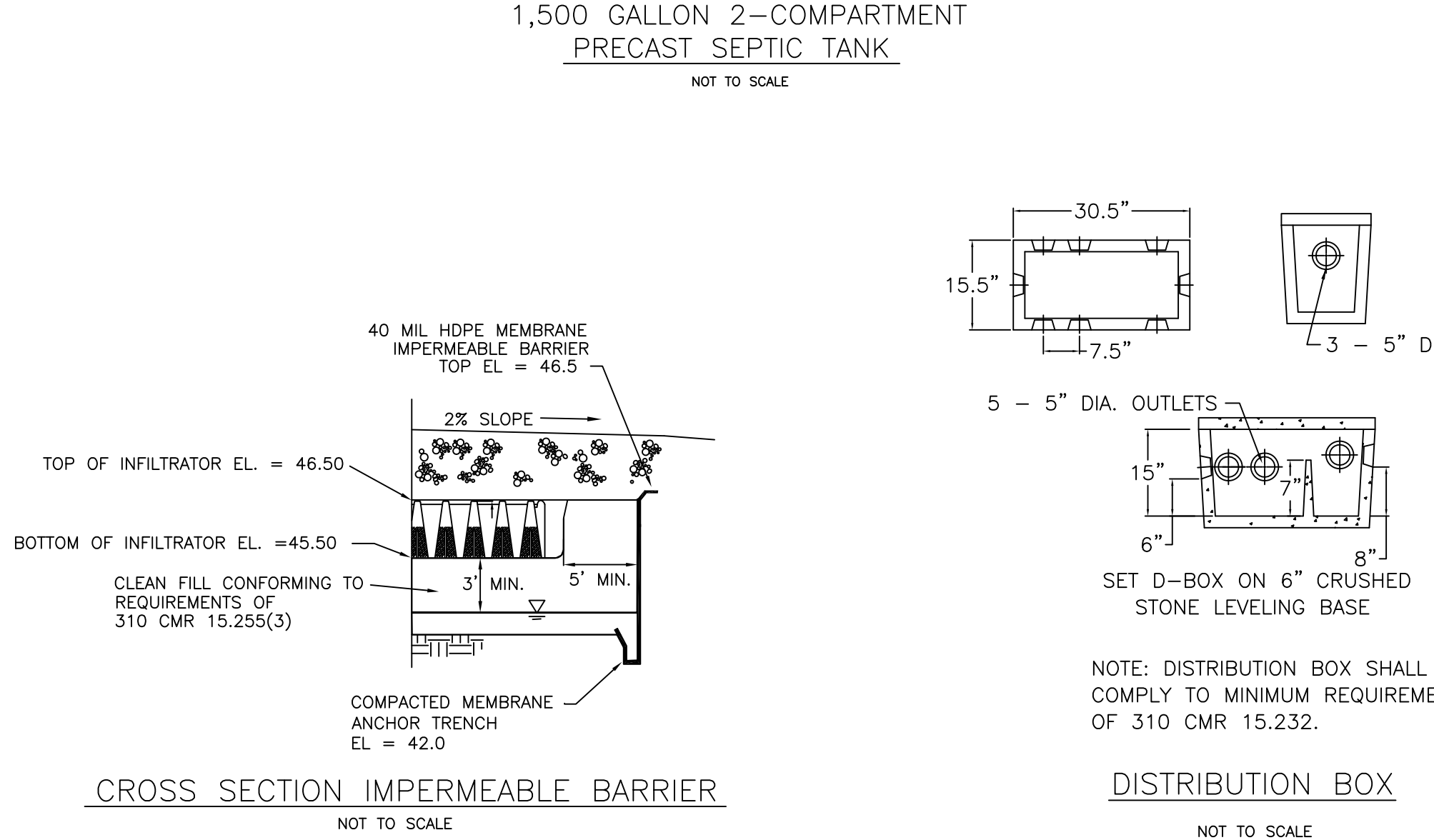
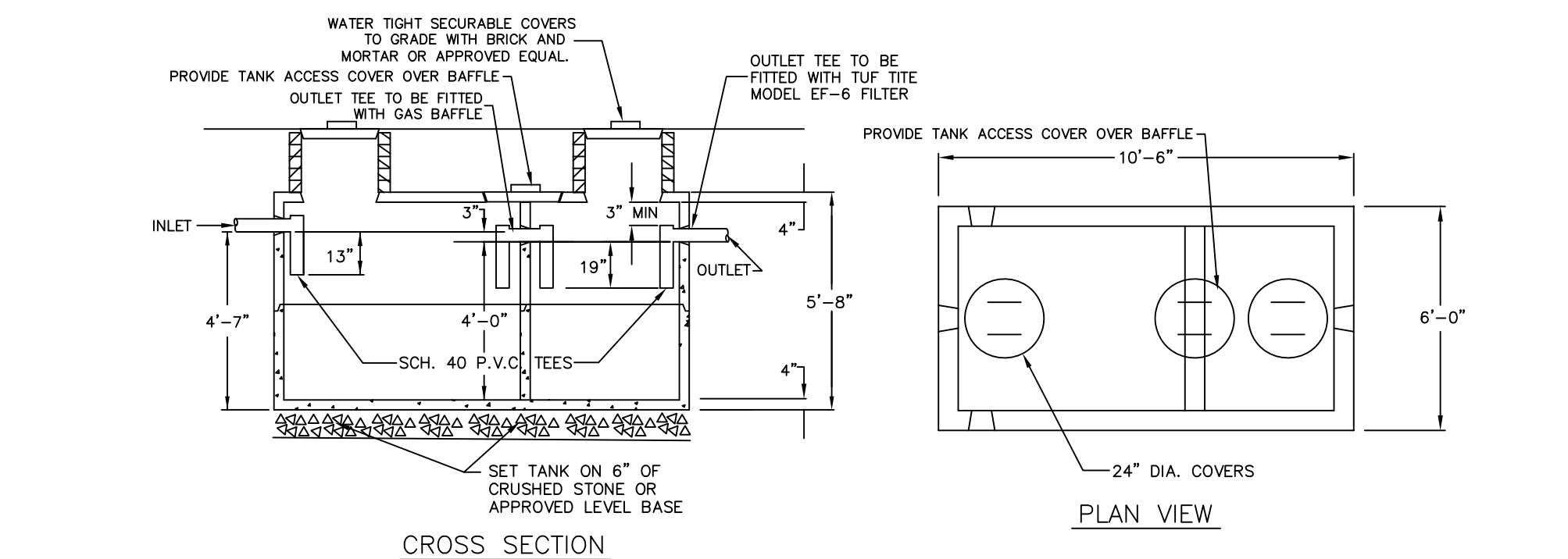
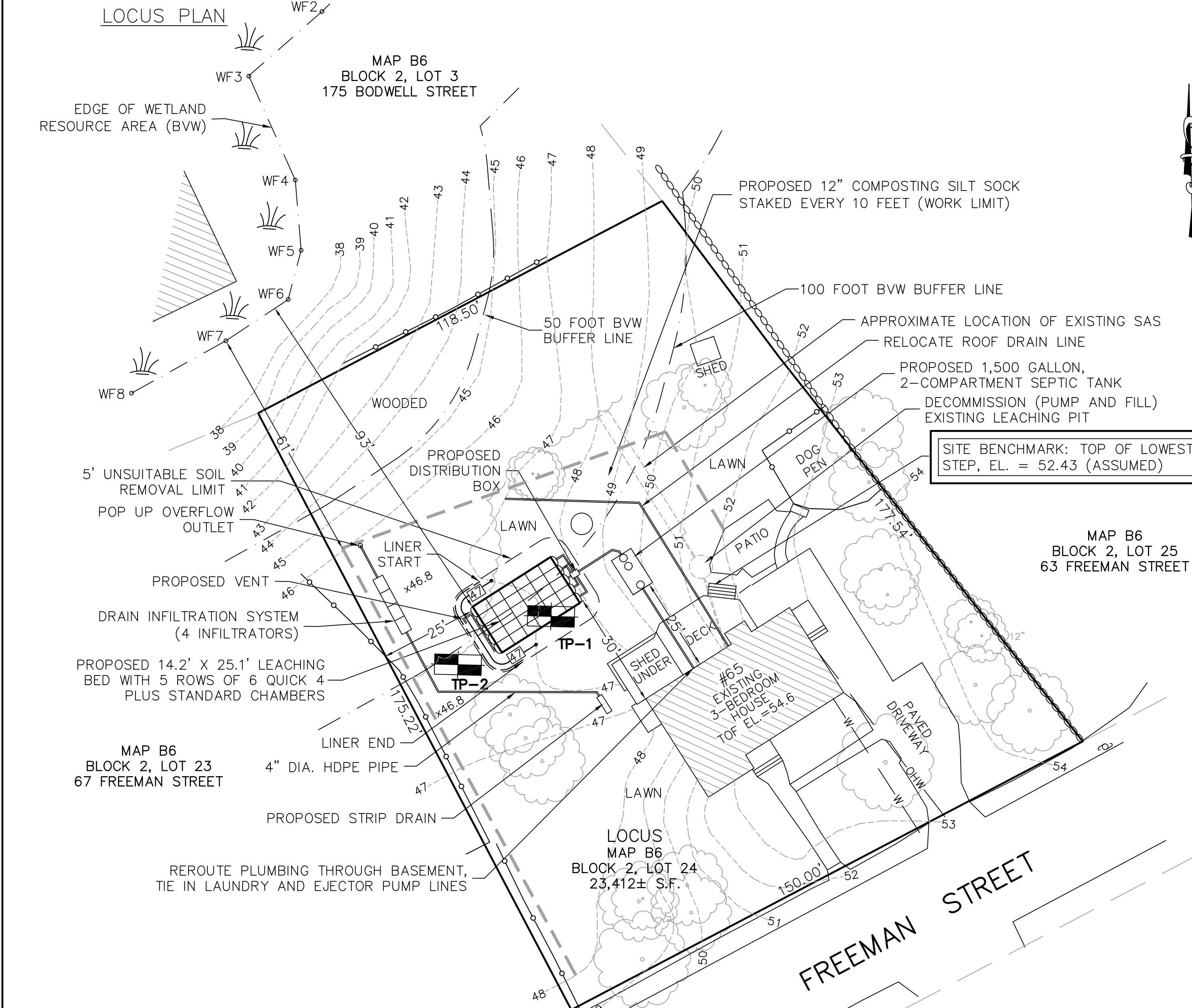


ELEVATION SCHEDULE:

DESCRIPTION	ELEVATION
4" INV. AT HOUSE (PROPOSED)	47.3
4" INV. AT SEPTIC TANK (IN)	46.75
4" INV. AT SEPTIC TANK (OUT)	46.50
4" INV. AT DIST. BOX (IN)	46.20
4" INV. AT DIST. BOX (OUT)	46.03
4" INV. INTO SAS	45.94
ELEVATION AT BOTTOM OF SAS	45.50
GROUNDWATER ELEVATION	42.32

- 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 TOP OF THE LOWEST DECK STEP AS INDICATED ON THIS PLAN, EL = 52.43 (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 V 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
 - CONTRACTOR TO CONFIRM EXISTING PLUMBING, BENCHMARK, AND SILL ELEVATIONS PRIOR TO CONSTRUCTION.
 - MAGNETIC LOCATOR TAPE TO BE PLACED ON ALL SEPTIC SYSTEM COMPONENTS.



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 = 3 MIN./INCH (CLASS 1 SOIL)
DESIGN LOADING RATE = 0.74 GPD/SF
LEACHING AREA REQ'D = 330 GPD / 0.74 GPD/SF = 446 SF

USE 14.5' X 25.1' LEACHING BED WITH 5 ROWS OF 6 INFILTRATOR QUICK 4 PLUS CHAMBERS = 125.5 L.F.
EACH ROW (6) 4' UNITS PLUS 1.1' END CAP CREDIT = 24'+1.1' = 25.1'
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 > 446 SF REQUIRED

DAILY FLOW CAPACITY:
593 SF X 0.74 GPD/SF = 439 GPD > 330 GPD REQ'D

SOIL DATA:

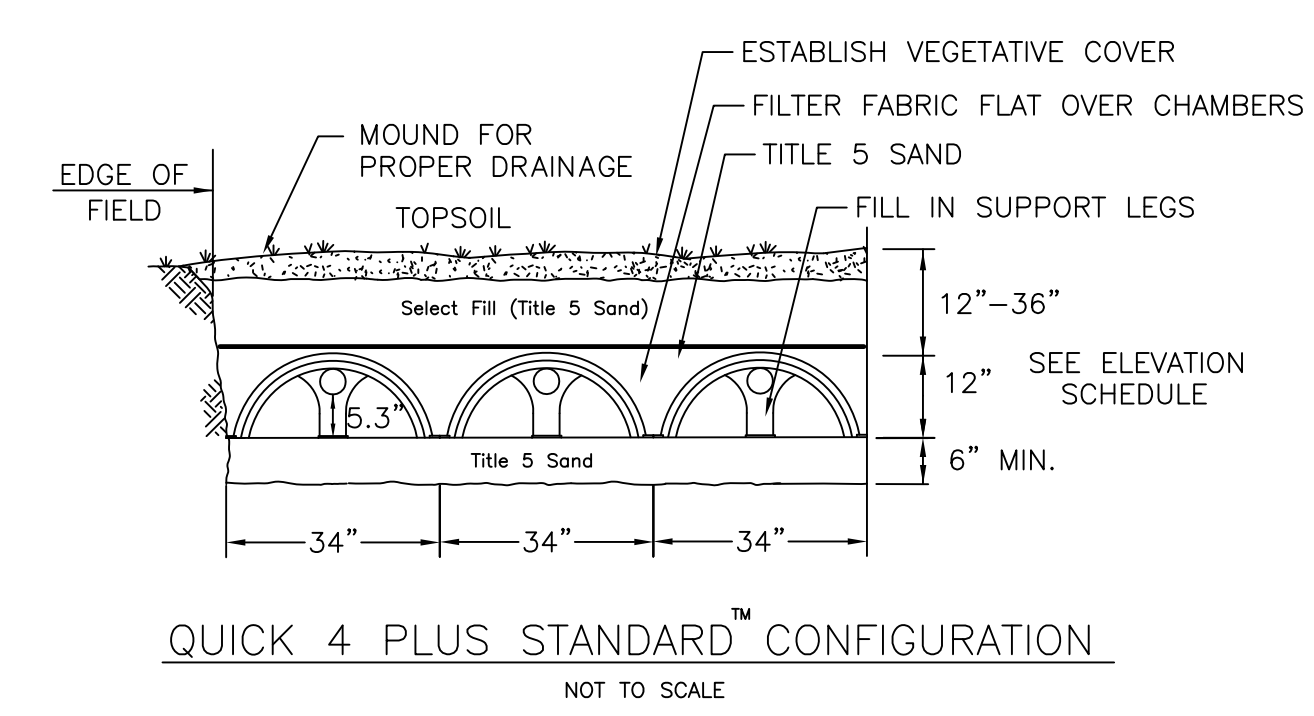
DATE: SEPTEMBER 23, 2020
PERFORMED BY: GEORGE R. COLLINS, P.E.
WITNESSED BY: KATHLEEN WALDRON, AVON BOH

SOIL HORIZ.	SOIL COLOR	TP-1 DEPTH	ELEV.	SOIL HORIZ.	SOIL COLOR	TP-2 DEPTH	ELEV.
		0	47.15			0	46.35
		28"					
Bw 10YR 5/6	SANDY LOAM	58"	42.32	Bw 10YR 5/6	SANDY LOAM	48"	
		80" BOTTOM OF PERC HOLE				60"	41.35
C 2.5Y 6/2	LOAMY F. SAND			C 2.5Y 6/2	LOAMY F. SAND		
		128"	36.48			108"	37.35

ESTIMATED SEASONAL HIGH GROUNDWATER ELEV. = 42.32
DESIGN PERC RATE = 1" IN 4 MIN.

- WETLAND AND EROSION CONTROL NOTES**
- WETLAND DELINEATION PERFORMED BY MICHAEL MAGUIRE, S.C.
 - 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.

- LOCAL UPGRADE APPROVAL REQUEST:**
- VARIANCE FROM SECTION 310 CMR 15.212 OF THE STATE SANITARY CODE WHICH REQUIRES A MINIMUM VERTICAL SEPARATION FROM THE SOIL UNDERLYING THE SOIL ABSORPTION SYSTEM ABOVE THE HIGH GROUND-WATER ELEVATION SHALL BE FOUR (4) FEET WITH A RECORDED PERC RATE OF GREATER THAN TWO MINUTES PER INCH. A VARIANCE THAT WOULD ALLOW A VERTICAL SEPARATION REDUCTION FROM THE REQUIRED FOUR (4) FEET TO THREE (3) FEET IS REQUESTED.



PLAN TO ACCOMPANY A CONSERVATION FILING

DRAWING TITLE	PLAN AND DETAILS	SCALE:	AS SHOWN
PROJECT	SUBSURFACE SEWAGE DISPOSAL SYSTEM UPGRADE	DATE:	10-22-20
CLIENT	65 FREEMAN STREET AVON, MA	DRAWN BY:	SWR
	GARY HAYWARD 21 WESTGLOW ROAD, BROCKTON, MA 02301	DESIGNED BY:	SWR
	COLLINS CIVIL ENGINEERING GROUP, INC.	CHECKED BY:	GRC
	BRAINTREE - FALMOUTH - WEST BRIDGEWATER	APPROVED BY:	GRC
	CIVIL ENGINEERING - LAND SURVEY - L.S.P. SERVICES	DRAWING NO.	
	225 SOUTH MAIN STREET, WEST BRIDGEWATER, MA 02379	PROJECT NO.	20-181-3161
	TEL:508-580-2332 MOBILE: 617-347-1363 E-MAIL:GRCPE@AOL.COM		

