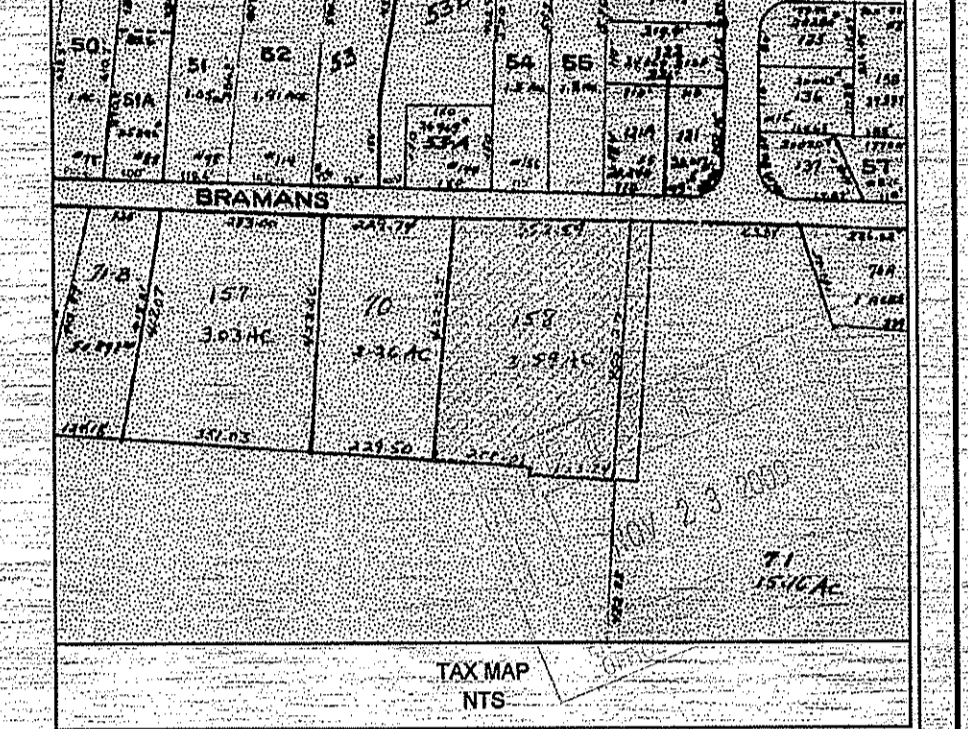




A KNOWLEDGE CORPORATION®

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 01 2010 FILE # 09-0287
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

No.	Revision	Date	App.

Designed By: BFK Drawn by: SMH Checked by:
Scale: 1"=40' Date: NOV 2009
Project Title:

HOLLAND RESIDENCE
A.P. 64, LOT 158
BRAMAN'S LANE
PORTSMOUTH, RHODE ISLAND

Client/Owner:
HEIDI HOLLAND
1 RIVERSIDE DRIVE
BARRINGTON, RI 02806

Issued for:
RIDEM

PROPOSED SITE PLAN & OWTS DESIGN

Drawing Number:
I-1
Sheet **1** of **2**
Project Number:
09153.0
Survey Index:

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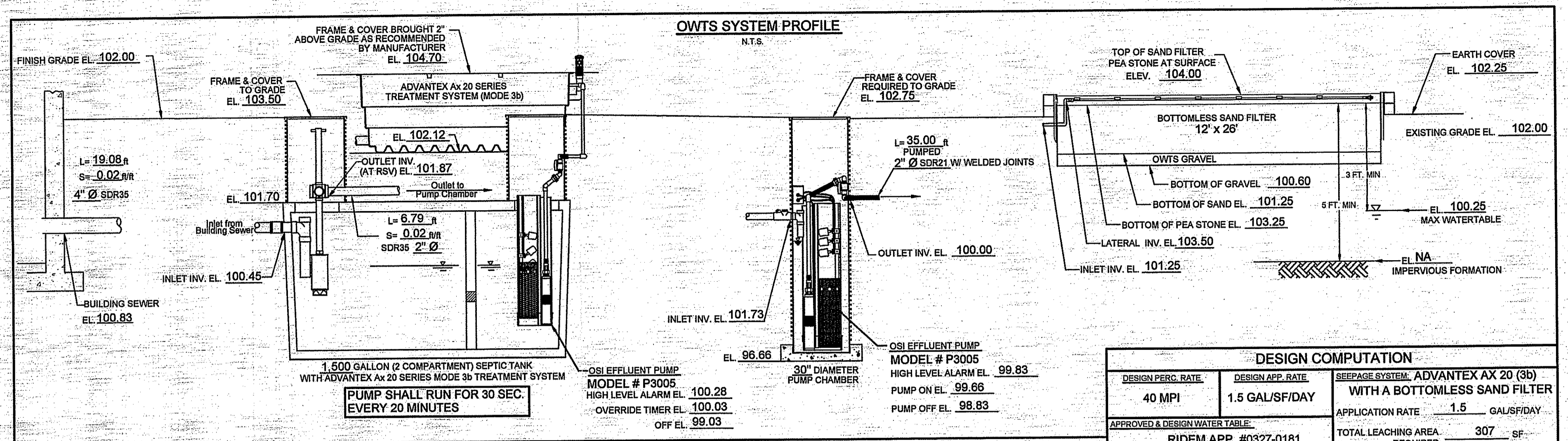
GENERAL OWTS SYSTEM NOTES:

- 1) ALL BRUSH AND TREES WILL BE CLEARED WITHIN (10') OF THE SYSTEM.
- 2) A MINIMUM ELEVATION OF 101.25, CORRESPONDING TO 2 FEET BELOW THE BOTTOM OF THE PEASTONE, SHOULD BE MAINTAINED WITHIN 5' OF OWTS.
- 3) ALL KNOWN EXISTING AND PROPOSED PRIVATE WELLS WITHIN 200' OF OWTS ARE SHOWN. ALL KNOWN PUBLIC WELLS EXISTING OR PROPOSED WITHIN 500' ARE SHOWN.
- 4) NO DRAINS OR WATER LINES EXIST OR ARE TO BE CONSTRUCTED IN THE PROXIMITY OF THE SYSTEM WITHIN THE DISTANCES SPECIFIED IN RIDEM OWTS TABLE 22.1.
- 5) ALL KNOWN OWTS WITHIN 100FT. OF EXISTING OR PROPOSED WELLS ARE SHOWN.
- 6) THE SYSTEM FOR THE SUBSURFACE DISPOSAL OF SANITARY SEWAGE SHALL CONSTRUCTED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE STATE OF RHODE ISLAND, DEPARTMENT ENVIRONMENTAL MANAGEMENT, "RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION, AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS."
- 7) THE DESIGN INTENT IS TO MEET THE STATE STANDARDS. SINCE THIS PLAN HAS BEEN CREATED TO GAIN THE NECESSARY PERMITTING, NO CONSTRUCTION INSTALLATIONS HAVE COMMENCED. BECAUSE THIS IS NOT A RECORD DRAWING OF AS-BUILT CONDITIONS, AND NOTHING HAS BEEN INSTALLED, THE ENGINEER SIGNING AND STAMPING THIS PLAN IS NOT GUARANTEEING THE OPERATION OF THE INSTALLED SEPTIC SYSTEM UPON THE APPROVED SYSTEM INSTALLATION. THE DESIGN ENGINEER WILL SUPERVISE, VERIFY, AND CERTIFY THAT THE SYSTEM WAS INSTALLED AS SPECIFIED ON THE APPROVED PLAN.
- 8) ALL PUMPED LINES SHALL DRAIN BACK TO PUMP CHAMBER. PROPER COMPACTION AND FORCE MAIN INSTALLATION SHALL BE PERFORMED TO ENSURE THAT NO LOW POINTS FORM BETWEEN PUMP ORIGIN COMPONENT AND DISCHARGE DESTINATION.
- 9) ANTI-FLOATATION DEVICES AS PROVIDED BY THE MANUFACTURER SHALL BE USED FOR THE PROPOSED ADVANTECH POD AND PUMP CHAMBER.
- 10) LAND OWNER MUST MINIMIZE SHADING OF THE BOTTOMLESS SAND FILTER. THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT RECOMMENDS THAT BOTTOMLESS SAND FILTER BE EXPOSED TO THE SUNLIGHT TO PREVENT FREEZING DURING THE WINTER MONTHS.
- 11) EXISTING CONDITIONS, PROPERTY LINE INFORMATION, AND NORTH ARROW WERE TAKEN FROM PLAN TITLED, "ADMINISTRATIVE SUBDIVISION, A.P. 64, LOTS 71 & 158", CLASS I SURVEY, PREPARED BY M.J. GASTON & ASSOCIATE, DATED MAY 18, 2008.
- 12) BASE OF ELEVATIONS IS ASSUMED.
- 13) WATER LINE LOCATION WAS SCALED FROM PLANS PROVIDED BY THE PORTSMOUTH WATER DEPARTMENT ON JUNE 8, 2008.
- 14) TEST HOLES #03-3, #03-4, AND #03-5 WERE PERFORMED ON LOT 70.
- 15) WETLAND EDGE DELINEATED BY KINGSTOWN WETLANDS AND SOIL, INC., REPORT DATED AUGUST 6, 2008.
- 16) ENTIRE SITE IS LOCATED WITHIN THE R-66 ZONING DISTRICT:
MIN. LOT SIZE: 30,000 S.F.
MIN. YARD SETBACKS: FRONT 30', SIDE 20', REAR 30'
MIN. LOT FRONTAGE: 125'

SOIL EROSION & SEDIMENT CONTROL PLANS:

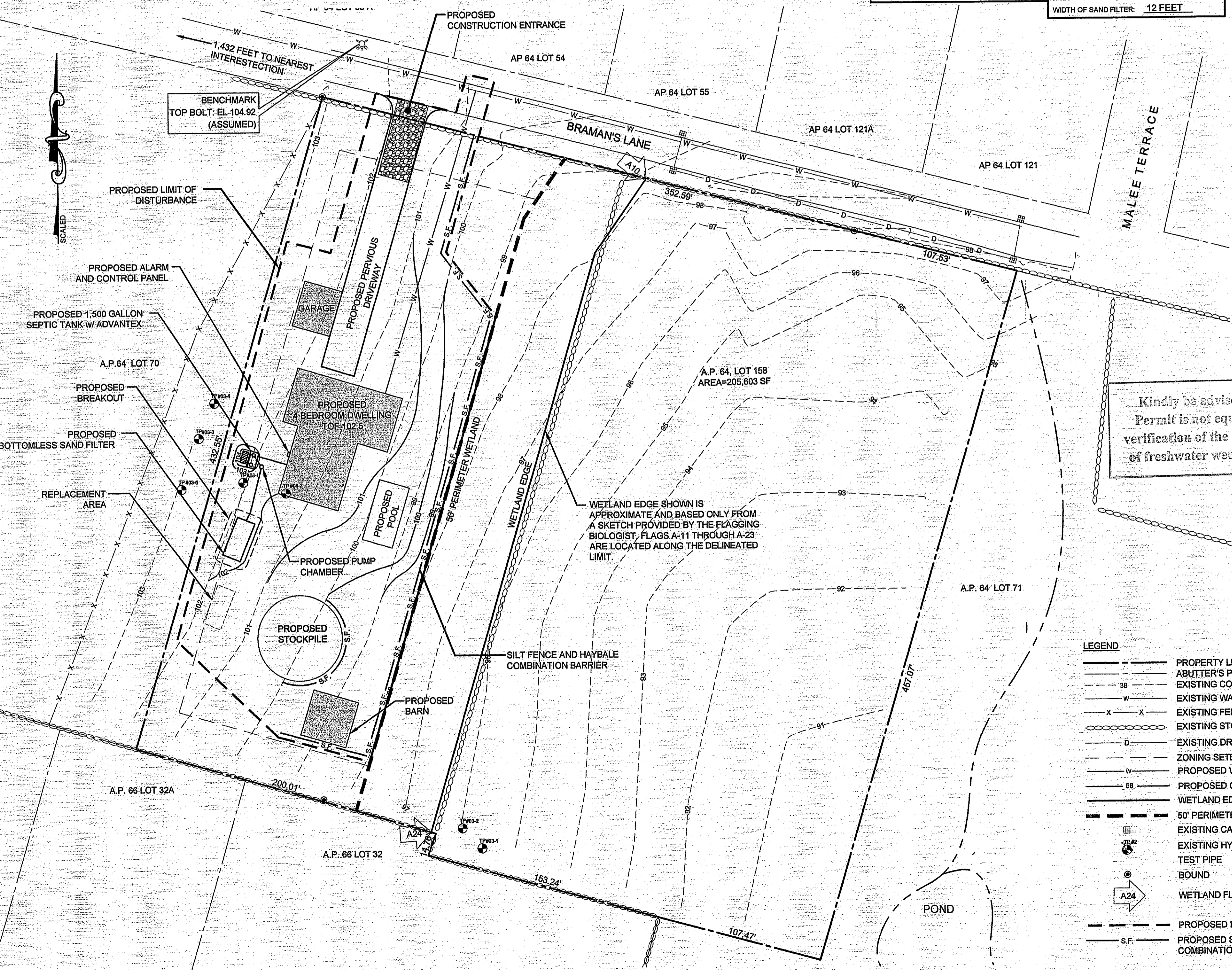
- I. CONSTRUCTION SEQUENCE:
 - A. DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
 - B. ESTABLISH PROPERTY LIMITS.
 - C. INSTALL STONE CONSTRUCTION ENTRANCE AT UTILIZED DRIVEWAY.
 - D. COMMENCE REMOVAL OF TREES INDICATED.
 - E. INSTALL HAYBALES AND SILT FENCE AS DELINEATED ON PLAN.
 - F. COMMENCE ROUGH GRADING.
 - G. BEGIN INSTALLATION OF REQUIRED DRAINAGE SYSTEM, INSTALLING ALL INLET PROTECTION SILT SACKS AS THE CONSTRUCTION OF EACH STRUCTURE IS COMPLETED.
 - H. CONSTRUCT LANDSCAPE AREAS AND MAINTAIN THE SITE IN ACCORDANCE WITH THE MAINTENANCE NOTES.
- II. GENERAL NOTES:
 - A. DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT, WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME.
 - B. ANY ROUGH GRADED AREAS DURING CONSTRUCTION SHALL BE STABILIZED WITHIN FOURTEEN DAYS IN ACCORDANCE WITH TEMPORARY MEASURES IN THE VEGETATIVE PRACTICE NOTES.
 - C. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOP SOIL TO REMOVE VEGETATION, ROOTS, AND ANY OTHER OBJECTIONABLE MATERIAL.
 - D. ALL FILL SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT SUBSIDENCE, OR OTHER RELATED PROBLEMS.
 - E. FILL INTENDED TO SUPPORT BUILDING STRUCTURE AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL CODES AND SPECIFICATIONS.
 - F. ALL FILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 12" IN THICKNESS.
 - G. FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
 - H. FROZEN, SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIAL SHALL NOT BE INCORPORATED INTO FILLS.
 - I. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION SUBGRADE.
 - J. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
 - K. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS OF FINISH GRADING IN ACCORDANCE WITH THE VEGETATIVE PRACTICE NOTES.
 - L. REMOVE TEMPORARY EROSION CONTROL MEASURES ONCE UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.
 - M. HAYBALES ARE TO BE PLACED AT CONSTRUCTION ENTRANCE DURING NON-WORKING HOURS.
- III. VEGETATIVE PRACTICE:
 - A. SLOPES SHALL NOT BE STEEPER THAN 1 VERTICAL TO 3 HORIZONTAL UNLESS OTHERWISE SPECIFIED.
 - B. A MINIMUM OF 4 INCHES OF LOAM SHALL BE INSTALLED. THE LOAM SHALL BE GRADED TO A SMOOTH CONDITION AND STONES AND OTHER OBJECTS LARGER THAN 2 INCHES SHALL BE REMOVED.
 - C. LIMESTONE AND FERTILIZER SHALL BE APPLIED TO THE FOLLOWING RATE:
LIMESTONE: 8 TONS/ACRE
FERTILIZER: (10-10-10): 600 LBS/ACRE
 - D. SEED SHALL BE APPLIED AT THE FOLLOWING RATE:
WINTER RYE: 112 LB/ACRE
 - E. HAY MULCH SHALL BE APPLIED AT THE RATE OF 1.5 TONS/ACRE.

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



DESIGN COMPUTATION		
DESIGN PERC. RATE	DESIGN APP. RATE	SEEPAGE SYSTEM: ADVANTECH AX 20 (3b)
40 MPI	1.5 GAL/SF/DAY	WITH A BOTTOMLESS SAND FILTER
APPROVED & DESIGN WATER TABLE:		
RIDEM APP. #0327-0181		
WT @ 21"		
APPLICATION RATE	1.5 GAL/SF/DAY	
TOTAL LEACHING AREA REQUIRED:	307 SF	
LEACHING AREA PROVIDED:	312 SF	
NUMBER OF LATERALS:	6	
NO. OF ORIFICES PER LATERAL:	13	
LENGTH OF SAND FILTER:	26 FEET	
WIDTH OF SAND FILTER:	12 FEET	
CAPACITY PROVIDED:	1,500 GALLONS	

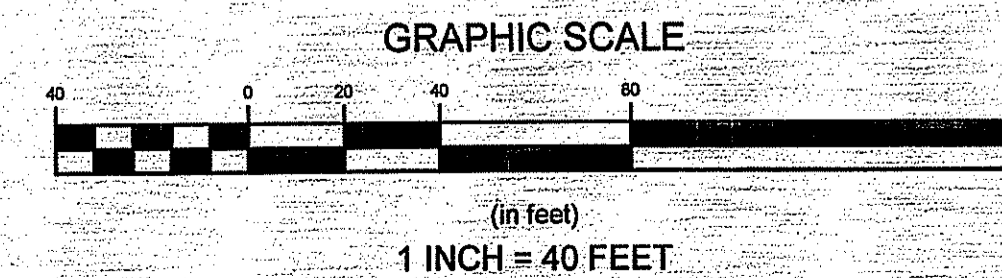
****LEDGE REMOVAL NOTE:**
IF LEDGE IS ENCOUNTERED DURING THE INSTALLATION OF THE TANKS, PUMP CHAMBER, ADVANTECH UNIT, AND TRANSPORT LINES THE LEDGE IS TO BE REMOVED TO 1 FOOT BELOW THE COMPONENT AND REPLACED WITH BANK RUN GRAVEL TO THE REQUIRED ELEVATION.

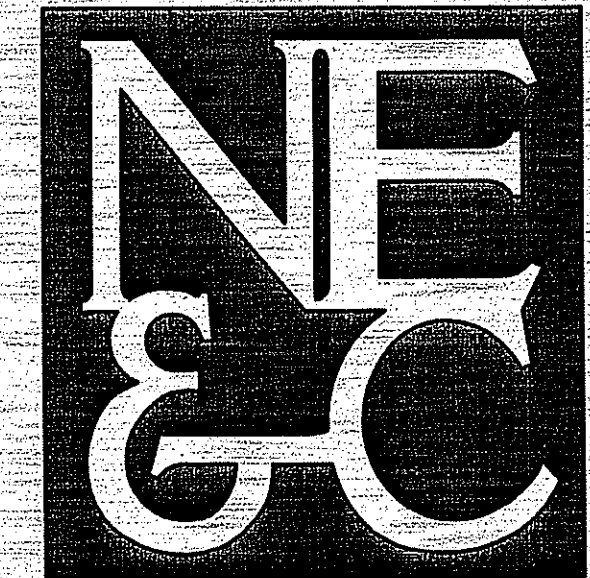


LEGEND

---	PROPERTY LINE
---	ABUTTER'S PROPERTY LINE
---	EXISTING CONTOUR
---	EXISTING WATER LINE
---	EXISTING FENCE
---	EXISTING STONEWALL
---	EXISTING DRAIN LINE
---	ZONING SETBACK
---	PROPOSED WATER LINE
---	PROPOSED CONTOUR
---	WETLAND EDGE
---	50' PERIMETER WETLAND
---	EXISTING CATCH BASIN
---	EXISTING HYDRANT
---	TEST PIPE
---	BOUND
---	WETLAND FLAG
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED SILT FENCE & HAYBALE COMBINATION BARRIER

ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING PLANS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM ALL AVAILABLE INFORMATION. (PLEASE CONTACT DIGSAFE PRIOR TO CONSTRUCTION AT 1-888-344-7233, AND/OR ALL LOCAL UTILITY COMPANIES)

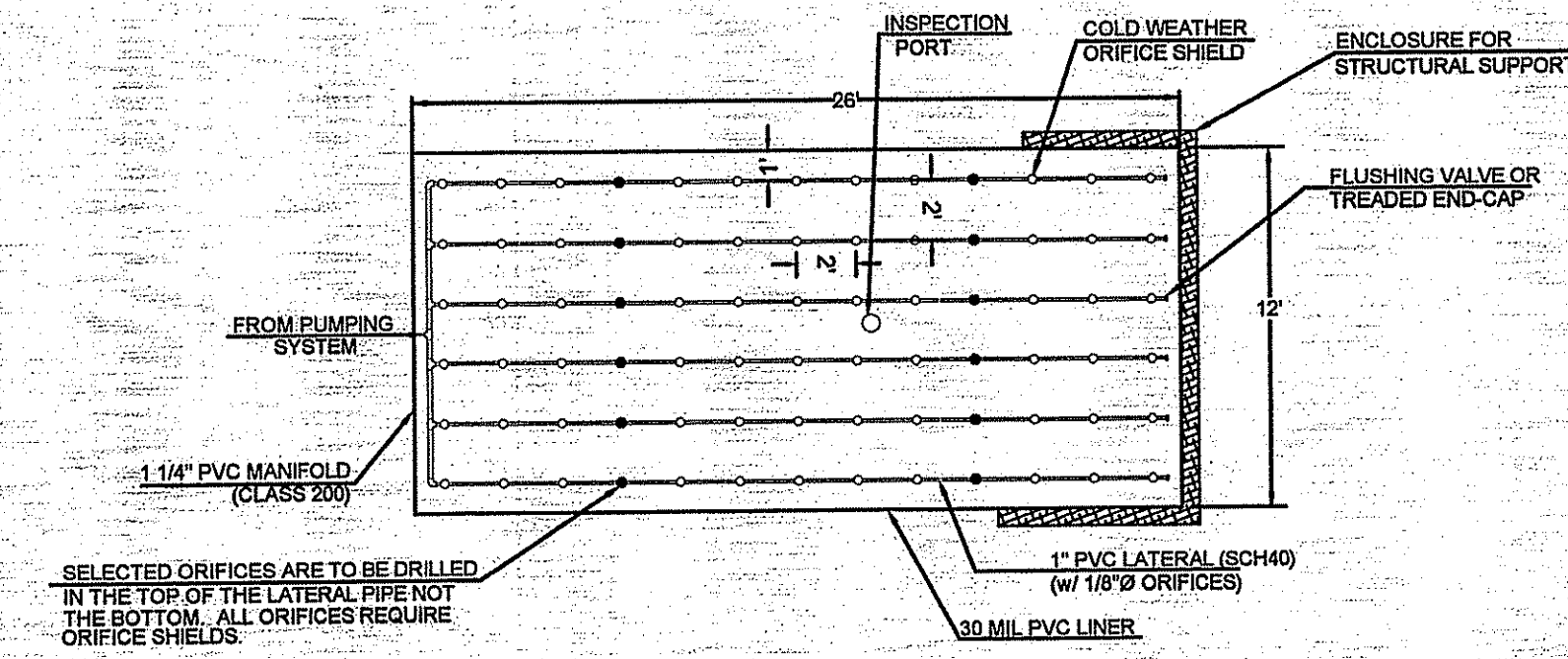




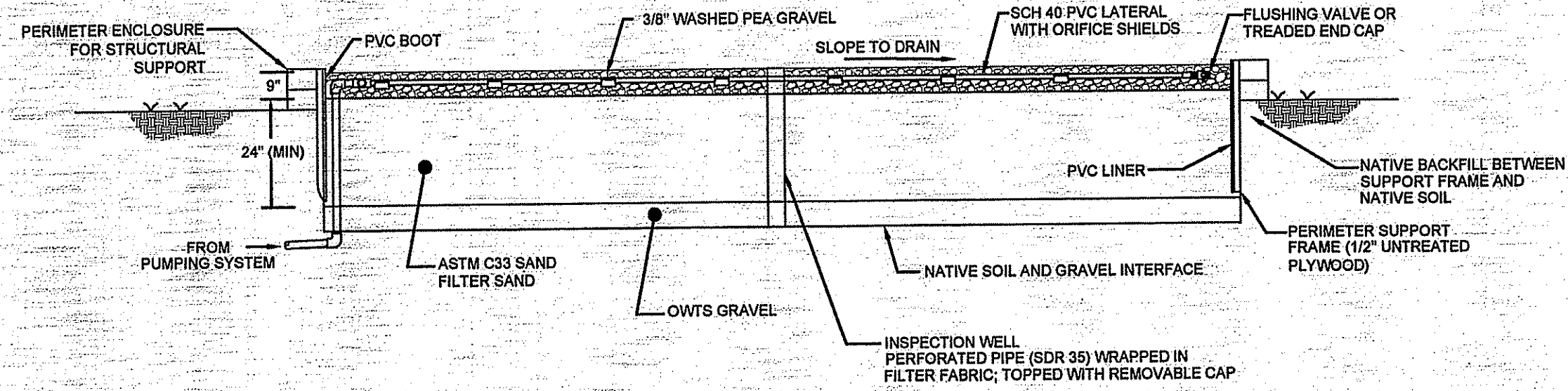
SITE/CIVIL
LAND PLANNING
WATERFRONT
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ENVIRONMENTAL
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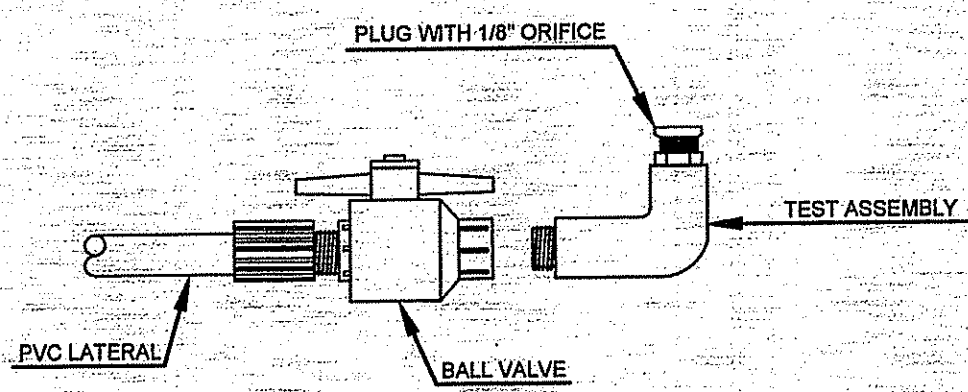
SOIL EVALUATION DATA											
TP#	HORIZON	HORIZON BOUNDARIES			SOIL COLORS		RE-DOX DESCRIPTION	TEXTURE	STRUCTURE	CONSISTENCE	SOIL CATEGORY
		DEPTH	DIST	TOPO	MATRIX	FEAT. FEATURES					
	Ap	0-12"	a	s	10 Y 3/2			sil	2mgr	fr	5
	Bw1	12-21"	g	w	2.5 Y 4/3			sil	2mgr	fr	5
	Bw2	21-25"	a	w	2.5 Y 4/3	10 Y 5/8 10 Y 4/1		sil	1fsbk	fr	5
	C/B	25-40"	c	i	2.5 Y 4/1 2.5 Y 4/3	10 Y 5/8 N Y 4/0		sil	0-m	fi	8
	Cd	40-101"	-	-	2.5 Y 4/1	10 Y 3/4		c,m,p sil	0-m	vfi	9m



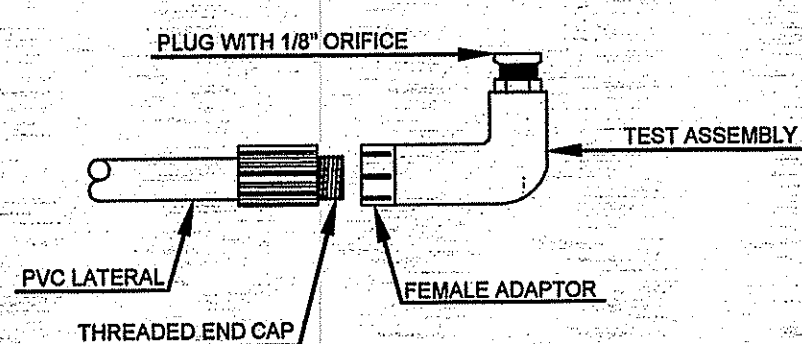
12' x 26' BOTTOMLESS SAND FILTER
NOT TO SCALE



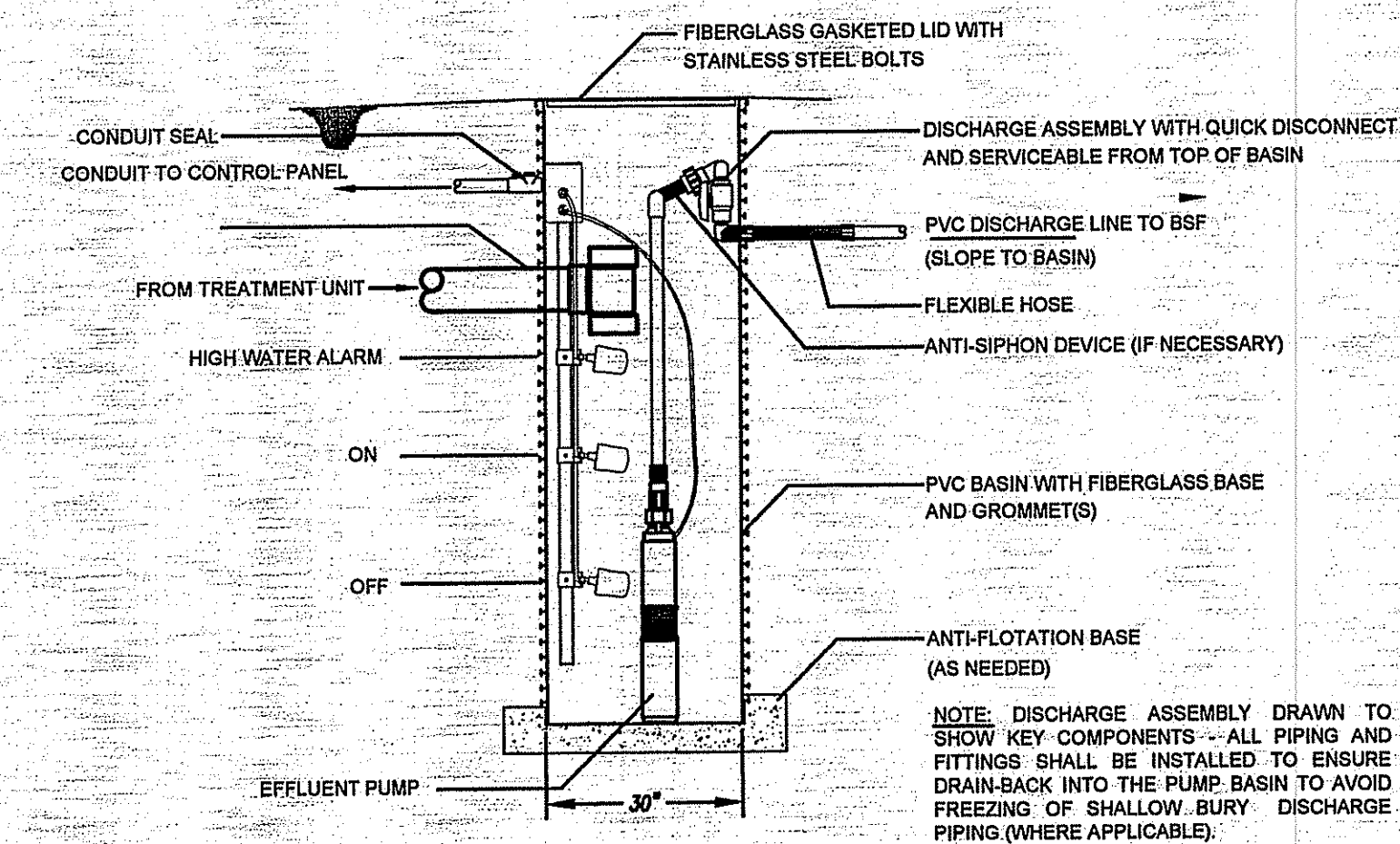
TYPICAL BOTTOMLESS SAND FILTER (CROSS SECTION)
NOT TO SCALE



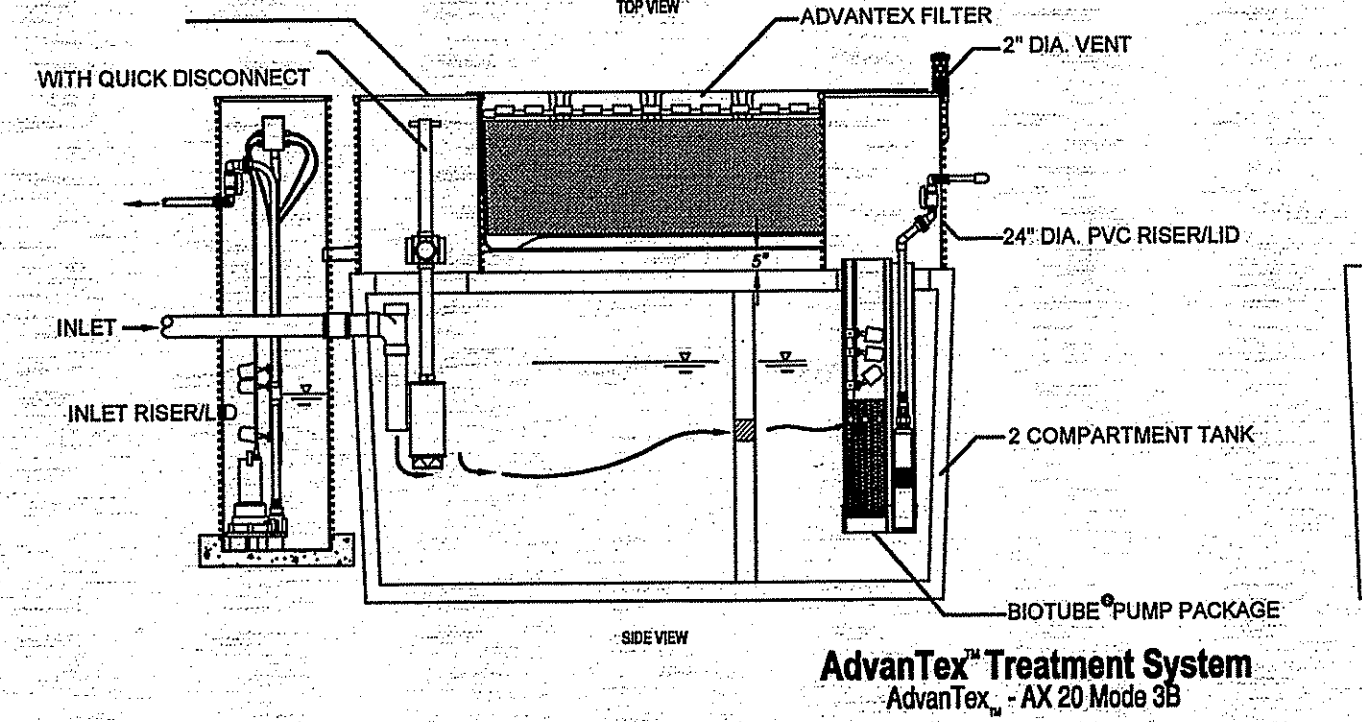
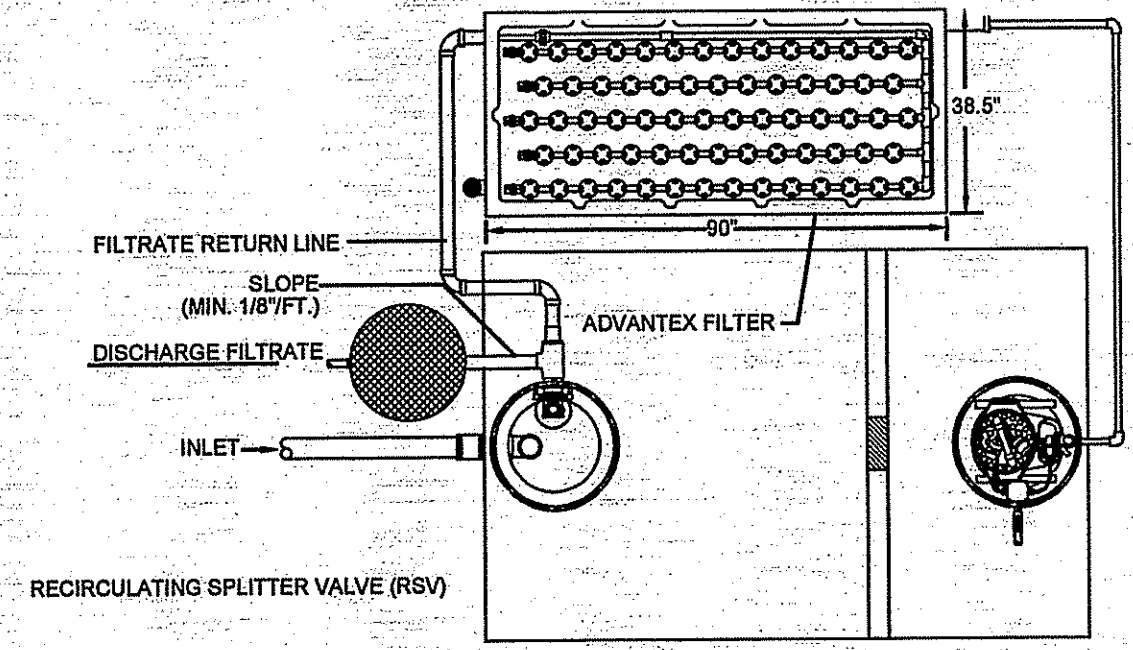
FLUSHING VALVE
NOT TO SCALE



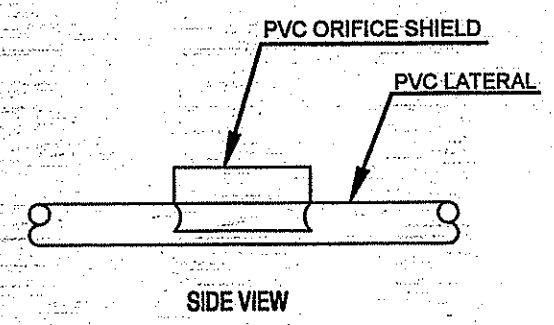
THREADED END CAP
NOT TO SCALE



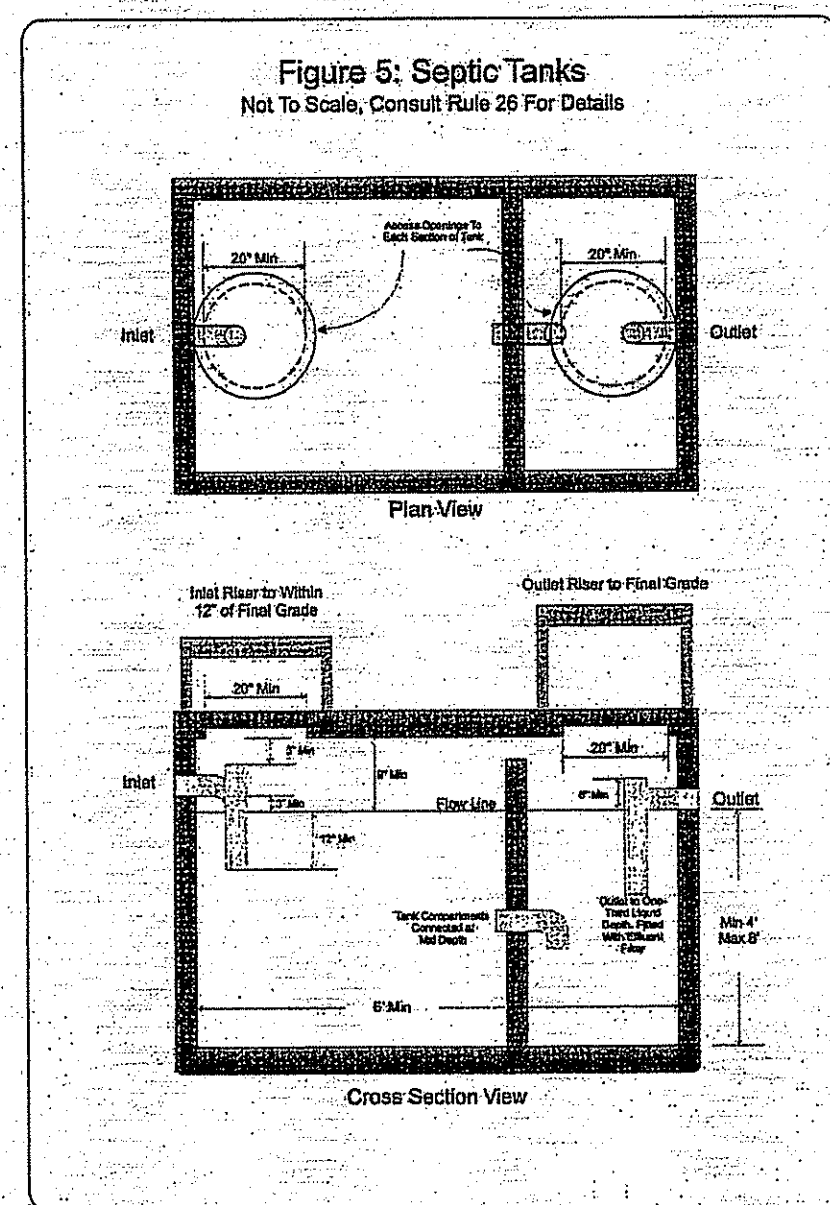
TYPICAL PUMP CHAMBER WITH HIGH HEAD PUMP
NOT TO SCALE



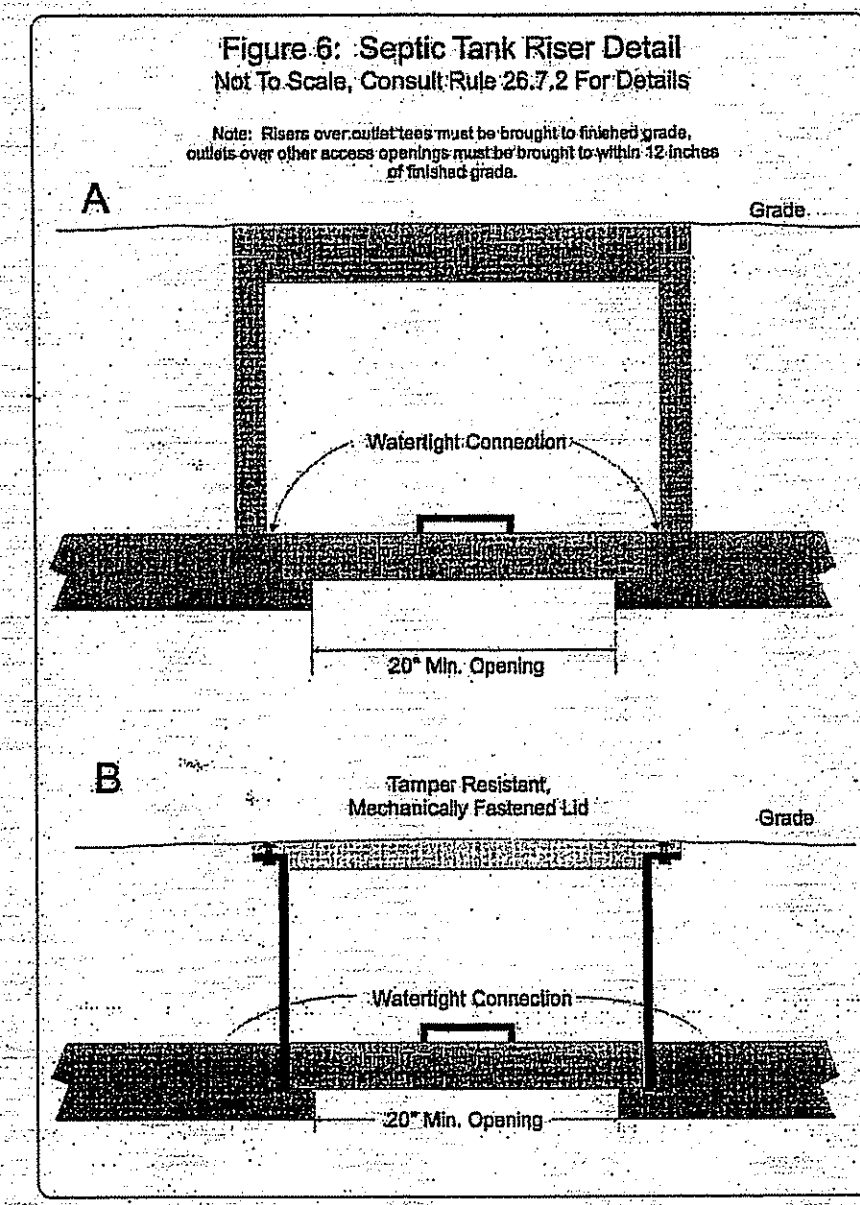
ADVANTEX TREATMENT SYSTEM
NOT TO SCALE



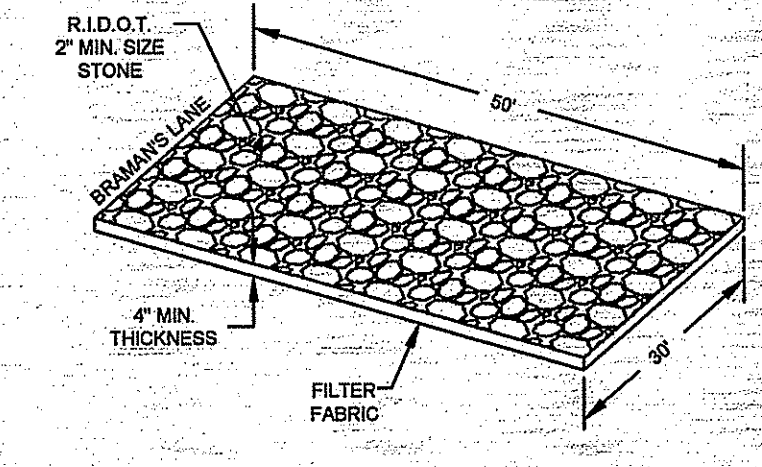
STANDARD COLD WEATHER ORIFICE SHIELD
NOT TO SCALE



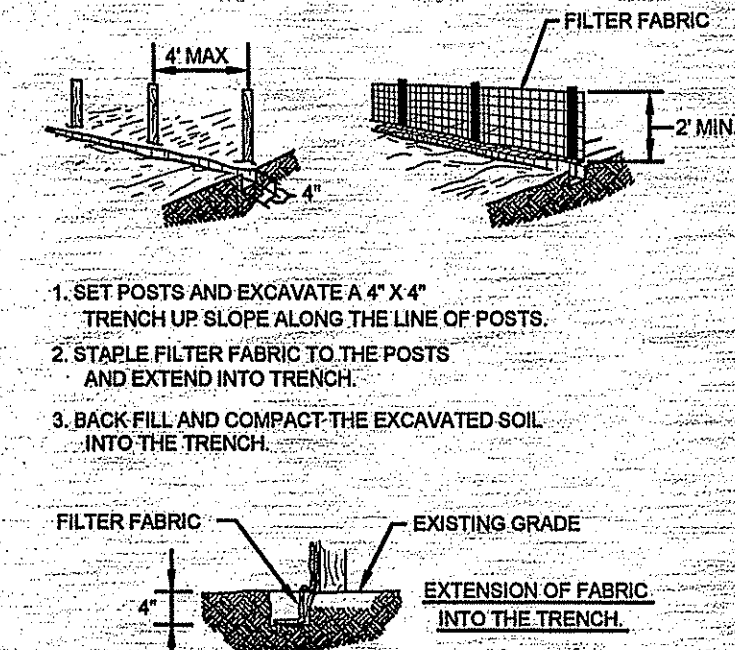
SEPTIC TANK DETAIL
NOT TO SCALE



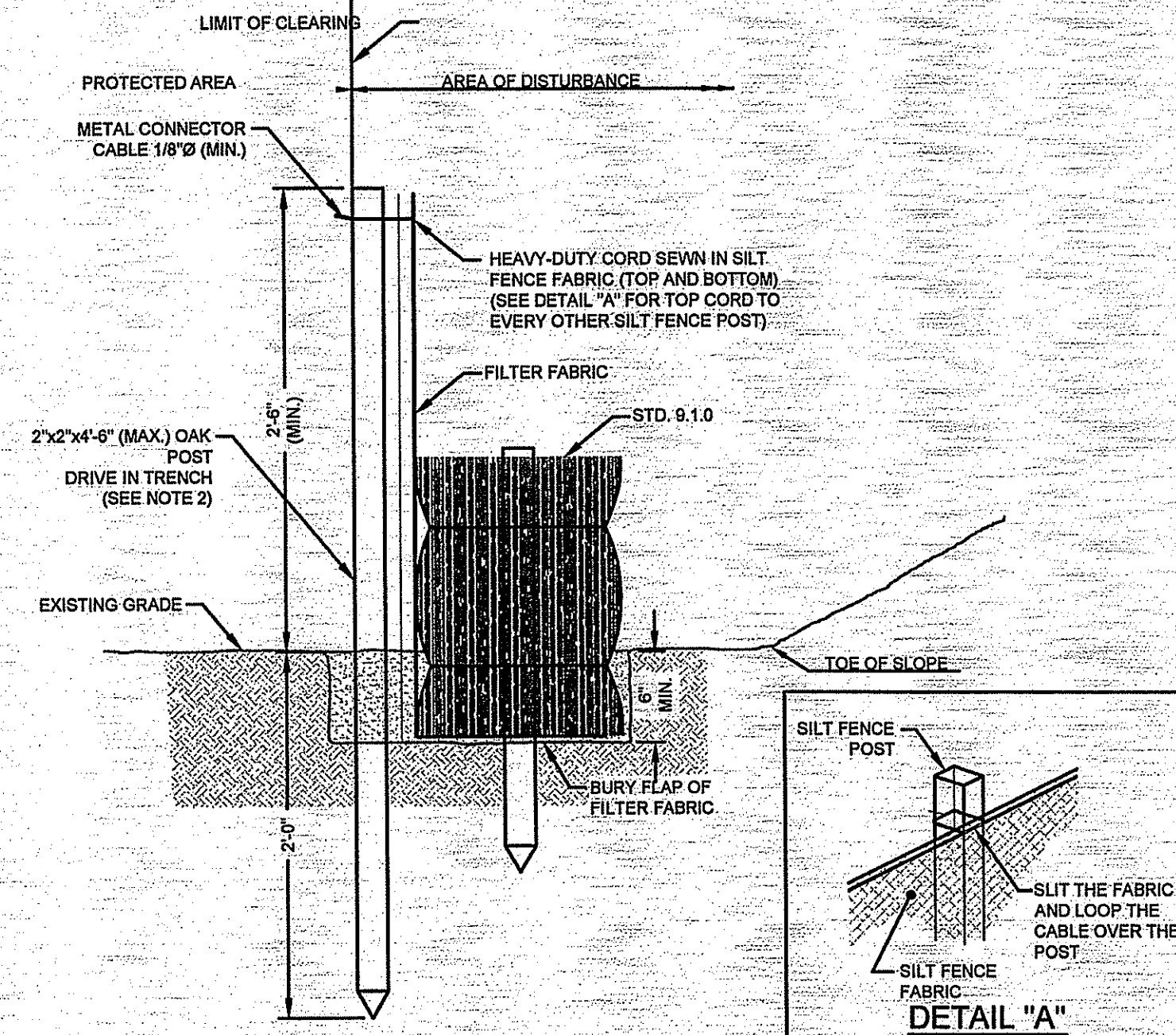
SEPTIC TANK RISER DETAIL
NOT TO SCALE



CONSTRUCTION ENTRANCE
NOT TO SCALE



HAY BALE SEDIMENT BARRIER
NOT TO SCALE



BALED HAY EROSION CHECK AND SILT FENCE COMBINED (RIDOT 9.3.0)
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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No.	Revision	Date	App.
Designed By: BFK	Drawn by: SMH	Checked by:	
Scale: 1"=40'	Date: NOV 2009		
Project Title: HOLLAND RESIDENCE A.P. 64, LOT 158 BRAMAN'S LANE PORTSMOUTH, RHODE ISLAND			
Client/Owner: HEIDI HOLLAND 1 RIVERSIDE DRIVE BARRINGTON, RI 02806			
Issued for: RIDEM			
Drawing Title: DETAILS			
Drawing Number: 1-2			Sheet 2 of 2
Project Number: 09153.0			Survey Index:
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