

PROPOSED SYSTEM:
 ADVANTEK TREATMENT SYSTEM
 AX20 SERIES - MODEL 33 CW - OSI
 PUMP CHAMBER 24" DIA., 84" (7.0) HT, OSI
 PUMP TO BSF - OSI PF 3005 1/2 HP OR EQUAL
 CONTROL PANEL VCOM ADVANTEK AXB PANEL, 115V
 RECIRCULATING PUMP PFEF 4011 B
 10' x 25' - BOTTOMLESS SAND FILTER (BSF), SEE SHEET 2 FOR DETAILS

SIZING OF BOTTOMLESS SAND FILTER (BSF)
 4 BEDROOMS x 115 GALS. PER BEDROOM = 460 GALS. (DAILY FLOW RATE)
 460 GALLONS PER DAY / 1.9 GALS./SP/DAY (CATEGORY 1) = 242.10 S.F. (MIN. REQ'D)
 PROPOSED BSF AREA = 250 S.F. (10' W x 25' L)

SEPTIC SYSTEM ELEVATION SCHEDULE (FT.)

HOUSE SANITARY INVERT = 101.61

SEPTIC TANK / ADVANTEK SYSTEM:
 SEPTIC TANK INV. IN = 101.37
 TOP OF ADVANTEK POD = 105.70
 BOTTOM OF ADVANTEK POD = 103.12
 RSV INV. = 102.87

HIGH WATER ALARM = 101.37
 OVERSIDE TUBER = 101.20
 TOP OF RSV CAGE = 101.04
 TOP OF FILTER CARTRIDGE = 100.04
 NORMAL LOW LIQUID LEVEL = 100.82
 LOW WATER ALARM/REDUNDANT OFF = 100.21

PUMP CHAMBER:
 INVERT IN = 102.30 (FROM ADVANTEK UNIT)
 INVERT OUT = 102.80 #
 DISTRIBUTION LATERALS (BSF - LEVEL PIPES)
 PIPE INVERT = 107.50

Field Design Depth: TH 1 (OWTS No. 9422-1415) - WT = 50" (4.16) From Existing Grade
 Excavated @ EL. 104.20' Water Table EL. 100.0 as Measured From Existing Grade
 TH 2 - WT = 42" (3.5) From Existing Grade
 Excavated @ EL. 111.3' Water Table EL. = 107.8' as Measured From Existing Grade

Interface of Top of Concrete Sand/Bottom of Pea Stone Layer = 107.25
 This Elevation Provides 4.7' of Vertical Separation to the Water Table.
 Top of Pea Stone = 108.00; Bottom of Concrete Sand = 105.25
 Highest Existing Grade at BSF EL. 106.75

A.P. 9 LOT 55
 APPROX. SEPTIC FIELD
 SEE APPLIC. #9422-1416

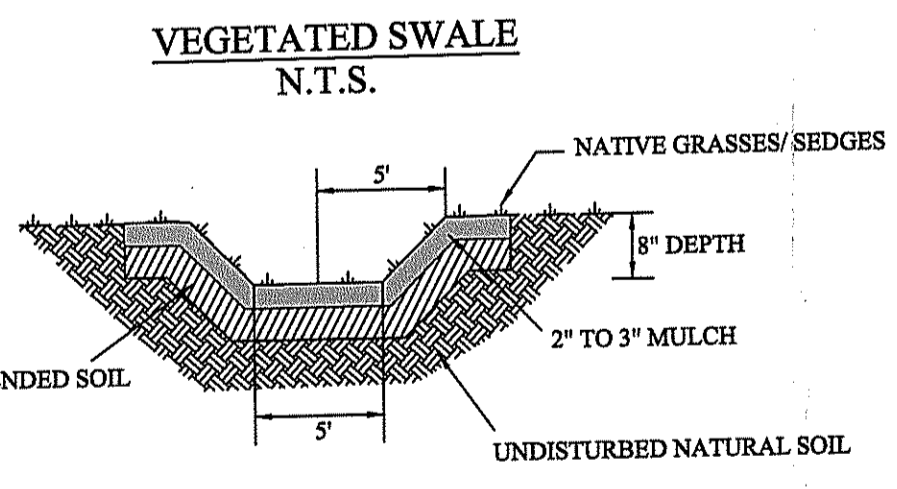
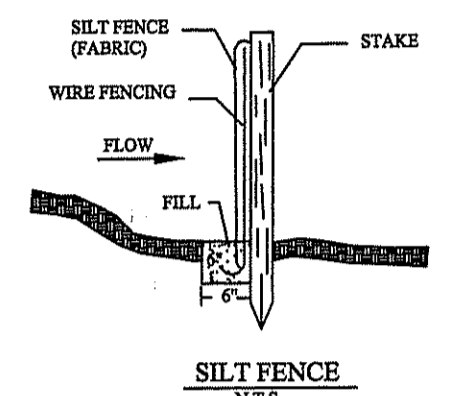
EROSION CONTROL NOTES

- Prior to any construction activity hay bales with silt fencing shall be placed as shown and maintained throughout the construction process.
- All disturbance is to be limited to the areas shown, and is to be kept to an absolute minimum.
- All excavated material (soil) to be used, as backfill shall be stockpiled upland from the hay bale/silt fence line. Silt fencing should surround this stockpile material. All excess unwanted excavated materials, construction debris etc., shall be removed from the site and disposed of in a proper manner.
- No disturbances shall occur outside of the hay bale/silt fence line during construction of the proposed improvements.
- All disturbed areas including back filled and graded areas shall be loamed and seeded as soon as possible upon completion of all construction. All slopes and exposed areas shall be stabilized with straw mulch. Jute netting or seed blankets should be utilized where the slope is 3:1 or greater.
- The hay bale/silt fence line is to remain in place until after the grass has properly rooted, approximately six to eight weeks. Must be inspected by design engineer prior to removal and design engineer must provide written approval to the applicant/owner, contractor and RIDEM-Freshwater Wetlands Program.
- The following seed mix is to be used in all disturbed and exposed areas. Before seeding, however, a minimum of four inches of compacted loam is to be placed in the affected areas at a rate of 12.4 cubic yards per 1000 square feet.

SEED MIXTURE-GENERAL PURPOSE

SEED MIXTURE	LBS/ACRE	LBS/1000 SQUARE FEET
Red Fescue	75	1.75
Kentucky Bluegrass	15	.35
Colonial Bentgrass	5	.11
Perennial Ryegrass	5	.11

The straw mulch is to be applied at a rate of 90 lbs. per 1000 square feet. The grass seed should be planted between April 1-June 15 and August 15-September 30.



INSPECTION/MAINTENANCE OF WATER QUALITY AND STORMWATER STRUCTURES

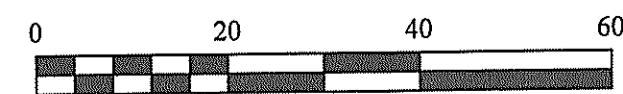
- VEGETATED SWALE**
- INSPECT SWALES AT THE END OF MAJOR STORM EVENTS, CORRECT EROSION GULLIES AND MAINTAIN A HEALTHY STAND OF VEGETATION.
 - REMOVE ANY SEDIMENT BUILD-UP WITHIN THE BOTTOM OF THE SWALE.
 - MAINTAIN AVERAGE GRASS HEIGHT OF 6 INCHES.

LEGEND

- EXISTING STONE BOUND
- EXISTING REBAR OR IRON PIPE
- EXISTING UTILITY POLE
- EXISTING WATER VALVE
- BUILDING SETBACK LINE
- OVERHEAD UTILITIES
- EXISTING CONTOUR ELEVATION
- PROPOSED CONTOUR ELEVATION
- SILT FENCE OR FILTRATION SOCK

A.P. 9 LOT 53-4
 APPROX. SEPTIC FIELD
 (No records found taken from survey plans)

BM EXISTING SPIKE NORTH SIDE OF POLE ELEV. = 100.00' ASSUMED



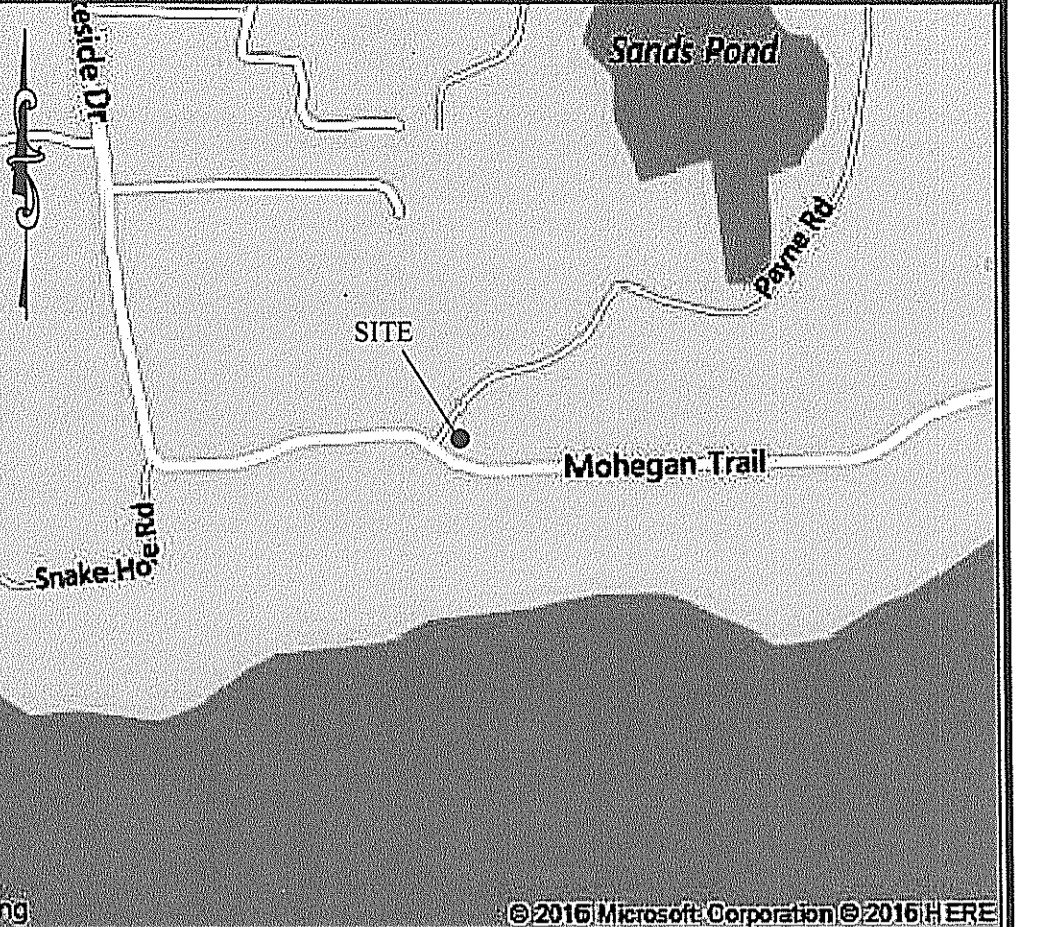
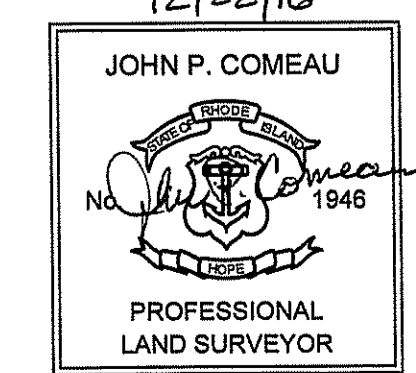
DATE	REVISIONS
12/9/2016	Revised per RIDEM review Added underground electric

CERTIFICATION:
 THIS SURVEY HAS SUBSTANTIALLY BEEN CONDUCTED AND THE PLAN HAS SUBSTANTIALLY BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON JAN. 1, 2016, AS FOLLOWS:

A. NOT A BOUNDARY SURVEY
 B. DATA ACCUMULATION SURVEY CLASS III VERTICAL CONTROL ASSUMED CLASS 1-2

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:
 SHOW THE RELATIONSHIP FOR PROPOSED IMPROVEMENTS TO EXISTING BOUNDARY INFORMATION UTILIZING PLANS, RECOVERED MONUMENTS AND FIELD WORK PERFORMED BY JOHN P. COMEAU, P.L.S., DATED FEB. 2016. THIS PLAN AND SURVEY ARE CORRECT TO THE BEST OF MY BELIEF AND KNOWLEDGE.

BY: *John P. Comeau* 12/22/16
 JOHN P. COMEAU LIC #1946
 COA L.S. 000426



NOTE: REFERENCE IS HEREBY MADE TO THAT CERTAIN PLAN ENTITLED "SURVEY PREPARED FOR: RITZINGER ASSESSOR'S PLAT 9 LOTS 57 & 59 MOHEGAN TRAIL NEW SHOREHAM, RHODE ISLAND DATE: 2000 SCALE: 1" = 20' BY DAVID GARDNER & ASSOCIATES INC. ENGINEER OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESOURCES OWTS & FRESHWATER WETLANDS JOINT PERMIT APPROVAL

OWTS# 9422-1415 FWH# 10-02-05

APPROVED BY: *John P. Comeau* DATE: 1/17/17

No Changes Allowed Without RIDEM Approval
 Approved Plans/Permit Must Be Kept at Construction Site

- GENERAL WETLAND NOTES:**
- Map is compiled from on-site fieldwork completed by John P. Comeau, P.L.S.
 - Topography as represented is based on an assumed datum.
 - The wetland edge on subject parcel was field delineated (flagged) by Island Environmental, Claire McElderry Biologist.
 - The proposed dwelling, OWTS and associated improvements are outside the 100 - Year Floodplain as referenced on the following maps entitled, "FIRM Flood Insurance Rate Map Washington County, Rhode Island Panel 346 of 368 Community New Shoreham, Town of Number 44009 0346 Suffix J Map Number 44009C0346J Effective Date: October 16, 2013".
 - Prior to commencement of any site alterations, permanent buffer zone markers (posts) must be installed along the limit of disturbance at the locations indicated.
 - The buffer zone markers (posts) are to consist of 4" x 4" pressure treated or cedar timber posts. These markers must extend a minimum 24" above grade.

"Copy of permit and Operation/Maintenance contract must be filed in land evidence records prior to commencement."

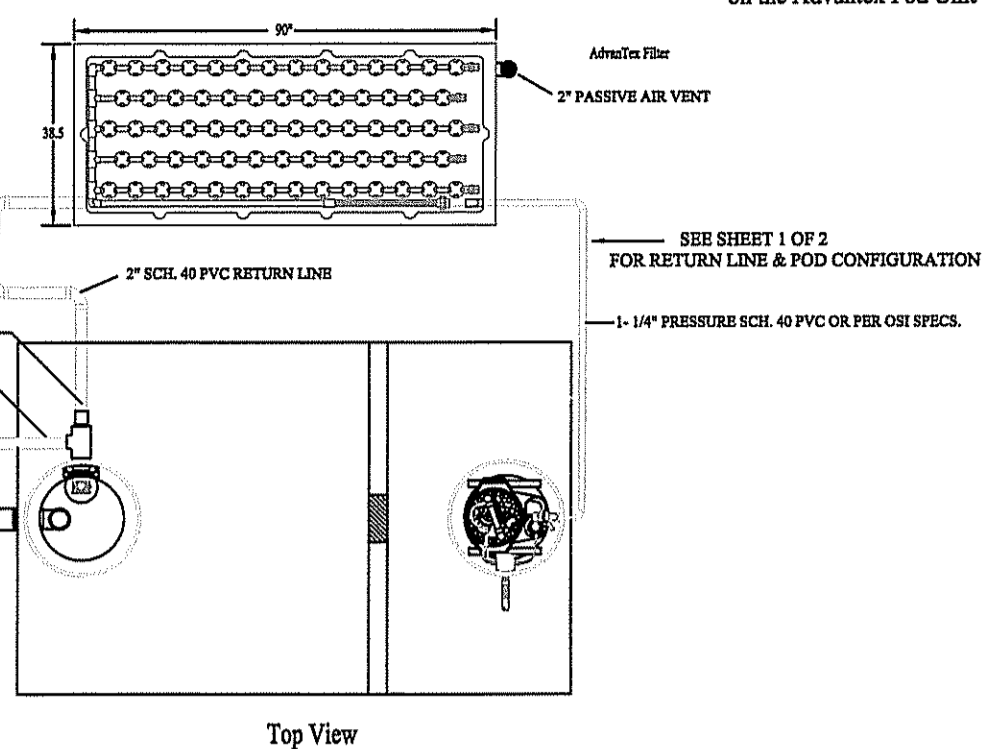
- GENERAL OWTS CONSTRUCTION NOTES:**
- THE GENERAL VICINITY IS SUPPLIED WITH PRIVATE WELL WATER. THERE ARE NO EXISTING OR PROPOSED NEIGHBORING POTABLE AND NON-POTABLE WELLS WITHIN 200' OF THE PROPOSED USE. THERE ARE ALSO NO EXISTING OR PROPOSED PUBLIC WELLS WITHIN 500' OF THE PROPOSED OWTS OR RESERVOIRS WITHIN 200' OF THE PROPOSED OWTS.
 - THE PROPOSED LEACHFIELD (BSF) IS 151' x 25' FROM ANY WETLAND FEATURE.
 - THE PROPOSED SEPTIC TANK SHALL BE A 1500 GAL. (MIN.) 2-COMPARTMENT PRECAST TANK WITH AN ANTI-FLOATATION COLLAR AND BE EQUIPPED WITH AN ADVANTEK TREATMENT SYSTEM - AX 20 SERIES - MODEL 33 CW SYSTEM (SHALL BE SUPPLIED BY ORENCO SYSTEMS, INC. REFER TO ATTACHED DETAIL SHEET (S) FOR ADDITIONAL INFORMATION AND TYPICAL DETAILS. THE SEPTIC TANK MUST MEET ASTM STANDARD C-1227-97A. IT IS REQUIRED THAT THE SEPTIC TANK BE ACQUIRED FROM JOLLY PRECAST, TEL: 860-774-9066. IT IS RECOMMENDED THAT THE BOTTOM OF THE SEPTIC TANK HOLE BE EXCAVATED TO A DEPTH TO ALLOW FOR A MINIMUM 6" BASE OF PEA STONE TO PREVENT SETTLING (BEFORE PLACING AGGREGATE COMPACT BOTTOM OF HOLE). IT IS RECOMMENDED THAT THE SEPTIC TANK BE INSTALLED IN THE DRY SEASON (JUNE - NOVEMBER).
 - GRADE SYSTEM AREA PROPERLY TO ENSURE SURFACE WATER RUN-OFF. DO NOT LOAM AND SEED OVER THE BSF AS THIS IS NOT ALLOWED. PARKING OR VEHICULAR TRAFFIC OVER SYSTEM IS PROHIBITED. CLEAR ALL TREES AND SHRUBS WITHIN 10 FEET OF PROPOSED BSF.
 - THE HOUSE SANITARY LATERAL PIPING SHALL BE 4" SCH-40 PVC OR BETTER SPECIFICATION OR AS NOTED ON THESE PLANS. ALL BSF LATERAL PIPING SHALL BE 3/4" PRESSURE SCH-40 PVC. THE MANFOLD IN THE BSF SHALL BE 1-1/4" PRESSURE SCH-40 PVC. THE TRANSPORT LINE (FORCE MAIN) FROM THE PUMP CHAMBER TO THE BSF SHALL BE 2" PRESSURE SCH-40. ALL ADVANTEK SYSTEM PIPING IS PREDETERMINED OR AS SPECIFIED BY OSI. ALL ADVANTEK COMPONENTS MAYBE ACQUIRED FROM ATLANTIC SOLUTIONS, INC., TEL: 401-293-0176.
 - TWO (2) MAN-HOLE RISERS (ORENCO RIBBED PVC RISERS) WITH COVERS SHALL BE INSTALLED OVER THE SEPTIC TANK ENDS AND SHALL BE RAISED ABOVE THE FINISHED GRADE BY 12". FIBERGLASS INSULATED GASKETED COVERS WITH STAINLESS STEEL BOLTS ARE TO BE UTILIZED. TO PREVENT FROST HEAVE AROUND PVC RISERS BACK FILL WITH PEA GRAVEL.
 - THERE ARE NO SUBSURFACE DRAINS, INCLUDING FOUNDATION DRAINS EXISTING OR PROPOSED WITHIN 25 FEET OF THE PROPOSED SEWAGE DISPOSAL SYSTEM.
 - THE SUBJECT PROPERTY IS OUTSIDE THE "CRITICAL RESOURCE AREA" AS DEFINED BY RIDEM - OWTS PROGRAM.
 - THE SEPTIC TANK SHALL BE PUMPED OF CONTENTS WHEN THE SLUDGE DEPTH BECOMES GREATER THAN 1/4 THE LIQUID DEPTH. THE TIME BETWEEN PUMPINGS WILL VARY, BUT IT IS SUGGESTED THAT THE SEPTIC TANK BE PUMPED OF CONTENTS AND INSPECTED AT LEAST EVERY TWO YEARS AND MORE FREQUENTLY WHEN EXTENDED PERIODS OF HIGH FLOW RATES ARE EXPERIENCED.
 - THE ORENCO REPRESENTATIVE PRIOR TO INSTALLATION MUST VERIFY ALL SYSTEM COMPONENTS TO BE IN COMPLIANCE. THE DESIGNER SHALL SUPERVISE THE OWTS INSTALLATION AS REQUIRED.
 - WHEN CONSTRUCTING THE BOTTOMLESS SAND FILTER REMOVE ALL EXISTING VEGETATION, ORGANIC MATTER, TOPSOIL AND SUBSOIL TO A DEPTH OF 106.75' WITHIN THE SAND FILTER AREA. THE BOTTOM OF THE EXCAVATION AREA MUST BE SCARIFIED, MIX 3" OF CONCRETE SAND WITH 3" OF NATIVE SOIL BELOW THE SAND FILTER AREA. NEXT CONSTRUCT THE BOTTOMLESS SAND FILTER WHERE PARTICULAR ATTENTION MUST BE GIVEN DURING THE INSTALLATION OF THE PRESSURE TREATED TIMBERS OR OTHER APPROVED RETAINING STRUCTURE IN CONNECTION WITH THE INSTALLATION OF THE SAND MEDIA. THE INSTALLER MUST ENSURE THAT THE BOTTOM REMAINS SCARIFIED BEFORE THE PLACEMENT OF CONCRETE SAND (ASTM-C33). IT IS IMPERATIVE THAT THE BOTTOM DOES NOT BECOME COMPACTED FROM THE USE OF EQUIPMENT OR FOOT TRAFFIC. IF WARRANTED THE BOTTOM MUST BE RE-SCARIFIED BEFORE THE PLACEMENT OF CONCRETE SAND. THE CONCRETE SAND IS TO BE ACQUIRED FROM THE HOLLISTON SAND COMPANY, INC., SLATERSVILLE, RI OR DRY BRIDGE SAND & GRAVEL, PEACEDALE, RI.
 - A BENCHMARK MUST BE SET WITHIN 150' OF THE PROPOSED SEPTIC SYSTEM AND DWELLING PRIOR TO THE START OF ANY CONSTRUCTION. THE BENCHMARK MUST REMAIN IN PLACE FOR THE DURATION OF THE PROJECT.
 - PRIOR TO ANY CONSTRUCTION IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE BENCHMARK ELEVATION. IF ANY DISCREPANCIES ARE NOTED, PLEASE CONTACT DESIGNER IMMEDIATELY.
 - ALL WARRANTIES OF THE SYSTEM COMPONENTS ARE AS PRESENTED BY THE COMPANIES INVOLVED.
 - LOW WATER VOLUME FIXTURES SHOULD BE USED IN THE PLUMBING AND A GARBAGE DISPOSAL UNIT IS NOT ALLOWED TO DISCHARGE INTO THE PROPOSED OWTS. ALSO, BACKWASH OR DISCHARGE FROM A WATER TREATMENT SYSTEM IS PROHIBITED FROM ENTERING THE PROPOSED SEPTIC SYSTEM.
 - PRIOR TO ANY CONSTRUCTION ACTIVITY A LINE OF SILT FENCE SHALL BE INSTALLED AS INDICATED (SEE "EROSION CONTROL NOTES").

PLAN SHOWING ONSITE WASTEWATER TREATMENT AND SITE IMPROVEMENTS PREPARED FOR:

NICHOLAS GORHAM
 ASSESSOR'S PLAT 9 LOT 59
 MOHEGAN TRAIL
 NEW SHOREHAM, RHODE ISLAND
 DATE: JUNE 2016 SCALE: 1" = 20'

JOHN P. COMEAU, P.L.S.
 P.O. BOX 419
 1122 MAIN STREET
 WYOMING, RHODE ISLAND 02898
 TEL: 401-491-9197
 LIC. CT. & R.I.

Advantex Treatment System
AX 20 Series - Mode 3B CW
N.T.S.



Advantex-AX20 Mode 3B CW
Anti Flotation Flanges are required on the Advantex Pod Unit

NOTE: PRECAST CONCRETE SEPTIC TANK SHALL BE A TWO COMPARTMENT TANK. SHALL HAVE A 150 GALLON MINIMUM CAPACITY AND SHALL BE COMPLETELY WATERTIGHT (ASTM-C1227-97A).

ADVANTEX TREATMENT SYSTEM GENERAL NOTES:

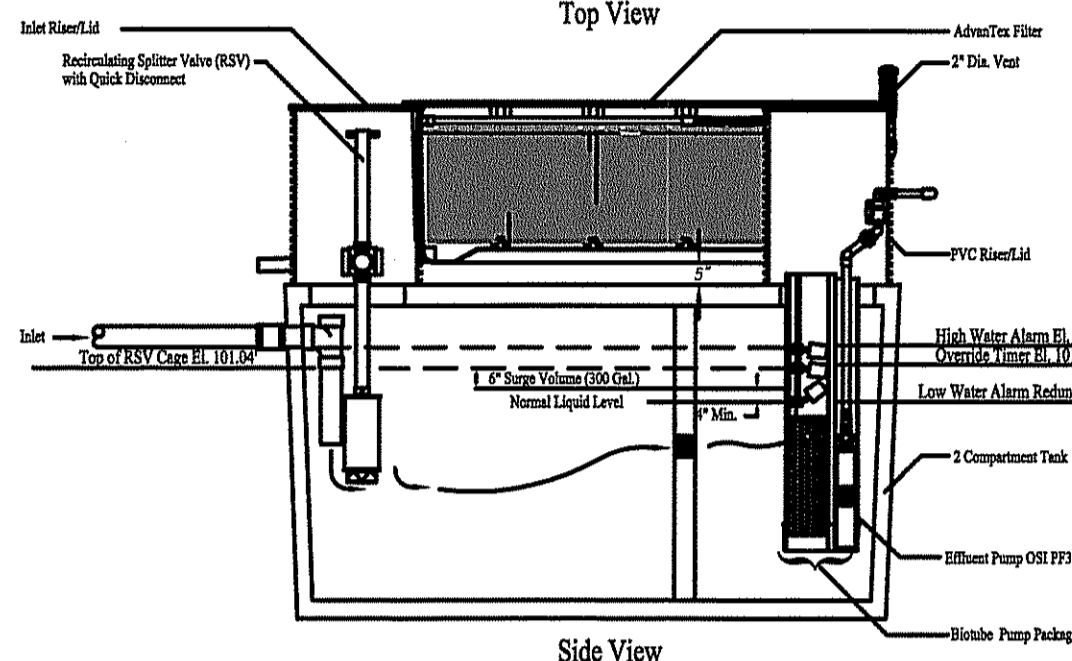
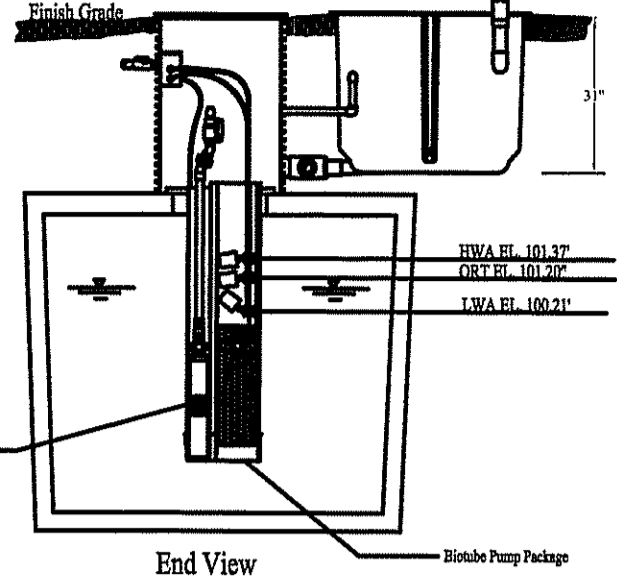
- VENDOR INFORMATION: TECHNICAL INFORMATION OR VENDOR SERVICE MAY BE OBTAINED FROM THE FOLLOWING OREGON SYSTEMS, INC. 414 WARWICK AVENUE, SUTHERLIN, OR 97479 TEL: 1-800-348-940 FAX: 1-541-439-2884 or ATLANTIC SOLUTIONS, INC. FORTSMOUTH, RI TEL: 1-401-771-7810. FOR START-UP AND MAINTENANCE SERVICE CONTACT ATLANTIC SOLUTIONS, INC. AT THE NUMBER NOTED ABOVE.
- THE TREATMENT SYSTEM PROVIDED (ADVANTEX TREATMENT SYSTEM-AX20 SERIES) MEETS THE REQUIREMENTS OF A CATEGORY 1 SYSTEM. ADVANCED TREATMENT UNIT THAT IS TREATED EFFLUENT AND HAS BEEN CLASSIFIED BY IDEM AS MEETING EFFLUENT STANDARDS LESS THAN OR EQUAL TO 20 mg/L FOR BOTH BOD AND TSS, AND FOG OF LESS THAN OR EQUAL TO 5 mg/L.
- THE SEPTIC TANK AND PUMP CHAMBER FOR THE ADVANTEX TREATMENT SYSTEM SHALL CONSIST OF WATER TIGHT CONSTRUCTION AND SHALL BE PROVIDED WITH WATER TIGHT PLASTIC OR FIBERGLASS RISERS ABOVE FINISHED GRADE. THE ONLY PIPE TO THE CONCRETE SEPTIC TANK SHALL HAVE A FLEXIBLE RUBBER SEAL, SECURED BY STAINLESS STEEL BAND TO FORM A WATER TIGHT CONNECTION. WATER TIGHT RUBBER GROMMETS SHALL BE USED AT INLET AND OUTLET PIPES TO PLASTIC OR FIBERGLASS PUMP CHAMBERS/BASINS.
- THE PUMP CHAMBER SPECIFIED AFTER THE TREATMENT SYSTEM DISCHARGING TO THE BSF SHALL PROVIDE A MINIMUM STORAGE VOLUME EQUAL TO THE DESIGN VOLUME POSED ON THE BSF DURING ONE PUMP RUN TIME AS INDICATED ON THIS SHEET.
- A LICENSED ELECTRICIAN SHALL INSTALL ALL ELECTRICAL COMPONENTS, WIRING, CIRCUITS, CONTROL ALARM PANELS, AND ELECTRONIC EQUIPMENT. PANELS PER STATE/NATIONAL ELECTRIC CODES REQUIREMENTS.
- THE ADVANTEX TREATMENT SYSTEM SHALL INCLUDE A PROGRAMMABLE TIMER TO PROVIDE SMALL DISSOLUTION DOSES OF TREATED EFFLUENT TO THE BSF THROUGHOUT THE DAY. THIS SYSTEM DESIGN DOES NOT TYPICALLY OCCUR TWICE PER HOUR, BUT WILL VARY BASED ON ACTUAL FLOW. THE DESIGNER SHALL VERIFY THAT INSTALLATION SHALL BE MADE WITH THE TIMER AND PUMP CHAMBER FLOAT SWITCHES AT THE TIME OF SYSTEM START-UP. THE SERVICE/MAINTENANCE PROVIDER SHALL INSPECT THE SYSTEM AFTER SUFFICIENT USE HAS OCCURRED (4 WEEKS) TO ENSURE THAT THE PROGRAMMABLE TIMER IS RESET, AS NEEDED, AND ADJUSTED FOR ACTUAL FLOW CONDITIONS ANY CHANGES ARE TO BE FORWARDED TO THE SYSTEM DESIGNER.
- THE INSTALLER SHALL PROVIDE A HIGH LEVEL WATER ALARM AND LOW WATER ALARM DEPENDENT ON FLOAT SWITCHES AS PART OF THE ADVANTEX SYSTEM TO OVERSEE THE PROGRAMMABLE TIMER IN THE EVENT OF THEIR MALFUNCTIONS OR TEMPORARY EXCESSIVE WATER USE. THE PUMP CHAMBER SHALL PROVIDE A HIGH LEVEL WATER ALARM, PUMP ON/OFF AND A LOW WATER ALARM. REDUNDANT OF FLOAT SWITCHES AS INDICATED. THE PUMP ON RUN TIME INTERVAL MAY BE PROGRAMMED THROUGH THE VCM CONTROL PANEL. PUMP ON/OFF ACTUATION OF THE ON FLOAT SWITCH (WHICH IS APPLICABLE BASED ON ESTIMATED FLOW CONDITIONS) FOR THE TIMER OVERDRIVE OR HIGH WATER ALARM FLOAT (WHICH IS APPLICABLE BASED ON ESTIMATED FLOW CONDITIONS) FOR EACH PUMP IN THE SYSTEM. THE ELAPSED TIME RUN TIMER AND DOING EVENT COUNTER SHALL BE NON-ADJUSTABLE. PUMP CONTROL PANELS SHALL BE MOUNTED ON A 4 X 4 PRESSURE TREATED POST AWAY FROM THE DWELLING FOR EASE OF SERVICE OF THE SYSTEM. IT IS RECOMMENDED THAT THE PANEL DOORS BE PLACED IN A MANNER WHICH VIEW OF THE SYSTEM LOCATION IS POSSIBLE TO HELP FACILITATE OPERATION AND MAINTENANCE.
- INSTALLATION OF THE ADVANTEX TREATMENT SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH THE ADVANTEX TREATMENT SYSTEM INSTALLATION GUIDE.
- IF THE ADVANTEX AX FILTER IS PLACED OVER THE TOP OF THE TANK, A MINIMUM 1/2" THICK LAYER OF COMPACTED PEAS OR GRAVEL MUST BE PLACED ON TOP OF THE TANK IN ORDER TO ACHIEVE THE REQUIRED SLOPE ON THE FILTERS RETURN LINE (MIN. 2" DROP TO BSF). REFER TO INSTALLATION GUIDELINES FOR SPECIAL LENGTH REQUIREMENTS. THE ADVANTEX FILTER IS SLOPED 1" TO 1' TOWARD THE DISCHARGE TO MINIMIZE PONDING IN THE BOTTOM OF THE FILTER. DO NOT SLOPE EXCESSIVELY, AS THIS WILL MAKE THE TOP OF THE FILTER LOOK "OUT OF KILTER."
- RISER TANK ADAPTERS AND ACCESS RISERS SHALL BE CONSTRUCTED TO BE WATERTIGHT. CARE SHALL BE TAKEN TO ORIENT RISERS TO CORRECT POSITIONS BEFORE REQUIRED ADHESIVE CURES. RISER-ADAPTER JOINTS SHALL ALSO BE SEALED BETWEEN THE ADAPTER AND RISER JOINT WITH A CONTINUOUS FILLET OF ADHESIVE SEALER. INSTALLER SHALL WATER TEST TANK AND RISER CONNECTIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SAFETY GUIDELINES. INSULATED LIDS OR COVERS SHALL BE UTILIZED OVER THE RISERS AND ARE AVAILABLE THROUGH OREGON SYSTEMS, INC OR LICENSED VENDOR.
- INSTALLATION OF THE RECIRCULATING SPLITTER VALVE (RSV) SHALL BE INSTALLED WITHIN THE RISER OVER THE SEPTIC TANKS INLET AND MUST BE INSTALLED SO AS NOT TO INTERFERE WITH THE INLET TEE.
- THE HIGH-HEAD PUMP AND RESPECTIVE FLOAT LEVELS FOR THE ADVANTEX FILTER POD SHALL BE INSTALLED PER THE TWO COMPARTMENT SEPTIC TANK SHALL BE INSTALLED PER THE INSTALLATION GUIDELINES DOCUMENT AND MANUFACTURER'S SPECIFICATIONS.
- CONTROL PANEL, ELECTRICAL JUNCTION BOXES, AND WIRING RISERS SHALL BE INSTALLED BY A LICENSED ELECTRICIAN.
- PUMPS AND FLOAT LEVELS SHALL BE MANUALLY AND AUTOMATICALLY TESTED. DESIGNER SHALL BE PRESENT DURING TESTING OF SYSTEM COMPONENTS. MANUAL AND AUTOMATIC TESTING SHALL BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- WHENEVER AN ALARM CONDITION OCCURS, THE RED LIGHT ON THE FRONT OF THE ALARM PANEL WILL COME ON, ALONG WITH THE AUDIBLE BEEP. THE AUDIBLE PORTION OF ALL ALARMS CAN BE SILENCED BY PUSHING THE ILLUMINATED LIGHT.

ADVANTEX TREATMENT SYSTEM OPERATION & MAINTENANCE (O&M) REQUIREMENTS

- WARNING - BEFORE DOING ANY WORK ON EITHER THE WIRING TO THE LEVEL CONTROL FLOATS AND PUMPS IN THE VAULT, TANKS, OR ON THE CONTROL PANEL, PULL THE FUSES AND/OR SWITCH ALL THE CIRCUIT BREAKERS SERVING THE CONTROL PANEL TO THE "OFF" POSITION. DO NOT ENTER A CONFINED SPACE WITHOUT USING PROPER EQUIPMENT AND FOLLOWING STANDARD CONFINED SPACE SAFETY PRECAUTIONS.
- THE INSTALLER AND SYSTEM SERVICE PROVIDER SHALL BE FAMILIAR WITH THE ADVANTEX TREATMENT SYSTEM O&M MANUAL REQUIREMENTS AND PROCEDURES FOR THE SYSTEM TO BE INSTALLED.
- THE OWNER (S) SHALL BE PROVIDED WITH A 3-YEAR LIMITED WARRANTY FOR THE ADVANTEX TREATMENT SYSTEM FROM OREGON SYSTEMS, INC. OR A LICENSED VENDOR. THIS WARRANTY REQUIRES THE OWNER (S) OF THE SYSTEM TO OBTAIN A 3-YEAR SERVICE CONTRACT BY AN OREGON AUTHORIZED SERVICE PROVIDER, AS SPECIFIED OUT IN THE SALES CONTRACT.
- THE INSTALLER SHALL PROVIDE THE OWNER (S) WITH HOW WARRANTY INFORMATION - TYPICALLY 5 YEARS FOR THE O&M PUMPS.
- REGULAR INSPECTION AND MAINTENANCE OF THE ADVANTEX TREATMENT SYSTEM COMPONENTS SHALL BE PERFORMED TWO (2) MONTHS AFTER SYSTEM START-UP AND THEN EVERY 12 MONTHS THEREAFTER, OR MORE FREQUENTLY, IF NECESSARY. PUMP OPERATIONS, CONTROL PANELS, PUMP ALARMS AND TIMER SETTINGS SHALL BE TESTED IN ACCORDANCE WITH THE O&M MANUAL REQUIREMENTS. ALL OUTLINED SAFETY PRECAUTIONS SHALL BE TAKEN DURING TESTING AND SERVICING OF THE SYSTEM.
- MEASUREMENT OF SOLIDS ACCUMULATION SHOULD BE PERFORMED SO THAT THE PROCESSING TANK (SEPTIC TANK) PUMPING RECOMMENDATIONS CAN BE GIVEN TO THE OWNER. A RECOMMENDATION FOR PUMPING SHALL BE MADE WHEN THE THICKNESS OF THE SCUM LAYER IS WITHIN 3" OF THE FLOW-THROUGH PORTS OF THE PUMP VAULT (A TANK COMPARTMENT) OR WHEN THERE IS AN ACCUMULATION OF SLUDGE WITHIN 6" BELOW THE FLOW-THROUGH PORTS.
- TEXTILE FILTER MEDIA (AX - HANGING SHEETS) WITHIN THE RECIRCULATING FILTER POD SHALL BE CLEANED/REPLACED AS NECESSARY IN ACCORDANCE WITH THE ADVANTEX O&M MANUAL AND MANUFACTURER'S RECOMMENDATIONS.
- THE BIOTUBE SHALL BE HOSED OFF ON A YEARLY BASIS, AND WHENEVER THE SEPTIC TANK IS PUMPED. SYSTEMS OPERATING ABOVE THEIR DESIGN FLOWS MAY REQUIRE MORE FREQUENT CLEANING. WHEN CLEANING THE BIOTUBE COMPLETES THE FOLLOWING:
Turn circuit breaker off at service panel.
Switch MDA and circuit breakers in control panel to "OFF".
Slide cartage out of vault.
If necessary, the RSV may be removed to allow room in the riser for cleaning the Biotube.
Pull BSF out of the Quick Disconnect holder and place it in a plastic trash can.
Slide off trash can into the tank after replacing the RSV.
Hold Biotube cartage over open inlet of tank or primary compartment.
Carefully spray holding on into tank with garden hose.
If there are significant solids in vault, remove and clean it too.
Pull pump, place it on a clean riser lid and clean as needed to be sure to check linkage screws, wash off particles as necessary.
- ALL TANKS AND BASINS SHALL BE VISUALLY INSPECTED FOR WATER-TIGHTNESS AND STRUCTURAL SOUNDNESS WHEN MAINTENANCE IS PERFORMED.
- WHEN PERFORMING MAINTENANCE WORK REVIEW THE "ADVANTEX O & M MANUAL" FOR SPECIFIC DETAILS. ALL MAINTENANCE IS TO BE PERFORMED BY AN AUTHORIZED VENDOR.

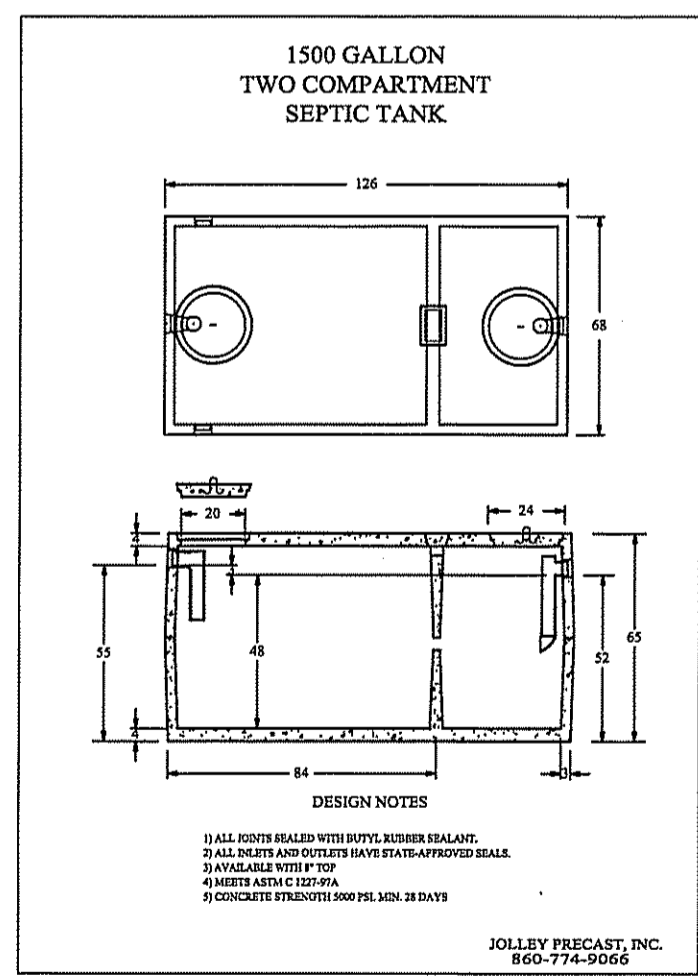
ADVANTEX SYSTEM/BOTTOMLESS SAND FILTER CONTROL PANEL REQUIREMENTS

NOTE: CONTROL PANEL SHALL BE OSI VCM ADVANTEX AXB PANEL, 115V AND SHALL BE CAPABLE OF CONTROLLING TWO (2) PUMPS, CONTROL PANEL SHALL ALSO BE CAPABLE OF RUNNING ELAPSED TIME METERS, DIGITAL FLOAT SWITCH DATA AND USE ONE FLOAT TYPE FOR ALL FUNCTIONS.



PUMP BASIN FOR TREATED EFFLUENT - ELEVATION SCHEDULE DATA

Chamber Top = 105.80'
Chamber Height = 84" (7.0') Depth
Chamber Diameter = 24" (2')
Chamber Inv. In = 102.30'
Chamber invert Out = 102.80 ±
High Water Alarm = 101.54'
Pump On = 101.13' ; Pump Off = 100.3'
Dosing Per Cycle = 19.58 Gallons
Chamber Bottom = 98.80'



DESIGN NOTES:
1. ALL SIZES SHOWN UNLESS OTHERWISE SPECIFIED.
2. ALL SIZES AND DIMENSIONS HAVE UNLESS OTHERWISE SPECIFIED.
3. UNLESS OTHERWISE SPECIFIED.
4. DIMENSIONS IN PARENTHESIS ARE PER 28 CFR 101.10.

NOTE: OSI PUMPS ARE MANUFACTURED BY OSI PUMPS, INC. 1000 W. 10TH ST. S. TULSA, OK 74106. TEL: 918-439-1111. FAX: 918-439-1112. WWW.OSIPUMPS.COM

IMPORTANT NOTE: This system has been designed by a licensed sewage disposal system designer, John P. Comeau, PLS (Designer License 20268) and must be installed under the supervision of the designer and inspected by the designer. Please read the application form that accompanies this plan which the designer will complete and sign. The installer must notify the designer at least 72 hours prior to the installation of the system. The designer will contact IDEM to give notification of the installation date at least 24 hours prior to the installation of the system. The designer may be contacted at (401) 491-9197.

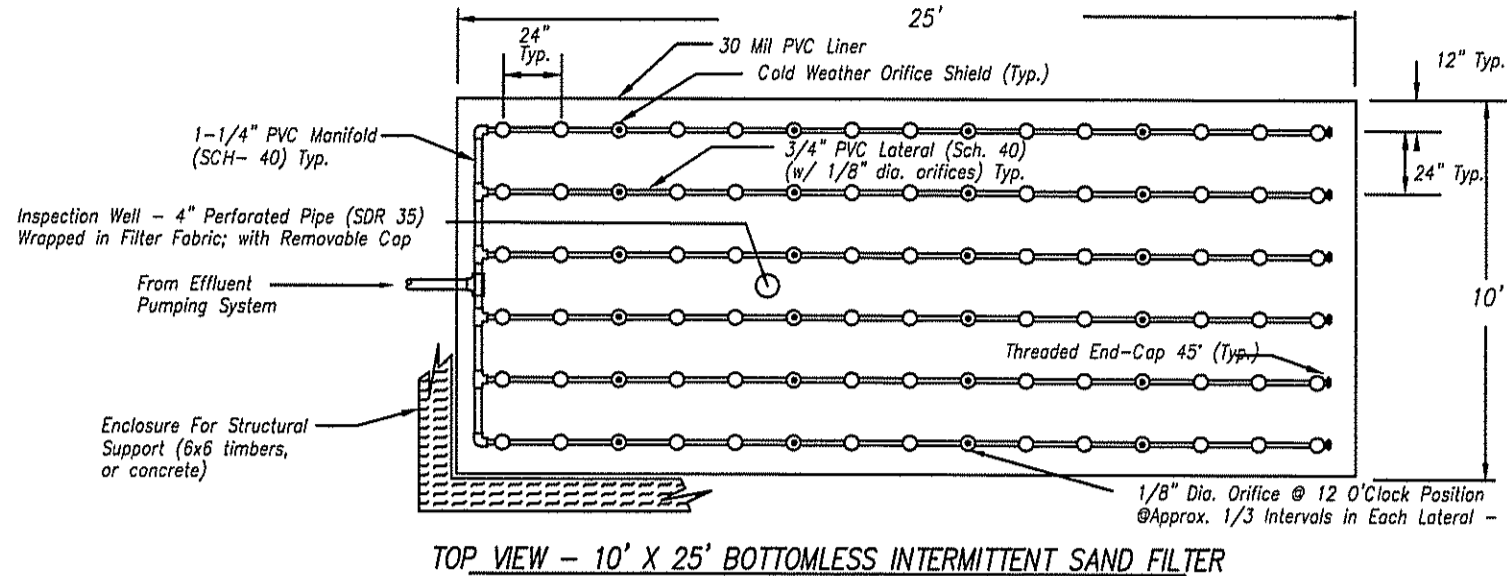
MAINTENANCE & WARRANTY NOTES: The installer shall provide the owner and designer with copies of the Advantex System operation manual and maintenance requirements. The owner shall be responsible for maintaining all system components in accordance with the manufacturer's recommendations. The effluent filter media and system components shall be maintained as required for the system to properly operate.

10' x 25' Bottomless Intermittent Sand Filter Detail

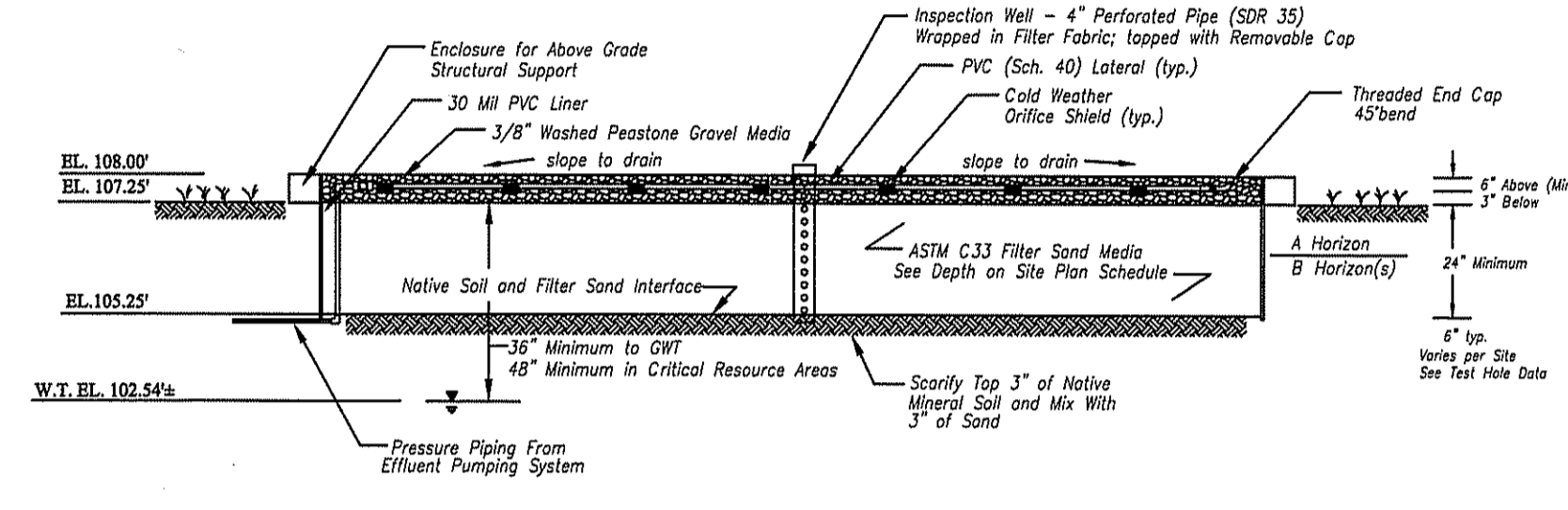
Design Application Loading Rate = 2.3 GPD/S.F.

SIZING OF BOTTOMLESS INTERMITTENT SAND FILTER

460 gallons per day ÷ 2.3 Gallons/sf/day (loading rate) = 200.00 sf
Required Dimensions of Sand Filter Area = 10' x 25' L
Provided Dimensions of Sand Filter Area = 10' x 25' L



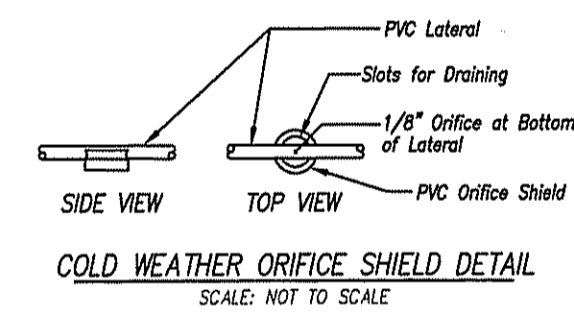
TOP VIEW - 10' x 25' BOTTOMLESS INTERMITTENT SAND FILTER
SCALE: NOT TO SCALE



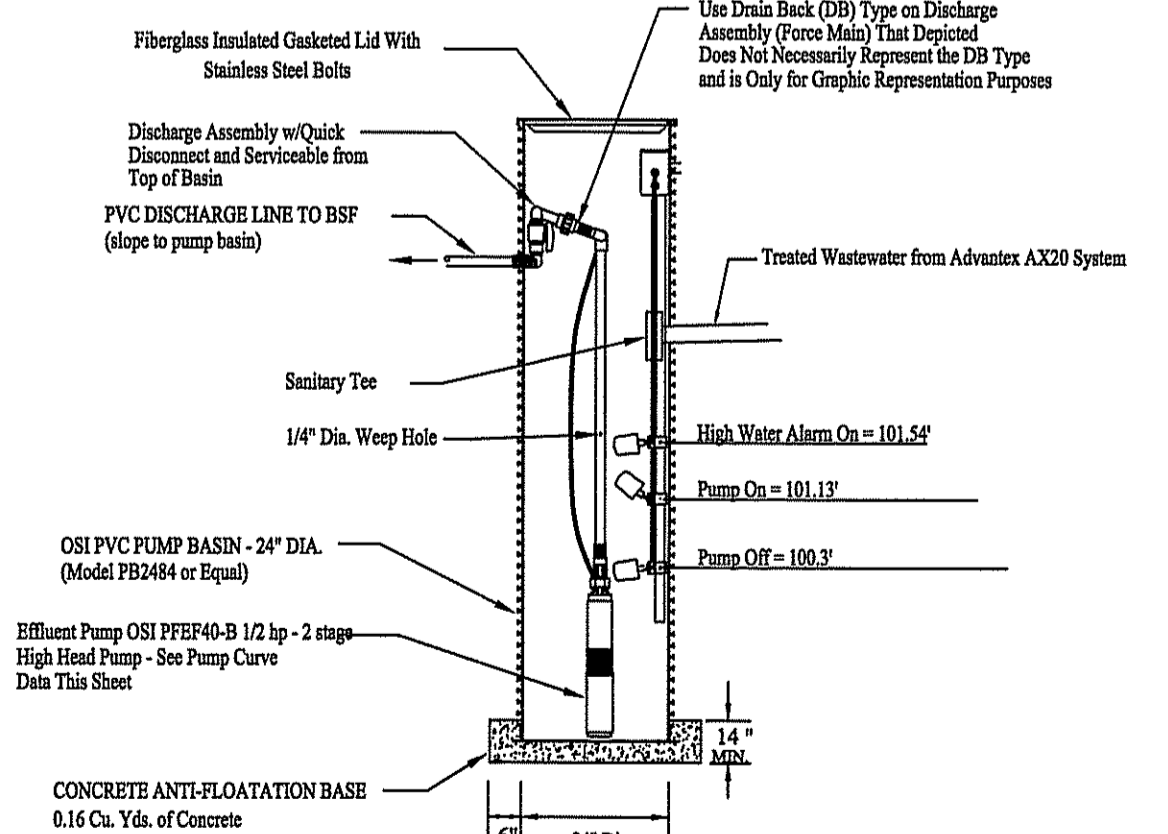
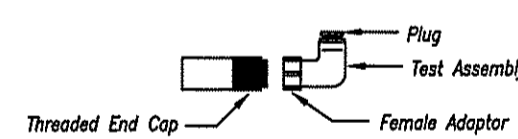
CROSS SECTION - BOTTOMLESS INTERMITTENT SAND FILTER
SCALE: NOT TO SCALE

BOTTOMLESS SAND FILTER (BSF) OPERATION & MAINTENANCE (O&M) REQUIREMENTS:

- WARNING - BEFORE DOING ANY WORK ON EITHER THE WIRING TO THE LEVEL CONTROL FLOATS AND PUMPS IN THE VAULT, TANKS, OR ON THE CONTROL PANEL, PULL THE FUSES AND/OR SWITCH ALL THE CIRCUIT BREAKERS SERVING THE CONTROL PANEL TO THE "OFF" POSITION. DO NOT ENTER A CONFINED SPACE WITHOUT USING PROPER EQUIPMENT AND FOLLOWING STANDARD CONFINED SPACE SAFETY PRECAUTIONS.
- TO REMOVE ACCUMULATED SOLIDS IN LATERALS, FIRST OPEN THE LATERAL END BALL VALVE OR THREADED END CAP, ENGAGE THE PUMP AND FLUSH OUT ANY SOLIDS. A BOTTLE BRUSH (SIZED APPROPRIATELY FOR THE LATERAL) ATTACHED TO A PLUMBERS SHANK IS THEN PUSHED DOWN EACH LATERAL TO UNLOOSE THE SOLIDS. WITH THE BOTTLE BRUSH REMOVED, THE PUMP SHOULD AGAIN BE MANUALLY ENGAGED AND EACH LATERAL LINE FLUSHED OUT THROUGH THE LATERAL END OR THREADED END CAP. PARTICULARLY DIRTY OR MAINTENANCE-NEGLECTED LATERALS SHOULD BE FLUSHED DIRECTLY INTO A BUCKET BY USING A GARDEN HOSE OR PRESSURED PORTABLE WATER SUPPLY AND THREADED FITTING ASSEMBLY. NOTE: IF A HOSE BIB OR DWELLING WATER SUPPLY IS USED SERVICE PROVIDER SHALL INSTALL A PROPER BACKFLOW PREVENTION DEVICE TO PREVENT CROSS CONTAMINATION. A BSF IN CONTINUOUS USE WILL REQUIRE LATERAL FLUSHING/BOTTLE BRUSH TREATMENT ONCE A YEAR ON AVERAGE. BSF'S OPERATING ABOVE THEIR DAILY DESIGN FLOWS MAY REQUIRE MORE FREQUENT LATERAL FLUSHING. SEASONALLY-USED BSF'S MAY NOT NEED YEARLY LATERAL FLUSHING, BUT THEIR LATERAL HEAD (pressure) SHOULD BE CHECKED ONCE PER YEAR, AND MAINTENANCE PERFORMED AS NEEDED.
- THE PEASTONE SURFACE SHALL BE KEPT FREE OF DEBRIS, WEEDS, AND GRASSES. THE SURFACE SHALL BE LIGHTLY RAKED TO REMOVE ANY LEAVES, WEEDS AND GRASSES SHALL BE REMOVED BY HAND WHEN THEY FIRST APPEAR.
- ONCE A YEAR ALL ELECTRICAL COMPONENTS SHOULD BE CHECKED FOR FUNCTION. ALL FLOAT SWITCHES SHOULD BE ACTIVATED AND TIMERS SHOULD BE CHECKED AGAINST THEIR DESIRED SETTINGS. ALL FLOAT SWITCHES SHOULD BE HOSED DOWN TO PREVENT SOUM ACCUMULATION. ALL WIRING SHALL BE NEATLY BUNDLED AND PLACED OUT OF THE OPERATING PATH OF THE FLOAT SWITCHES.



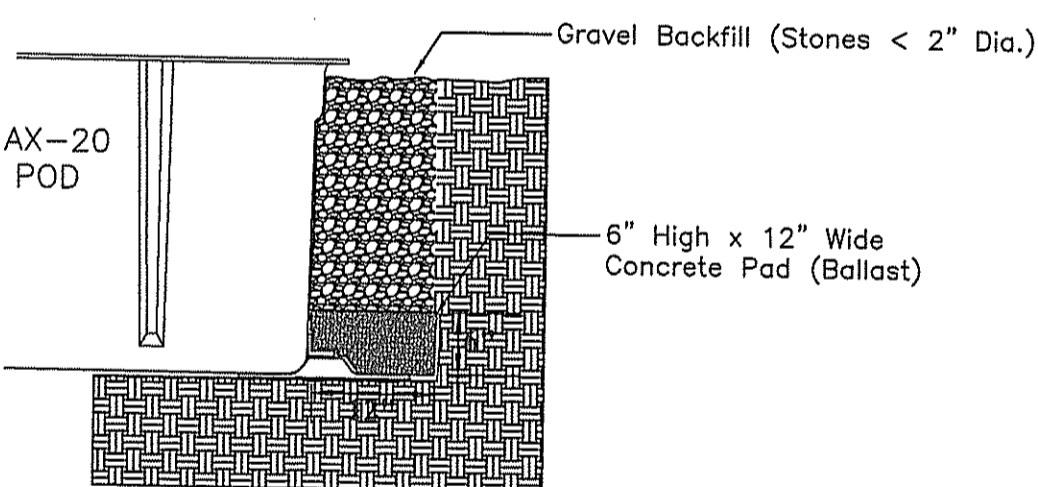
THREADED END CAP DETAIL



PUMP BASIN DETAIL
N.T.S.

BOTTOMLESS SAND FILTER GENERAL NOTES

- THE BOTTOMLESS SAND FILTER (BSF) SHALL BE INSTALLED BY A QUALIFIED LICENSED INSTALLER. THE INSTALLER SHALL BE FAMILIAR WITH THE REQUIREMENTS AND INFORMATION OF THE "GUIDELINES FOR THE DESIGN AND USE OF BOTTOMLESS SAND FILTERS" REFERRED TO AS THE SAND FILTER GUIDANCE DOCUMENT ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT. DESIGNER SHALL PROVIDE THE SAND FILTER GUIDANCE DOCUMENT TO THE INSTALLER.
- THE DESIGNER SHALL BE GIVEN ADEQUATE NOTIFICATION FROM THE INSTALLER TO PROVIDE PROPER INSPECTION OF THE BSF STRUCTURAL SUPPORT SYSTEM, 30 MIL PVC LINER MEMBRANE, ASTM C-33 SAND MEDIA MATERIALS, SYSTEM PIPING, AND COARSE PEASTONE GRAVEL MEDIA.
- PRIOR TO DELIVERY OF SAND AND PEASTONE GRAVEL MEDIA MATERIALS, THE INSTALLER SHALL PROVIDE THE DESIGNER WITH INFORMATION OF THE MATERIALS AND SERVICE ANALYSIS DATA TO ASSURE THAT THE MATERIALS MEET THE REQUIREMENTS OF GRADATION AND SPECIFICATIONS. THE SAND FILTER MEDIA MATERIALS SHALL MEET THE REQUIREMENTS OF THE GRADATION SPECIFICATIONS SHOWN ON THIS DETAIL SHEET WHICH CONFORM TO FIGURES 8 OF THE BSF GUIDANCE DOCUMENT. ALL MEDIA WITHIN THE STRUCTURAL ENCLOSURE AND THE BOTTOM OF THE BASIN MUST MEET THE REQUIREMENTS OF ASTM C-33 SAND WITH A STRUCTURAL COEFFICIENT OF 0.60 AND UNIFORMITY COEFFICIENT (C_U) OF 3.0 TO 4.0. THE MAXIMUM ALLOWABLE FINES PASSING THROUGH A NO. 200 SIEVE ANALYSIS PERFORMED SHALL BE 1% THE DESIGNER AND/OR PROPERTY OWNER SHALL BE RESPONSIBLE FOR OBTAINING THE SERVICE ANALYSIS DATA WHICH APPEARS NOT TO MEET THE BSF ASTM C-33 SPECIFICATIONS. SERVICE ANALYSIS PERFORMED SHALL MEET THE REQUIREMENTS OF ASTM D-154 AND ASTM C-117. THE METHODS SPECIFIED IN SOIL SURVEY LABORATORY METHODS AND PROCEDURES FOR COLLECTING SOIL SAMPLES, SOIL SURVEY INVESTIGATION REPORT #, U.S. DEPARTMENT OF AGRICULTURE, 1949, THE CONCRETE SAND AND PEASTONE GRAVEL MAY BE OBTAINED FROM THE ILLIHOIST SAND COMPANY, INC., SLATERSVILLE, RI OR DRY BRIDGES SAND & GRAVEL, PEACEDALE, RI.
- THE BOTTOMLESS SAND FILTER (BSF) MUST BE USED IN CONJUNCTION WITH THE REQUIRED ADVANCED PRETREATMENT SYSTEM INDICATED ON THE APPROVED DESIGN.
- THE PREPARED BOTTOM OF BED EXCAVATION FOR THE BSF SHALL BE INSPECTED BY THE DESIGNER PRIOR TO CONSTRUCTION OF THE STRUCTURAL ENCLOSURE AND PLACEMENT OF SAND FILTER MEDIA MATERIALS.
- THE LANDSCAPE AREA IMMEDIATELY ADJACENT TO THE BSF SYSTEM SHALL BE PROTECTED FROM HEAVY VEHICLE TRAFFIC AND EXCESSIVE WEIGHT LOADS, BEFORE, DURING AND AFTER CONSTRUCTION. THE SITE CONTRACTOR WITH THE DESIGNER SHALL INSTALL A PROTECTIVE FIBERGLASS BARRIER TO KEEP VEHICLES OFF THE LANDSCAPE AREA. WEEDS REQUIRED ON THE SITE PLAN, THE INSTALLER SHALL INSTALL WEED BARRIERS, FENCING OR WALLS TO PROTECT THE BSF AFTER SYSTEM CONSTRUCTION IS COMPLETED.
- THE FINISHED GRADE OF ANY BOTTOMLESS SAND FILTER SHALL BE A MINIMUM OF 6 INCHES ABOVE THE ELEVATION OF THE REBOUNDING FINISH GRADE TO PREVENT SURFACE WATER FROM FLOWING ONTO THE BSF FILTER AREA. LANDSCAPING TIMBERS SHALL BE PRESERVED AND SHALL BE RECORDED IN PLACE WITH IRON PINS, STEEL REBAR, OR GALVANIZED SPIKES TO THE SUPPORT WALLS TO PREVENT MOVEMENT. CONCRETE LANDSCAPING BLOCKS SUCH AS VIBRA-LOCK RETAINING WALL BLOCKS MAY BE SUBSTITUTED FOR THE SUPPORT WALLS. THE SUPPORT WALLS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND CONSTRUCTION METHODS. IN EITHER CASE THE OUTER LIMITS OF THE SAND FILTER AREA TO BE FORMED WITH FLYWOOD NEEDED TO SUPPORT THE 30 MIL LINER.
- THE LAND SURFACE ELEVATION 2 FEET BELOW THE PEASTONE/SAND FILTER MEDIA INTERFACE SHALL BE MAINTAINED FOR A DISTANCE OF 5 FEET FROM THE EDGE OF THE BSF - SEE APPLICABLE DETAIL. THIS SHEET, LAND SURFACE REBOUNDING ADDING THIS 5 FOOT PERMITTER MUST MAINTAIN A MINIMUM OF 1% SLOPE DOWN GRADIENT.
- THE DESIGNER WILL AID IN THE STAKEOUT OF THE PROTECTED BSF AREA PRIOR TO ANY SITE PREPARATION ACTIVITIES.
- A MINIMUM BUFFER OF TEN (10) FEET SHOULD BE MAINTAINED BETWEEN BSF'S AND NEIGHBORING TREES AND SHRUBS. AT LOCATIONS WHERE A 10-FOOT BUFFER IS NOT MAINTAINED FROM EXISTING TREES OR NEW SHRUB PLANTINGS TO SCREEN THE BSF SYSTEM, THEN A ROOT BARRIER FABRIC SHALL BE PLACED BETWEEN THE TREES AND THE BSF.
- PUMP SPECIFIED AFTER THE ADVANCED TREATMENT SYSTEM SHALL BE SIZED TO PROVIDE A MINIMUM OF TWO (2) FEET OF HEAD (6. pressure) AT THE DISTAL END OF EACH DISTRIBUTION LATERAL IN THE BSF. A PUMP SIZING DIAGRAM HAS BEEN PROVIDED ON THIS SHEET. THE INSTALLER CAN ONLY SUBSTITUTE AN EQUAL PUMP AFTER RECEIVING DESIGNER APPROVAL FIRST. THE DESIGNER WILL BE PRESENT TO VERIFY THE DISTAL END PRESSURES WITH THE INSTALLER AFTER CONSTRUCTION OF THE BSF. PUMP CALCULATIONS PROVIDED INCLUDES DISTAL END PRESSURES OF 3 FEET OF HEAD.
- EFFLUENT TRANSPORT LINES FROM THE PUMP TO THE BSF SHALL BE SCL 40 PRESSURE PVC MINIMUM PIPE SIZE SPECIFIED ON THE ATTACHED SITE PLAN. THE TRANSPORT LINES SHALL BE SLOPED BACK TOWARD THE PUMP CHAMBER TO CLEAR THE LINE AFTER BACKFLOW. CHECK VALVES SHALL BE INSTALLED DOWNFLOW WITH A 1/2" WEEP HOLES WITHIN THE PUMP CHAMBER. A 1.50" FLOW METER SHALL BE INSTALLED IN THE TRANSPORT LINES. IF TRANSPORT LINES CANNOT BE INSTALLED, THE INSTALLER WILL BE REQUIRED TO INSTALL THE TRANSPORT LINES WITH A 1.50" FLOW METER BURNAL WITH A 2" THICK 3/4" WIDE EXPANDED GRID POLYESTER FIBERGLASS FIBRE ABOVE THE TRANSPORT LINE.
- WALLS OF THE BSF ENCLOSURE SHALL BE LINED WITH A 30 MIL PVC LINER WITH ALL JOINTS, PATCHES, REPAIRS, AND SEAMS HAVING THE SAME FINISHED PHYSICAL PROPERTIES OF THE LINER MATERIAL. ALL PORTALS THROUGH THE PVC LINES SHALL BE DONE WITH A PVC BOOT. ATTACHMENT GLEES TO THE LINER WITH THE APPROPRIATE RESISTENT SEALER. DESIGNER WILL INSPECT PVC LINER AND PENETRATIONS PRIOR TO BACKFILLING WITH SAND/PEASTONE FILTER MEDIA MATERIALS. BELOW GRADE LINER WALLS SHALL BE CONSTRUCTED OF PLYWOOD AND SHEATHINGS. A PERMANENT TOP FRAME STRUCTURE (PER PRESERVED TREES/TIMBERS OR VIBRA-LOCK BLOCK WALL) SHALL BE PROVIDED ON ANY PORTION OF THE BSF AREA ABOVE FINISHED GRADE.
- THE DISTRIBUTION MANIFOLD PIPING AND DISTRIBUTION PIPING SHALL CONFORM TO THE SIZE, MATERIALS AND PRESSURE CLASSIFICATION SPECIFICATIONS AS INDICATED ON THE DETAILS OF THIS SHEET. INDIVIDUAL LATERALS SHALL BE NO LONGER THAN 50 FEET IN LENGTH. A SERIES OF 1/8" INCH DIAMETER HOLES (CORPSES) SHALL BE DRILLED IN THE LATERALS AT EACH END AND AT 10' INTERVALS ALONG THE LENGTH OF THE BSF. THE HOLES SHALL BE INSTALLED WITH ALL HOLES ORIFICES POINTING DOWN (if slack possible) EXCEPT THOSE AT 1/2 INTERVAL SPACING WHERE THE ORIFICES ARE TO BE INSTALLED AT THE 10' INTERVAL. ALL ORIFICES ARE TO BE COVERED BY CORPSE BRIDGES (USUALLY REFERRED TO AS COLD WEATHER ORIFICE SHIELDS). LATERALS SHALL BE INSTALLED AT 10' ON CENTER. BRIDGE NOTING IN THE DETAILS OF THIS SHEET. EACH LATERAL LINE SHALL BE COVERED WITH A BALL VALVE OR A THREADED END CAP AT ITS DISTAL END. AN INSPECTION WELL SHALL BE INSTALLED IN THE APPROXIMATE CENTER OF THE BSF AND SHALL EXTEND DOWN TO THE SAND AND MATRIX BOD. THE INSPECTION WELL SHALL BE MADE OF 4-INCH DIAMETER PERFORATED OR SLOTTED PVC (OR 3" HDPE) WITH A 2" DIA. FILTER FABRIC AND TOPPED WITH REMOVABLE CAP AT FINISH GRADE.
- SOIL VEGETATION OR DEAD OR DECAYING ORGANIC LITTER AND SOIL SHALL BE REMOVED FROM THE BSF AREA. TREES IN THE PATH OF THE NATIVE SOIL MATERIAL SHALL BE SCAPED AND EXPOSED WITH 2 INCHES OF SAND MEDIA. NOTE: FORMER TREE TRUNKS AND EXCAVATION OF SOIL INSIDE THE NATIVE SOIL FILTERS SAND INTERFACES IS PROHIBITED.
- ALL EQUIPMENT USED BY THE INSTALLER TO PLACE SAND & PEASTONE MATERIALS INTO THE BSF SHALL BE FREE OF MUD OR SELF PAINS PRIOR TO LOADING. THE SAND FILTER MEDIA SHALL BE PLACED IN LEVEL BIGHT (8 INCH LIPS) IN THE FILTER ENCLOSURE AND WRITTEN SMOOTHLY DURING INSTALLATION TO PROMOTE EVEN SETTLING. OVER WRITING THE SAND MEDIA IS FORGOTTEN TO BE REMOVED. THE INSTALLER SHALL "WALK DOWN" THE SIDES OF THE FILTER TO MAKE SURE THE SAND MEDIA IS TIGHT ALONG THE FILTER PERIMETER, AND NO VOIDS EXIST. THE PVC LINER SHALL BE PROTECTED DURING THESE OPERATIONS TO AVOID TEARS OR FIBERGLASS FIBRE IN THE LINE. WHEN THE TRAFFIC DEPT. OF CONCRETE SAND IS USED, THE INSTALLER SHALL BE REQUIRED TO INSTALL THE LATERALS ONCE THE LATERALS ARE INSTALLED PLACE ANOTHER 1" OF PEASTONE OVER THE LATERALS.
- APPROXIMATELY AFTER INSTALLATION OF THE BSF, THE HEAD OR "SQUIRT HEIGHT" OF THE DISTRIBUTION LATERALS SHALL BE DETERMINED, RECORDED IN THE MAINTENANCE RECORD LOG, AND LEFT ON SITE. THE MINIMUM DISTAL END PRESSURES SHALL BE 3 FEET OF HEAD.
- DURING OPERATIONAL AND MAINTENANCE VISITS, READINGS FROM ELAPSED TIME METERS, TIMER COUNTERS, WATER METERS AND DISTAL END PRESSURES SHALL BE RECORDED ON THE DATA CARDS (ALREADY STORED IN THE ELECTRICAL CONTROL PANEL). ALSO, AT EACH VISIT, A SAMPLE OF THE BSF EFFLUENT SHOULD BE COLLECTED AT THE PUMP CHAMBER OR LATERAL END OF THE BSF TO VISUALLY CHECK THE CLARITY ACHIEVED BY THE ADVANCED TREATMENT UNIT. THE SAMPLE SHOULD BE CLEAR OF FIBRE AND/OR ORGANIC MATTER. THE INSTALLER SHALL BE RELATIVELY FREE OF FIBRE. SAMPLES OBTAINED FROM THE LATTER CONDITIONS WILL INDICATE THAT THE SYSTEM NEEDS MAINTENANCE OR SYSTEM SETTINGS NEED TO BE MODIFIED.
- IMPORTANT NOTE: IF FIBERGLASS OR POLYESTER LINES ARE USED, IT IS IMPORTANT TO MONITOR GROUNDWATER LEVELS BEFORE PUMPING SEPTAGE OR TO SCHEDULE PUMPINGS OF TANKS TO AVOID TANKS FLOODING. PUMPS OF CONCRETE TANKS DURING PUMPS OF BSF GROUNDWATER LEVELS MAY ALSO CAUSE TANK FLOODING PROBLEMS. CAREFUL CONSIDERATION SHALL BE PAID TO TANKS CLOSE TO TIDAL ZONES, WHERE GROUNDWATER LEVELS MAY FLUCTUATE DUE TO TIDAL INFLUENCE. ALL TANKS SHALL BE FILLED WITH TAP WATER IMMEDIATELY AFTER SEPTAGE PUMP OUT.
- WHEN CONSTRUCTING THE BOTTOMLESS SAND FILTER REMOVE ALL EXISTING VEGETATION, ORGANIC MATTER, TOPSOIL, SUBSOIL, AND FILL SOIL TO A DEPTH OF 6 INCHES WITHIN THE SAND FILTER AREA. THE BOTTOM OF THE SAND FILTER SHALL BE COVERED WITH 1/2" OF CONCRETE SAND WITH 1/2" OF PEASTONE SAND. WHEN CONTACT THE BOTTOMLESS SAND FILTER WHERE PARTICULAR ATTENTION MUST BE GIVEN DURING THE INSTALLATION OF THE PRESSURE TREATED TIMBERS OR OTHER APPROVED RETAINING STRUCTURE IN RELATION TO THE SAND MEDIA. THE SAND MEDIA SHALL BE COVERED WITH A BALL VALVE OR A THREADED END CAP AT ITS DISTAL END. AN INSPECTION WELL SHALL BE INSTALLED IN THE APPROXIMATE CENTER OF THE BSF AND SHALL EXTEND DOWN TO THE SAND AND MATRIX BOD. THE INSPECTION WELL SHALL BE MADE OF 4-INCH DIAMETER PERFORATED OR SLOTTED PVC (OR 3" HDPE) WITH A 2" DIA. FILTER FABRIC AND TOPPED WITH REMOVABLE CAP AT FINISH GRADE.



Advantex Pod Concrete Pad Detail
Not To Scale

DATE REVISIONS

DATE	REVISIONS

ONSITE WASTEWATER TREATMENT SYSTEM DETAILS PREPARED FOR:

NICHOLAS GORHAM
ASSESSOR'S PLAT 9 LOT 59
MOHEGAN TRAIL
NEW SHOREHAM RHODE ISLAND
DATE: JULY 2016 SCALE: NOT TO SCALE

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