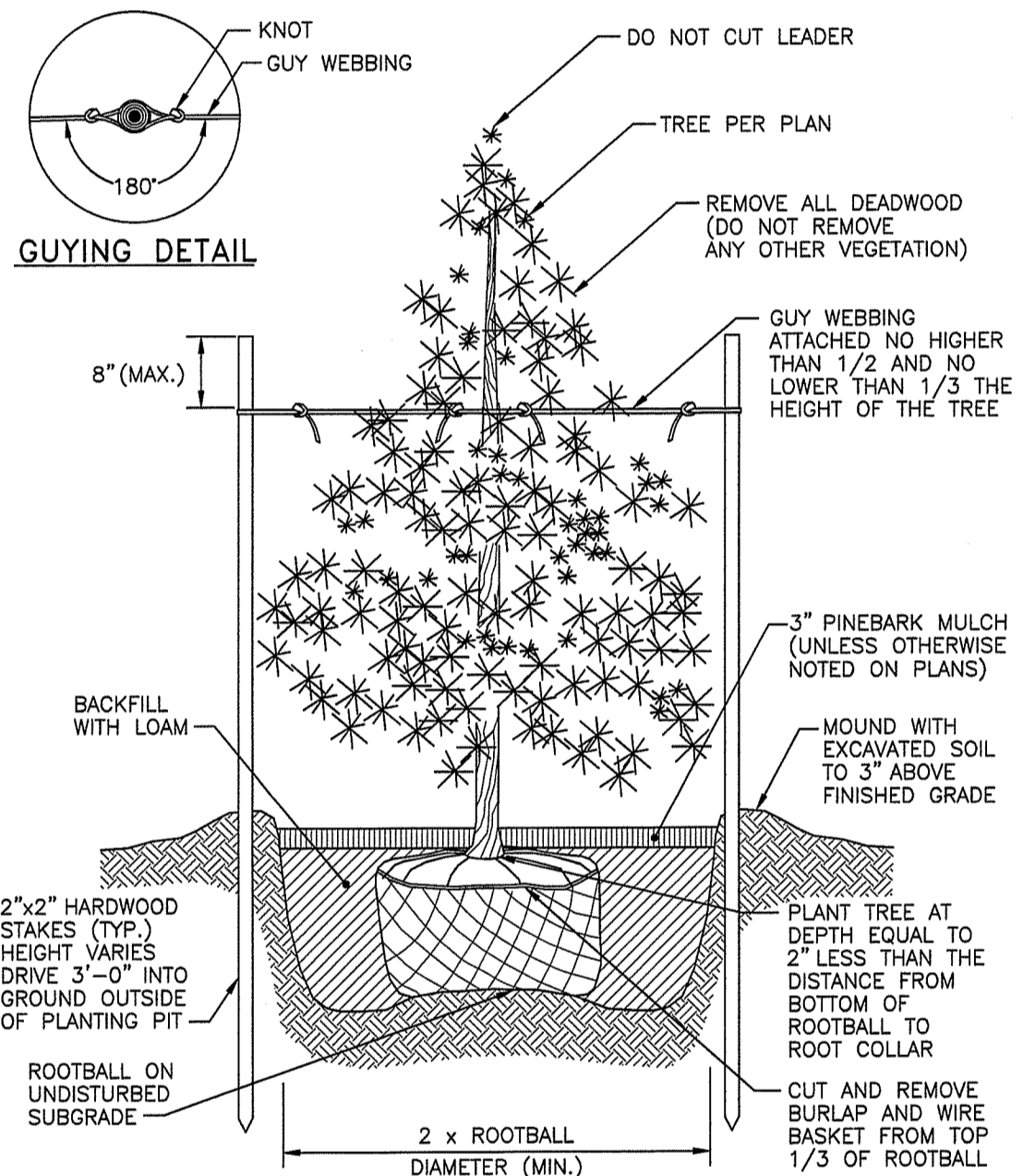
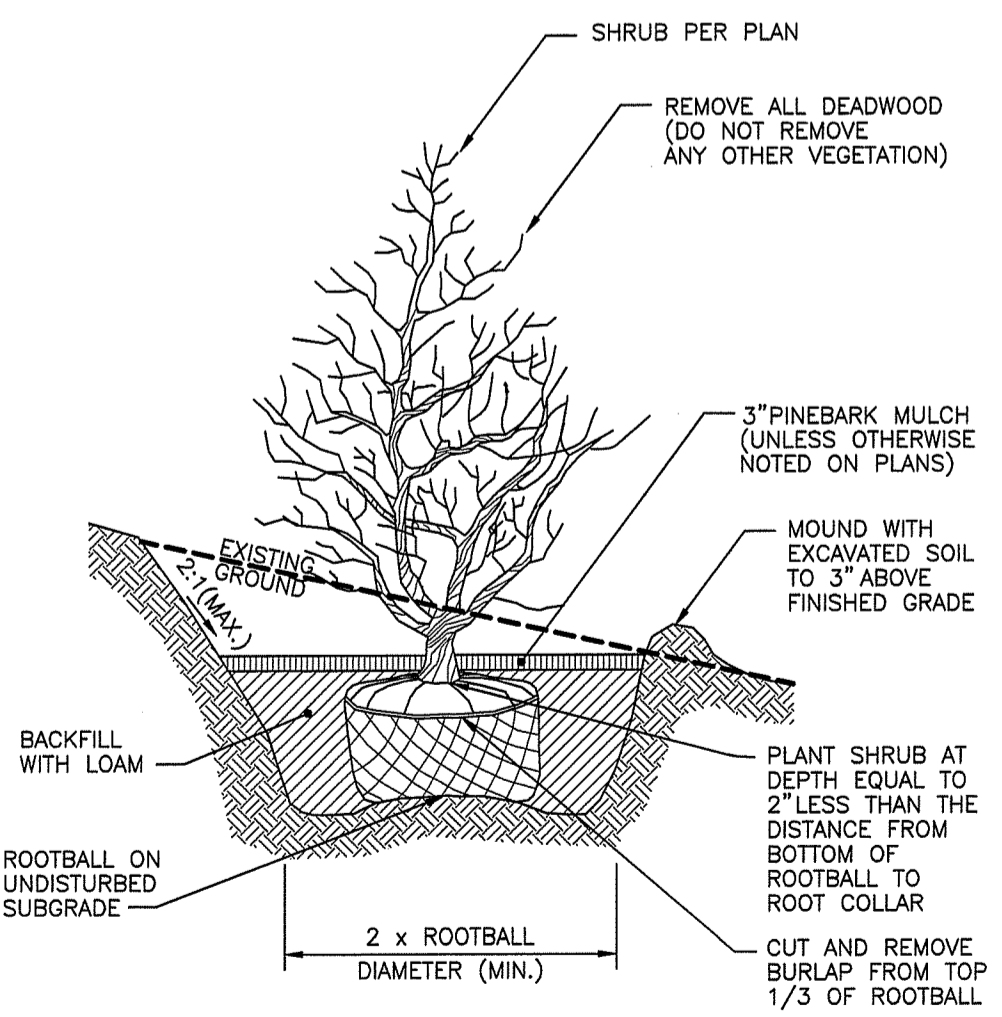


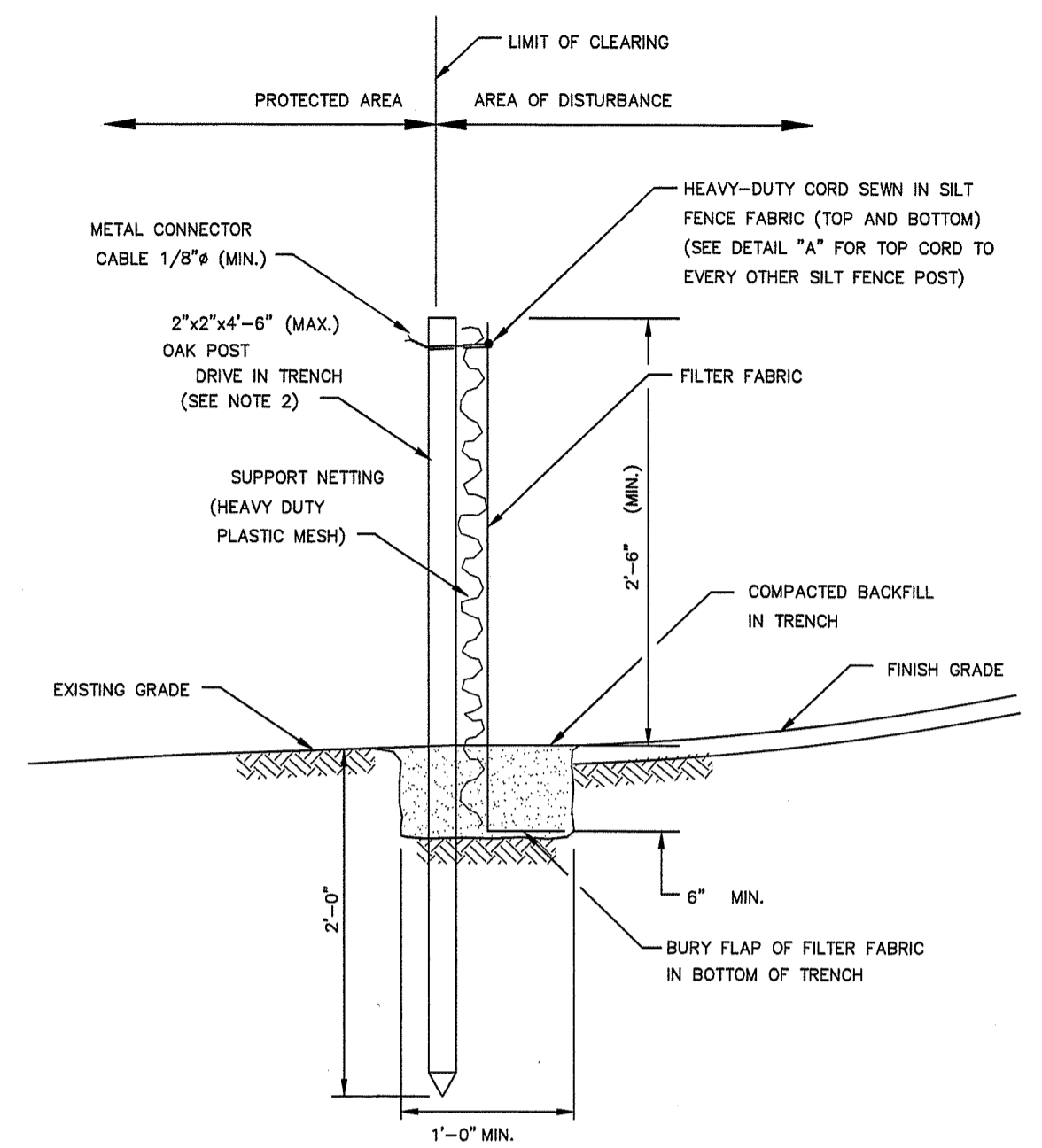
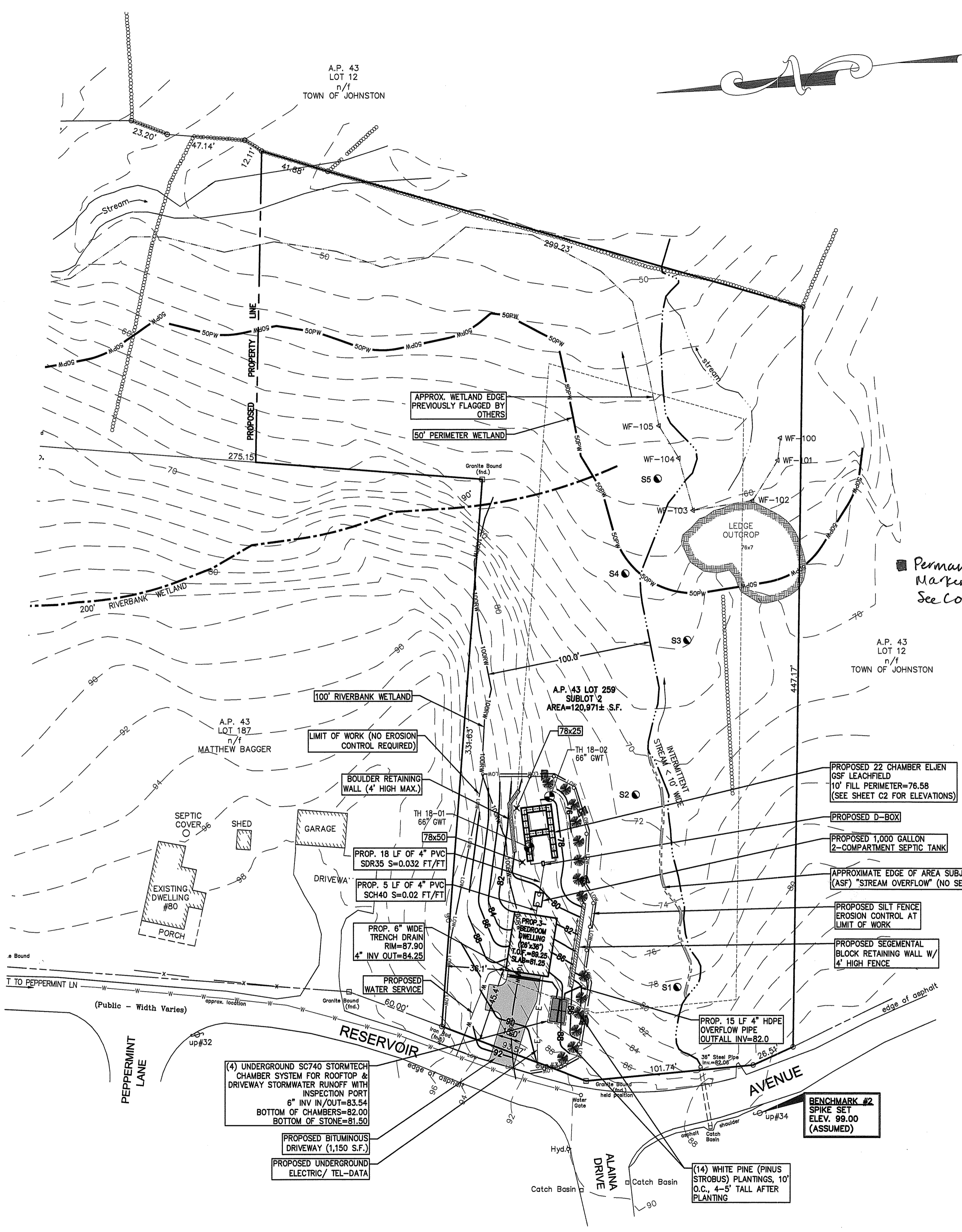
**Locus Map**  
N.T.S.



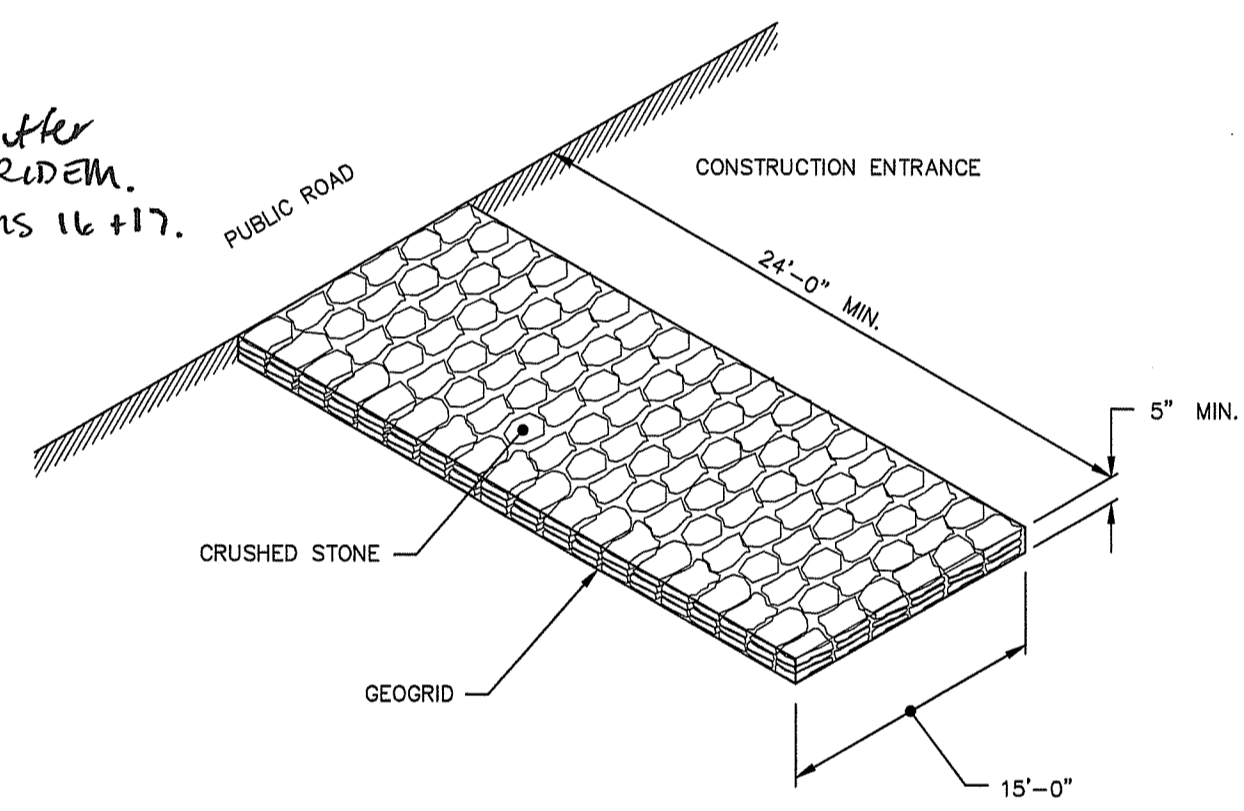
**Evergreen Tree Planting Detail**  
NOT TO SCALE



**Shrub Planting on Slope Detail**  
NOT TO SCALE



**Silt Fence Detail**  
NOT TO SCALE



**Construction Access**  
NOT TO SCALE

**Water Quality Calculation**

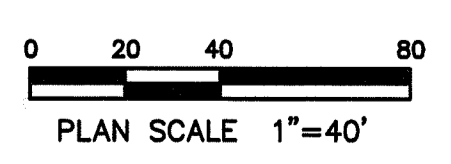
ROOFTOP = 940 S.F. X 1/12 = 79 CUBIC FEET  
 DRIVEWAY = 1,150 S.F. X 1/12 = 96 CUBIC FEET  
 TOTAL WATER QUALITY VOLUME = 175 CUBIC FEET  
 VOLUME PER SC-740 STORMTECH CHAMBER WITH STONE = 75 CUBIC FEET  
 # OF CHAMBERS REQUIRED = 175 CUBIC FEET / 75 CUBIC FEET = 2.33 = 3 CHAMBERS  
 # OF CHAMBERS PROVIDED = 4  
 TOTAL STORAGE PROVIDED = 300 CUBIC FEET

ZONING	
R-40	
MINIMUMS	
Area	40,000 S.F.
Frontage/Width	140 Ft.
MAXIMUMS	
Lot Coverage	15%
Building Height	35 Ft.
SETBACKS	
Front	40 Ft.
Side	35 Ft.
Rear	75 Ft.

**LEGEND**

- 400 --- EXISTING CONTOUR
- TEST PIT / SOIL EVALUATION
- 335 --- PROPOSED CONTOUR
- PERIMETER EROSION CONTROL
- T.F. TOP ELEV. OF FOUNDATION
- SLAB TOP ELEV. OF CONC. SLAB
- LOCATION OF WETLAND BIOLOGIST SOIL PROBE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 DWS & FRESHWATER WETLANDS  
 JOINT PERMIT APPROVAL  
 DWS# 18160650 FWW# 19-0023  
 APPROVED: [Signature] DATE 6/4/19  
 No Changes Allowed Without RIDEM Approval  
 Approved Plans/Permit Must Be Kept at Construction Site



- General Notes:**
- PROPERTY LINE, EXISTING CONDITIONS, AND TOPOGRAPHY SHOWN ON THIS PLAN WAS PREPARED BY CANAVAN & ASSOCIATES, INC. OF SMITHFIELD, RI.
  - WETLAND FLAGS WF-100 TO WF-105 WERE FIELD DELINEATED BY MASON & ASSOCIATES, INC. ON 11/12/18.
  - THE CONTRACTOR SHALL NOTIFY DIG-SAFE 72 HOURS PRIOR TO START OF CONSTRUCTION.
  - EROSION CONTROL MEASURES SHOWN ON THIS PLAN ARE TO BE CONSIDERED THE MINIMUM REQUIREMENT FOR CONTROLS. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO INSTALL AND MAINTAIN ADDITIONAL EROSION CONTROLS AS REQUIRED DURING CONSTRUCTION TO MITIGATE SEDIMENT RUNOFF AND PROVIDE FOR SLOPE PROTECTION.

**OnSite Wastewater Treatment System Notes**

- ALL DESIGN, CONSTRUCTION, AND MAINTENANCE REQUIREMENTS, WHETHER NOTED HEREON OR NOT, SHALL BE IN CONFORMANCE WITH RULES AND REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, JANUARY 1, 2008 AND ALL AMENDMENTS, BY THE RHODE ISLAND DEPT. OF ENVIRONMENTAL MANAGEMENT.
- STRIP LEACHING AREA AND EXCAVATE DOWN TO ELEVATION 74.0 AT TRENCH LOCATIONS ONLY (IF SOILS ALLOW) AND REPLACE WITH GRAVEL AS SPECIFIED IN RIDEM REGULATIONS.
- INSTALLER MUST ASSURE THAT BOTTOM AND SIDES OF EXCAVATION FOR THE LEACHFIELD ARE NOT COMPACTED OR SNEARED.
- ALL TREES, STUMPS, AND BRUSH SHALL BE REMOVED WITHIN 10 FEET OF THE SYSTEM.
- MAINTAIN INVERT ELEVATION OF 76.58 FOR 10 FEET AROUND SYSTEM.
- THERE ARE NO KNOWN PRIVATE WELLS OR DRAINS EXIST, OR PROPOSED LOCATED WITHIN 200 FEET OF THE OWTS EXCEPT AS SHOWN AND NO KNOWN PUBLIC WELLS (EXIST. & PROP.) LOCATED WITHIN 500 FEET OF THE PROPOSED OWTS.
- THERE ARE NO KNOWN SUBSURFACE DRAINS, EXISTING OR PROPOSED, WITHIN 50 FEET OF THE PROPOSED OWTS.
- ALL PVC PIPE SHALL BE 4" DIA. SDR 35 OR EQUIVALENT, UNLESS NOTED OTHERWISE.
- THE SEPTIC TANK SHALL HAVE TEES ON BOTH THE INLET AND OUTLET AND SHALL BE A TWO (2) COMPARTMENT TANK WITH THE 1ST COMPARTMENT CONSISTING OF 2/3 TANK CAPACITY.
- THE DISTRIBUTION BOX SHALL HAVE A MINIMUM BOTTOM AREA OF 3 SQUARE FEET.
- NO VEHICULAR TRAFFIC IS ALLOWED OVER THE LEACHFIELD.
- THE INSTALLER SHALL CONTACT THE DESIGN OF RECORD AT LEAST 24 HOURS PRIOR TO START OF CONSTRUCTION.

**Advanced Civil Design, Inc.**  
 CIVIL ENGINEERS  
 88 PEEPTO ROAD  
 SCITUATE, RI 02857  
 PH: (401) 473-4404

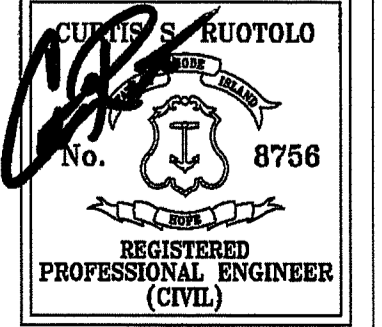
NO.	DATE	ADDRESS	RIDEM COMMENTS
1	5/2/19		

**Proposed Single Family Site Development Plan**  
 A.P. 43 LOT 259 SUBLOT 2  
 RESERVOIR AVENUE  
 JOHNSTON, RI

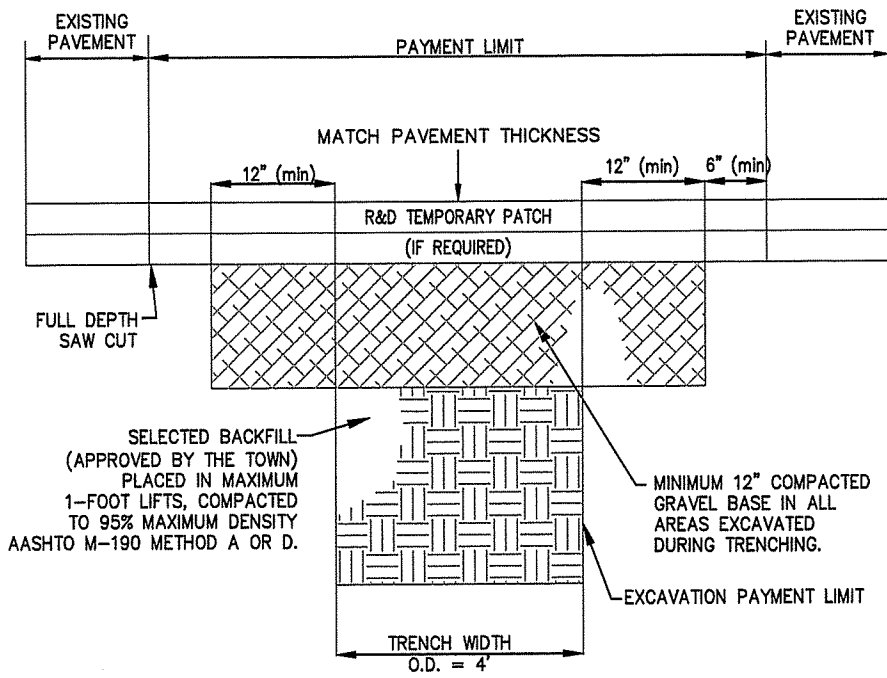
**SITE PLAN & DETAILS**

OWNER/APPLICANT:  
 A.G. REALTY, LLC  
 10 ORCHARD AVENUE  
 GREENVILLE, RI 02828

DATE: 1/15/2019  
 SCALE: 1"=40'  
 DESIGNED BY: C.S.R.  
 CHECKED BY: C.S.R.



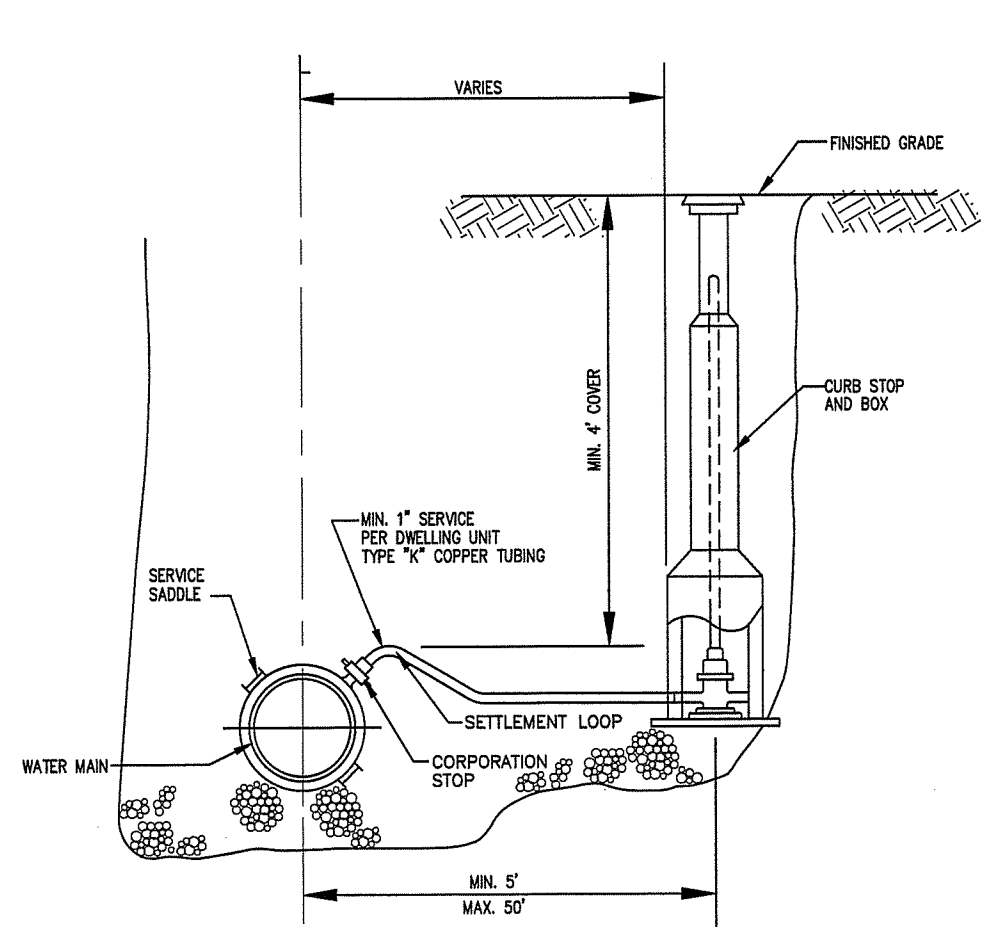
**C-1**



- NOTES:
- REMOVE AND DISPOSE OF TOP 1" OF SELECTED BACKFILL AND RE-COMPACT TOP OF TRENCH PRIOR TO SPREADING THE BASE COURSE.
  - EXISTING PAVEMENT SHALL BE SAW CUT BACK AN ADDITIONAL 6" TO PAYMENT LINE OR UNDISTURBED PAVEMENT, WHICHEVER IS GREATER.
  - TEMPORARY BITUMINOUS PAVEMENT, SELECTED BACKFILL AND UNSUITABLE MATERIAL SHALL BE REMOVED PRIOR TO PLACEMENT OF THE PERMANENT PAVEMENT.
  - ALL PREPARATION WORK SHALL BE APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO PLACEMENT OF THE PERMANENT PAVEMENT.
  - OR AS DIRECTED BY THE PUBLIC WORKS DIRECTOR.

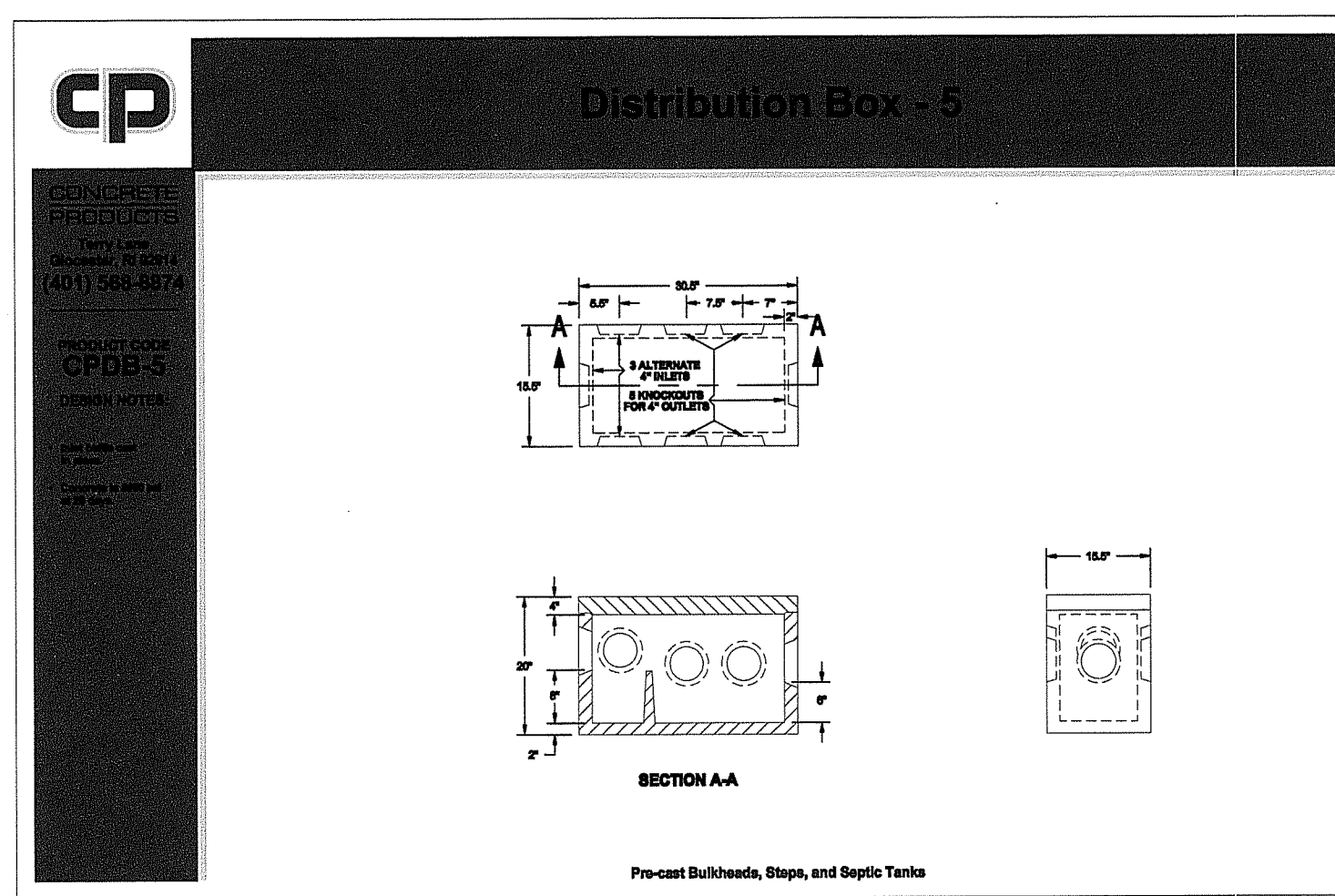
Pavement Restoration Detail

NOT TO SCALE



Typical Water Service Connection

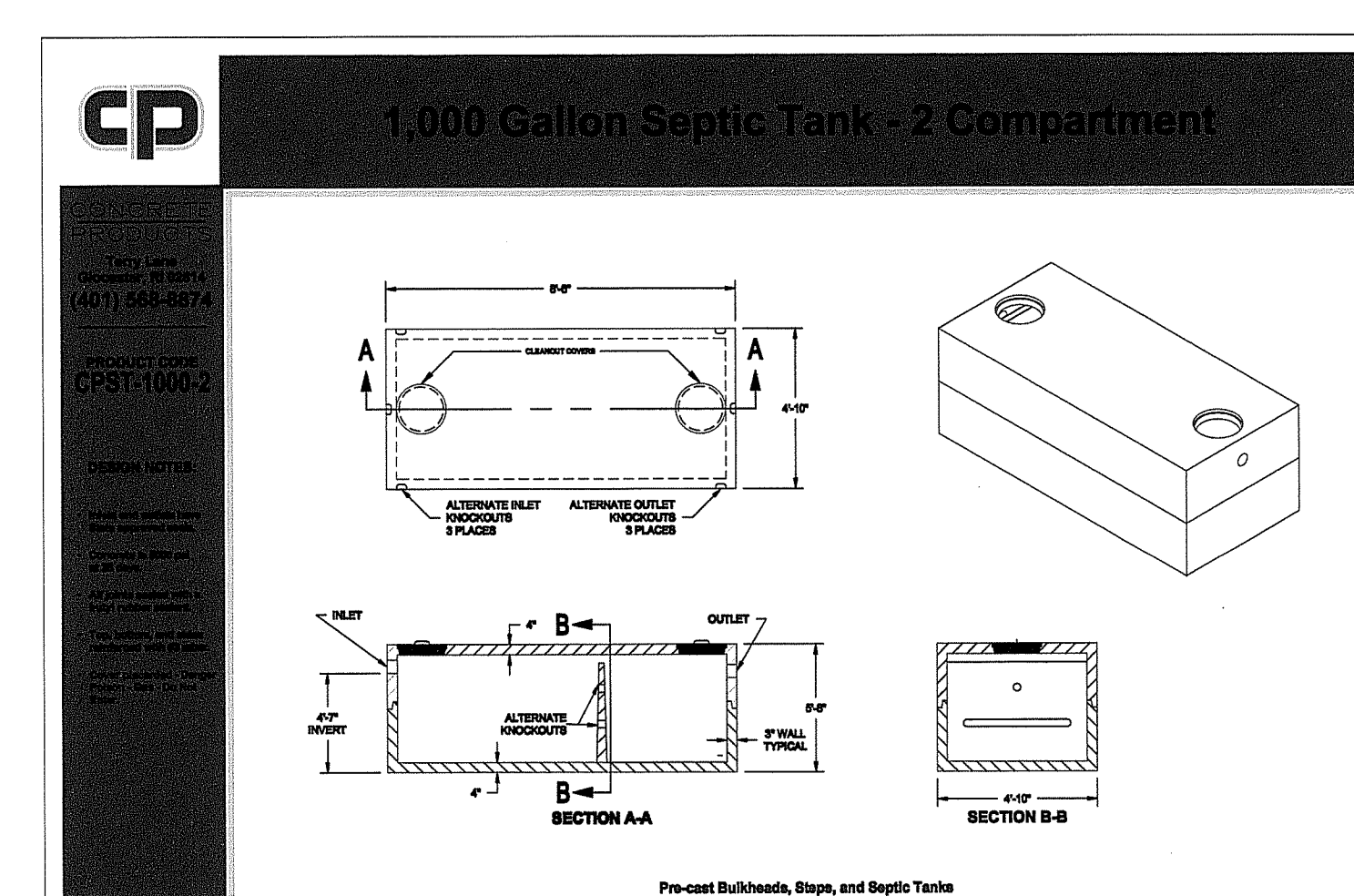
NOT TO SCALE



Distribution Box - 5

SECTION A-A

Pre-cast Bulkheads, Steps, and Septic Tanks



1,000 Gallon Septic Tank - 2 Compartment

SECTION A-A

SECTION B-B

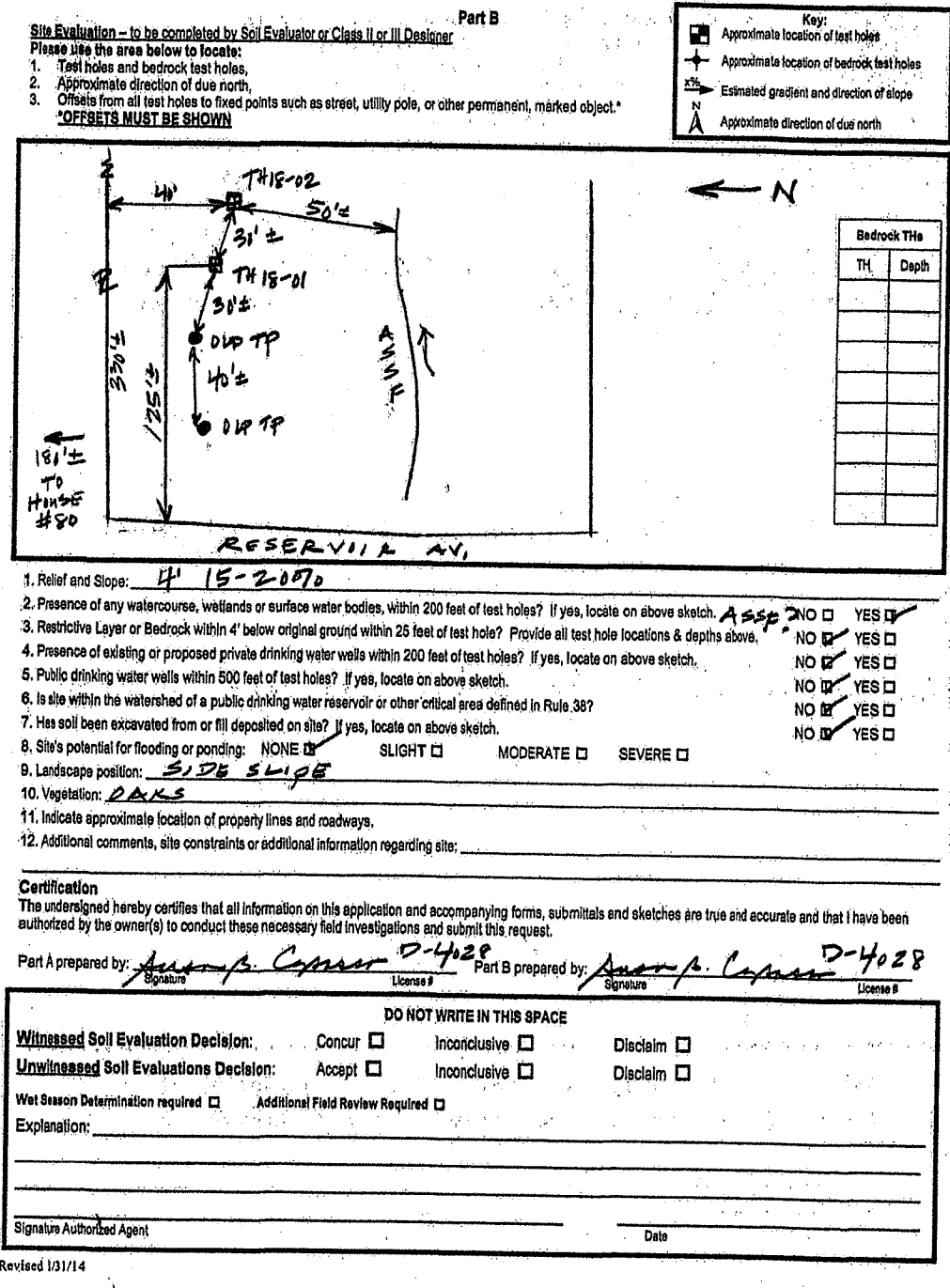
Pre-cast Bulkheads, Steps, and Septic Tanks

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
Department of Environmental Management  
Office of Water Resources  
Onsite Wastewater Treatment Systems Program

Site Evaluation Form  
Part A - Soil Profile Description Application Number 1816-0850

Property Owner: AL GUZZAROLI  
Property Location: 435 LOT 259A  
Date of Test: 6/12/18  
Soil Evaluator: SUELY CAPRICE  
Weather: SUNNY 65°

TL/CL Horizon	Depth	Horizon Boundaries	Soil Colors	Moist. Features	Ab. S. Contr.	Texture	Structure	Consistence	Soil Category
A	0-4"	C S	10YR 5/2			fsl	sl	vr	4
Bw	4-22"	C S	10YR 4/6			gsl	sh	fr	4M
Bc	22-32"	C W	2.5Y 4/6			gsl	sh	fr	3
C	32-100"	-	2.5Y 4/6			cmd	sl	fr	6

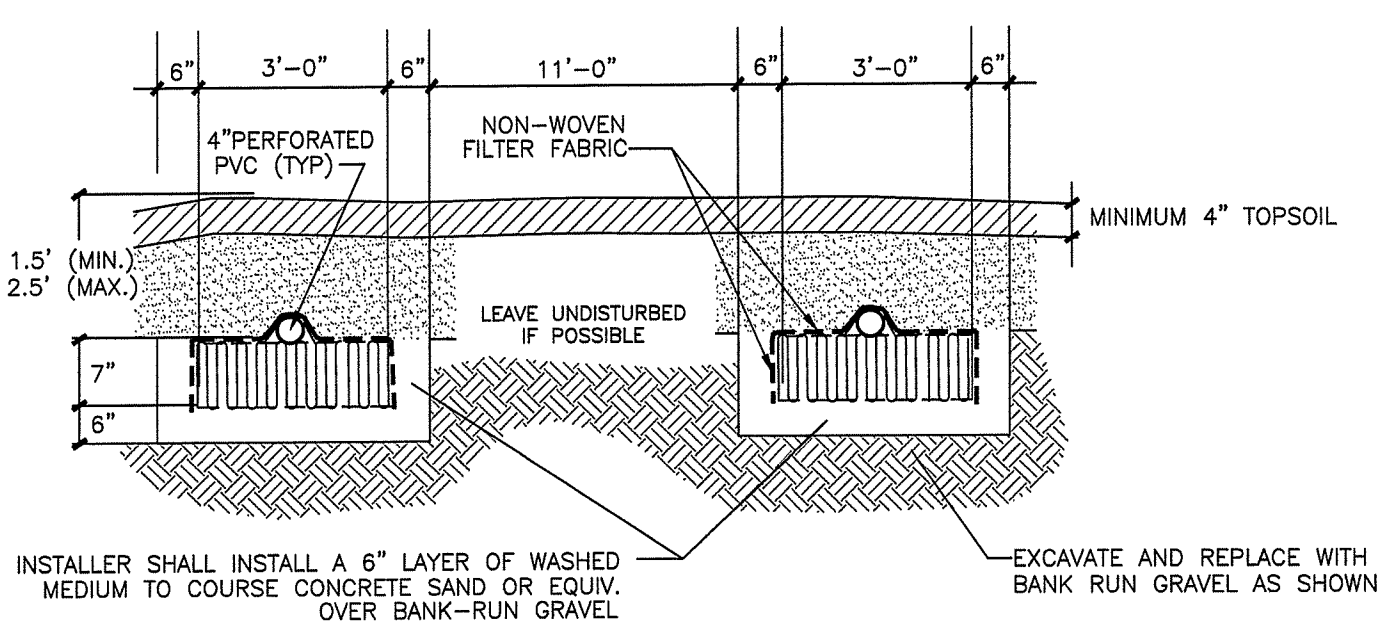


Soil Evaluation Log

NOT TO SCALE

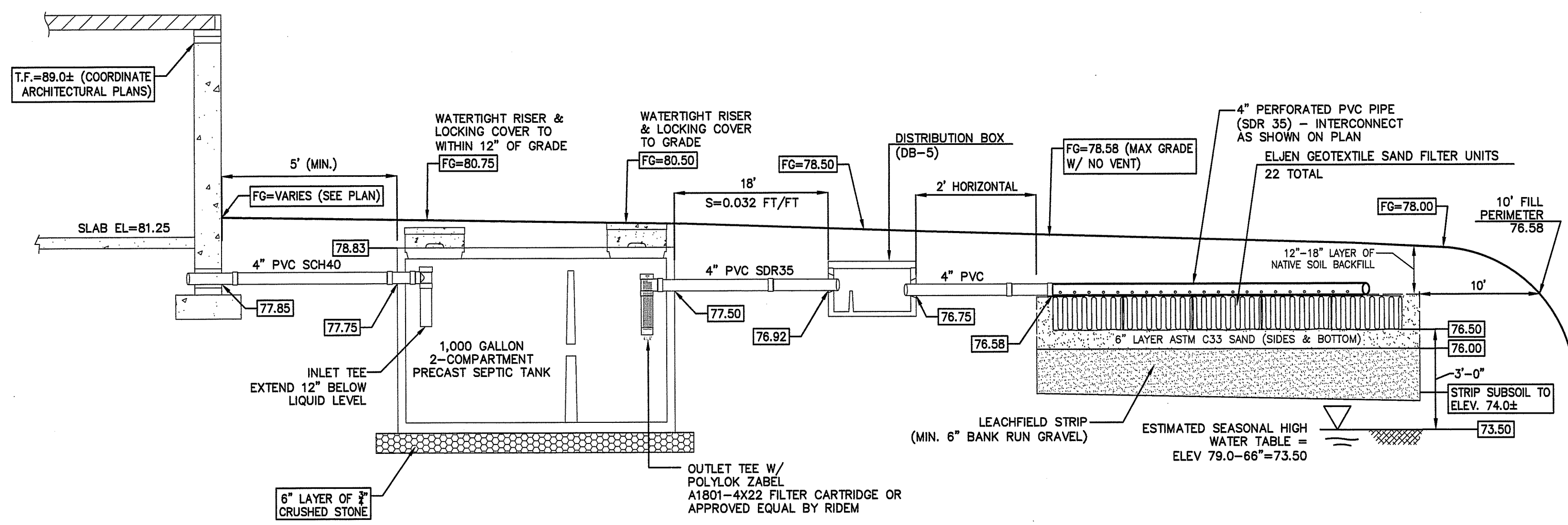
LEACHFIELD DESIGN CALCULATION

- 3 BEDROOMS X 115 GALLONS PER BEDR/DAY = 345 GALLONS PER DAY
- SOIL CATEGORY 6 = 0.61 GAL/S.F./DAY
- 345 GPD / 0.61 GAL/S.F./DAY = 566 S.F. LEACHING AREA REQUIRED
- 566 S.F. / 28 S.F. PER ELJEN UNIT = 21 ELJENS REQ'D
- TOTAL AREA PROVIDED = 22 CHAMBERS X 28 SF/EA = 616 S.F. LEACHING AREA PROVIDED



Eljen Geotextile Sand Filter (GSF) Cross Section

NOT TO SCALE



On-Site Wastewater Treatment System Profile

NOT TO SCALE

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: 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 SUBBASES MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (B LAYER) TO 1" (25 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASES MAY BE A PART OF THE 'C' LAYER.	AASHTO M148 A-1, A-2, A-3 OR AASHTO M87 3, 357, 4, 487, 5, 56, 67, 68, 7, 78, 8, 69, 9, 10	BEGIN COMPACTIONS AFTER 1" (25 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 4" (100 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 20,000 lbs (90 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (90 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M87 3, 357, 4, 487, 5, 98, 67	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M87 3, 357, 4, 487, 5, 98, 67	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. 1"

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 M87) 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:  
1. SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2822 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".  
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".  
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.  
4. 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.  
5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.  
6. ONCE LAYER 'C' IS PLACED, ANY SOL 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.

SC-740 STANDARD CROSS SECTION

DATE: 11/18/14  
DRAWN: JLM  
CHECKED: JLM

StormTech

ADS

SHEET 1 OF 1

Advanced Civil Design, Inc.  
CIVIL ENGINEERS  
88 PEEPTOAD ROAD  
RESERVOIR AVENUE  
JOHNSTON, RI 02857  
PH: (401) 473-4404

NO.	DATE	ADDRESS RIDEM COMMENTS	REVISION
2	4/15/19	ADDRESS RIDEM COMMENTS	

PROJECT:  
**Proposed Single Family Site Development Plan**  
A.P. 43 LOT 259 SUBLT 2  
RESERVOIR AVENUE  
JOHNSTON, RI

SHEET TITLE:  
**DETAILS**

OWNER/APPLICANT:  
A.G. REALTY, LLC  
10 ORCHARD AVENUE  
GREENVILLE, RI 02828

DATE: 1/15/2019  
SCALE: 1"=40'  
DESIGNED BY: C.S.R.  
CHECKED BY: C.S.R.

REGISTERED PROFESSIONAL ENGINEER (CIVIL)  
No. 8756  
C-2  
SHEET 2 OF 2