



**GENERAL NOTES:**

- THIS PLAN WAS PREPARED FOR RIDEM SEPTIC SYSTEM PERMIT ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER. THIS IS NOT THE BUILDING PERMIT FLOOR PLAN.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS", LATEST REVISION, AS REGULATED THROUGH THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (THESE ARE REFERRED TO AS THE "RULES") AND THE STATE OF RHODE ISLAND ONE & TWO FAMILY DWELLING BUILDING CODE.
- THE PROPOSED ACTIVITIES ARE ( ) OR (ARE NOT **X**) UNDER THE RHODE ISLAND COASTAL RESOURCE MANAGEMENT COMMISSION'S JURISDICTION.
- PUBLIC SEWERS (ARE ) OR (ARE NOT **X**) LOCATED WITHIN 200 FEET OF THE PROPERTY LINE.
- DRINKING WATER LINES (ARE **X**) OR (ARE NOT ) LOCATED WITHIN 50 FEET OF THE PROPOSED OWTs. ALL DRINKING WATER LINES WITHIN 50 FEET OF THE PROPOSED OWTs HAVE BEEN SHOWN, IF PRESENT.
- WATER SUPPLY IS BY (PUBLIC WATER SYSTEM ) OR (PRIVATE WELL **X**).
- THERE (ARE **X**) OR (ARE NOT ) EXISTING AND PROPOSED PRIVATE DRINKING WATER WELLS LOCATED WITHIN THE SPECIFIED SETBACK DETAILED IN TABLE 22.5 OF THE "RULES" + 100 FEET. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN.
- THERE (ARE ) OR (ARE NOT **X**) EXISTING AND PROPOSED WELLS SERVING NON-POTABLE USES WITHIN 100' OF THE OWTs. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN.
- THERE (ARE ) OR (ARE NOT **X**) EXISTING AND PROPOSED PUBLIC DRINKING WATER SUPPLY WELLS WITHIN 500 FEET OF THE PROPOSED OWTs. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN. THE TYPE OF PUBLIC WELL, IF PRESENT, IS NOTED NEXT TO THE WELL.
- THERE (ARE **X**) OR (ARE NOT ) WATERCOURSES AND WETLANDS WITHIN 200 FEET OF THE PROPOSED OWTs. IF PRESENT, THE LOCATIONS ARE SHOWN ON THE PLAN.
- THERE (ARE ) OR (ARE NOT **X**) STORM OR SUBSURFACE DRAINS WITHIN 200 FEET OF THE PROPOSED OWTs. SAID DRAINS (DO **NA**) OR (DO NOT **NA**) DISCHARGE DIRECTLY OR INDIRECTLY INTO A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 38 OF THE "RULES".
- THE PROPOSED OWTs (IS ) OR (IS NOT **X**) LOCATED WITHIN THE WATERSHED OF A PUBLIC WATER SUPPLY.
- THE PROPOSED OWTs (IS ) OR (IS NOT **X**) LOCATED WITHIN A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 38 OF THE "RULES". THE DISTANCE TO THE NEAREST CRITICAL RESOURCE OF CONCERN IS **NA** FEET.
- THERE (ARE **X**) OR (ARE NOT ) EXISTING OWTs WITHIN 200 FEET OF ANY PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
- EXISTING OWTs WITH A DESIGN FLOW GREATER THAN 1,000 GAL/DAY (ARE ) OR (ARE NOT **X**) LOCATED WITHIN 400 FEET OF THE PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
- THERE (ARE ) OR (ARE NOT **X**) AREAS ON SUBJECT PROPERTY WHERE SOIL HAS BEEN EXCAVATED AND/OR WHERE STORM DEPOSITED SAND IN THE BACKDUNE ENVIRONMENT OR WHERE HUMAN TRANSPORTED MATERIAL HAS BEEN DEPOSITED.
- A REPLACEMENT DISPERSAL FIELD AREA MEETING THE HORIZONTAL SETBACK REQUIREMENTS IN RULE 22 OF THE "RULES" (IS ) OR (IS NOT **X**) SHOWN ON THE PLAN. IF NOT SHOWN, A SUITABLE AREA DOES NOT EXIST OR INSUFFICIENT DATA IS KNOWN TO MAKE A DETERMINATION AT THIS TIME.
- THE POTENTIAL FOR FLOODING WITHIN 100 FEET OF THE PROPOSED OWTs DOES NOT EXIST.
- THE PROPOSED WELL, IF APPLICABLE, (DOES ) OR (DOES NOT **X**) REQUIRE A VARIANCE FROM RIDEM'S "RULES AND REGULATIONS GOVERNING THE ENFORCEMENT OF CHAPTER 46-13.2 RELATING TO THE DRILLING OF DRINKING WATER WELLS".
- THIS APPLICATION (IS ) OR (IS NOT **X**) PART OF A SUBDIVISION OF FIVE (5) LOTS OR LESS WITH EXISTING ROAD FRONTAGE.
- THE SUBJECT PROPERTY (IS **X**) OR (IS NOT ) SERVED WITH AN OWTs & PRIVATE WELL. THE NITROGEN LOADING RATE SHALL NOT EXCEED 345 GAL/DAY PER 20,000 SQUARE FEET OF PROPERTY WHEN SERVED WITH AN OWTs & PRIVATE WELL.
- THE CONTRACTOR SHALL STAKE AND FLAG TO PROTECT THE LEACHFIELD FROM VEHICLE TRAFFIC AND EXCESSIVE WEIGHT LOADS BEFORE AND DURING CONSTRUCTION OF THE OWTs AND THE STRUCTURE. FLAGGING SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES AT THE SITE ARE COMPLETE.

**GENERAL NOTES:**

- SEPTIC TANK AND RISERS SHALL BE WATERTIGHT. CONTRACTOR TO TEST BY FILLING WITH WATER, WITNESSED BY ENGINEER (IN ACCORDANCE WITH RULE 26.11).
- BUILDING SEWER TO SEPTIC TANK SHALL HAVE NO BENDS EXCEEDING 45°.
- VEHICLE PARKING OR TRAFFIC OVER THE LEACHFIELD OR SEPTIC TANK AREA IS PROHIBITED.
- FINISH GRADE SHALL PITCH AWAY FROM ALL MANHOLES.
- THE CONTRACTOR SHALL REMOVE ALL TREES AND TREE ROOTS WITHIN 10 FEET OF THE PROPOSED SEPTIC SYSTEM.
- THE CONTRACTOR SHALL STRIP ALL TREES, ROOTS, GRASS SOD, AND LOAM IN THE LEACHFIELD AREA PRIOR TO PLACING ANY MATERIAL OVER THE LEACHFIELD OR SEPTIC TANK AREA BY THE ENGINEER. IF BOTTOM IS UNACCEPTABLE TO ENGINEER, CONTRACTOR SHALL EXCAVATE TO THE ELEVATION SPECIFIED BY THE ENGINEER AT NO ADDITIONAL COST.

**CONTRACTOR'S NOTES - CONSTRUCTION:**

- NOTIFY ENGINEER 5 DAYS PRIOR TO START OF CONSTRUCTION.
- INSTALLATION OF PIPING/PUMP EQUIPMENT TO & FROM ADVANTEX POD AND PUMP SHALL BE PERFORMED BY A ORENCO SYSTEMS APPROVED AGENT.
- CONSTRUCTION OF THE LEACHFIELD CAN ONLY OCCUR DURING DRY PERIODS WHEN THE GROUNDWATER TABLE IS LOWER THAN ANY PROPOSED WORK.
- PRODUCT & MATERIAL SPECIFICATION SHEETS FOR ALL COMPONENTS SHALL BE PROVIDED TO ENGINEER PRIOR TO ENGINEER NOTIFYING RIDEM FOR START OF CONSTRUCTION. THIS INCLUDES: 1) SEPTIC TANK 2) SAND SIEVE ANALYSIS 3) PEASTONE SIEVE ANALYSIS 4) ADVANTEX COMPONENTS.
- STAKE OUT LEACHFIELD CORNERS FOR REVIEW AND APPROVAL BY ENGINEER.
- ENGINEER TO APPROVE BOTTOM OF LEACHFIELD AREA PRIOR TO PLACEMENT OF SAND.
- SCARIFY LEACHFIELD BOTTOM IMMEDIATELY PRIOR TO PLACEMENT OF SAND.
- ENGINEER TO INSPECT SEPTIC TANK PRIOR TO BACKFILLING. CONTRACTOR SHALL PERFORM A WATER PRESSURE TEST ON THE TANK & TANK RISERS. COORDINATE TESTING WITH ENGINEER.
- ENGINEER TO INSPECT COMPLETED SYSTEM PRIOR TO BACKFILLING.
- CONTRACTOR TO REVIEW FIELD CONDITIONS PRIOR TO BIDDING.

**SEPTIC TANK NOTES:**

- SEPTIC TANK SHALL BE WATER TIGHT AND CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
- PRECAST REINFORCED CONCRETE TANKS SHALL CONFORM WITH ASTM C-1227-02, LATEST EDITION.
- TANKS SHALL BE PERMANENTLY MARKED AT THE INLET END OF THE TANK WITH DATE OF MANUFACTURE; NAME OF MANUFACTURER; CAPACITY; AN EXTERNAL LOADS FOR WHICH TANK IS DESIGNED TO RESIST.
- A WARNING LABEL AT ALL OPENINGS SHALL BE PROVIDED WHICH READS "ENTRANCE INTO THE TANK COULD BE FATAL".
- TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- TANK SHALL BE INSTALLED ON A LEVEL, STABLE BASE THAT WILL NOT SETTLE.
- SURFACE WATER SHALL BE DIVERTED AWAY FROM THE TANK OPENINGS.
- TANK SHALL NOT BE DAMAGED DURING BACKFILLING. BACKFILL MATERIAL SHALL BE FREE OF LARGE STONES, STUMPS, WASTE, CONSTRUCTION MATERIAL, RUBBISH, ORGANIC MATERIAL, AND FROZEN SOILS.
- TANK AND RISERS SHALL BE TESTED FOR WATER TIGHTNESS BY EITHER VACUUM TESTING OR WATER PRESSURE TEST AS SPECIFIED IN THE "RULES". CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION THAT THE TEST PASSED PRIOR TO C.O.C.
- JOINTS OF ALL CONCRETE TANKS SHALL BE SEALED WITH A 1" DIA. BUTYL RUBBER SEALANT OR APPROVED EQUAL.
- MANHOLE OPENINGS SHALL BE 20 INCH MINIMUM.
- PROVIDE VENT OPENING AT TOP OF BAFFLE WALL EQUAL TO 4" PIPE OR GREATER.

**ADVANTEX AX-20 NOTES:**

- ALL WORK AND INSTALLATION PROCEDURES SHALL CONFORM TO RIDEM'S "GUIDELINES FOR THE DESIGN AND USE OF BOTTOMLESS SAND FILTERS", LATEST REVISION". ONLY RIDEM APPROVED INSTALLERS ARE PERMITTED TO INSTALL THIS OWTs.
- THE 6"x6" P.T. TIMBERS AROUND THE BSF SHALL BE SECURED WITH IRON PINS, OR REBARS FASTENED TO THE SUPPORT WALLS TO PREVENT MOVEMENT TO THE SATISFACTION OF THE ENGINEER.
- THIS BOTTOMLESS SAND FILTER IS AND SHALL ALWAYS BE PRESSURE DOSED UTILIZING PROGRAMMABLE TIMERS. SINCE THE ADVANTEX TREATMENT UNIT IS TIME-DOSED (CATEGORY 1 OPTION) THE TIMER SHALL ALSO CONTROL THE APPLICATION OF INFLUENT TO THE BSF.
- THE ADVANTEX UNIT & ASSOCIATED COMPONENTS (PUMPS, FLOATS, VALVES, PIPE CONNECTIONS, ETC.) SHALL BE INSTALLED BY AN ORENCO SYSTEMS MANUFACTURER REPRESENTATIVE. THE O.S. REPRESENTATIVE SHALL PROVIDE CERTIFICATION TO THE ENGINEER THAT THE SYSTEM WAS INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE LAND SURFACE ELEVATION 2 FEET BELOW THE PEASTONE/SAND MEDIA INTERFACE SHALL BE MAINTAINED FOR A DISTANCE OF 5 FEET FROM THE EDGE OF THE BSF. LAND SURFACE REGRADING ADJOINING THIS 5-FOOT PERIMETER MUST MAINTAIN A MINIMUM OF 3:1 V SLOPE DOWN GRADIENT.
- ALL PIPING AND FITTINGS SHALL BE INSTALLED TO ENSURE DRAIN-BACK INTO THE PUMP BASIN.
- ADVANTEX POD SHALL BE EQUIPPED WITH ANTI-FLOTATION FLANGES.
- PUMP VAULT SHALL BE ORENCO SYSTEMS MODEL PV057-1819 OR APPROVED EQUAL.
- THE PUMP DOSING THE AX-20 POD SHALL BE ORENCO SYSTEMS MODEL PF3005 OR APPROVED EQUAL.
- THE PUMP DOSING THE BSF SHALL BE ORENCO SYSTEMS MODEL PFF40-B OR APPROVED EQUAL.
- DISCHARGE ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL HV150XQ OR APPROVED EQUAL.
- FLOAT ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL MFA3A OR APPROVED EQUAL.
- ORENCO SYSTEMS CONTROL & ALARM PANEL SHALL BE VERICOM WITH ELAPSE TIME METER, EVENT COUNTER AND PROGRAMMABLE TIMER OPTIONS OR APPROVED EQUAL.

**GENERAL SITE, SOILS & DESIGN DATA:**

- PROPOSED LEACHFIELD IS LOCATED IN THE AREA OF TEST PITS #17-4 & #17-5.
- E.S.H.G.W.T. FOR THIS AREA IS 28" BELOW ORIGINAL GRADE.
- LEDGE IS ASSUMED AT 4.17' FROM E.G. AT THE HIGHEST CORNER OF THE LEACHFIELD.
- SOIL CAT.=6. USE LOADING RATE = 2.30 GAL/SF/DAY.

**MINIMUM LEACHFIELD AREA**

- DESIGN FLOW (RULE 21): 4 BEDROOM X 115 GPD/BEDROOM = 460 GPD
- LOADING RATE: SOIL CATEGORY 6, USE LOADING RATE = 2.30 GAL/SF/DAY
- MIN. LEACHING AREA: 460 GPD / 2.30 GAL/SF/DAY = 200 SQ. FT.
- LEACHFIELD AREA PROVIDED = 10' X 20' = 200 SQ. FT.

**SEPTIC TANK SIZING CALCULATIONS:**

ADVANTEX REQUIRES 2/3 DESIGN FLOW IN FIRST COMPARTMENT  
MIN. 1,500 GAL. TANK, USE 2,000 GALLON TANK

**WASTEWATER STRENGTH:**

THE ADVANTEX SYSTEM REQUIRES THE FOLLOWING WASTEWATER STRENGTH. THE PROPOSED USE TYPICALLY PRODUCES WASTEWATER STRENGTHS WHICH MEET THE CRITERIA BELOW. SHOULD WASTEWATER STRENGTH NOT MEET THE BELOW CRITERIA, ADDITIONAL MEASURES MAY NEED TO BE INCORPORATED INTO THE SYSTEM. OWNER IS RESPONSIBLE FOR INCORPORATING SUCH MEASURES.

	AVERAGE (mg/L)	WEEKLY PEAK (mg/L)	RARELY EXCEEDS (mg/L)
BOD	150	250	500
TSS	40	75	150
TKN	65	75	150
FOG	20	25	30

**DOSING DATA TO B.S.F.:**

MAX. DOSE TO ORIFICES = 22.7 GAL. (0.25 GAL/ORIFICE X 91 ORIFICES)  
DRAINBACK TO PUMP = 8 FT. X 0.1058 GAL/FT. = 0.8 GAL.  
MAX. DOSE TO BSF = 22.7 GAL + 0.8 GAL = 23.5 GAL.  
PUMP SETTING: PUMP SYSTEM SHALL DOSE NO MORE THAN 23.5 GALLONS PER DOSE TO THE BSF. SET FLOAT SETTING BETWEEN ON/OFF AT 11 INCHES (23.5 GAL/VERTICAL FOOT IN PUMP BASIN X 0.92 FEET = 21.6 GAL/DOSE < 23.5 GAL/DOSE; THEREFORE, DESIGN OK).  
PUMP CYCLES ON PER DAY:  
21.6 GAL/DOSE - 0.8 GAL DRAINBACK = 20.8 GAL TO BSF  
480 GAL/DAY / 20.8 GAL/DOSE = 23 DOSES/DAY  
PUMP CYCLES ON 23 TIMES A DAY, ONCE EVERY 63 MINUTES

**OWNER'S NOTES:**

- FOOD/GARBAGE GRINDERS ARE PROHIBITED FROM BEING CONNECTED TO THE SEPTIC SYSTEM.
- VEHICLE PARKING OR TRAFFIC OVER THE LEACHFIELD AND SEPTIC TANK IS PROHIBITED.
- BACKWASH WATER FROM WATER TREATMENT SYSTEMS SHALL NOT BE DISCHARGED INTO THE SEPTIC SYSTEM.
- SEPTIC TANK SHALL BE PUMPED OUT IN ACCORDANCE WITH MAINTENANCE PROVIDER'S RECOMMENDATIONS AND SYSTEM MAINTAINED BY AN APPROVED ORENCO SYSTEMS APPROVED MAINTENANCE SERVICE PROVIDER.
- ONLY WASTEWATER AS DEFINED IN THE RIDEM OWTs REGULATIONS IS ALLOWED TO BE DISCHARGED INTO THE SEPTIC SYSTEM. ABSOLUTELY NO CHEMICALS, OILS, FATS, GREASE, OR PAINTS ARE ALLOWED. NO TREES OR LARGE SHRUBS SHALL BE PLANTED WITHIN 10 FEET OF THE LEACHFIELD.
- NO SUBSURFACE DRAINS OR SUBDRAINS SHALL BE INSTALLED ON SUBJECT PROPERTY UNLESS IN ACCORDANCE WITH OWTs RULES.

**TEST HOLE DATA:**

TP 17-4				
0'-7"	A	FSL	SOIL CAT. 3	
7'-30"	Bw	FSL	SOIL CAT. 3	
30'-52"	C	GLS	SOIL CAT. 6	(LEDGE)

TP 17-5				
0'-8"	A	FSL	SOIL CAT. 3	
8'-33"	Bw	FSL	SOIL CAT. 3	
33'-54"	C	GLS	SOIL CAT. 6	(LEDGE)

E.S.H.G.W.T. DEPTH PER SUB-SUIT S25-71 IS 28" BELOW ORIGINAL GRADE

**LEDGE TESTS:**

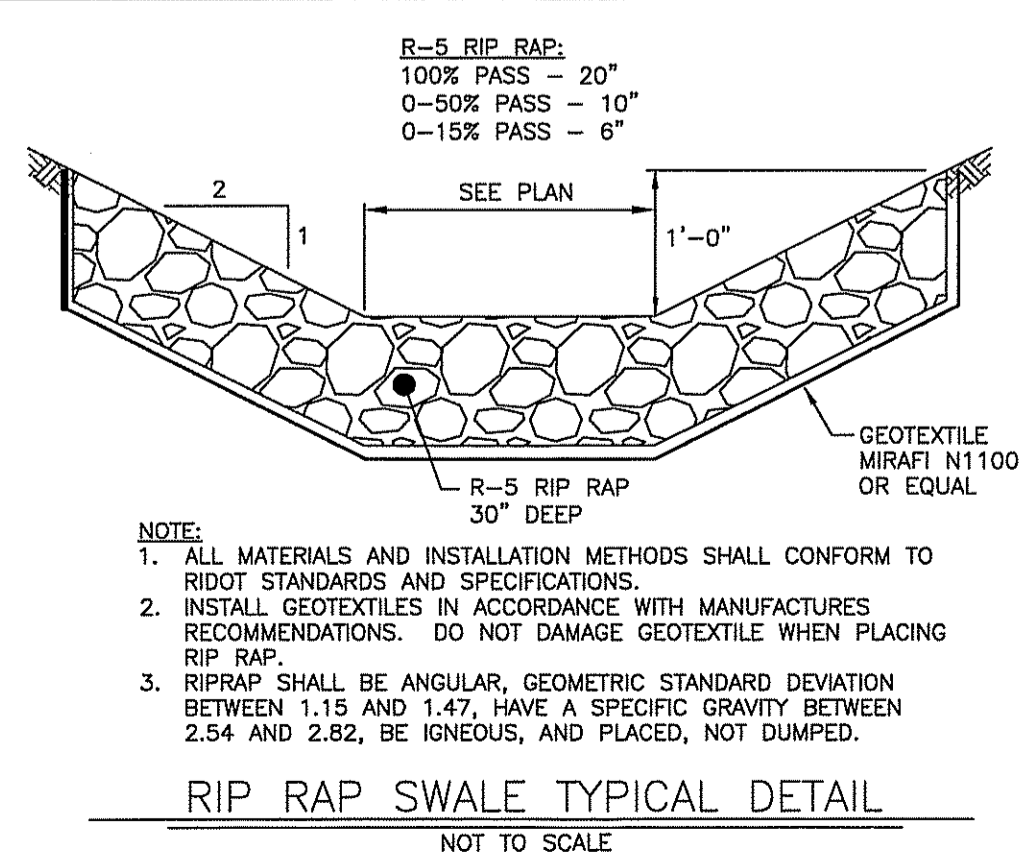
#17-3: 4.17' FROM E.G.	EL.=322.12'
#17-4: 4.17' FROM E.G.	EL.=309.87'
#17-5: 4.83' FROM E.G.	EL.=301.17'

**BUOYANCY CALCULATIONS:**

1,200 GALLON SEPTIC TANK  
BUOYANT FORCE (UPWARD) = (4.58'x5.84'x11.34')x 62.4 LB/CF = 18,927 LBS  
WEIGHT OF TANK (DOWNWARD) = [(12'x6.5'x0.33')+(12'x6.5'x0.67')+(2x4.58'x6.5'x0.33')+(2x11.34'x4.58'x0.33')] x 150 LB/CF = 19,789 LBS  
FILL OVER TANK (DOWNWARD) 12'x6.5'x1.50'x 150 LB/CF = 5,850 LBS  
19,789 LBS + 5,850 LBS = 25,639 LBS > 18,927 LBS  
THERE IS NO BUOYANT FORCE ON THE TANK  
2. 24" DIA. PVC PUMP BASIN  
BUOYANT FORCE (UPWARD) = 3.14x(1.0')<sup>2</sup>x6.0'x62.4 LB/CF = 1,176 LBS  
(WEIGHT OF PVC BASIN NEGLECTED)  
CONCRETE ANTI-FLOTATION BASE 9" AROUND BASIN AND 9" BELOW EXTENDING 6" UP [3.14x(1.75')<sup>2</sup>x1.25'x150 LB/CF] - [3.14x(1.0')<sup>2</sup>x0.5'x150 LB/CF] = 1,588 LBS > 1,176 LBS  
THERE IS NO BUOYANT FORCE ON THE PUMP CHAMBER

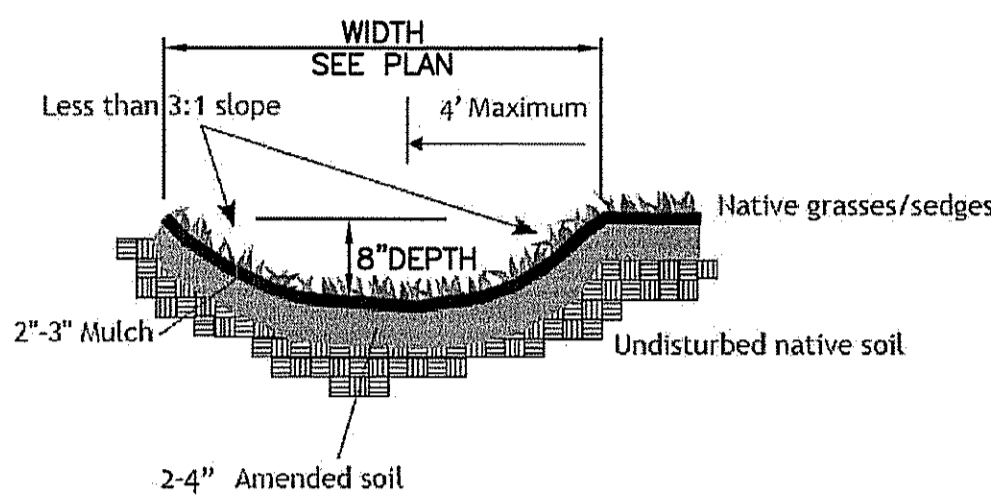
**VARIANCES REQUESTED:**

- NONE



**SWALE MAINTENANCE NOTES:**

- VEGETATED SWALES SHALL BE INSPECTED ANNUALLY AND AFTER LARGE STORM EVENTS.
- ERODED SIDE SLOPES AND CHANNEL BOTTOMS SHALL BE STABILIZED AS NECESSARY.
- IF THE SURFACE OF THE SWALE BECOMES CLOGGED TO THE POINT THAT STANDING WATER IS OBSERVED ON THE SURFACE 48 HOURS AFTER THE PRECIPITATION EVENTS, THE BOTTOM SHALL BE ROTO-TILLED OR CULTIVATED TO BREAK UP ANY HARD-PACKED SEDIMENT, AND THEN RESEDED.
- VEGETATION IN SWALES SHALL BE MOVED AS REQUIRED TO MAINTAIN MINIMUM GRASS HEIGHTS IN THE 4 TO 6 INCH RANGE.
- EVERY FIVE YEARS, THE CHANNEL BOTTOM OF SWALES SHOULD BE SCRAPED TO REMOVE SEDIMENT AND TO ENSURE ORIGINAL CROSS SECTION AND INFILTRATION RATE, AND SHOULD BE SEEDED TO RESTORE GROUND COVER, WHERE NECESSARY.

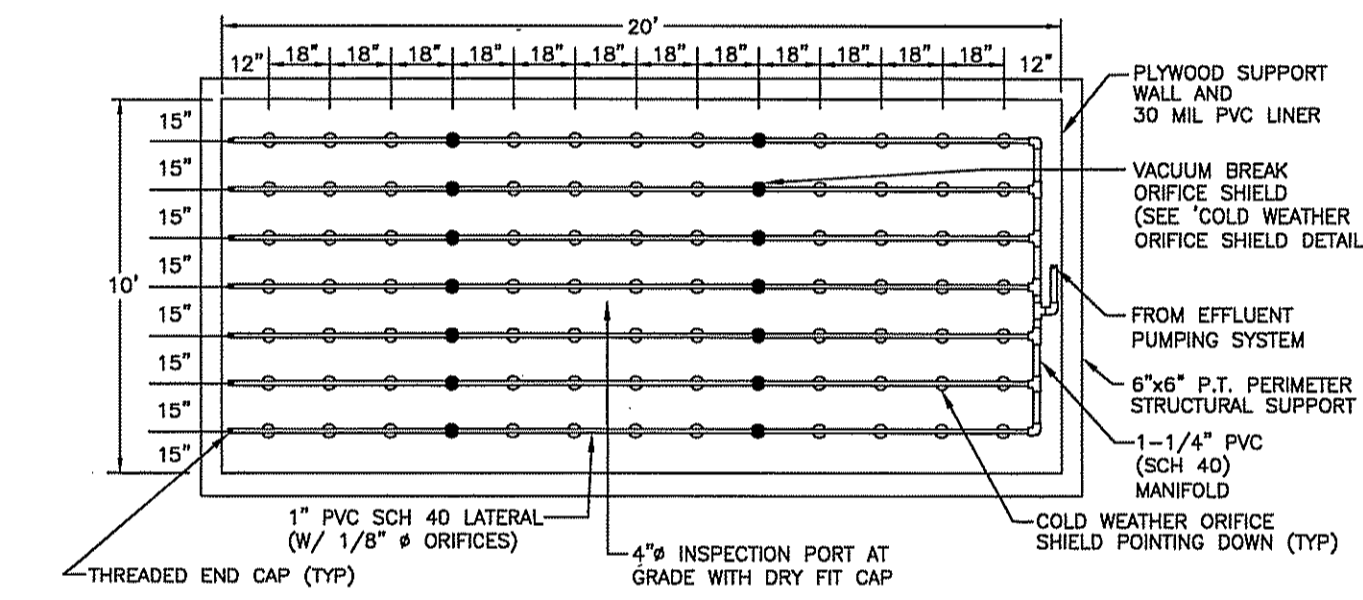


**VEGETATED SWALE TYPICAL DETAIL**

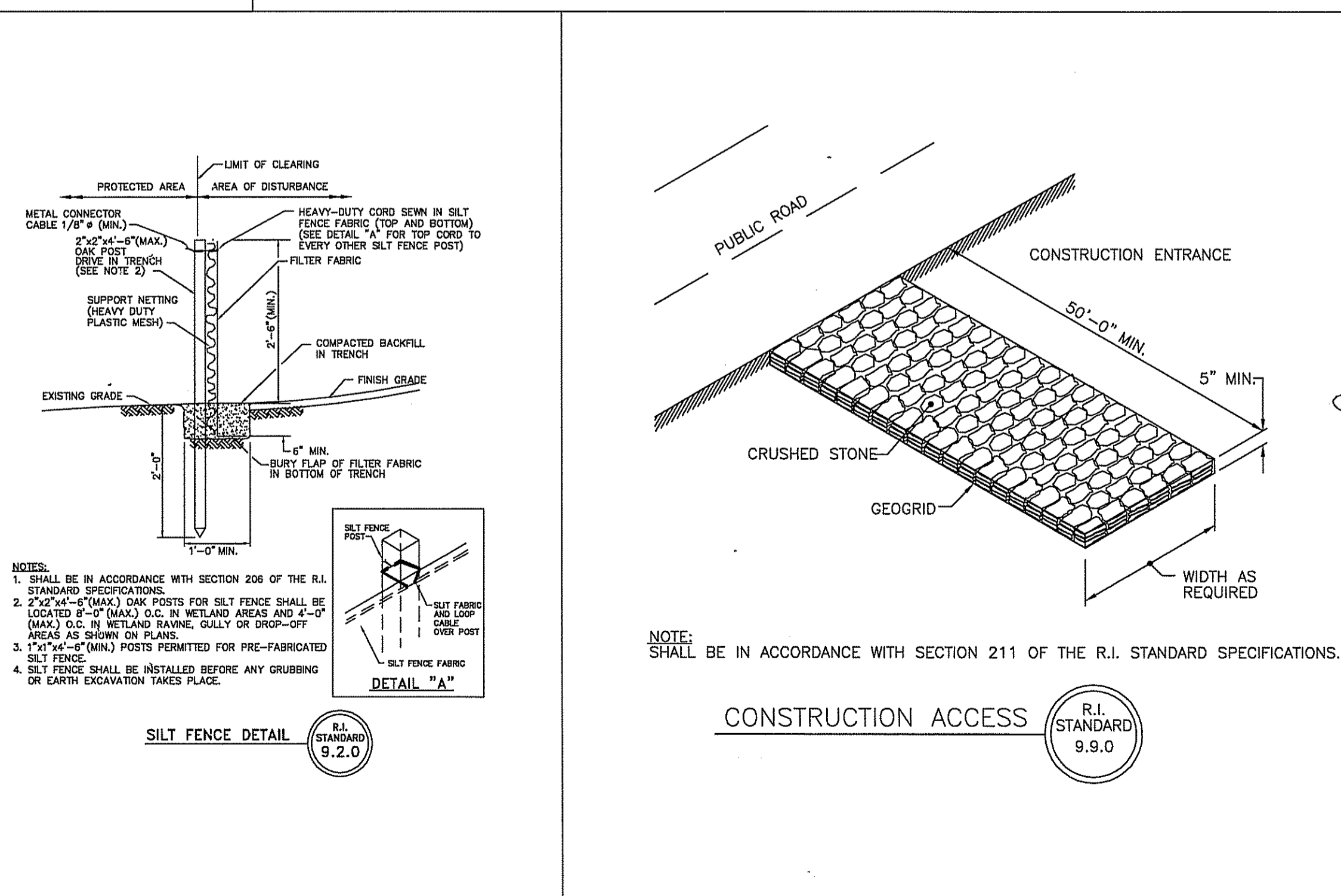
NOT TO SCALE

**ADVANTEX TREATMENT SYSTEM AX20 SERIES MODE 3**

N.T.S.



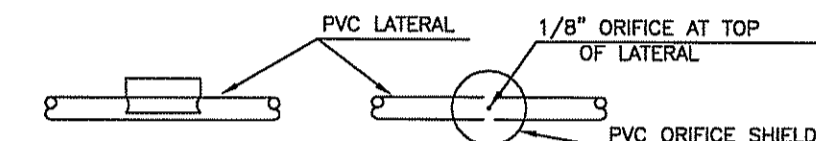
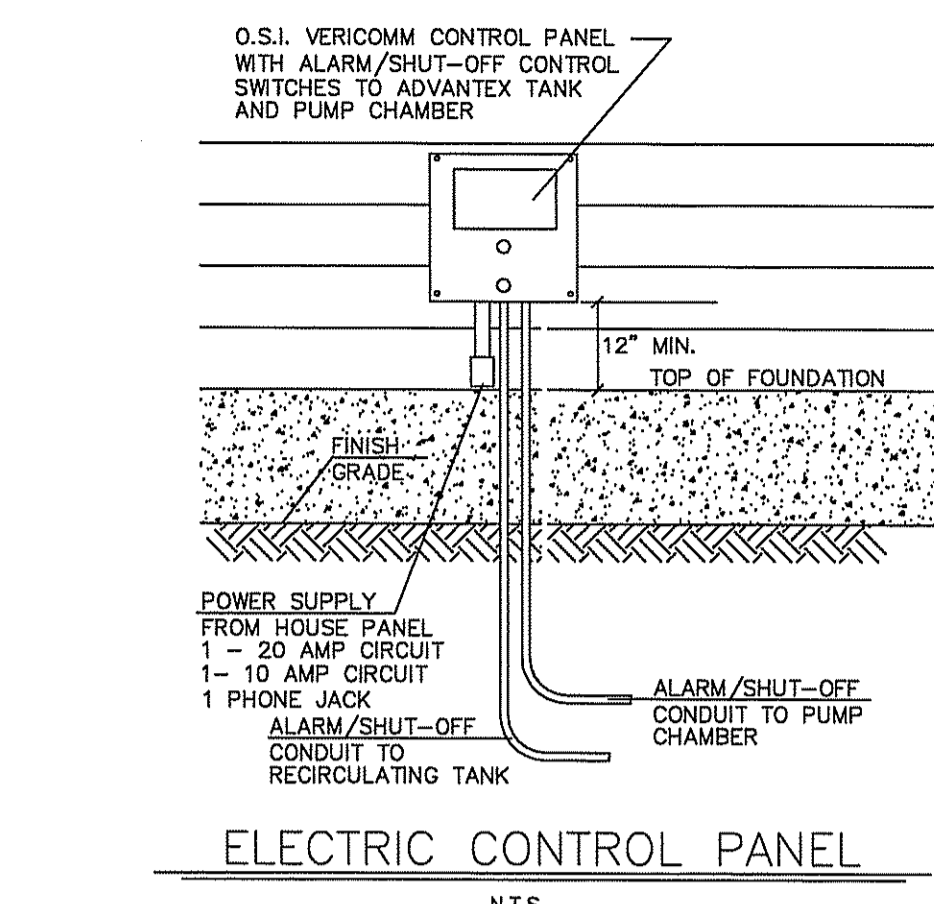
**10'x20' (200 S.F.) SINGLE ZONE BOTTOMLESS SAND FILTER-91 ORIFICES**



NOTE: SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

**CONSTRUCTION ACCESS**

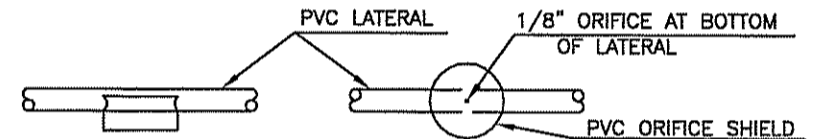
R.I. STANDARD 9.9.0



NOTE: VACUUM BREAK ORIFICE SHIELDS SHALL BE LOCATED AS SHOWN ON THE B.S.F. ORIFICE LAYOUT DETAIL AND ORIFICE SHIELDS SHALL BE PLACED ON TOP OF PIPE LATERAL. DO NOT DRILL THROUGH TOP & BOTTOM OF LATERAL PIPE WHEN DRILLING THE 1/8" VACUUM BREAK ORIFICES, DRILL A TOP HOLE ONLY.

**VACUUM BREAK ORIFICE SHIELD DETAIL**

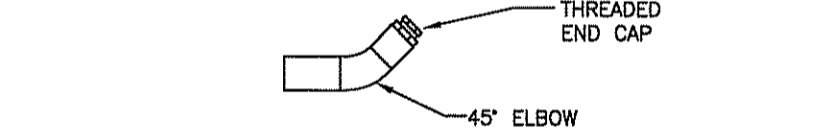
N.T.S.



NOTE: COLD WEATHER ORIFICE SHIELDS SHALL BE LOCATED AS SHOWN ON THE B.S.F. ORIFICE LAYOUT DETAIL AND ORIFICE SHIELDS SHALL BE PLACED ON BOTTOM OF PIPE LATERAL. DO NOT DRILL THROUGH TOP & BOTTOM OF LATERAL PIPE WHEN DRILLING THE 1/8" ORIFICES, DRILL A BOTTOM HOLE ONLY.

**COLD WEATHER ORIFICE SHIELD DETAIL**

N.T.S.



**THREADED END CAP DETAIL**

N.T.S.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS

AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED 8/15/2018 FILE # 17-0304  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED BY: NANCY FREEMAN

OWNER/APPLICANT:  
TWIN REALTY, CO.  
430 KINGSLEY AVE.  
PROVIDENCE, RI 02909

TIMOTHY J. BEHAN  
REGISTERED PROFESSIONAL ENGINEER  
No. 6278  
2-4-17

**COMMONWEALTH**  
ENGINEERS & CONSULTANTS, INC.  
400 SMITH STREET  
PROVIDENCE, RHODE ISLAND 02908  
401-273-8600

**ON-SITE WASTEWATER TREATMENT SYSTEM**  
for  
"THE BLUNDERS"  
SUBDIVISION LOT 17  
A.P. 15, LOT 273  
in  
NORTH SMITHFIELD, RHODE ISLAND

**REVISIONS**

No.	DATE	DRWN	CHKD
1.	7-3-17	DKM	TJB
2.	12-4-17	DKM	TJB

SCALE: AS SHOWN	SHEET NO: 2 of 2
DRAWN BY: DKM	DESIGN BY: DKM
DATE: 6/21/10	CHECKED BY: TJB
	PROJECT NO.: 10014.00