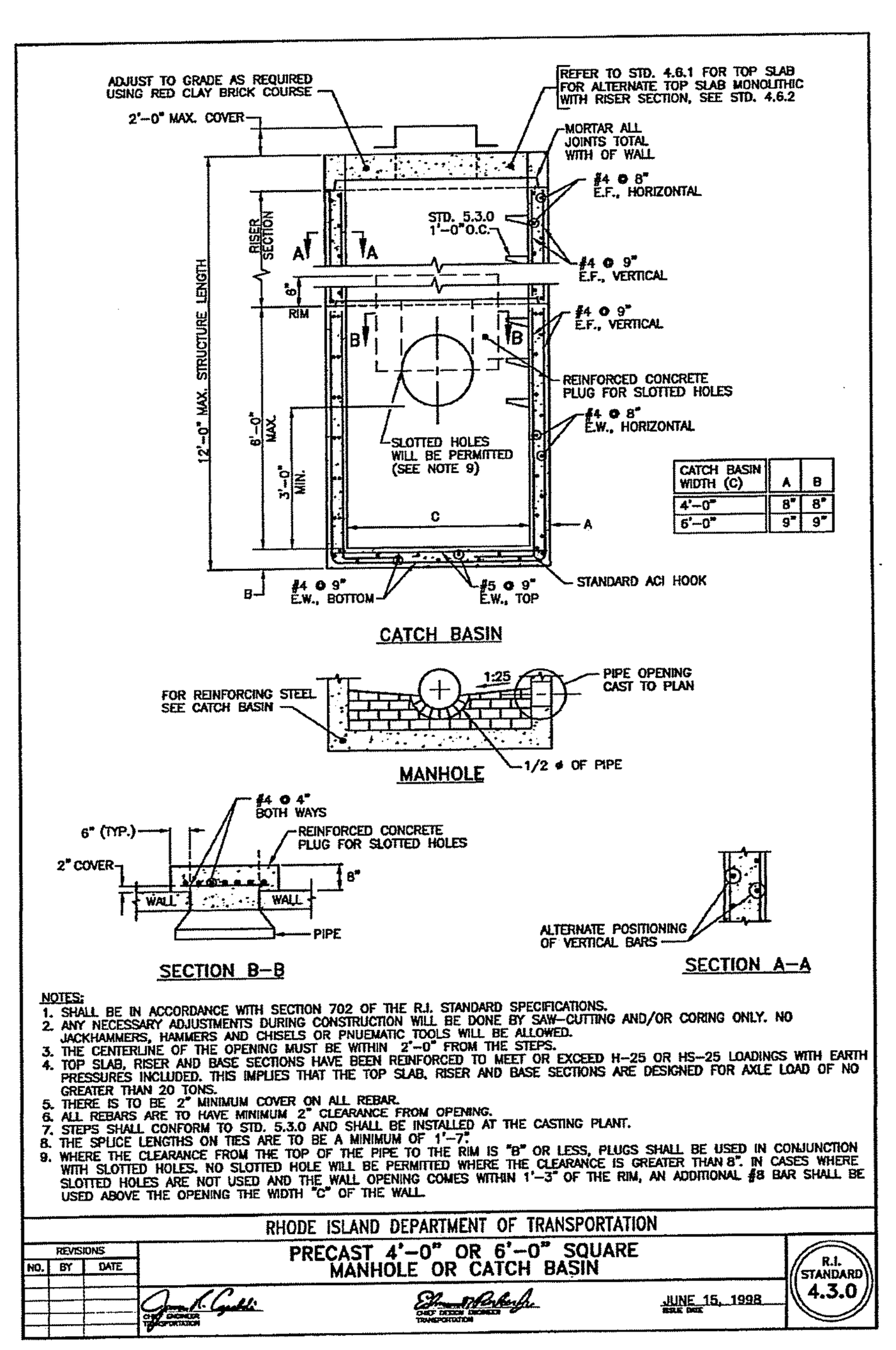


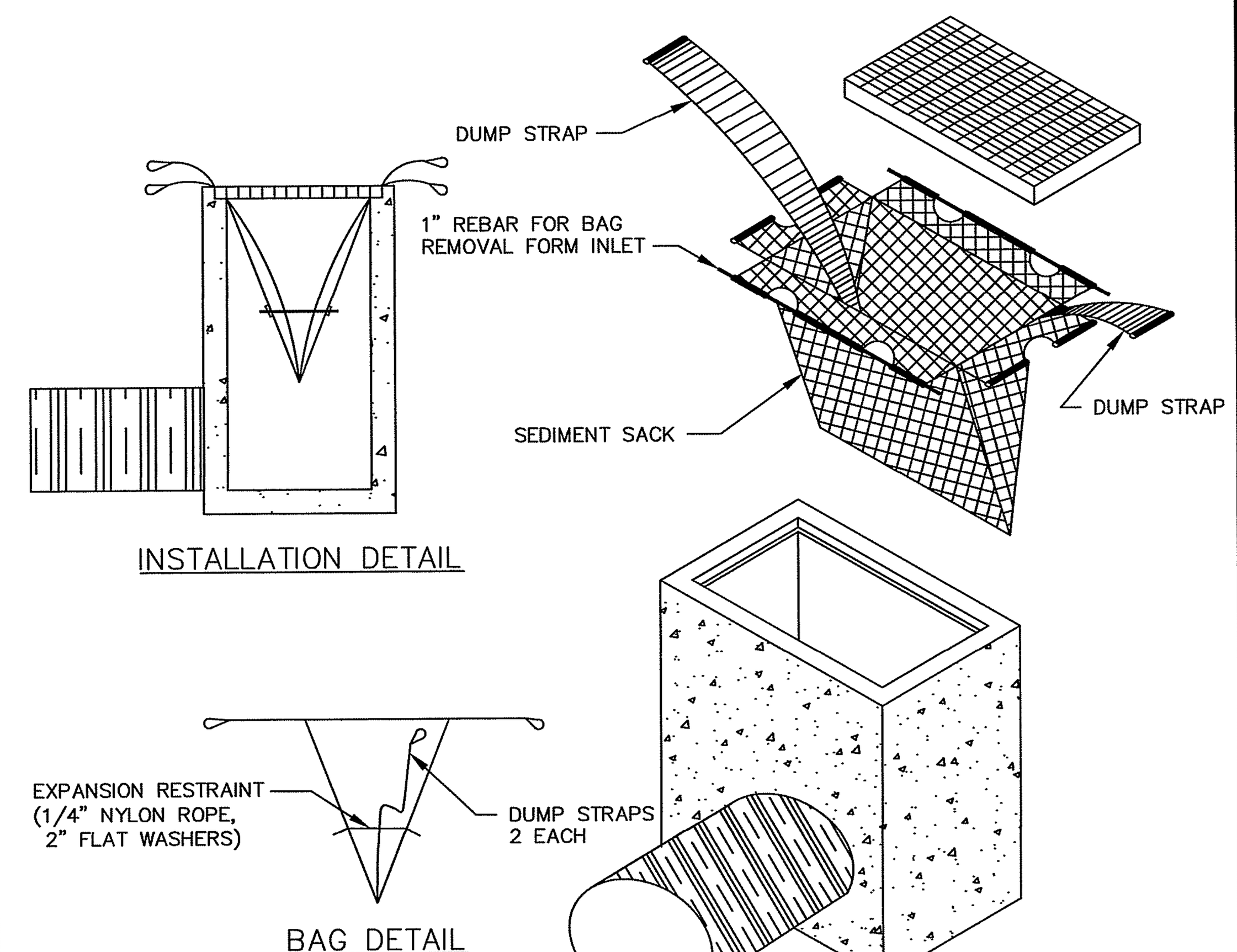
BAR HOLE
3/4" WEB
TOP
BOTTOM
COVER
FRAME
2'-1 1/2"
1 11/16"(TYP.)
1/2"(TYP.)
3"
3/16"
1"
13\16"
1"
30°
1 3/4"
3"
COVER SECTION
3/4"
3/4" BAR HOLE
1/2"
3/16" CLEARANCE
3/4"
1/2" WEB
9"
2'-0"
2'-1 3/8"
3/4"
7 5/16"
7 5/16"
3/4"
3'-4"
FRAME SECTION
NOTES:
1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.
RHODE ISLAND DEPARTMENT OF TRANSPORTATION
HEAVY-DUTY ROUND FRAME AND COVER
JUNE 15, 1998
R.I. STANDARD 6.2.1





B
3 3/4"
4TH FLANGE WHEN ORDERED
A
A
2'-5 1/2"
B
2'-9 1/4"
1/8"
3/4"
2'-0"
1/8"
3/4"
3 3/4"
1 3/8"
1 1/4"
3 1/16"
2 1/2"
2"
8"
1 1/8"R
4 1/2"
2'-0 1/8"
4 1/2"
3/4"
SECTION A-A
1/8"
3/4"
2'-0"
1/8"
3/4"
1 3/8"
1 1/4"
3 1/16"
2 1/2"
2"
3/4"
8"
1 1/8"R
2'-0 1/4"
4 1/2"
3/4"
SECTION B-B
NOTE:
FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
RHODE ISLAND DEPARTMENT OF TRANSPORTATION
SQUARE FRAME AND GRATE
JUNE 15, 1998
R.I. STANDARD 6.3.0

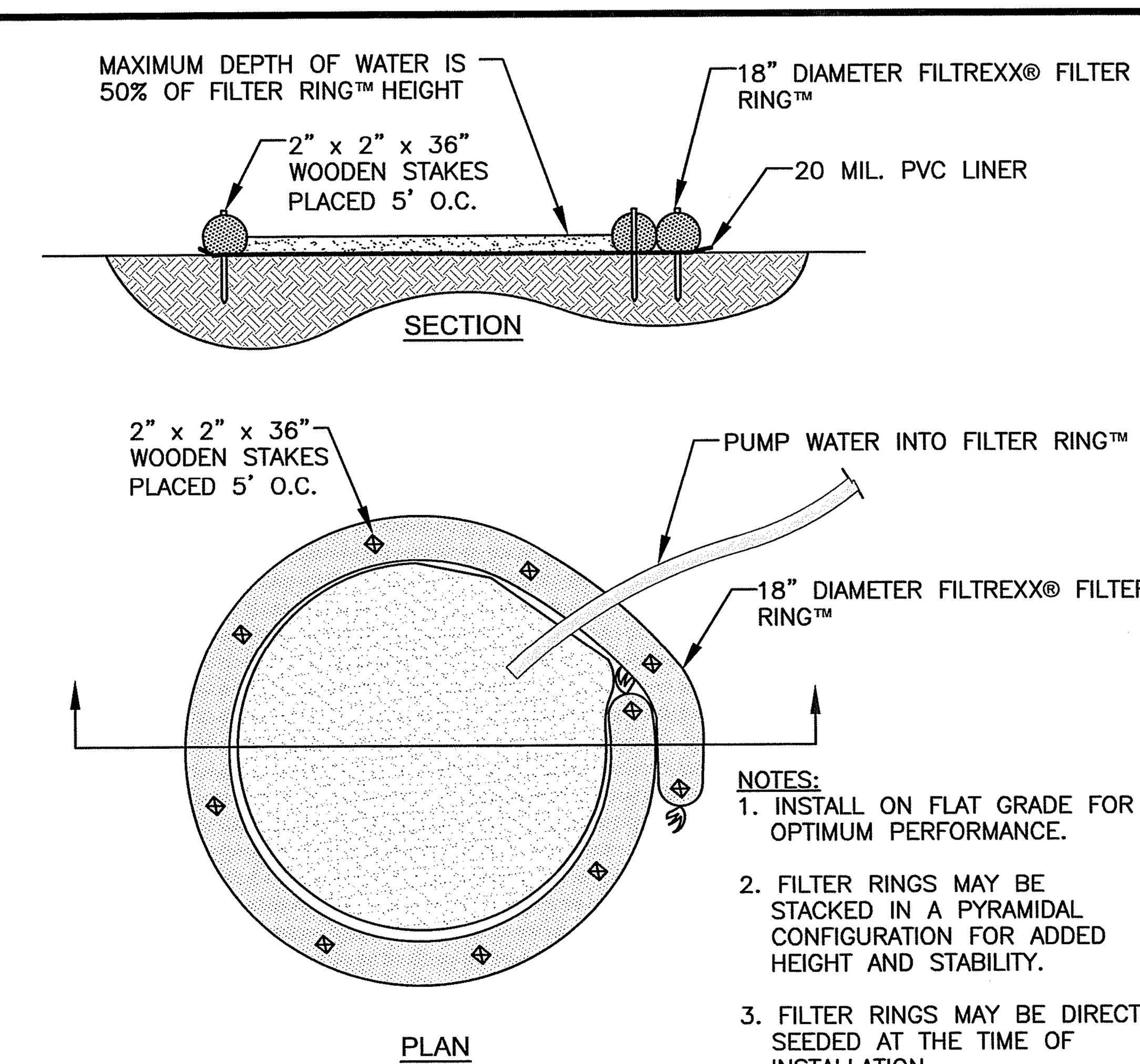




NOTES:

1. INSTALL SILT SACK AT CATCH BASINS IN VICINITY OF CONSTRUCTION.
2. CONTRACTOR SHALL SUBMIT SILT SACK SHOP DRAWING TO ENGINEER FOR APPROVAL.
3. A FLEX STORM INLET FILTER, AS MANUFACTURED BY ADS PIPE, MAY BE USED IN LIEU OF A SILT SACK. APPROVAL FROM THE ENGINEER IS REQUIRED.

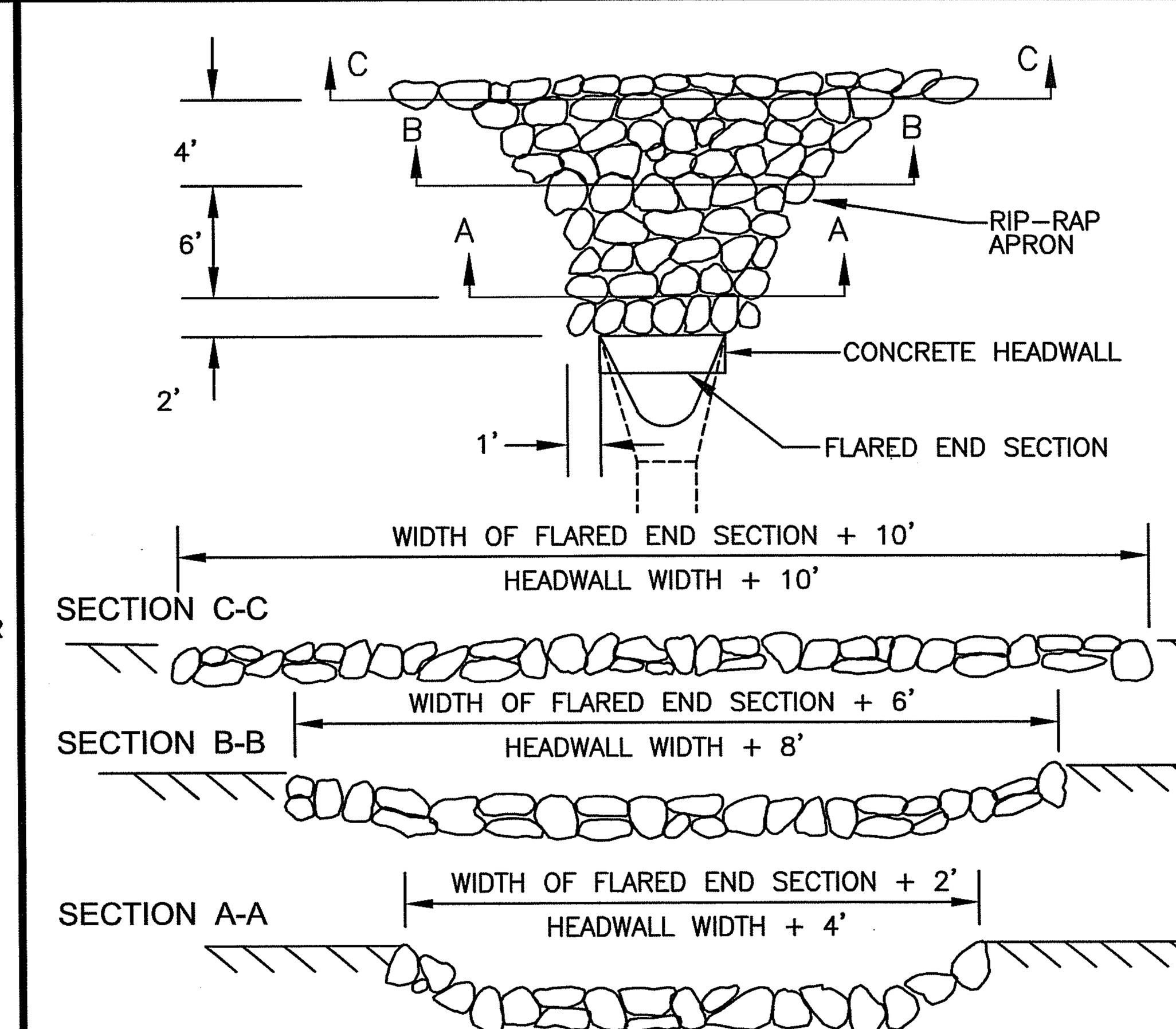
TYPICAL SILT SACK DETAIL
NOT TO SCALE



NOTES:

1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. FILTER RINGS MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
3. FILTER RINGS MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
4. THIS TYPICAL INSTALLATION SHALL BE USED FOR DEWATERING OPERATIONS.

FILTREXX® FILTER RING
NOT TO SCALE



NOTE: STONE SIZE SHALL BE R-4 RIPRAP WITH FS-2 BEDDING.

TYPICAL LAYOUT OF RIP-RAP OUTLET PROTECTION AT FLARED END SECTIONS and CONCRETE HEADWALLS
NOT TO SCALE

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

Crossman Engineering

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone (508) 695-1700

Email: cei@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8/7/23

ISSUED FOR BIDDING

KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 3

DATE:	SCALE:
AUGUST 7, 2023	AS SHOWN

DWG. NAME: 2747-C09-DETAIL3-R3.dwg

REVISIONS

NUMBER	REMARKS	DATE
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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0177
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
Nancy L. Freeman

DRAWING NUMBER

C9

RI Environmental Management
AUG 17 2023
Office of Water Resources

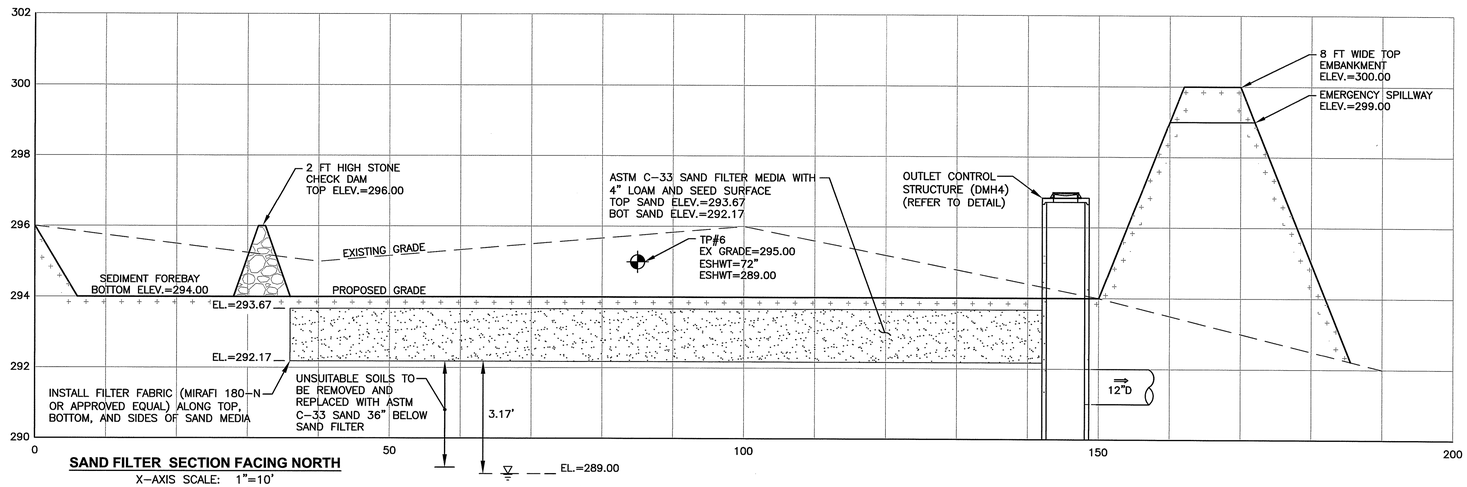
SHEET: 10 OF 14

DRAINAGE NOTES

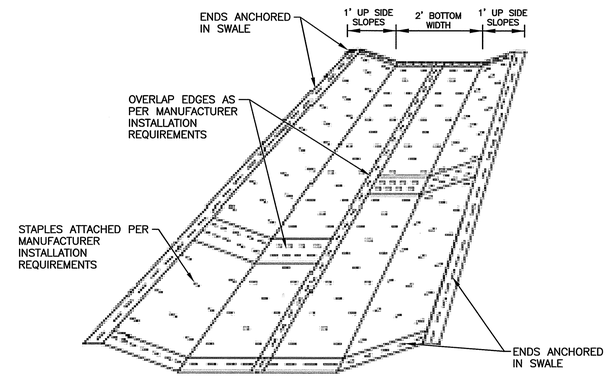
1. CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
2. CONTRACTOR IS RESPONSIBLE TO PROVIDE SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS FOR REVIEW AND APPROVAL BY THE ENGINEER, PRIOR TO ORDERING. CONCRETE MANUFACTURER SHALL REVIEW RIM TO TOP OF PIPE ELEVATIONS AND PROVIDE SPECIFIC DETAILS.
3. ALL STRUCTURES SHALL BE DESIGNED FOR H–20 LOADING.
4. ALL CATCH BASINS SHALL BE PRECAST CONCRETE WATER TIGHT STRUCTURES. (NO WEEP HOLES).
5. 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. PIPES SHALL BE INSTALLED WITH CLAY TRENCH DAMS EVERY 50' (MINIMUM 1 PER PIPE).
6. GRADES WITHIN HANDICAP ACCESSIBLE PARKING SPACES AND AISLES SHALL NOT BE LESS THAN 1% OR GREATER THAN 2%.
7. ALL ROOF DRAINS SHALL BE INSTALLED AT A 1.0% MINIMUM SLOPE.
8. CONTRACTOR MAY NEED TO RELOCATE PIPE TO AVOID CONFLICTS WITH EXISTING UTILITIES. COORDINATE RELOCATION WITH ENGINEER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR DAMAGE TO EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE TO INCLUDE ALL WORK NECESSARY TO INSTALL THIS PIPE, INCLUDING TRANSPLANTING OR PLANTING NEW TREES IF NECESSARY.

SAND FILTER CONSTRUCTION NOTE

1. THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND SUBSOIL AREAS (A AND B HORIZONS), HTM/FILL, AND ANY EXISTING SOILS THAT YIELD A PERMEABILITY RATE <1.02 INCHES/HOUR WITHIN 36" OF THE BOTTOM OF THE SAND FILTER. CONTRACTOR SHALL COORDINATE A BOTTOM BED INSPECTION WITH OWNER AND ENGINEER. IF NECESSARY THE AREA SHALL BE PREPARED WITH SAND FILL SOIL MEETING THE MEDIA REQUIREMENTS OF SAND FILTERS, AS DESCRIBED IN THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, LATEST EDITION. THE DEPTH OF EXISTING SOIL REMOVAL SHALL BE VERIFIED BY THE ENGINEER. PLACEMENT OF THE SAND FILL (ASTM C–33 SAND), SHALL BE USED TO BRING THE BOTTOM OF BASIN TO THE DESIGN ELEVATIONS.
2. SAND FILTER CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, LATEST EDITION. AFTER CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE FINAL INSPECTIONS WITH THE OWNER.
3. THE CONTRACTOR IS REQUIRED TO SUBMIT A LIST OF MATERIALS, GRADATIONS AND THE NAME AND ADDRESS OF THE SUPPLIERS TO THE ENGINEER FOR APPROVAL PRIOR TO BRINGING MATERIAL ON SITE. MATERIAL CERTIFICATIONS SHALL ALSO BE REQUIRED FOR REVIEW AND APPROVAL.
4. THE CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE ABOVE REFERENCED MANUAL. THE MANUAL CAN BE FOUND AT: http://www.dem.ri.gov/pubs/regs/regs/water/swmanual15.pdf
5. GREAT CARE MUST BE TAKEN TO PREVENT THE INFILTRATION AREA FROM COMPACTION; BY MARKING OFF THE UNDERGROUND INFILTRATION SYSTEM AND SAND FILTER LOCATIONS BEFORE THE START OF CONSTRUCTION, AND BY CONNECTING UPSTREAM DRAINAGE AREAS ONLY AFTER CONSTRUCTION IS COMPLETE AND THE CONTRIBUTING AREA IS STABILIZED.
6. IF LARGE ROCKS OR BOULDERS ARE FOUND WITHIN 36" BELOW THE INFILTRATION SYSTEMS, OR WITHIN A 10' PERIMETER AROUND SYSTEM, THE CONTRACTOR SHALL REMOVE THE ROCKS/BOULDERS AND REPLACE WILL GRAVEL BORROW. CONTRACTOR SHALL COORDINATE WITH ENGINEER.
6. THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR THE PIPES TO BE USED IN THE UNDERGROUND INFILTRATION SYSTEM AND SAND FILTERS TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SHOP DRAWINGS MUST VERIFY THAT THE PIPES CAN SUPPORT H–20 LOADING WITH THE SYSTEM SPECIFIC COVER.
7. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH A CULTEC REPRESENTATIVE FOR INSTALLATION SPECIFICATIONS AND PROCEDURES.



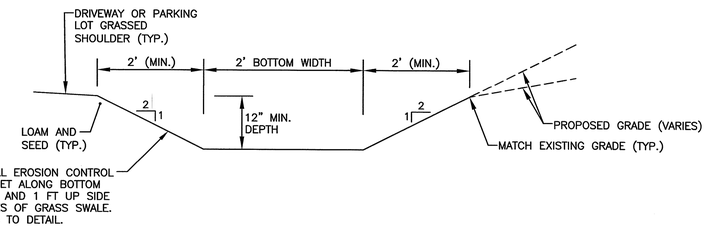
SAND FILTER SECTION FACING NORTH
X–AXIS SCALE: 1"=10'
Y–AXIS SCALE: 1"=2'



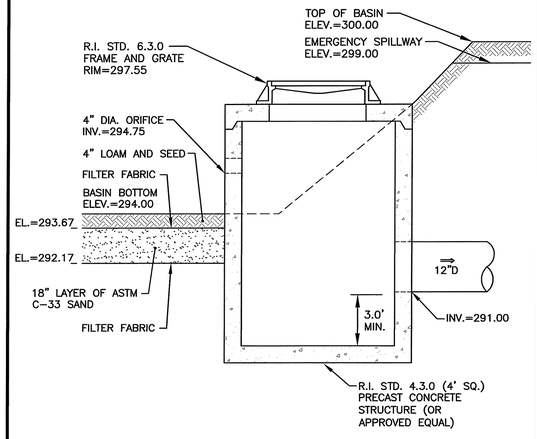
NOTE

1. EROSION MATTING SHALL BE ERONET P300 PERMANENT EROSION CONTROL BLANKET (OR APPROVED EQUIVALENT) AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
2. EROSION MATTING SHALL BE PLACED ALONG THE BOTTOM AND 12–INCHES UP THE SIDE SLOPES OF ALL SWALES AND INSTALLED IN ACCORDANCE TO MANUFACTURER SPECIFICATIONS.

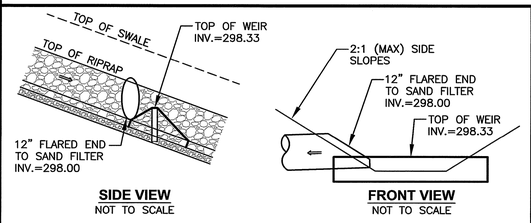
EROSION MATTING IN SWALE INSTALLATION DETAIL
NOT TO SCALE



PROPOSED GRASS SWALE DETAIL
NOT TO SCALE



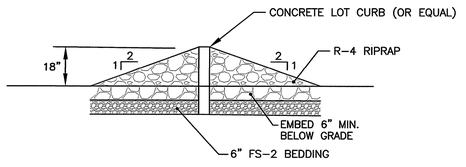
OUTLET CONTROL STRUCTURE (DMH 4) DETAIL
NOT TO SCALE



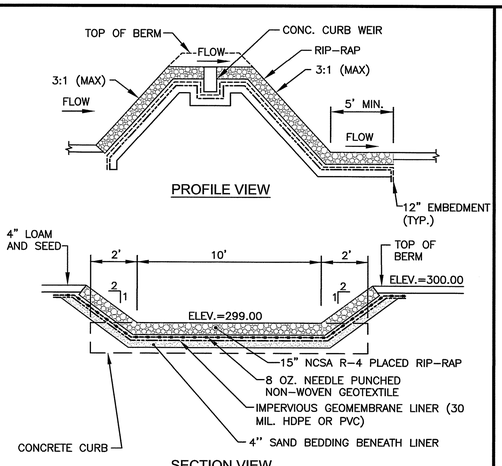
SIDE VIEW
NOT TO SCALE

FRONT VIEW
NOT TO SCALE

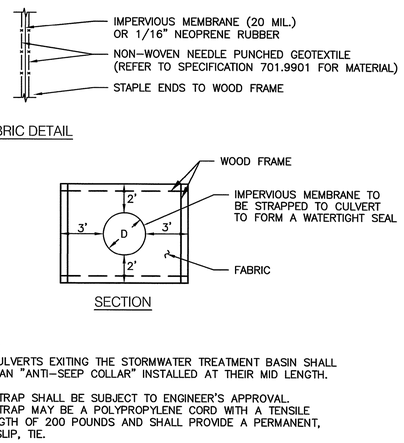
RIPRAP WEIR IN SWALE DETAIL
NOT TO SCALE



SEDIMENT FOREBAY STONE CHECK DAM DETAIL
NOT TO SCALE



EMERGENCY SPILLWAY DETAIL
NOT TO SCALE



NOTES:

1. ALL CULVERTS EXITING THE STORMWATER TREATMENT BASIN SHALL HAVE AN "ANTI–SEEP COLLAR" INSTALLED AT THEIR MID LENGTH.
2. THE STRAP SHALL BE SUBJECT TO ENGINEER'S APPROVAL. THE STRAP MAY BE A POLYPROPYLENE CORD WITH A TENSILE STRENGTH OF 200 POUNDS AND SHALL PROVIDE A PERMANENT, NON–SLIP, TIE.

ANTI-SEEP COLLAR DETAILS
NOT TO SCALE

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

Crossman Engineering

Rhode Island
151 Centerville Road
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Phone (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone (508) 695-1700

Email: cei@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8/2/23

ISSUED FOR BIDDING

KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 4

DATE:	SCALE:
AUGUST 7, 2023	AS SHOWN

DWG. NAME: 2747–C10–DETAIL4–R3.dwg

REVISIONS

NUMBER	REMARKS	DATE
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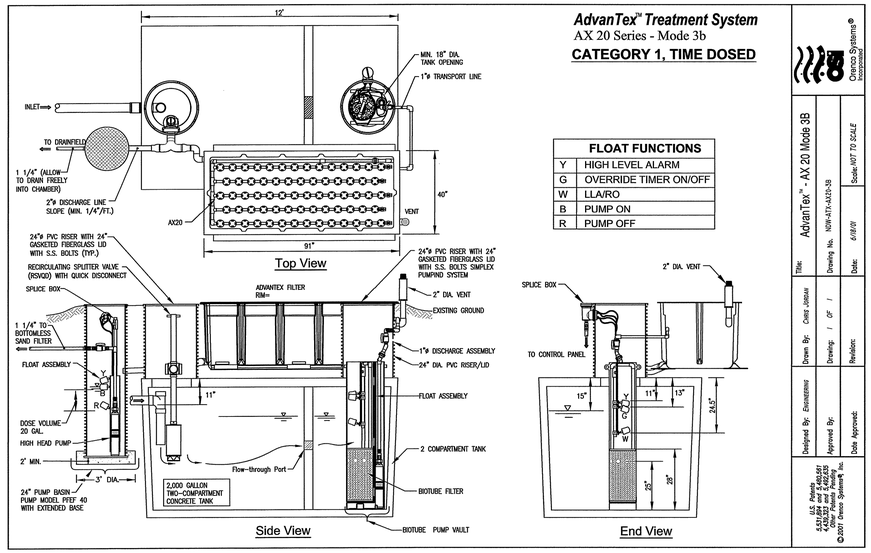
RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN/APPLICATION #: 23-0177
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
Randy L. Freeman

DRAWING NUMBER

C10

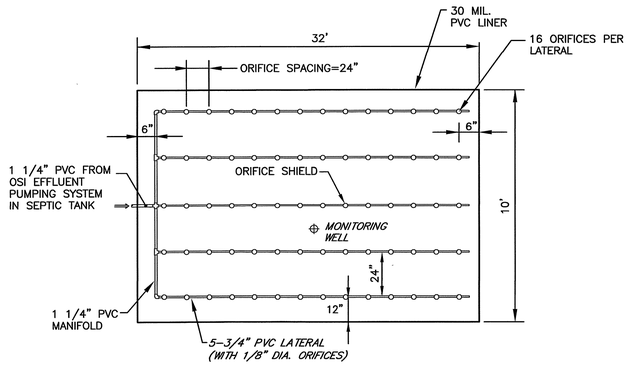
RI Environmental Management
AUG 17 2023
Office of Water Resources

SHEET: 11 *OF:* 14

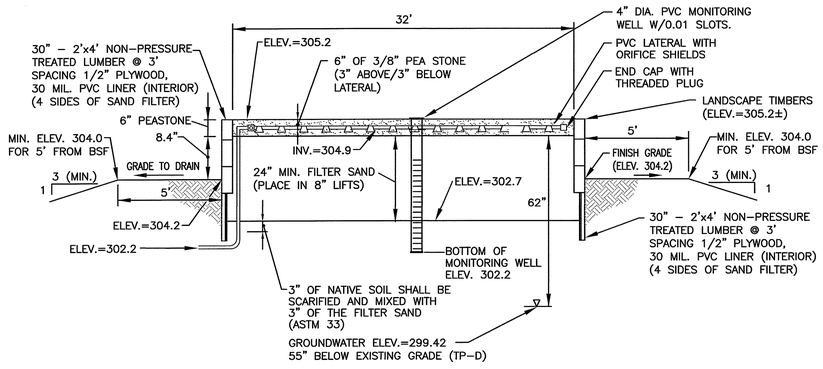


NOTE

SUPPLIER MUST PROVIDE ANTI-FLOTATION COLLARS TO ADDRESS SEASONAL HIGH WATER TABLE OF 299.42.



TOP VIEW - BOTTOMLESS SAND FILTER



SIDE VIEW - BOTTOMLESS SAND FILTER

BOTTOMLESS SAND FILTER
NOT TO SCALE

DESIGN FLOW

USE	DESIGN UNITS	UNIT FLOW RATE (gpd/unit)	DESIGN FLOW (gpd)
OFFICE (24 EMPLOYEES)	PER EMPLOYEE	15 gpd	360 gpd

SEPTIC TANK SIZING WITH NO GARBAGE GRINDER

REQUIRED SIZE: GREATER OF 1,000 GALLONS OR 720 GALLONS (2 x 360 GPD)
USE: 2,000 GALLON TANK

LEACHING SYSTEM SIZING

TYPE OF SYSTEM: BOTTOMLESS SAND FILTER

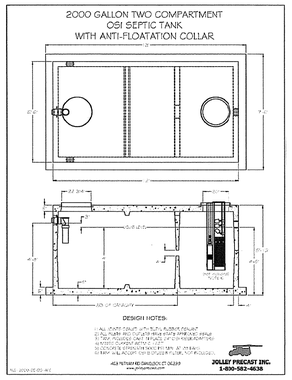
SOIL CATEGORY = 6
CATEGORY 1 TECHNOLOGIES LOADING RATE = 2.3 gal/S.F./DAY
PRETREATMENT DEVICE = ADVANTEX (AX-20)

MIN. LEACHING AREA REQUIRED:
360 GPD / (2.3 GAL/S.F./DAY) = 156.5 S.F.

LEACHING AREA PROVIDED = 32' x 10' = 320 S.F.

PUMP - DOSING CALCULATIONS

LENGTH OF EACH DISTRIBUTION LINE = 31 LF (5 LINES)
DISTRIBUTION LINE ORIFICES = 80 (24" SPACING)
DOSING = 0.25 GAL/ORIFICE = 20 GALLONS
PUMP CHAMBER = 24" DIAMETER
PUMP VOLUME = PUMP ON/PUMP OFF (10.2") = 20 GAL/CYCLE



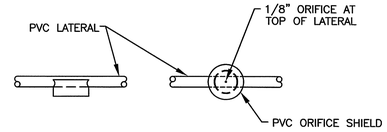
SEPTIC TANK DETAIL

NOTES

1. ALTERNATE PRECAST MANUFACTURER MAY BE USED BUT WILL REQUIRE APPROVAL FROM ENGINEER PRIOR TO CONSTRUCTION.
2. INLET TEE SHALL EXTEND DOWNWARD AT LEAST 1' BELOW FLOW LINE.
3. OUTLET TEE SHALL EXTEND DOWNWARD 1/3 THE DEPTH OF THE FLOW LINE.

ONSITE WASTEWATER TREATMENT SYSTEM NOTES:

1. THERE ARE NO PUBLIC SEWERS WITHIN 200' OF THE PARCEL.
2. THERE ARE NO KNOWN EXISTING OR PROPOSED PRIVATE WELLS WITHIN 200' OF THE SYSTEM, AND THERE ARE NO KNOWN EXISTING OR PROPOSED PUBLIC WELLS WITHIN 500'. THERE ARE NO KNOWN EXISTING OR PROPOSED NON-POTABLE WELLS WITHIN 100' OF THE OWTS.
3. ALL KNOWN WATERCOURSES, WETLANDS, DRAINS AND STORMWATER MANAGEMENT SYSTEMS WITHIN 200' OF THE PROPOSED OWTS ARE SHOWN.
4. THE SITE IN NOT WITHIN THE CRITICAL RESOURCE AREA AS DEFINED BY SECTION 6.42 OF THE OWTS RULES AND REGULATIONS. THE NEAREST CRITICAL RESOURCE AREA IS >1 MILE.
5. STRIPPING SHALL NOT BE DONE INTO THE WATER TABLE.
6. NO VEHICULAR TRAFFIC IS ALLOWED ON BSF.
7. SURFACE RUNOFF TO BE DIVERTED FROM SYSTEM AND BSF.
8. THE PIPING FOR BUILDING SEWER TO BE SOLID SDR 35 PVC PIPE OR SCHEDULE 40 PVC PIPE.
9. THE LICENSED INSTALLER MUST FOLLOW ALL R.I.D.E.M. "RULES AND REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, EFFECTIVE DATE 11/25/2018."
10. NO KNOWN DRAINS, PROPOSED DRAINS OR UNDERDRAINS DISCHARGING INTO A SURFACE WATER SUPPLY ARE WITHIN 25' OF LEACH FIELD.
11. ALL DISTURBED AREAS ARE TO RECEIVE 4" OF LOAM & SEED, UNLESS OTHERWISE NOTED.
12. THE CONTRACTOR MUST ADHERE TO ALL CONSTRUCTION INSPECTION PROCEDURES AND REQUIREMENTS OF R.I.D.E.M. AND CROSSMAN ENGINEERING, INC.
13. NO GARBAGE DISPOSAL GRINDER IS ALLOWED TO BE USED.
14. THE SITE IS NOT WITHIN THE WATERSHED OF THE PUBLIC WATER SUPPLY AS DEFINED IN SECTION 6.42, AND DRAINS WITHIN THE VICINITY DO NOT DISCHARGE DIRECTLY OR INDIRECTLY TO A CRITICAL RESOURCE AREA IDENTIFIED IN RULE 6.42.
15. THE A HORIZON SOIL LAYER BELOW BSF SHALL BE REMOVED.
16. THE OWTS INSTALLER SHALL NOTIFY THE OWTS DESIGNER OF THE CONSTRUCTION START DATE AT LEAST THREE (3) WORKING DAYS IN ADVANCE.
17. NO OWTS CONSTRUCTION SHALL BEGIN UNTIL AUTHORIZED BY R.I.D.E.M. AND THE OWTS DESIGNER.
18. PRIOR TO PURCHASE/ORDER OF PRODUCTS, THE INSTALLER MUST PROVIDE "SHOP DRAWINGS" FOR ALL MATERIALS. APPROVAL MUST BE GRANTED BY THE DESIGNER PRIOR TO CONSTRUCTION.
19. CONTRACTOR SHALL PROVIDE A WATER-TIGHT CERTIFICATE FROM THE CONCRETE MANUFACTURER FOR THE SEPTIC TANK AND PUMP CHAMBER.



NOTE
SHIELD AND ORIFICE MUST BE ORIENTED BELOW LATERAL FOR COLD WEATHER APPLICATION

COLD WEATHER ORIFICE DETAIL
NOT TO SCALE

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

Crossman Engineering

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone (508) 695-1700

Email: cei@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-2-23

ISSUED FOR BIDDING

KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 5

DATE:	SCALE:
AUGUST 7, 2023	AS SHOWN

DWG. NAME: 2747-C11-DETAIL5-R3.dwg

REVISIONS

NUMBER	REMARKS	DATE
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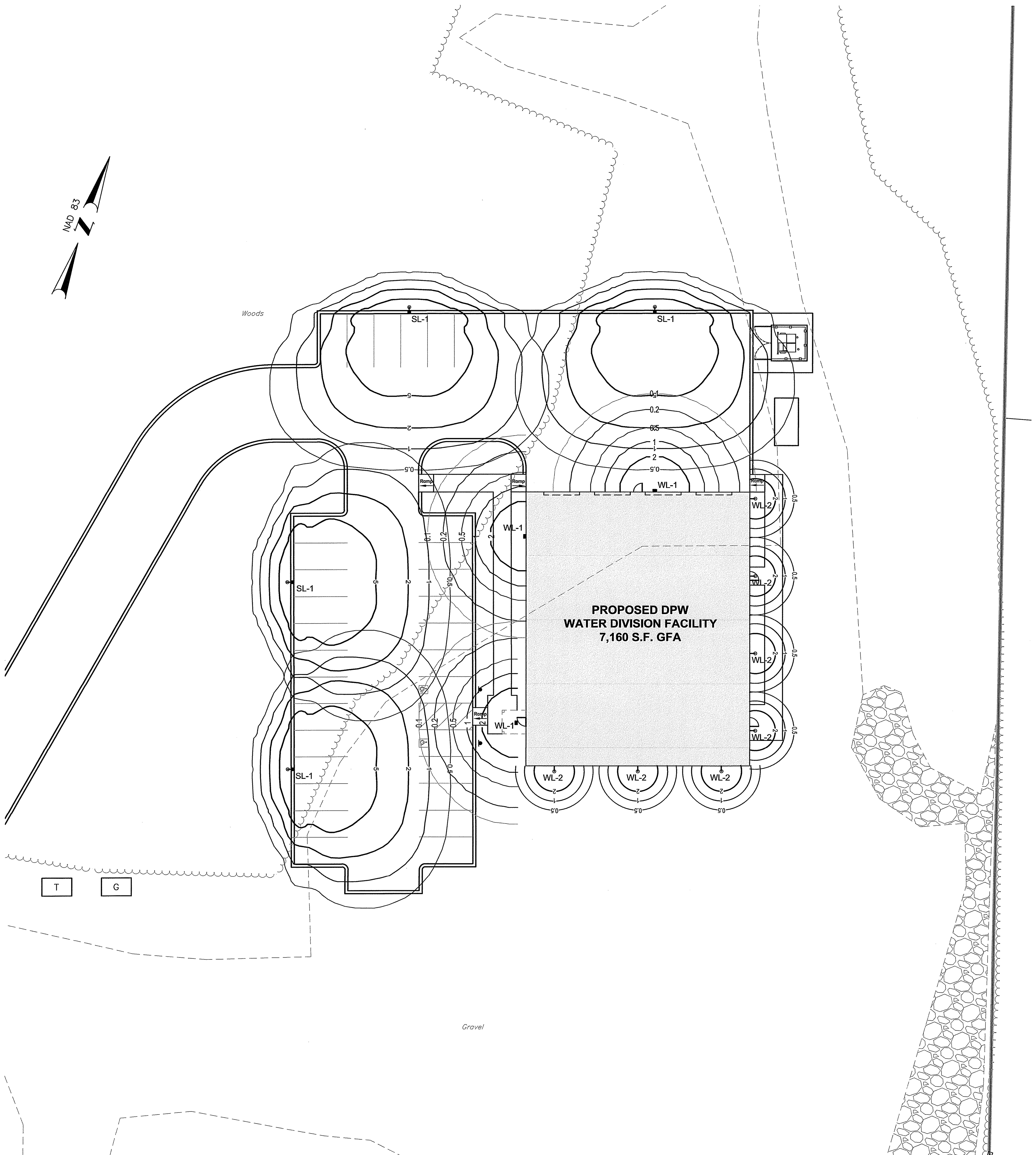
RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0177
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
Wendy L. Freeman

DRAWING NUMBER
C11
SHEET: 12 OF: 14

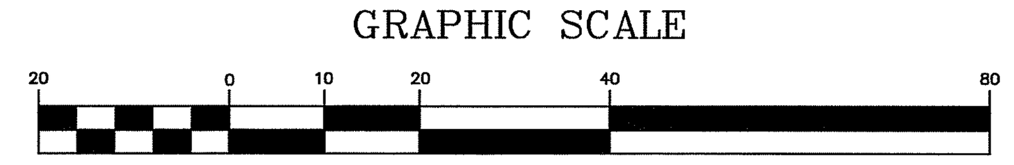
RI Environmental Management
AUG 17 2023
Office of Water Resources



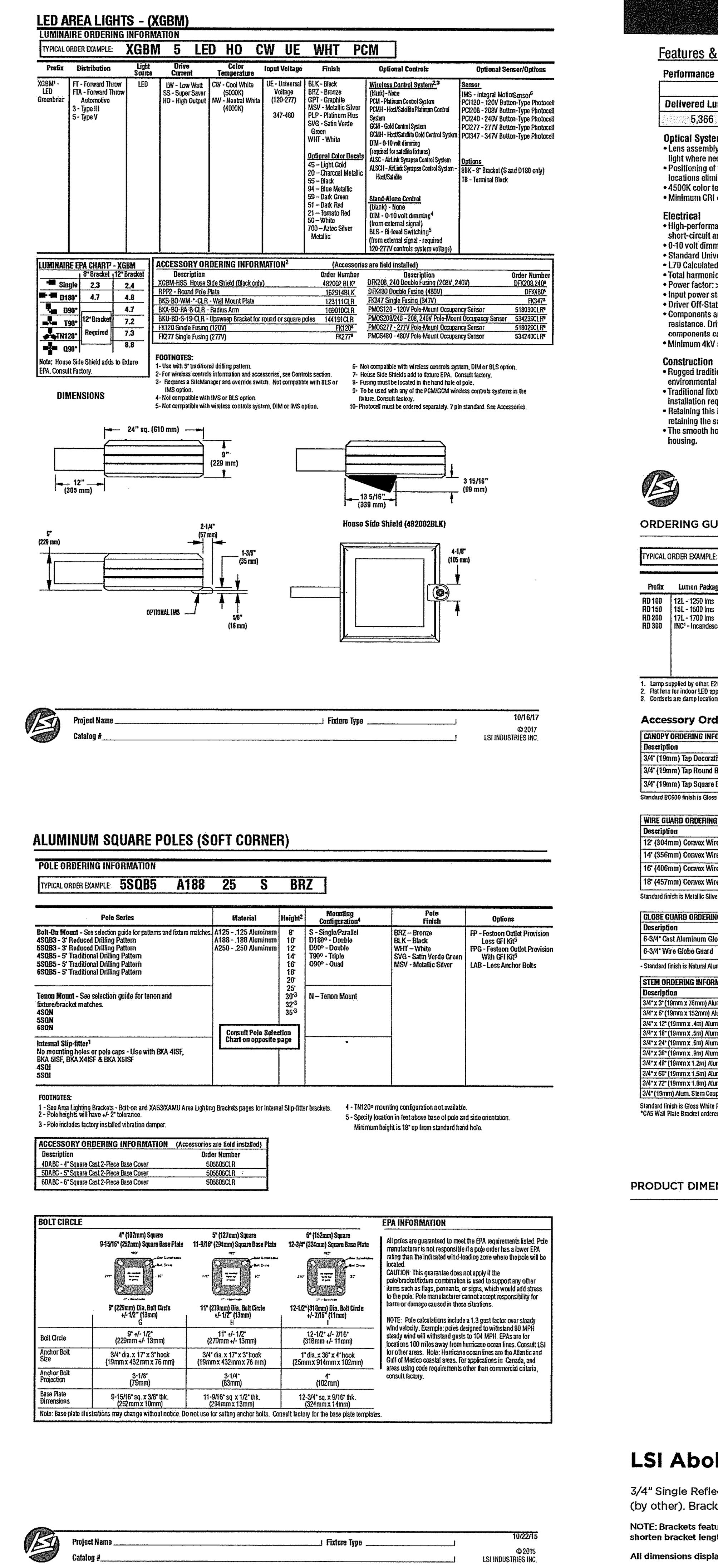
MAP G4 LOT 31-5
N/F CITY OF WOONSOCKET
(BK 2725 PG 275)
LOT AREA 339,586 SQ. FT. OR
7.79 ACRES

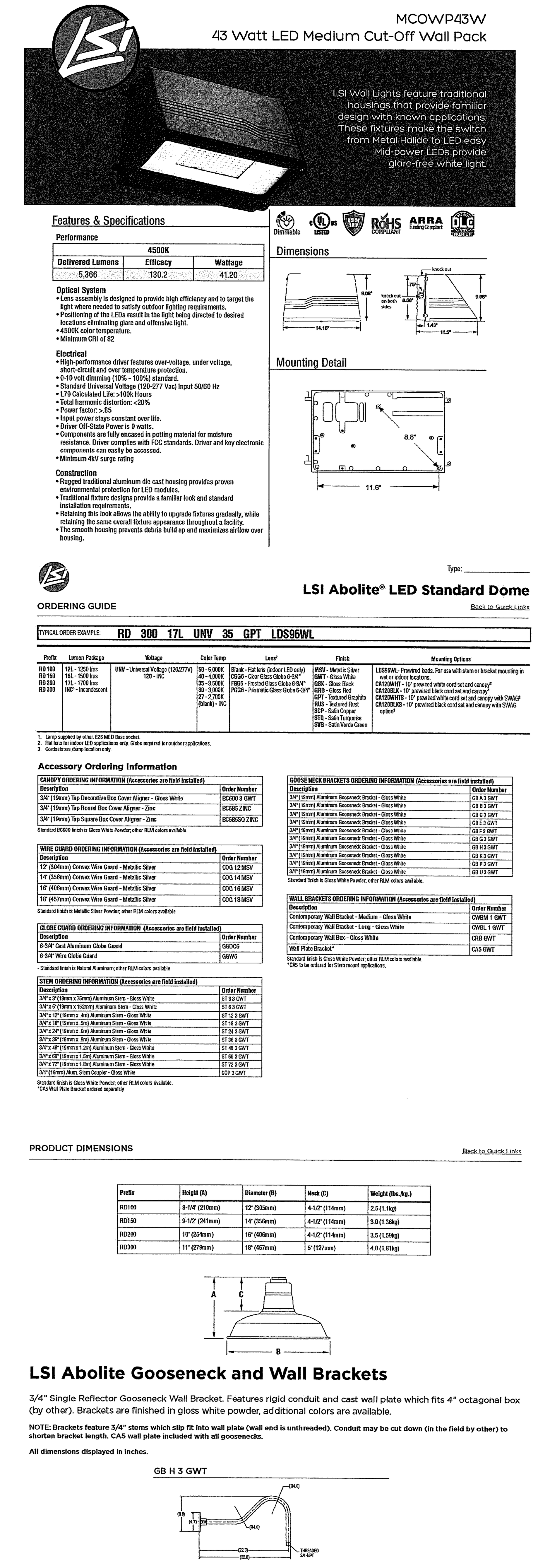
SITE LIGHTING				
Symbol	Qty	Label	Manufacture	Description
	4	SL-1	LSI Lighting	XGMB-HSS-FT-LED-LW-CW-UE-BLK / 14 FT MTG - SINGLE
	3	WL-1	LSI Lighting	MCOWP-43K-45K-BZ-PC120/ 15 FT MTG
	7	WL-2	LSI Lighting	RD100 12L GBK GB H3 GBK - Wall Mounted @ 10' AFG

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.





NOTE:

1. LED LIGHT FIXTURES WITH SIMILAR FOOTCANDLE SPREADS MAY BE SUBSTITUTED.
2. WALL PACK LIGHTING AROUND BUILDING EXTERIOR SHOWN IN THIS PLAN REPRESENTS A TYPICAL ILLUMINATION DIAGRAM. SPECIFIC MODEL WITH SIMILAR FOOTCANDLE TO BE DETERMINED PRIOR TO CONSTRUCTION.
3. LIGHT FIXTURES SHALL BE DARK SKY COMPLIANT

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0177
DATED: OCT 0 3 2023
SEE LETTER OF SAME DATE
Nancy L. Freeman

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

Crossman Engineering

Rhode Island
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Email: cei@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-7-23

ISSUED FOR BIDDING

KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

LIGHTING PLAN

DATE: AUGUST 7, 2023
SCALE: 1"=20'

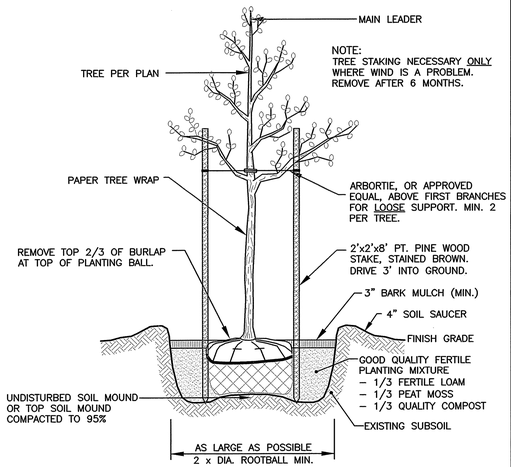
DWG. NAME: 2747-E01-LIGHT-R3.dwg

REVISIONS

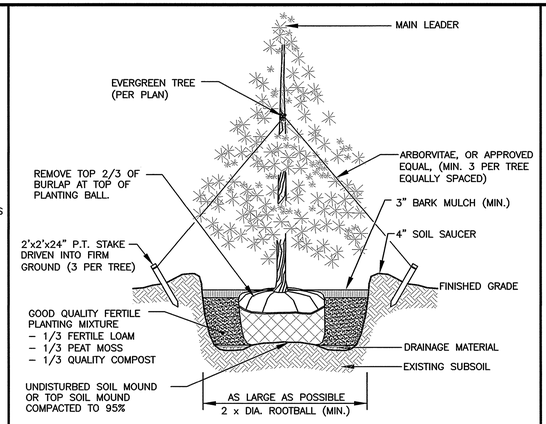
NUMBER	REMARKS	DATE
--	--	--

DRAWING NUMBER

E1

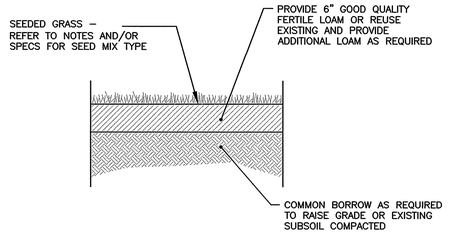


DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



NOTE:
TREE STAKING OR SUPPORT NECESSARY ONLY WHERE WIND IS A PROBLEM, REMOVE AFTER SIX (6) MONTHS.

EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



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

SEEDING NOTES

1. LOAM SHALL BE SPREAD TO A MINIMUM DEPTH OF 6" OVER ALL AREAS DESIGNATED ON PLANS.
2. SHAPE AND SMOOTH THE SURFACE TO THE LINES AND GRADES AS SHOWN ON PLANS.
3. 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.
4. 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.
5. APPLICATION OF SEED:
   A. RATE OF APPLICATION OF SEED SHALL BE 8 POUNDS PER 1,000 SQUARE FEET OR AS INDICATED ON PLANS.
   B. 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
   C. THE CONTRACTOR SHALL KEEP ALL SEEDED 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.
   D. 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 PERIOD/C WATERING.
   E. OVERSEED WHEN NECESSARY TO PROMOTE GRASS GROWTH.
   F. REPLANT AREAS VOID OF TURF ONE SQUARE FOOT OR LARGER.
   G. SEED:
      a. SEED ALL AREAS DESIGNATED ON PLAN AS WELL AS ALL DISTURBED EXISTING AREAS WITH THE FOLLOWING SEED MIX:

SEED MIX No. 1
(SLOPES, MEADOWS AND GENERAL RESTORATION AREA)

TYPE	% BY WEIGHT
CREEPING RED FESCUE	70%
ASTORIA BENTGRASS	5%
BIRDSFOOT TREFOIL	15%
PERENNIAL RYE GRASS	10%

APPLICATION RATE = 200 lbs. / ACRE

SEED MIX No. 2
(ENDOPHYTE ENHANCED MIX)
(MOWED AREAS)

TYPE	% BY WEIGHT
IMPROVED PERENNIAL RYE	30%
TURF TYPE TALL FESCUE	30%
CHEWINGS FESCE	30%
KENTUCKY BLUEGRASS 98/85	10%

APPLICATION RATE = 200 lbs. / ACRE

SEED MIX No. 3
(DETENTION/INFILTRATION AREAS)

TYPE	% BY WEIGHT
CREEPING RED FESCUE	28%
TALL FESCUE	24%
PERENNIAL RYE GRASS	18%
LITTLE BLUESTEM	15%
REDTOP	4%
NORTHEAST WILDFLOWER MIX	4%

APPLICATION RATE = 220 lbs. / ACRE
OR 5 LBS. PER 1,000 S.F.

LANDSCAPE CONSTRUCTION NOTES

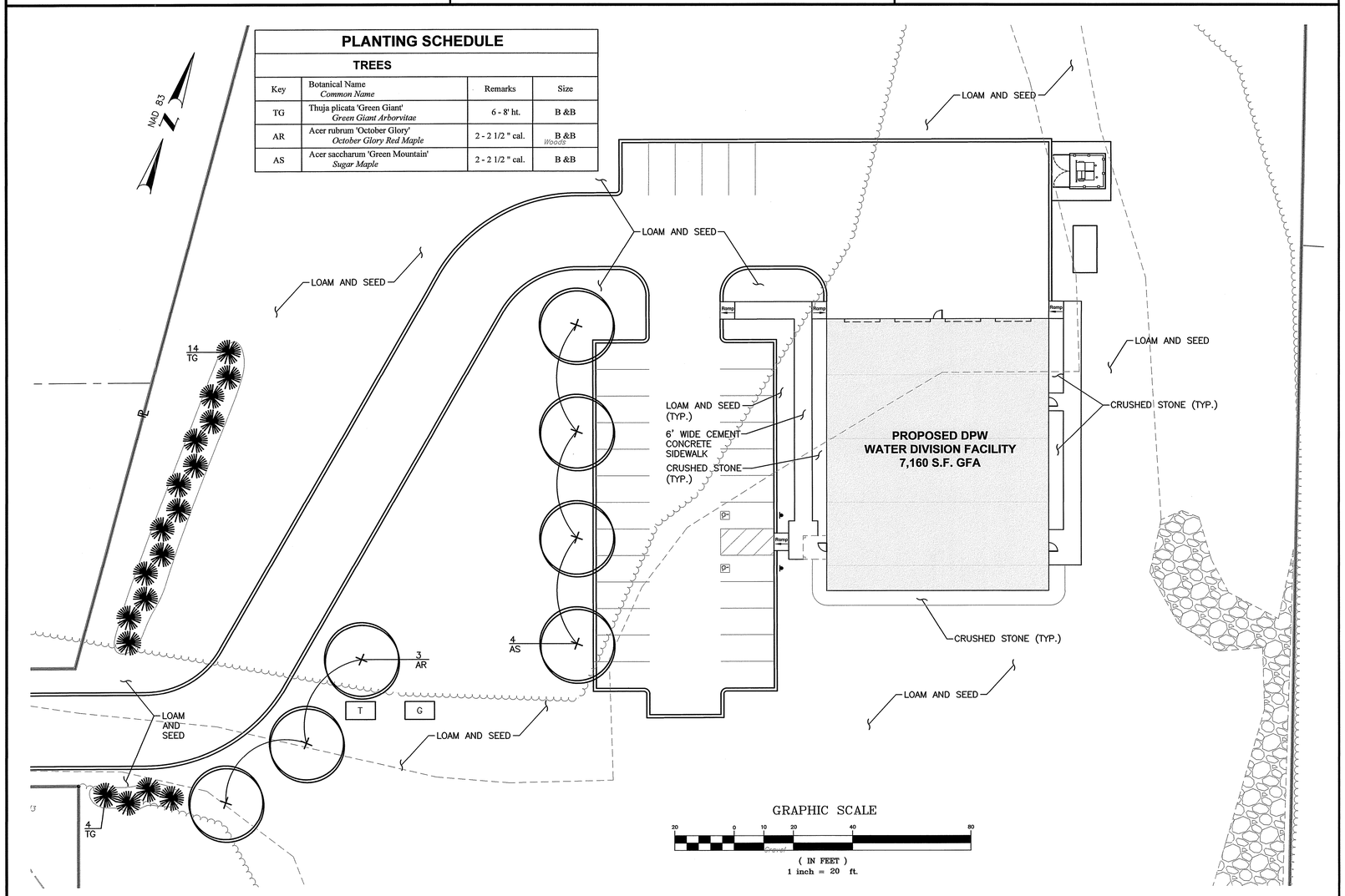
1. FURNISH AND INSTALL ALL PLANTS SHOWN ON THE DRAWINGS SPECIFIED HEREIN, AND IN THE QUANTITIES LISTED ON THE PLANT LIST. NO SUBSTITUTIONS WILL BE PERMITTED, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT.
2. LOAM TO BE SCREENED, GOOD QUALITY, FERTILE, FREE OF WEEDS, STICKS, STONES OVER 3/4", AND ROOTS. SPREAD TO A MINIMUM OF 6" OVER ALL PLANTED AREAS.
3. BIO–DETENTION AREAS–PLANTING SOIL AND MULCH:
   LOAMY SAND TO A SANDY LOAM–80% SAND <20% SILT, <2% CLAY. WELL AGED GRADED COMPOST (25% OF SOIL MIX). WELL AGED, AERATED DARK BROWN HARD–WOOD MULCH (AGED 6 MONTHS).
4. NURSERY STOCK SHALL MEET THE STANDARDS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION AS TO GRADING AND QUALITY.
5. ONLY NURSERY–GROWN PLANTS, GROWN IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES, AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS, WILL BE ACCEPTED.
6. CALIPER MEASUREMENTS FOR ALL NEW PLANT STOCK SHALL 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.
7. ALL TREES SHALL BE A MINIMUM OF SEVEN (7) FEET ABOVE FINISHED GRADE WHEN TREES ARE LOCATED WITHIN VEHICULAR AND PEDESTRIAN TRAVEL WAYS.
8. 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 FIRMING OR TAMPING. FORM SAUCERS, CAPABLE OF HOLDING WATER ABOUT INDIVIDUAL PLANTS, BY PLACING RIDGES OF PLANTING SOIL AROUND EACH.
9. STAKE ALL TREES OVER 5 FEET AS SHOWN ON PLANS. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
10. 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.
11. 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.
12. FERTILIZING: FERTILIZE SHRUB BEDS WITH 10–10–10 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 AS PER MANUFACTURER'S 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.
13. LIMING: ADD POWDERED LIME EVERY SIX MONTHS – OR SLOW RELEASE GRANULAR LIME–AS PER MANUFACTURER'S INSTRUCTION.
14. MULCHING: WITHIN A 72 HOUR PERIOD AFTER PLANTING, COVER ALL PLANTED AREAS WITH 3" SHREDDED BARK 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.
15. 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, AT NO ADDITIONAL COST TO THE OWNER.

PLANTING SCHEDULE

TREES

Key	Botanical Name / *Common Name*	Remarks	Size
TG	Thuja plicata 'Green Giant' / *Green Giant Arborvitae*	6 - 8' ht.	B &B
AR	Acer rubrum 'October Glory' / *October Glory Red Maple*	2 - 2 1/2 " cal.	B &B
AS	Acer saccharum 'Green Mountain' / *Sugar Maple*	2 - 2 1/2 " cal.	B &B

Woods



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

Crossman Engineering

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone (508) 695-1700

Email: cei@crossmaneng.com

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8/2/23

ISSUED FOR BIDDING

KEY PLAN

PROJECT TITLE:

WOONSOCKET DPW WATER DIVISION FACILITY
MAP G4, LOT 31-5
ZONING DISTRICT: R-1
VERY LOW DENSITY SINGLE-FAMILY RESIDENTIAL DISTRICT
ROY AVENUE
WOONSOCKET, RI

PREPARED FOR:

CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI

DRAWING TITLE:

LANDSCAPE PLAN

DATE:	*SCALE:*
AUGUST 7, 2023	1"=20'

DWG. NAME: 2747–L01–LAND–R3.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
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RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION #: 23-0177
DATED: OCT 03 2023
SEE LETTER OF SAME DATE
Ashley L. Freeman

DRAWING NUMBER

L1

SHEET: 14 *OF:* 14

RI Environmental Management
AUG 17 2023
Office of Water Resources