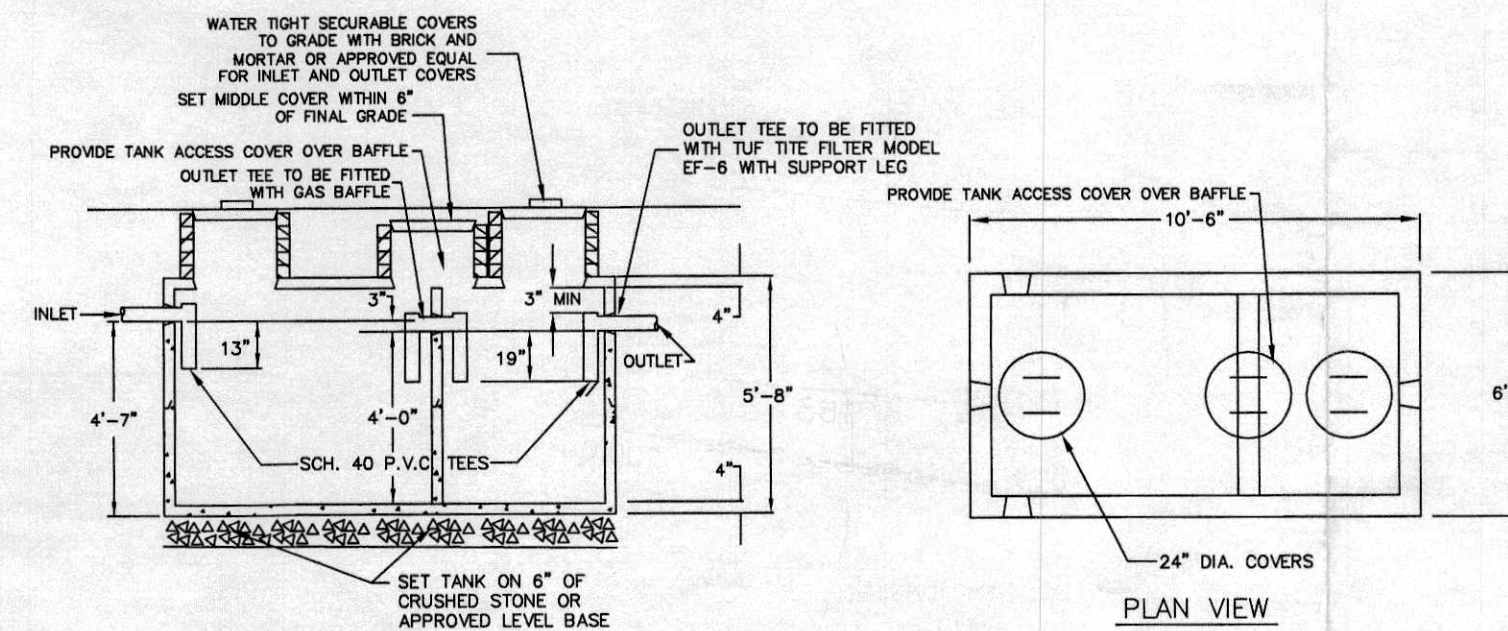


#### ELEVATION SCHEDULE:

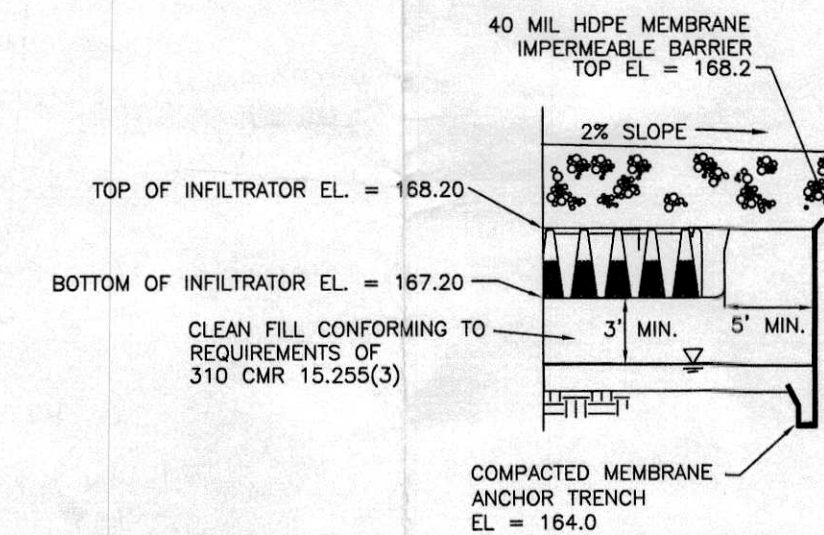
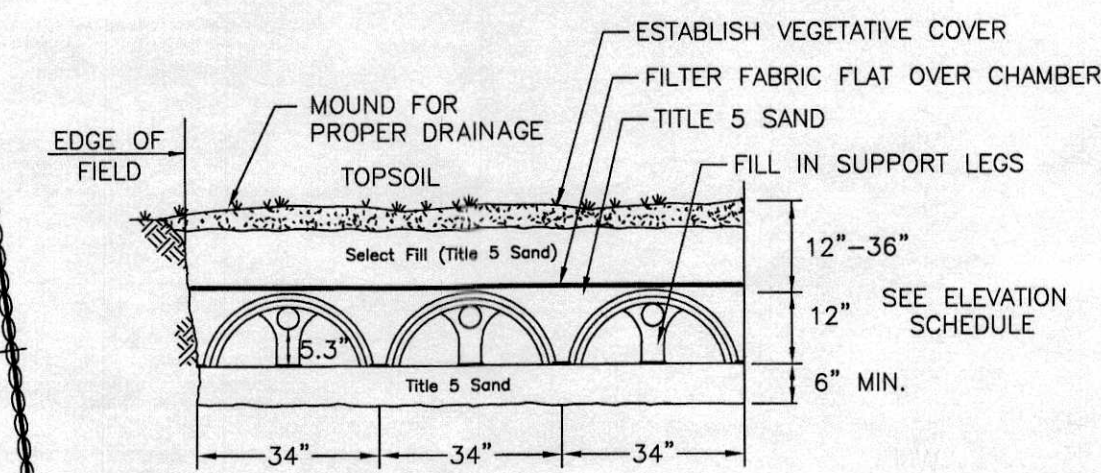
DESCRIPTION	ELEVATION
4" INV. AT BUILDING (EXISTING)	168.7
4" INV. AT SEPTIC TANK (IN)	165.50
4" INV. AT SEPTIC TANK (OUT)	165.25
4" INV. AT PUMP CHAMBER (IN)	165.15
2" INV. AT PUMP CHAMBER (OUT)	165.40
2" INV. AT DIST. BOX (IN)	167.90
4" INV. AT DIST. BOX (OUT)	167.73
4" INV. AT BEGINNING OF SAS	167.64
ELEVATION AT BOTTOM OF SAS	167.20
GROUNDWATER ELEVATION	164.10

#### NOTES:

- THE CONTRACTOR SHALL NOTIFY THE LOCAL BOARD OF HEALTH AND COLLINS ENGINEERING GROUP AT LEAST 48 HOURS PRIOR TO REQUIRED INSPECTIONS.
- BENCHMARK IS THE TOP OF THE LOWEST DECK STEP AS INDICATED ON THIS PLAN, EL = 169.37 (NAVD 88).
- 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 DATED JANUARY 2014, 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 WATER TIGHT 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 IN ACCORDANCE WITH 310 CMR 15.354.
- AS SHOWN, THERE ARE NO KNOWN WELLS WITHIN 100 FEET OF THE PROPOSED LEACH FIELD.
- RESTORE (LOAM & SEED) ALL AREAS DISTURBED DURING CONSTRUCTION.
- AN AUDIBLE AND VISUAL ALARM SHALL BE PROVIDED. PUMP TO BE ON SEPARATE CIRCUIT FROM ALARM.
- PUMP AND APPURTENANCES TO BE INSTALLED AND LOCATED ACCORDING TO MANUFACTURERS INSTRUCTIONS AND LOCAL BUILDING AND WIRING CODES.
- PUMP SHALL CONSIST OF HYDROMATIC MODEL SKV40 SUBMERSIBLE PUMP (OR APPROVED EQUAL). PUMP SHALL BE RATED AT 4/10 HP AND SHALL HAVE A 2" DISCHARGE. THE PUMP SHALL OPERATE FROM A 115 VOLT, 12.6 AMP, SINGLE PHASE, 60 HERTZ POWER SUPPLY.
- CONTRACTOR TO ENSURE LIQUID IN DISCHARGE PIPE FLOWS BACK TO PUMP CHAMBER AFTER PUMP CYCLE.
- PUMP CONTROL PANEL SHALL CONSIST OF MYERS CE SIMPLEX ELECTRICAL CONTROL PANEL (OR APPROVED EQUAL). PUMP CONTROL PANEL TO BE LOCATED INSIDE EXISTING DWELLING.
- CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING DIG SAFE (888-DIGSAFE) AND ANY OTHER APPLICABLE UTILITY COMPANIES PRIOR TO STARTING WORK.
- 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 AND DECOMMISSION AS REQUIRED.
- CONTRACTOR TO CONFIRM BENCHMARK, SILL, AND EXISTING PLUMBING ELEVATIONS PRIOR TO CONSTRUCTION.
- MAGNETIC LOCATOR TAPE TO BE PLACED ON ALL SEPTIC SYSTEM COMPONENTS.



MAP 36 LOT 1  
COUNTY STREET



#### DESIGN DATA:

**DESIGN FLOW:**  
4 BEDROOMS x 110 GPD/BEDROOM = 440 GPD

**SEPTIC TANK:**  
440 GPD x 2.0 = 880 GALLONS  
USE NEW 1,500 GALLON, 2-COMPARTMENT SEPTIC TANK

**SOIL ABSORPTION SYSTEM:**  
PERCOLATION RATE DETERMINED FROM SIEVE ANALYSES  
PERFORMED ON SOIL SAMPLES COLLECTED FROM LAYER C2 AT TEST PITS TP-1 AND TP-2. TESTS REVEALED SOIL IS A SANDY LOAM (72.2 & 82.7% SAND, 24.1 & 15.5% SILT, 3.7 & 1.8% CLAY).  
DESIGN LOADING RATE SELECTED FOR CLASS II SOILS IN ACCORDANCE WITH DEP GUIDANCE POLICY #BRP/DWM/PeP-P00-1.  
DESIGN LOADING RATE = 0.33 GPD/SF (440 GPD) = 1,334 S.F.  
LEACHING AREA REQ'D = 0.33 GPD/SF = 1,334 S.F.

USE 19.8' x 41.1' LEACHING BED WITH 7 ROWS OF 10 INFLTRATOR QUICK4 PLUS LEACHING CHAMBERS = 287.7 L.F.

EACH ROW (10) 4' UNITS PLUS 1.1' END CAP CREDIT = 40'+1.1' = 41.1'  
41.1' PER ROW X 7 ROWS = 287.7 L.F.

QUICK 4 CHAMBER LEACHING AREA = 4.73 S.F./L.F.

LEACHING AREA PROVIDED:  
287.7 L.F. x 4.73 S.F./L.F. = 1,360 SF > 1,334 SF REQUIRED

DAILY FLOW CAPACITY:  
1,360 SF x 0.33 GPD/SF = 449 GPD > 440 GPD REQ'D

#### SOIL DATA:

DATE: FEBRUARY 3, 2021  
PERFORMED BY: GEORGE R. COLLINS, P.E.  
WITNESSED BY: KARL DROWN, REHOBOTH B.O.H.

SOIL	SOIL	TP-1	DEPTH	ELEV.	SOIL	SOIL	TP-2	DEPTH	ELEV.
HORIZ.	COLOR				HORIZ.	COLOR			
		FILL/A	10"	166.25			FILL/A	10"	166.60
Bw	10YR 5/6	SANDY LOAM	30"	163.75	Bw	10YR 5/6	SANDY LOAM	30"	164.10
C1	2.5Y 6/2	SILT LOAM (COMPACT)	102"		C1	2.5Y 6/2	SILT LOAM (COMPACT)	96"	
C2	2.5Y 6/3	LOAMY SAND (SATURATED, UNCOMPACTED)	168"	152.25	C2	2.5Y 6/3	LOAMY SAND (SATURATED, UNCOMPACTED)	162"	153.10

EST. SEASONAL HIGH GROUNDWATER ELEV. = 164.10  
DESIGN LOADING RATE ESTABLISHED BY SIEVE SAMPLES COLLECTED FROM LAYER C2 AT TP-1 AND TP-2.

NOTE: LAYERS FILL/A, B, C1, AND C2 TO BE REMOVED TO A DEPTH OF 108 INCHES 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 REQUESTS:

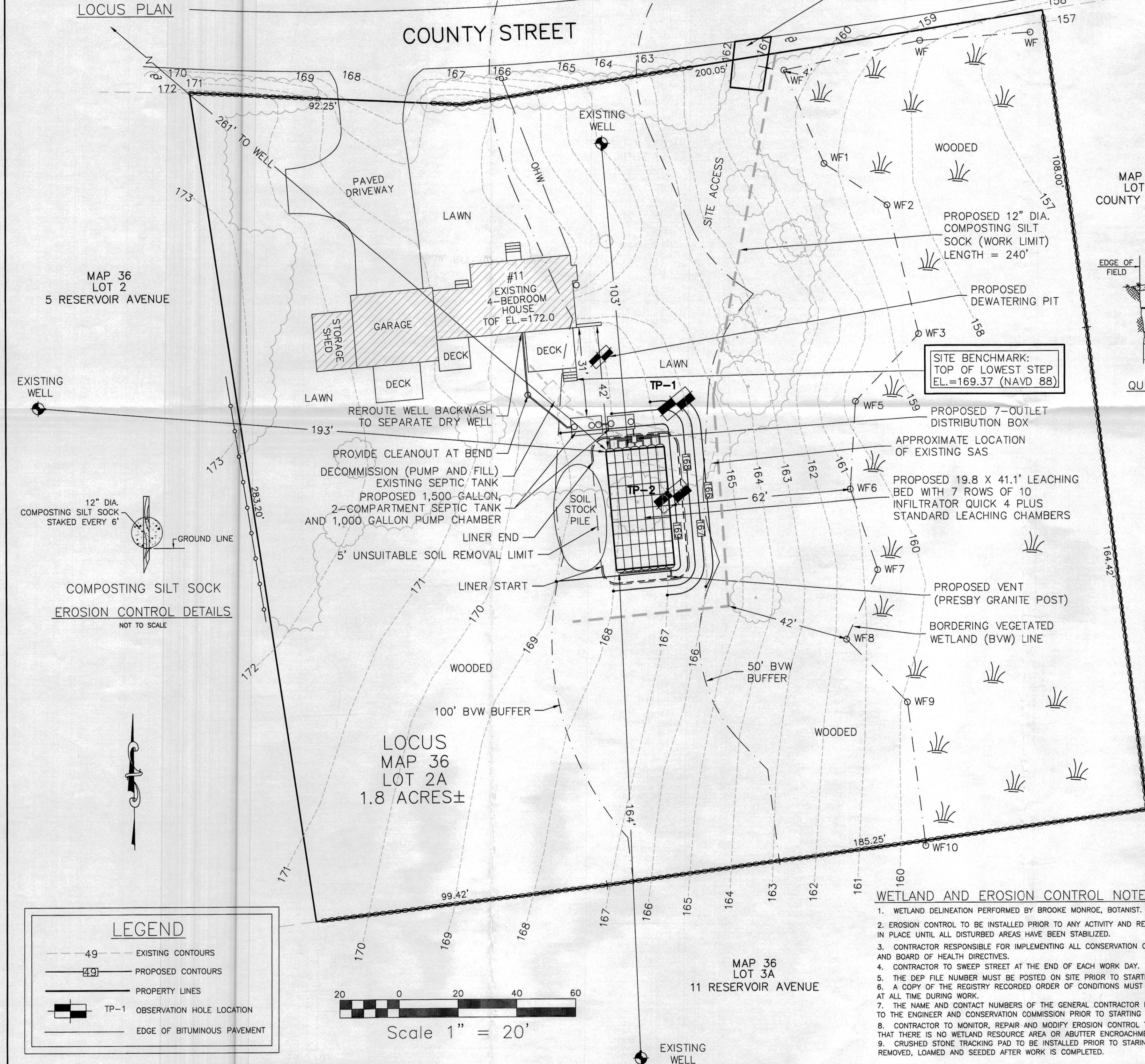
- LOCAL UPGRADE APPROVAL FROM SECTION 310 CMR 15.212 OF THE STATE SANITARY CODE WHICH REQUIRES THAT THE MINIMUM VERTICAL SEPARATION FROM THE SOIL UNDERLYING THE SOIL ABSORPTION SYSTEM ABOVE THE HIGH GROUND-WATER ELEVATION SHALL BE FOUR (4) FEET WITH A RECORDED PERC RATE GREATER THAN TWO MINUTES PER INCH. A VARIANCE THAT WOULD ALLOW A VERTICAL SEPARATION REDUCTION FROM THE REQUIRED FOUR (4) FEET TO THREE (3) FEET IS REQUESTED.
- USE OF A GRAIN SIZE DISTRIBUTION ANALYSIS ACCORDANCE WITH DEP GUIDANCE POLICY #BRP/DWM/PeP-P00-1 TO ESTABLISH DESIGN LOADING RATE.

#### NOTE: PLAN TO ACCOMPANY A CONSERVATION FILING

REV.	DATE	DESCRIPTION	BY	APP.

DRAWING TITLE SUBSURFACE SEWAGE DISPOSAL SYSTEM UPGRADE	PLAN AND DETAILS
PROJECT 11 COUNTY STREET REHOBOTH, MA	
CLIENT DALE POWIS 11 COUNTY STREET, REHOBOTH, MA 02764	
COLLINS CIVIL ENGINEERING GROUP, INC. BRAINTREE - FALMOUTH - WEST BRIDGEWATER 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:GRCF@AOL.COM	

SCALE: AS SHOWN	
DATE: 2-23-21	
DRAWN BY: SWR	
DESIGNED BY: SWR	
CHECKED BY: GRC	
APPROVED BY: GRC	DRAWING NO. PROJECT NO. 21-007-3239



#### WETLAND AND EROSION CONTROL NOTES

- WETLAND DELINEATION PERFORMED BY BROOKE MONROE, BOTANIST.
- EROSION CONTROL 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.
- CONTRACTOR TO SWEEP STREET AT THE END OF EACH WORK DAY.
- THE DEP FILE NUMBER MUST BE POSTED ON SITE PRIOR TO STARTING WORK.
- A COPY OF THE REGISTRY RECORDED ORDER OF CONDITIONS MUST BE ON SITE AT ALL TIME DURING WORK.
- 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 BUTTER ENCROACHMENT.
- CRUSHED STONE TRACKING PAD TO BE INSTALLED PRIOR TO STARING WORK AND REMOVED, LOAMED AND SEEDED AFTER WORK IS COMPLETED.

#### LEGEND

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

Scale 1" = 20'