

NOTES:

- EXISTING CONDITIONS INFORMATION WAS COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY CHRISTOPHER G. PALMER ON NOVEMBER 14, 2019.
- ELEVATIONS ARE REFERENCED TO NAVD 88.
- THE SITE IS NOT LOCATED WITHIN ANY SPECIAL FLOOD HAZARD AREAS AS DETERMINED FROM THE TOWN OF NEW SHOREHAM FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 44009C0364J (EFFECTIVE DATE OCTOBER 16, 2013).
- 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.
- EASEMENT TO BE RECORDED IN TOWN OF NEW SHOREHAM LAND EVIDENCE PRIOR TO CONSTRUCTION OF OWTS.
- DRIVEWAY AND PARKING AREA TO BE CRUSHED STONE (3/8 TO 1-1/2 INCH DIAMETER, WASHED ANGULAR CRUSHED STONE) WITH A MINIMUM DEPTH OF 3". FINISH GRADE OF DRIVEWAY AND PARKING AREA TO MATCH EXISTING GRADE.

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 = ± (28" BELOW EXIST. GROUND)
 USE BOTTOMLESS SAND FILTER
 DESIGN LOADING RATE = 1.5 GAL./DAY/S.F. (CLASS 9)
 460/1.5 = 307 SF
 BSF = 11' X 28' = 308 SF
 308 SF (PROVIDED) > 307 SF (REQ'D)

SEE SHEET 2 FOR SYSTEM COMPONENTS & SPECIFICATIONS

NOTE: SYSTEM HAS NOT BEEN DESIGNED FOR USE WITH A GARBAGE GRINDER.

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)
 INCREASE IN IMPERVIOUS AREA = 726 S.F.
 WQV = 1" x (A) x 726 S.F. = 61 C.F. (REQ'D)

BMP'S UTILIZED:
 RAIN GARDEN SIZING GUIDANCE PER REGULATION:
 TABLE 7 & 8: SURFACE AREA REQUIRED SILTY SOILS

RAIN GARDEN = 8" DEEP
 DRAINAGE AREA SIZING = 160 S.F. / 1,000 S.F. (DRAINAGE AREA)
 RAIN GARDEN-1 TOTAL AREA REQ'D = (726 / 1,000) X 160 S.F. = 116 S.F.

RAIN GARDEN-2 SURFACE AREA = (6 X 20) = 120 S.F. > 116 S.F. (REQ'D)
 DRAINAGE AREA PROVIDED = (120 / 160) X 1,000 S.F. = 750 S.F.

BMP SYSTEMS SURFACE AREA PROVIDED = 120 S.F. > 116 S.F. (REQ'D)
 TOTAL DRAINAGE AREA SIZE PROVIDED = 750 S.F. > 726 S.F. (REQ'D)

WATER QUALITY VOLUME (WQV) PROVIDED:
 RAIN GARDEN WQV = 80 C.F. (120 S.F. X 8" DEEP)
 TOTAL WQV = 80 C.F. (PROVIDED) > 61 C.F. (REQ'D)

STRUCTURAL LOT COVERAGE:

PROPOSED:
 MAIN HOUSE FOOTPRINT = 558 S.F.
 ACCESSORY STRUCTURE = 168 S.F.
 DECK / PATIOS = PERMEABLE
 DRIVEWAY = PERMEABLE
 726 S.F.
 TOTAL INCREASE IN IMPERVIOUS AREA = 726 S.F.

CURRENT OWNER

HARRIETTE EST. VELIE
 PO BOX 1134
 BLOCK ISLAND, RI 02807

TITLE REFERENCE:
 DEED BK.52 / PG.24

SITE LOCATION:
 PAYNE ROAD
 NEW SHOREHAM, RHODE ISLAND

ASSESSORS REFERENCE:
 MAP 9 PARCEL 75

RESIDENTIAL (RA) ZONING DISTRICT		
REGULATION	REQUIREMENT	PROPOSED
MIN. LOT AREA	120,000 SQ. FT.	47,898 SQ. FT.
LOT FRONTAGE	200 FT.	20 FT.
FRONT SETBACK	50 FT.	50 FT.
SIDE SETBACK	50 FT.	50 FT.
REAR SETBACK	50 FT.	50 FT.
MAX. BUILDING HEIGHT	32 FT.	32 FT.
MAX. LOT COVERAGE	10%	10%
MAX. BLDG COVERAGE	3%	3%

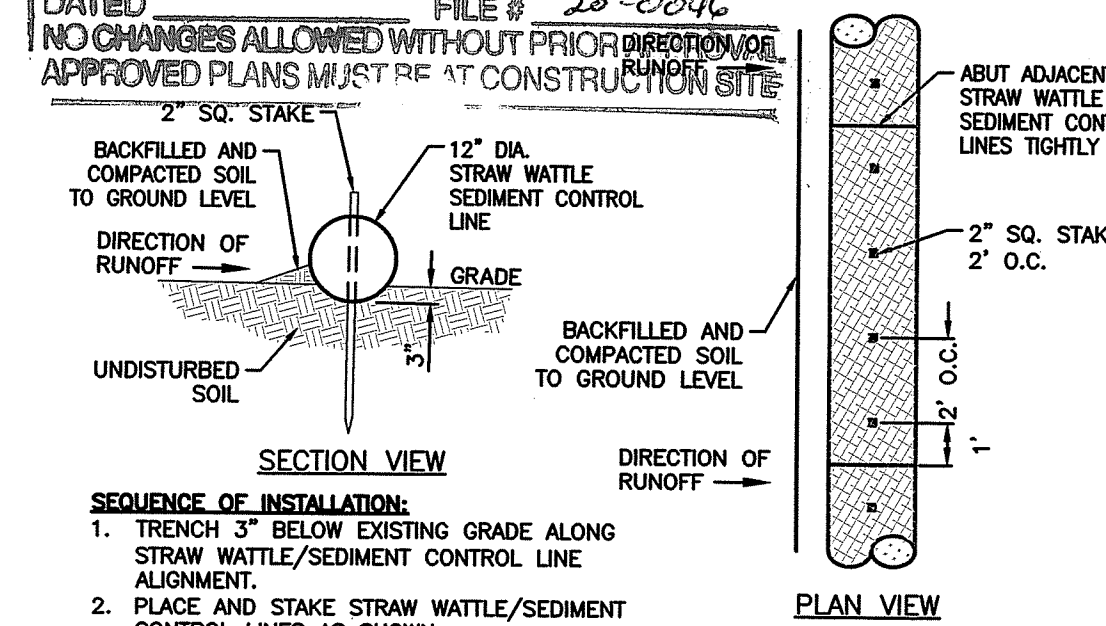
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

LEGEND

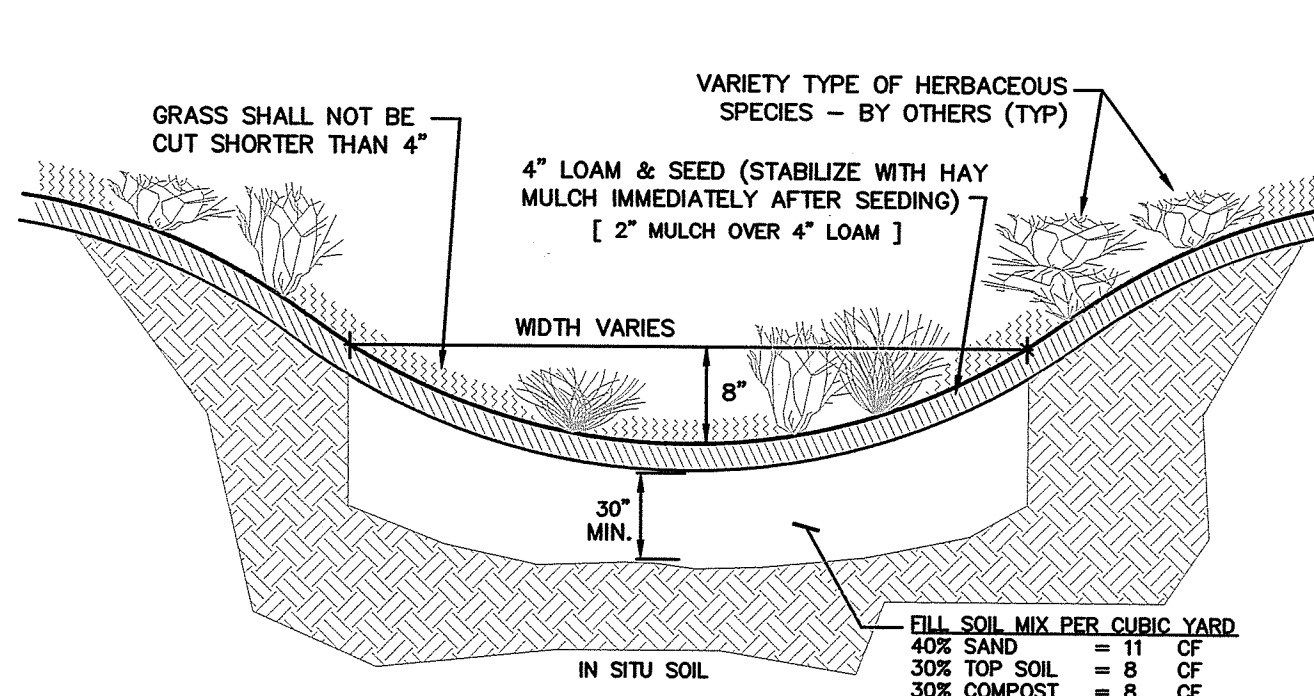
- PROPERTY LINE (APPROXIMATE)
- 97- EXISTING TOPOGRAPHIC CONTOUR
- 97.5x EXISTING SPOT ELEVATION
- ⊙ WELL
- ⊙WG WATER GATE
- PROPOSED CONTOUR
- ⊙ PROPOSED SPOT ELEVATION
- ⊙ TREE
- ⊙ SHRUB
- TREE LINE
- Δ WF # WETLAND FLAG
- STONE WALL
- W PROPOSED WATER SERVICE
- S PROPOSED SEWER SERVICE

Note per DSM: In accordance with Permit condition number 10, buffer zone markers must be installed and shall be permanent.

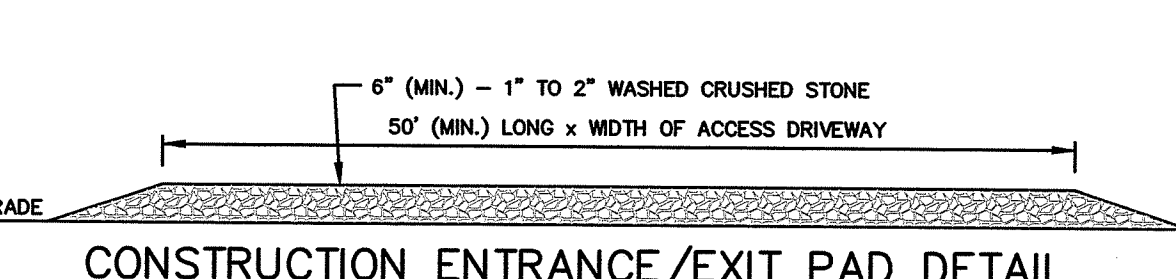
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED MAY 21, 2020
 FILE # 20-0046
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE



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

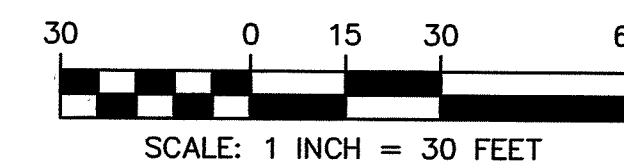
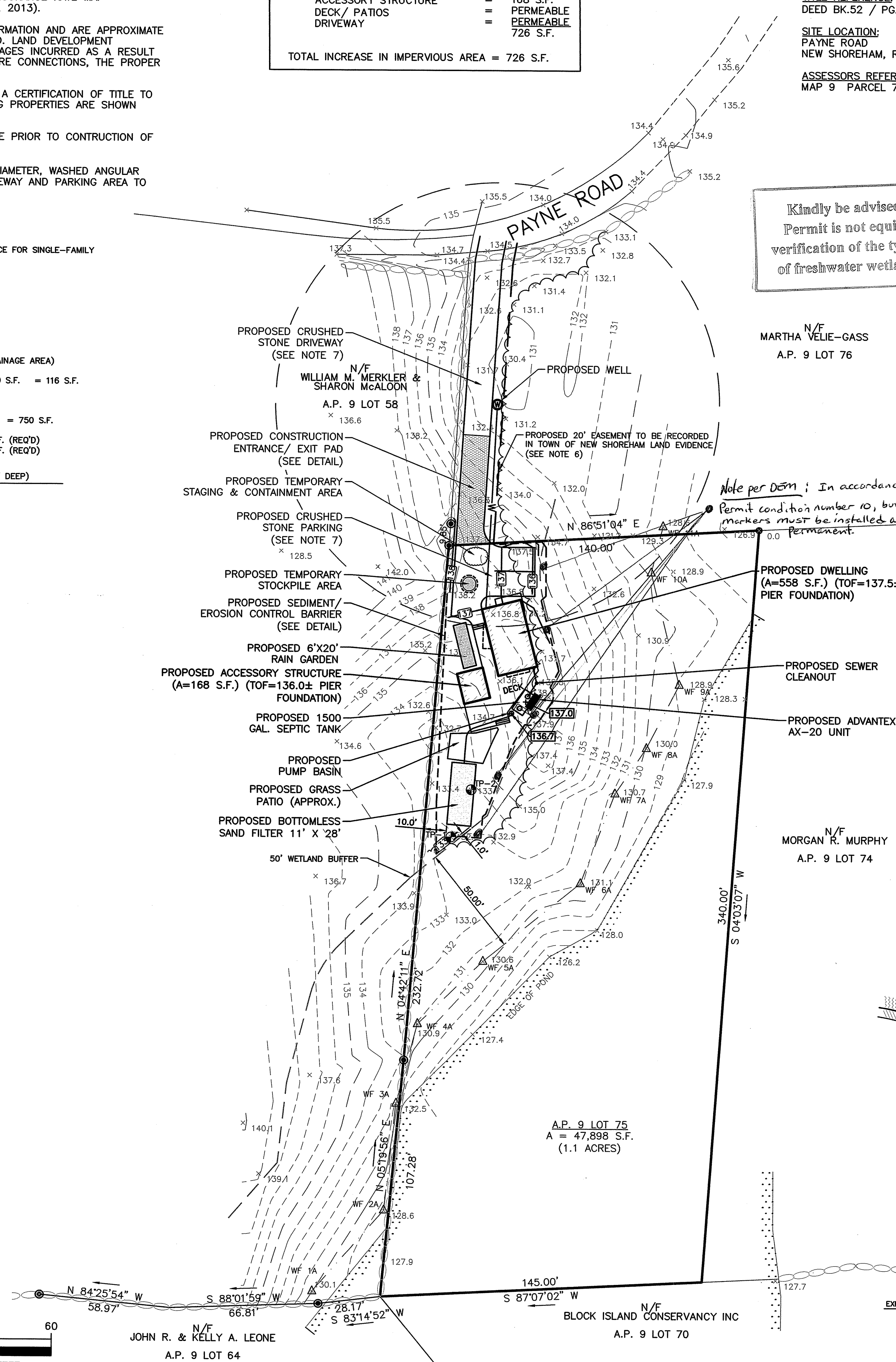


TYPICAL RAIN GARDEN DETAIL
 NOT TO SCALE



CONSTRUCTION ENTRANCE/EXIT PAD DETAIL
 NOT TO SCALE

NOTE: CONSTRUCTION ENTRANCE IS A TEMPORARY STONE - STABILIZED PAD LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON THE CONSTRUCTION SITE TO AND FROM A PAVED PUBLIC ROAD OR OTHER PAVED AREAS.



SCALE: 1 INCH = 30 FEET

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
 Department of Environmental Management
 Office of Water Resources

Site Evaluation Form
 Part A - Soil Profile Description
 Application Number 1922-1494

Property Owner: Martha Velie-Gass
 Property Location: Plot 9 Lot 75, 88 Payne Road, Block Island, Rhode Island
 Date of Test Hole: 10/30/19
 Soil Evaluator: Claire McElhenny
 License Number: 14058
 Weather: 20° a Drizzle
 Shaded: Yes No Time: 1:00pm

Horizon	Depth (ft)	Horizon Boundaries (Dist, Topo)	Soil Colors (Mott, Re-Doz Features)	Re-Doz Description (Ab., S., Con.)	Texture	Structure	Consistence	Soil Category
A _p	0-11	e s	10y2 3/5	-	sil	mod sub	very friable	5
B ₁	11-14	c s	4/2	-	vsil	mod sub	friable	5
B ₂	14-25	c w	10y2 5/5	-	vsil	mod sub	friable	5
C ₁	25-40	c w	5y4 5/5	C, S, P	sil	mod sub	friable	=
C ₂	40-75	c w	5y4 5/5	M, S, P	mod sil	mod	friable	1
C ₃	75-80	c w	5y4 5/5	M, S, P	sil	platy	firm	9
A _p	0-13	e s	10y2 3/5	-	vsil	mod sub	very friable	5
B ₁	13-15	c s	4/2	-	vsil	mod sub	friable	5
B ₂	15-31	c w	10y2 5/5	C, S, P	sil	mod sub	friable	4
C ₁	31-45	c w	5y4 5/5	M, S, P	sil	mod sub	friable	7
C ₂	45-80	c w	5y4 5/5	M, S, P	mod sil	mod	friable	1
C ₃	80-85	c w	5y4 5/5	M, S, P	sil	platy	firm	9

Soil Class: Substrata Ice Contact
 Total Depth of each Test Hole: 126"
 Depth to Groundwater Seepage: None Observed
 Depth to Impervious or Limiting Layer: None Observed
 Estimated Seasonal High Water Table: None Observed
 Comments:

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

NO.	DATE	REVISIONS PER RIDEM	REVISIONS PER RIDEM	DESCRIPTION
2	4-28-20			
1	1-29-20			

PLAN REVISIONS

DATE: DECEMBER 16, 2019
 DRAWN BY: DWP/SJE DESIGN BY: DWP/SJE CHECK BY: DWP/SJE
 PROJECT NO. 19149
 ISSUED FOR: PERMITTING

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

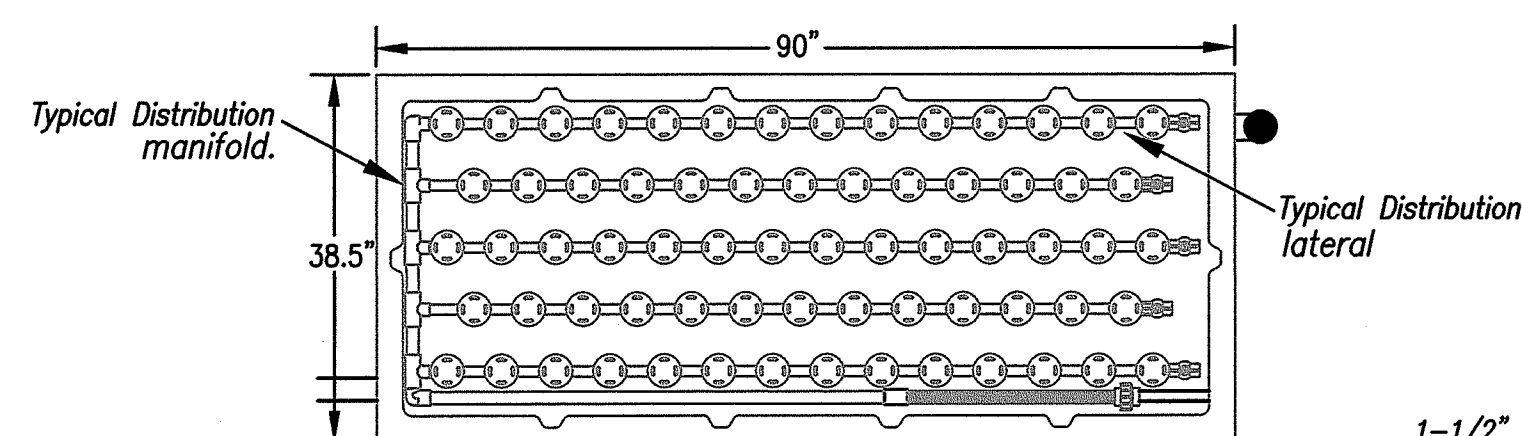
PROPOSED OWTS PLAN
 PAYNE ROAD
 ASSESSOR'S MAP 9, PARCEL 75
 NEW SHOREHAM, RHODE ISLAND

PREPARED FOR METHIA

APR 29 2020

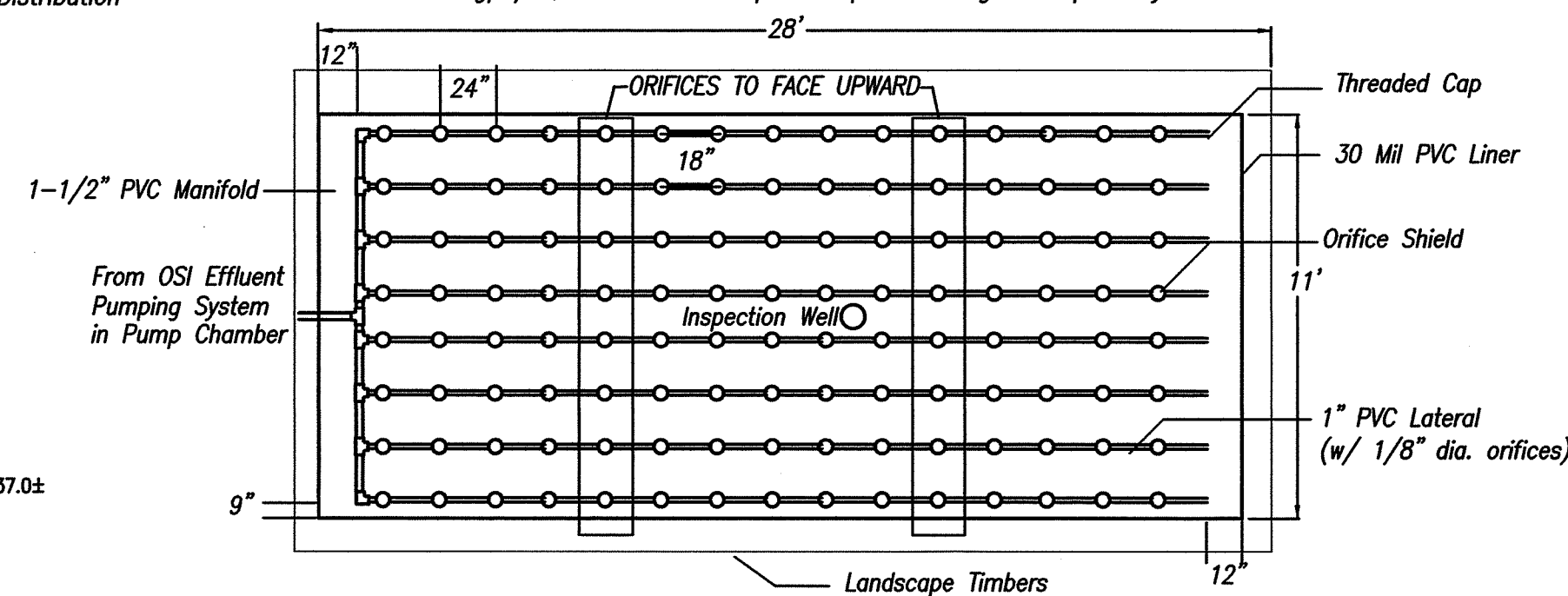
DRAWING TITLE:
PROPOSED OWTS PLAN

SCALE: 1" = 30'
 SHEET NO. 1 OF 2



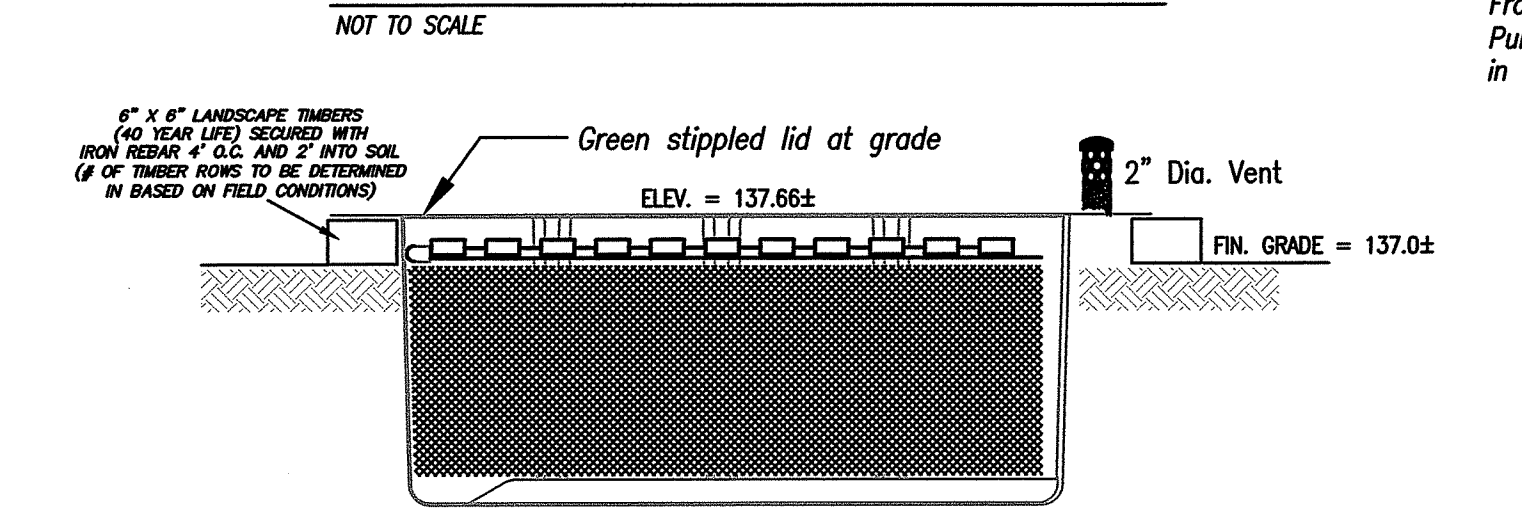
11'x28' Bottomless Sand Filter

This drawing is for a 11'x28' bottomless sand filter
The dosing pump shall be an PEF 50
Loaded at 1.5 gpd/sf, this filter can polish up to 462 gallons per day

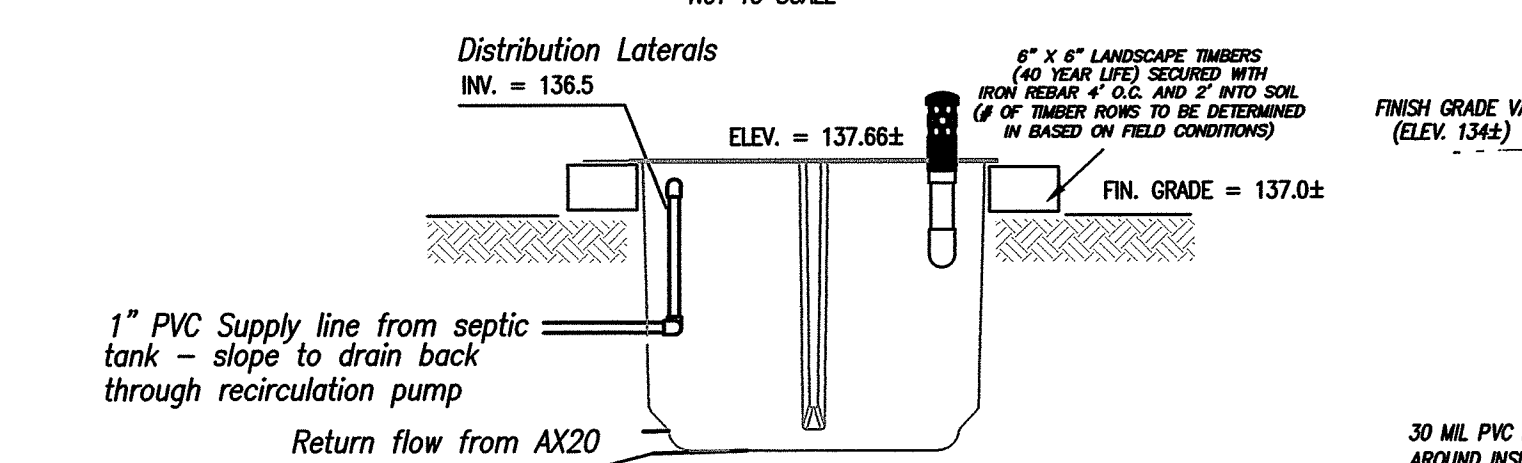


TOP VIEW - BOTTOMLESS SAND FILTER

TOP VIEW - AX 20 ADVANTEX TEXTILE FILTER



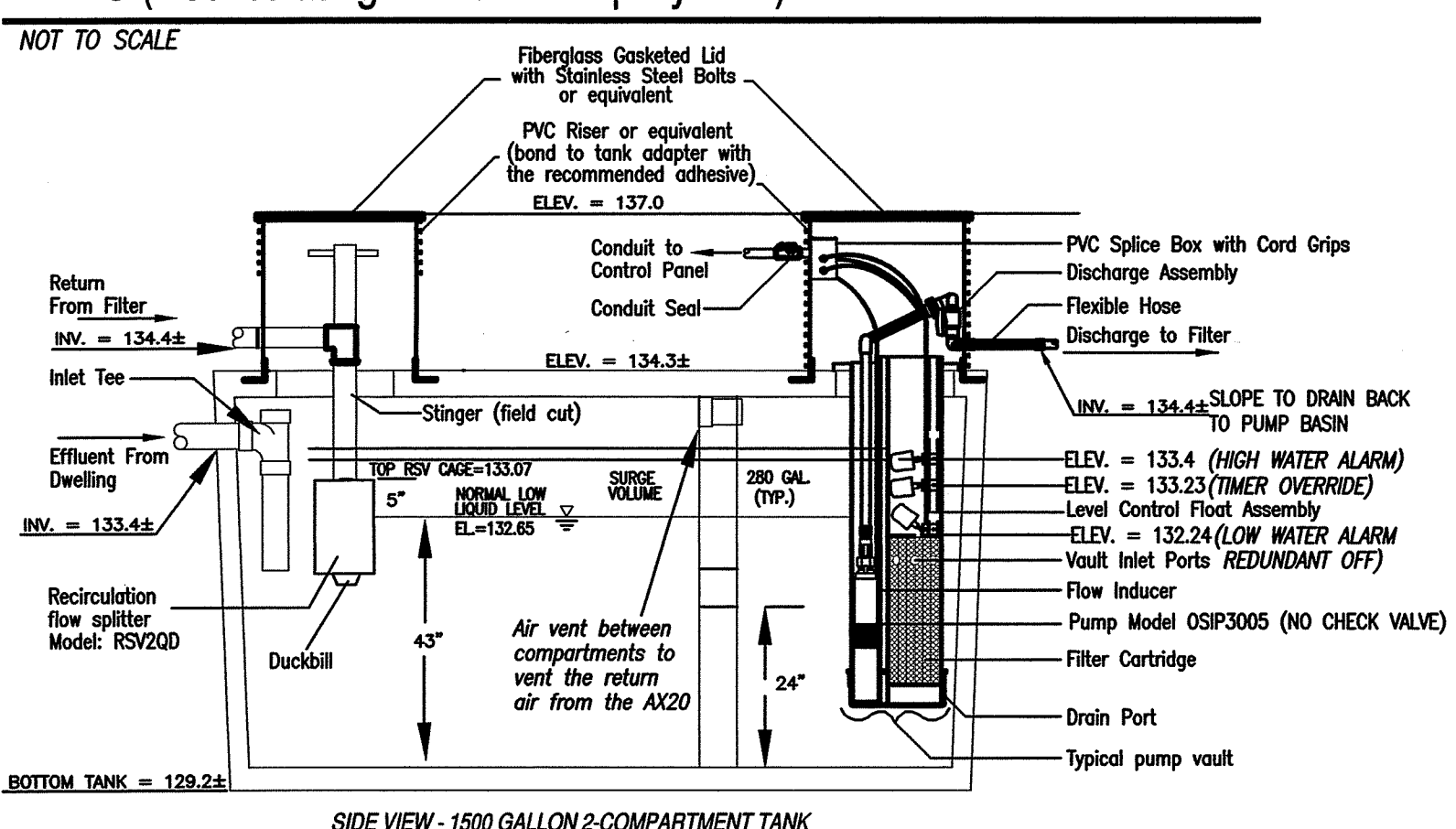
TOP VIEW - AX 20 ADVANTEX TEXTILE FILTER



SIDE VIEW - AX 20 ADVANTEX TEXTILE FILTER

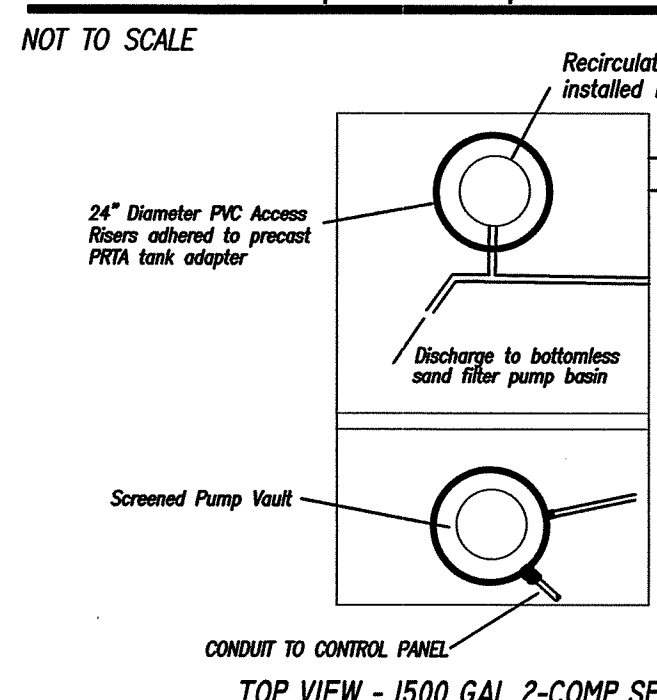
SCHEDULE OF PVC PIPE SIZES	
BUILDING TO SEPTIC TANK	4" SCH 40
SEPTIC TANK TO TEXTILE FILTER	1" SCH. 40 OR EQUAL
TEXTILE FILTER MANIFOLD	1" SCH. 40 OR EQUAL
TEXTILE FILTER LATERALS	3/4" SCH. 40 OR EQUAL
TEXTILE FILTER TO PUMP BASIN	2" SCH 40
PUMP BASIN TO DRAINFIELD	2" SCH 40 OR EQUAL
DRAINFIELD MANIFOLD	1-1/4" SCH. 40 OR EQUAL
DRAINFIELD LATERALS	3/4" SCH. 40 OR EQUAL

REPS (Recirculating Effluent Pump System) - SIDE VIEW

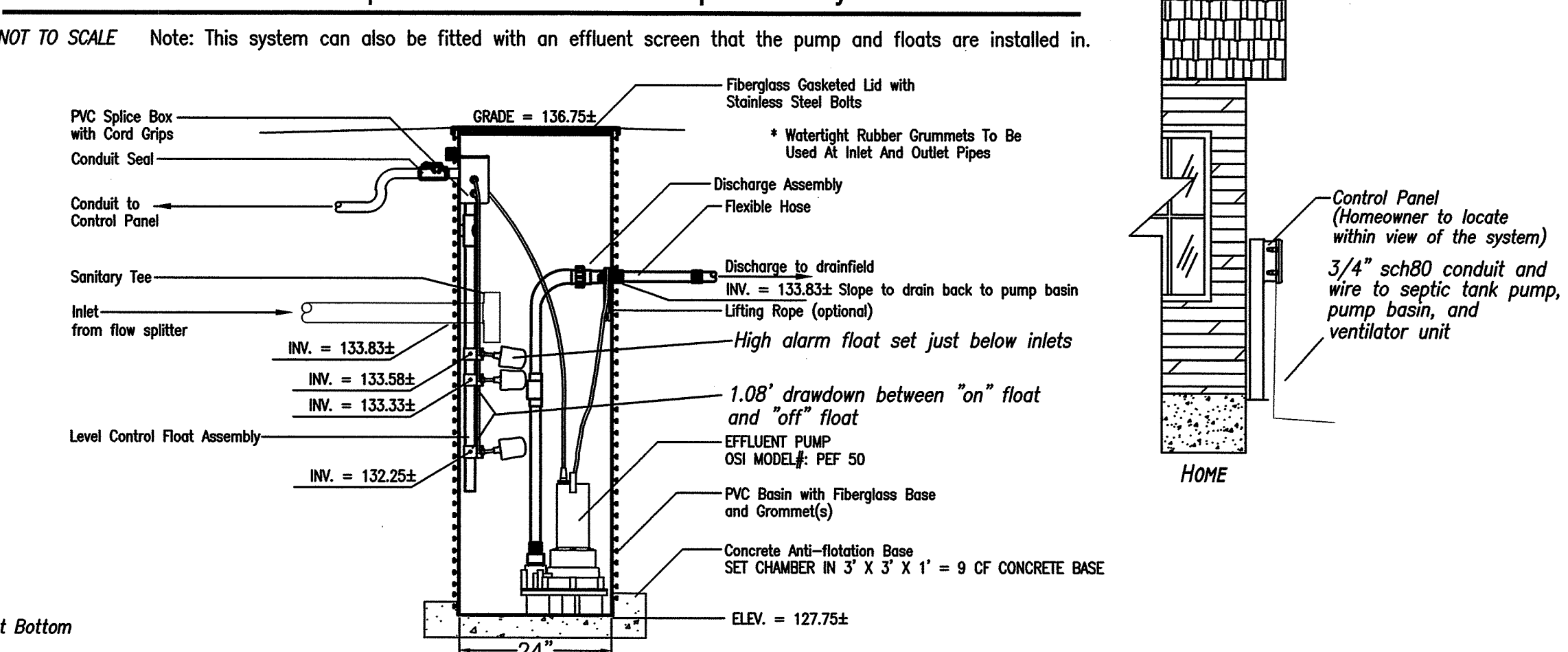


SIDE VIEW - 1500 GALLON 2-COMPARTMENT TANK

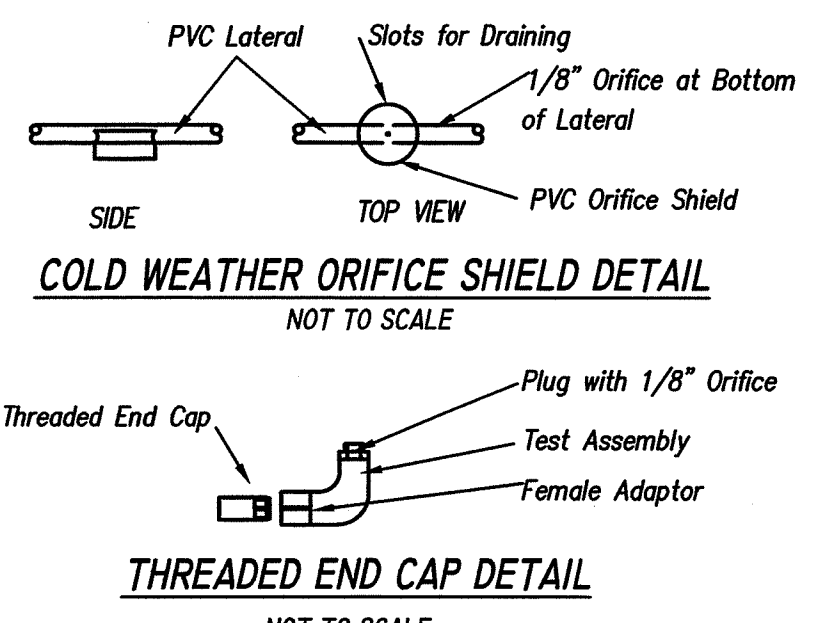
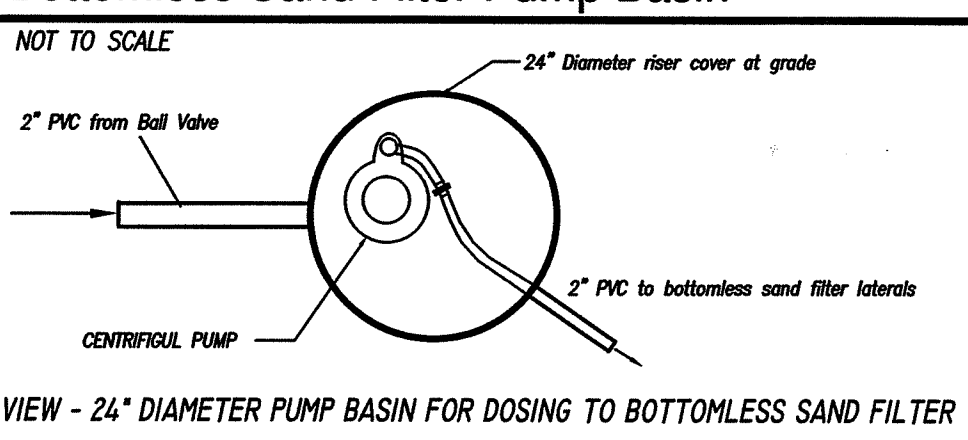
1500 Gallon 2-Compartment Septic Tank w/ Pump Vault & Splitter Ball Valve



Bottomless Sand Filter Pump Basin with Effluent Pump Assembly

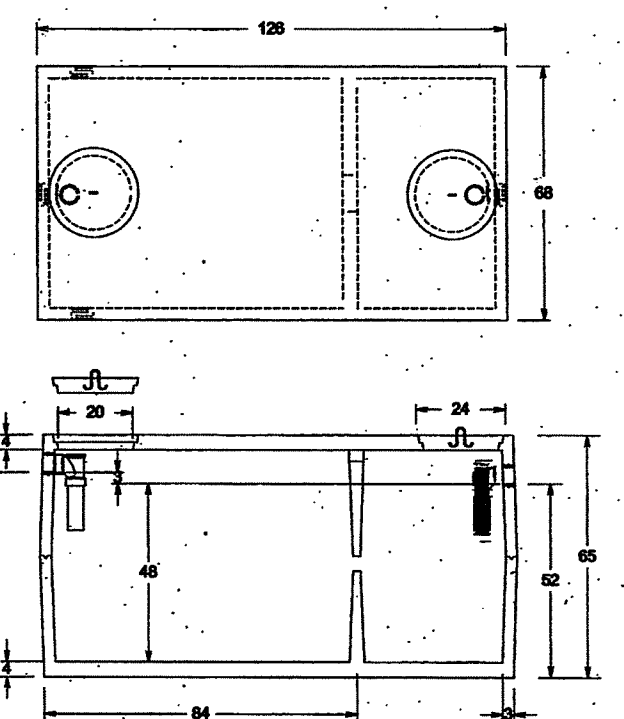


Bottomless Sand Filter Pump Basin



COLD WEATHER ORIFICE SHIELD DETAIL

THREADED END CAP DETAIL



1500 GALLON TWO COMPARTMENT SEPTIC TANK

DESIGN NOTES:
1. ALL JOINTS SHALL BE PROPERLY SEALED.
2. ALL METALS AND FITTINGS SHALL BE GALVANNEAL.
3. ALL METALS SHALL BE PROTECTED AGAINST CORROSION.
4. ALL METALS SHALL BE PROTECTED AGAINST CORROSION.
5. ALL METALS SHALL BE PROTECTED AGAINST CORROSION.
6. ALL METALS SHALL BE PROTECTED AGAINST CORROSION.
7. ALL METALS SHALL BE PROTECTED AGAINST CORROSION.
8. ALL METALS SHALL BE PROTECTED AGAINST CORROSION.
9. ALL METALS SHALL BE PROTECTED AGAINST CORROSION.
10. ALL METALS SHALL BE PROTECTED AGAINST CORROSION.

JOLLEY PUMP & VALVE, INC.
800-774-0066

LIST OF COMPONENTS

- 1500 GALLON 2-COMPARTMENT CONCRETE SEPTIC TANK WITH PUMP VAULT AND RECIRCULATION SPLITTING VALVE.
- 24" DIAMETER PUMP BASIN.
- AX20 ADVANTEX TEXTILE FILTER.
- 28' LONG x 11' WIDE BOTTOMLESS SAND FILTER
- ORENCO SYSTEMS, INC. CONTROL PANEL.

LOCATION	ELEVATION
OUT OF HOUSE	134.10± (GRAVITY)
INTO SEPTIC TANK	133.40 (GRAVITY)
OUT OF SEPTIC TANK TO ADVANTEX FILTER	134.40 (PRESSURE)
INTO ADVANTEX FILTER LATERAL	136.50 (PRESSURE)
INVERT OF ADVANTEX OUTLET	134.50 (GRAVITY)
INVERT THROUGH SPLITTER VALVE	134.40 (GRAVITY)
INVERT INTO PUMP BASIN	133.83 (GRAVITY)
OUT OF PUMP BASIN	133.83 (PRESSURE)
INV. BOTTOMLESS SAND FILTER LATERALS	135.03 (PRESSURE)

GENERAL 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, JUNE 27, 2016, BY THE RIDEM. THESE RULES ARE ADOPTED IN ACCORDANCE WITH CHAPTER 42-35 PURSUANT TO CHAPTERS 42-17.1, 5-56, 5-56.1, 23-18.5, 23-24.3, 46-13.2, AND 23-19.15 OF THE RHODE ISLAND GENERAL LAWS OF 1956, AS AMENDED.
- SEE OWTS SPECIFICATIONS ATTACHED.
- CONTRACTOR TO REFER TO BOTTOMLESS SAND FILTER INSTALLATION GUIDELINES AS APPROVED BY RIDEM.
- 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.
- EXISTING CONDITIONS SURVEY PERFORMED BY CHRISTOPHER G. PALMER, PLS.
- BENCHMARK IS SET WITHIN 50' OF PROPOSED ISDS PRIOR TO CONSTRUCTION. (SEE SITE PLAN.)
- THERE ARE NO KNOWN EXISTING OR PROPOSED PRIVATE DRINKING WATER WELLS WITHIN 100' OF THE PROPOSED OWTS OR ALTERNATE AREA EXCEPT AS SHOWN.
- THERE ARE NO EXISTING OR PROPOSED PUBLIC WATER SUPPLY WELLS WITHIN 200' 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 RECIRCULATION 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. (CONCRETE TANK MAY BE PURCHASED FROM SHEA CONCRETE PRODUCTS OR EQUAL.)
- THE CONTRACTOR MUST FOLLOW ALL ITEMS CIRCLED IN THE LOWER RIGHT HAND AREA OF THE OWTS APPLICATION LABEL--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).
- 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 IN ACCORDANCE WITH SD 27.00 (c).
- 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, IN ACCORDANCE WITH SD 27.00 (h) THROUGH (m).
- 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.
- FOR PUMP SPECIFICATIONS REFER TO NOTES BELOW.
- CONTRACTOR TO NOTIFY ENGINEER DURING DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS (AS REQUIRED BY DEM).
- 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.
- 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 SUPERSEDING UPDATING 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-SER.
- THE PROPOSED SEPTIC TANK SHALL BE SEALED TO ENSURE WATERTIGHTNESS AND SHALL BE A SINGLE COMPARTMENT MONOLITHIC TANK WHICH CAN BE PURCHASED FROM SHEA CONCRETE PRODUCTS OR EQUAL.
- THE CONTRACTOR SHALL PROVIDE DESIGNER WITH MATERIAL RECEIPTS FOR ALL CONSTRUCTION MATERIALS PRIOR TO DESIGNER ISSUING CERTIFICATE OF CONSTRUCTION.
- 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.
- EXISTING LEACHING AREA SHALL BE ABANDONED IN ACCORDANCE WITH RULE 52.0

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 5 MAY 21 2020 FILE # 20-0046
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

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 WATERTIGHTNESS IN THE PRESENCE OF THE DESIGN ENGINEER. CONTRACTOR SHALL SUBMIT REPORT TO THE ENGINEER CERTIFYING WATERTIGHTNESS OF THE STRUCTURE.
- PUMP AND MOTOR:** ADVANTEX PUMP SHALL BE SUBMERSIBLE EFFLUENT PUMP MANUFACTURED BY GRUNDFOS MODEL PEF 33 (230 V, 0.33 HP). PUMP SHALL BE CAPABLE OF DELIVERING 13.4 GPM @ 18.8 TDH (AX20). BSF PUMP SHALL BE SUBMERSIBLE EFFLUENT PUMP MANUFACTURED BY GRUNDFOS MODEL PEF 50 (230 V, 0.5 HP). PUMP SHALL BE CAPABLE OF DELIVERING 48.7 GPM @ 22.7 TDH (BSF). 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 MANIFOLD SHALL BE 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 TEST/FITTING SHALL BE INSTALLED AT THE OUTLET OF THE FORCE MAIN. PIPING LESS THAN FOUR (4) FEET BELOW THE PROPOSED GROUND ELEVATION SHALL BE INSTALLED.
- 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 MECHANICALLY 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 VERICOM SIRO REMOTE TELEMETRY PANELS COUPLED WITH VERICOM 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 AUDIBLE AND LED WARNING INDICATORS. 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.

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

NO.	DATE	REVISIONS PER RIDEM	DESCRIPTION
1	4-28-20		
2	1-29-20		

PLAN REVISIONS

DATE: DECEMBER 16, 2019
DRAWN BY: DWP/SJE DESIGN BY: DWP/SJE CHECK BY: MER

PROJECT NO. 19194
ISSUED FOR: PERMITTING

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

CONSTRUCTION DETAILS
PAYNE ROAD
ASSESSOR'S MAP 9, PARCEL 75
NEW SHOREHAM, RHODE ISLAND
PREPARED FOR MARTHA VELLIE-GASS

DRAWING TITLE:
CONSTRUCTION DETAILS
SCALE: AS SHOWN
SHEET NO. **2 OF 2**