

**SITE IMPROVEMENT PLANS**

FOR A PROPOSED MULTI-FAMILY DEVELOPMENT CONSISTING OF 4 DWELLING UNITS

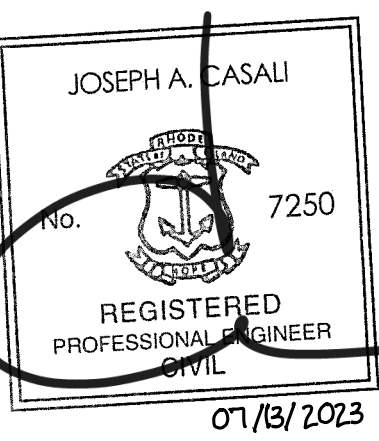
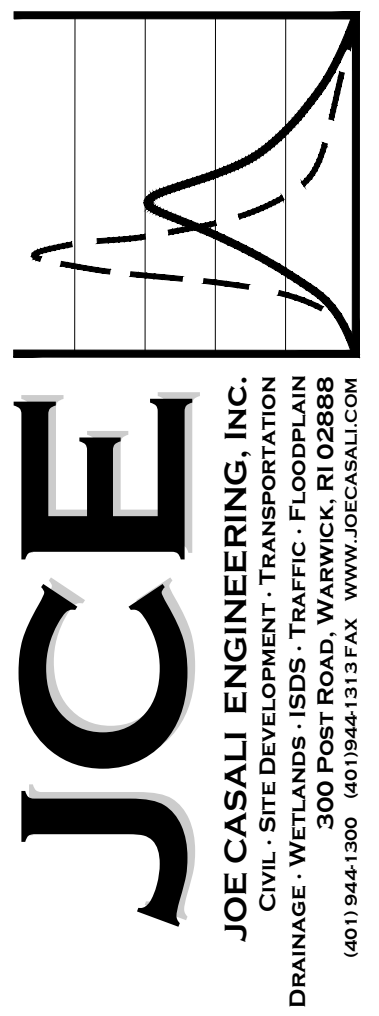
**GREENWICH BAY TOWNHOUSES**

**5 WILLIAMS STREET  
WARWICK, RHODE ISLAND  
AP 220, LOT 95**

**ZONING DISTRICT: RESIDENCE A-10 DISTRICT (A-10) with (PDR-L) PLANNED RESIDENTIAL-LIMITED OVERLAY**



IMAGE COURTESY OF STUDIO 401 ARCHITECTURE, LLC



**APPROVALS:**

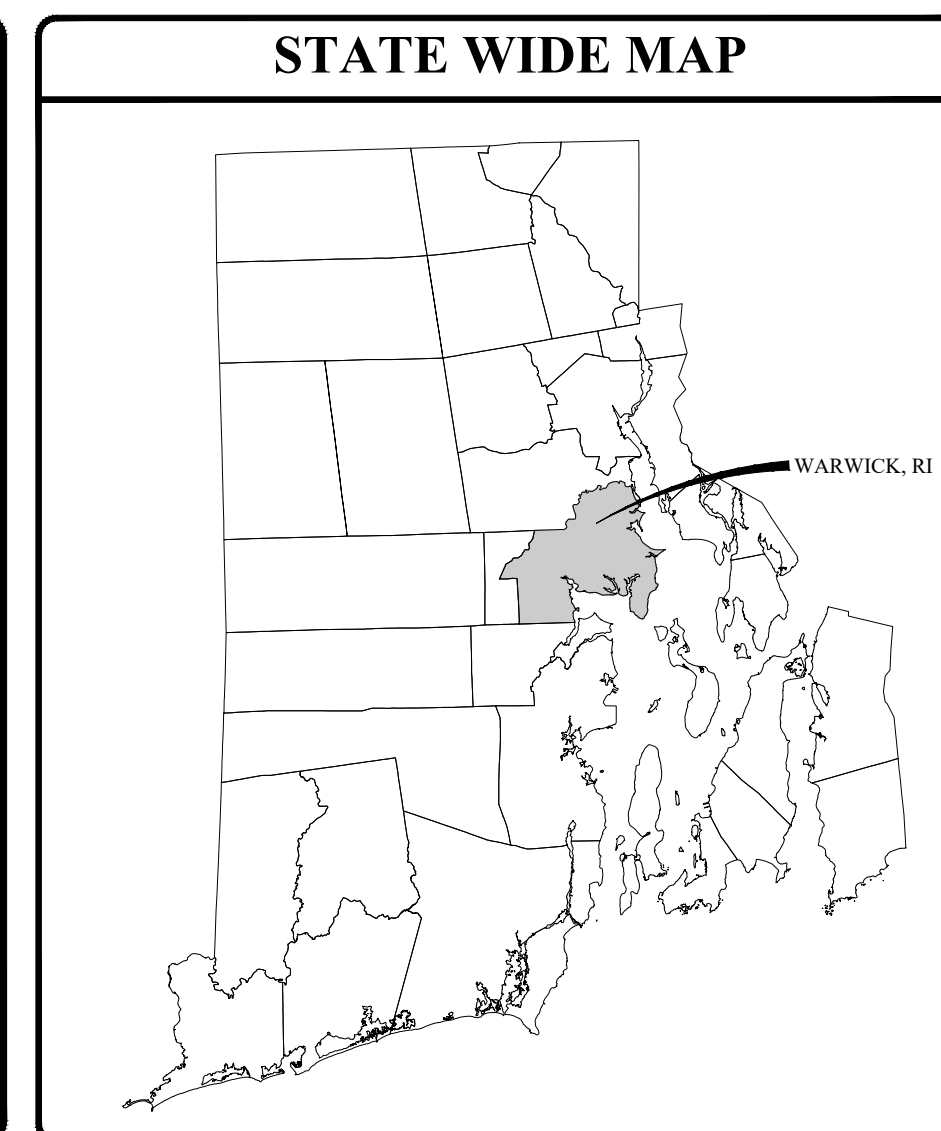
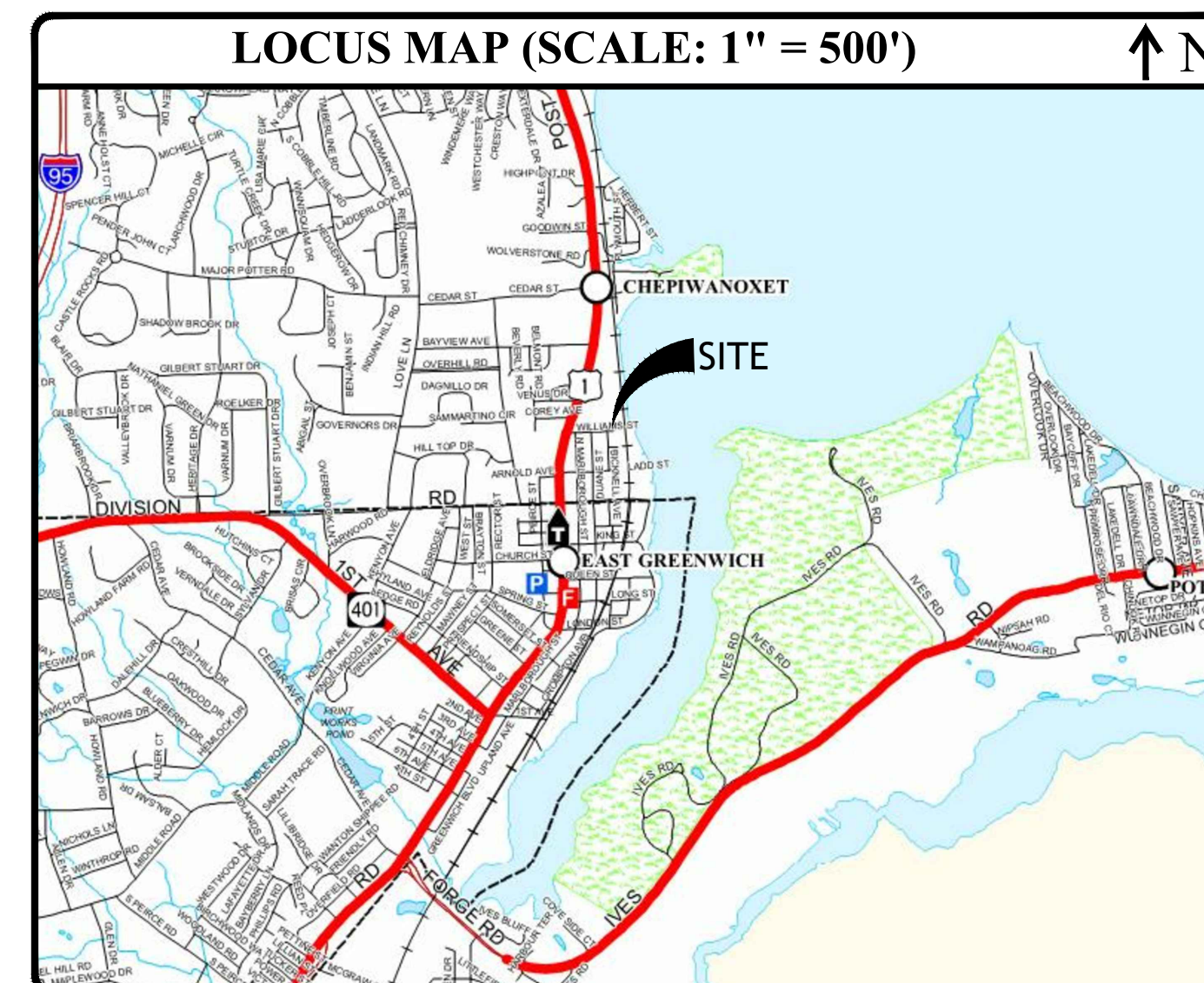
- WARWICK PLANNING BOARD OF REVIEW - MASTER PLAN APPROVAL WITH A CITY COUNCIL ZONE CHANGE RECOMMENDATION (FEBRUARY 8, 2023)
- WARWICK CITY COUNCIL - PETITION GRANTED FOR A ZONE CHANGE OF THE SUBJECT PARCEL TO RESIDENCE A-10 DISTRICT (A-10) WITH THE PLANNED DISTRICT RESIDENTIAL-LIMITED (PDR-L) OVERLAY

**FILINGS:**

- WARWICK PLANNING BOARD OF REVIEW - PRELIMINARY PLAN
- RHODE ISLAND COASTAL RESOURCE MANAGEMENT COUNCIL (CRMC) - CATEGORY 'A' COUNCIL ASSENT
- RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT - STORMWATER CONSTRUCTION AND WATER QUALITY CERTIFICATION APPLICATION
- KENT COUNTY WATER AUTHORITY
- WARWICK SEWER AUTHORITY
- WARWICK DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION

**GREENWICH BAY TOWNHOUSES**  
5 WILLIAMS STREET  
WARWICK, RHODE ISLAND  
AP 220, LOT 95

PROJECT TEAM			
<b>OWNER/ APPLICANT:</b>	JMR PROPERTIES, INC. C/O MR. STEPHEN MILLER 40 MALBONE STREET WARWICK, RI 02888 PHONE: 401-641-4455	<b>CIVIL ENGINEER:</b>	JOE CASALI ENGINEERING, INC. 300 POST ROAD WARWICK, RI 02888 PHONE: 401-944-1300 FAX: 401-944-1313
<b>ARCHITECT:</b>	STUDIO 401 ARCHITECTURE, LLC 5 DIVISION STREET, UNIT 39 WARWICK, RI 02818 PHONE: 401-884-1546	<b>SURVEYOR:</b>	OCEAN STATE PLANNERS, INC. 1225 OAKLAWN AVENUE CRANSTON, RI 02920 PHONE: 401-463-9696
	<b>LANDSCAPE ARCHITECT:</b>		DIANE C. SOULE & ASSOCIATES, ASLA 422 FARNUM PIKE SMITHFIELD, RI 02917 PHONE: 401-231-0736



INDEX OF DRAWINGS	
SHEET NO.	PLAN
1	COVER SHEET
2	GENERAL NOTES AND LEGEND
3	EXISTING CONDITIONS & SITE PREPARATION PLAN
4	SITE PLAN
5	GRADING & DRAINAGE PLAN
6	UTILITY PLAN
7	DETAILS I
8	DETAILS II
9	KCWA NOTES
R1	BOUNDARY STAKE-OUT SURVEY, PREPARED BY OCEAN STATE PLANNERS, DATED FEBRUARY 2022
R2	LANDSCAPE PLAN, PREPARED BY DIANE C. SOULE AND ASSOCIATES, DATED JULY 2023

REVISIONS:		
NO.	DATE	DESCRIPTION
R1	1/9/22	REV SETBACKS
R2	7/2023	PERMIT SET

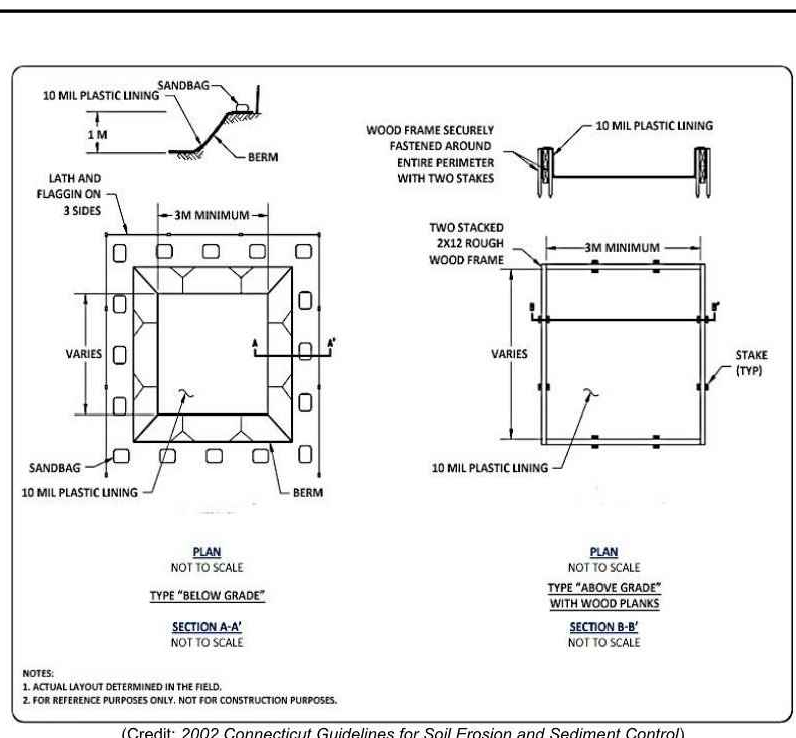
DESIGNED BY:	WMLJR
DRAWN BY:	SEP
CHECKED BY:	JAC
DATE:	20-10b
PROJECT NO.:	NOV. 2022

PRELIMINARY, NOT FOR CONSTRUCTION

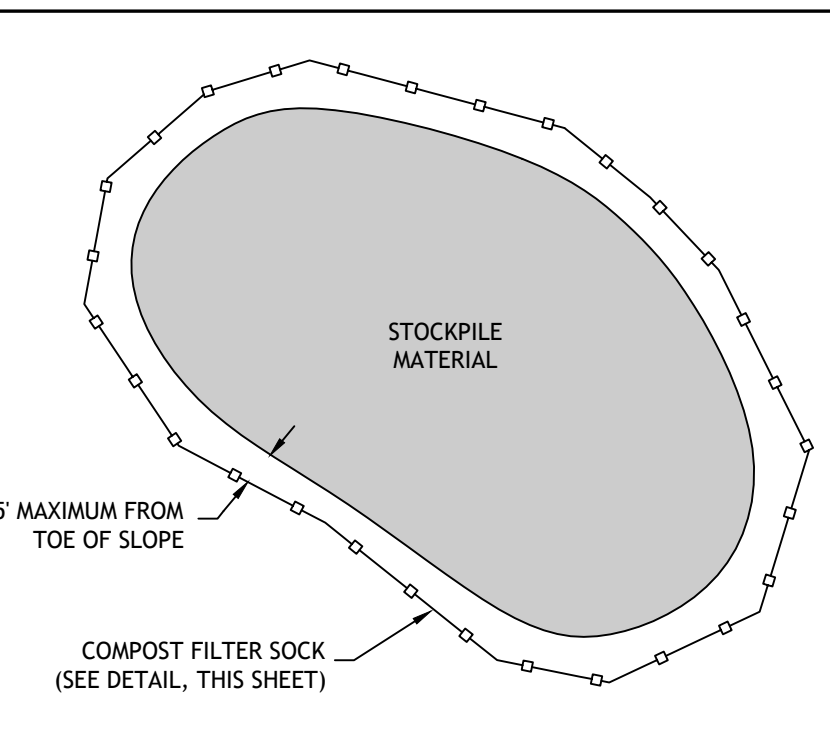
**COVER SHEET**

**SHEET 1 OF 9**

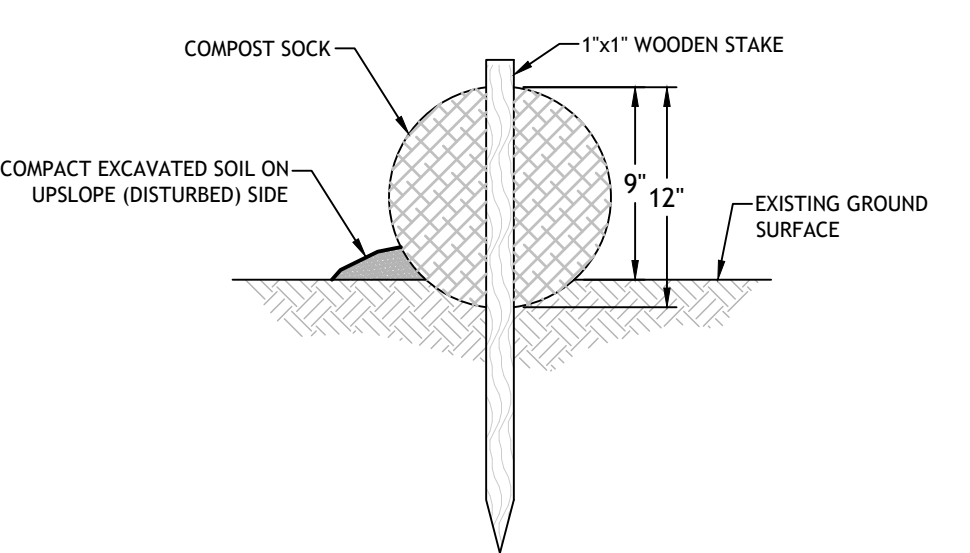




**1** TEMP. CONCRETE WASHOUT FACILITY  
NOT TO SCALE

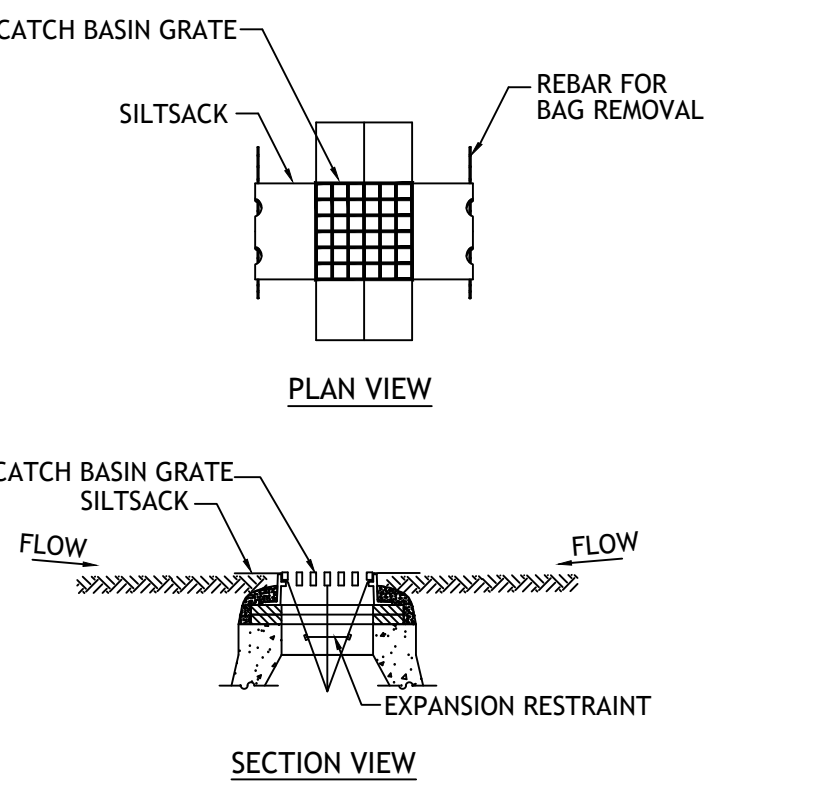


**2** STOCKPILE DETAIL  
NOT TO SCALE



- NOTES:**
- BEGIN SOCK INSTALLATION BY EXCAVATING A 2 TO 3-INCH-DEEP BY 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE OR ALONG THE EXISTING GROUND SURFACE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE OR ON THE DISTURBED SIDE OF THE ANCHOR TRENCH.
  - PLACE SOCK IN THE TRENCH SUCH THAT IT CONTOURS TO THE EXISTING SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE SOCK ON THE UP-SLOPE OR DISTURBED SIDE. ADJACENT SOCKS SHOULD TIGHTLY ABUT.
  - SECURE SOCK WITH 18 TO 24-INCH-LONG STAKES. INSTALL AN ADDITIONAL STAKE AT EACH END OF THE SOCK. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE SOCK LEAVING AT LEAST 2 TO 3 INCHES OF STAKE EXTENDING ABOVE. THE STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE OR GROUND SURFACE.
  - COMPOST FILTER SOCK SPACING BASED ON 12-INCH DIAMETER SOCK; SHOULD SMALLER OR LARGER DIAMETER SOCK BE USED, SPACING SHALL BE ADJUSTED BASED ON TABLE 2 (TO THE RIGHT).
  - COMPOST FILTER SOCK INSTALLATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE RI SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, 2014.
  - COMPOST FILTER SOCKS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.

**3** COMPOST FILTER SOCK  
NOT TO SCALE



- Notes:**
- INSTALL SILTSACK IN ALL PROPOSED CATCH BASINS IDENTIFIED ON THE GRADING & DRAINAGE PLAN.
  - GRATE TO BE PLACED OVER SILTSACK. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.

**4** SILT SACK SEDIMENT TRAP  
NOT TO SCALE

**ZONING DIMENSIONAL REQUIREMENTS:  
PROPOSED MULTI-FAMILY DEVELOPMENT**

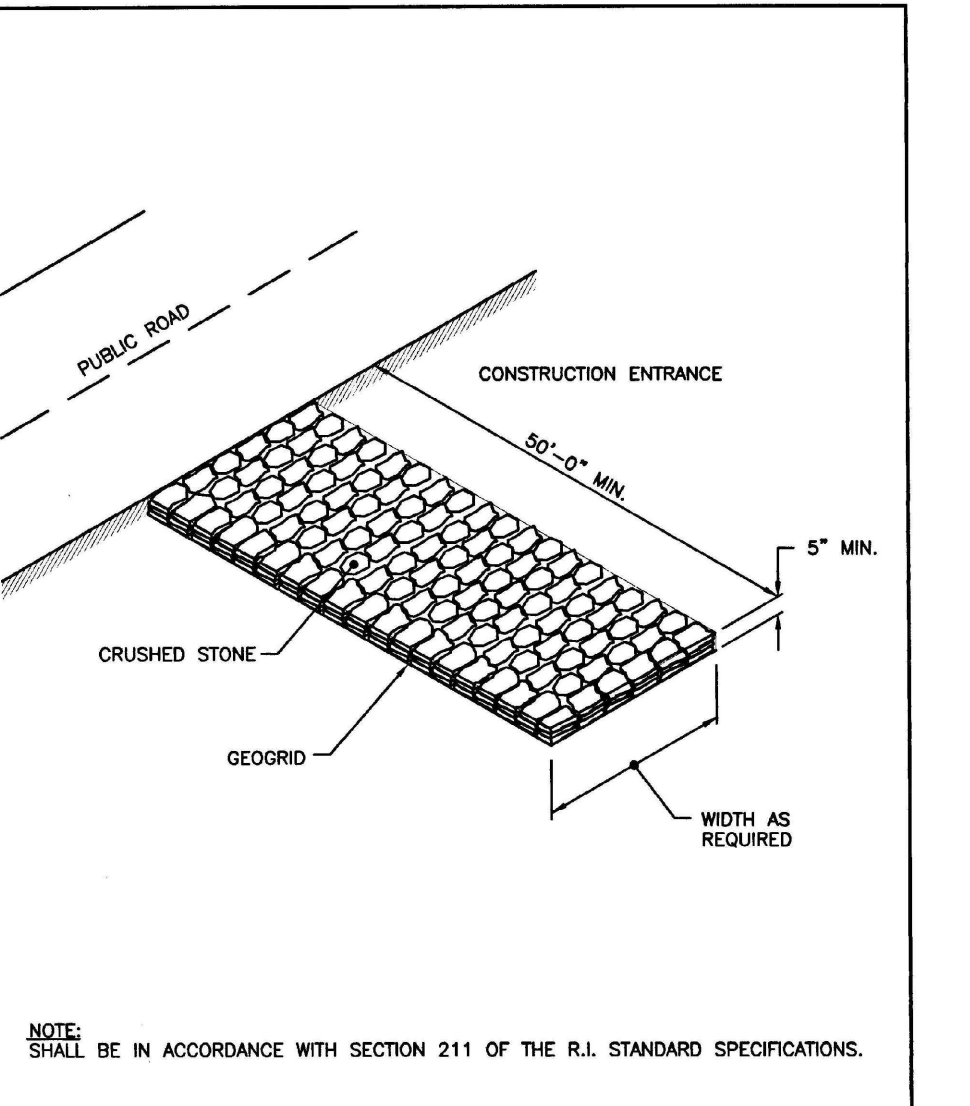
ZONING CRITERIA	REQUIRED	EXISTING
ZONING DISTRICT	A-10 (PDR-L)	A-10 (PDR-L)
MULTI-FAMILY (3-9 DWELLING UNITS)		
MINIMUM LOT AREA	30,000 SF	31,529 SF
MAX. DENSITY (D.U. PER AC.)	7	N/A
MINIMUM FRONTAGE	155 FT	100.00 FT <sup>1</sup>
MINIMUM LOT WIDTH	155 FT	237.67 FT
MINIMUM FRONT AND CORNER SIDE YARD	35 FT	N/A
MINIMUM SIDE YARD	25 FT	N/A
MINIMUM REAR YARD	35 FT	N/A
MAXIMUM STRUCTURE HEIGHT	35 FT	N/A
MINIMUM LANDSCAPED OPEN SPACE	25%	N/A

**NOTE:**  
1. PRE-EXISTING, NON-CONFORMING CONDITION

**SOIL EVALUATION TEST PIT DATA**

	SURFACE EL.	SHWT / EL.
TP-1	42.00	>96' / 34.00
TP-2	42.50	>84' / 35.50
TP-3	42.20	>98' / 34.00
TP-4	41.50	>98' / 33.50

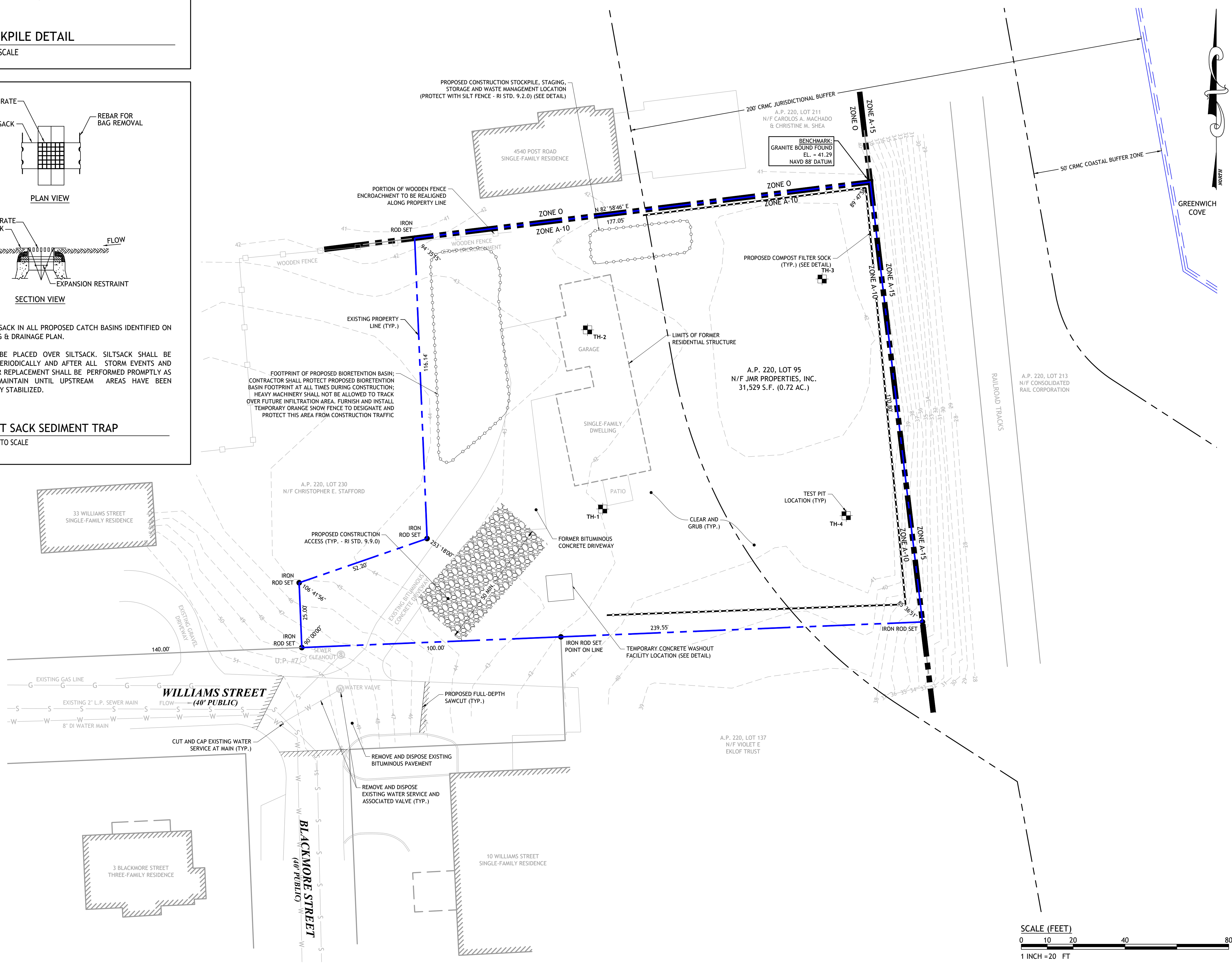
**NOTE:**  
TEST PIT EVALUATIONS WERE CONDUCTED BY JOE CASALI ENGINEERING, INC., IN APRIL 2023.



**RHODE ISLAND DEPARTMENT OF TRANSPORTATION**

NO.	BY	DATE	DESCRIPTION
1	JAC	JUNE 15, 1998	CONSTRUCTION ACCESS

R.I. STANDARD 9.9.0



**JCE**  
JOE CASALI ENGINEERING, INC.  
CIVIL ENGINEER  
300 POST ROAD, WARWICK, RI 02888  
(401) 944-1300

JOSEPH A. CASALI  
No. 7250  
REGISTERED PROFESSIONAL ENGINEER  
07/13/2023

**GREENWICH BAY TOWNHOUSES**  
5 WILLIAMS STREET  
WARWICK, RHODE ISLAND  
AP 220, LOT 95

**REVISIONS:**

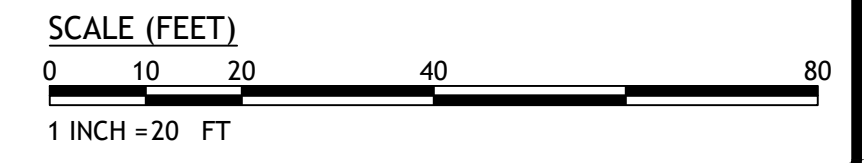
NO.	DATE	DESCRIPTION
R1	1/9/22	REV SETBACKS
R2	7/2023	PERMIT SET

DESIGNED BY: WMLJR  
DRAWN BY: SEP  
CHECKED BY: JAC  
DATE: 20-10b  
PROJECT NO: NOV. 2022

PRELIMINARY, NOT FOR CONSTRUCTION

**EXISTING CONDITIONS & SITE PREP. PLAN**

**SHEET 3 OF 9**



C:\p20-10\Steven Miller\20-10b-Williams Street\CAD\Williams St, Warwick, [Preliminary Plan].dwg, Jul. 14, 2023 11:04am

**ZONING DIMENSIONAL REQUIREMENTS:  
PROPOSED MULTI-FAMILY DEVELOPMENT**

ZONING CRITERIA	REQUIRED	PROPOSED
ZONING DISTRICT	A-10 (PDR-L)	A-10 (PDR-L)
MULTI-FAMILY (3-9 DWELLING UNITS)		
MINIMUM LOT AREA	30,000 SF	31,529 SF
MAX. DENSITY (D.U. PER AC.)	7	(SEE TABLE)
MINIMUM FRONTAGE	155 FT	100.00 FT
MINIMUM LOT WIDTH	155 FT	237.67 FT
MINIMUM FRONT AND CORNER SIDE YARD	35 FT	>35 FT
MINIMUM SIDE YARD	25 FT	23.2 FT
MINIMUM REAR YARD	35 FT	23.2 FT
MAXIMUM STRUCTURE HEIGHT	35 FT	<35 FT
MINIMUM LANDSCAPED OPEN SPACE	25%	>25%

NOTE:  
1. PRE-EXISTING, NON-CONFORMING CONDITION

**DENSITY CALCULATION:**  
DENSITY OF 7 DWELLING UNITS/ACRE

TOTAL AREA: 31,529 SF  
31,529 SF \* (7 D.U. / 43,560 SF) = 5.06 D.U.

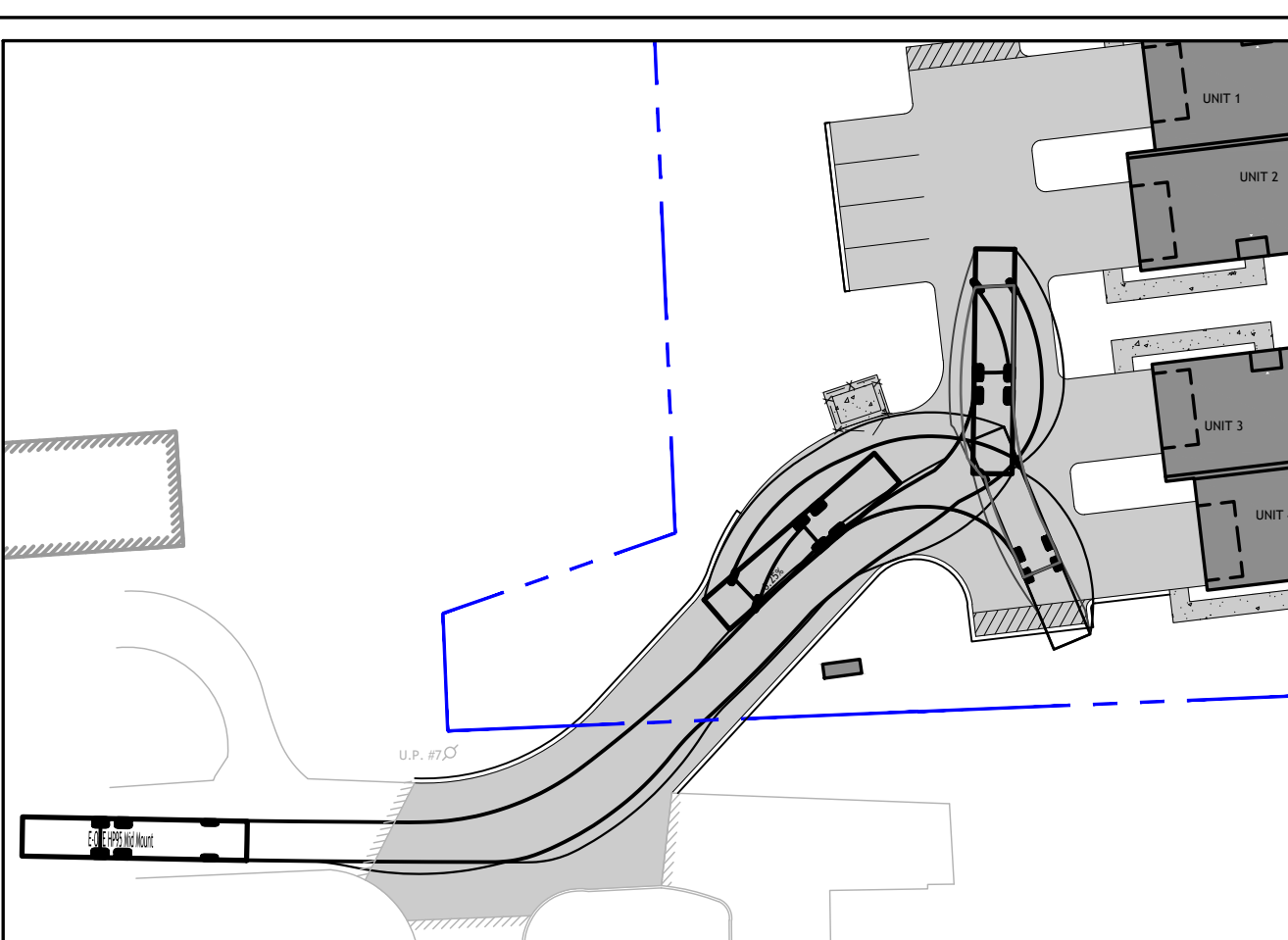
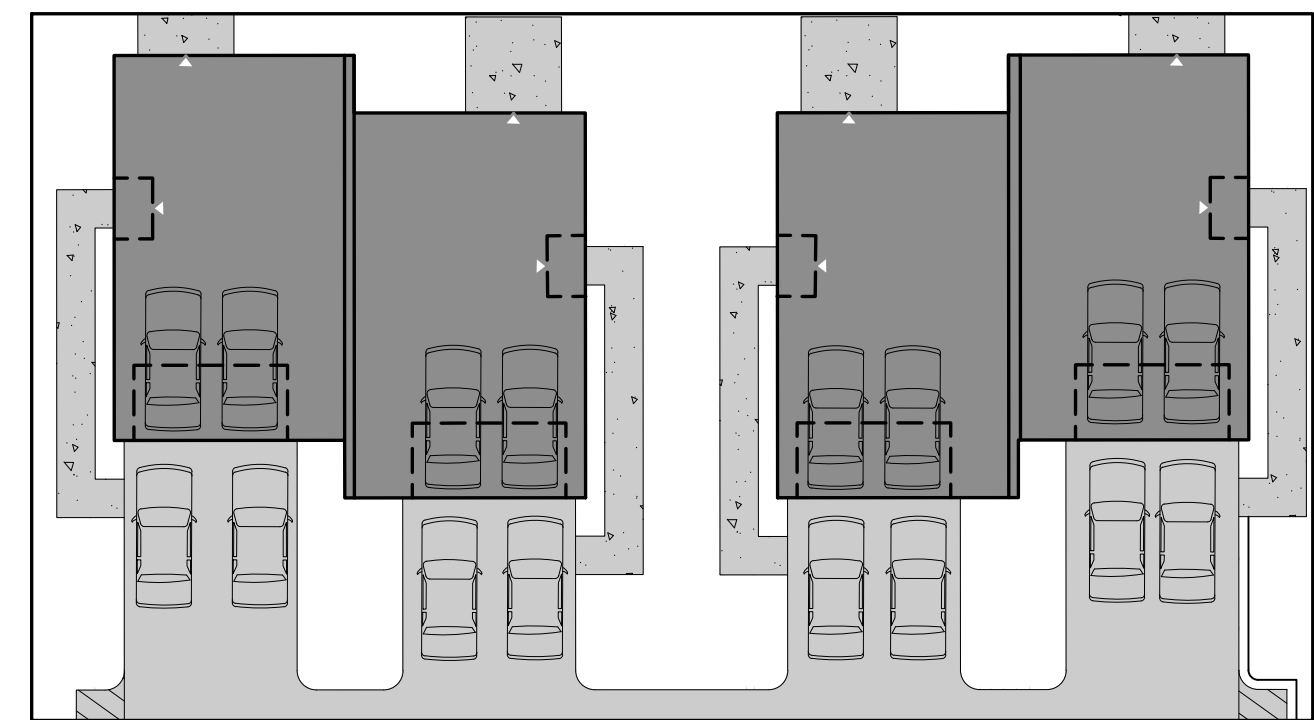
5 DWELLING UNITS ALLOWED  
4 DWELLING UNITS PROPOSED

**LIGHTING STATEMENT:**  
NO EXTERIOR LIGHTING IS PROPOSED. ONLY WALL PACKS WILL BE UTILIZED ON THE DWELLINGS AND WILL CONFORM TO CITY STANDARDS. ALL PROPOSED LIGHTING SHALL HAVE THE INTERNATIONAL DARK-SKY ASSOCIATION (IDA) FIXTURE SEAL OF APPROVAL AND WILL BE SHIELDED SO THAT THE LAMP ITSELF OR THE LAMP IMAGE IS NOT DIRECTLY VISIBLE OUTSIDE THE PROPERTY PERIMETER.

**OFF-STREET PARKING CALCULATION:**  
PER SEC. 308.2(E) A MIN. OF 2 PARKING SPACES PER DWELLING UNIT SHALL BE REQUIRED FOR DEVELOPMENTS OF 4 UNITS OR LESS

4-UNIT DEVELOPMENT:  
2 SPACES \* 4 D.U. = 8 SPACES

REQUIRED: 8 PARKING SPACES  
PROPOSED: 20 PARKING SPACES



**RELIEF RECEIVED FOR THE PROPOSED DEVELOPMENT:**

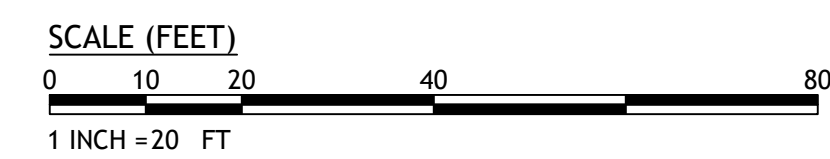
PER SECTION 308.3(B) OF THE ZONING ORDINANCE: MINIMUM FRONTAGE IN THE A-10 WITH PDR-L OVERLAY IS 155 FEET  
REQUIRED: 155 FEET  
PROPOSED: 100 FEET (PRE-EXISTING NON-CONFORMING CONDITION)  
RELIEF RECEIVED: 55 FEET

PER SECTION 308.3(B) OF THE ZONING ORDINANCE: MINIMUM SIDE YARD SETBACK IN THE A-10 WITH PDR-L OVERLAY IS 25 FEET  
REQUIRED: 25 FEET  
PROPOSED: 23.2 FEET  
RELIEF RECEIVED: 1.8 FEET

PER SECTION 308.3(B) OF THE ZONING ORDINANCE: MINIMUM REAR YARD SETBACK IN THE A-10 WITH PDR-L OVERLAY IS 35 FEET  
REQUIRED: 35 FEET  
PROPOSED: 23.2 FEET  
RELIEF RECEIVED: 11.8 FEET

PER SECTION 308.2(A) OF THE ZONING ORDINANCE: ANY SIDE WALL OF A BUILDING MAY NOT BE LESS THAN 30 FEET FROM ANY SIDE WALL OF ANOTHER BUILDING  
REQUIRED: 30 FEET  
PROPOSED: 20 FEET  
RELIEF RECEIVED: 10 FEET

PER SECTION 308.2(E) OF THE ZONING ORDINANCE: ...NO OUTDOOR PARKING SPACE OR DRIVEWAY IS PERMITTED WITHIN 15 FEET OF ANY RESIDENTIAL BUILDING.  
REQUIRED: 15 FEET  
PROPOSED: 0 FEET  
(PROPOSED INDIVIDUAL DRIVEWAYS ABUT PROPOSED RESIDENTIAL BUILDINGS)  
RELIEF RECEIVED: 15 FEET



**JCE**  
JOE CASALI ENGINEERING, INC.  
CIVIL ENGINEER - LICENSE NO. 7250  
DRAINAGE - 300 POST ROAD, WARWICK, RI 02888  
(401) 944-1300 (401) 944-1313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI  
No. 7250  
REGISTERED PROFESSIONAL ENGINEER  
07/13/2023

**GREENWICH BAY TOWNHOUSES**  
5 WILLIAMS STREET  
WARWICK, RHODE ISLAND  
AP 220, LOT 95

**REVISIONS:**

NO.	DATE	DESCRIPTION
R1	1/9/22	REV. SETBACKS
R2	7/20/23	PERMIT SET

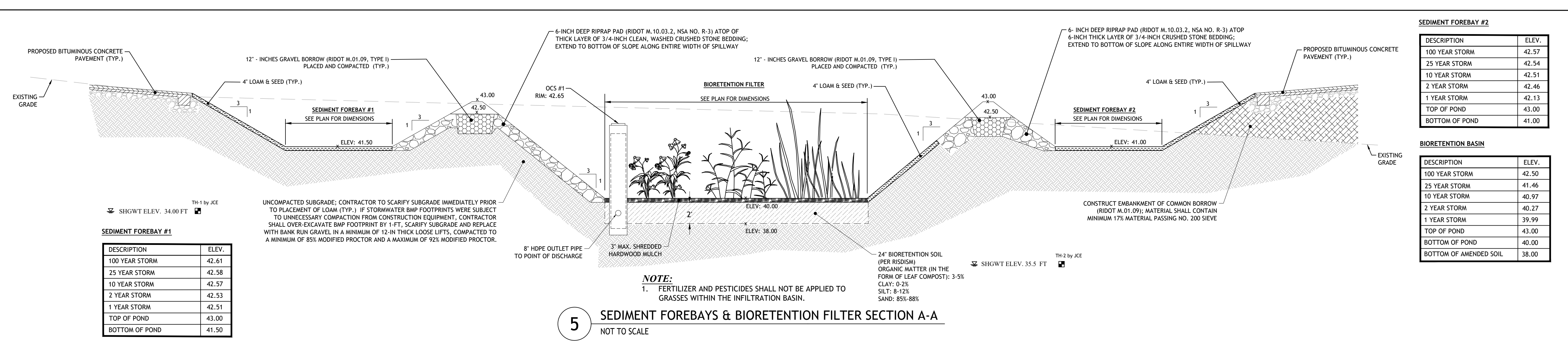
DESIGNED BY: WMLR  
DRAWN BY: SEP  
CHECKED BY: JAC  
DATE: 20-10b  
PROJECT NO: NOV. 2022

PRELIMINARY, NOT FOR CONSTRUCTION

**SITE PLAN**

**SHEET 4 OF 9**

C:\20-10-Stevie Miller\20-10b-Williams Street\ACAD\Williams St. Warwick (Preliminary Plan).dwg, Jul. 14, 2023 12:05pm



**SEDIMENT FOREBAY #1**

DESCRIPTION	ELEV.
100 YEAR STORM	42.61
25 YEAR STORM	42.58
10 YEAR STORM	42.57
2 YEAR STORM	42.53
1 YEAR STORM	42.51
TOP OF POND	43.00
BOTTOM OF POND	41.50

**BIORETENTION BASIN**

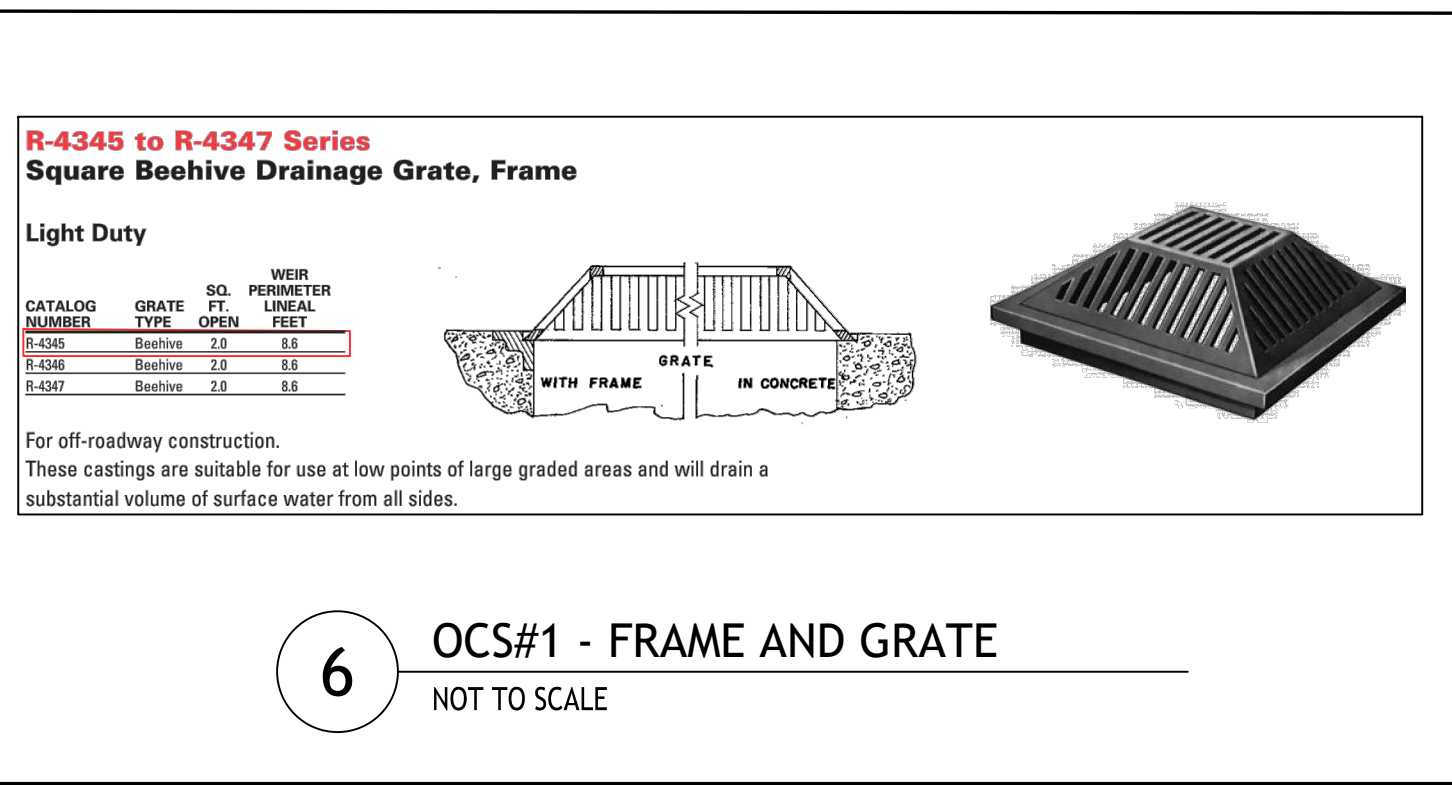
DESCRIPTION	ELEV.
100 YEAR STORM	42.50
25 YEAR STORM	41.46
10 YEAR STORM	40.97
2 YEAR STORM	40.27
1 YEAR STORM	39.99
TOP OF POND	43.00
BOTTOM OF POND	40.00
BOTTOM OF AMENDED SOIL	38.00

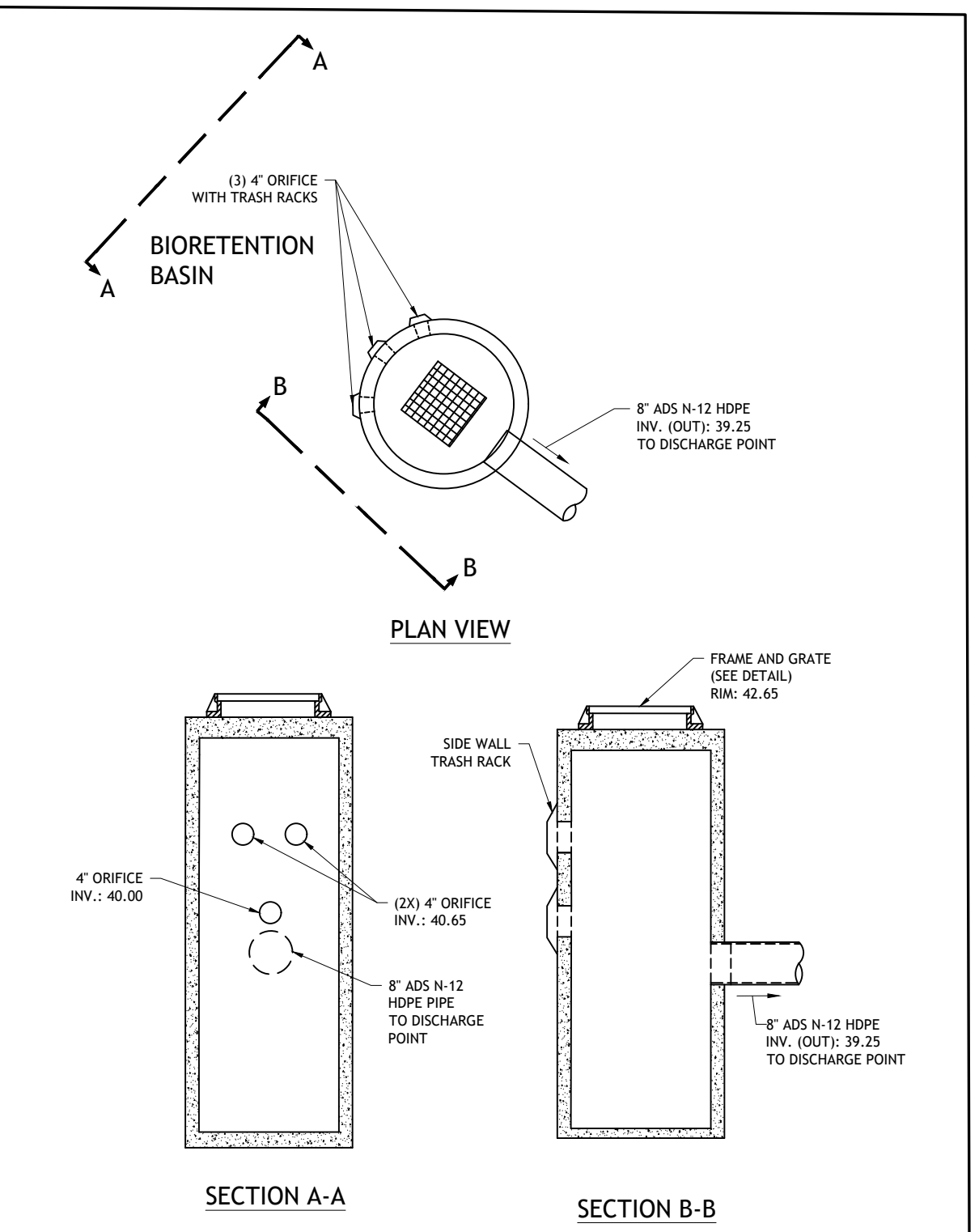
**SEDIMENT FOREBAY #2**

DESCRIPTION	ELEV.
100 YEAR STORM	42.57
25 YEAR STORM	42.54
10 YEAR STORM	42.51
2 YEAR STORM	42.46
1 YEAR STORM	42.13
TOP OF POND	43.00
BOTTOM OF POND	41.00

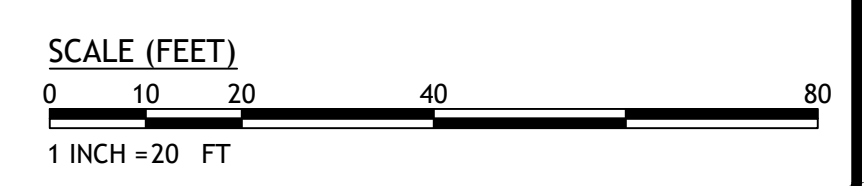
**5 SEDIMENT FOREBAYS & BIORETENTION FILTER SECTION A-A**  
NOT TO SCALE



**6 OCS#1 - FRAME AND GRATE**  
NOT TO SCALE



**7 PROPOSED OCS #1 DETAIL**  
NOT TO SCALE



**JOE CASALI ENGINEERING, INC.**  
CIVIL ENGINEERING • TRAFFIC ENGINEERING • SITE DESIGN • DRAINAGE DESIGN  
DRAINAGE: 300 POST ROAD, WARWICK, RI 02888  
(401) 944-1300 WWW.JOECASALI.COM

JOSEPH A. CASALI  
No. 7250  
REGISTERED PROFESSIONAL ENGINEER  
07/18/2023

**GREENWICH BAY TOWNHOUSES**  
5 WILLIAMS STREET  
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AP 220, LOT 95

**REVISIONS:**

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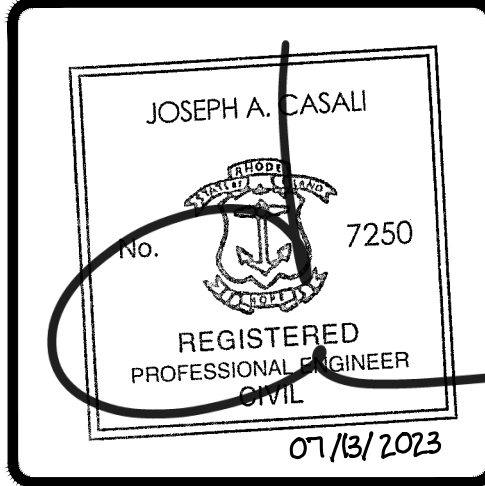
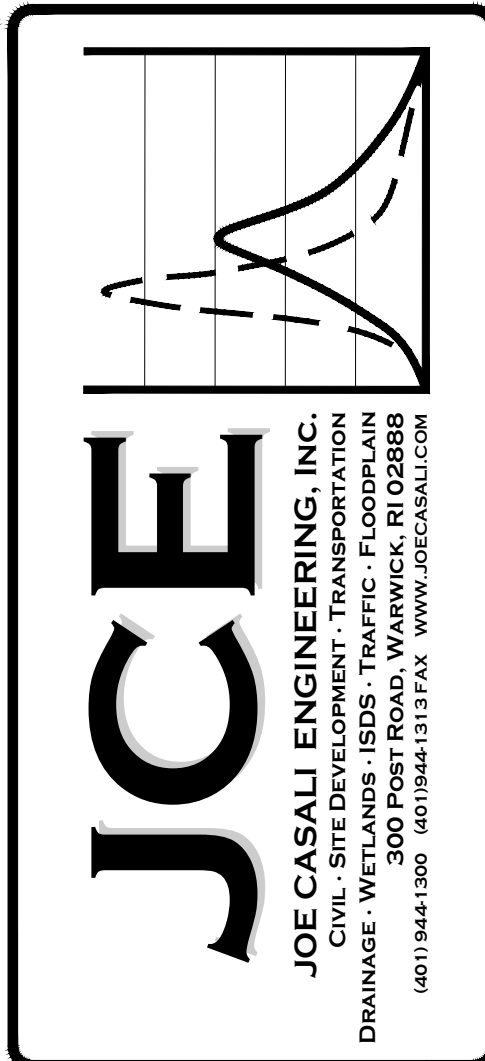
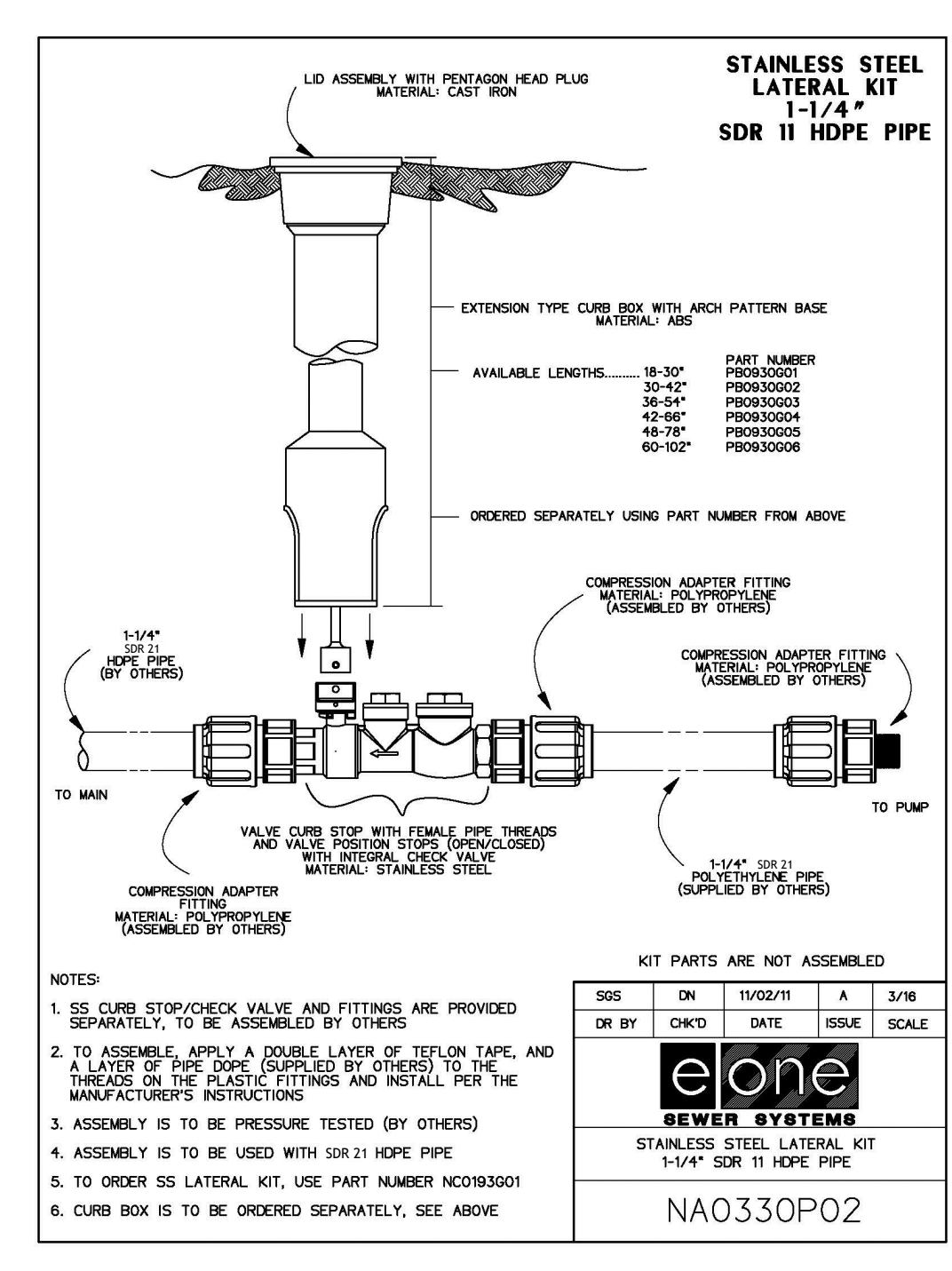
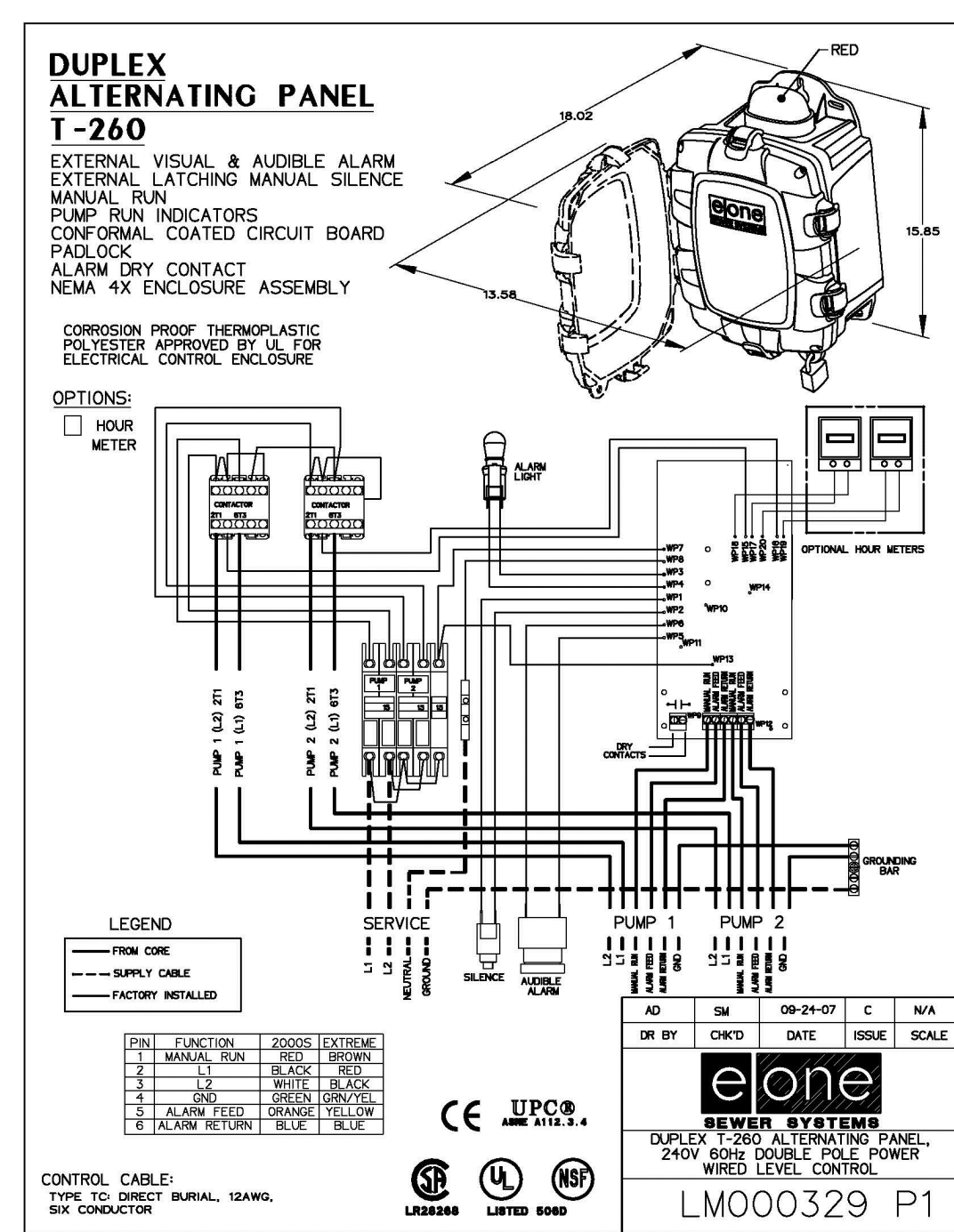
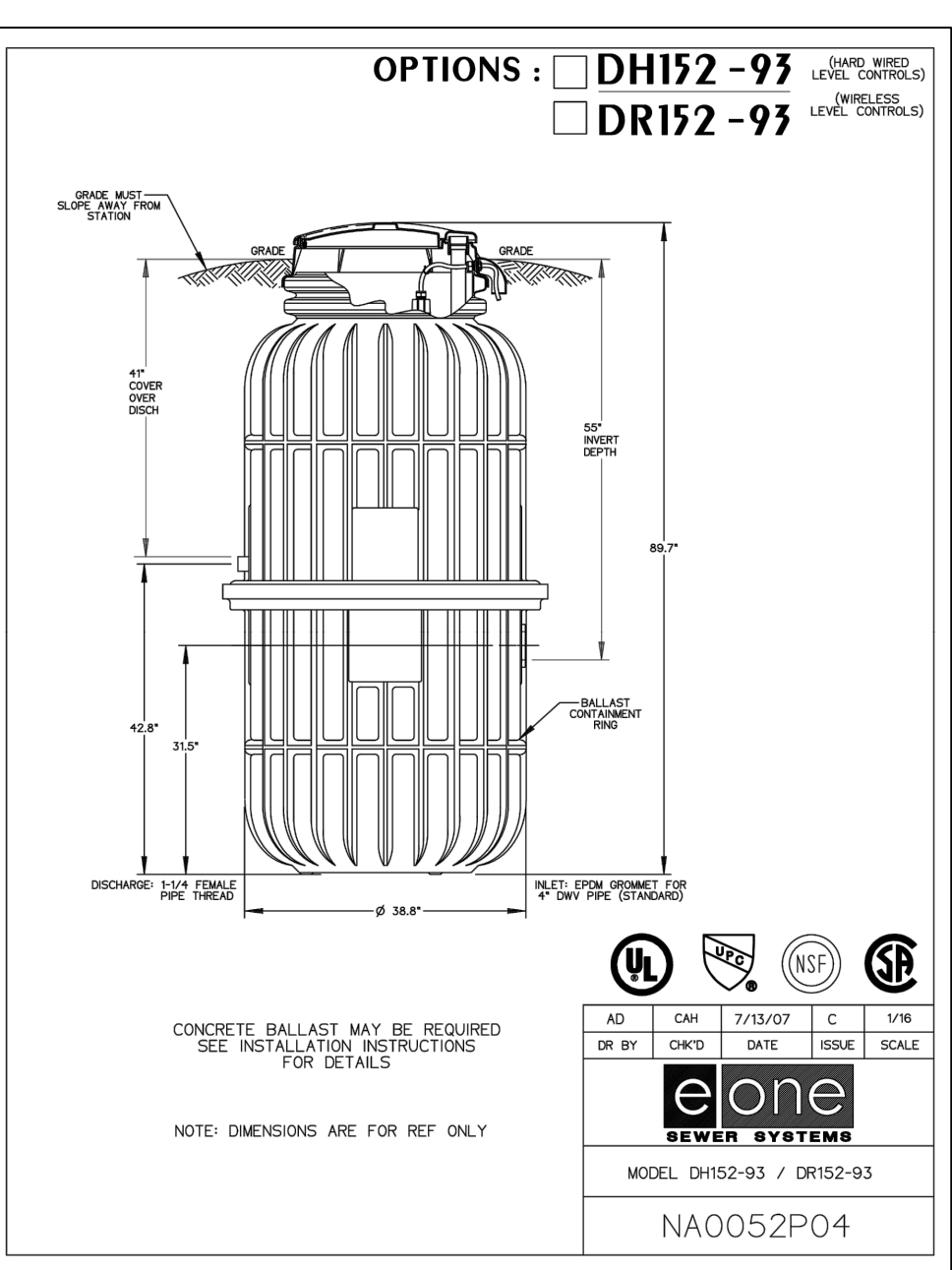
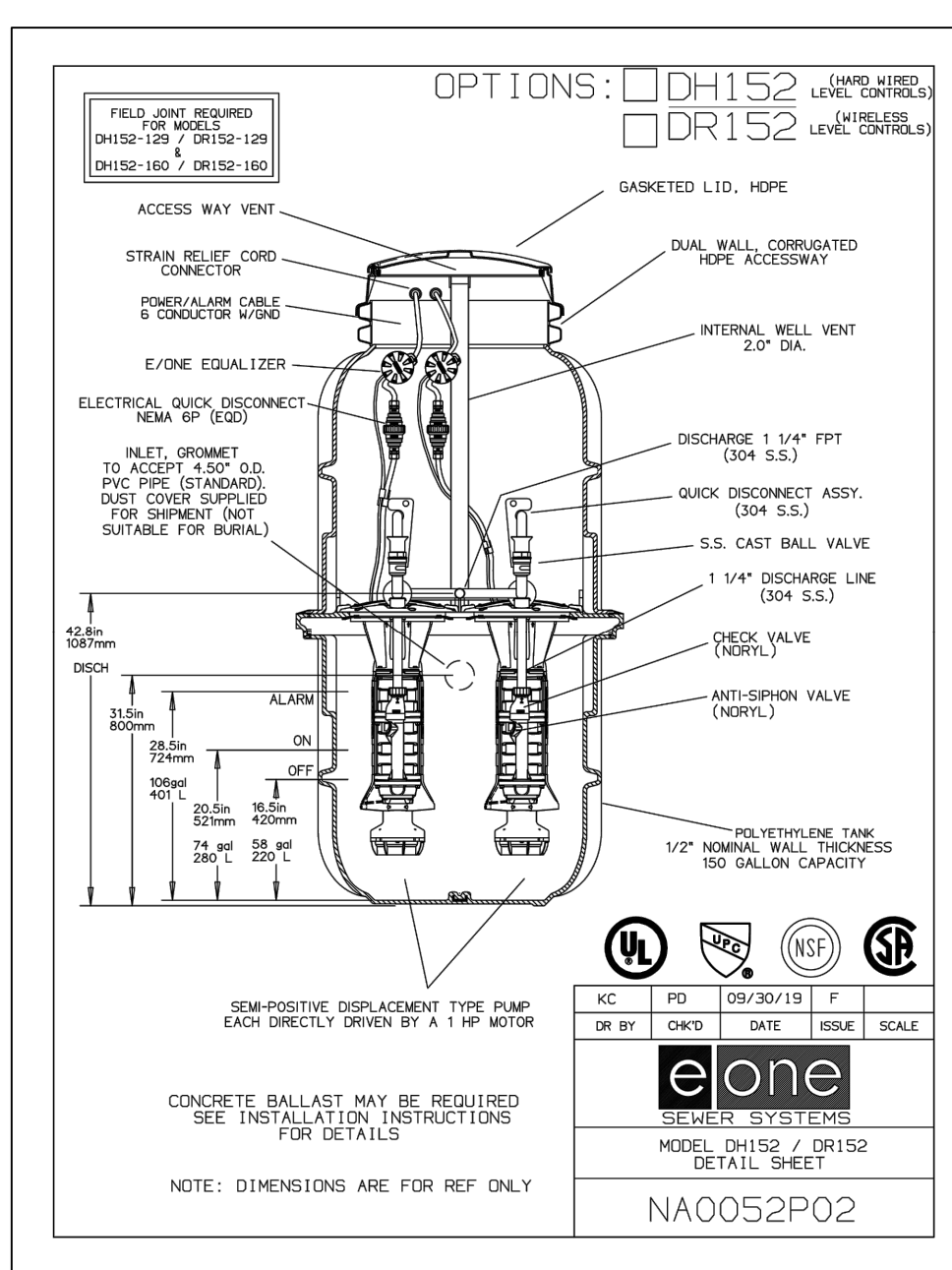
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DRAWN BY:	SEP
CHECKED BY:	JAC
DATE:	20-10b
PROJECT NO.:	NOV. 2022

PRELIMINARY, NOT FOR CONSTRUCTION

**GRADING & DRAINAGE PLAN**

**SHEET 5 OF 9**

C:\2024\10\Steven Miller\230-10b-Williams Mill\230-10b-Williams Street\CAD\Williams St, Warwick, [Preliminary Plan].dwg, Jul. 14, 2023 11:05am



**GREENWICH BAY TOWNHOUSES**  
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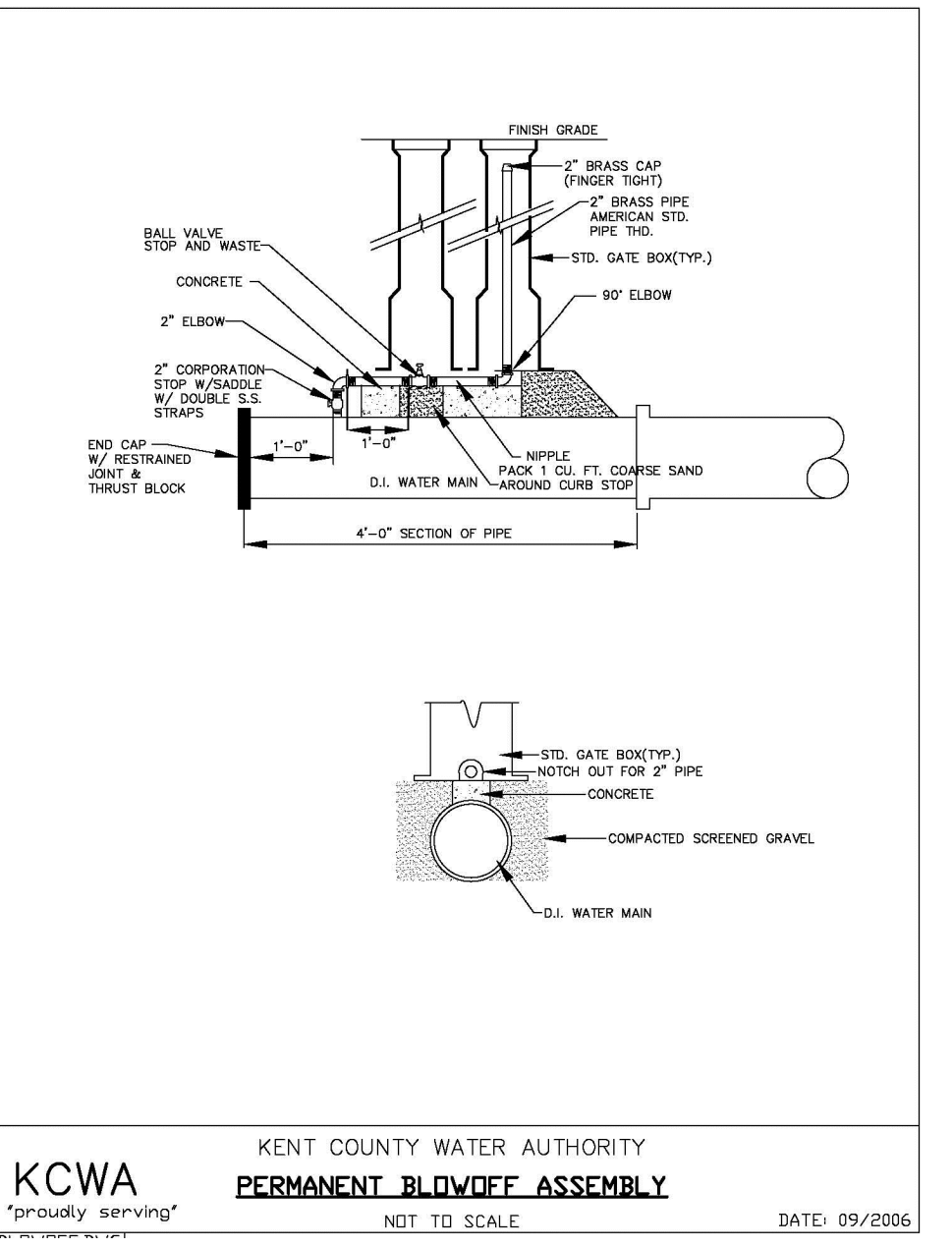
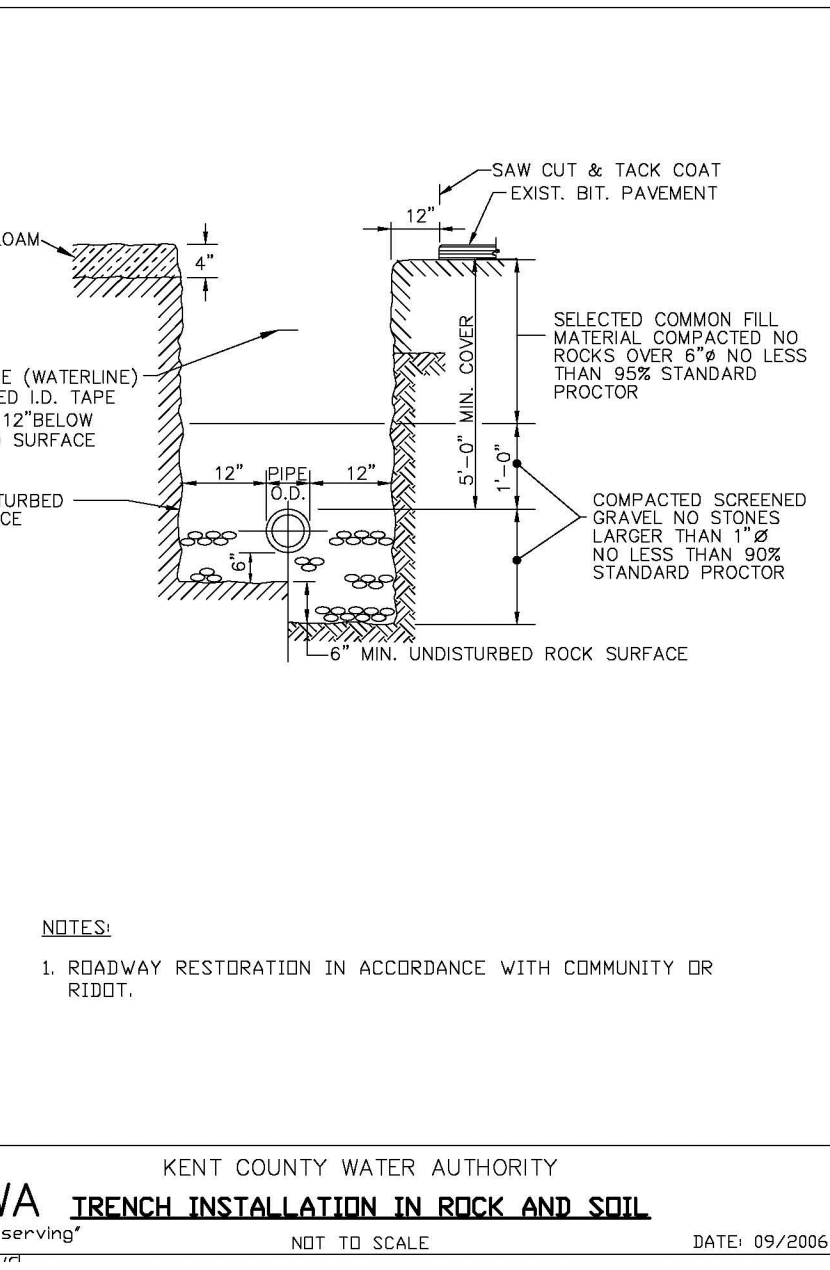
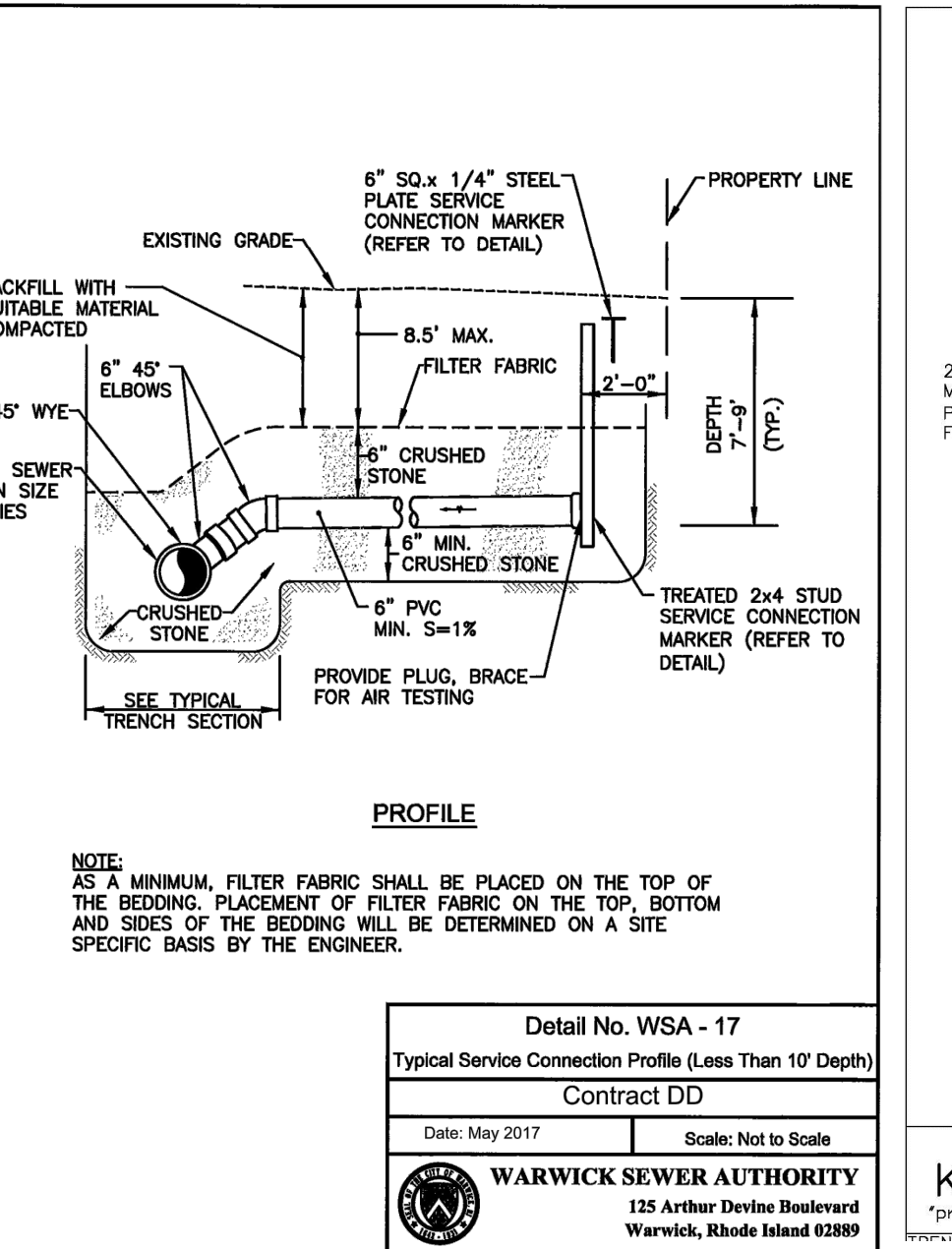
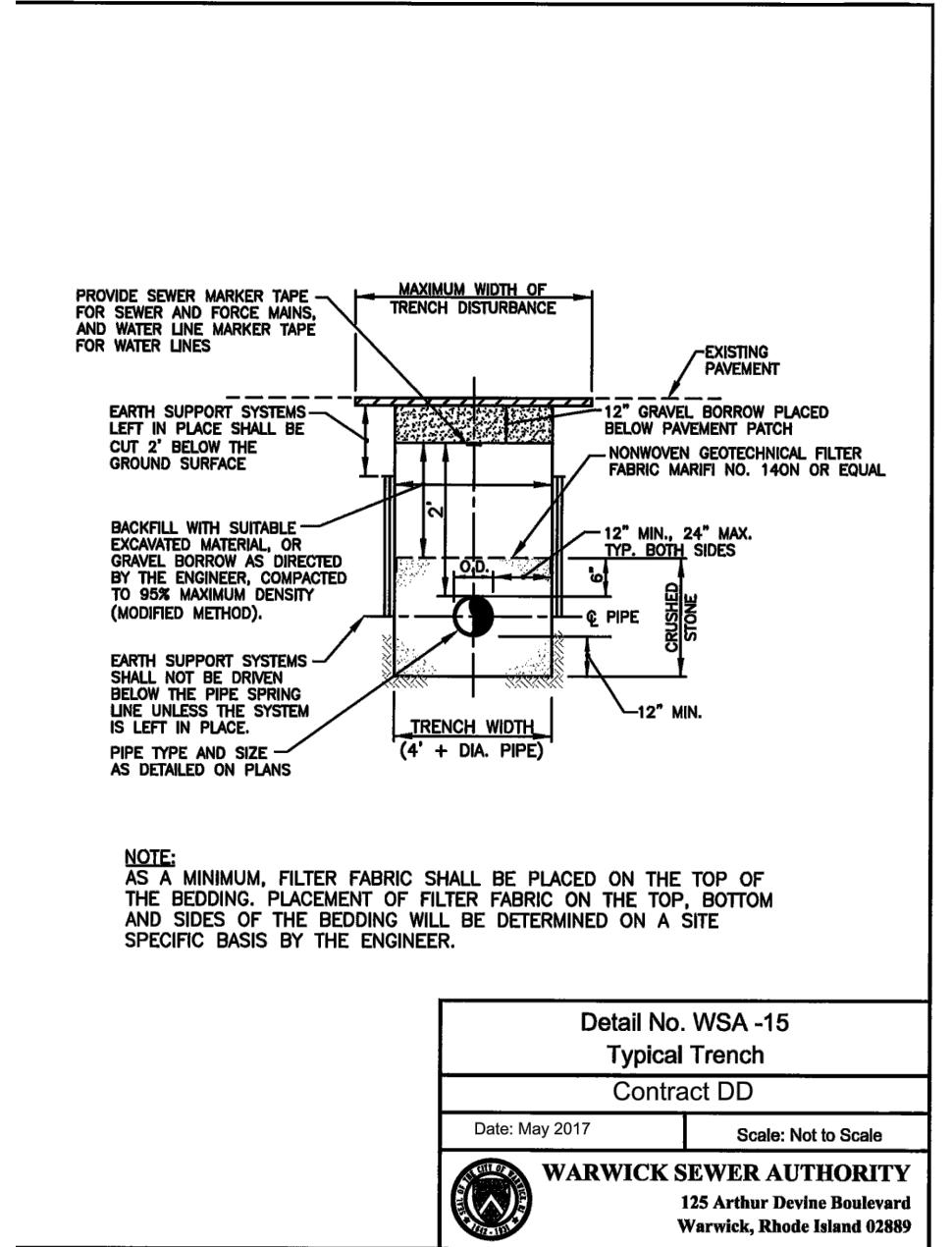
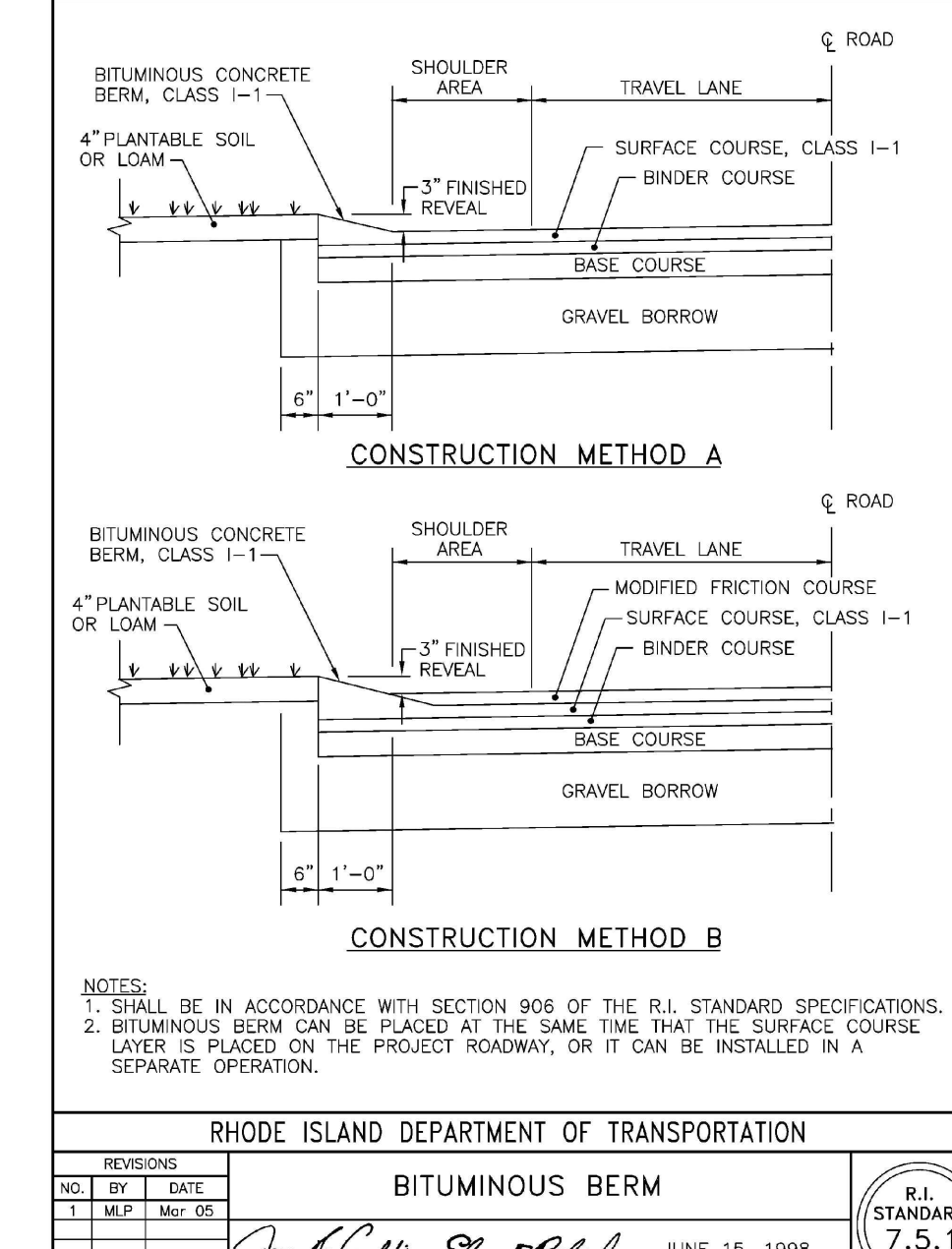
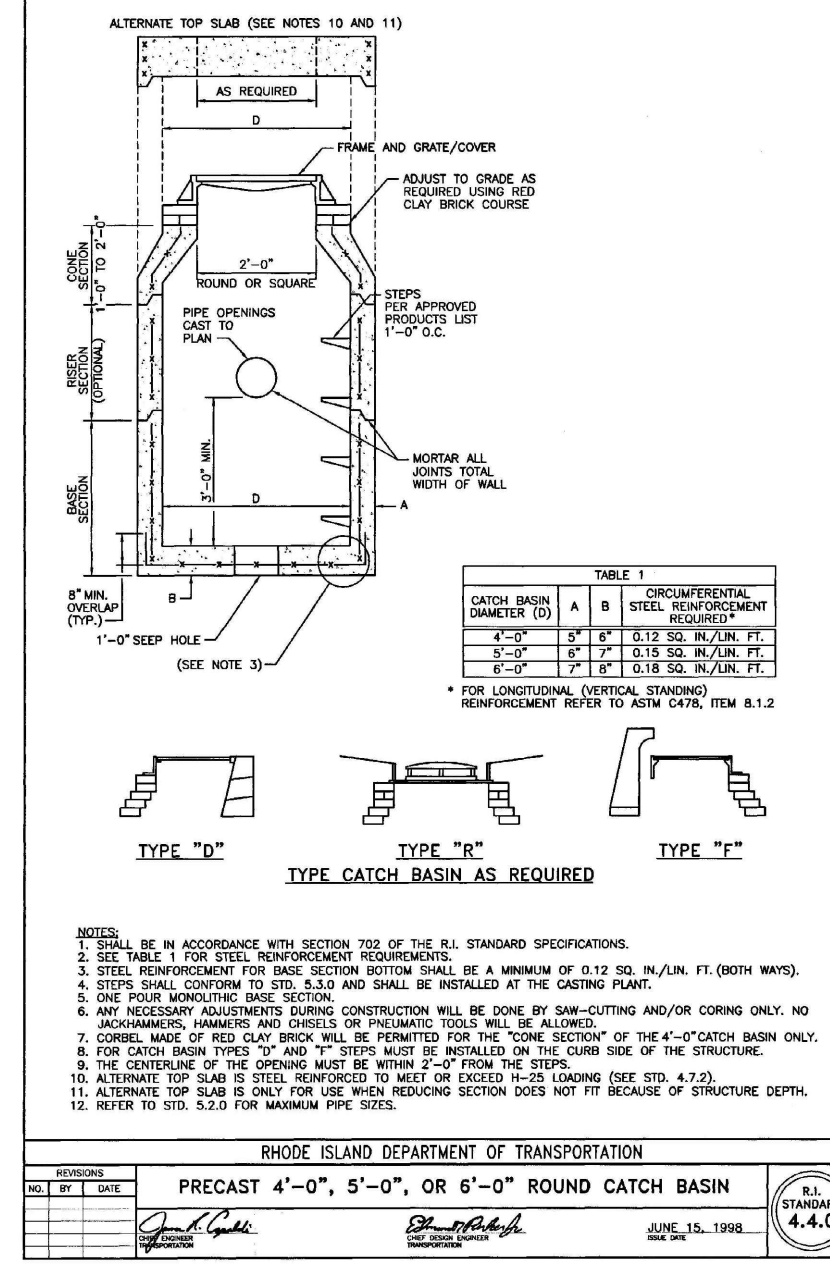
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DRAWN BY:	SEP
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PROJECT NO.:	NOV. 2022

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**UTILITY PLAN**

**SHEET 6 OF 9**

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NO.	BY	DATE	DESCRIPTION
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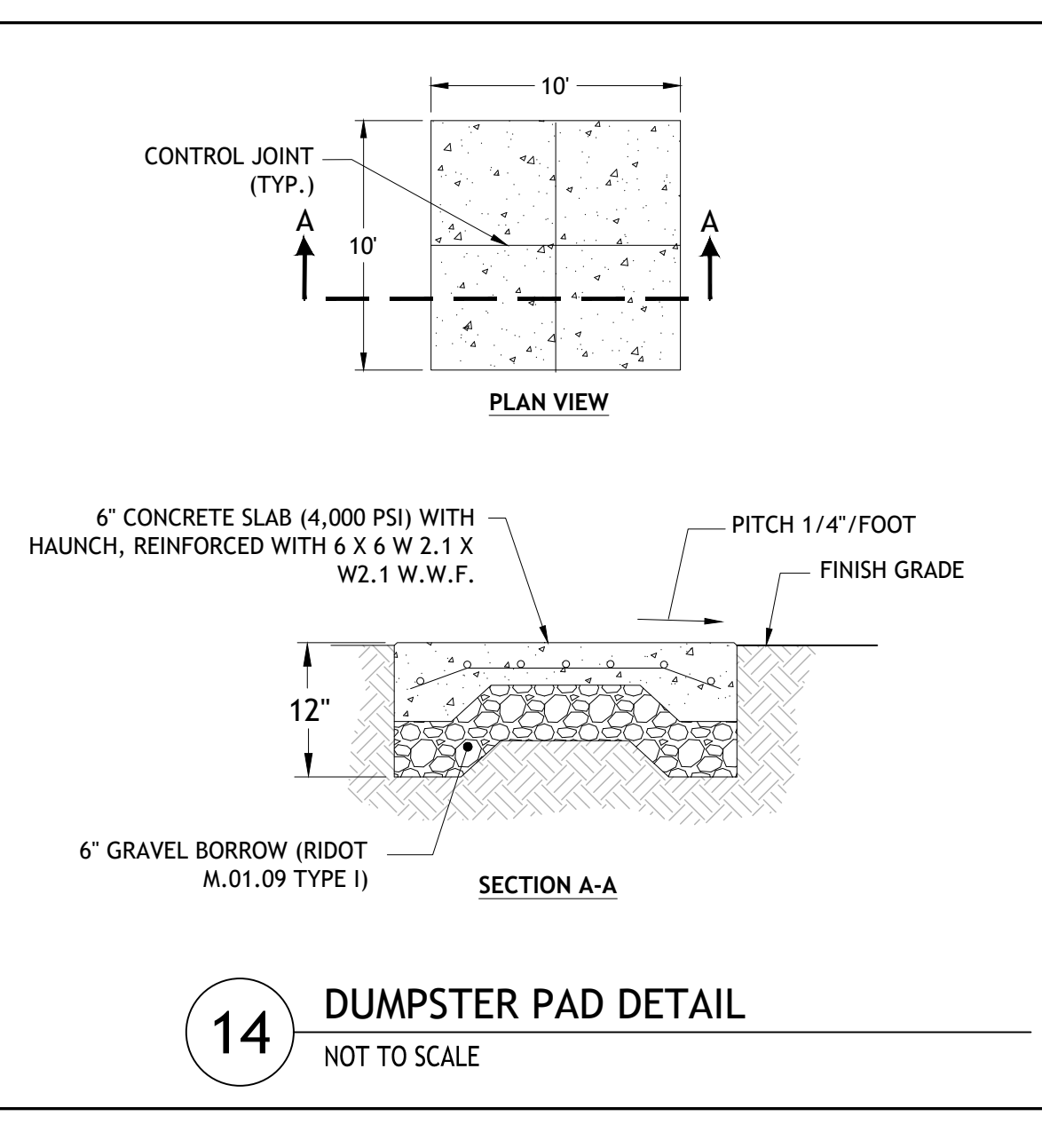
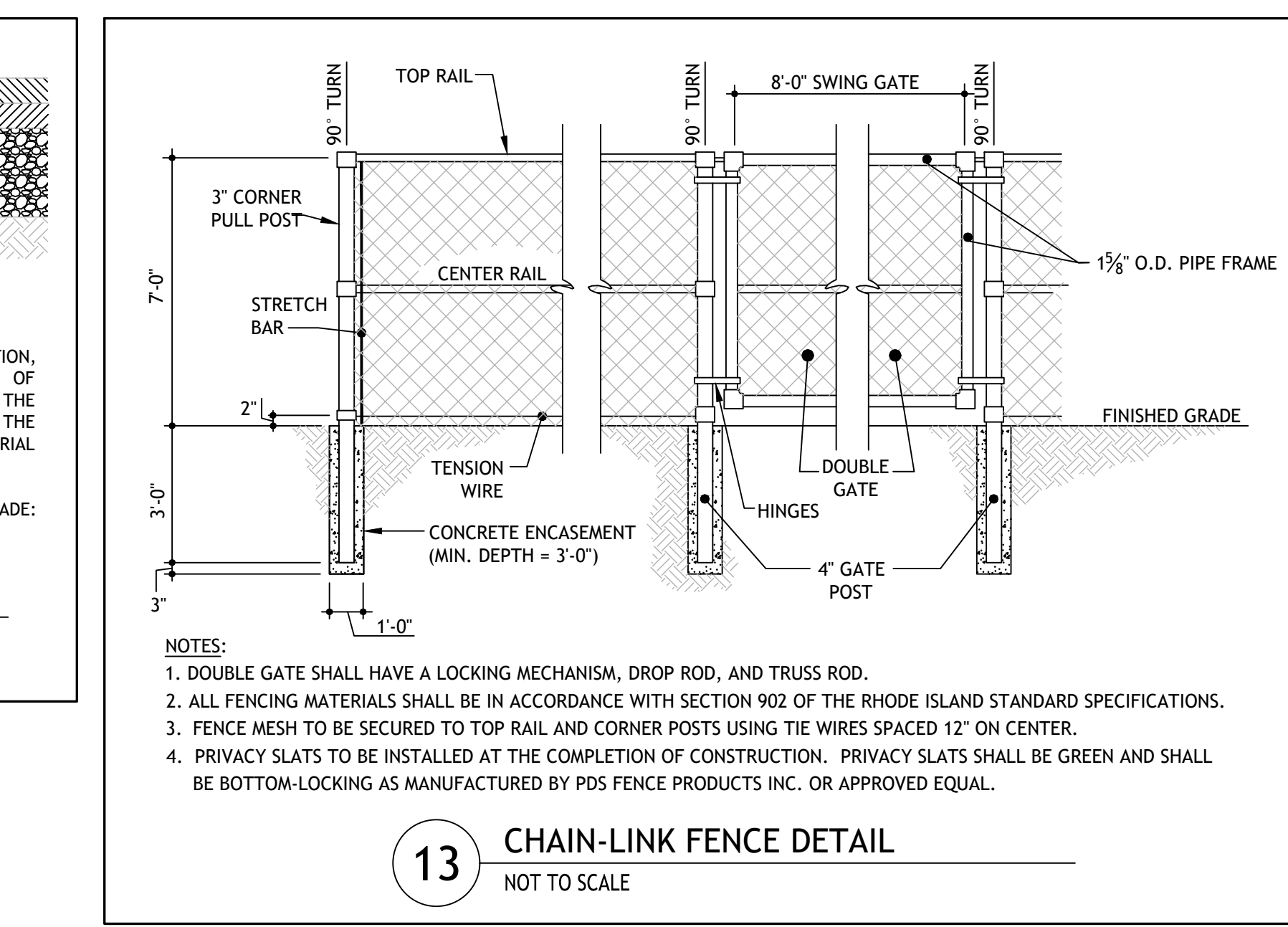
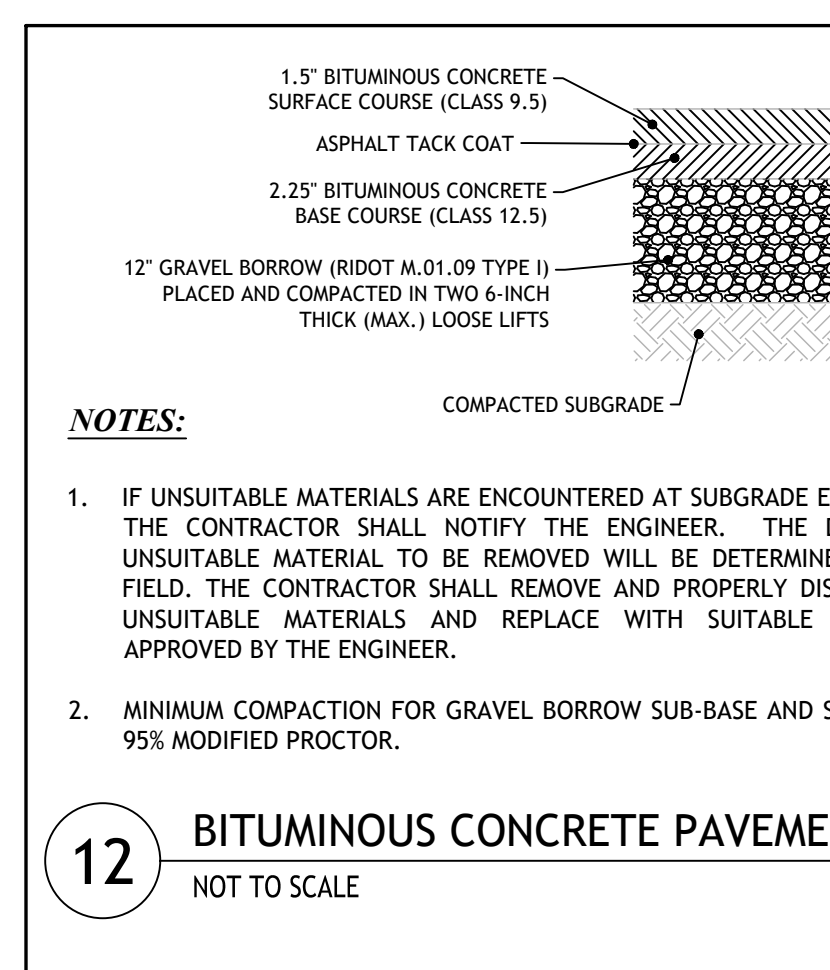
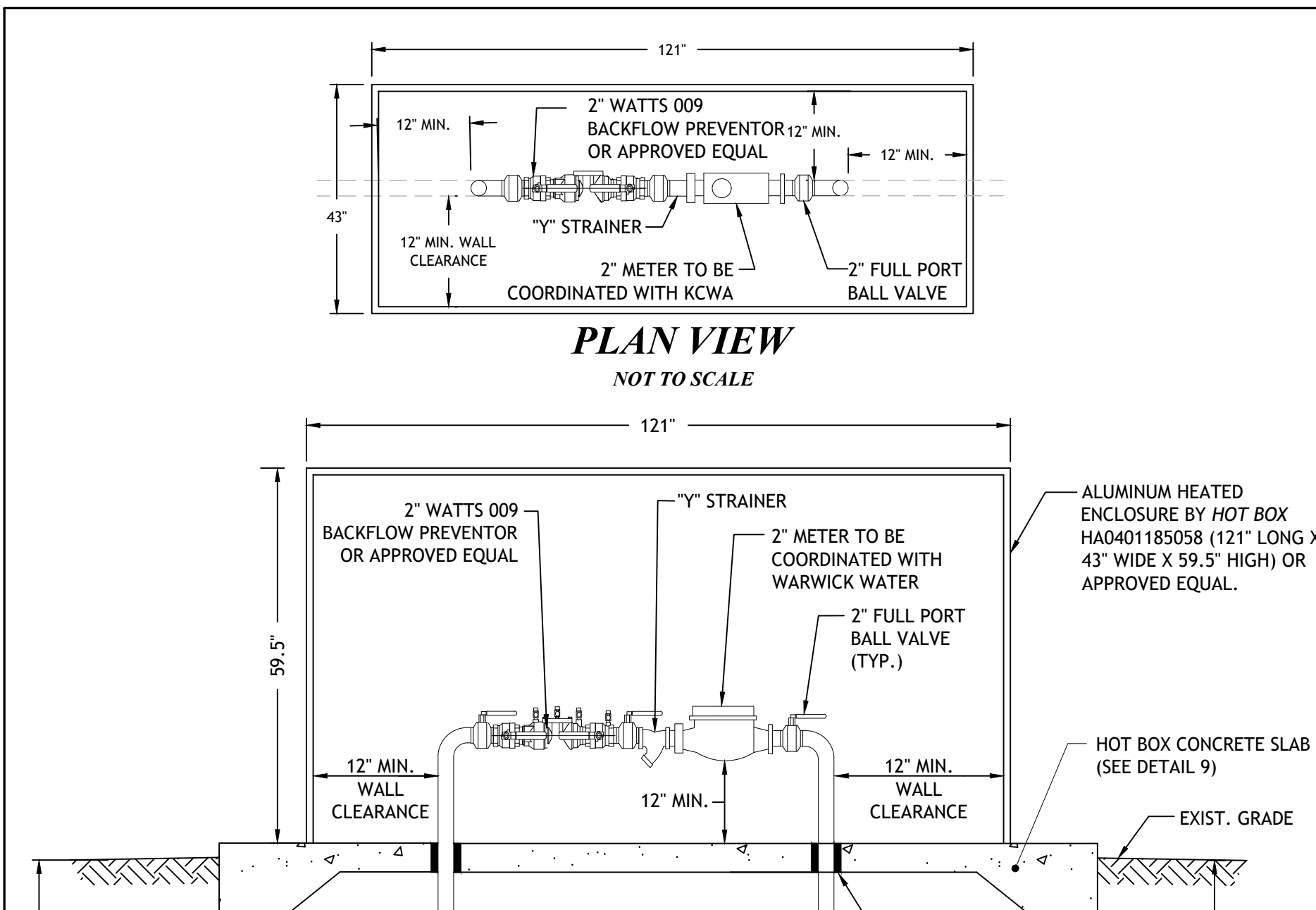
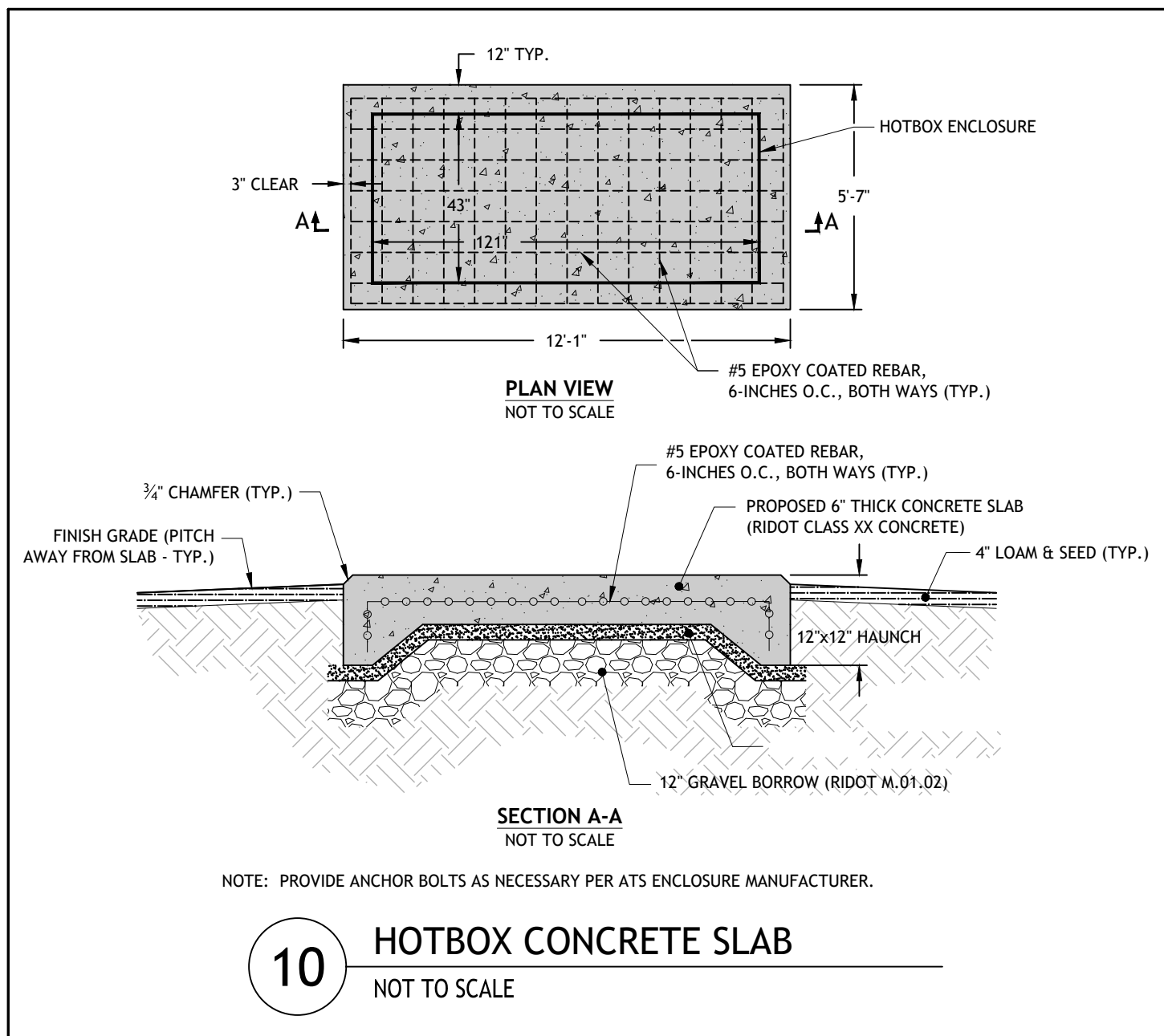
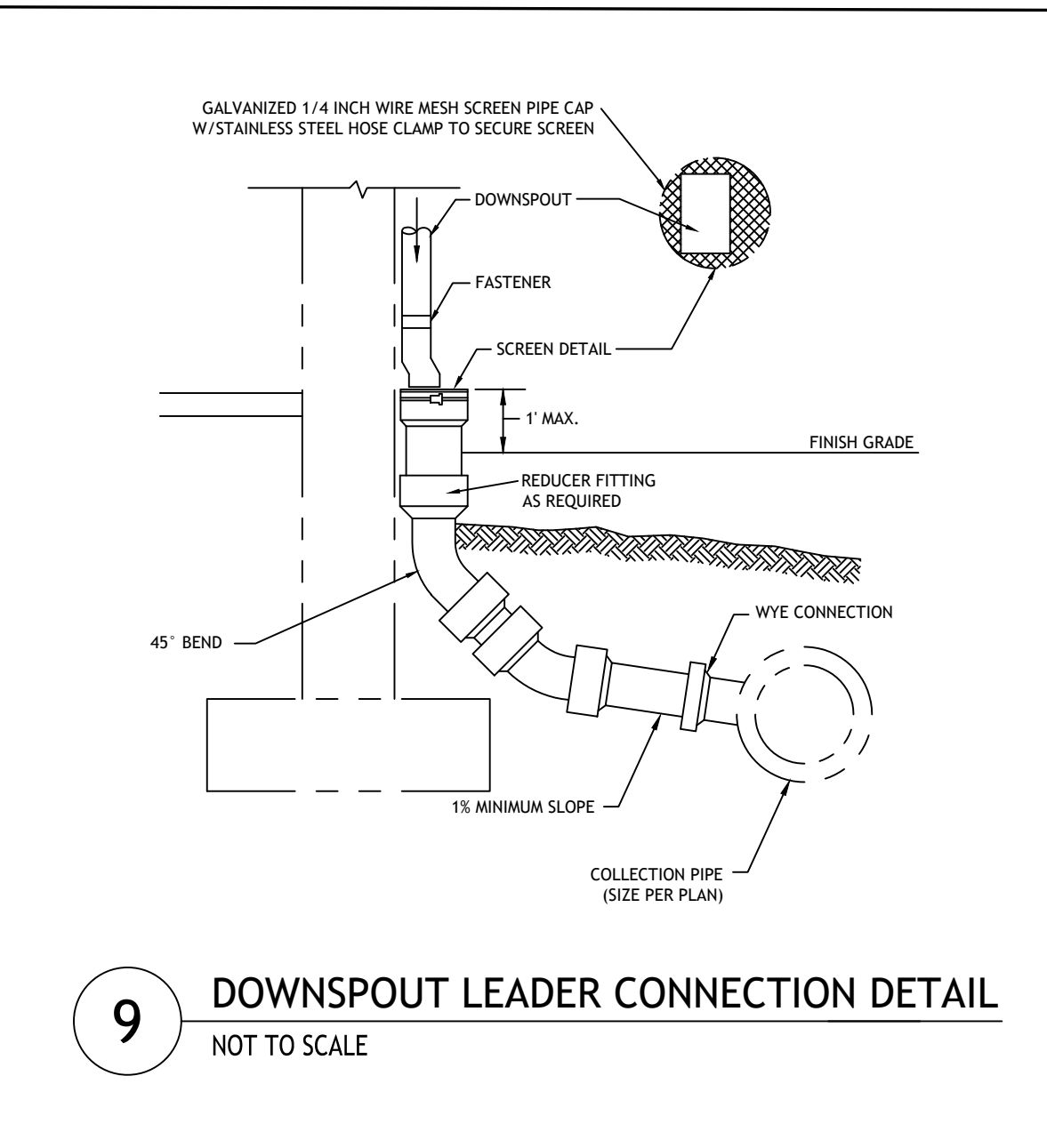
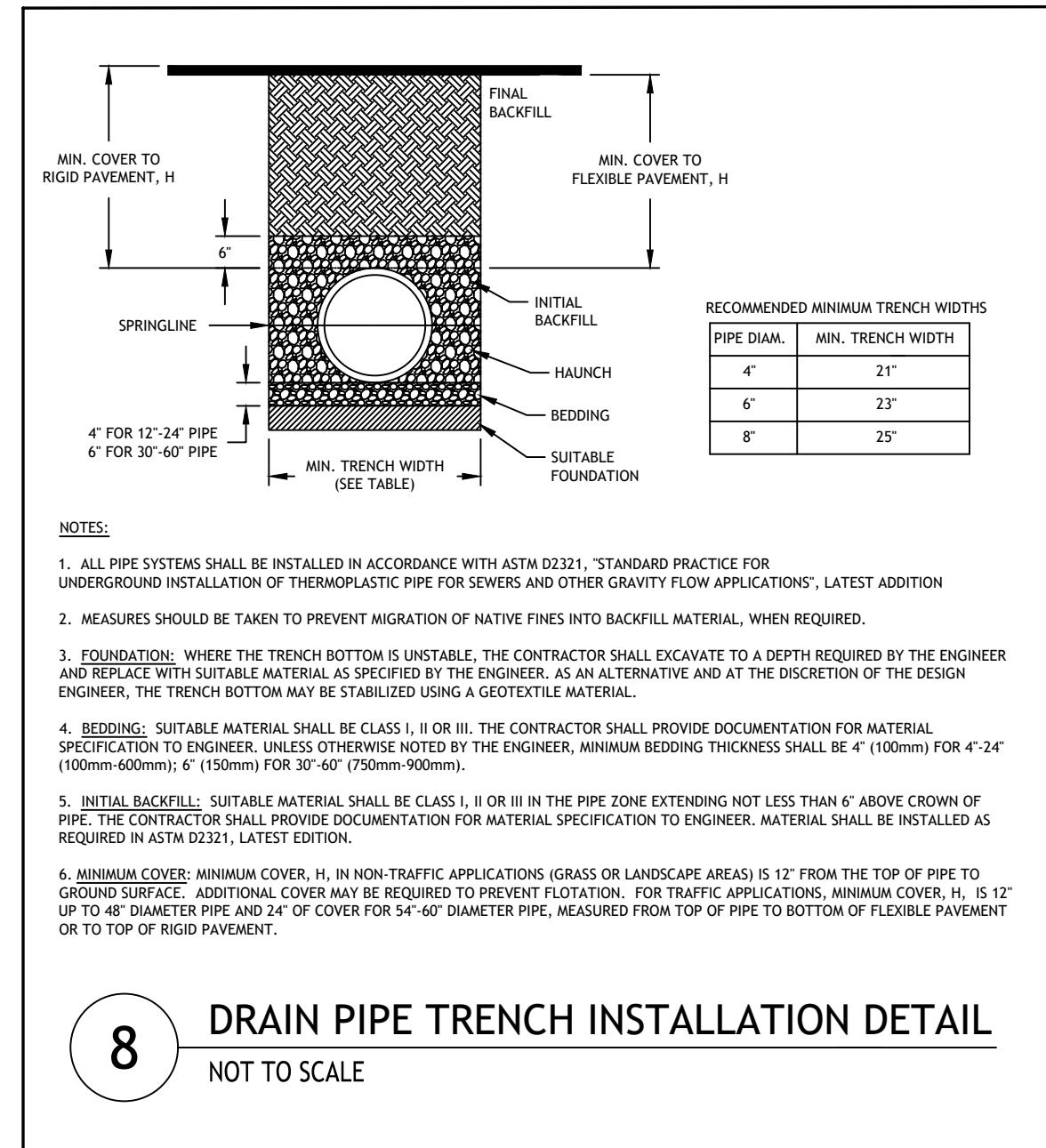
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NO.	BY	DATE	DESCRIPTION
1	JAC	JUN 15, 1998	ISSUE FOR PERMIT

NO.	BY	DATE	DESCRIPTION
1	JAC	JUN 15, 1998	ISSUE FOR PERMIT



**JCE**  
 JOE CASALI ENGINEERING, INC.  
 CIVIL ENGINEERING & ARCHITECTURE  
 300 POST ROAD, WARWICK, RI 02888  
 (401) 841-3300 (401) 841-3313 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI  
 No. 7250  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL  
 07/13/2023

**GREENWICH BAY TOWNHOUSES**  
 5 WILLIAMS STREET  
 WARWICK, RHODE ISLAND  
 AP 220, LOT 95

NO.	DATE	DESCRIPTION
R1	1/9/22	REV SETBACKS
R2	7/2023	PERMIT SET

DESIGNED BY:	WMLR
DRAWN BY:	SEP
CHECKED BY:	JAC
DATE:	20-10b
PROJECT NO.:	NOV. 2022

PRELIMINARY, NOT FOR CONSTRUCTION

**DETAILS I**

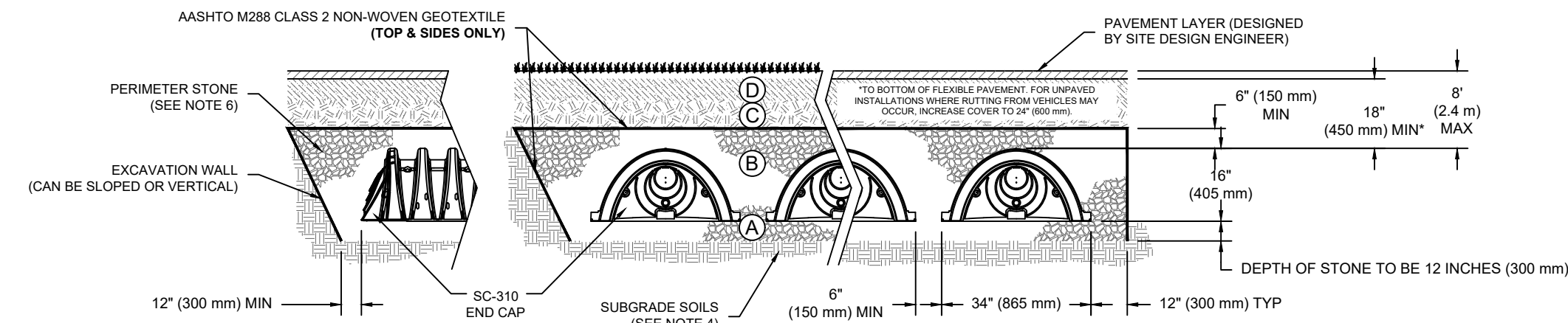
**SHEET 7 OF 9**

C:\2024\10\Greenwich\300-10b-Williams-Street-ACAD\Williams-St., Warwick, [Preliminary Plan].dwg, Jul. 14, 2023, 11:05am

**ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS**

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	<b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	<b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'C' LAYER.	AASHTO M145* A-1, A-2.4, A-3  OR AASHTO M43* 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 90% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	<b>EMBEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	<b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. **

PLEASE NOTE:  
 1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR, NO. 4 (AASHTO M43) STONE".  
 2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.  
 3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



**NOTES:**

- SC-310 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-310 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

**15 STORMTECH SC-310 CROSS SECTION DETAIL**  
NOT TO SCALE

**SC-310 STANDARD CROSS SECTION**

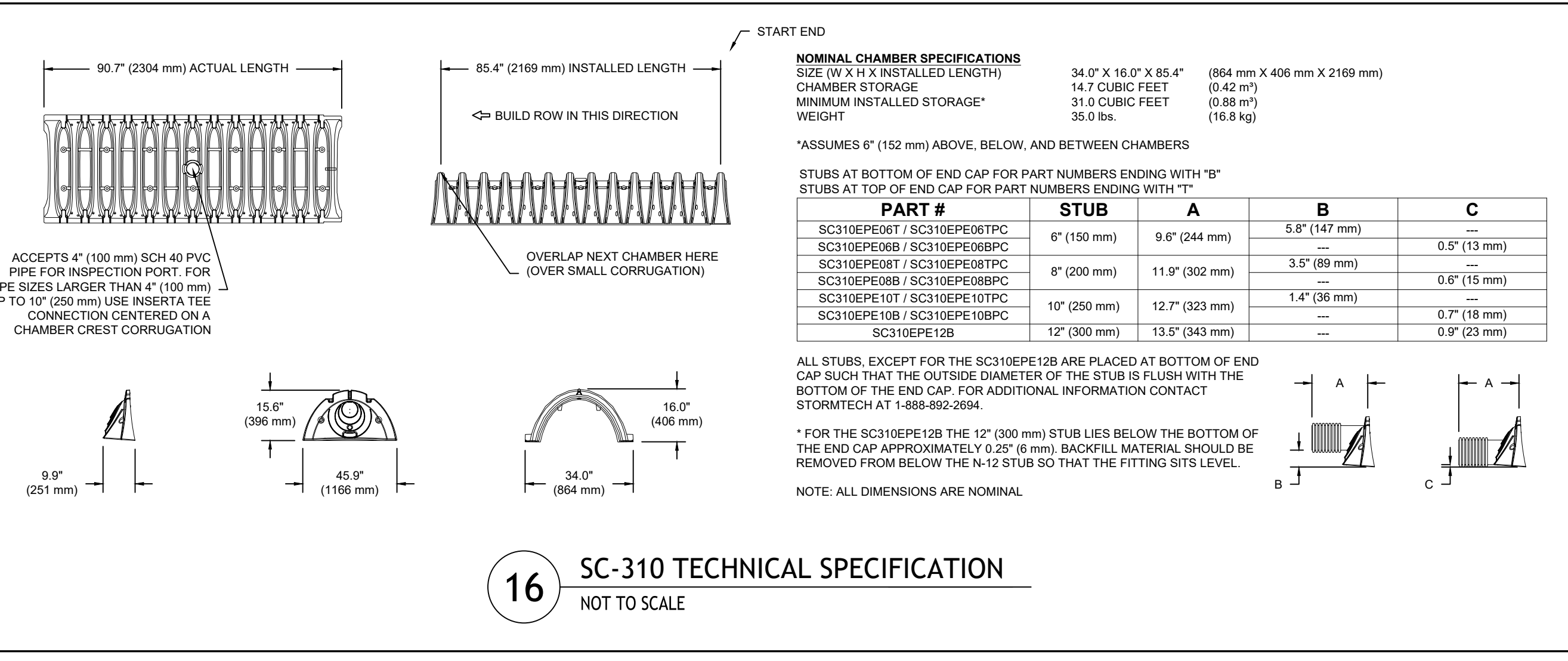
REV. DATE: 11/18/14  
 PROJECT #:  
 CHECKED BY: JLM

DESCRIPTION:  
 16 SC-310 TECHNICAL SPECIFICATION

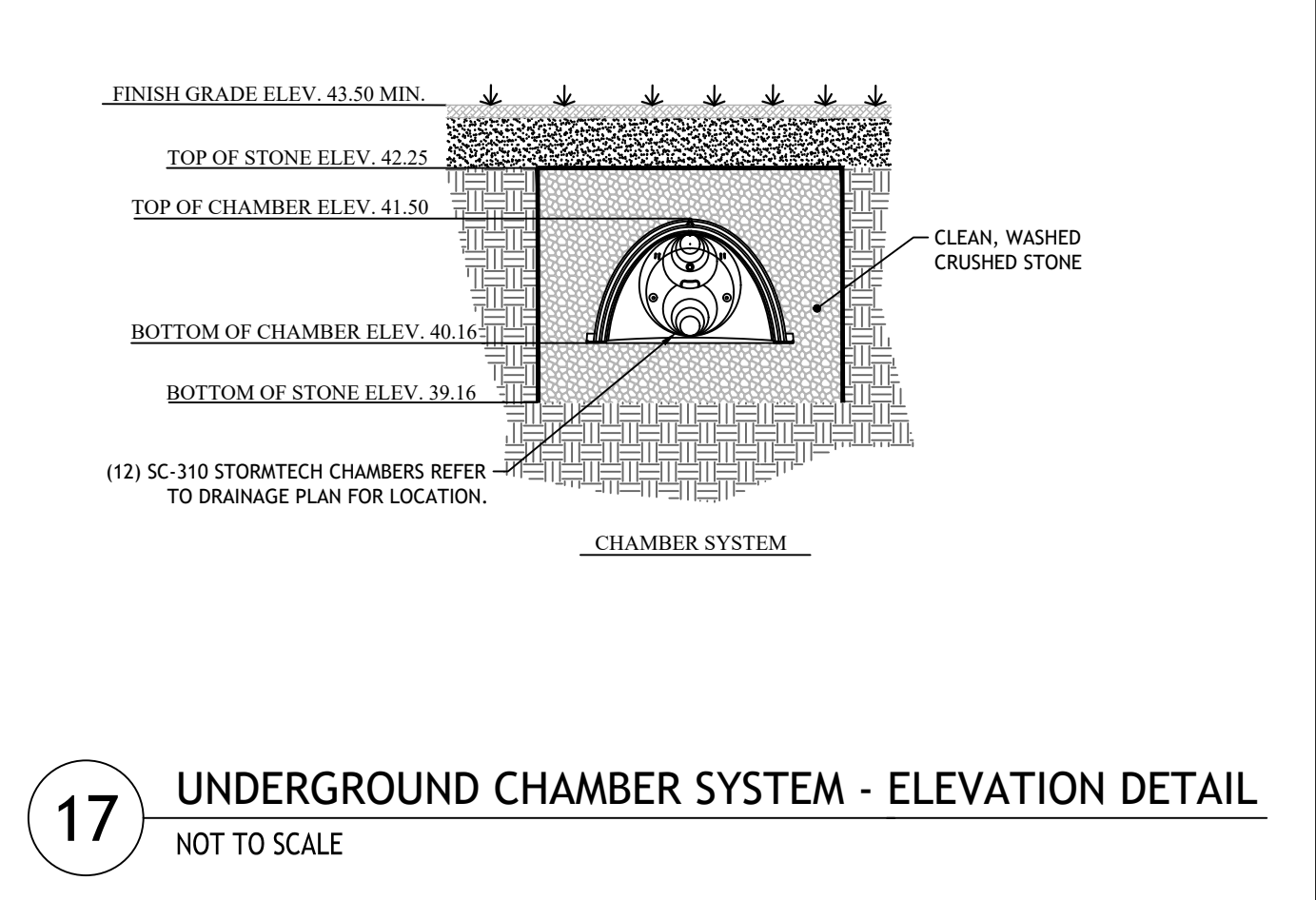
DESIGNED BY: JAC  
 DRAWN BY: WMLR  
 CHECKED BY: JAC

DATE: 20-10b  
 PROJECT NO: NOV. 2022

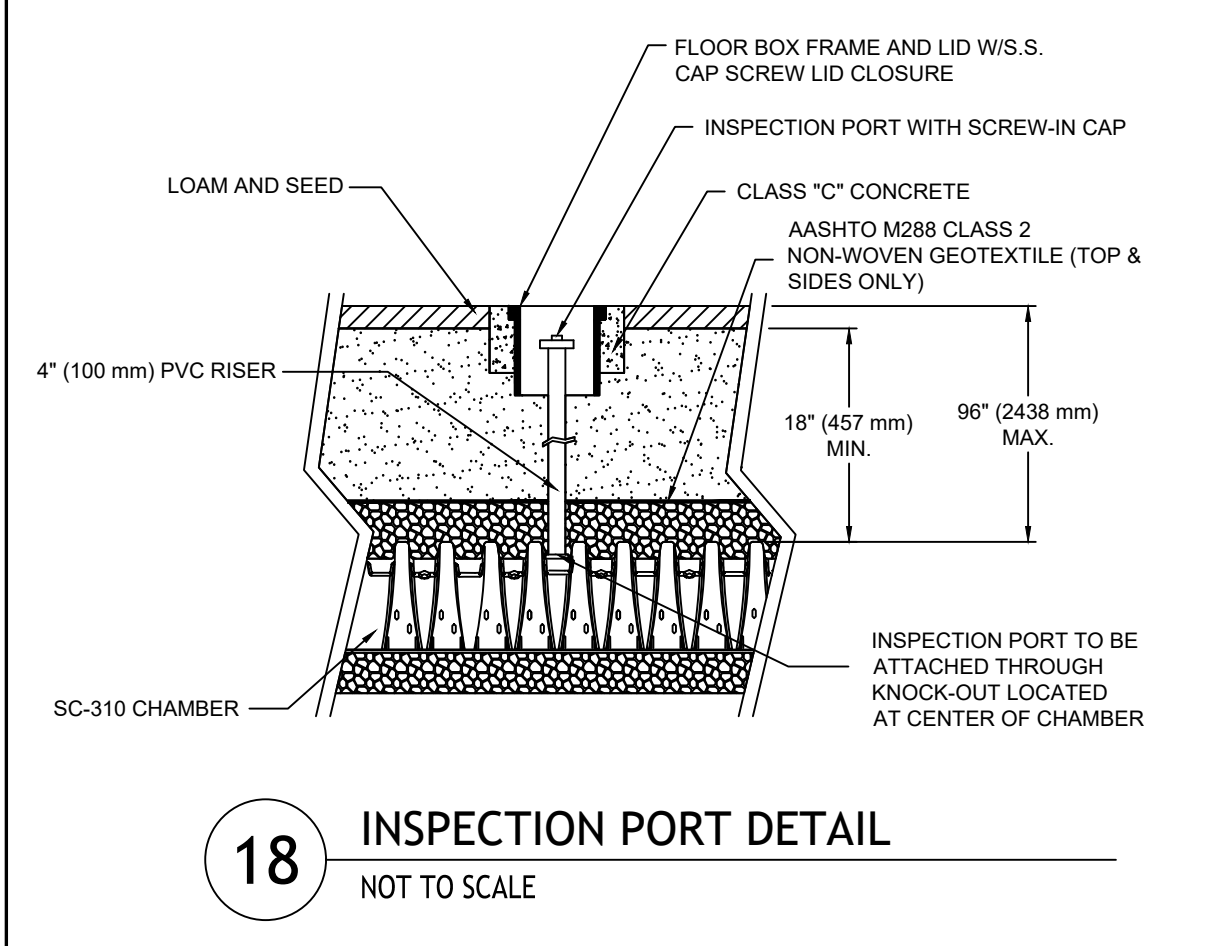
16 OF 1



**16 SC-310 TECHNICAL SPECIFICATION**  
NOT TO SCALE



**17 UNDERGROUND CHAMBER SYSTEM - ELEVATION DETAIL**  
NOT TO SCALE



**18 INSPECTION PORT DETAIL**  
NOT TO SCALE

**STORMTECH GENERAL NOTES:**

- STORMTECH LLC (STORMTECH) REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
- OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL 1-888-892-2694 TO SPEAK TO A TECHNICAL SERVICE REPRESENTATIVE OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
- STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.): MINIMUM COVER IS 18 INCHES INCLUDING PAVEMENT, MAXIMUM COVER IS 96 INCHES INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24 INCHES, MAXIMUM COVER IS 96 INCHES.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
- AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
- STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: WWW.STORMTECH.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
- THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
- STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT 1-888-892-2694 OR VISIT WWW.STORMTECH.COM.

**STORMWATER CHAMBER SPECIFICATIONS**

- CHAMBERS SHALL BE STORMTECH SC-310.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL MEET ASTM F2922 (POLYETHYLENE) OR ASTM F2418-16 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
  - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
  - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 OR ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
  - STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

**NOTES FOR THE INSTALLATION OF THE SC-310 SYSTEM**

- STORMTECH SC-310 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
  - STONESHOOTER LOCATED OFF THE CHAMBER BED.
  - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
  - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 6" SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4"-2".
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

**NOTES FOR CONSTRUCTION EQUIPMENT**

- STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 CHAMBERS IS LIMITED:
  - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
  - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
  - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

**NDS**  
We put water in its place

NDS, INC.  
851 NORTH HARVARD AVE.  
LINDSAY, CA 95247  
TOLL FREE: 1-800-726-1994  
PHONE: (559) 562-8888  
FAX: (559) 562-4488  
www.ndspro.com

SECTION

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
 2. DO NOT SCALE DRAWING.  
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.  
 4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

DESIGNED BY: WMLR  
 DRAWN BY: SEP  
 CHECKED BY: JAC  
 DATE: 20-10b  
 PROJECT NO: NOV. 2022

**19 NDS DRAINAGE 4\"/>**

**FITS ANY MAINLINE OR STRUCTURE**

Stainless Steel Band  
 Rubber Sleeve  
 Gasketed PVC Hub

**SPECIFICATIONS**

Rubber Sleeve	ASTM F477
Band	301 SS
Screw	305 SS
Housing	301 SS
Gasket	ASTM F477

**LATERAL**

1200  
 SDR26 HPS  
 IPS/RS40  
 Corrugated Type Pipe  
 SDR35 Sewer

**ANY MAINLINE OR STRUCTURE**

Allow longer lead times for custom fittings such as cast iron or ductile iron.

**INSERTA TEE FITTINGS FOR ALL GRAVITY FLOW PIPE AND MANHOLES**

Ductile Iron	Spiralite	Ultra Rib™	Pro 21™
Fiberglass	Ni-Di-Sure-Lok®	Pharmalok®	Polyethylene
PVC	Nylojet™	Corrugated Metal	Trusep®
Ultra Cor™	Ni-12™	Soft® Max	AS300®
GOLDFLO®	Kor-Flu™	Concrete	Clay
DuroMaxx®	Asbestos Cement	Ni-12™ HP	SaniTite® HP

INSERTA TEE construction varies with pipe type and size. For pipe not listed, contact our engineering department.

**THE MOST ADVANCED NAME IN WATER MANAGEMENT SOLUTIONS™**

**20 ADS INSERTA TEE DETAIL**  
NOT TO SCALE

**JOE CASALI ENGINEERING, INC.**  
 CIVIL ENGINEERING - TRAFFIC ENGINEERING  
 DRAINAGE - WATER RESOURCES - SITE DESIGN  
 300 POST ROAD, WARWICK, RI 02888  
 (401) 841-3300 (401) 841-3133 FAX WWW.JOECASALI.COM

JOSEPH A. CASALI  
 No. 7250  
 REGISTERED PROFESSIONAL ENGINEER  
 07/13/2013

**GREENWICH BAY TOWNHOUSES**  
 5 WILLIAMS STREET  
 WARWICK, RHODE ISLAND  
 AP 220, LOT 95

**REVISIONS:**

NO.	DATE	DESCRIPTION
R1	1/9/22	REV SETBACKS
R2	7/2023	PERMIT SET

DESIGNED BY: WMLR  
 DRAWN BY: SEP  
 CHECKED BY: JAC  
 DATE: 20-10b  
 PROJECT NO: NOV. 2022

PRELIMINARY, NOT FOR CONSTRUCTION

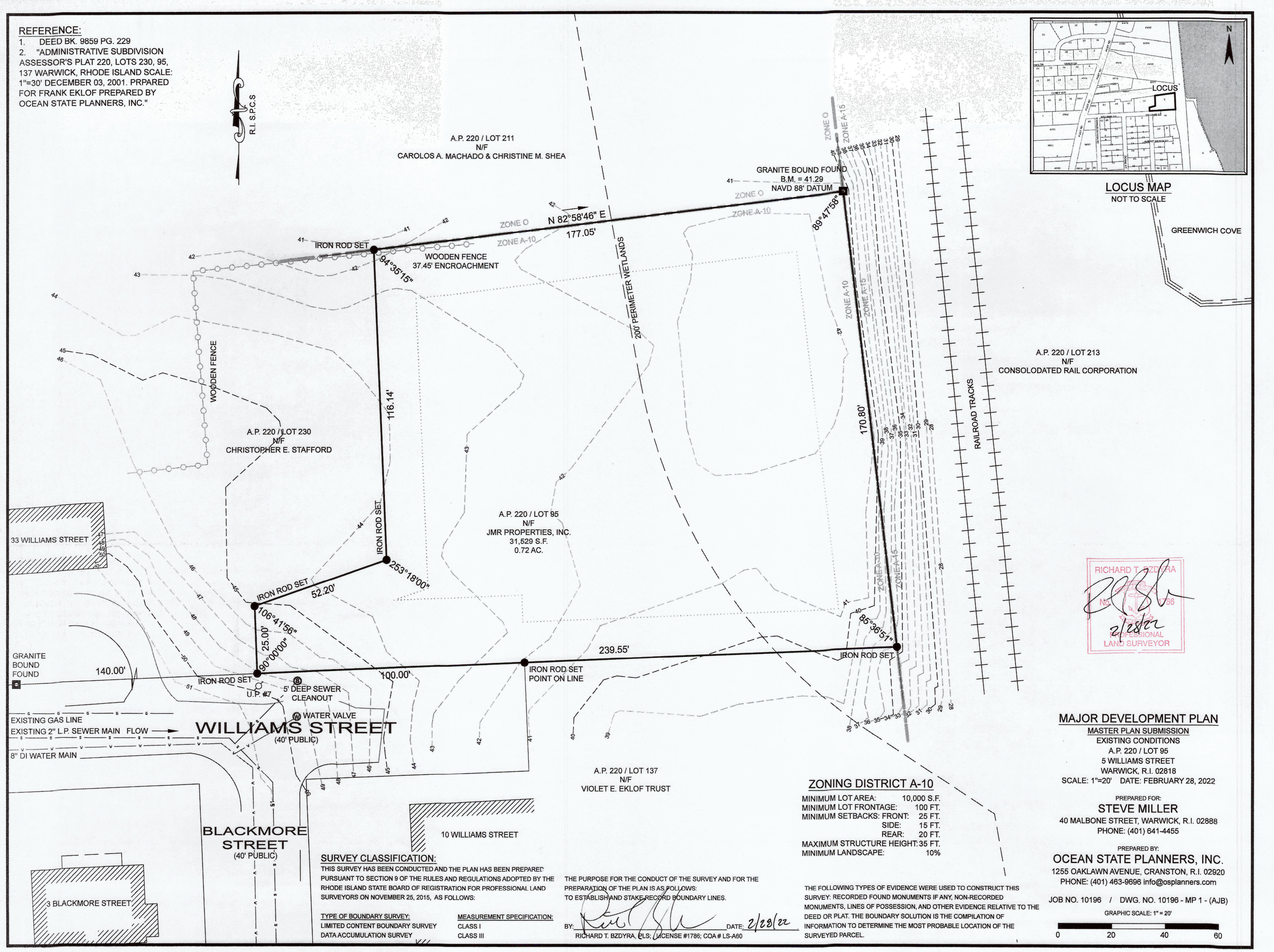
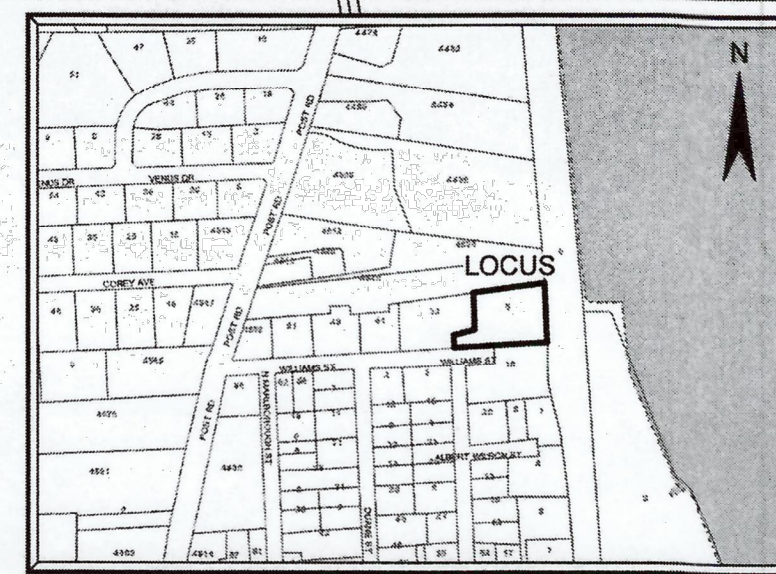
**DETAILS II**

**SHEET 8 OF 9**





**REFERENCE:**  
 1. DEED BK. 9859 PG. 229  
 2. "ADMINISTRATIVE SUBDIVISION ASSESSOR'S PLAT 220, LOTS 230, 95, 137 WARWICK, RHODE ISLAND SCALE: 1"=30' DECEMBER 03, 2001. PREPARED FOR FRANK EKLOF PREPARED BY OCEAN STATE PLANNERS, INC."



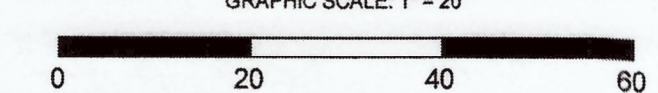
RICHARD T. BZDYRA  
*[Signature]*  
 No. 1786  
 2/28/22  
 PROFESSIONAL  
 LAND SURVEYOR

**MAJOR DEVELOPMENT PLAN**  
 MASTER PLAN SUBMISSION  
 EXISTING CONDITIONS  
 A.P. 220 / LOT 95  
 5 WILLIAMS STREET  
 WARWICK, R.I. 02818  
 SCALE: 1"=20' DATE: FEBRUARY 28, 2022

PREPARED FOR:  
**STEVE MILLER**  
 40 MALBONE STREET, WARWICK, R.I. 02888  
 PHONE: (401) 641-4455

PREPARED BY:  
**OCEAN STATE PLANNERS, INC.**  
 1255 OAKLAWN AVENUE, CRANSTON, R.I. 02920  
 PHONE: (401) 483-9696 info@osplanners.com

JOB NO. 10196 / DWG. NO. 10196 - MP 1 - (AJB)  
 GRAPHIC SCALE: 1" = 20'



**SURVEY CLASSIFICATION:**  
 THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

<b>TYPE OF BOUNDARY SURVEY:</b> LIMITED CONTENT BOUNDARY SURVEY DATA ACCUMULATION SURVEY	<b>MEASUREMENT SPECIFICATION:</b> CLASS I CLASS III
--	---

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:  
 TO ESTABLISH AND STAKE RECORD BOUNDARY LINES.

BY: *[Signature]* DATE: 2/28/22  
 RICHARD T. BZDYRA, ELS. LICENSE #1786, COA # LS-A60

**ZONING DISTRICT A-10**  
 MINIMUM LOT AREA: 10,000 S.F.  
 MINIMUM LOT FRONTAGE: 100 FT.  
 MINIMUM SETBACKS: FRONT: 25 FT.  
 SIDE: 15 FT.  
 REAR: 20 FT.  
 MAXIMUM STRUCTURE HEIGHT: 35 FT.  
 MINIMUM LANDSCAPE: 10%

THE FOLLOWING TYPES OF EVIDENCE WERE USED TO CONSTRUCT THIS SURVEY: RECORDED FOUND MONUMENTS IF ANY, NON-RECORDED MONUMENTS, LINES OF POSSESSION, AND OTHER EVIDENCE RELATIVE TO THE DEED OR PLAT. THE BOUNDARY SOLUTION IS THE COMPILATION OF INFORMATION TO DETERMINE THE MOST PROBABLE LOCATION OF THE SURVEYED PARCEL.

CITY OF WARWICK LANDSCAPE PLANNING DATA

505. Landscaping and screening requirements for nonresidential uses.

CRITERIA	REQUIRED	PROPOSED	REGULATION
505.1 MINIMUM LANDSCAPED BUFFER.	10 FOOT WIDE LANDSCAPED BUFFER ACROSS THE ENTIRE FRONTAGE OF LOT EXCEPT FOR CURB CUTS	10' LANDSCAPED BUFFER ALONG WILLIAMS STREET	505.1 (A)
	20 FOOT WIDE LANDSCAPE BORDER REQUIRED ALONG ANY PROPERTY LINE THAT ADJUT A RESIDENTIAL DISTRICT (PERTAINS TO LOTS AT LEAST 5,000 SQUARE FEET) AND BE SCREENED WITH A 6 FOOT TALL WALL OR FENCE OR EVERGREEN HEDGE.	20 FOOT WIDE LANDSCAPE BORDER AND 6' TALL STOCKADE FENCE ALONG PROPERTY LINES	505.1 (B, C)
	ALL OUTDOOR TRASH RECEPTACLES, DUMPSTER AND ELECTRICAL BOXES SHALL BE SCREENED BY A FENCE OR TIGHT EVERGREEN HEDGE.	HOT BOX SCREENED WITH TIGHT EVERGREEN HEDGE & DUMPSTER SCREENED WITH 6" OPAQUE FENCE AND GATES	505.1 (D)
505.4 PLANT REQUIREMENTS AND SIZES.	SHRUBS SHALL FORM A CONTINUOUS VISUAL SCREEN AND SATISFY THE SIZE REQUIREMENTS OF THIS SECTION.	VISUAL SCREEN PROVIDED WITHIN REQUIREMENTS OF 505.4 (A.2) AND 505.4 (C.5)	505.4 (A.1)
	APPROX. EVERY 35 LIN. FT. OF LANDSCAPING SHALL CONTAIN 1 SHADE TREE AND 5 SHRUBS (EXCLUDING CURB CUTS)	2 TREES & 8 SHRUBS	505.4 (A.2)
	WILLIAMS STREET: 50 LIN. FT. OF 2 TREES & 50 LIN. FT. OF 5 SHRUBS		
	MINIMUM SIZE FOR SHADE TREES SHALL BE BETWEEN 2 1/2" AND 3" CALIPER AND 12-14 FT. IN HEIGHT.	2 1/2" CALIPER	505.4 (C.3)
	MINIMUM SIZE FOR EVERGREEN TREES SHALL BE BETWEEN 5 TO 8 FEET HEIGHT.	N/A	505.4 (C.4)
	MINIMUM SIZE FOR SHRUBS SHALL BE 3 FEET IN HEIGHT (B&B) OR 3 GALLON CONTAINERIZED.	3 GALLON	505.4 (C.5)
505.6 PARKING LOT BUFFERS.	PROVIDE A 10 FOOT LANDSCAPED SETBACK BETWEEN THE STREET AND PARKING LOT TO BE PLANTED WITH TREES AND SHRUBS (WHEN PARKING IS DIRECTLY ADJACENT TO STREET)	N/A	505.6 (A.1)
	PROVIDE MINIMUM 5% INTERIOR PARKING LOT LANDSCAPING 6,177 SQ. FT. PARKING X 5% = 309 SQ. FT. REQ'D	N/A	505.6 (B)
	PROVIDE CONTINUOUS LANDSCAPE STRIP BETWEEN EVERY 4 ROWS OF PARKING WITH MINIMUM OF 8 FT. WIDE	N/A	505.6 (B.1)
	CREATE LARGE PLANTING ISLANDS OVER 600 SF	N/A	505.6 (B.2)
	PROVIDE PLANTING ISLANDS (MIN. 9 FT WIDE) BETWEEN EVERY 10 TO 15 SPACES WITH 1 SHADE TREE	N/A	505.6 (B.3)

CITY OF WARWICK LANDSCAPE PLANNING DATA-PDR

Appendix A Zoning Section 300-Establishment and Classification of Districts

CRITERIA	REQUIRED	PROPOSED	REGULATION
308.2 OFF-STREET PARKING AND LANDSCAPING	A TEN-FOOT-WIDE BORDER OF GRASS, VEGETATION, OR OTHER LIVE GROUND COVER IS REQUIRED AROUND THE ENTIRE PERIMETER OF THE SITE, EXCEPT FOR ANY CURB CUTS.	10 FEET WIDE WITH GRASS AND VEGETATION	308.2 (E)

PLANT SCHEDULE

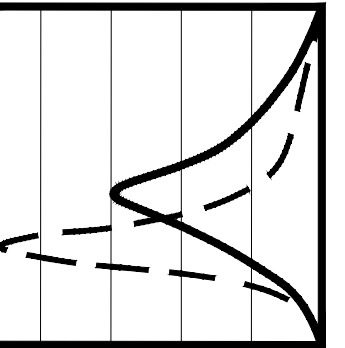
DECIDUOUS TREES	CODE	QTY	BOTANICAL / COMMON NAME	B&B	CALIPER
+	ZS	2	Zelkova serrata 'Green Vase' / Green Vase Zelkova	B & B	2.5" Cal
EVERGREEN TREES	CODE	QTY	BOTANICAL / COMMON NAME	B&B	CALIPER
●	TOE4	6	Thuja occidentalis 'Emerald' / Emerald Arborvitae	B&B; 5'-6' HT.	
FLOWERING TREES	CODE	QTY	BOTANICAL / COMMON NAME	B&B	CALIPER
⊙	PCS	4	Prunus sargentii 'Columnaris' / Columnar Sargent Cherry	B & B;	2" Cal
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT/B&B	SIZE
⊕	CH	8	Clethra alnifolia 'Hummingbird' / Summersweet	CONT	3 gal
⊕	CI	7	Cornus sericea 'Ivory Halo' / Variegated Redtwig Dogwood	CONT	3 gal
⊕	HMBN	11	Hydrangea macrophylla 'Nikko Blue' / Nikko Blue Hydrangea Mature Height: -6'	CONT	3 gal
⊕	IH2	6	Ilex crenata 'Hoogendoorn' / Hoogendoorn Japanese Holly	CONT	3 gal
⊕	IN2	7	Ilex glabra 'Nordic' / Nordic Inkberry	CONT	3 gal
⊕	IGS2	6	Ilex glabra 'Shamrock' / Inkberry	CONT	3 gal
⊕	PO	16	Potentilla fruticosa 'McKay's White' / McKay's White Bush Cinquefoil	CONT	2 gal
⊕	RN	3	Rhododendron catawbiense 'Nova Zembla' / Catawba Rhododendron Mature Height: 5'	CONT	5 gal
⊕	WFM	5	Weigela florida 'Minuet' / Minuet Weigela Mature Height: to 3'	CONT	3 gal
PERENNIALS	CODE	QTY	BOTANICAL / COMMON NAME	CONT/B&B	SIZE
⊕	ACF	22	Astilbe chinensis 'Finale' / Chinese Astilbe	CONT	1 gal
⊕	SA2	12	Sedum x 'Autumn Fire' / Autumn Fire Sedum	CONT	1 gal

NOTE: LOAM AND SEED ALL DISTURBED AREAS UNLESS OTHERWISE NOTED.

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**GREENWICH BAY TOWNHOUSES**  
5 WILLIAMS STREET  
WARWICK, RHODE ISLAND  
AP 220, LOT 95

REVISIONS:

NO.	DATE	DESCRIPTION
R1	1/9/22	REV SETBACKS
R2	7/20/23	PERMIT SET

DESIGNED BY:	DCS
DRAWN BY:	DCS
CHECKED BY:	DCS
DATE:	20-10b
PROJECT NO.:	NOV. 2022

PRELIMINARY, NOT FOR CONSTRUCTION

**LANDSCAPE PLAN**

**SHEET 1 OF 1**

