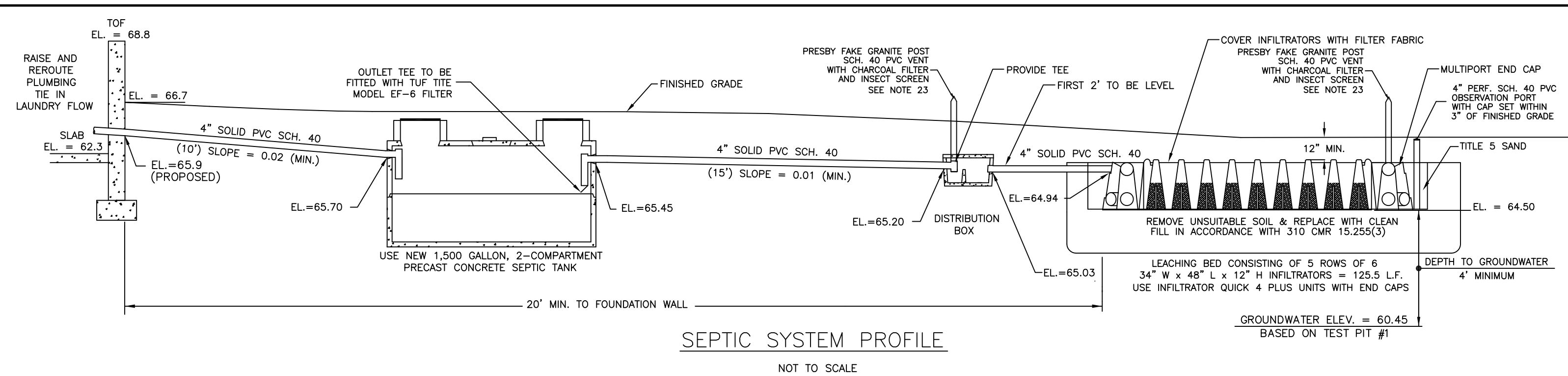


LOCUS PLAN

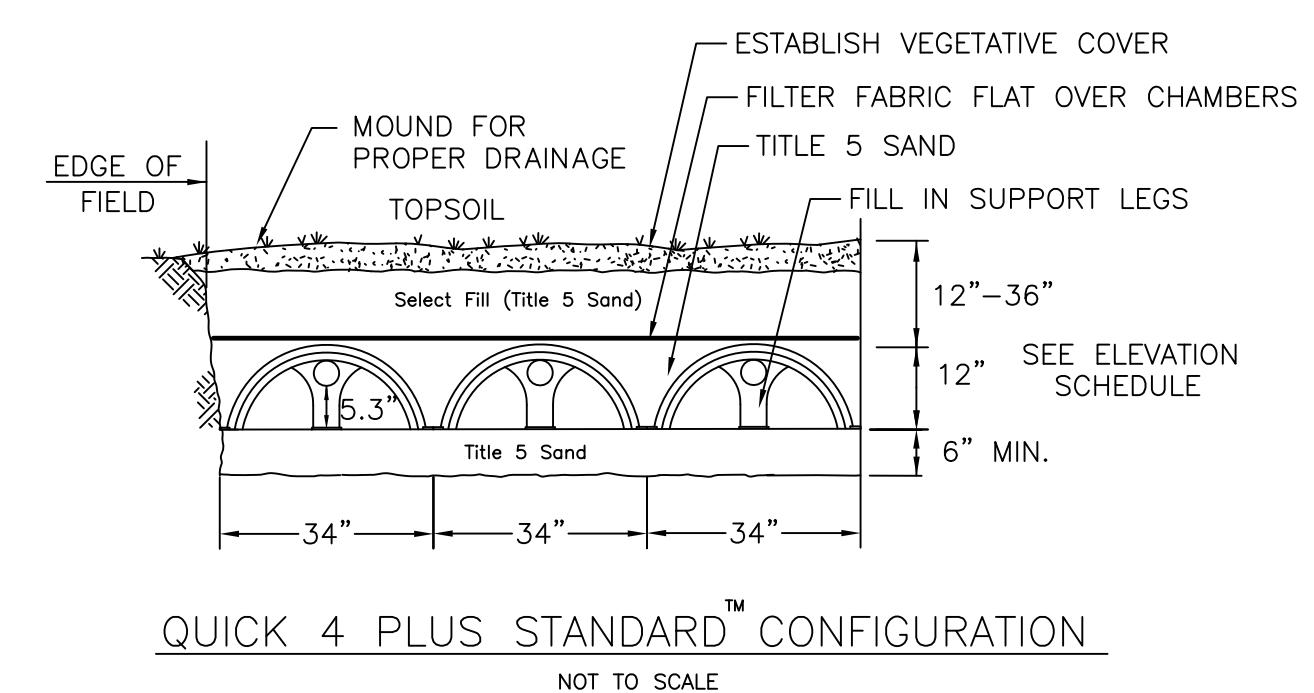
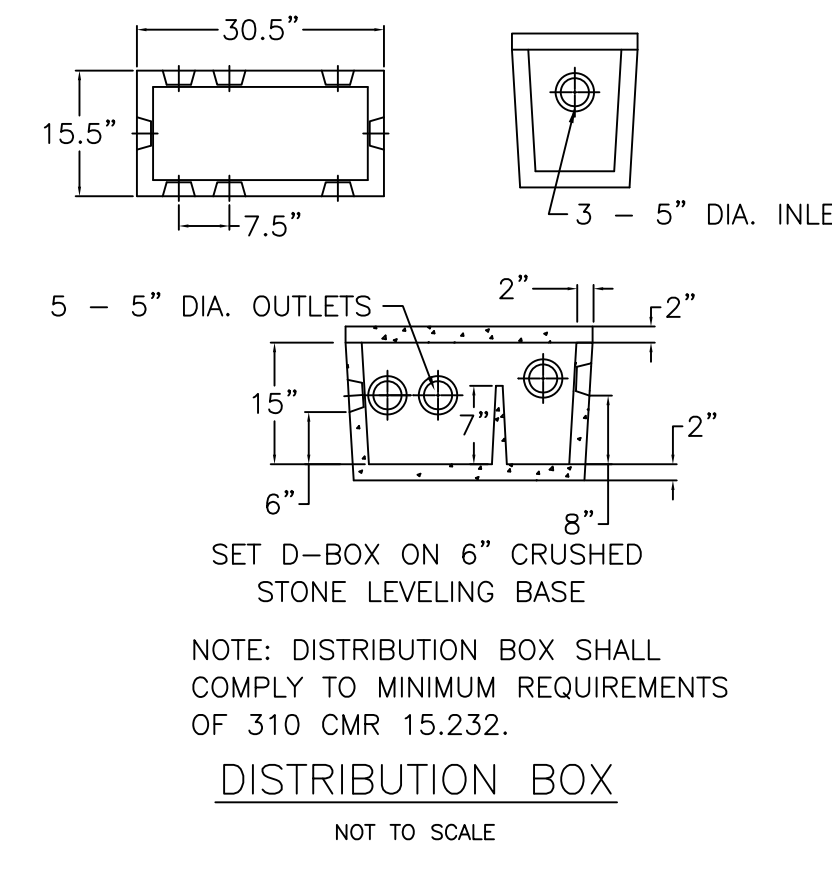
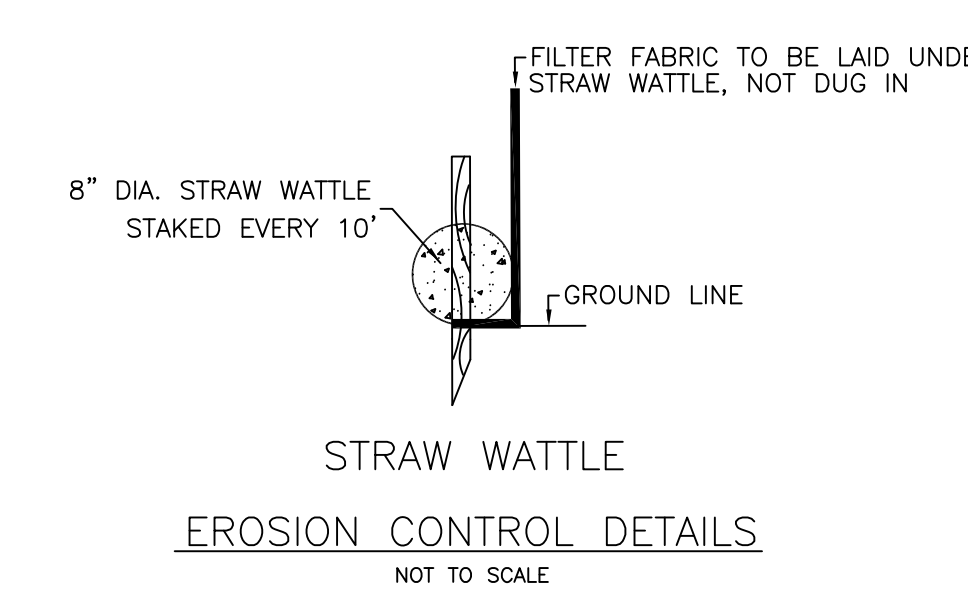
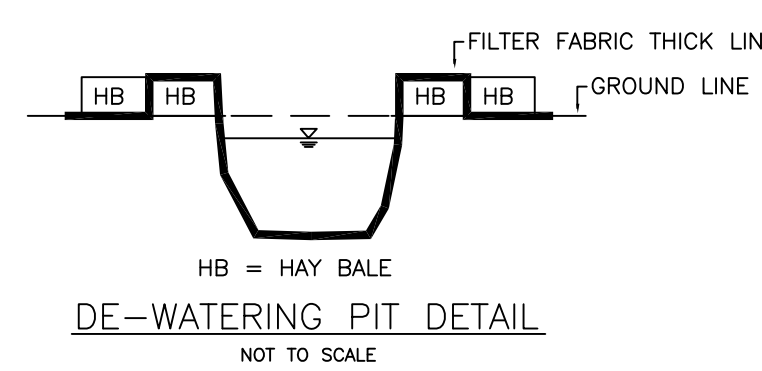
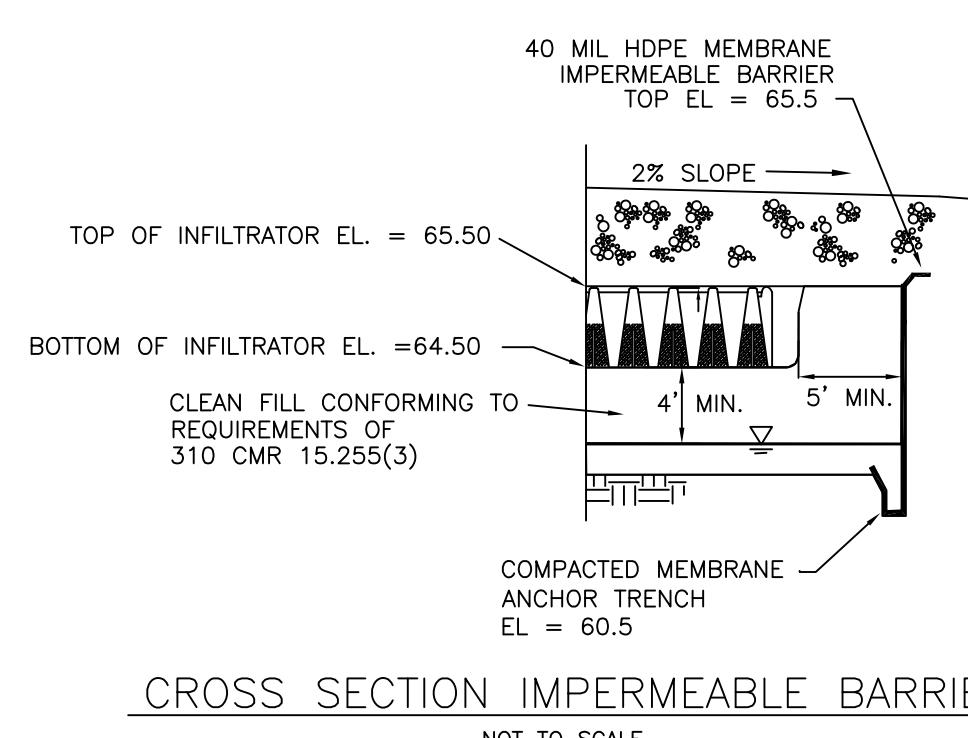
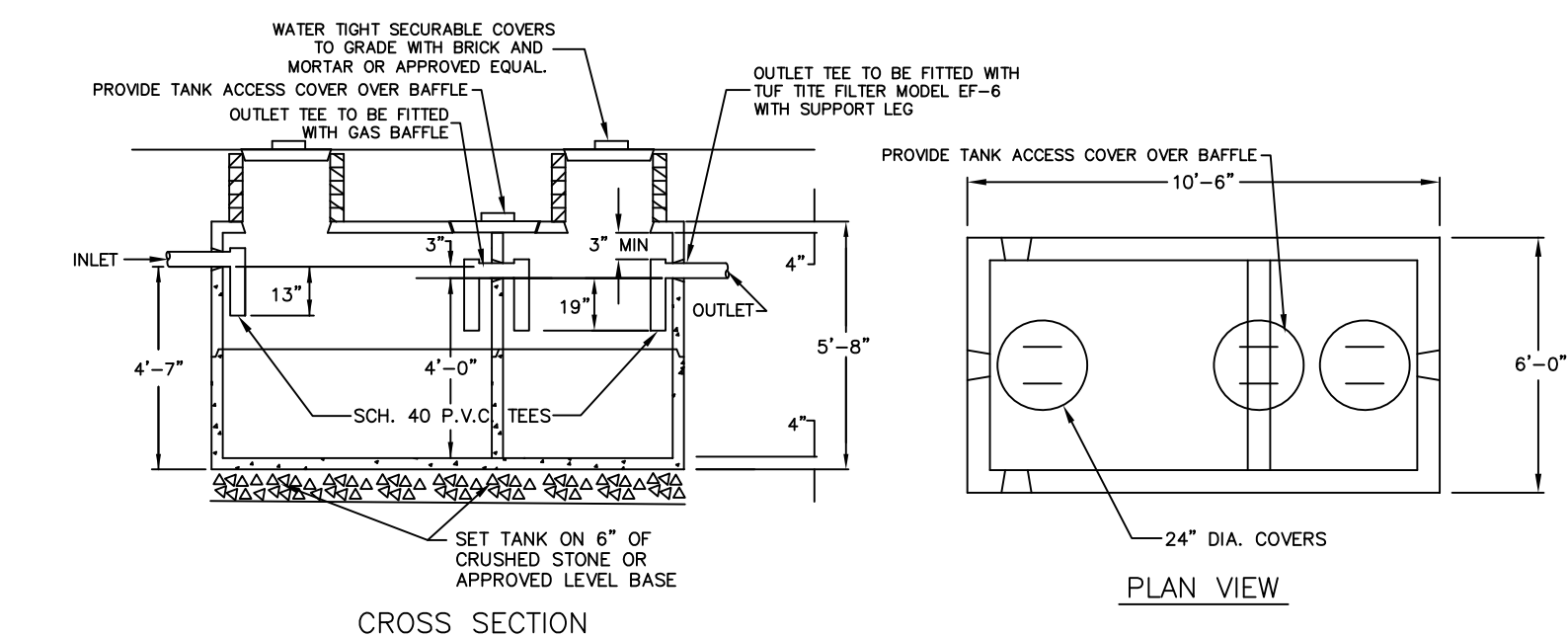
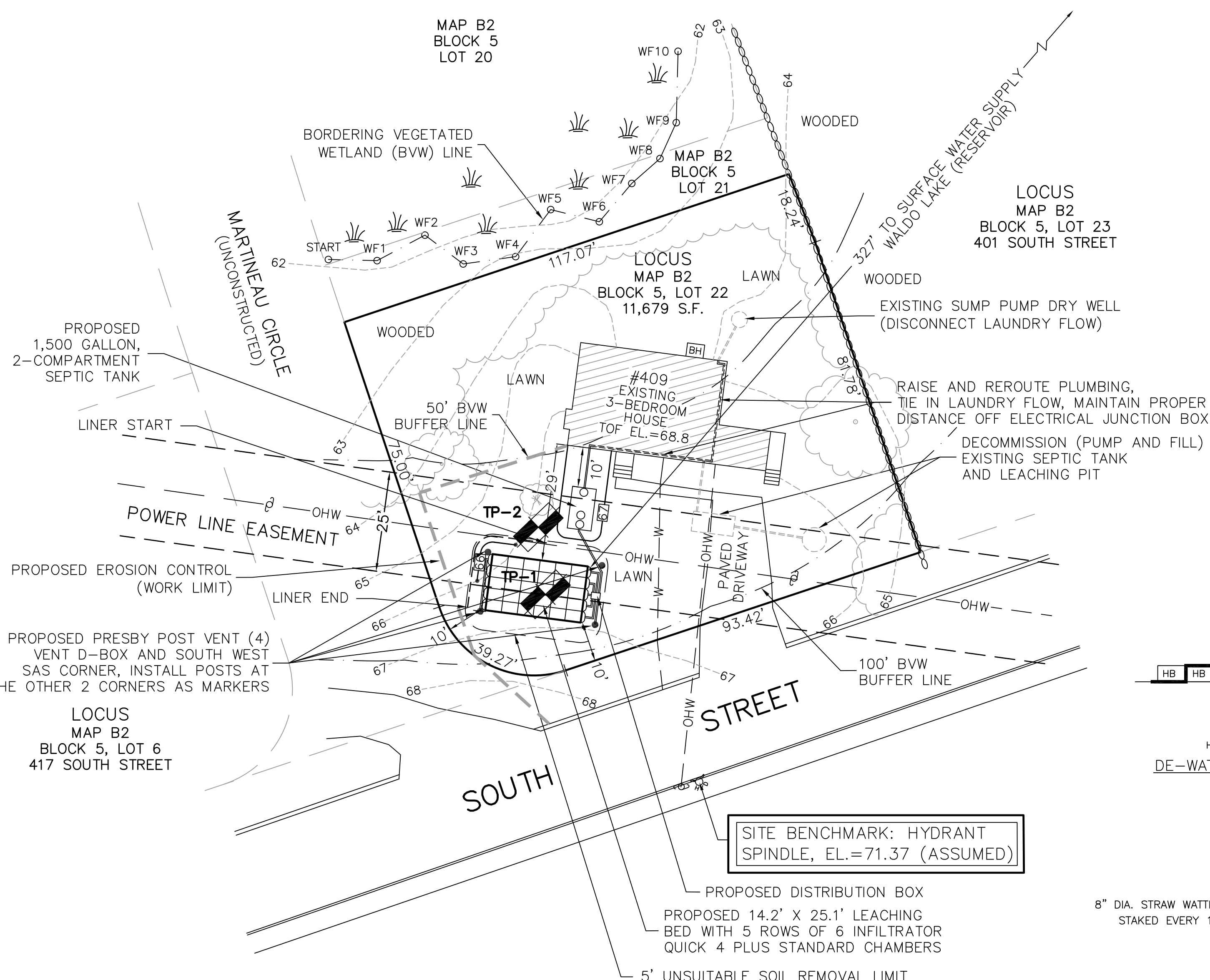


ELEVATION SCHEDULE:

DESCRIPTION	ELEVATION
4" INV. AT HOUSE (PROPOSED)	65.9
4" INV. AT SEPTIC TANK (IN)	65.70
4" INV. AT SEPTIC TANK (OUT)	65.45
4" INV. AT DIST. BOX (IN)	65.20
4" INV. AT DIST. BOX (OUT)	65.03
4" INV. INTO SAS	64.94
ELEVATION AT BOTTOM OF SAS	64.50
GROUNDWATER ELEVATION	60.45

NOTES:

- THE CONTRACTOR SHALL NOTIFY THE LOCAL BOARD OF HEALTH AND COLLINS ENGINEERING GROUP AT LEAST 48 HOURS PRIOR TO REQUIRED INSPECTIONS.
- SITE BENCHMARK IS THE CORNER OF THE FIRE HYDRANT SPINDLE AS INDICATED ON THIS PLAN: EL = 71.37 (ASSUMED DATUM).
- HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO OPERATE OVER THE LIMITS OF THE SEWAGE DISPOSAL FIELD DURING THE COURSE OF CONSTRUCTION OF THE SYSTEM.
- NO FIELD MODIFICATIONS TO THE SEWAGE SYSTEM SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER AND THE LOCAL BOARD OF HEALTH.
- UNLESS OTHERWISE NOTED ALL SYSTEM COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH TITLE 5 OF THE STATE ENVIRONMENTAL CODE AND ANY APPLICABLE LOCAL RULES.
- DISTRIBUTION BOX SHALL BE MANUFACTURED BY J&R PRECAST, INC. OR APPROVED EQUAL.
- GROUT TO BE USED AT ALL POINTS WHERE PIPES ENTER OR LEAVE ALL CONCRETE STRUCTURES IN ORDER TO PROVIDE A WATERTIGHT SEAL.
- THE FIRST TWO FEET OF EACH LINE EXITING THE DISTRIBUTION BOX SHALL BE LEVEL.
- THIS SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE GRINDER OR WATER FILTRATION SYSTEM BACKWASH.
- SYSTEM COMPONENTS TO WITHSTAND H-10 LOADING CRITERIA.
- PROPERTY LINE SHOWN IS APPROXIMATE ONLY AND IS NOT A RESULT OF A PROPERTY LINE SURVEY.
- THE CONTRACTOR SHALL DECOMMISSION (PUMP & FILL OR REMOVE) THE EXISTING SEPTIC SYSTEM AND ALL ASSOCIATED PIPING IN ACCORDANCE WITH 310 CMR 15.354.
- AS SHOWN, THERE ARE NO KNOWN WELLS WITHIN 100 FEET OF THE PROPOSED LEACH FIELD.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED (LOAM AND SEED) TO INCLUDE HISTORIC TEST PITS OUTSIDE CONSTRUCTION LIMITS.
- CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY APPLICABLE PERMITS.
- CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING DIG SAFE (888-DIGSAFE) AND ANY OTHER APPLICABLE UTILITY COMPANIES PRIOR TO STARTING WORK.
- UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY.
- CONTRACTOR WILL BE RESPONSIBLE FOR COMBINING LAUNDRY FLOW WITH SYSTEM.
- CONTRACTOR RESPONSIBLE FOR IMPLEMENTING ALL O.S.H.A. PROCEDURES TO INCLUDE BUT NOT LIMITED TO CONFINED SPACE ENTRY PROCEDURES.
- CONTRACTOR RESPONSIBLE FOR CONFIRMING LOCATION OF EXISTING LEACHING FACILITY PRIOR TO CONSTRUCTION.
- CONTRACTOR TO CONFIRM EXISTING PLUMBING, BENCHMARK, AND SILL ELEVATIONS PRIOR TO CONSTRUCTION.
- MAGNETIC LOCATOR TAPE TO BE PLACED ON ALL SEPTIC SYSTEM COMPONENTS.
- SET 4 PRESBY GRANITE POSTS AT THE 4 LEACHING FIELD CORNERS, 2 FUNCTIONING VENTS AND THE OTHER 2 FOR LEACHING FIELD DEMARCATION WITHIN EASEMENT.



DESIGN DATA:

DESIGN FLOW:
3 BEDROOMS x 110 GPD/BEDROOM = 330 GPD
SEPTIC TANK:
330 GPD x 2.0 = 660 GALLONS
USE NEW 1,500 GALLON, 2-COMPARTMENT SEPTIC TANK
SOIL ABSORPTION SYSTEM:
PERCOLATION RATE DETERMINED FROM SIEVE ANALYSIS PERFORMED ON SOIL SAMPLE COLLECTED FROM LAYER C2 AT TEST PIT TP-1. TEST REVEALED SOIL IS A LOAMY SAND (71.9% SAND, 26.4% SILT, 1.7% CLAY). DESIGN LOADING RATE SELECTED FOR CLASS 1 SOILS WITH 70-85% SAND IN ACCORDANCE WITH DEP GUIDANCE POLICY #BRP/DWM/PeP-P00-1.
DESIGN LOADING RATE = 0.66 GPD/SF
LEACHING AREA REQ'D = $\frac{330 \text{ GPD}}{0.66 \text{ GPD/SF}} = 500 \text{ SF}$
USE 14.2' X 25.1' LEACHING BED WITH 5 ROWS OF 6 INFILTRATOR QUICK 4 PLUS STANDARD CHAMBERS = 125.5 L.F.
EACH ROW (6) 4' UNITS PLUS 1.1' END CAP CREDIT = 24.0'+1.1' = 25.1' PER ROW X 5 ROWS = 125.5 L.F.
QUICK 4 CHAMBER LEACHING AREA = 4.73 S.F./L.F.
LEACHING AREA PROVIDED: 125.5 L.F. X 4.73 S.F./L.F. = 593 SF > 500 SF REQUIRED
DAILY FLOW CAPACITY: 593 SF X 0.66 GPD/SF = 391 GPD > 330 GPD REQ'D

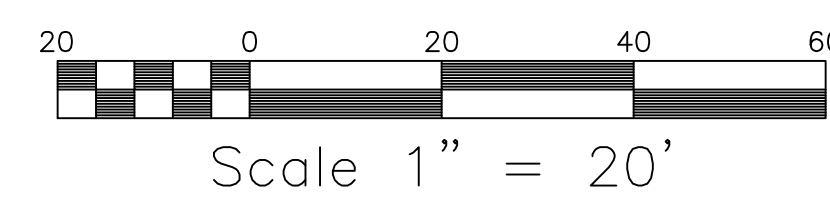
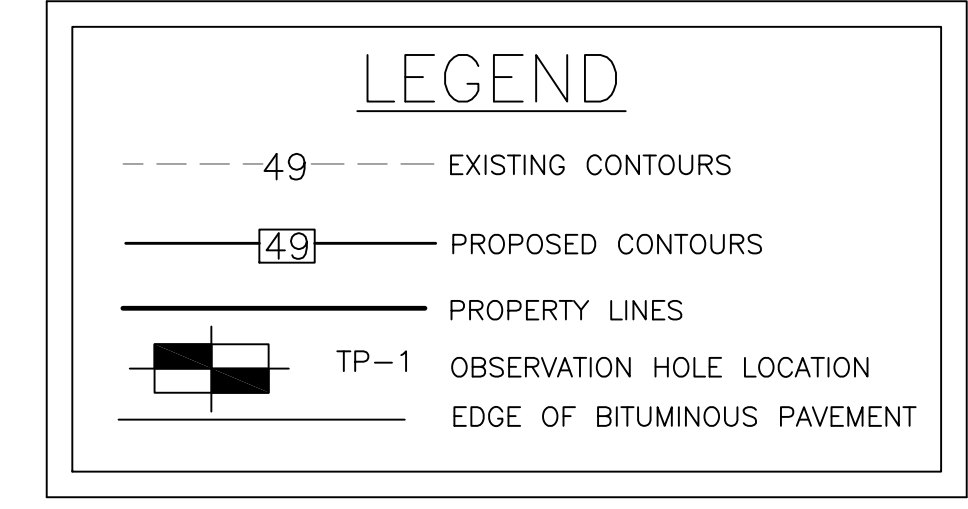
SOIL DATA:

DATE: DECEMBER 7, 2021
PERFORMED BY: GEORGE R. COLLINS, P.E.
WITNESSED BY: KATHLEEN WALDRON, AVON BOH

SOIL HORIZ.	SOIL COLOR	TP-1 DEPTH	ELEV.	SOIL HORIZ.	SOIL COLOR	TP-2 DEPTH	ELEV.
FILL/A		0	66.45	FILL/A		0	66.10
Bw 10YR 5/6	SANDY LOAM	52"		Bw 10YR 5/6	SANDY LOAM	60"	
C1 2.5Y 6/2	SILT LOAM	72"	60.45	C1 2.5Y 6/2	SILT LOAM	72"	60.27
C2 2.5Y 6/3	LOAMY SAND UNCOMPACTED, SATURATED	84"		C2 2.5Y 6/3	LOAMY SAND UNCOMPACTED, SATURATED	88"	
		140"	54.78			138"	54.60

ESTIMATED SEASONAL HIGH GROUNDWATER ELEV. = 60.45
DESIGN LOADING RATE ESTABLISH BY SIEVE SAMPLE COLLECTED FROM LAYER C2 AT TP-1.

NOTE: LAYERS FILL/A, B, C1 AND C2 TO BE REMOVED TO A DEPTH OF 90" BELOW GRADE AND REPLACED WITH CLEAN FILL IN ACCORDANCE WITH 310 CMR 15.255(3). UNSUITABLE SOIL TO BE REMOVED TO A DISTANCE OF 5'-0" BEYOND THE LIMITS OF THE SOIL ABSORPTION SYSTEM.



LOCAL UPGRADE APPROVAL REQUEST:

- USE OF A GRAIN SIZE DISTRIBUTION ANALYSIS ACCORDANCE WITH DEP GUIDANCE POLICY #BRP/DWM/PeP-P00-1 TO ESTABLISH DESIGN LOADING RATE.
- VARIANCE FROM SECTION 310 CMR 15.211 OF THE STATE SANITARY CODE WHICH REQUIRES A MINIMUM 400' SETBACK FROM A DRINKING WATER SUPPLY TO A SAS. A VARIANCE ALLOWING REDUCTION FROM 400' TO 327' IS REQUESTED.

WETLAND AND EROSION CONTROL NOTES

- WETLAND DELINEATION PERFORMED BY BROOKE MONROE, BOTANIST.
- EROSION CONTROL (WORK LIMIT) LINE TO BE INSTALLED PRIOR TO ANY ACTIVITY AND REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- CONTRACTOR RESPONSIBLE FOR IMPLEMENTING ALL CONSERVATION COMMISSION AND BOARD OF HEALTH DIRECTIVES.
- THE SITE IS NOT LOCATED IN AN AREA OF CRITICAL ENVIRONMENTAL CONCERN.
- CONTRACTOR TO SWEEP STREET AT THE END OF EACH WORK DAY.
- THE NAME AND CONTACT NUMBERS OF THE GENERAL CONTRACTOR MUST BE PROVIDED TO THE ENGINEER AND CONSERVATION COMMISSION PRIOR TO STARTING WORK.
- CONTRACTOR TO MONITOR, REPAIR AND MODIFY EROSION CONTROL TO ASSURE THAT THERE IS NO WETLAND RESOURCE AREA OR ABUTTER ENCROACHMENT.
- ESTIMATED EXPORTED SOIL WITHIN BUFFER ZONE = 225± CUBIC YARDS
- ESTIMATED IMPORTED WITHIN BUFFER ZONE = 225± CUBIC YARDS
- ESTIMATED TEMPORARY DISTURBANCE WITHIN 100' BVF BUFFER = 3,000 S.F.

PLAN TO ACCOMPANY A CONSERVATION FILING

REV.	DATE	DESCRIPTION	BY	APP.	DRAWING TITLE PLAN AND DETAILS SUBSURFACE SEWAGE DISPOSAL SYSTEM UPGRADE	PROJECT 409 SOUTH STREET AVON, MA	CLIENT ROBERT HENDERSON 39 RIDGE ROAD, FOXBORO, MA 02035	SCALE: AS SHOWN DATE: 12-27-21 DRAWN BY: SWR DESIGNED BY: SWR CHECKED BY: GRC APPROVED BY: GRC	DRAWING NO. PROJECT NO. 21-242-3441
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