

LOCAL UPGRADE APPROVAL & TOWN VARIANCE REQUEST				
PLAN REFERENCE	SETBACK/REQUEST TYPE	SETBACK/SIZE REQUIREMENT 310 CMR 15.211 (1)	SETBACK/ SIZE PROVIDED	REFERENCE
①	PIPE TO R	10 FT	7.0± FT	SECT II.B.1. – SCITUATE BOH
②	D.BOX TO R	10 FT	9.0± FT	SECT II.B.1. – SCITUATE BOH
③	SAS ESHGW	5'	4'	15.405(1)(h) – TITLE V
④	SOIL TESTING TEST PIT PERC TEST	4 3	2 1	SECT I.1 – SCITUATE BOH SECT I.1 – SCITUATE BOH
⑤	SAS TO R	10 FT	5 FT	15.405(1)(a) – TITLE V
⑥	SEPTIC TANK LIQUID DEPTH	4 FT	3 FT	15.405(1)(b) – TITLE V
⑦	SEPTIC TANK SIZE	1,500 GAL.	750 GAL.	15.404(1)(a) – TITLE V
⑧	25% REDUCTION IN LEACHING AREA	446 SF	335 SF	15.405(1)(c) – TITLE V
⑨	SYSTEM TO WATER SERVICE	10 FT	VARIES	15.211(1) – TITLE V

NOTE:  
THE RELIEF REQUESTED ABOVE WAS APPROVED AT A PUBLIC  
HEARING HELD BY THE BOARD OF HEALTH ON 7/29/13.

HOUSE FLOOR PLAN  
NTS

**RECORD OWNER:**  
ASSESSORS MAP 69 BLOCK 01 LOT 19  
#272 CENTRAL AVENUE  
STANLEY NASHEN  
L.C. CERTIFICATE No. 117622  
LOT 46 L.C. PLAN No. 12049B

NOTES:  
PROPERTY LINE, STREET LINE AND OWNER INFORMATION WAS  
COMPILED FROM RECORDS ON FILE AT THE PLYMOUTH  
COUNTY REGISTRY OF DEEDS AND THE TOWN OF SCITUATE  
ASSESSORS DEPARTMENT.

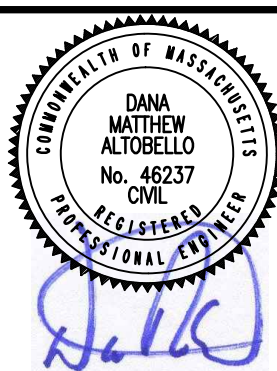
TOPOGRAPHY INFORMATION SHOWN ON THIS PLAN IS BASED UPON AN ON THE GROUND SURVEY PERFORMED BY MERRILL ASSOCIATES, INC. ON MAY 29, 2013.

ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN  
VERTICAL DATUM OF 1988.

EXISTING UTILITIES, WHERE SHOWN, HAVE BEEN COMPILED  
BASED ON OBSERVED ABOVE GROUND EVIDENCE AND  
AVAILABLE RECORD PLANS AND ARE TO BE CONSIDERED  
APPROXIMATE. MERRILL ASSOCIATES, INC. DOES NOT  
GUARANTEE THE LOCATION OF THE UNDERGROUND UTILITIES  
SHOWN OR THAT ALL EXISTING UTILITIES AND/OR SUBSURFACE  
STRUCTURES ARE SHOWN.

**FLOOD NOTE:**  
BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN  
ZONE "VE" EL 13,16 AND 19) OF THE FLOOD INSURANCE RATE  
MAP, AS SHOWN ON COMMUNITY PANEL No. 250282 0139J,  
WHICH BEARS AN EFFECTIVE DATE OF JULY 17, 2012, AND IS  
IN A SPECIAL FLOOD HAZARD AREA.

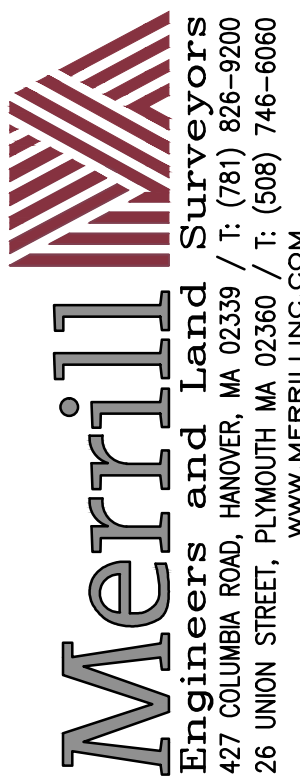
**PURPOSE OF THIS PLAN:**  
THE PURPOSE OF THIS PLAN IS TO PERMIT THE REPAIR OF THE EXISTING SYSTEM WHICH HAS BEEN DAMAGED BY RECENT STORM EVENTS. THE PROPOSED SYSTEM INSTALLATION/REPAIRS WILL BE COMPLETED IN ACCORDANCE WITH THE APPROVED PLAN AND APPLICATION BEARING THE SAME TITLE AND DATED JUNE 25, 2013 AND LAST REVISED JULY 16, 2013. THE CURRENT PLAN AND APPLICATION WOULD REQUEST THE SAME VARIANCES AS WERE APPROVED WITH THE 2013 SUBMITTAL.



DRAWN BY: VC

DESIGNED BY: PGF

CHECKED BY: DA



SEPTIC REPAIR PLAN  
ASSESSORS MAP 69 BLOCK 1 LOT 19  
#272 CENTRAL AVENUE  
SCITUATE, MASSACHUSETTS

PREPARED FOR: STANLEY NASHEN  
#272 CENTRAL AVENUE  
SCITUATE, MA 02043

MAY 10, 2021

SCALE: AS-NOTED

JOB No. 13-063

LATEST REVISION

SEPTIC PLAN

SHEET 1 OF 2

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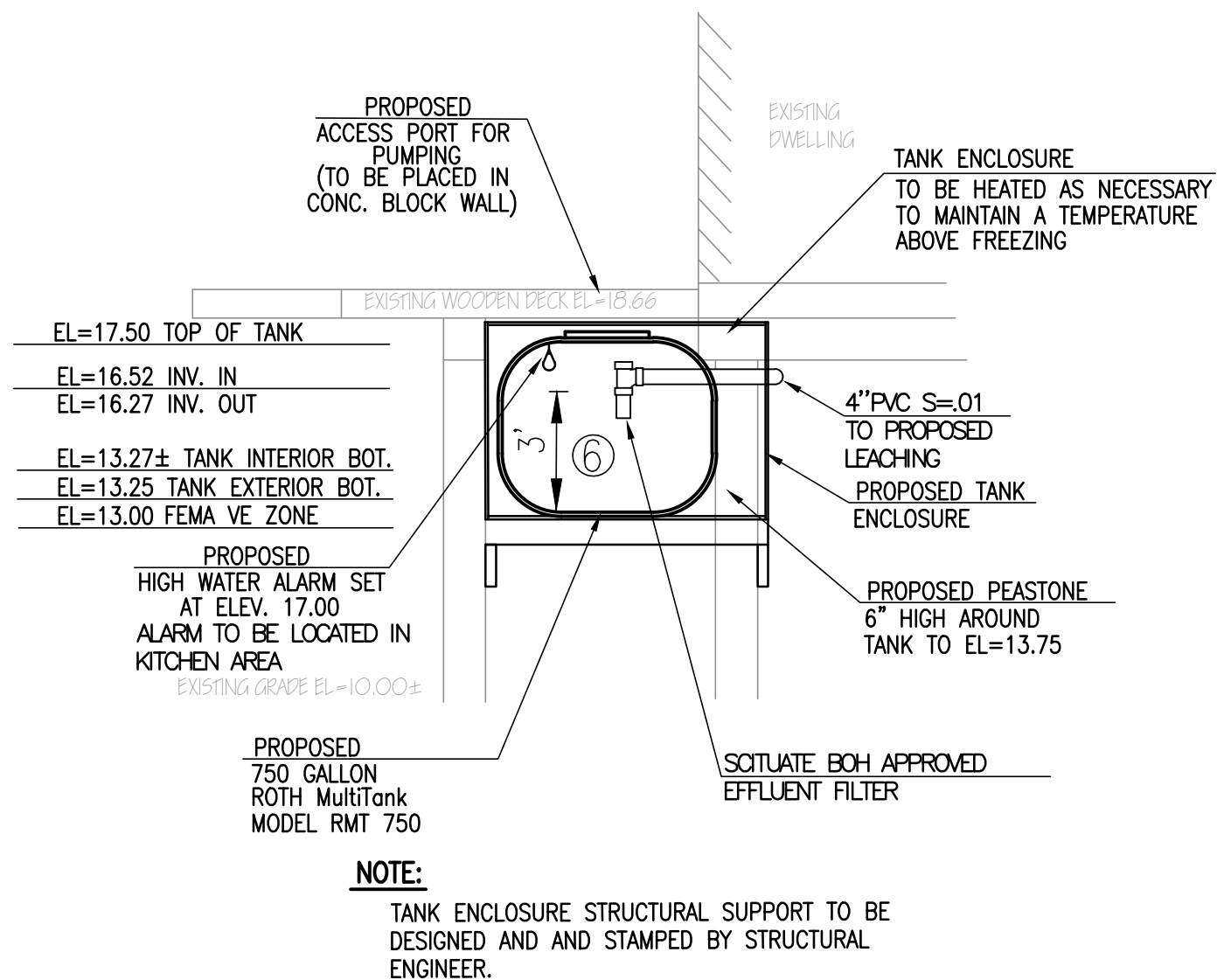
1. THE INSTALLATION OF THE SEPTIC SYSTEM MUST BE PERFORMED BY A LICENSED CONTRACTOR THAT HAS A WORKING KNOWLEDGE OF THE STATE ENVIRONMENTAL CODE TITLE V AND TOWN OF SCITUATE BOARD OF HEALTH REGULATIONS. THE CONTRACTOR IS REFERRED TO TITLE V AND SCITUATE BOARD OF HEALTH REGULATIONS FOR ANY REQUIREMENTS THAT ARE NOT SPECIFICALLY MENTIONED ON THE PLANS.
2. THIS SEPTIC SYSTEM IS NOT DESIGNED FOR A GARBAGE GRINDER, ANY GARBAGE GRINDERS DISCOVERED CONNECTED TO THE SANITARY COLLECTION SYSTEM SHALL BE REMOVED BY A LICENSED CONTRACTOR. THE REMOVAL MUST BE VERIFIED BY THE BOARD OF HEALTH PRIOR TO MERRILL ASSOCIATES, INC. PERFORMING THE SEPTIC AS-BUILT. ALL INTERIOR PLUMBING TO BE PERFORMED BY A LICENSED CONTRACTOR.
3. ALL WATER SUPPLY LINES (PRESSURE) SHALL BE NO LESS THAN 10 FT TO A SEPTIC TANK OR SOIL ABSORPTION SYSTEM. THE CONTRACTOR IS REFERRED TO 310 CMR 15.211 MINIMUM SETBACK DISTANCE: (1) & FOOTNOTE [1]. CONTRACTOR IS TO COORDINATE ALL PRESSURE TESTING WITH THE DEPARTMENT OF PUBLIC WORKS.

THE DEPARTMENT OF PUBLIC WORKS, DPW AND THE BOARD OF HEALTH MAY REQUIRE THAT THE WATER SUPPLY LINES WITHIN 10 FT OF ANY SEPTIC COMPONENTS TO BE SHEATHED. THE SHEATHING METHOD AND MATERIAL TO BE APPROVED BY THE BOARD OF HEALTH AND THE DPW. AT ALL SEWER PIPE CROSSINGS THE SHEATHING JOINTS SHALL BE STAGGERED SO THAT THE WATER SUPPLY LINE CROSSINGS ARE AT THE MIDPOINTS OF THE SHEATHING PIPES. THE BOARD OF HEALTH AND THE DPW MAY REQUIRE THE WATER MAIN TO HAVE MECHANICAL JOINTS FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER.

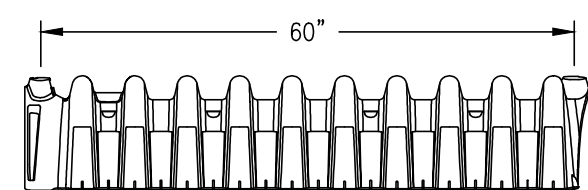
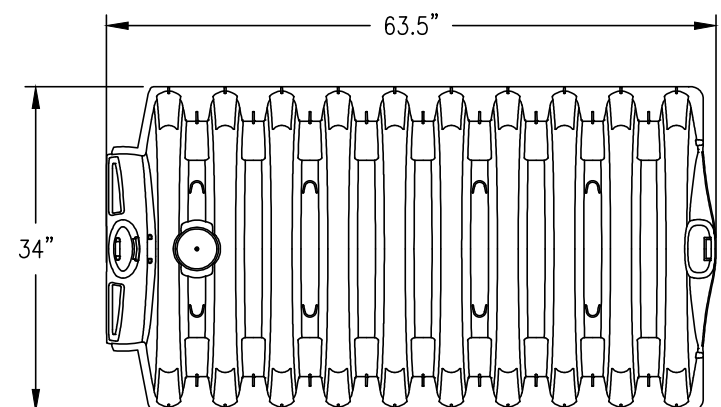
4. THE TOP OF ALL SYSTEM COMPONENTS, INCLUDING THE SEPTIC TANK, DISTRIBUTION BOX OR DOSING CHAMBER, AND SOIL ABSORPTION SYSTEM SHALL BE INSTALLED NO MORE THAN 36" BELOW FINISH GRADE. THE ENTIRE STRUCTURE MAY REQUIRE A RISER OVER THE INVERTS TO REDUCE THE DEPTH OF COVER OVER THE TOP OF THE CHAMBER.
5. ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
6. ALL SYSTEM COMPONENTS SUCH AS BRACKETS, BOLTS, AND LIFTING CHAINS ETC. THAT ARE NOT OTHERWISE SPECIFIED SHALL BE CONSTRUCTED OF 304 STAINLESS STEEL OR EQUAL. ALL LIFTING ANCHORS (INTERIOR/EXTERIOR) AND ANY EXPOSED STEEL SHALL BE GROUTED OR SEALED WITH NON SHRINKING GROUT.
7. ALL SEPTIC FRAME & COVERS THAT ARE NOT OTHERWISE SPECIFIED SHALL BE 24" DIA. LeBARON FOUNDRY INC. (EAST JORDAN IRON WORKS) CAT. NO. LK110A--SEAL TITLE OR EQUAL MARKED SEWER AND CAPABLE OF HANDLING H=20 LOADING.
8. ALL SANITARY STRUCTURES SHALL BE CAPABLE OF HANDLING H=20 LOADING.
9. THE INSTALLER WILL COORDINATE INSPECTIONS REQUIRED BY THE SITUATE BOARD OF HEALTH PRIOR TO CONSTRUCTION.

1. FOR PROPER PERFORMANCE, SEPTIC TANKS SHALL BE INSPECTED ANNUALLY. THE TANKS SHALL BE PUMPED WHEN THE TOTAL DEPTH OF SCUM AND SOLIDS EXCEEDS 1/3 OF THE LIQUID DEPTH OF THE TANK.
2. AN EFFLUENT FILTER HAS BEEN SPECIFIED FOR INSTALLATION IN THE SEPTIC TANK TANK OUTLET TIE. THE FILTER WILL PREVENT SOLIDS FROM ENTERING THE DISPOSAL FACILITY, THEREBY PROLONGING SYSTEM LIFE. MAINTENANCE OF THE FILTER DEPENDS ON SYSTEM USAGE AND SHOULD BE PERFORMED AT LEAST ANNUALLY WHEN THE TANK IS INSPECTED. CLEANING OF THE FILTER MAY BE ACCOMPLISHED BY SPRAYING WITH A HOSE SO THAT THE RUNOFF DRAINS INTO THE SEPTIC TANK.

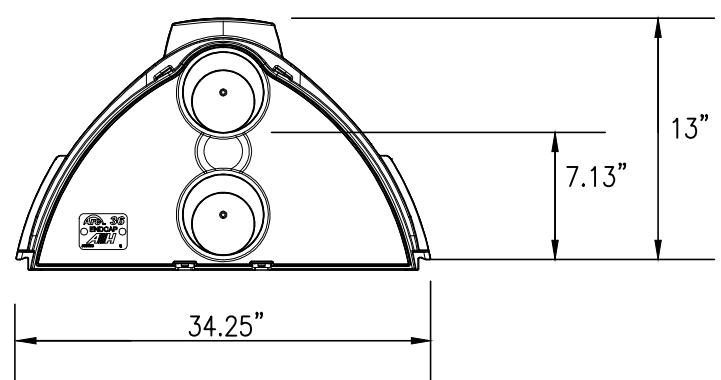
1. NOTIFY THE BOARD OF HEALTH AND MERRILL ASSOCIATES AFTER EXCAVATING THE SYSTEM FROM AROUND THE SOIL ABSORPTION SYSTEM FOR BOTTOM OF HOLE INSPECTION. ADDITIONAL EXCAVATION MAY BE REQUIRED AT THE TIME.
2. NOTIFY BOARD OF HEALTH AND MERRILL ASSOCIATES, INC. TO INSPECT REFILL MATERIAL.
3. NOTIFY BOARD OF HEALTH AND MERRILL ASSOCIATES, INC. PRIOR TO BACKFILLING OF SYSTEM. THE CONTRACTOR IS NOT ALLOWED TO BACKFILL ANY COMPONENT OF THE SYSTEM UNTIL MERRILL ASSOCIATES, INC. HAS VERIFIED THE SYSTEM LOCATION AND ELEVATION.
4. NOTIFY BOARD OF HEALTH AND MERRILL ASSOCIATES, INC. AFTER THE SEPTIC SYSTEM HAS BEEN BACKFILLED FOR FINAL GRADING INSPECTION. ADDITIONAL GRADING AND FILL MAY BE REQUIRED AT THE TIME.
5. ALL SEPTIC STRUCTURES TO BE ABANDONED REQUIRE THE BOTTOMS TO BE FRACTURED AND BACKFILLED WITH A CLEAN COARSE MATERIAL, THE TOPS COLLAPSED AND INSPECTED BY THE BOARD OF HEALTH AND DEP AS REQUIRED.



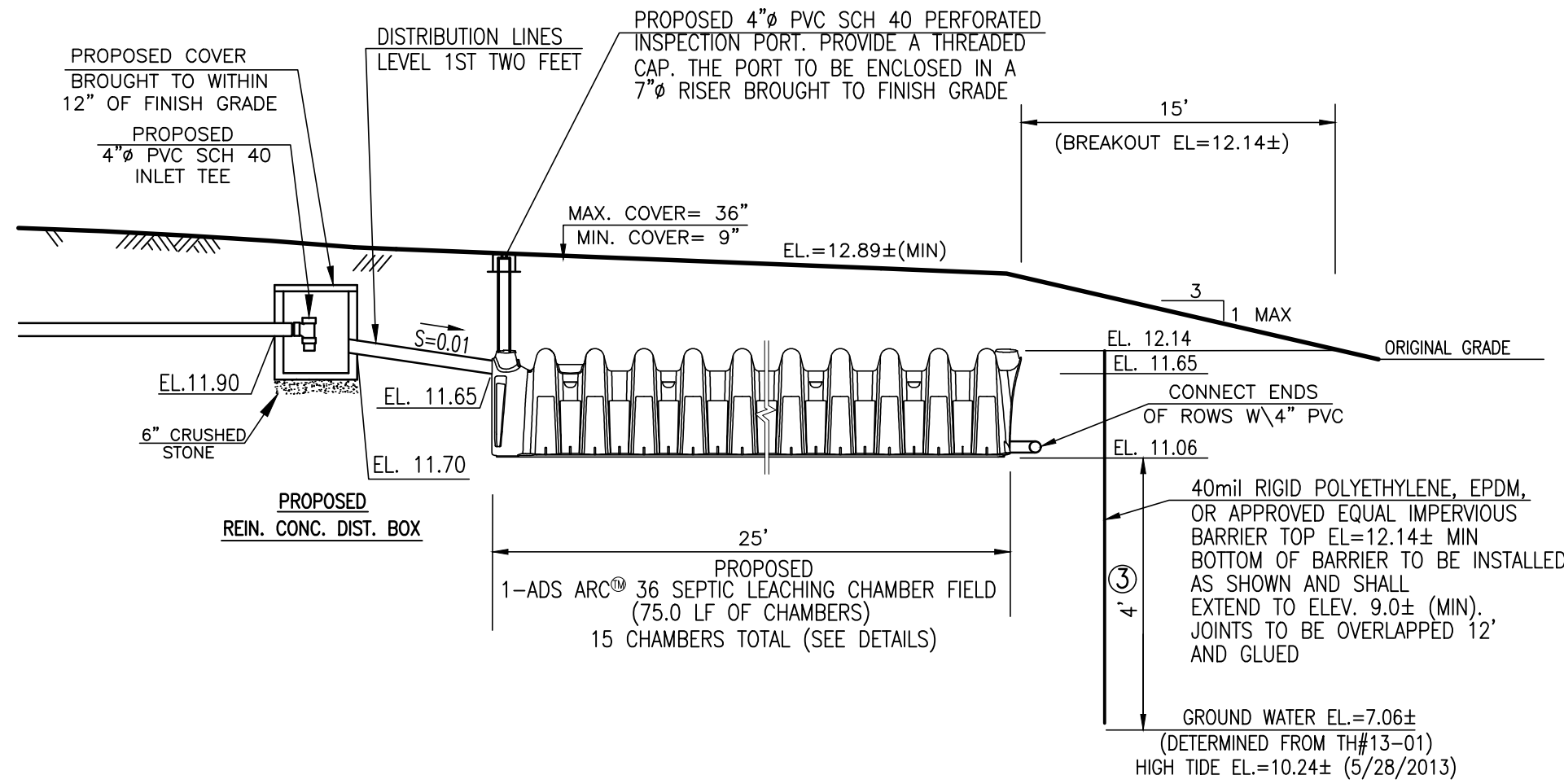
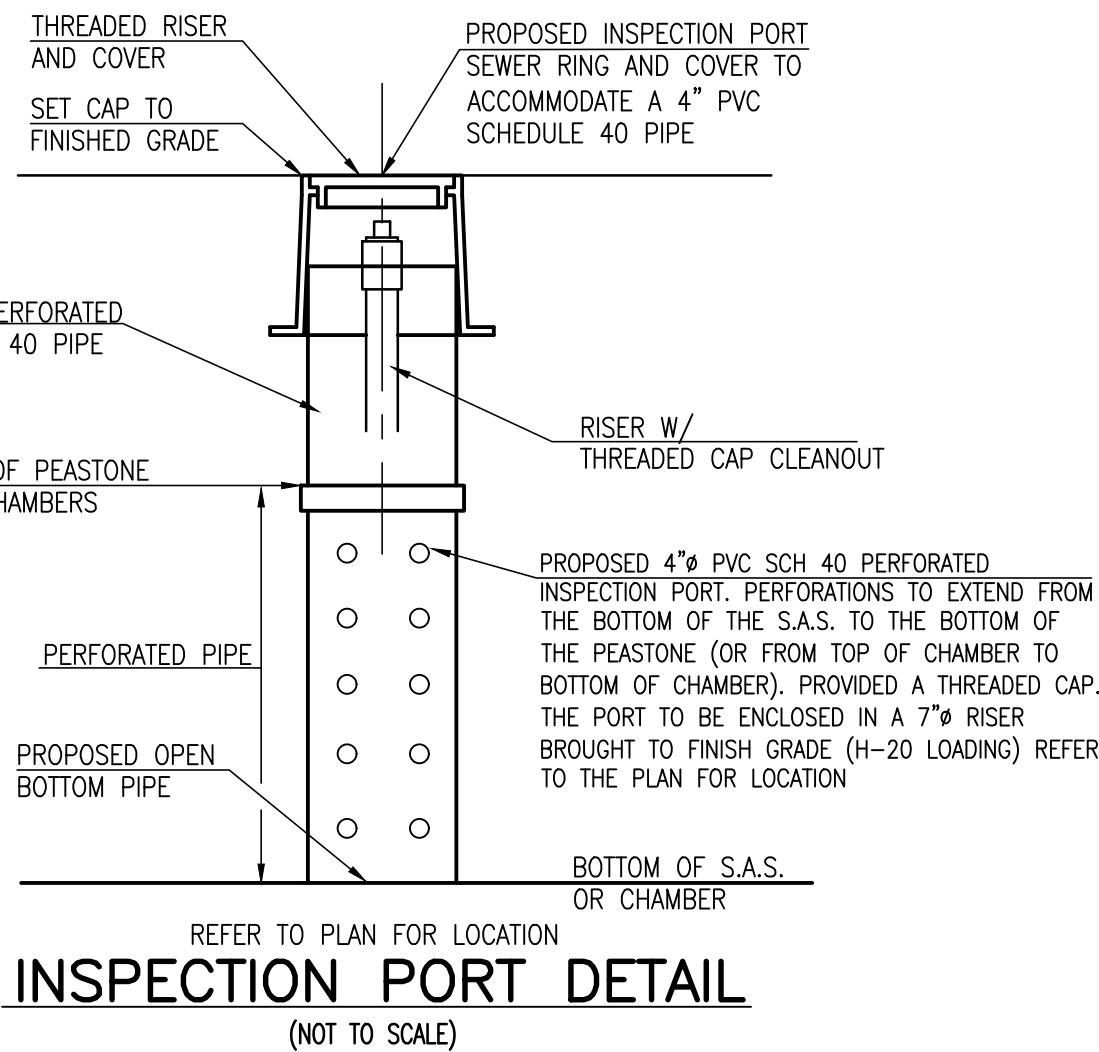
SCALE 1"=4'



**ADS ARC<sup>TM</sup> 36 CHAMBER**  
(NOT TO SCALE)



**CROSS SECTION**  
**ADS ARC™ 36**  
**CHAMBER**  
(NOT TO SCALE)



(NOT TO SCALE)

1. EXCAVATE AND LEVEL INSTALLATION AREAS.

1. EXCAVATE AND LEVEL INSTALLATION AREAS.
2. SMOOTH IRREGULARITIES IN THE EXCAVATION. A LEVEL, FLAT SURFACE IS REQUIRED.
3. INSTALL ARC LEACHING CHAMBERS IN ADJACENT ROWS TO COVER DESIRED AREA.
4. INSTALL UNIVERSAL END CAP AND SECURE IN PLACE WITH BACKFILL.
5. INSTALL 4" PIPE TO EACH ROW OF ARC CHAMBER USING KNOCKOUTS PROVIDED IN THE UNIVERSAL END CAPS.
6. ENDS OF ROWS MAY BE CONNECTED WITH PIPING TO IMPROVE DISTRIBUTION.
7. FILL PERIMETER AND INTERIOR SIDEWALL AREAS TO TOP OF CHAMBERS AND WALK INTO PLACE. AVOID LARGE ROCKS OR DEBRIS IN COVER MATERIAL.
8. COVER ARC LEACHING CHAMBERS TO A MINIMUM OF 9" OF GRANULAR COVER AFTER CONSOLIDATION FOR H-10 APPLICATIONS. AVOID LARGE ROCKS OR DEBRIS IN COVER MATERIAL. COVER HEIGHTS AND LIVE LOADING LIMITS ARE IMPACTED BY BOTH SOIL TYPE AND COMPACTION REQUIREMENTS. CONTACT ADS WHEN POOR SOILS ARE ENCOUNTERED AND FOR MAXIMUM FILL HEIGHTS. LIVE LOAD CONDITIONS ARE NOT RECOMMENDED.

### 1. DESIGN DAILY FLOW

- 310 CMR 15.203(2) RESIDENTIAL
- DESIGN DAILY FLOW: 3 BR. x 110 GPD = 330 GPD  
25% REDUCTION IN REQUIRED FLOW:  $330 - (330 \times 0.25) = 248 \text{ GPD}$  (8)
2. DESIGN SEPTIC TANK (310 CMR 15.223 TO 15.228)
- 330 GPD x 2 = 660 GAL. USE: 750 GALLON (MIN.) (7)
3. DESIGN SOIL ABSORPTION SYSTEM
- LEACHING TRENCHES: P.R. = <2 MIN/IN, CLASS 1, ELR = 0.74 GPD/SF
- TITLE V: (NOT DESIGNED FOR GARBAGE GRINDER)
- REQUIRED AREA:  $330 \text{ GPD} / 0.74 \text{ GPD/SF} = 446 \text{ SF}$   
25% REDUCTION IN REQUIRED AREA:  $446 - (446 \times 0.25) = 335 \text{ SF}$
- USE: ADS ARC 36 SEPTIC LEACHING CHAMBERS: 60" LONG x 34.5" WIDE (4.80 SF/LF)  
FIELD AREA: 1 FIELD: 8.6' WIDE x 25' LONG  
15 CHAMBER TOTAL; 3 ROWS OF 5 CHAMBERS = 75 LF OF CHAMBERS  
75 LF x 4.80 SF/LF = 360 SF > 335 SF  
CAPACITY:  $360 \text{ SF} \times 0.74 \text{ GPD/SF} = 266 \text{ GPD} > 248 \text{ GPD}$
4. BREAKOUT CALCULATIONS:
- 310 CMR 15.211 (1) [4] & 15.255
- \* ELEVATION FOR BREAKOUT = 12.14 (TOP OF CHAMBER)
  - \* IMPERVIOUS BARRIER AT ELEVATION 12.14
  - \* MAX. SLOPE = 3 : 1 (OUTSIDE OF BARRIER)

PERFORMED BY: THOMAS A. POZERSKI, P.E., MERRILL ASSOCIATES, INC.  
WITNESSED BY: RALPH COLE, AGENT  
CONTRACTOR: PETER ARMSTRONG

T.H. 13-01  
DATE: 5/28/13  
EL. 9.3

0"-108"  
C LAYER  
SAND  
10YR 6/3

D=9'-0"

WEeping @  
36"  
EL=6.3

T.H. 13-02  
DATE: 5/28/13

0"-108" C LAYER SAND 10YR 6/3	D=9'-0"
	WEeping @ 36" EL=6.3