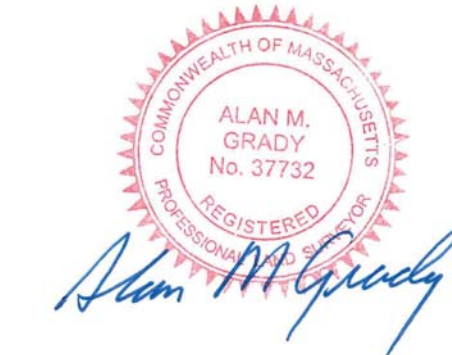


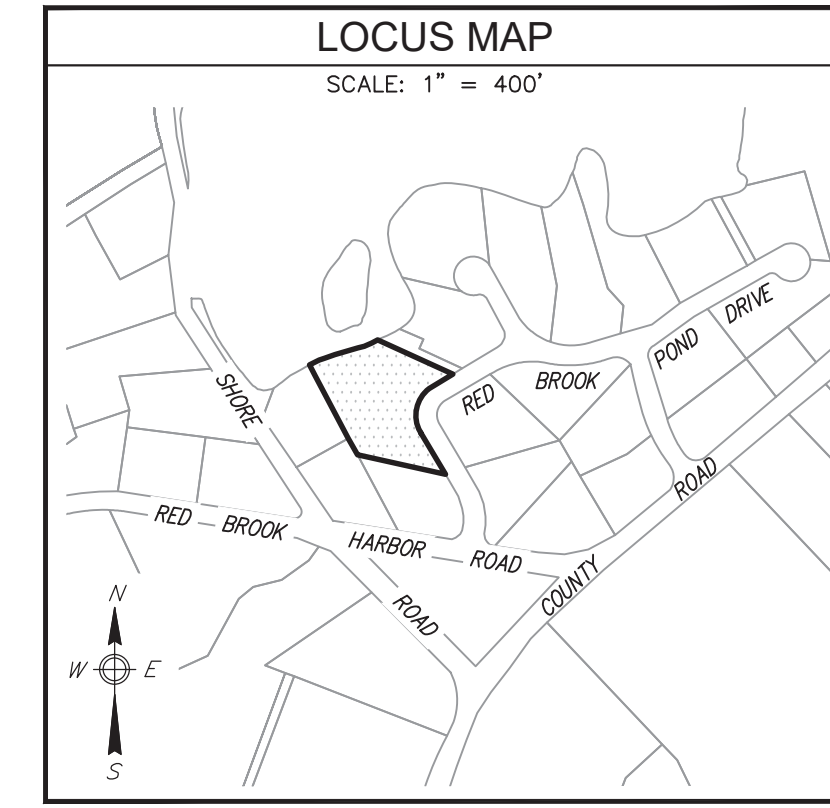


MASS COORDINATE SYSTEM
MAINLAND ZONE MERIDIAN
DETERMINED USING A
TOPCON HIPER SR GPS UNIT
COLLECTION DATE 02/17/2021

RED BROOK POND



#1 MILL POND CIRCLE
MAP: 47.4 PARCEL: 9-22



ZONING SUMMARY

ZONE: R-40

	REQUIRED	PROPOSED
LOT AREA:	40,000 S.F.	45,916± S.F.
FRONTAGE:	125' (MIN.)	255.17±
FRONT YARD:	30'	39.3±
SIDE YARD:	15'	16.0±
REAR YARD:	15'	21.1±
LOT COVERAGE:	20% (MAX.)	41.5% (2076 ±.1)
BUILDING HEIGHT:	35' (MAX.)	31.7' (a)

(a) - BUILDING HEIGHT BASED UPON AN AVERAGE EXISTING GRADE OF 20.5'

SOIL LOGS

TP. NO.	GRD. EL.	GW. EL.	DESCRIPTION
1	25.1	NONE TO 14.2	0' - 25.1' FILL
	22.1		36" - 22.1' APB SANDY LOAM 10YR 4/2
	21.1		48" - 21.1' BWB SANDY LOAM 10YR 4/3
	19.8		64" - 19.8' C1 SANDY LOAM 2.5Y 5/2
	18.5		80" - 18.5' C2 MED-SAND 2.5Y 5/6
	14.2		132" - 14.2' NO MOTTLING NO WATER
2	28.8	NONE TO 18.8	0' - 28.8' FILL
	27.1		20" - 27.1' APB SANDY LOAM 10YR 4/2
	26.4		28" - 26.4' BWB SANDY LOAM 10YR 4/3
	22.9		70" - 22.9' C1 SANDY LOAM 2.5Y 5/2
	18.8		120" - 18.8' C MED-SAND 2.5Y 5/6
	13.4		132" - 13.4' NO MOTTLING NO WATER
3	24.4	NONE TO 13.4	0' - 24.4' FILL
	19.7		56" - 19.7' APB SANDY LOAM 10YR 4/2
	18.9		66" - 18.9' BWB SANDY LOAM 10YR 4/3
	17.4		84" - 17.4' C MED-SAND 2.5Y 5/6
	13.4		132" - 13.4' NO MOTTLING NO WATER
4	24.4	NONE TO 13.4	0' - 24.4' FILL
	19.7		56" - 19.7' APB SANDY LOAM 10YR 4/2
	18.9		66" - 18.9' BWB SANDY LOAM 10YR 4/3
	17.4		84" - 17.4' C MED-SAND 2.5Y 5/6
	13.4		132" - 13.4' NO MOTTLING NO WATER

DATE PERFORMED: MAY 28, 2021
SOIL EVALUATOR: ROBERT DEWAR - S.E. #14230
WITNESSED BY: T. GUARINO, HEALTH INSPECTOR
PERC. RATE: <2 MINUTES PER INCH
SOIL CLASS: CLASS I
MAX. GROUND WATER ELEV.: NONE TO 13.4
METHOD OF DETERMINATION: NO MOTTLING NO WATER
(SEE SOIL REPORT FOR MORE DETAILED DESCRIPTION)

DISCLAIMER

SOIL CONDITIONS ENCOUNTERED DURING EXCAVATION MAY DIFFER FROM THE PREVIOUSLY OBSERVED CONDITIONS AT THE TEST PITS. ADDITIONAL REMOVAL AND REPLACEMENT OF SOIL MAY BE REQUIRED. IF UNDESIRABLE CONDITIONS ARE ENCOUNTERED, THE DESIGN ENGINEER SHALL BE CONSULTED.

EXCAVATION NOTE

THIS SYSTEM REQUIRES THE EXCAVATION OF ALL UNSUITABLE SOIL WITHIN 5' OF THE SOIL ABSORPTION SYSTEM. SOIL SHALL BE EXCAVATED TO THE EXISTING SAND LAYER. ENGINEER TO CONFIRM SOIL DEPTH PRIOR TO INSTALLATION. THE EXCAVATION SHALL BE INSPECTED BY THE DESIGN ENGINEER PRIOR TO BACKFILLING. SOIL IS TO BE REPLACED WITH SAND CONFORMING TO 310 CMP SECTION 15.255. CONSTRUCTION IN FILL. CONTRACTOR IS RESPONSIBLE TO PROVIDE ENGINEER WITH SAND SAMPLE FOR SIEVE ANALYSIS.

VARIANCE REQUEST

A 66± VARIANCE IS REQUESTED FROM THE BOURNE BOARD OF HEALTH REGULATIONS FOR A 84± SETBACK FROM A PROPOSED SOIL ABSORPTION SYSTEM TO A BORDERING VEGETATED WETLAND.

PLANTING NOTE

PROPOSED PLAN SPECIES AND FINAL QUANTITIES TO BE REVIEWED WITH CONSERVATION STAFF BASED ON SPECIES AVAILABILITY PRIOR TO INSTALLATION. PLANTINGS TO BE IN 3 GALLON CONTAINERS AND SPACED APPROXIMATELY 3' ON CENTER UNLESS OTHERWISE DIRECTED.

- ### Notes
- BENCHMARK: ELEVATION = 23.88 (NAVD88) CENTER OF CATCH BASIN
 - ALL CONSTRUCTION METHODS AND MATERIALS TO CONFORM TO TITLE 5 AND THE TOWN OF BOURNE BOARD OF HEALTH REGULATIONS.
 - ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
 - NO FIELD MODIFICATION TO THE SYSTEM SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER AND BOARD OF HEALTH.
 - ALL JOINTS AND COVERS TO BE WATERTIGHT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES.
 - A CERTIFICATE OF COMPLIANCE MUST BE OBTAINED PRIOR TO BACKFILLING SYSTEM.
 - OWNER: #3 JUSTIN REALTY TRUST
CARL FORZIATI, Trustee
ARTHUR FORZIATI, Trustee
P.O. BOX 521
FOCASSET, MA 02559
 - APPLICANT: MICHAEL KENNY
P.O. BOX 384
CATAUMET, MA 02534
 - DEED REFERENCE: Deed Bk: 5711 Pg: 148 (LOT 8)
Deed Bk: 5711 Pg: 144 (LOT 9)
 - PLAN REFERENCE: Plan Bk: 262 Pg: 7 (LOTS 8 & 9)
 - THE DESIGN IS INTENDED TO MEET TITLE 5 AND OTHER APPLICABLE REQUIREMENTS. THIS PLAN DOES NOT GUARANTEE THAT THE SYSTEM WILL BE INSTALLED AS DESIGNED, NOR DOES THIS PLAN GUARANTEE THE OPERATION OF THE SYSTEM.
 - THIS SYSTEM IS NOT DESIGNED NOR INTENDED FOR USE WITH A GARBAGE GRINDER.
 - THE SYSTEM OWNER SHALL BE RESPONSIBLE TO PUMP THE SEPTIC TANK AT LEAST ONCE EVERY THREE YEARS.
 - LOCUS DOES NOT FALL WITHIN A ZONE II WELLHEAD PROTECTION AREA OR BOURNE WATER RESOURCE DISTRICT.
 - LOCUS DOES NOT FALL WITHIN AN NHESP ESTIMATED HABITAT OF RARE WILDLIFE AND PRIORITY HABITAT OF RARE SPECIES.
 - LOCUS PARTIALLY FALLS WITHIN A SPECIAL FLOOD HAZARD ZONE "AE" (EL. 14) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP No. 25001C-0511-J, dated 7/16/2014.
 - CONTRACTOR TO REFER TO ALL MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS FOR INSTALLATION OF THE MICROFAST UNIT AND PRESBY ENVIRO-SEPTIC SYSTEM.
 - RECORD PROPERTY OWNER IS TO FILE A NOTICE OF DEED RESTRICTION AT THE BARNSTABLE COUNTY REGISTRY OF DEEDS PRIOR TO THE INSTALLATION OF THE SYSTEM, INDICATING THE USE OF AN INNOVATIVE/ALTERNATIVE SEPTIC SYSTEM ON THE PROPERTY AND RESTRICTING THE BEDROOM COUNT AS DESIGNED ON THIS PLAN.
 - HOMEOWNER IS TO ESTABLISH AN OPERATION & MAINTENANCE PLAN WITH A COMPANY CERTIFIED SYSTEM OPERATOR FOR THE MICROFAST UNIT. ALL SYSTEM TESTING, MONITORING & REPORTING IS TO BE CONDUCTED IN ACCORDANCE TO THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) REMEDIAL USE PERMITS.
 - CONTRACTOR TO COORDINATE PLACEMENT OF ALL ALARM/CONTROL PANELS WITH THE HOMEOWNER & SYSTEM MANUFACTURERS PRIOR TO INSTALLATION.
 - CONTRACTOR TO COORDINATE FINAL LOCATION OF MicroFAST BLOWER UNIT AND VENT WITH OWNER.
 - CONTRACTOR TO COORDINATE FINAL LOCATIONS OF HIGH AND LOW VENTS WITH OWNER AND ENGINEER.
 - NO STRUCTURES PROPOSED ON ANY SLOPE > 25%.
 - ROOF LEADERS TO BE CONNECTED TO THE PROPOSED DRYWELLS. DRYWELLS TO BE CONSTRUCTED A MINIMUM OF 25' FROM THE PROPOSED S.A.S.
 - PROPOSED ELECTRICAL SERVICE NOT SHOWN (FOR CLARITY). CONTRACTOR TO COORDINATE PROPOSED ELECTRIC SERVICE WITH UTILITY COMPANY.
 - CONTRACTOR TO COORDINATE CONNECTION OF ALL UTILITIES WITH ASSOCIATED UTILITY COMPANY.

Prepared By:

49 HERRING POND ROAD BUZZARDS BAY, MA 02532
(tel) 508.833.0070 (fax) 508.833.2282

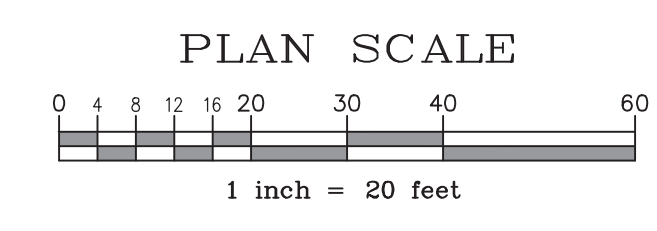
19 OLD SOUTH ROAD NANTUCKET, MA 02554
(tel) 508.325.0044 (www.brackeneng.com)

PROPOSED SUBSURFACE SEWAGE DISPOSAL PLAN IN BOURNE, MASSACHUSETTS

Prepared For:
JUSTIN REALTY TRUST
#3 RED BROOK POND DRIVE
MAP 47.4 PARCEL 9-8

No.	Date	Revision Description	By
1	12/25/22	REVISED PER CONSERVATION COMMENTS	RED

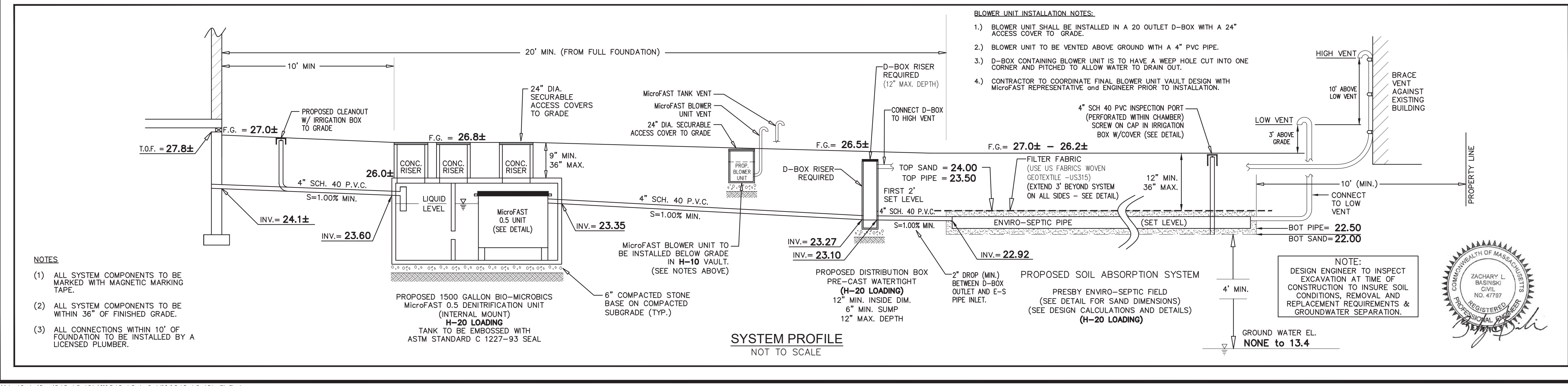
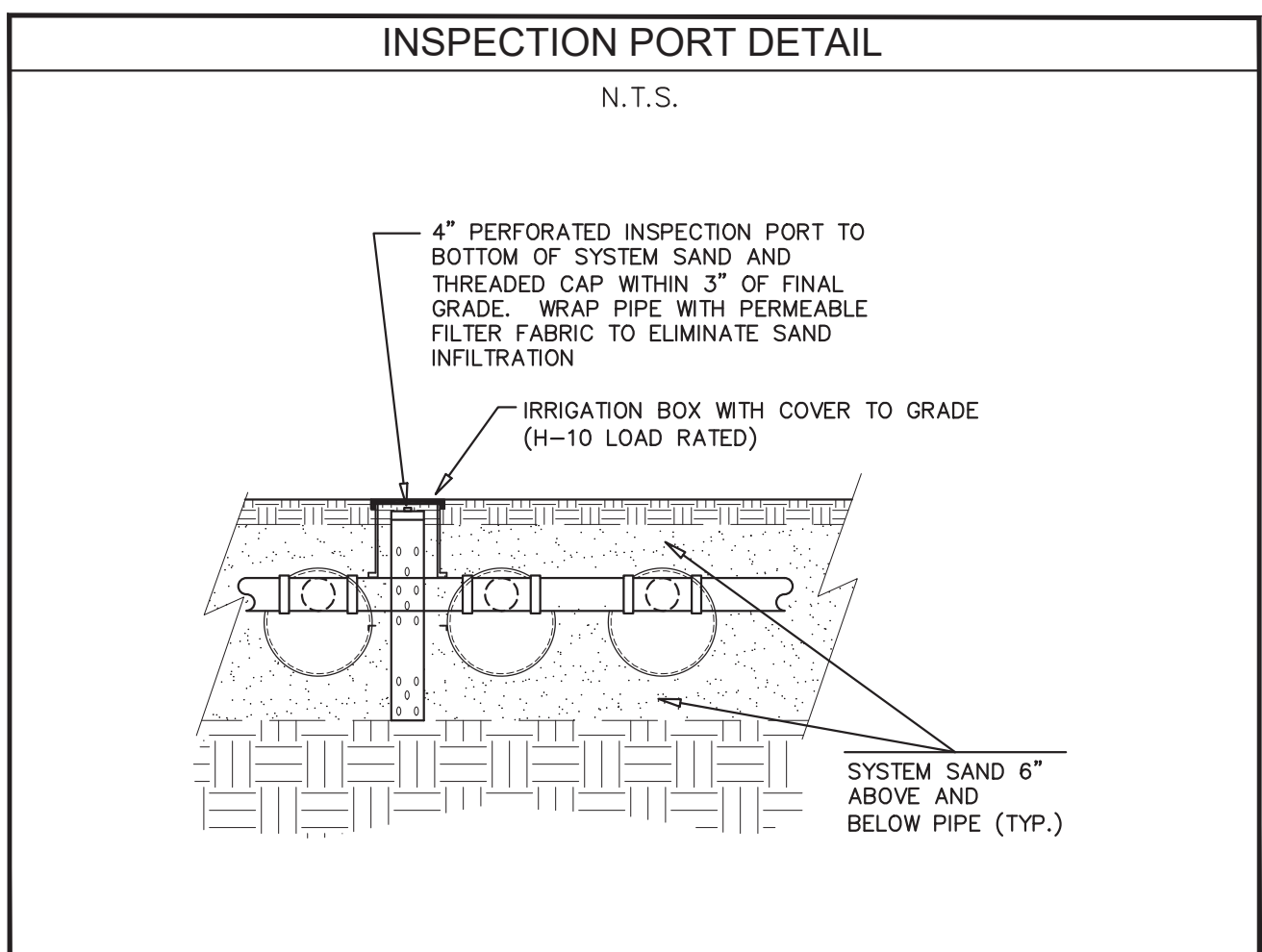
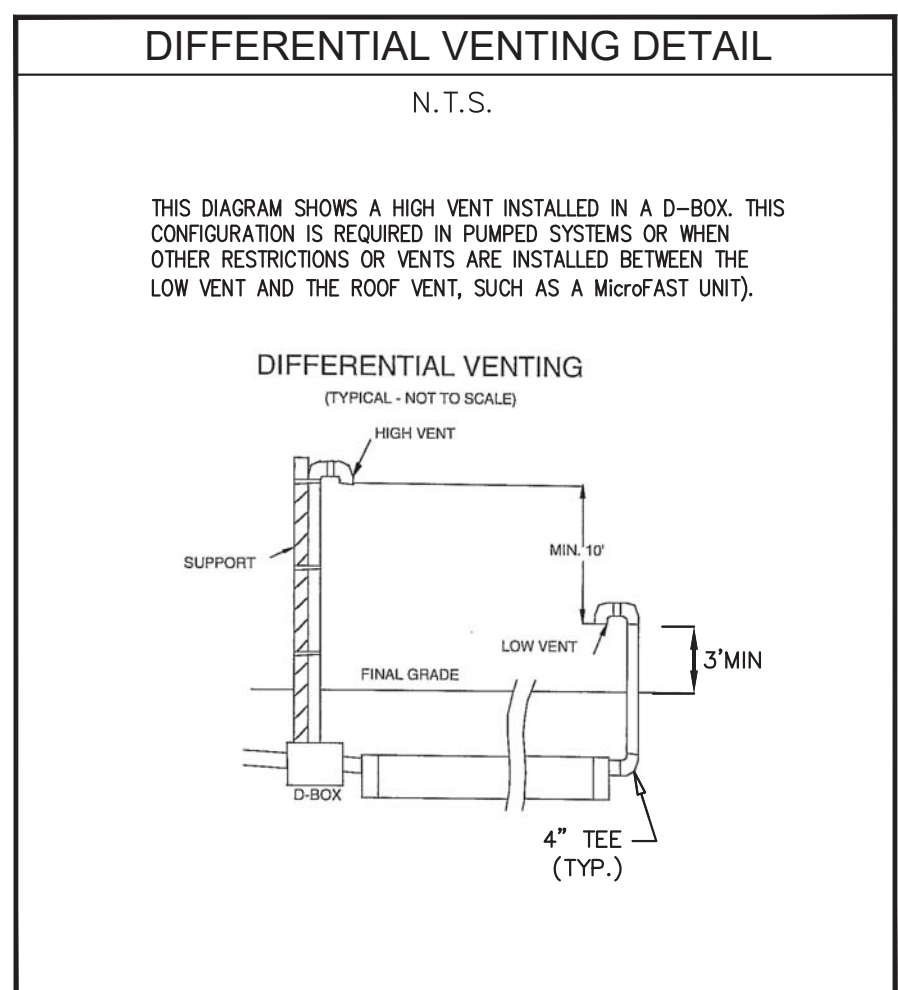
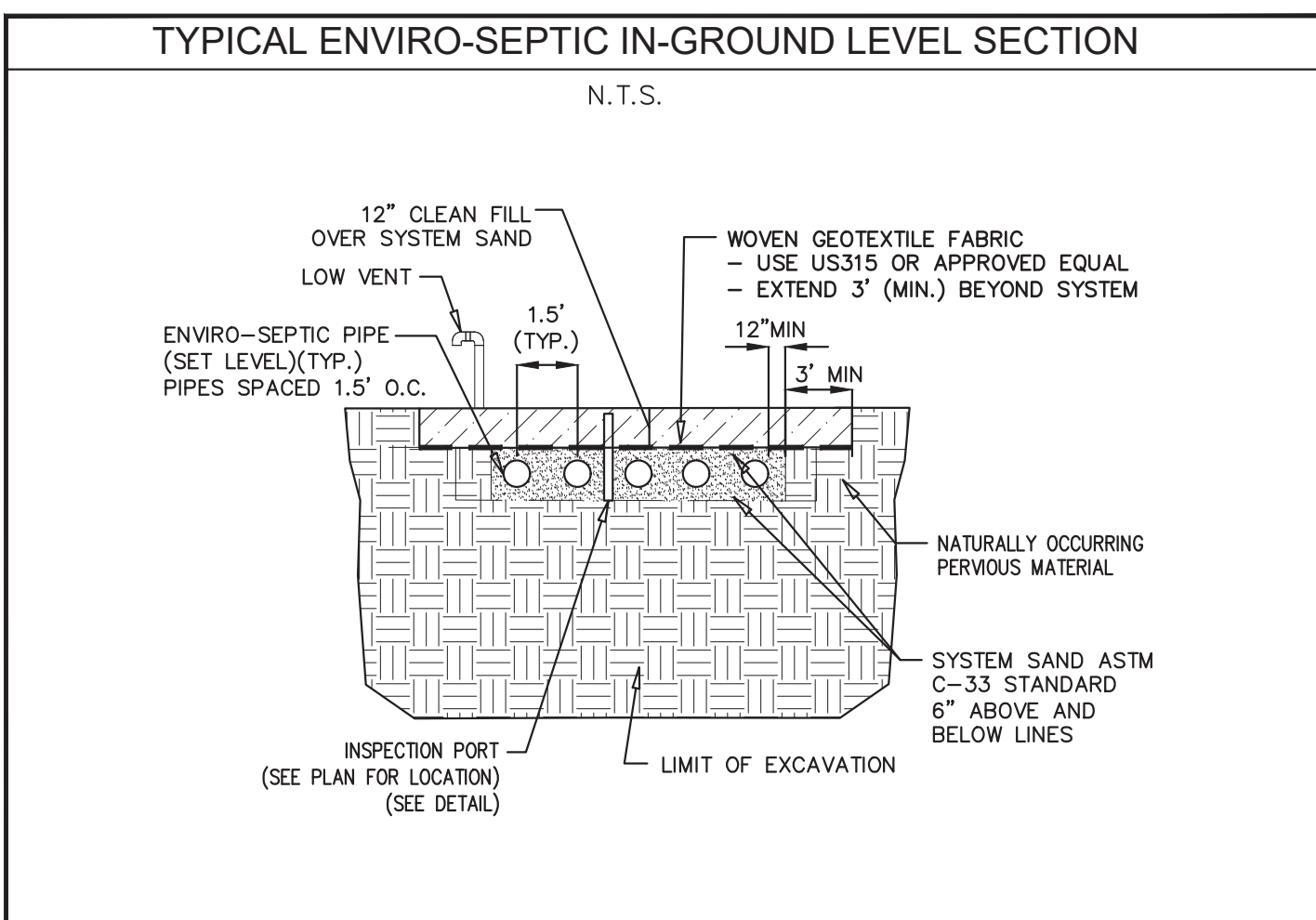
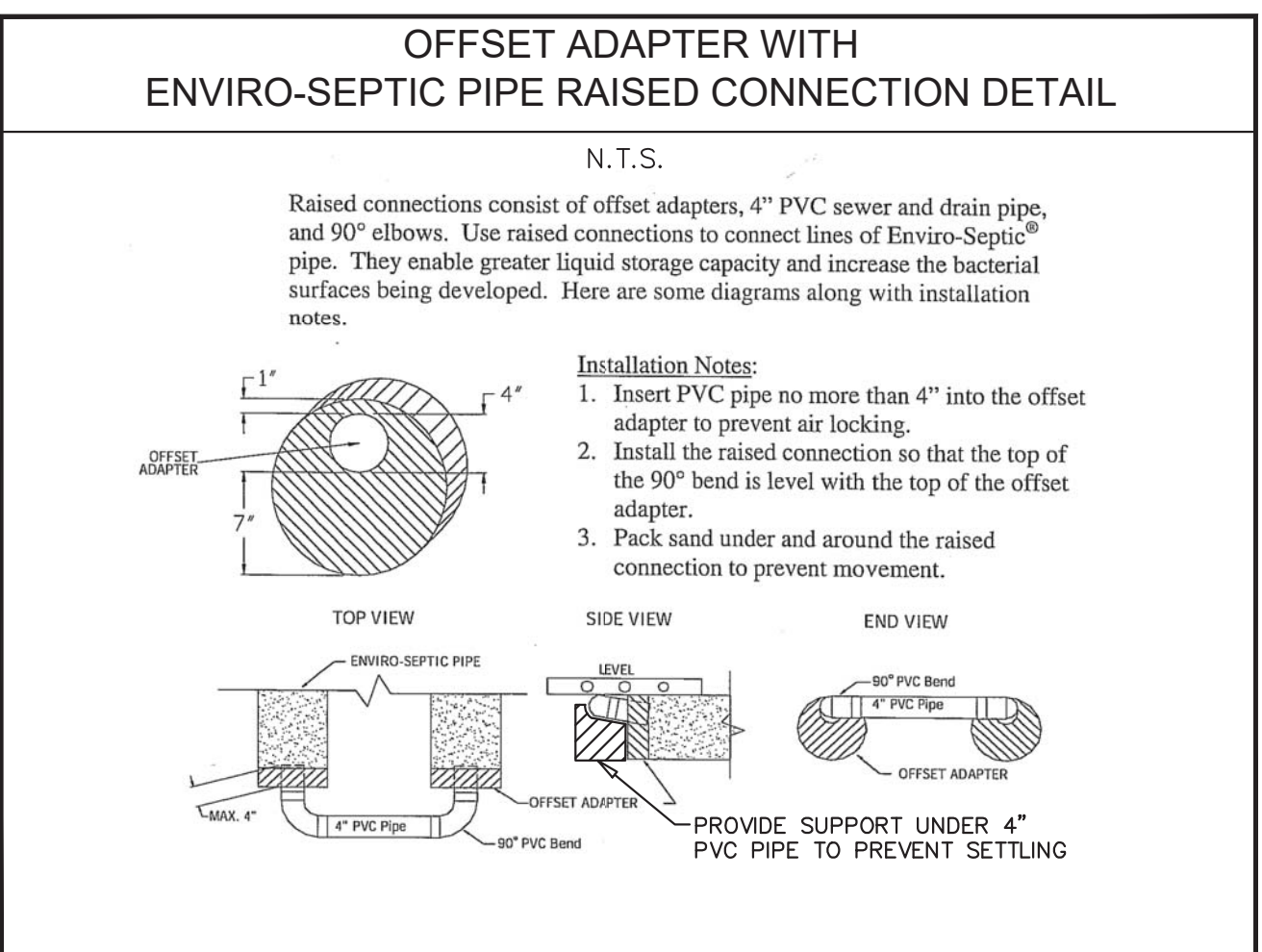
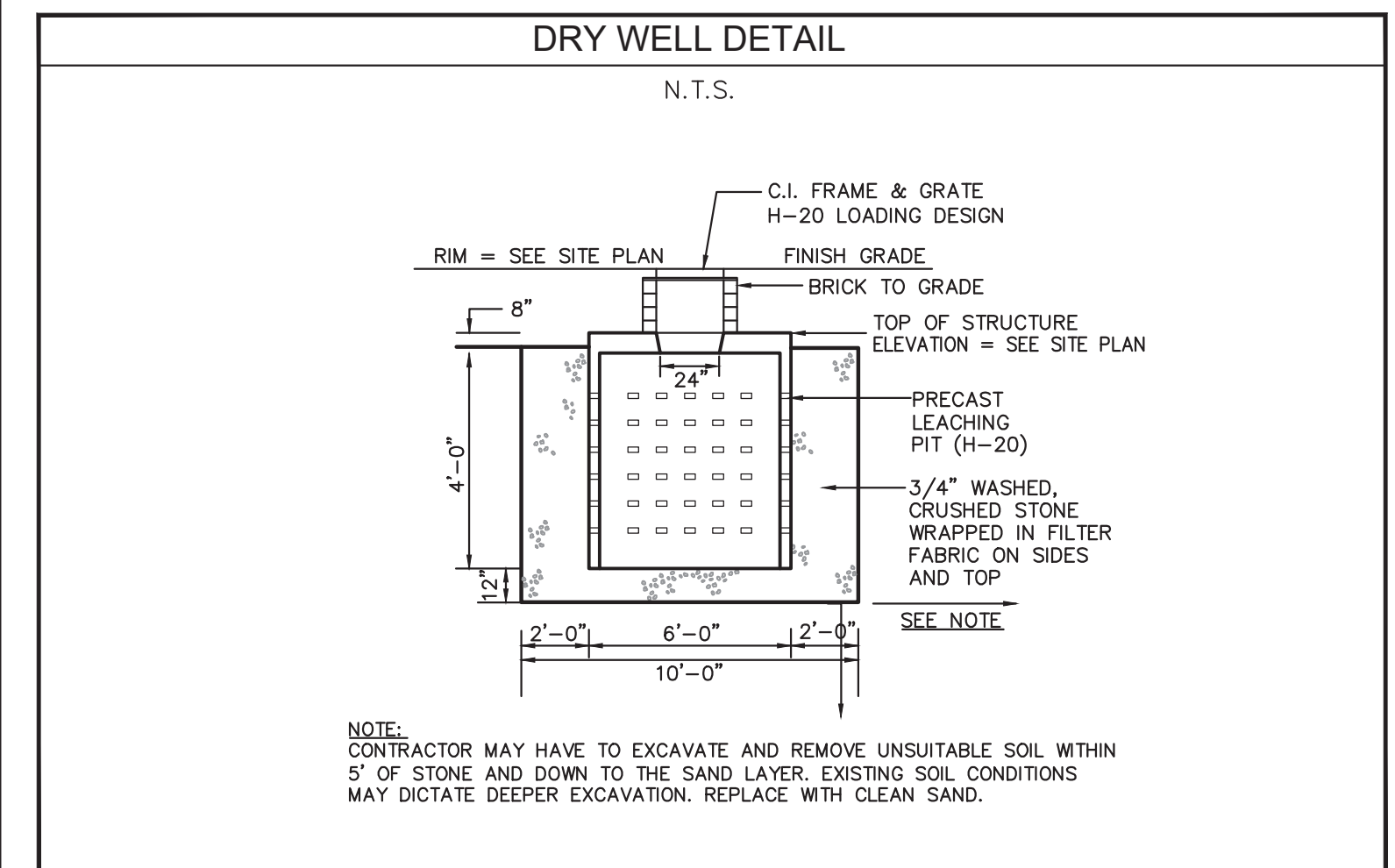
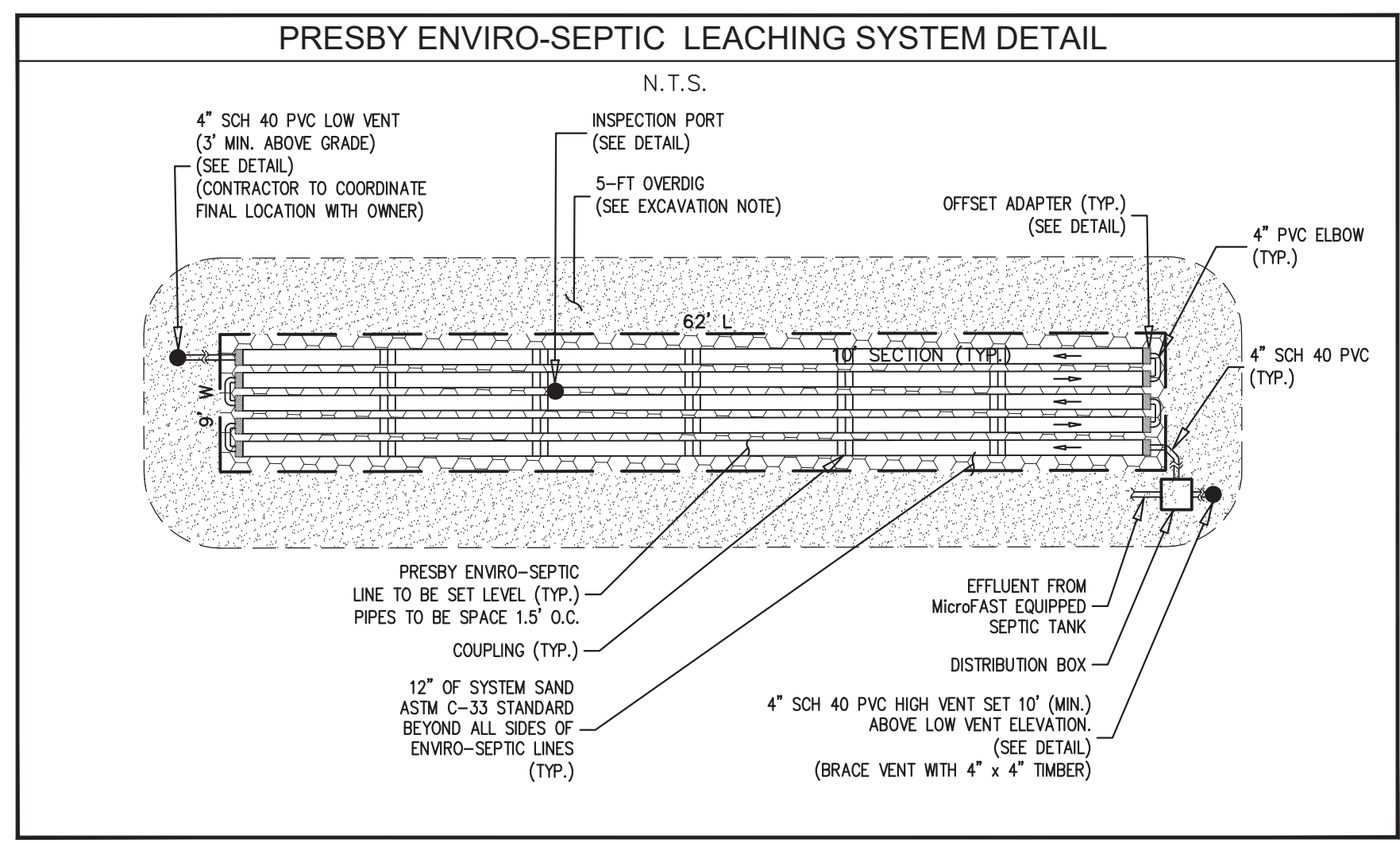
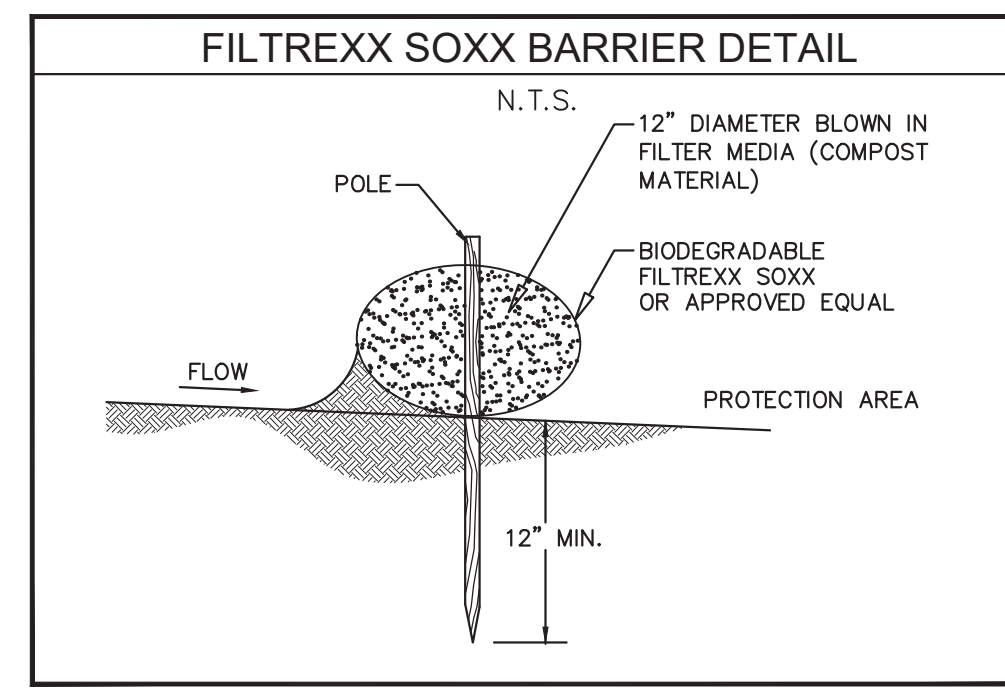
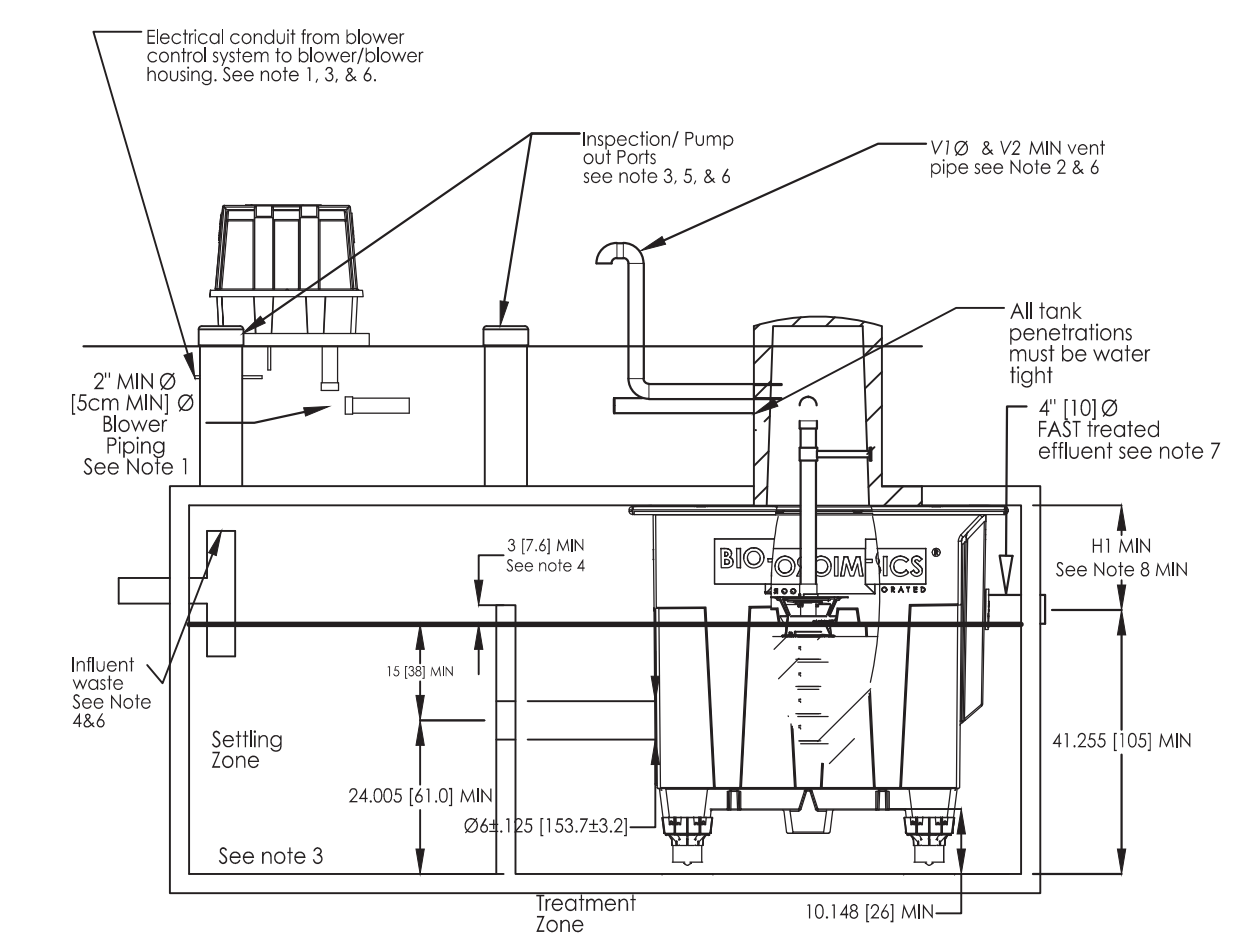
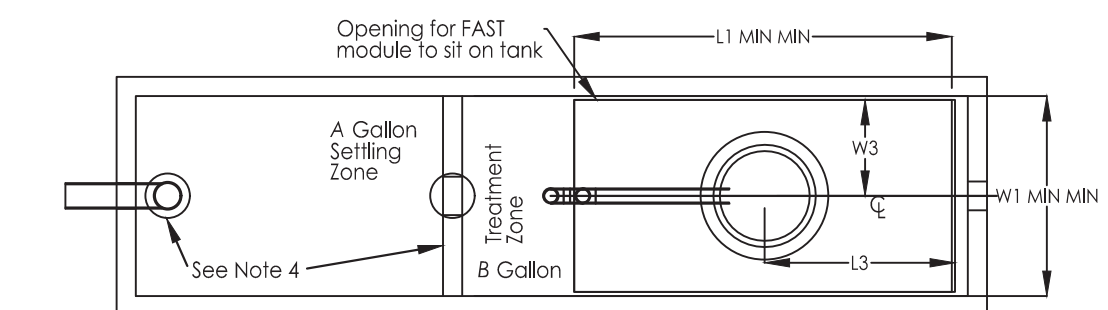
Date: JANUARY 18, 2022 Drawn: RED/BEI Checked: ZLB/AMG Sheet: 1 of 2



MicroFAST
0.5 FAST UNIT
(INTERNAL MOUNT)



- MicroFAST Notes:**
- Blower piping to FAST® may not exceed 100FT (30.5m) total length and use a maximum of 4 elbows. For distances greater than 100FT (30.5m) - consult factory. Blower must be located above flood/standing water levels on a concrete base 24" x 18" x 2"(1x4x.75cm) minimum.
 - Vent to be located above floor grade or higher to avoid infiltration. Cap with vent grate w/ot least 7.1 sq. in. (45.8 sq. cm) open surface area. Secure with stainless steel screws. Vent piping must not allow excess moisture build up or back pressure.
 - All apertures to FAST® (e.g. tank pump out, etc.) must conform to all country, state, province, and local plumbing and electrical codes. The blower control system is provided by Bio-Microbics, Inc.
 - Either the influent pipe line shall be fitted with a pipe cap or the baffle separating the two zones shall be extended to the top of the tank. If choosing to use the pipe cap, then the baffle shall be at least 3"(8cm) higher than the water level as shown on the drawing.
 - All inspection, viewing and pump out ports must be secured to prevent accidental or unauthorized access.
 - Tank, anchors, piping, conduit, blower housing pod and vents are provided by others.
 - All piping and ancillary equipment installed other FAST® must not impede or restrict free flow of effluent.
 - No more than 4 FT (1.2 m) of fill may be placed over unit lid. Unit may stand inside tank MicroFAST® 0.5 with feet. Refer to installation manual for more details.



DESIGN CALCULATIONS

SOIL TEXTURAL CLASS:	CLASS I
PERC. RATE:	< 2 MINUTES/INCH
NO. OF BEDROOMS:	4
DESIGN FLOW REQUIRED:	440 GPD
SEPTIC TANK REQUIRED:	1,500 GALLONS
SEPTIC TANK PROVIDED:	MicroFAST 0.5 Unit

LEACHING SYSTEM:
PRESBY ENVIRO-SEPTIC WASTEWATER TREATMENT SYSTEM
558 S.F. AREA x 2' DEEP SYSTEM (SEE DETAIL FOR FIELD DIMENSIONS)

EFFECTIVE LEACHING: (BASED ON REMEDIAL USE APPROVAL)
ENVIRO-SEPTIC PIPE REQUIRED: 70 L.F. PER 110 GAL/DAY
110 GAL/DAY / 70 L.F. = 1.57 GAL/DAY/L.F.

ENVIRO-SEPTIC PIPE PROVIDED
1 SECTION WITH 5 LINES OF 60' LENGTH EACH
TOTAL LENGTH = 1 x (5 x 60') = 300 L.F.
300 L.F. * 1.57 GAL/DAY/L.F. = 471 GAL/DAY > 440 GAL/DAY
LINES SPACED 1.50' ON CENTER

Prepared By:

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PROPOSED SUBSURFACE SEWAGE DISPOSAL PLAN IN BOURNE, MASSACHUSETTS

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No.	Date	Revision Description	By
1	2/25/22	REVISED PER CONSERVATION COMMENTS	RED

Date: JANUARY 18, 2022 Drawn: RED/BE Checked: ZLB/AMG Sheet: 2 of 2