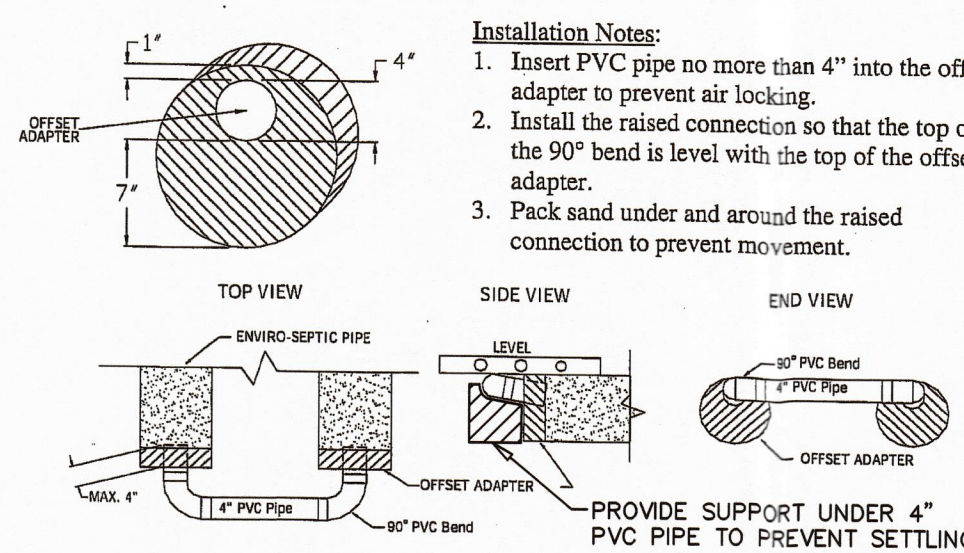


Received
REVISED
 3-24-22 (AM)
 Bourne Health Department
 24 Perry Ave
 Bourne, MA 02534

OFFSET ADAPTER WITH ENVIRO-SEPTIC PIPE RAISED CONNECTION DETAIL

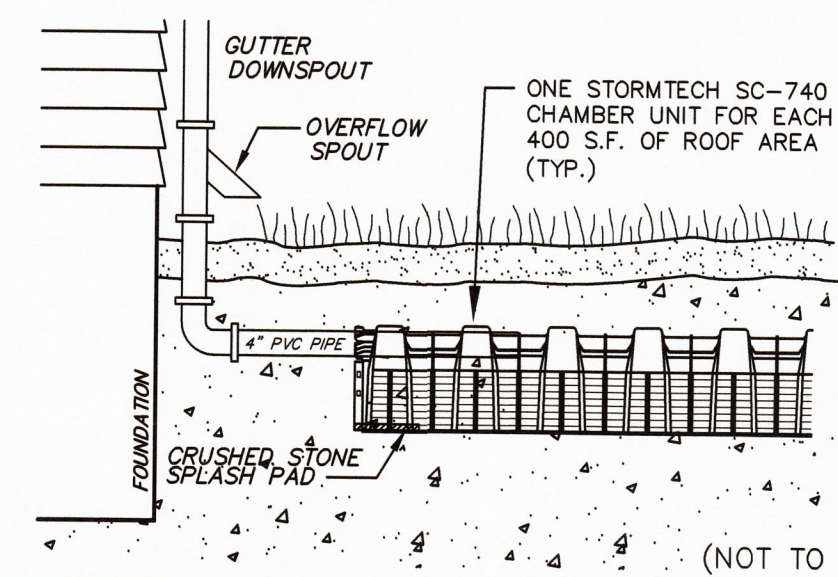
N.T.S.

Raised connections consist of offset adapters, 4" PVC sewer and drain pipe, and 90° elbows. The raised connections to connect lines of Enviro-Septic® pipe. They enable greater liquid storage capacity and increase the bacterial surfaces being developed. Here are some diagrams along with installation notes.

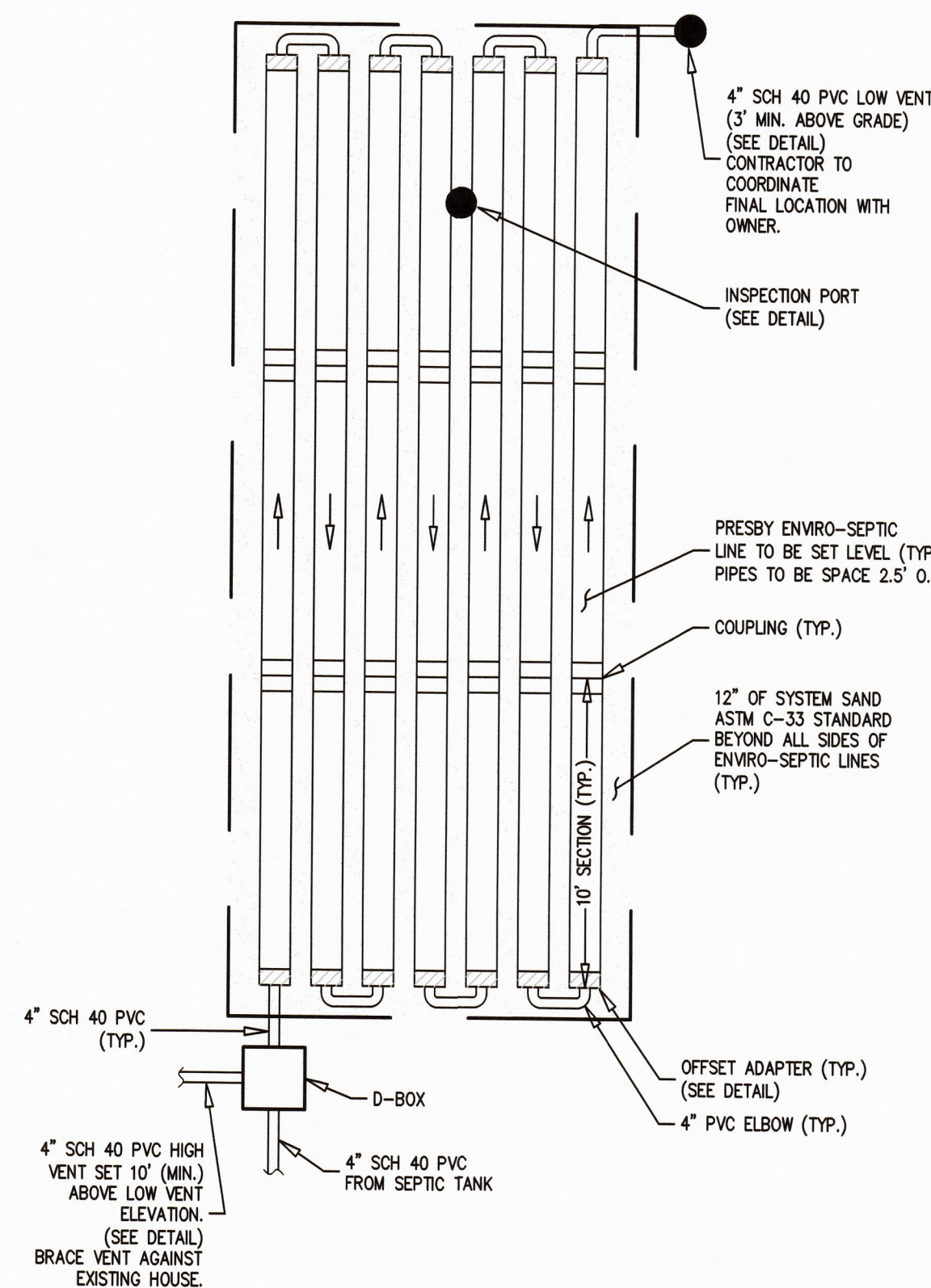


ROOF RUNOFF STORMWATER SYSTEM

NOTE: CONTRACTOR IS TO FIELD COORDINATE THE REQUIRED NUMBER OF AND FINAL LOCATION OF ROOF STORMWATER SYSTEMS WITH FINAL DOWNSPOUT LOCATIONS AND CONTRIBUTING ROOF AREAS.

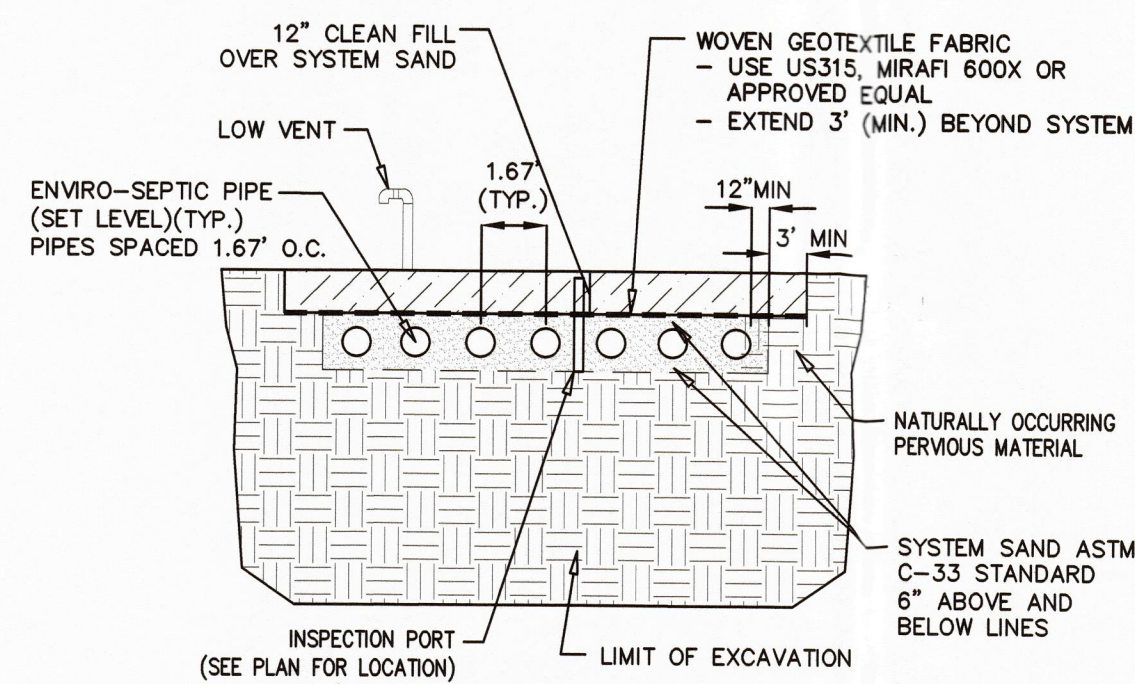


PRESBY ENVIRO-SEPTIC LEACHING SYSTEM LAYOUT



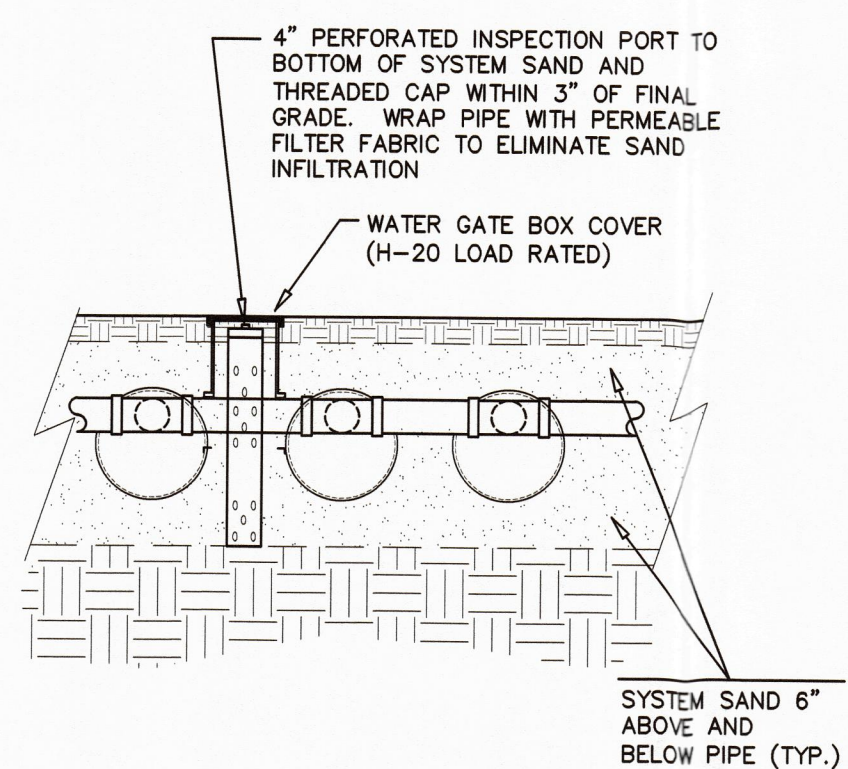
TYPICAL ENVIRO-SEPTIC IN-GROUND LEVEL SECTION

N.T.S.



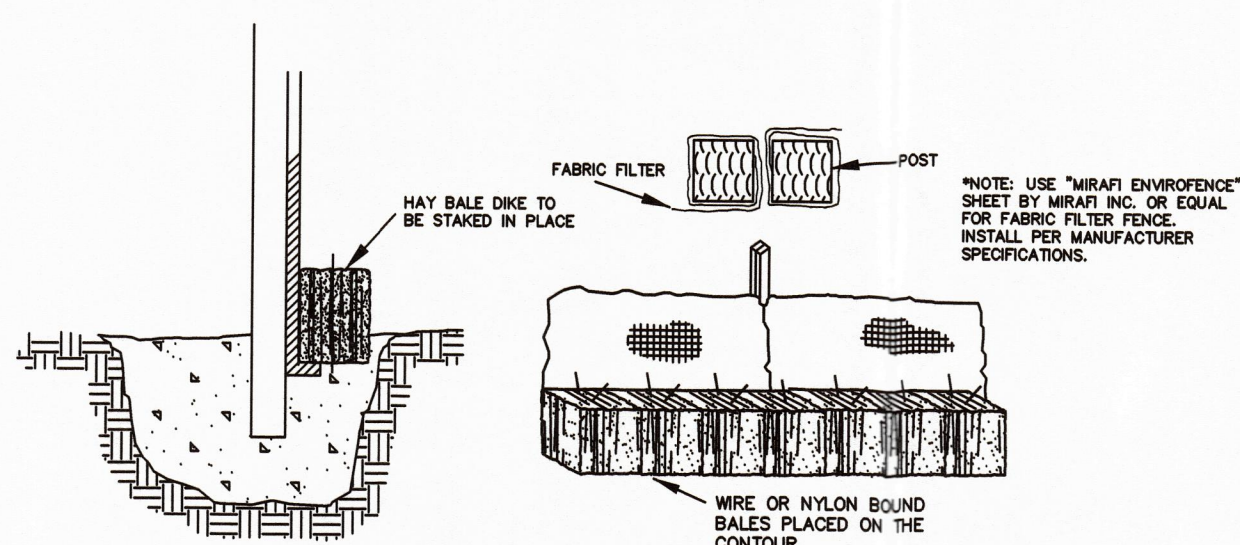
INSPECTION PORT DETAIL

N.T.S.



SILT FENCE W/ HAYBALE DETAIL

NOT TO SCALE



- CONSTRUCTION SPECIFICATIONS**
- BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
 - EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4\".
 - BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
 - INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED (I.E., NO MORE THAN 24 HOURS).
 - BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

ADDITIONAL EROSION CONTROL NOTES

- ANY BUILDING SUPPLIES, DEBRIS, FILL OR OTHER MATERIALS SHALL BE STOCKPILED AS FAR AWAY FROM DESIGNATED WETLAND RESOURCE AREAS AS PRACTICABLE, AND AT A LOCATION TO PREVENT SUCH MATERIALS FROM ENTERING THE RESOURCE AREA.
- ALL DISTURBED OR EXPOSED SOIL SURFACES SHALL BE TEMPORARILY STABILIZED WITH HAY, STRAW, MULCH OR ANY OTHER PROTECTIVE COVERING AND/OR METHOD APPROVED BY THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE WITHIN 24 HOURS OF DISTURBANCE IN ORDER TO PREVENT EROSION FROM TAKING PLACE.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE IMMEDIATELY STABILIZED AGAINST EROSION AND REVEGETATED WITH APPROPRIATE FAST GROWING EROSION CONTROL SPECIES OR LOCAL INDIGENOUS PLANTS WITH 30 DAYS OF FINAL SITE GRADING.

SOIL LOGS

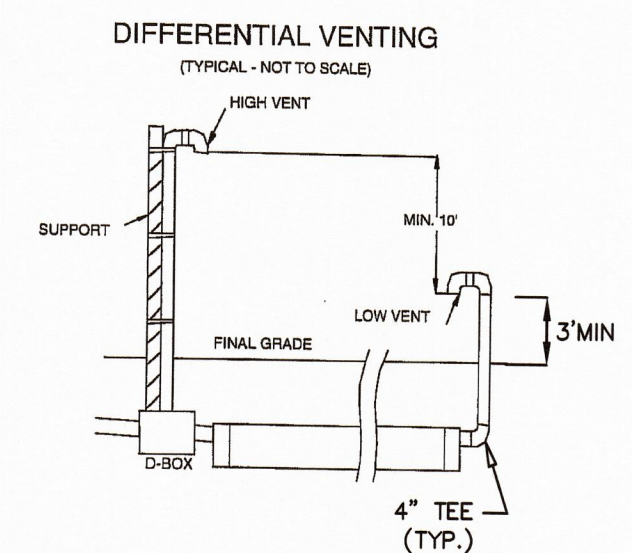
TP NO.	1	TP NO.	2
GRD. EL.	47.5	GRD. EL.	47.2
OW. EL.	NONE to 37.5	OW. EL.	NONE to 37.2
0"	Ap LOAMY SAND 10YR 2/1	0"	Ap LOAMY SAND 10YR 2/1
11"	Bw LOAMY SAND 10YR 3/6	11"	Bw LOAMY SAND 10YR 3/6
37"	C MEDIUM SAND 2.5Y 7/4	37"	C MEDIUM SAND 2.5Y 7/4
120"	NO MOTTLING NO WATER	120"	NO MOTTLING NO WATER

DATE PERFORMED: NOVEMBER 20, 2019
 SOIL EVALUATOR: ROBERT E. DEWAR, E.I.T. (SE #14230)
 WITNESSED BY: KAYLA DAVIS - BOH INSPECTOR
 PERC. RATE: <2 MINUTES/INCH
 SOIL CLASS: CLASS I
 MAX. GROUND WATER ELEV.: NONE TO 37.2
 METHOD OF DETERMINATION: NO MOTTLING/WATER
 (SEE SOIL REPORT FOR MORE DETAILED DESCRIPTION)

DIFFERENTIAL VENTING DETAIL

N.T.S.

THIS DIAGRAM SHOWS A HIGH VENT INSTALLED IN A D-BOX. THIS CONFIGURATION IS REQUIRED IN PUMPED SYSTEMS OR WHEN OTHER RESTRICTIONS OR VENTS ARE INSTALLED BETWEEN THE LOW VENT AND THE ROOF VENT.



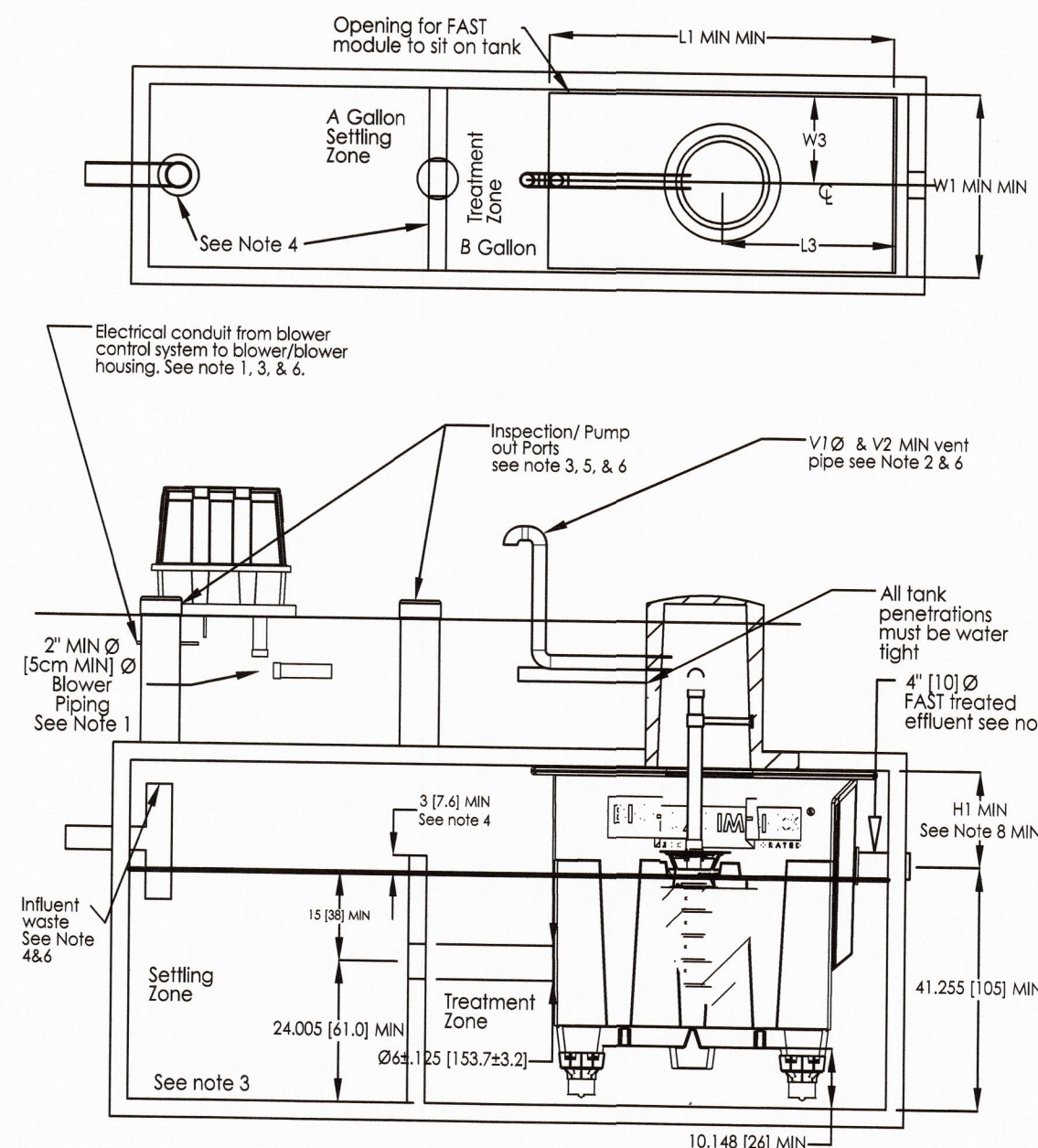
DESIGN CALCULATIONS

SOIL TEXTURAL CLASS: CLASS I
 PERC. RATE: <2 MINUTES/INCH
 NO. OF BEDROOMS: 3
 DESIGN FLOW REQUIRED: 330 GPD
 SEPTIC TANK REQUIRED: 1,500 GALLONS
 SEPTIC TANK PROVIDED: MicroFAST 0.5 Unit
LEACHING SYSTEM:
 PRESBY ENVIRO-SEPTIC WASTEWATER TREATMENT SYSTEM
 416 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
 ENVIRO-SEPTIC PIPE PROVIDED:
 1 SECTION WITH 7 LINES OF 30' LENGTH EACH
 TOTAL LENGTH = 1 x (7 x 30') = 210 L.F.
 210 L.F. = 330 GAL/DAY
 LINES SPACED 1.67' ON CENTER
 EACH SECTION = 210 L.F. = 330 GPD < 500 GPD MAX/SECTION

MicroFAST 0.5 FAST UNIT (INTERNAL MOUNT)

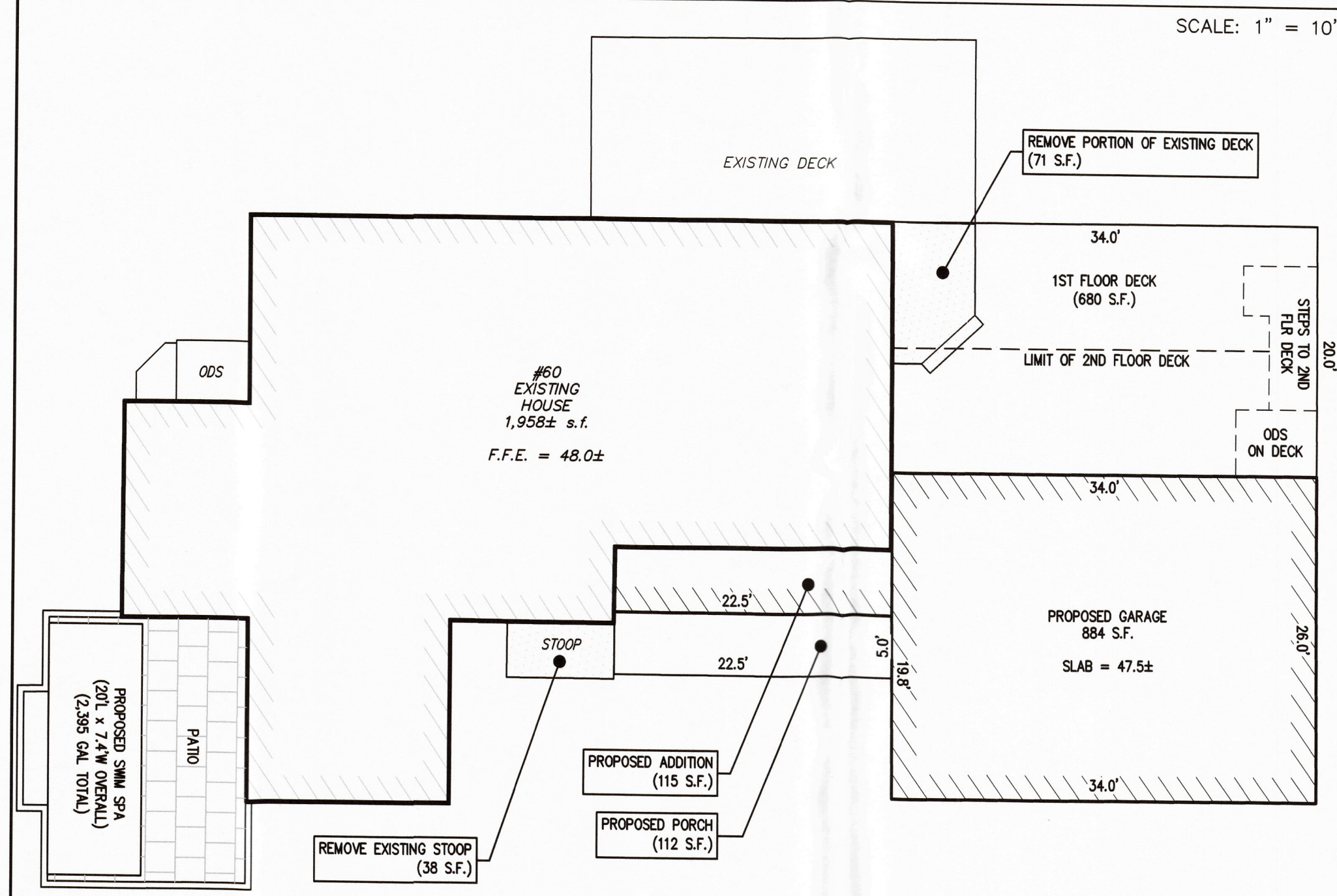


- MicroFAST Notes:**
- Blower piping to FASTs may not exceed 100FT [30.5m] total length and use a maximum of 4 elbows. For distances greater than 100FT [30.5m] - consult factory. Blower must be located above floor/standing water levels on a concrete base 24" x 16" x 2" [61x45.7x5cm] minimum.
 - Vent to be located above finish grade or higher to avoid infiltration. Cap with vent grate w/ at least 7.1 sq. in. [45.9 sq. cm] open surface area. Secure with stainless steel screws or Run vent to desired location and cover opening with vent grate w/ at least 7.1 sq. in. [45.9 sq. cm] of open surface area. Secure with stainless steel screws. Vent piping must not allow excess moisture build up or back pressure.
 - All appliances to FASTs (e.g. tank pump outs, 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 shall be fitted with a pipe cap or the bottle 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 and vents are provided by others.
 - All piping and ancillary equipment installed after FASTs 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.



PROPOSED ADDITION DETAIL

SCALE: 1" = 10'



Prepared By:
BRACKEN ENGINEERING, INC.
 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.brackeng.com)

SUBSURFACE SEWAGE DISPOSAL PLAN
 IN BOURNE, MASSACHUSETTS
 Prepared For:
EDWARD G. JACOUBS & PERI A. JACOUBS
 #60 ARLINGTON DRIVE
 MAP 19.2 PARCEL 131

No.	Date	Revision Description	By
7	3/23/2022	UPDATED BENCHMARK	JPH
6	3/14/2022	REVISE FLOOD ZONE REFERENCE	JPH
5	2/24/2022	REVISED BASED ON B.O.H. COMMENTS	ZLB
4	10/19/2021	REVISED FOR B.O.H. COMMENTS	JPH
3	10/5/2021	REVISED FOR B.O.H. SUBMISSION	RED
2	2/17/21	REVISED PER D.E.P. (S.O.C.) COMMENTS	JPH
1	2/10/20	REVISED PER CON. COMM. COMMENTS	RED

Date: DECEMBER 23, 2019
 Drawn: RED/BEI
 Checked: ZLB/AMG
 Sheet: 2 of 2

NO PART OF THIS DOCUMENT IS TO BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE, WITHOUT THE EXPRESS WRITTEN CONSENT OF BRACKEN ENGINEERING, INC. ANY UNAUTHORIZED REPRODUCTION OF THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF BRACKEN ENGINEERING, INC. SHALL BE PROSECUTED TO THE FULL EXTENT OF THE LAW.