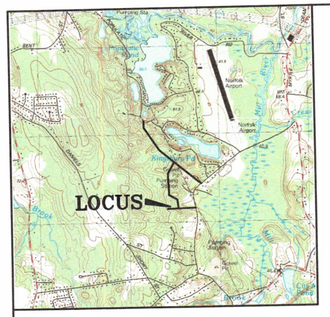
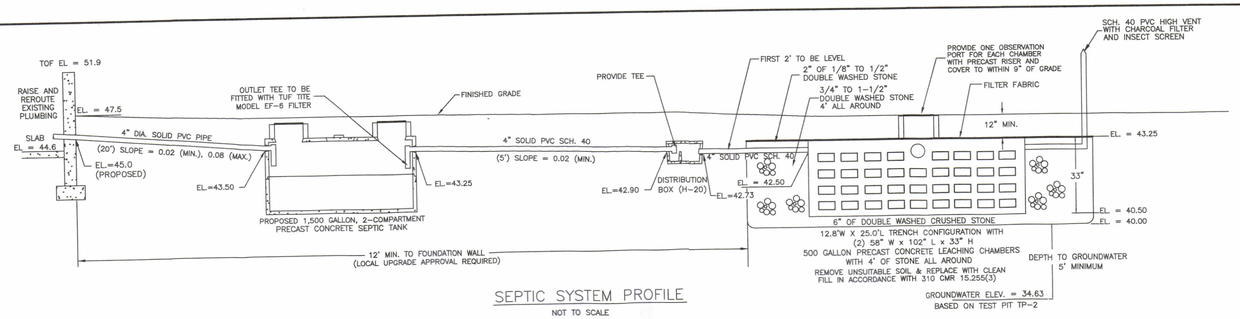


LOCUS PLAN



SEPTIC SYSTEM PROFILE

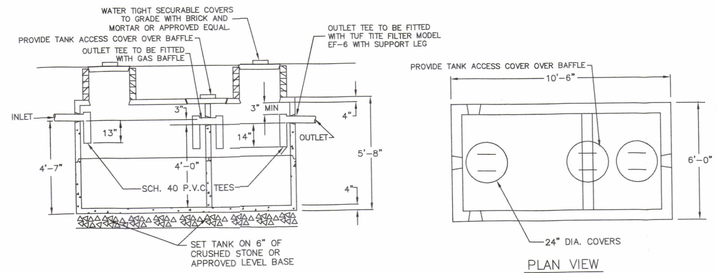
NOT TO SCALE

ELEVATION SCHEDULE:

DESCRIPTION	ELEVATION
4" INV. AT HOUSE (PROPOSED)	45.0
4" INV. AT SEPTIC TANK (IN)	43.50
4" INV. AT SEPTIC TANK (OUT)	43.25
4" INV. AT DIST. BOX (IN)	42.90
4" INV. AT DIST. BOX (OUT)	42.73
4" INV. INTO SAS	42.50
ELEV. AT BOTTOM OF CHAMBERS	40.50
ELEV. AT BOTTOM OF STONE	40.00
GROUNDWATER ELEVATION	34.63

NOTES:

1. THE CONTRACTOR SHALL NOTIFY THE LOCAL BOARD OF HEALTH AND COLLINS ENGINEERING GROUP AT LEAST 48 HOURS PRIOR TO REQUIRED INSPECTIONS.
2. SITE BENCHMARK IS THE TOP OF THE CONCRETE BULKHEAD AS INDICATED ON THIS PLAN, EL = 48.20 (ASSUMED DATUM).
3. HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO OPERATE OVER THE LIMITS OF THE SEWAGE DISPOSAL FIELD DURING THE COURSE OF CONSTRUCTION OF THE SYSTEM.
4. NO FIELD MODIFICATIONS TO THE SEWAGE SYSTEM SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER THE BOARD OF HEALTH AND CONSERVATION AGENT.
5. UNLESS OTHERWISE NOTED ALL SYSTEM COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH TITLE 5 OF THE STATE ENVIRONMENTAL CODE AND ANY APPLICABLE LOCAL RULES.
6. DISTRIBUTION BOX SHALL BE MANUFACTURED BY J&R PRECAST, INC. OR APPROVED EQUAL.
7. GROUT TO BE USED AT ALL POINTS WHERE PIPES ENTER OR LEAVE ALL CONCRETE STRUCTURES IN ORDER TO PROVIDE A WATERTIGHT SEAL.
8. THE FIRST TWO FEET OF EACH LINE EXITING THE DISTRIBUTION BOX SHALL BE LEVEL.
9. THIS SYSTEM IS NOT DESIGNED TO ACCOMMODATE A WATER FILTRTION SYSTEM BACKWASH.
10. SYSTEM COMPONENTS TO WITHSTAND H-10 LOADING CRITERIA.
11. PROPERTY LINE SHOWN IS APPROXIMATE ONLY AND IS NOT A RESULT OF A PROPERTY LINE SURVEY.
12. THE CONTRACTOR SHALL DECOMMISSION (PUMP & FILL OR REMOVE) THE EXISTING SEPTIC SYSTEM AND ALL ASSOCIATED PIPING IN ACCORDANCE WITH 310 CMR 15.354.
13. AS SHOWN, THERE ARE NO KNOWN WELLS WITHIN 100 FEET OF THE PROPOSED LEACH FIELD.
14. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED (LOAM AND SEED) TO INCLUDE HISTORIC TEST PITS OUTSIDE CONSTRUCTION LIMITS.
15. CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY APPLICABLE PERMITS.
16. CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING DIG SAFE (888-DIGSAFE) AND ANY OTHER APPLICABLE UTILITY COMPANIES PRIOR TO STARTING WORK.
17. UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY.
18. CONTRACTOR WILL BE RESPONSIBLE FOR COMBINING LAUNDRY FLOW WITH SYSTEM.
19. CONTRACTOR RESPONSIBLE FOR IMPLEMENTING ALL O.S.H.A. PROCEDURES TO INCLUDE BUT NOT LIMITED TO CONFINED SPACE ENTRY PROCEDURES.
20. CONTRACTOR RESPONSIBLE FOR CONFIRMING LOCATION OF EXISTING LEACHING FACILITY
21. CONTRACTOR TO CONFIRM EXISTING PLUMBING, BENCHMARK, AND SILL ELEVATIONS PRIOR TO CONSTRUCTION.
22. MAGNETIC LOCATOR TAPE TO BE PLACED ON ALL SEPTIC SYSTEM COMPONENTS.
23. USE APPROVED PLAN STAMPED BY BOARD OF HEALTH FOR CONSTRUCTION.
24. TREES TO BE REMOVED FOR SITE ACCESS AS REQUIRED.

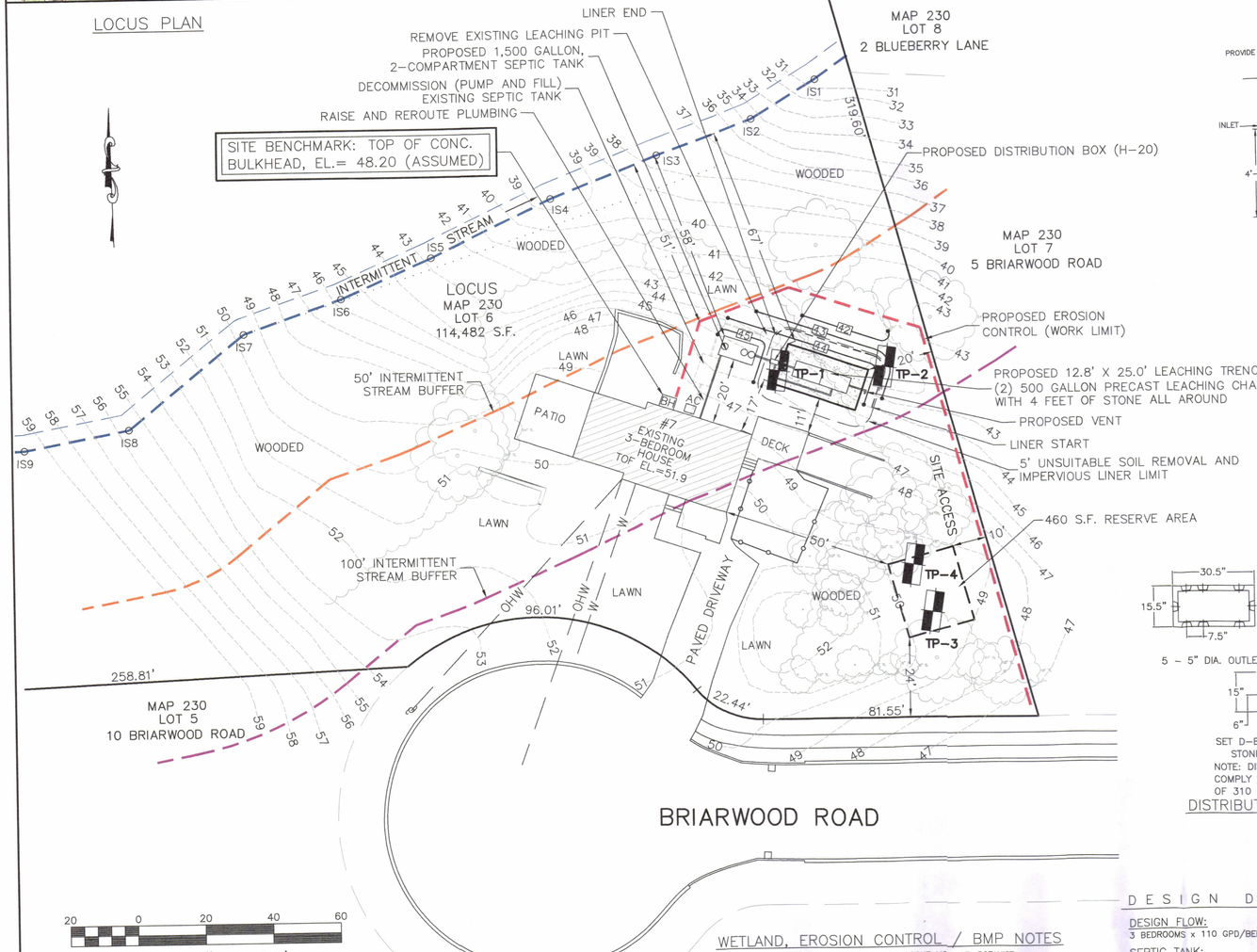


CROSS SECTION

PLAN VIEW

1,500 GALLON 2-COMPARTMENT PRECAST SEPTIC TANK

NOT TO SCALE

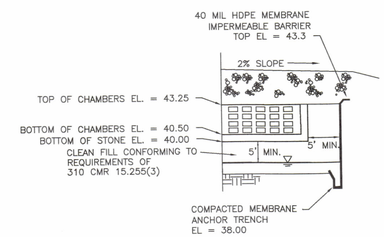


SET D-BOX ON 6" CRUSHED STONE LEVELING BASE

NOTE: DISTRIBUTION BOX SHALL COMPLY TO MINIMUM REQUIREMENTS OF 310 CMR 15.232.

DISTRIBUTION BOX (H-20)

NOT TO SCALE



CROSS SECTION IMPERMEABLE BARRIER

NOT TO SCALE

EROSION CONTROL DETAIL

NOT TO SCALE

SOIL DATA:

DATE: SEPTEMBER 12, 2024
PERFORMED BY: GEORGE R. COLLINS, PE, COLLINS CIVIL ENGINEERING GROUP, INC.
WITNESSED BY: STEVE DONATELLI, FRANKLIN BOH

TP-1 SOIL HORIZ.	SOIL COLOR	DEPTH	ELEV.
		0	45.00
FILL/A		66"	
Bw	10YR 5/6	80"	38.33
C	2.5Y 6/3	140"	33.33

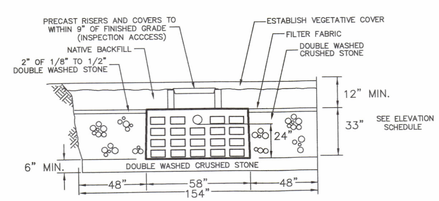
TP-2 SOIL HORIZ.	SOIL COLOR	DEPTH	ELEV.
		0	41.30
FILL/A		16"	
Bw	10YR 5/6	40"	37.97
60" BOTTOM OF PERC HOLE			
C	2.5Y 6/3	80"	34.63
		108	32.30

TP-3 SOIL HORIZ.	SOIL COLOR	DEPTH	ELEV.
		0	49.60
FILL/A		8"	
Bw	10YR 5/6	30"	
50" BOTTOM OF PERC HOLE			
C	2.5Y 6/3	100"	41.27
REFUSAL			

TP-4 SOIL HORIZ.	SOIL COLOR	DEPTH	ELEV.
		0	49.50
FILL/A		4"	
Bw	10YR 5/6	24"	
C	2.5Y 6/3	98"	41.33
REFUSAL			

EST. SEASONAL HIGH GROUNDWATER ELEV. = 34.63
DESIGN PERC RATE = 1" IN 3 MIN.

NOTE: LAYERS FILL/A, B, & C TO BE REMOVED TO AN ELEVATION OF 37.50 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



500 GALLON PRECAST LEACHING CHAMBERS

NOT TO SCALE

LEGEND

48	EXISTING CONTOURS
48	PROPOSED CONTOURS
	PROPERTY LINES
TP-1	OBSERVATION HOLE LOCATION
	EDGE OF BITUMINOUS PAVEMENT

CONSTRUCTION SEQUENCE:

1. HAVE THE PROPERTY MARKED BY DIGSAFE.
2. INSTALL ERSION CONTROLS AND DEP FILE NUMBER SIGN.
3. CONSTACT THE TONW FRO ANY APPCLABLE PRE CONSTUCITON MEETINGS.
4. INSTALL THE NEW SEPTIC SYSTEM PER THE APPROVED PLAN.
5. LOAM, SEED AND STABILIZE THE SITE PER THE APPROVED PLAN.

WETLAND, EROSION CONTROL / BMP NOTES

1. WETLAND DELINEATION PERFORMED BY BROOKE MONROE, BOTANIST.
2. STRAW WATTLE (WORK LIMIT) TO BE INSTALLED PRIOR TO ANY ACTIVITY AND REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
3. CONTRACTOR RESPONSIBLE FOR IMPLEMENTING ALL CONSERVATION COMMISSION AND BOARD OF HEALTH DIRECTIVES.
4. THE SITE IS NOT LOCATED IN AN AREA OF CRITICAL ENVIRONMENTAL CONCERN.
5. CONTRACTOR TO SWEEP STREET AT THE END OF EACH WORK DAY.
6. THE DEP FILE NUMBER MUST BE POSTED ON SITE PRIOR TO STARTING WORK.
7. A COPY OF THE REGISTRY RECORDED ORDER OF CONDITIONS MUST BE ON SITE AT ALL TIME DURING WORK.
8. THE NAME AND CONTACT NUMBERS OF THE GENERAL CONTRACTOR MUST BE PROVIDED TO THE ENGINEER AND CONSERVATION COMMISSION PRIOR TO STARTING WORK.
9. CONTRACTOR TO MONITOR, REPAIR AND MODIFY EROSION CONTROL TO ASSURE THAT THERE IS NO WETLAND RESOURCE AREA OR ABUTTER ENCROACHMENT.
10. NO SUBSTITUTION OF THE EROSION CONTROL PRODUCT SPECIFIED ON THE PLAN IS PERMITTED WITHOUT WRITTEN AUTHORIZATION FROM THE CONSERVATION AGENT.
11. TREES TO BE REMOVED FOR SITE ACCESS AS REQUIRED. THERE WILL BE NO TREE WORK WITHIN THE 100 FOOT WETLAND BUFFER ZONE. SOME TREES WILL BE REMOVED OUTSIDE THE 100 FOOT BUFFER ZONE.
12. THE EROSION CONTROL MUST STAY IN PLACE UNTIL THE SITE IS STABILIZED AND IS INSPECTED BY THE CONSERVATION AGENT.

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 SEPTIC TANK

SOIL ABSORPTION SYSTEM:
PERCOLATION RATE 3 MIN./INCH (CLASS I SOIL)
DESIGN LOADING RATE = 0.74 GPD/SF
LEACHING AREA REQ'D = (330 GPD) / 0.74 GPD/SF = 446 SF

USE: 12.8'W x 25.0'L x 2'H LEACHING TRENCH WITH (2) 500 GALLON PRECAST LEACHING CHAMBERS WITH 4 FEET OF STONE ALL AROUND

LEACHING AREA PROVIDED:
BOTTOM: 12.8' X 25.0' = 320 SF
SIDE: 75.6' X 2' = 151 SF
TOTAL: 320 SF + 151 SF = 471 SF > 446 SF REQUIRED

DAILY FLOW CAPACITY:
471 SF X 0.74 GPD/SF = 348 GPD > 330 GPD REQUIRED

NOTE: PLAN TO ACCOMPANY A CONSERVATION FILING

REV.	DATE	DESCRIPTION	BY	APP.
1	10-9-24	REVISED EROSION CONTROL, CONSTRUCTION SEQUENCE ADDED, GENERAL NOTES REVISED	GRC	GRC

DRAWING TITLE: PLAN AND DETAILS SUBSURFACE SEWAGE DISPOSAL SYSTEM
PROJECT: 7 BRIARWOOD ROAD FRANKLIN, MA
CLIENT: IVAN AQUINO 7 BRIARWOOD ROAD, FRANKLIN, MA 02038

COLLINS CIVIL ENGINEERING GROUP, INC.
BRAINTREE - FALMOUTH - WEST BRIDGEWATER, MA
CIVIL ENGINEERING - LAND SURVEY - L.S.P. SERVICES
225 SOUTH MAIN STREET, WEST BRIDGEWATER, MA 02379
TEL:508-580-2332 MOBILE: 617-347-1363 E-MAIL:GRCPE@AOL.COM

SCALE: AS SHOWN
DATE: 9-24-24
DRAWN BY: SWR
DESIGNED BY: SWR
CHECKED BY: GRC
APPROVED BY: GRC
DRAWING NO.
PROJECT NO. 24-157-4052

COMMONWEALTH OF MASSACHUSETTS GEORGE R. COLLINS CIVIL NO. 41631 PROFESSIONAL ENGINEER
10.16.24