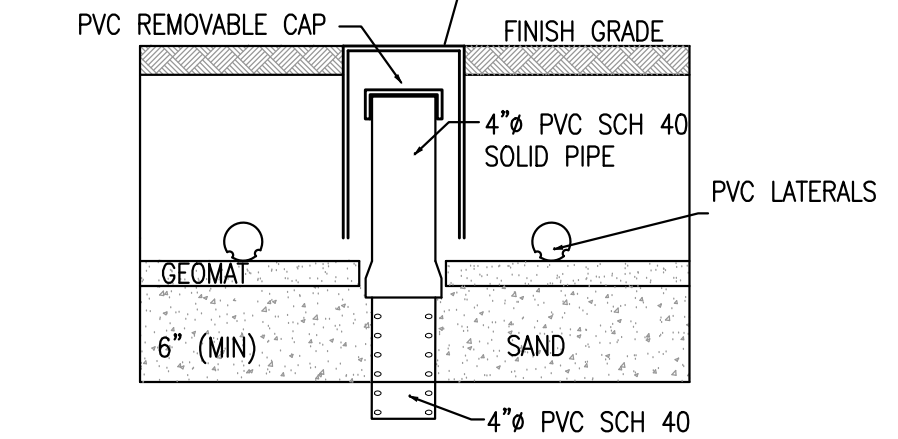


GEOMAT LEACHING SYSTEM NOTES

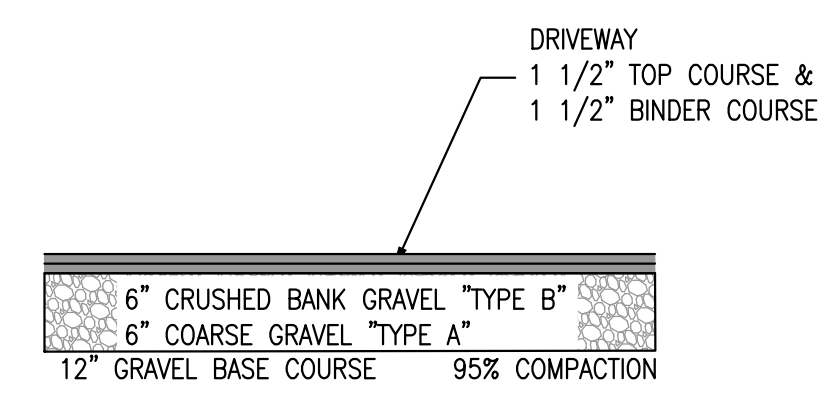
- THIS SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION MODIFIED CERTIFICATION FOR GENERAL USE PURSUANT TO TITLE 5 310CMR 15.000, REVISED JULY 14, 2017 AND STANDARD CONDITIONS FOR ALTERNATIVE SOIL ABSORPTION SYSTEMS WITH GENERAL USE CERTIFICATION AND/OR APPROVED FOR REMEDIAL USE REVISED JUNE 26, 2019. A DISCLOSURE NOTICE IN THE DEED OF THE PROPERTY IS REQUIRED FOR SYSTEMS INSTALLED UNDER THE REMEDIAL USE APPROVAL.
- SYSTEMS SHALL BE INSTALLED WITH INSPECTION ACCESS AT END OF EACH RUN OF PIPE
- THIS SYSTEM DOES NOT REQUIRE A FIVE FOOT OVER DIG AS INDICATED AT 310 CMR 15.255 (5)
- THE DISPERSAL AREA SHALL NOT BE INSTALLED UNDER A PAVED SURFACE OR IN AN AREA OF ROUTINE TRAFFIC PARKING OR STORAGE OF HEAVY EQUIPMENT. IN ADDITION NO PLANTING OR SOIL EXCAVATION SHALL BE DONE IN OR WITHIN 5 FEET OF THE ALTERNATIVE SUBSURFACE SOIL ABSORPTION SYSTEM AREA AFTER ITS INSTALLATION
- ONLY AUTHORIZED SERVICE PROVIDER SHALL INSTALL GEOMAT WASTEWATER TREATMENT SYSTEM

GEOMAT DISTRIBUTORS IN MASSACHUSETTS:
SEPTIC & SEWER SUPPLIES: 508-276-3313
SEPTIC SUPPLY HOUSE: 508-358-5763

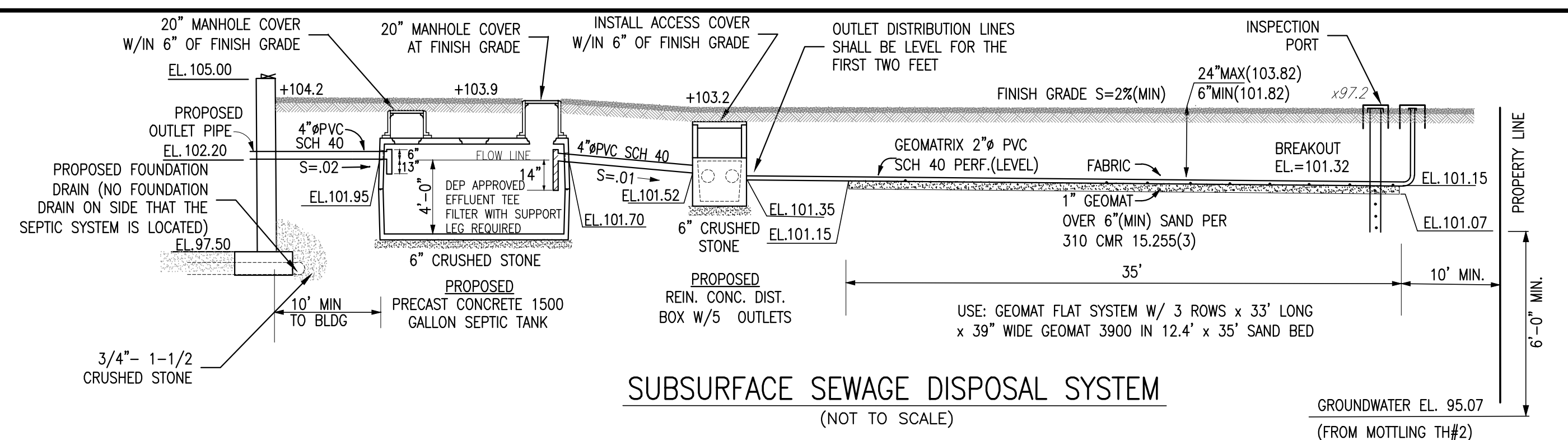
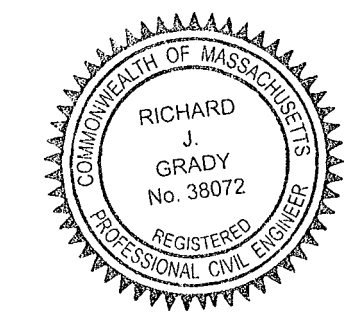
7" DIA CONTROL VALVE BOX AS MANUFACTURED BY AMETEK PLYMOUTH PRODUCTS DIVISION PAT.3858765 OR APPROVED EQUAL BROUGHT TO FINISH GRADE



INSPECTION PORT DETAIL
NOT TO SCALE



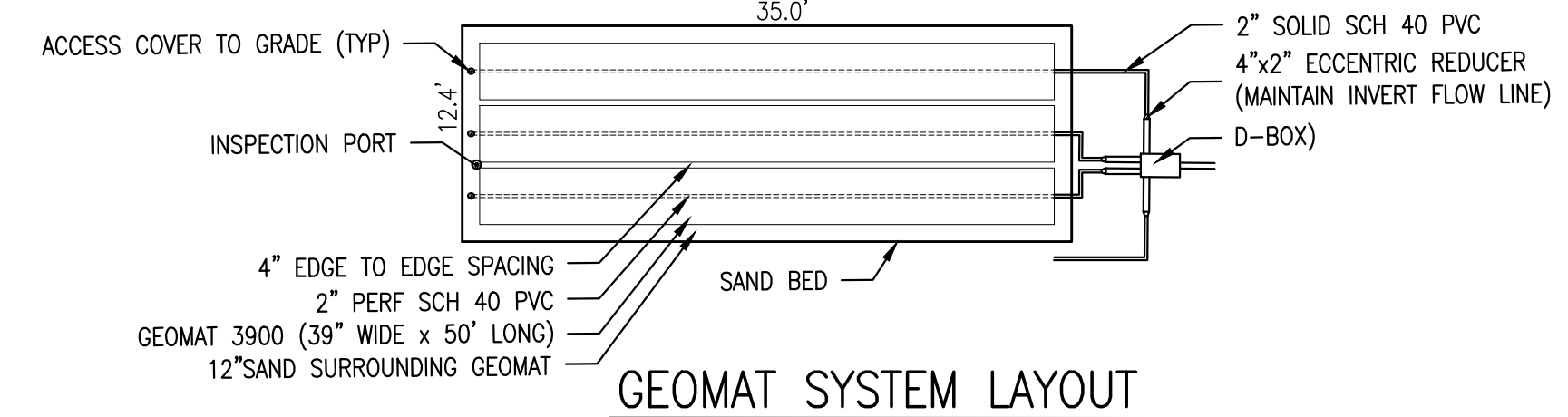
DRIVEWAY DETAIL
(NOT TO SCALE)



SUBSURFACE SEWAGE DISPOSAL SYSTEM
(NOT TO SCALE)

SEPTIC DESIGN (NOT DESIGNED FOR GARBAGE GRINDER)

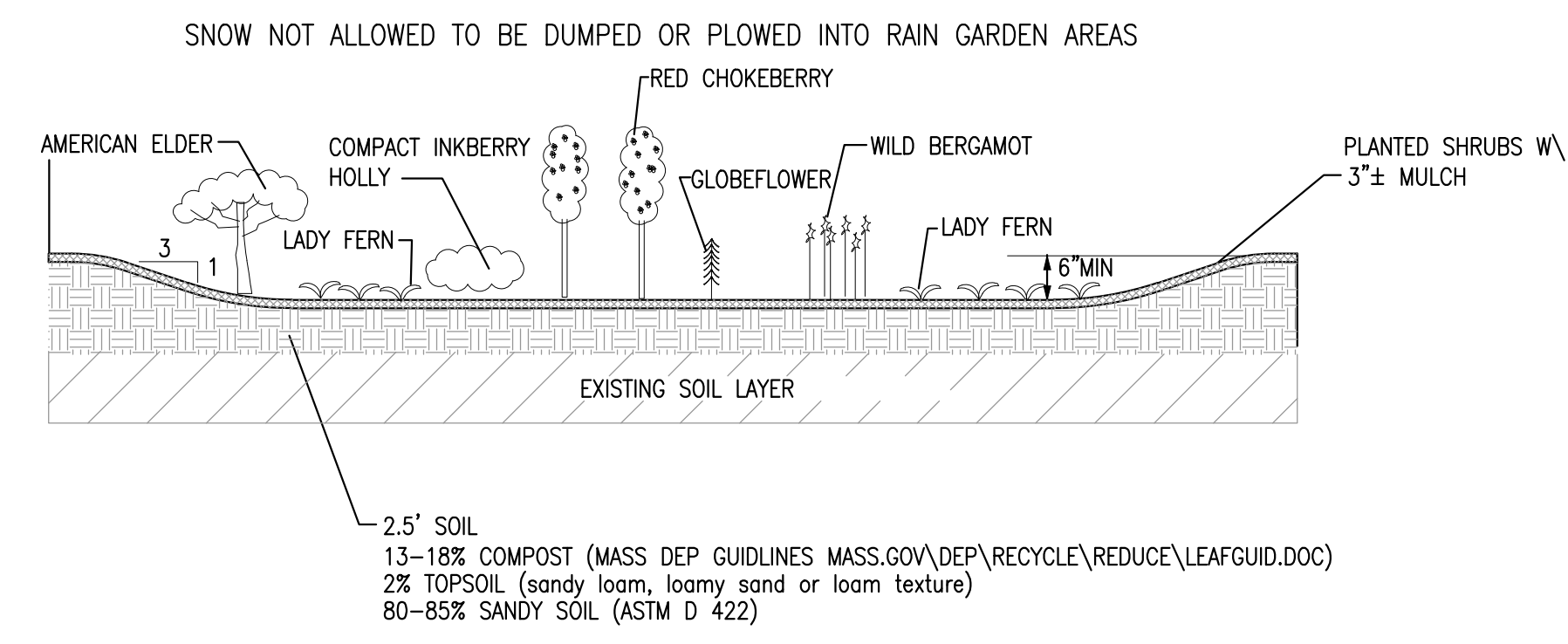
- DESIGN DAILY FLOW: 3 BR. x 110 GPD = 330 GPD
 - SEPTIC TANK: 330 GPD x 2 = 880 GAL. USE: 1500 GAL (MIN)
 - LEACHING CHAMBERS: CLASS I LOAMY SAND-USE E.L.R.=0.74 GPD/SF
CONVENTIONAL SYSTEM DESIGN - LEACHING TRENCHES:
330 GPD / 0.74 GPD/SF = 446 SF(MIN)
2 - 40' LONG x 2' WIDE x 2' DEEP TRENCHES
2 x 40' x 6' SF/LF = 480 SF
- GEOMAT LEACHING SYSTEM:
SOIL LOADING RATE (MIN 6" SAND BENEATH GEOMAT) = 1.50 GPD/SF
GEOMAT REQUIRED = 330 GPD / 1.5 GPD/SF = 220 SF (MIN)
LENGTH OF GEOMAT FLAT 3900 = 220 SF / 3.42 SF/LF = 64.3 LF (MIN)
USE: 3 x 33' = 99 LF
MINIMUM SAND BED SIZING = 400 SF USE: 12.4' x 35' = 434 SF



GEOMAT SYSTEM LAYOUT
SCALE: 1" = 10'

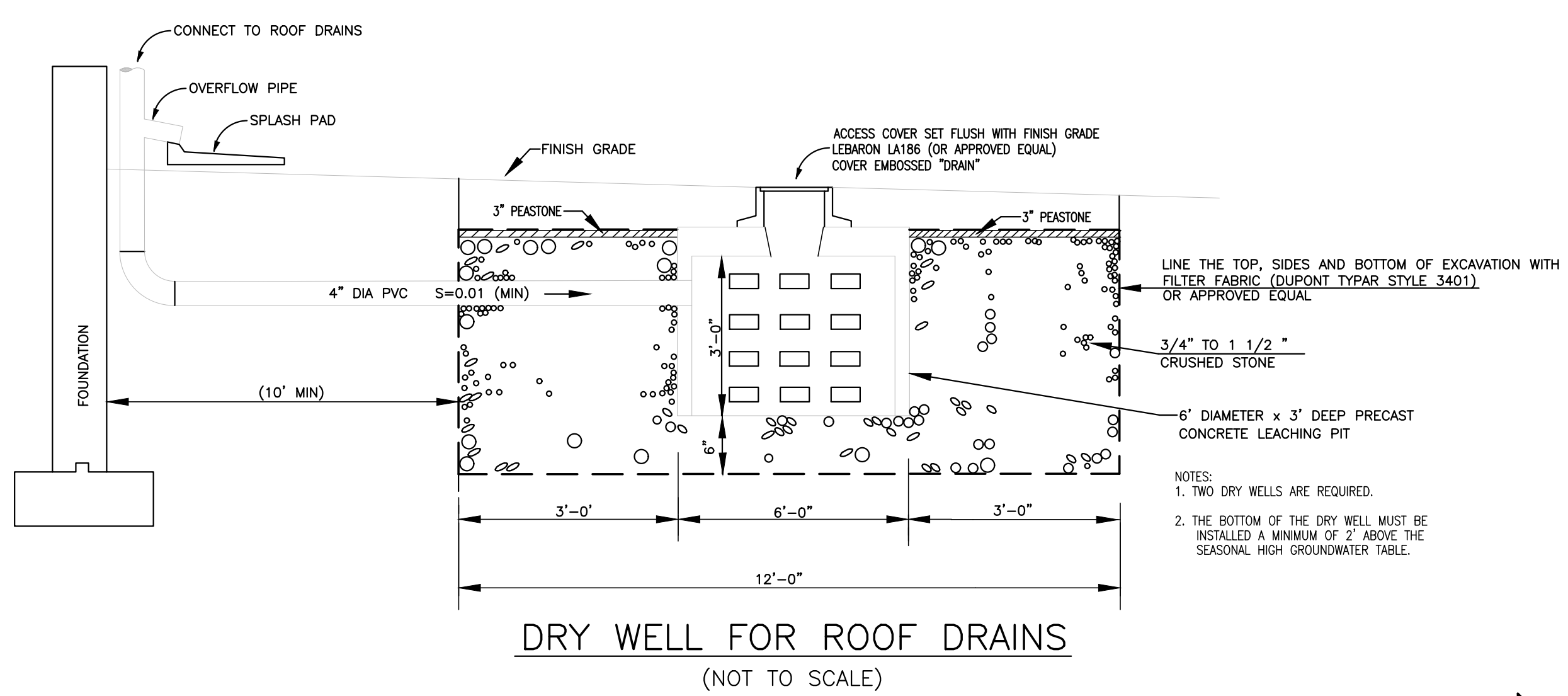
SEPTIC NOTES

- PROPERTY LINE DATA COMPILED FROM "LAND OF IRENE MACGIBBON ET AL" BY ROBERT C. BAILEY, DATED OCTOBER 26, 1962, AND FROM "SUBDIVISION OF LAND IN DUXBURY, MASS." BY C.W. GARVEY CO., INC. SURVEYORS AND ENGINEERS, DATED FEBRUARY 12, 1999, DULY RECORDED WITH THE PLYMOUTH COUNTY REGISTRY OF DEEDS IN PLAN BOOK 12 PAGE 799 AND PLAN BOOK 42 PAGE 757 RESPECTIVELY.
 - TOPOGRAPHIC SURVEY PERFORMED BY GRADY CONSULTING, L.L.C. ON JUNE 18 AND 19, 2019, AND ON MARCH 3, 2021.
 - SOILS TESTING BY RICHARD GRADY, SE #926, GRADY CONSULTING, L.L.C., ON SEPTEMBER 8, 2020, AND WITNESSED BY PAT BRENNAN.
 - CALL DIG SAFE 1-888-344-7233 AT LEAST 4 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - NOTIFY TOWN AND GRADY CONSULTING PRIOR TO BACKFILLING OF SYSTEM.
 - NO KNOWN WELLS EXIST WITHIN 200' OF THE PROPOSED SYSTEM
 - THE SITE IS NOT LOCATED IN AN AQUIFER PROTECTION ZONE II.
 - ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED (310 CMR 15.221(12))
 - A VARIANCE IS REQUIRED DUE TO THE SEPTIC SYSTEM'S LOCATION BEING LESS THAN 150 FT FROM THE BORDERING VEGETATED WETLAND. NO OTHER STREAMS, SURFACE & SUBSURFACE DRAINS, NOR WETLANDS EXIST WITHIN 150 FEET OF THE PROPOSED SYSTEM.
 - THE SITE IS NOT LOCATED IN A FLOOD PLAIN DISTRICT.
 - NO KNOWN EASEMENTS ARE IN THE AREA OF THE PROPOSED SYSTEM.
 - EXISTING UTILITIES, WHERE SHOWN, HAVE BEEN COMPILED BASED ON OBSERVED ABOVE GROUND EVIDENCE, AND RECORD INFORMATION, AND ARE TO BE CONSIDERED APPROXIMATE. GRADY CONSULTING, L.L.C. DOES NOT GUARANTEE THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN OR THAT ALL EXISTING UTILITIES AND/OR SUBSURFACE STRUCTURES ARE SHOWN.
 - EXCAVATE ALL MATERIAL (A,B,C1 LAYERS) TO C2 LAYER (78"±), DIRECTLY BELOW SYSTEM (5' AROUND SYSTEM NOT REQUIRED PER I/A APPROVAL LETTER). REPLACE WITH CLEAN COARSE SAND IN ACCORDANCE WITH 310 CMR 15.255(3). EXCAVATION TO BE INSPECTED BY GRADY CONSULTING, L.L.C. AND THE TOWN OF DUXBURY PRIOR TO SOIL REPLACEMENT.
- APPROXIMATE PERC SAND VOLUME = 12.4 x 35 x (101.3 - 92.07) / 27 + 20% = 179± C.Y.

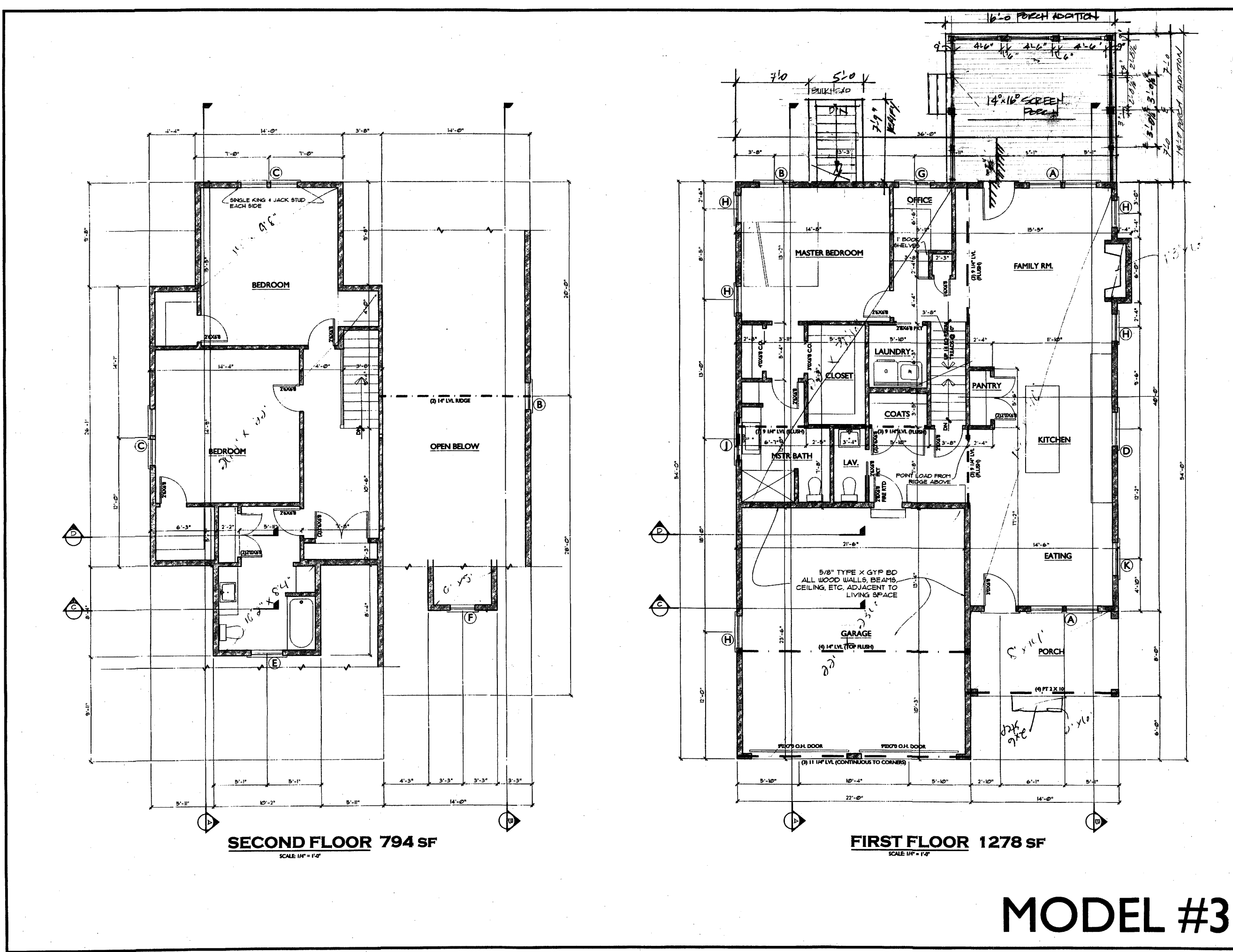


RAIN GARDEN DETAIL
(NOT TO SCALE)

The soil mix must be uniform, free of stones, stumps, roots or similar objects larger than 2 inches. Clay content should not exceed 5%. Soil pH should generally be between 5.5-6.5, a range that is optimal for microbial activity and adsorption of nitrogen, phosphorus, and other pollutants. Use soils with 1.5% to 3% organic content and maximum 500-ppm soluble salts. The sand component should be gravelly sand that meets ASTM D 422.



DRY WELL FOR ROOF DRAINS
(NOT TO SCALE)



MODEL #3

REVISIONS	
OCTOBER 14, 2021	RESPONSE TO BOH REVIEW COMMENTS

SITE PLAN
#0 KEENE STREET
DUXBURY, MASSACHUSETTS

PREPARED FOR:
JOHN BALDWIN
P.O. BOX 1071
DUXBURY, MA 02331

AUGUST 26, 2021
SCALE: AS NOTED
JOB No. 19-143