

**NOTES:**

- EXISTING CONDITIONS INFORMATION WAS COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY CHRIS PALMER ON JUNE 23, 2021.
- ELEVATIONS ARE REFERENCED TO NAD83.
- EXISTING UTILITY LINES SHOWN ON THIS PLAN ARE FROM AVAILABLE INFORMATION AND ARE APPROXIMATE LOCATIONS. THERE MAY BE EXISTING LINES OTHER THAN THOSE INDICATED. LAND DEVELOPMENT ENGINEERING & CONSULTING, LLC ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS, THE PROPER PUBLIC UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED.
- THIS PLAN AND ANY ACCOMPANYING CERTIFICATIONS DO NOT CONSTITUTE A CERTIFICATION OF TITLE TO THE PROPERTY DISPLAYED HEREON. THE OWNER OF LOCUS AND ADJUTING PROPERTIES ARE SHOWN ACCORDING TO CURRENT CITY ASSESSORS RECORDS.
- APPROXIMATE LOCATION OF INTERMITTENT STREAMS AND 100-YR FLOODPLAIN TAKEN FROM OWTS PLAN ENTITLED "PLAN SHOWING PROPOSED INDIVIDUAL SEWAGE DISPOSAL SYSTEM AND SITE IMPROVEMENTS" BY RICHARD A. GREENE & ASSOCIATES, INC. DATED JANUARY 2007 AND APPROVED AS PART OF APP. #9922-0928 ON 9/5/07.
- WETLAND AREAS SHOWN WERE DELINEATED ON 5/11/2021 AS PART OF WETLAND APP. #07-0093.

**GENERAL CONSTRUCTION NOTES**

- ALL OTHER DESIGN, CONSTRUCTION AND MAINTENANCE REQUIREMENTS WHETHER NOTED HEREON, OR NOT, SHALL BE IN CONFORMANCE WITH RULES & REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF INDIVIDUAL SEWAGE DISPOSAL SYSTEMS, NOVEMBER 25, 2018, BY THE RIDEM, WITH CHAPTER 42-35, CHAPTERS 42-17.1, 5-56, 5-56.1, 23-19.5, 23-24.3, 46-13.2, AND 23-19.15 OF THE GENERAL LAWS OF RI, 1956 (1977 RE-ENACTMENT) AS AMENDED.
- SEE OWTS SPECIFICATIONS SHOWN ON THIS PLAN SET.
- CLEAR ALL TREES AND STUMPS WITHIN 10' OF SYSTEM.
- THERE SHALL BE NO SUBSURFACE, FOUNDATION OR STORM DRAINS WITHIN 25' OF THE SYSTEM.
- COMPLY WITH ALL ADDITIONAL TERMS OF APPROVAL AS MAY BE REQUIRED BY RIDEM.
- TOPOGRAPHY AND SITE PLAN BASED ON LIMITED GROUND SURVEY PERFORMED BY CHRIS PALMER ON JUNE 23, 2021.
- BENCHMARK IS SET WITHIN 150' OF PROPOSED OWTS PRIOR TO CONSTRUCTION. (SEE SITE PLAN.)
- THERE ARE NO KNOWN EXISTING OR PROPOSED PRIVATE DRINKING WATER WELLS WITHIN 200' OF THE PROPOSED OWTS OR ALTERNATE AREA EXCEPT AS SHOWN.
- THERE ARE NO EXISTING OR PROPOSED PUBLIC WATER SUPPLY WELLS WITHIN 500' OF THE PROPOSED OWTS OR ALTERNATE AREA EXCEPT AS SHOWN.
- THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLAN ON-SITE AT ALL TIMES.
- SCHEDULE 40 PVC PIPE OR EQUAL FROM BUILDING TO SEPTIC TANK.
- THE PROPOSED SEPTIC TANK SHALL BE PROVIDED WITH A PVC INLET TEE AND A SCREENED PUMP VAULT IN THE OUTLET END. AN ACCESS RISER SHALL BE INSTALLED DIRECTLY ABOVE THE INLET TEE AND BALL VALVE, AND THE SCREENED PUMP VAULT.
- THE SEPTIC TANK SHALL BE A WATERTIGHT, 1500 GAL. 2-COMPARTMENT TANK WITH 24" DIAMETER INLET AND OUTLET ACCESS RISERS. RISERS SHALL BE PVC WITH SECURED FIBERGLASS LID. IF CONCRETE TANK IS USED, ABS TANK ADAPTOR SHALL BE CAST INTO PLACE. TANK SHALL BE VACUUM TESTED WHEN CONSTRUCTED OR WATER TESTED/VACUUM TESTED ON SITE.
- THE CONTRACTOR MUST FOLLOW ALL ITEMS CIRCLED IN THE LOWER RIGHT HAND AREA OF THE OWTS APPLICATION LABELED--IMPORTANT AND NOTIFY ENGINEER DURING THE DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS (AS REQUIRED BY DEM).
- THE CONTRACTOR MUST NOTIFY LICENSED DESIGNER 48 HOURS PRIOR TO START OF CONSTRUCTION WITH VALID INSTALLERS LICENSE NUMBER. DESIGNER MUST NOTIFY DEM 24 HOURS PRIOR TO START OF CONSTRUCTION IN ACCORDANCE WITH SD 27.00 (g).
- IF CONTRACTOR ENCOUNTERS UNANTICIPATED CONDITIONS DURING CONSTRUCTION WHICH INDICATE THAT THE SYSTEM CANNOT BE INSTALLED IN ACCORDANCE WITH THE APPROVED DESIGN, INSTALLER SHALL STOP CONSTRUCTION AND NOTIFY THE LICENSED DESIGNER RESPONSIBLE FOR WITNESSING AND INSPECTING THE INSTALLATION.
- THE LICENSED DESIGNER SHALL WITNESS AND INSPECT ALL ASPECTS OF THE INSTALLATION, KEEP RECORDS, PREPARE THE CERTIFICATE OF COMPLETION AND PROVIDE O & M INFORMATION AND RECOMMENDATIONS TO THE OWNER.
- THE DESIGNER IS NOT RESPONSIBLE FOR ANY NEGLIGENT ACT OF OMISSION OF A USER OF AN OWTS, INCLUDING BUT NOT LIMITED TO, FAILURE TO PROPERLY USE AND MAINTAIN THE SYSTEM, WHICH CAUSES DAMAGE TO THE OWTS.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- THE ADVANTEX AX TREATMENT SYSTEM CONSISTS OF A PACKED BED FILTER THAT USES SPECIALLY DESIGNED TEXTILE MATERIALS WITHIN A PRE-ASSEMBLED UNIT.
- SMALL DIAMETER, PRESSURIZED PVC PIPE SHALL BE SCHEDULE 40 OR EQUAL, WITH SOLVENT WELDED CONNECTIONS.
- CONTRACTOR TO NOTIFY ENGINEER DURING DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS (AS REQUIRED BY DEM).
- BOTTOMLESS SAND FILTER MEDIA: SHALL BE HOLLISTON SAND & GRAVEL 0-DAMP SAND. LESS THAN 1% PASSING THE NO. 200 SIEVE WITH AN EFFECTIVE SIZE OF .30 MM AND WITH A UNIFORMITY COEFFICIENT OF 3.0-4.0. (HOLLISTON SAND & GRAVEL: 401-766-5010) CONTRACTOR TO SUPPLY ENGINEER W/SAMPLES OF ALL MEDIA TO BE USED IN THE SAND FILTER. CONTRACTOR SHALL ALSO SUPPLY ENGINEER WITH SIEVE ANALYSIS SHOWING THAT THE FILTER MEDIA MEETS THE CRITERIA AS SHOWN ON THE PLAN.
- ALL TANKS AND APPURTENANCES SHALL BE CONSTRUCTED SUCH THAT ALL ELEMENTS ACT AS A SINGLE WATERTIGHT UNIT & SHALL BE CONSTRUCTED ACCORDING TO ASTM STANDARD C-1227-97A OR ANY SUPERCEDING UPGRADING OF THIS STANDARD. ALL RISER ADAPTORS SHALL BE CAST IN PLACE DURING TANK MANUFACTURING. ALL INLETS AND OUTLETS SHALL BE CAST IN PLACE WITH CAST-A-SEAL.
- FOR PUMP SPECIFICATIONS REFER TO NOTES BELOW.
- ALL PUMPS SHALL BE EQUIPPED WITH A HIGH WATER LEVEL VISIBLE AND AUDIBLE ALARM POWERED BY A CIRCUIT SEPARATE FROM THE PUMP POWER. THE ALARM SHALL BE LOCATED IN A NORMALLY OCCUPIED AREA OF THE FACILITY OR SHALL BE INSTALLED AS SHOWN ON THE SITE PLAN.
- EXISTING SEPTIC TANK, CESSPOOL (IF APPLICABLE) SHALL BE PUMPED, CRUSHED AND BACKFILLED WITH CLEAN SOIL IN ACCORDANCE WITH RULE 6.56. EFFLUENT
- PIPE SHALL BE CUT & CAPPED.
- THE CONTRACTOR SHALL PROVIDE DESIGNER WITH MATERIAL RECEIPTS FOR ALL CONSTRUCTION MATERIALS PRIOR TO DESIGNER ISSUING CERTIFICATE OF CONSTRUCTION.
- GROUNDWATER TABLE WAS DETERMINED BY A SOIL EVALUATION PERFORMED BY ECO-SYSTEMS SOLUTION, INC. ON 2/23/2021.
- CONTRACTOR TO COMPACT SOIL BENEATH ALL PRESSURE AND GRAVITY LINES.
- CONTRACTOR TO COORDINATE START-UP WITH MAINTENANCE CONTRACTOR, ELECTRICIAN, AND ENGINEER PRIOR TO COMPLETION.
- GROUNDWATER TABLE FLUCTUATES ANNUALLY. NO GUARANTEE OF A DRY BASEMENT IS EXPRESSED OR IMPLIED.
- THE OWTS IS NOT DESIGNED TO ACCOMMODATE A GARBAGE DISPOSAL.
- ALL APPLICANTS OBTAINING AN OWTS PERMIT FOR A RIDEM APPROVED ALTERNATIVE OR EXPERIMENTAL TECHNOLOGY REQUIRING SPECIAL OPERATION AND MAINTENANCE PROCEDURES SHALL: A) FILE A COPY OF THE INITIALLY EXECUTED CONTRACT FOR THE OWTS'S OPERATION AND MAINTENANCE, (INCLUDING ALL REQUIRED MAINTENANCE PROCEDURES AND MONITORING SCHEDULES) WITH THE LAND EVIDENCE RECORDS OF THE MUNICIPALITY IN WHICH THE OWTS IS LOCATED, AND B) SUBMIT TO THE DEPARTMENT A CERTIFIED COPY OF THE RECORDED PERMIT SETTING FORTH THE DATE OF THE RECORDATION AND THE BOOK AND PAGE WHERE THE PERMIT IS LOCATED IN THE RECORDS OF THE MUNICIPAL LAND EVIDENCE OFFICE.

**DESIGN CALCULATIONS**

APPLICATION: NEW CONSTRUCTION  
 TYPE OF ESTABLISHMENT: RESIDENTIAL  
 PROPOSED 4 BEDROOM RESIDENCE

**DESIGN FLOW**  
 4 BEDROOMS x 115 GPD/BDRM = 460 GPD

**SEPTIC TANK**  
 PROPOSED 2-COMPARTMENT 1,500 GAL. SEPTIC TANK (SEE SHEET 2)

**SIZE OF LEACHING FACILITY**  
 DESIGN GROUNDWATER ELEVATION = 104.5± (18" BELOW EXIST. GROUND)  
 USE BOTTOMLESS SAND FILTER PER RIDEM (CLASS 9)  
 DESIGN LOADING RATE = 1.5 GAL./DAY/S.F. (CLASS 9)  
 460 GPD / 1.5 GPD/SF = 307 SF (USE 20.5'L x 15'W BSF)

SEE SHEET 2 FOR SYSTEM COMPONENTS & SPECIFICATIONS  
 NOTE: SYSTEM HAS NOT BEEN DESIGNED FOR USE WITH A GARBAGE GRINDER.

**LEGEND**

- EXISTING**
- PROPERTY LINE
  - TOPOGRAPHIC CONTOUR
  - SEWER MANHOLE
  - WATER GATE
  - DRAIN PIPE
  - OVERHEAD WIRES
  - TEST PIT
  - TREE
  - STONE WALL
- PROPOSED**
- TOPOGRAPHIC CONTOUR
  - SPOT ELEVATION
  - SEWER SERVICE
  - WATER SERVICE
  - ELECTRIC/TELEPHONE/ CABLE TV SERVICE

**STORMWATER BEST MANAGEMENT PRACTICES**

**REGULATION REFERENCE:**  
 STATE OF RHODE ISLAND STORMWATER MANAGEMENT GUIDANCE FOR SINGLE-FAMILY RESIDENTIAL LOT DEVELOPMENT. RICRMP SECTION 300.6

**WATER QUALITY VOLUME (WQV)**  
 DWELLING AREA = 660 S.F.  
 DRIVEWAY = 694 S.F.  
 TOTAL NEW AREA = 1,354 S.F. (TOTAL IMPERVIOUS AREA)  
 WQV = 1" x (1/2) x 1,354 S.F. = 113 C.F. (REQ'D)

**BMP'S UTILIZED:**

**RAIN GARDEN SIZING GUIDANCE PER REGULATION:**  
 TABLE 8: SURFACE AREA REQUIRED SILTY SOILS

RAIN GARDEN = 6" DEEP (SEE DETAIL)  
 DRAINAGE AREA SIZING = 250 S.F. / 1000 S.F. (DRAINAGE AREA)

RAIN GARDEN-1 AREA REQUIRED (DWELLING) = (660 / 1,000) x 250 S.F. = 165 S.F.  
 RAIN GARDEN-2 AREA REQUIRED (DRIVEWAY) = (694 / 1,000) x 250 S.F. = 174 S.F.

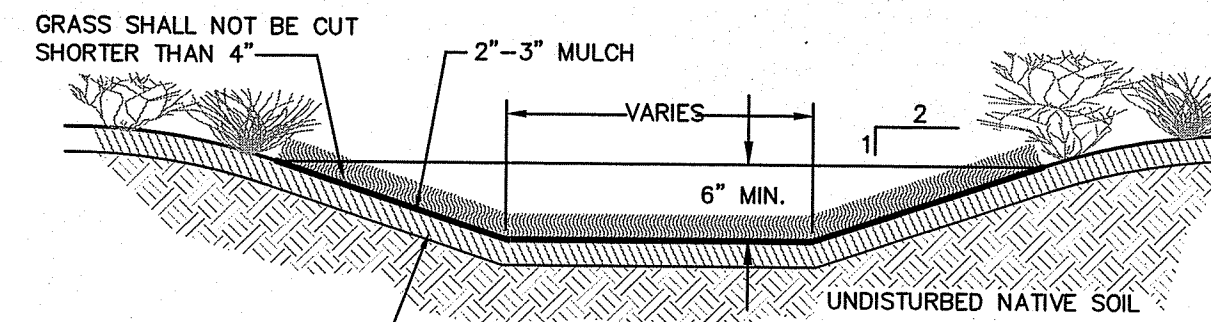
**RAIN GARDEN:**  
 RAIN GARDEN-1 SURFACE AREA = 179 S.F. > 165 S.F. (REQUIRED)  
 DRAINAGE AREA PROVIDED = (179 / 250) x 1,000 S.F. = 716± S.F.

RAIN GARDEN-2 SURFACE AREA = 178 S.F. > 174 S.F. (REQUIRED)  
 DRAINAGE AREA PROVIDED = (178 / 250) x 1,000 S.F. = 704± S.F.

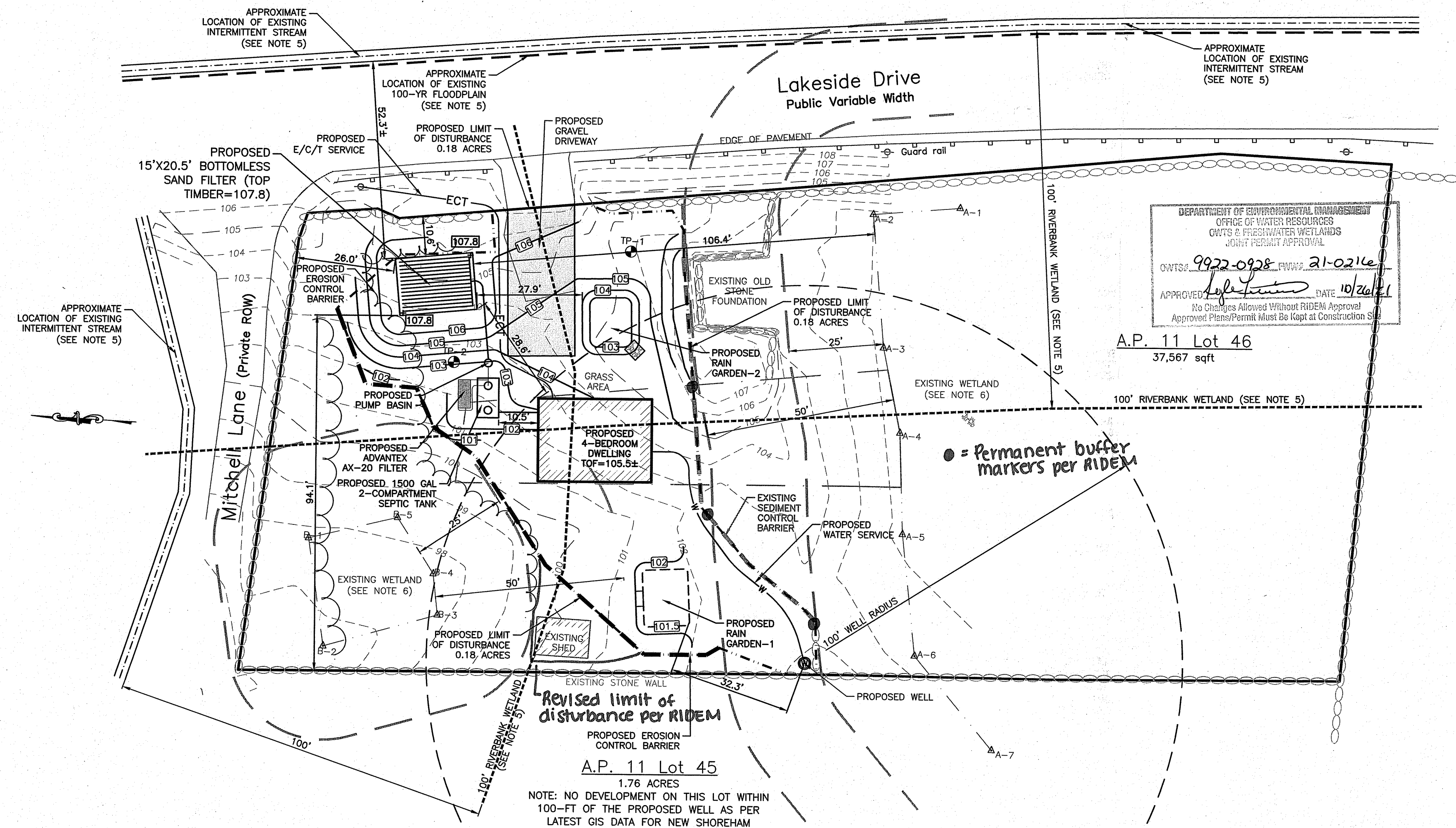
**WATER QUALITY VOLUME (WQV) PROVIDED:**

RAIN GARDEN-1 (6" DEEP) = (716 x 0.5) = 358 C.F.  
 RAIN GARDEN-2 (6" DEEP) = (704 x 0.5) = 352 C.F.  
 = 710 C.F.

TOTAL WQV = 710 C.F. (PROVIDED) > 113 C.F. (REQ'D)



**RAIN GARDEN CROSS SECTION DETAIL**  
 NOT TO SCALE



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
 Department of Environmental Management  
 Office of Water Resources Division  
 Wastewater Treatment System Program  
 Site Evaluation Form  
 Part A - Soil Profile Description Application Number 9922-0928

Property Owner: Peter Williams & Desiree Williams  
 Property Location: 1346 Lakeside Drive, A.P. 11, Lot 46, New Shoreham  
 Date of Test Hole: 5/11/2021  
 Soil Evaluator: B. Faneur License Number: 04069  
 Weather: 60° F, Mostly Sunny Shaded: Yes  No  Time: 12:00pm

TH 1 Horizon	Depth	Horizon Boundaries			Soil Colors		Re-Dox	Ab. S. Contr.	Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features							
A	0-8	A	S	10YR 3/2	-	-	-	-	sl	1fak	vr	4
Bwb	8-18	C	W	10YR 5/4	-	-	-	-	sl	1fak	fr	3
C	18-28	C	W	2.5Y 5/3	10YR 5/6	c / 2 / d	-	-	sl	0ma	fr	6
Cd	28-96	-	-	5Y 6/1	-	-	-	-	gsl	0ma	fr	9M

TH 2 Horizon	Depth	Horizon Boundaries			Soil Colors		Re-Dox	Ab. S. Contr.	Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features							
A	0-6	A	S	10YR 3/2	-	-	-	-	sl	1fak	vr	4
Bw	6-24	C	W	10YR 5/6	-	-	-	-	sl	1fak	fr	3
C	24-70	C	S	2.5Y 4/2	10YR 5/6	c / 2 / d	-	-	sl	0ma	fr	6
2C	70-96	-	-	5Y 4/1	-	-	-	-	fs	0sg	loose	1

TH 1 Soil Class: See Below Total Depth: 96" ImperVIOUS/Limiting Layer Depth: (log) GW Seepage Depth: 42" SHWT: 18" (log)  
 TH 2 Soil Class: Lodgment Total Depth: 96" ImperVIOUS/Limiting Layer Depth: (log) GW Seepage Depth: 46" SHWT: 24" (log)  
 Comments: TH1 Soil Class = Addition Till over Proglacial  
 M = Use of coarse fragment modifier

**LDEC**  
 Land Development Engineering & Consulting, LLC  
 680 Aquidneck Avenue  
 Middletown, RI 02842  
 T: 401-354-2050 F: 401-369-9775  
 WWW.SDE-LDEC.COM

RELOCATED BSF & RAIN GARDEN PER RIDEM COMMENTS

DATE: JULY 16, 2021

DRAWN BY: SJE DESIGN BY: SJE CHECK BY: MER

PROJECT NO. 21059

ISSUED FOR: PERMITTING

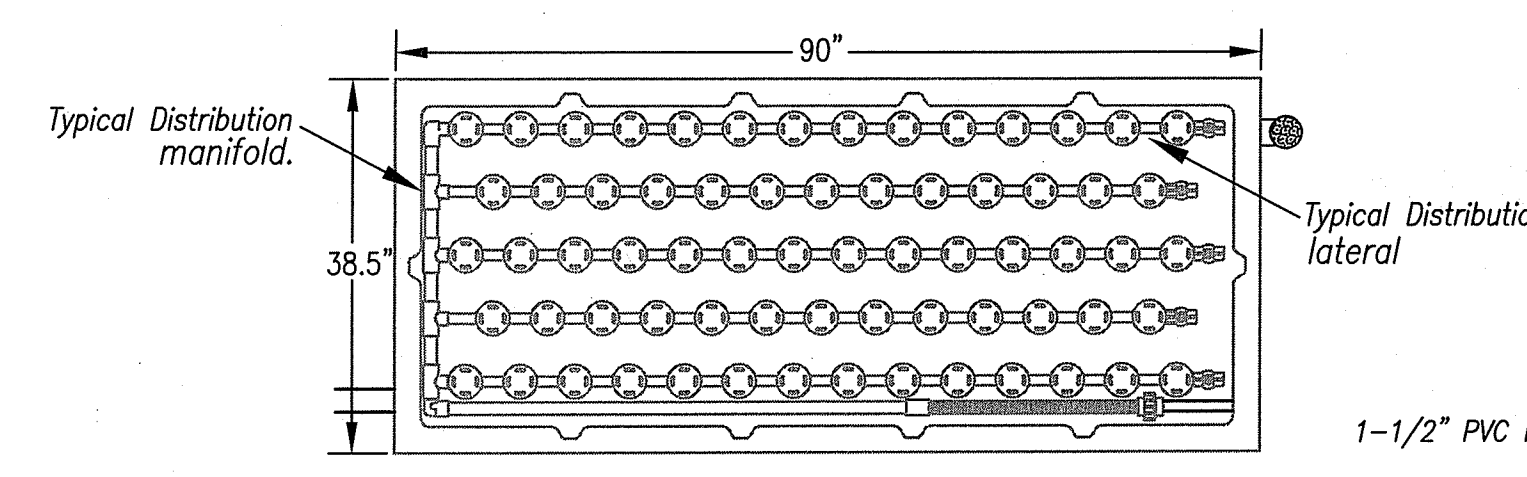
**MICHAEL E. RUSSELL**  
 No. 7956  
 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

**PROPOSED OWTS PLAN**  
 1346 LAKESIDE DRIVE  
 ASSESSOR'S MAP 11, PARCEL 46  
 NEW SHOREHAM, RHODE ISLAND  
 PREPARED FOR GARY A. HALL

DRAWING TITLE: **PROPOSED OWTS PLAN**

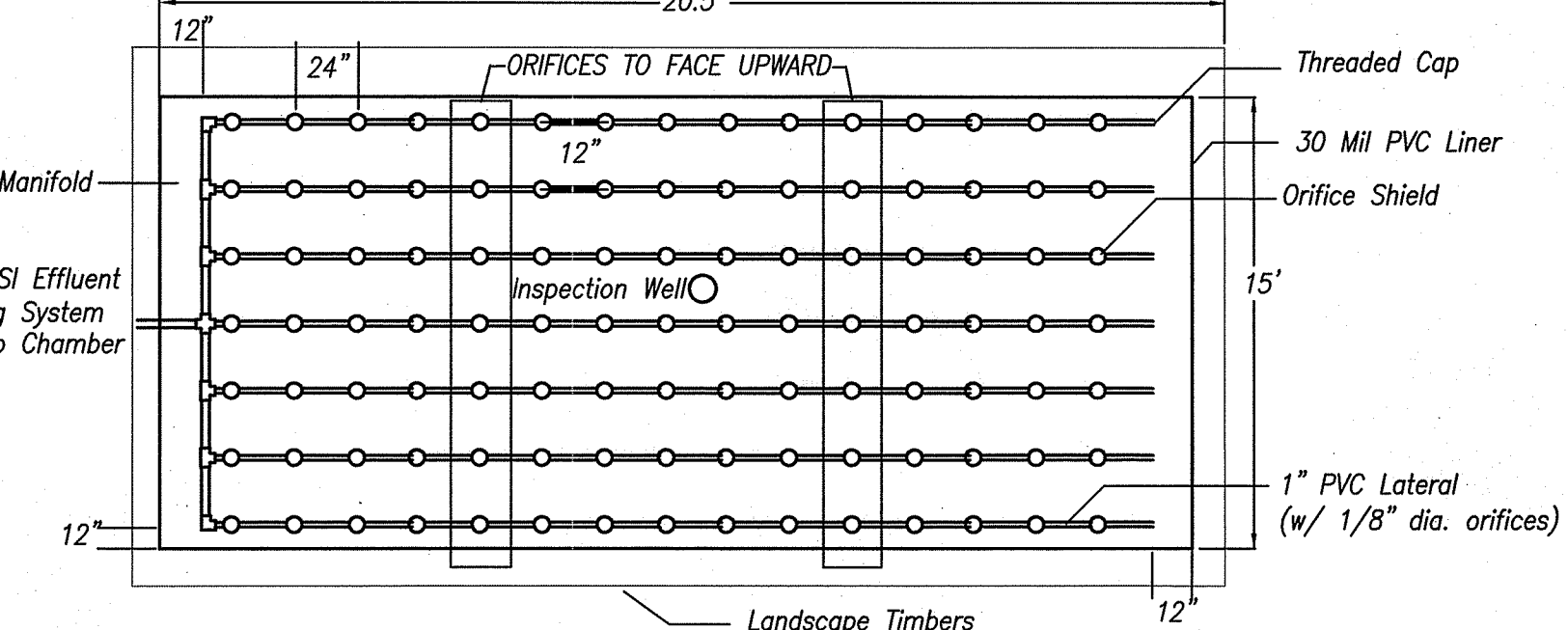
SCALE: 1" = 20'

SHEET NO. **1 OF 2**

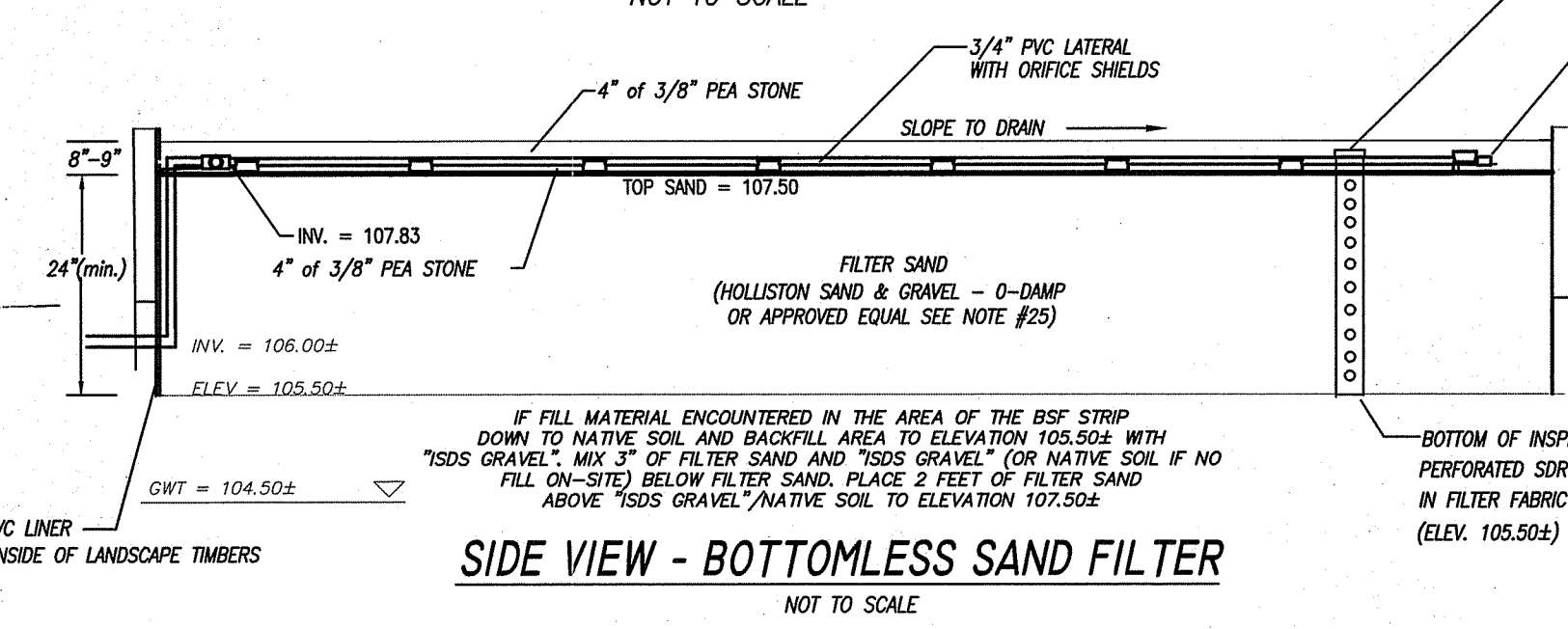


### 15'x20.5' Bottomless Sand Filter

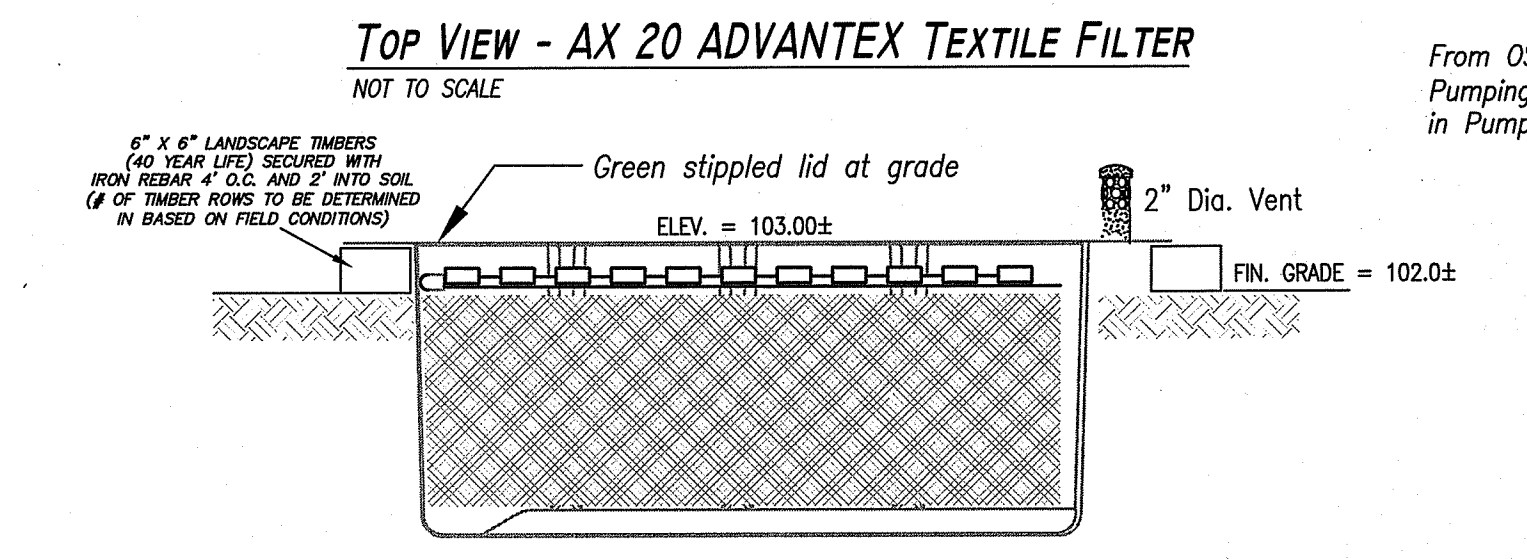
This drawing is for a 15'x20.5' bottomless sand filter. The dosing pump shall be an PEF33. Loaded at 1.5 gpd/sf, this filter can polish up to 461 gallons per day.



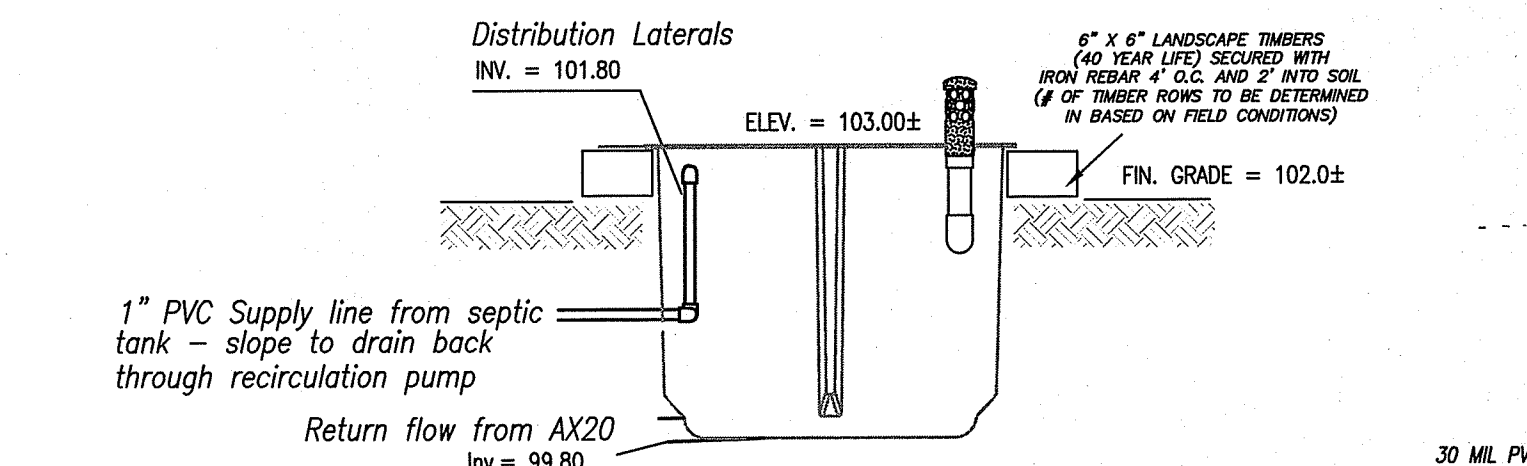
TOP VIEW - BOTTOMLESS SAND FILTER  
NOT TO SCALE



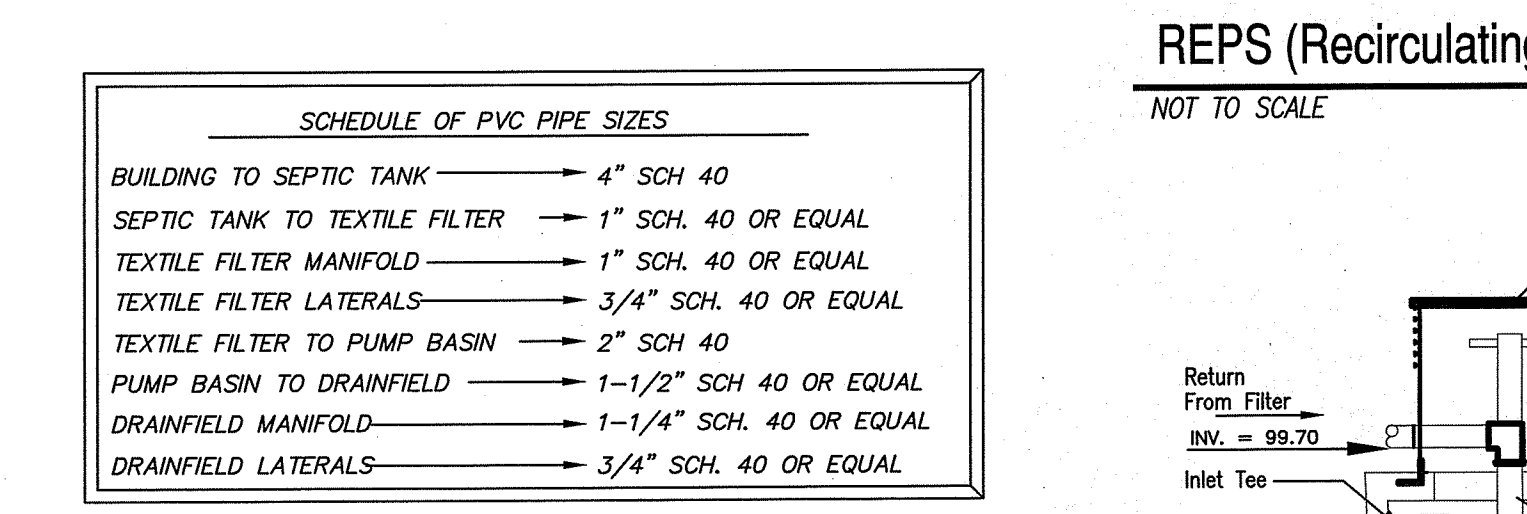
SIDE VIEW - BOTTOMLESS SAND FILTER  
NOT TO SCALE



TOP VIEW - AX20 ADVANTEX TEXTILE FILTER  
NOT TO SCALE

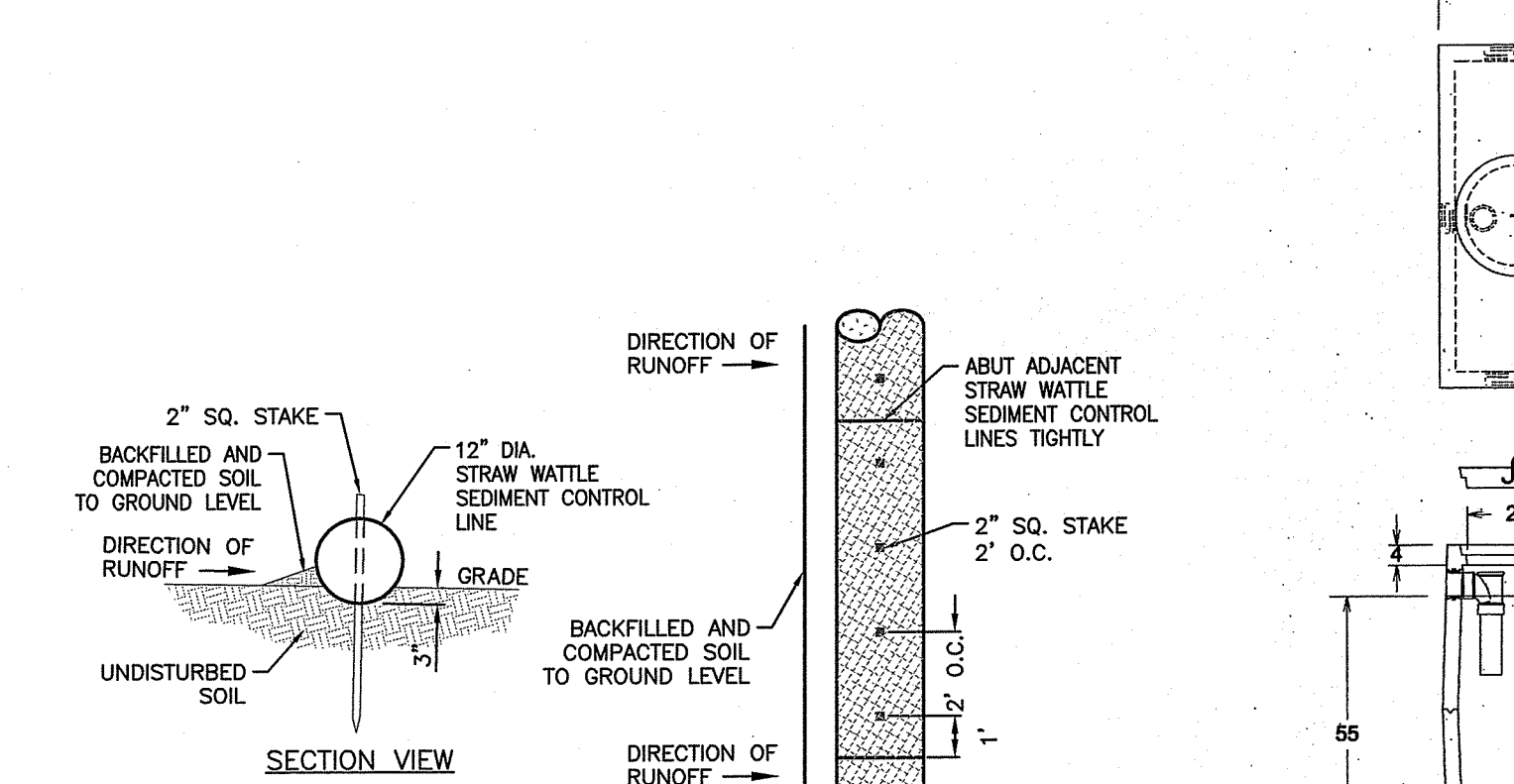


SIDE VIEW - AX20 ADVANTEX TEXTILE FILTER  
NOT TO SCALE

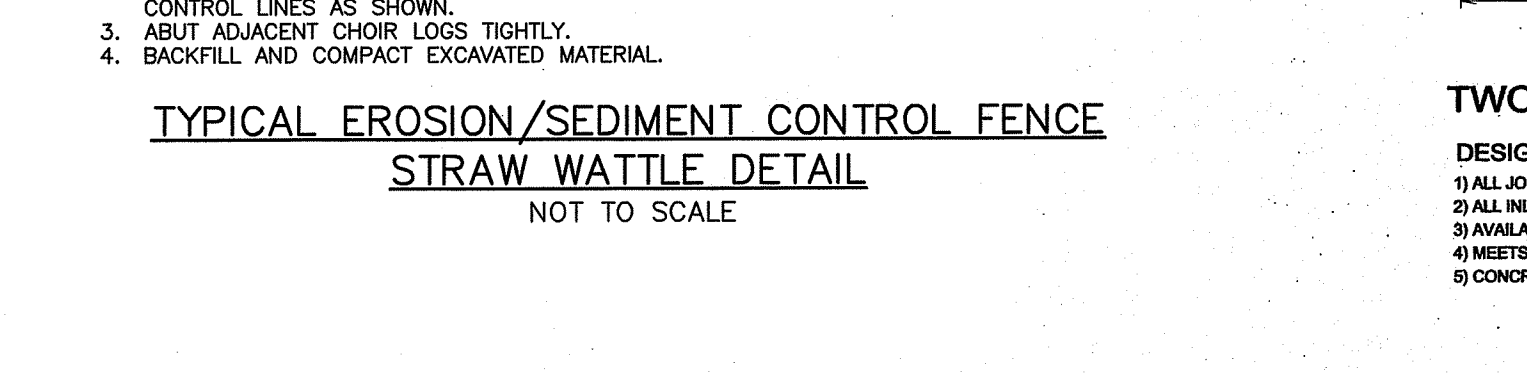


END VIEW  
NOT TO SCALE

LOCATION	ELEVATION
OUT OF HOUSE (EXISTING)	98.70± (GRAVITY)
INTO SEPTIC TANK	98.50 (GRAVITY)
OUT OF SEPTIC TANK TO ADVANTEX FILTER	99.70 (PRESSURE)
INTO ADVANTEX FILTER LATERAL	101.80 (PRESSURE)
INVERT OF ADVANTEX OUTLET	99.80 (GRAVITY)
INVERT THROUGH SPLITTER VALVE	99.70 (GRAVITY)
INVERT INTO PUMP BASIN	100.23 (PRESSURE)
OUT OF PUMP BASIN	100.23 (PRESSURE)
INV. BOTTOMLESS SAND FILTER LATERALS	107.83 (PRESSURE)



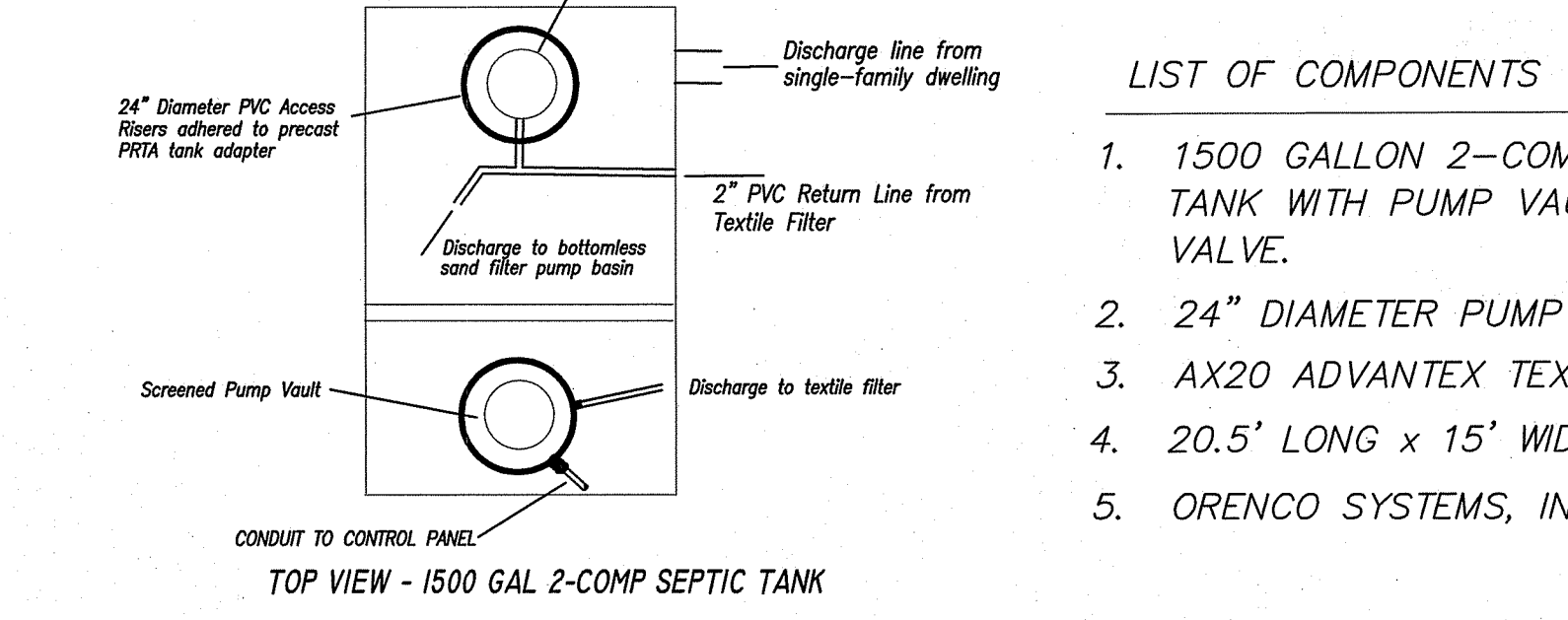
TYPICAL EROSION/SEDIMENT CONTROL FENCE STRAW WATTLE DETAIL  
NOT TO SCALE



1500 GALLON TWO COMPARTMENT SEPTIC TANK  
DESIGN NOTES:  
1) ALL JOINTS SEALED WITH BUTYL RUBBER SEALANT.  
2) ALL INLETS AND OUTLETS HAVE STATE-APPROVED SEALS.  
3) AVAILABLE OUTLET FILTER SHOWN.  
4) MEETS ASTM G 1227-89A.  
5) CONCRETE STRENGTH 4000 PSI MIN. 28 DAYS.  
JOLLEY PRECAST, INC.  
860-774-9066

### 1500 Gallon 2-Compartment Septic Tank w/ Pump Vault & Splitter Ball Valve

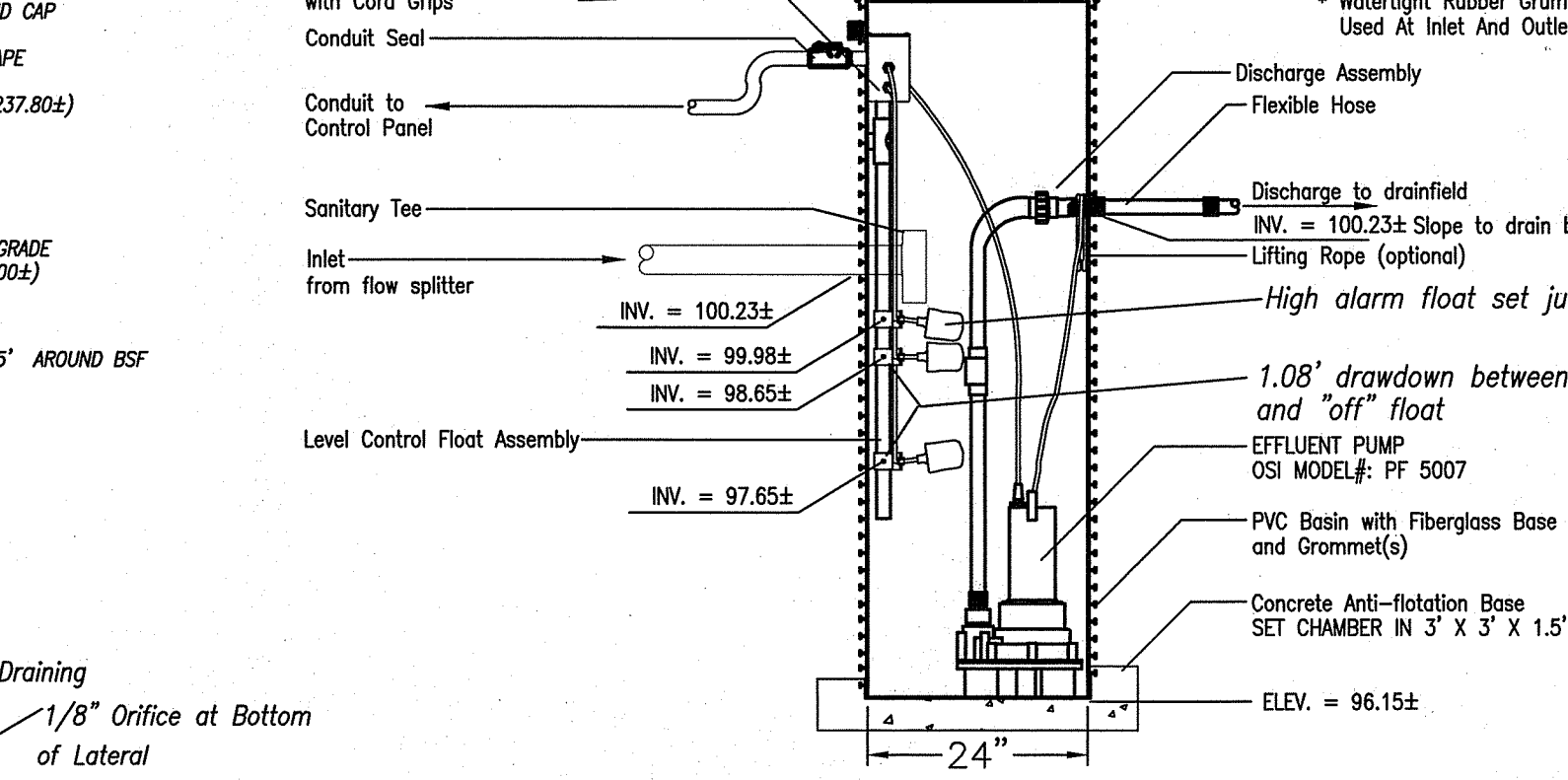
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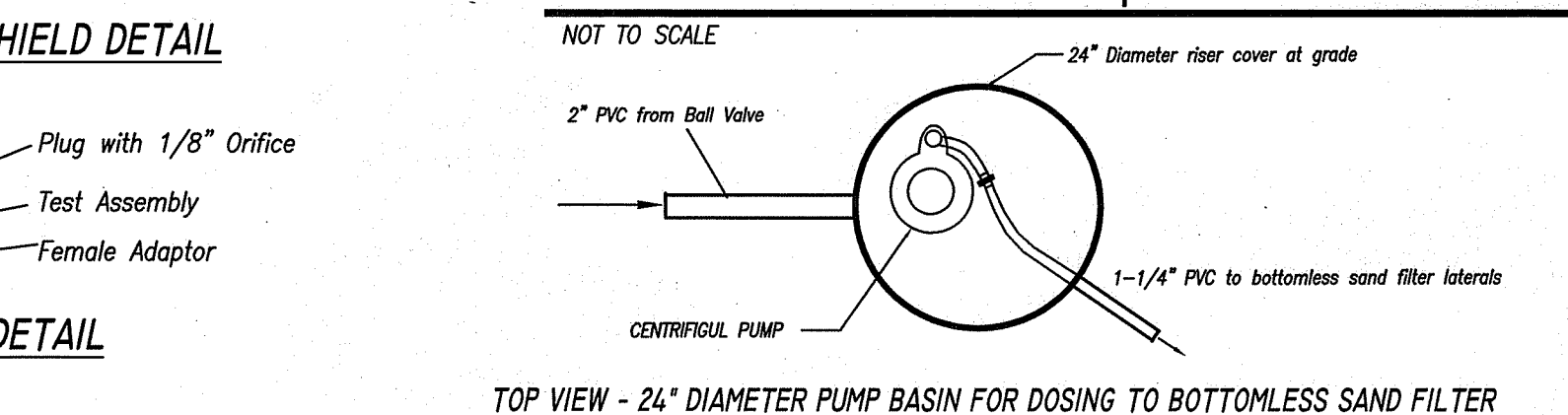
TOP VIEW - 1500 GAL 2-COMP SEPTIC TANK  
NOT TO SCALE

### Bottomless Sand Filter Pump Basin with Effluent Pump Assembly

NOT TO SCALE Note: This system can also be fitted with an effluent screen that the pump and floats are installed in.



SIDE VIEW - BOTTOMLESS SAND FILTER PUMP BASIN  
NOT TO SCALE



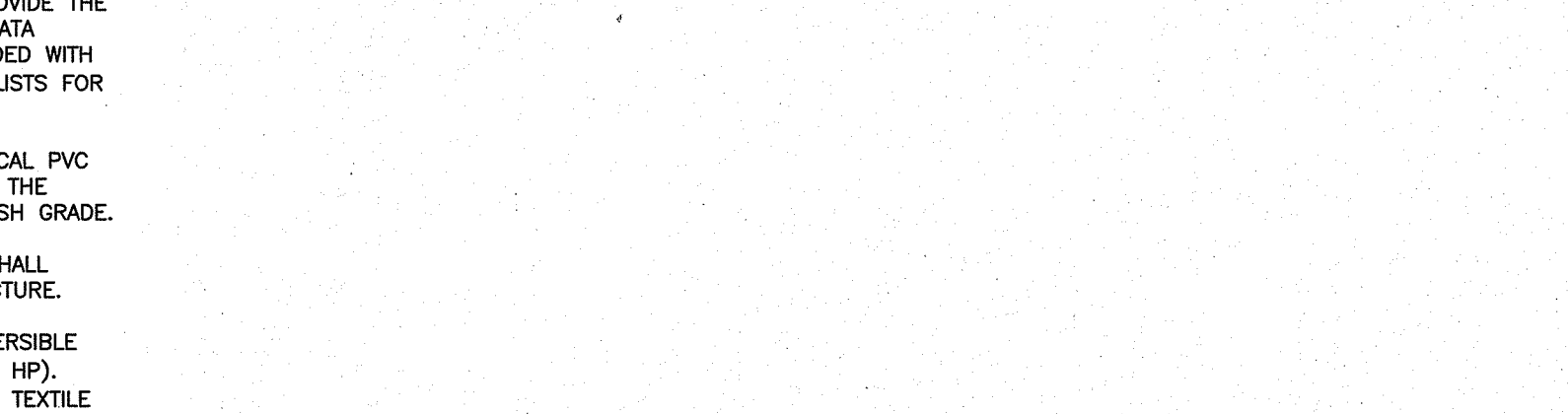
COLD WEATHER ORIFICE SHIELD DETAIL  
NOT TO SCALE



THREADED END CAP DETAIL  
NOT TO SCALE

### Bottomless Sand Filter Pump Basin

NOT TO SCALE



TOP VIEW - 24" DIAMETER PUMP BASIN FOR DOSING TO BOTTOMLESS SAND FILTER  
NOT TO SCALE

### PUMP NOTES:

- GENERAL: THE SYSTEM SHALL BE FURNISHED COMPLETE WITH MECHANICAL FLOAT SWITCH LEVEL CONTROLS, HIGH WATER ALARM, PROGRAMMABLE LOGIC CONTROLLER, AND SYSTEM CONTROL PANEL. SYSTEM SHALL BE WARRANTED AGAINST MANUFACTURING DEFECTS FOR AT LEAST ONE YEAR. THE CONTRACTOR SHALL PROVIDE A SUFFICIENT QUANTITY OF CLEAN WATER TO TEST THE PUMPS. THE CONTRACTOR SHALL PROVIDE THE DESIGN ENGINEER WITH PUMP SPECIFICATIONS, SHOP DRAWINGS, AND OTHER DATA NECESSARY FOR CERTIFICATION OF THE SYSTEM. THE OWNER SHALL BE PROVIDED WITH TWO (2) SETS OF OPERATION AND MAINTENANCE MANUALS INCLUDING PARTS LISTS FOR THE SYSTEM.
- PUMP BASIN: THE PUMP BASIN SHALL BE A 24-INCH DIAMETER CYLINDRICAL PVC PUMP BASIN TO THE DEPTH AND ANCHORAGE SPECIFIED ON THESE DRAWINGS. THE BASIN SHALL HAVE A 24-INCH DIAMETER WATERPROOF ACCESS COVER TO FINISH GRADE. CONTRACTOR SHALL PERFORM VACUUM TEST ON PUMP BASIN TO ENSURE WATER TIGHTNESS IN THE PRESENCE OF THE DESIGN ENGINEER. CONTRACTOR SHALL SUBMIT REPORT TO THE ENGINEER CERTIFYING WATER TIGHTNESS OF THE STRUCTURE.
- PUMP AND MOTOR: BOTTOMLESS SAND FILTER PUMP SHALL BE A SUBMERSIBLE EFFLUENT PUMP MANUFACTURED BY GRUNDFOSS MODEL PF 5007 (230 V, 0.33 HP). PUMP SHALL BE CAPABLE OF DELIVERING 60.7 GPM @ 36.5 - FT. TDH. (BSF). TEXTILE FILTER PUMP SHALL BE A SUBMERSIBLE EFFLUENT PUMP MANUFACTURED BY GRUNDFOSS MODEL PEF 33 (230 V, 0.33 HP). PUMP SHALL BE CAPABLE OF DELIVERING 13.4 GPM @ 19.5 TDH (AX20). ELECTRICAL CONTRACTOR SHALL VERIFY AVAILABLE VOLTAGE AT POWER SOURCE. DESIGN ENGINEER TO BE NOTIFIED OF DISCREPANCIES BETWEEN PUMP CHARACTERISTICS AND AVAILABLE POWER AT THE SITE.
- PIPING: DELIVERY PIPE AND FITTINGS FROM THE PUMP BASIN TO THE BSF MANIFOLD SHALL BE 1-1/2-INCH SCHEDULE 40 PVC PRESSURE PIPE. ALL PRESSURE PIPE CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH PIPE MANUFACTURER'S GUIDELINES. THE FORCE MAIN SHALL BE LAID IN 'CLASS B' TRENCH BEDDING AND LAID IN A MANNER THAT ALLOWS EFFLUENT TO DRAIN BACK TO THE BASIN FOLLOWING EACH PUMP CYCLE. A VELOCITY REDUCTION TEE/FITTING SHALL BE INSTALLED AT THE OUTLET OF THE FORCE MAIN. PIPING LESS THAN FOUR (4) FEET BELOW THE PROPOSED GROUND ELEVATION SHALL BE INSULATED.
- LEVEL CONTROLS: SEALED FLOAT TYPE MECHANICAL SWITCHES SHALL BE SUPPLIED TO CONTROL THE PUMP LEVEL AND ALARM SIGNAL. THREE FLOAT SWITCHES SHALL BE USED TO CONTROL THE PUMP LEVEL: 1.) ON, 2.) OFF, 3.) HIGH WATER ALARM. THE ALARM SWITCH SHALL BE PROVIDED WITH A POWER SOURCE SEPARATE FROM THE PUMP POWER. FLOAT SWITCHES SHALL BE MECHANICAL SEALED IN POLYURETHANE FLOATS. THE FLOAT LEVEL CONTROLS SHALL BE SET TO OPERATE AT THE ELEVATION INDICATED ON THESE DRAWINGS. A NEMA-4 JUNCTION BOX SHALL BE INSTALLED ABOVE THE TOP OF THE PUMP BASIN.
- CONTROL PANEL: THE SIMPLEX CONTROL PANEL SHALL BE VERICOMM S190 REMOTE TELEMETRY PANELS COUPLED WITH VERICOMM WEB-BASED MONITORING SYSTEM. PANEL SHALL PROVIDE THREE (3) OPERATING MODES OF BASIC CONTROL LOGIC: 1.) START-UP 2.) NORMAL MODE 3.) TEST MODE. PANEL SHALL BE EQUIPPED WITH BOTH AN AUDIO AND LED WARNING SIGNALS. THE CONTROL PANEL SHALL BE MOUNTED ON A PEDESTAL OR EXTERIOR WALL AS RECOMMENDED BY THE MANUFACTURER. THE PANEL SHALL BE HOUSED IN A NEMA-1 ENCLOSURE FOR 120V SINGLE PHASE OPERATION UNLESS OTHERWISE SPECIFIED BY THE ELECTRICAL CONTRACTOR. THE PANEL SHALL ALSO BE EQUIPPED WITH A TRANSFER SWITCH AND RECEPTACLE FOR A PORTABLE GENERATOR.

**IDEALDEC**  
Land Development Engineering & Consulting, LLC  
1700 West Main Road, Suite 8  
Middletown, RI 02842  
T: 401-354-2050 F: 401-369-9775  
mrussell@idealdec.com

NO.	DATE	DESCRIPTION	APPROVED
1.	9/29/2021	RELOCATED BSF & RAIN GARDEN PER RIDEM COMMENTS	APPROVED

### PLAN REVISIONS

DATE: JULY 16, 2021  
DRAWN BY: SJE DESIGN BY: SJE CHECK BY: MER  
PROJECT NO. 21059

### ISSUED FOR:

PERMITTING

**MICHAEL E. RUSSELL**  
No. 7956  
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

### OWTS CONSTRUCTION DETAILS

1346 LAKESIDE DRIVE  
ASSESSOR'S MAP 11, PARCEL 46  
NEW SHOREHAM, RHODE ISLAND

### CONSTRUCTION DETAILS

SCALE: AS SHOWN  
SHEET NO.