"SOIL LOGS"

EL. 104.00'	D.T.H *3	
EL. 102.5'	0'-18" FILL	
EL. 101.00'	18"-36" Bw 10 YR 6/6 SL	
EL. 98.00'	36"-72" C 10 YR 5/6 SL W/ GRAVEL	

MOTTLES @ 24"
WATER WEEPING @ 36"
ESTIMATE GROUND WATER 24"

"SOIL LOGS"

EL. 101.00'	D.T.H *2	
	0'-60" FILL	
EL. 96.00'		FILL

SEPTIC WATER @ 24"

"SOIL LOGS"

EL. 102.00'	D.T.H *1	
	0'-48" FILL	
EL. 98.00'		FILL

CLEAN WATER @ 48"

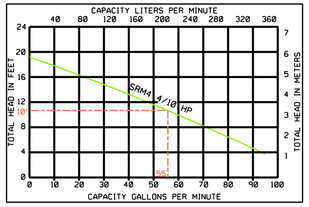
EJECTOR PUMP DATA

1.	USE MYERS MODEL SRM4 0.4 HP (2" SOLIDS) OR EQUAL
2.	FLOOR OF PUMP CHAMBER ELV. 94.20'
3.	PUMP OFF (12" ABOVE FLOOR) ELV. 95.20'
4.	PUMP ON (15" ABOVE FLOOR) ELV. 95.45'
5.	HIGH WATER ALARM ON (30" ABOVE FLOOR) ELV. 96.70'
6.	DOSE SET AT 74 GAL (125 GALLONS FLOW BACK TO P.C.)
7.	+/- 1.4 MIN. RUNNING TIME @ 55 GPM (TDH @ 10')
8.	ALARM SHALL BE POWERED BY A CIRCUIT SEPERATE FROM THE PUMP CIRCUIT
9.	FORCE MAIN TO DRAIN BACK INTO PUMP CHAMBER
10.	DOSE SET APPROX. SIX TIMES DAILY

SOIL EVALUATOR: MARGARET BACON, PE

"I CERTIFY THAT I HAVE PASSED THE EXAMINATION APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE, AND EXPERIENCE DESCRIBED IN 310 CMR 15.018 (2)."

OTHER PERSONS ON SITE AT TESTING:	ADC SEPTIC
PERCOLATION RATE	See Steve Analysis dated 1/3/2019*
DATE SOIL EVALUATION	3/25/20
DATE SOIL SAMPLE	3/25/20
INSPECTOR	STEVE DONATELLI
TESTING APPLICANT:	LORI PRUE



*SEE TERRAFILTER LABORATORY ANALYSIS DATED 4/10/20
USDA SOIL CLASSIFICATION: LOAMY SAND
MA 15.243 SOIL CLASSIFICATION: CLASS I
UN-COMPACTED SOIL 0.66 GPD/SF

"CONSTRUCTION NOTES"

1. EXCAVATE ALL IMPERVIOUS MATERIAL INCLUDING FILL AND TOP SOIL; SILT; CLAY; ETC. TO PERVIOUS MATERIAL IN TRENCH AREA AND IN FIVE FOOT (5') GRAVEL AREA.
2. THE GRAVEL SHALL BE PLACED ACCORDING TO SEC. 15.255 SUB-SECTION 3 TO 6.
3. ELEVATION OF GRAVEL TOP OF TITLE V SAND 106.00, BOTTOM 104.00'
4. LINES TO BE 15' OC.
5. BOTTOM OF ENVIRO-PIPES TO BE LEVEL. 104.50'
6. ALL OUTLET PIPES FROM THE DISTRIBUTION BOX TO HAVE A MIN. DROP OF 01" TO INLET OF ENVIRO PIPE
7. NO SURFACE, SUBSURFACE OR OPEN DRAINS THAT INTERCEPT GROUNDWATER WITHIN 25 FEET OF THE SEPTIC TANK OR 50 FEET FROM THE LEACHING SYSTEM.
8. ENGINEER TO INSPECT BOTTOM EXCAVATION OF LEACHING AREA PRIOR TO GRAVEL PLACEMENT
9. HYDRAULIC CEMENT TO BE USED TO SEAL CONNECTIONS AT THE FOUNDATION, SEPTIC TANK, DIST. BOX, & ALL UNUSED OUTLETS.
11. LOAM & SEED ALL DISTURBED AREAS. (ENVIRONMENTAL MATTING ON SLOPES > 50%)
12. CONSTRUCTION OF SEPTIC TANK, DOSING CHAMBER & DISTRIBUTION BOX SHALL CONFORM WITH 310 CMR 15.221 THROUGH 15.226

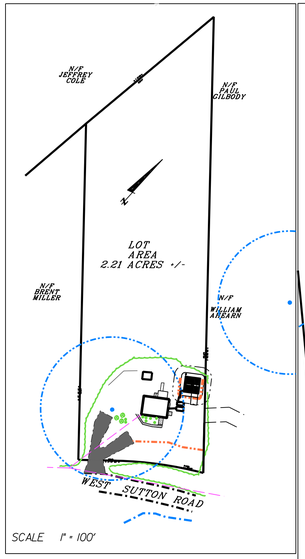
ADDITIONAL NOTES

1. TOWN PERMIT * S 20-07
2. SEPTIC TANK TO BE PUMPED ANNUALLY
3. WELL TO BE TESTED EVERY TWO YEARS
4. PLAN ☐ IS, ☑ IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE. FEMA 25027C0820E
5. KNOWN EASEMENTS ON LOT. YES ☐ : NO ☑
6. SYSTEM LOCATED IN NITROGEN SENSITIVE AREA AS DEFINED BY THE MA DEP OR TITLE V. YES ☐ : NO ☑

DESIGN INFORMATION

1. DESIGN RATE 10 MPI
2. SLOPE OF SYSTEM 0%
3. 280 LINEAL FEET OF ENVIRO PIPE REQUIRED
4. USE 280 LINEAR FEET
5. NO GARBAGE DISPOSAL UNIT
6. 4 BEDROOM HOUSE : DAILY FLOW Minimum of 440 gallons
7. NO OTHER WELL WITHIN 150 FEET OF THE PROPOSED SYSTEM OTHER THAN SHOWN ON PLAN, NO OTHER SYSTEM WITHIN 200 FEET OF THE PROPOSED WELL OTHER THAN SHOWN ON PLAN.
8. WATER SOFTENERS SHALL NOT CONNECT TO SEPTIC TANK.
9. STORMWATER DRAINAGE ON SITE. YES ☐ : NO ☑
10. POTABLE WATER SUPPLY (PUBLIC) ON SITE. YES ☐ : NO ☑
11. LOT AREA ☐ IS, ☑ IS NOT TRIBUTARY TO A PUBLIC SURFACE WATER SUPPLY AND IS NOT LOCATED IN A ZONE 2 OF PUBLIC WELLS.
12. ALL KNOWN UTILITY LOCATIONS (APPROX.) ON SITE ARE SHOWN.
13. CONTRACTOR SHALL NOTIFY DIG-SAFE AT 1-888-344-7233 PRIOR TO CONSTRUCTION.
14. NO FOUNDATION DRAINS TO BE INSTALLED.

NOTE: ALL SEWER STRUCTURES ARE ABOVE MAXIMUM GROUND WATER.
YES ☐ : NO ☑ SEE BOUYANCY CALCULATIONS



BOUYANCY CALCS

W (ST) = 26,500 LBS
W (PC) = 20,236 LBS
MIN. REQUIRED

W*

W (ST) = SOIL + 11,500 LBS = 15,000-26,500 LBS
W (PC) = SOIL + 11,200 LBS = 9,036-20,236 LBS
MIN. REQUIRED

7.5'

W-ST (SOIL) =10.5'X5.5'X2.0'=1X125.5/CF= 15,000 LBS
W-PC (SOIL) =9.8'X5.0'X1.5'=1X125.5/CF= 9036 LBS

1500 GAL ST. H10
4000 GAL PC H20

APPRX. GW
EL= 99.00'(ST)
EL= 99.00' (PC)

94.75' (ST)
94.20' (PC)

P*

P (ST) 15,315 +/- LBS
P (PC) 11,263 +/- LBS

P (ST) =(10.5'X5.5'X4.25')X62.4/CF)=15,315 LBS
P (ST) 15,315 +/- LBS

P (PC) =(9.8'X5.0'X3.8')X62.4/CF)=11,263.20 LBS
P (PC) 11,263 +/- LBS

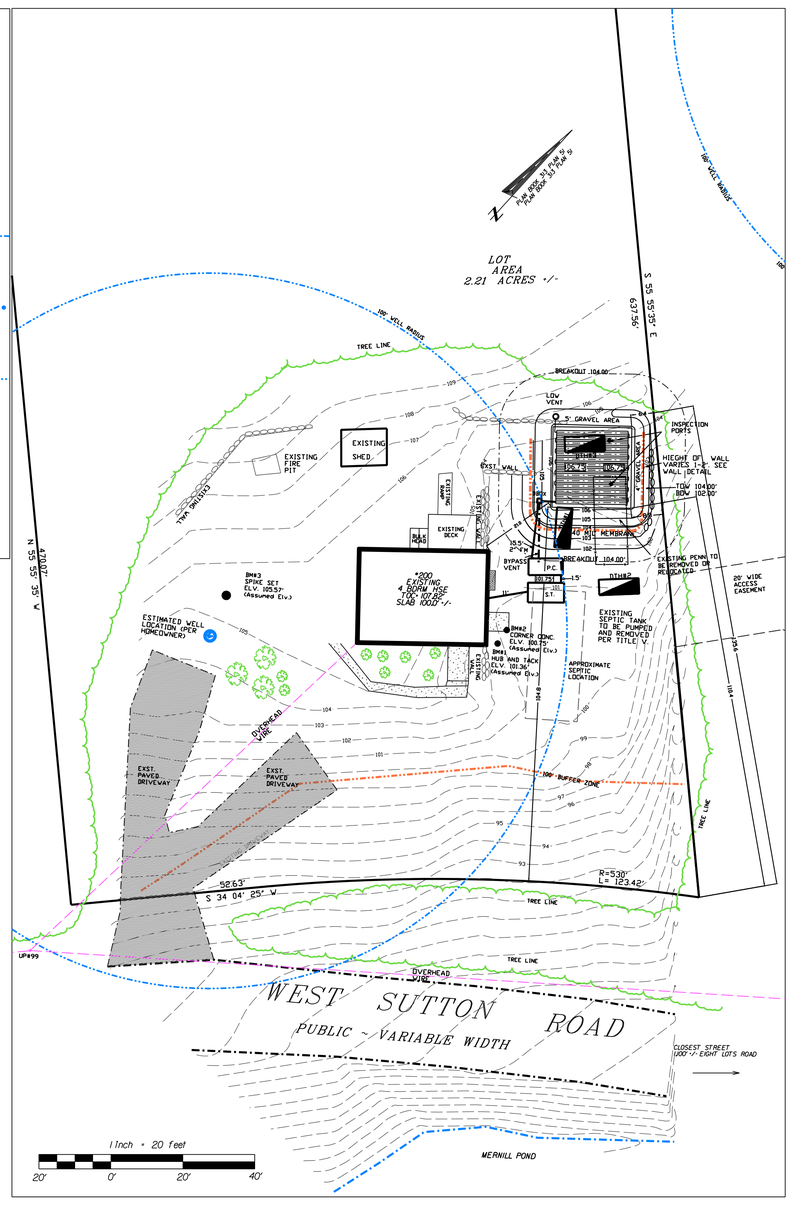
EXACT SEPTIC TANK WEIGHT DEPENDS UPON MANUFACTURER (TANKS DO NOT FLOAT WHEN EMPTY)

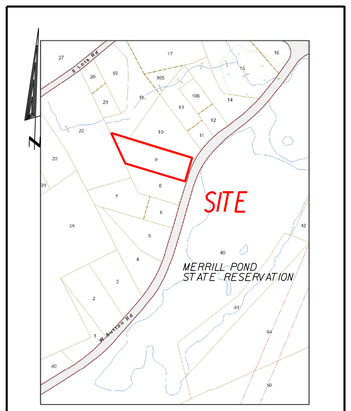
LEGEND

100' BUFFER ZONE	
DEEP TEST HOLE	◥
PERCOLATION TEST HOLE	◐
EXISTING CONTOURS	
PROPOSED CONTOURS	
100' WELL RADIUS	
BENCH MARK	●
SPOT ELEVATIONS (exist.)	100x0
SPOT ELEVATIONS (proposed)	100x0
OVERHEAD WIRE	

811 DigSafe MA ME NH RI VT

CONTRACTOR WILL NOTIFY DIG SAFE PRIOR TO CONSTRUCTION





200 WEST SUTTON ROAD
SUTTON MA

LOCUS MAP
NTS

LOCAL UPGRADE APPROVAL

PER 310 CMR 15.212 - THE SOIL ABSORPTION SYSTEM HAS TO BE AT LEAST 4-FEET ABOVE THE ESTIMATED HIGH GROUND WATER TABLE. PER 15.404(2)b A 2' SEPERATION FOR THE PRESBY SYSTEM IS ALLOWED FOR REPAIRS UNDER A LOCAL UPGRADE APPROVAL FROM THE BOARD OF HEALTH.

ALSO PER 310 CMR 15.405(2) A LOCAL UPGRADE IS ALSO REQUIRED TO REDUCE THE PROPERTY OFFSET FROM 10' TO 6'. THEREFORE IN AN EFFORT TO AVOID AND MINIMIZE IMPACTS AND TO MAXIMIZE THE OFFSET DISTANCE FROM THE PROPOSED SYSTEM TO THE ONSITE WELL, THE APPLICANT IS REQUESTING A LOCAL UPGRADE FOR THIS REQUIREMENT. WELL COULD NOT BE LOCATED. LOCATION WAS BASED ON HOMEOWNERS ESTIMATED LOCATION.

NOTES

INSTALLER SHALL INSTALL THE SYSTEM IN ACCORDANCE WITH THE PRESBY WASTEWATER TREATMENT SYSTEM'S MA ENVIRO-SEPTIC DESIGN AND INSTALLATION MANUAL AND THE CONDITIONS AS SET FORTH IN DEPARTMENT OF ENVIRONMENTAL PROTECTION'S CERTIFICATION FOR THE PRESBY ENVIRO-SEPTIC SYSTEM ISSUED ON SEPTEMBER 26, 2014.

ALL EXST. SUBSURFACE UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. THE ENGINEER DOES NOT CERTIFY LOCATIONS OR ELEVATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM LOCATION AND ELEVATION OF EXISTING SEWER PRIOR TO SYSTEM INSTALLATION.

PROPERTY LINES ON THIS PLAN WERE COMPILED FROM RECORD DEEDS AND PLANS. THIS PLAN NOT TO BE USED TO ESTABLISH PROPERTY LINES

NO GARBAGE DISPOSAL UNITS ALLOWED.

TOPOGRAPHIC SURVEY WAS CONDUCTED IN MARCH 2020

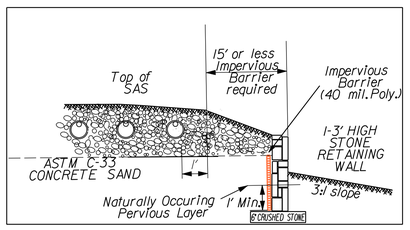
NO WETLANDS WITHIN 100' OF THE PROPOSED CONSTRUCTION ACTIVITIES.

NEITHER ENGINEER OR BOARD OF HEALTH CAN OFFER A GUARANTEE OF LONGEVITY OF THE SEWAGE DISPOSAL SYSTEM. SYSTEM WAS DESIGNED IN ACCORDANCE WITH TITLE V AND STANDARD ENGINEERING PRACTICES. PROPER USE AND MAINTENANCE ARE KEY IN ENSURING THE LIFE AND FUNCTIONALITY OF THIS SYSTEM.

PLAN BOOK 313 PLAN 51
DEED BOOK BOOK 18459 PAGE 394
OWNER LORI PRUE
ADDRESS 200 WEST SUTTON ROAD
ASSESSORS MAP * 22 / 9
LOT *
ZONE RESIDENTIAL

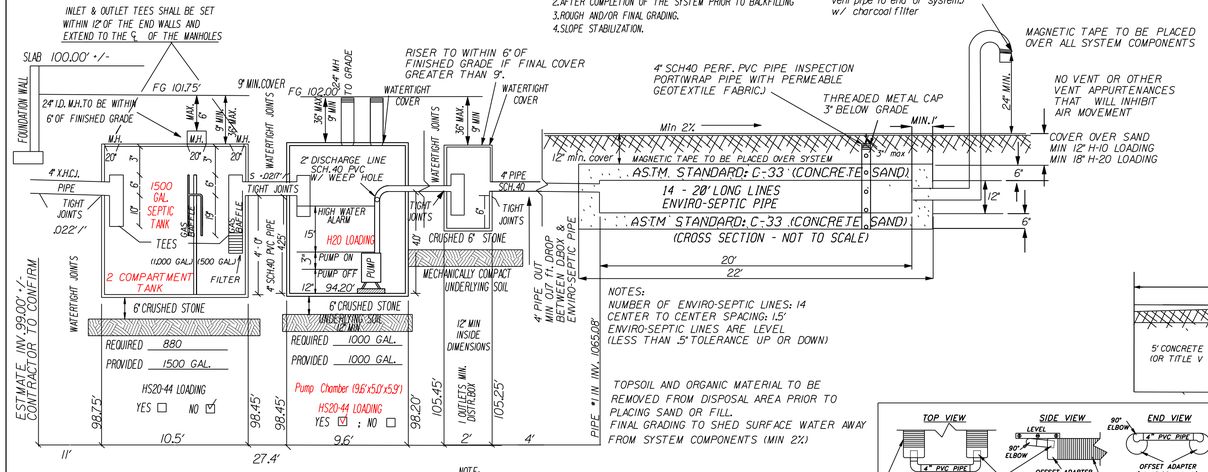
ADVANCE ENVIRO-SEPTIC SYSTEMS
LOADING CALCULATIONS

ENVIRO-SEPTIC PIPE DIAMETER 12"	
LINEAR FOOTAGE REQUIRED FOR A 4 BDRM WITH PERC RATE OF 10 MPI IS 280 LINEAR FEET.	
PER TITLE V USE MIN. OF 440 SF FOR LEACHING AREA. USE PIPE SPACING AT 1.50' OC (22' LONG X 22.5' WIDE = 495 sf)	
LENGTH OF PIPE 14 ROWS @ 20' LENGTHS AT 1.50' OC = 280 LF	
BED AREA	PER DEP MINIMUM EFFECTIVE LEACHING AREA 440 SF
LAYOUT	22' FEET LONG X 22.5' WIDE = 495 SF



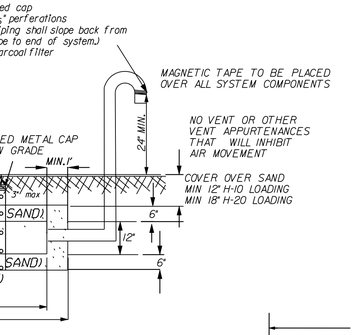
INSPECTION SCHEDULE

1. BOTTOM OF EXCAVATION PRIOR TO PLACEMENT OF FILL
2. AFTER COMPLETION OF THE SYSTEM PRIOR TO BACKFILLING
3. ROUGH AND/OR FINAL GRADING.
4. SLOPE STABILIZATION.



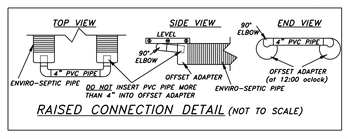
PARTIAL LONGITUDINAL CROSS SECTION -- NO SCALE

NOTE:
INSPECTIONS TO BE CONDUCTED ACCORDING TO THE REGULATIONS OF THE SUTTON BOARD OF HEALTH

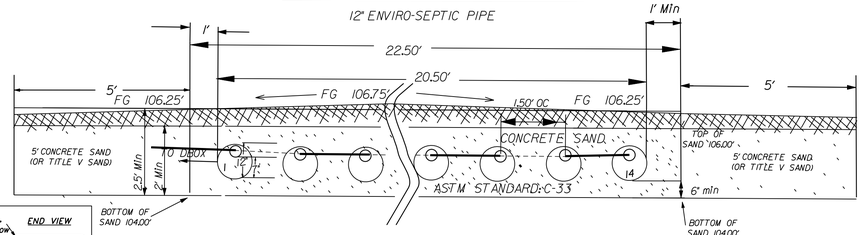


NOTES:
NUMBER OF ENVIRO-SEPTIC LINES: 14
CENTER TO CENTER SPACING: 1.5'
ENVIRO-SEPTIC LINES ARE LEVEL
(LESS THAN .5" TOLERANCE UP OR DOWN)

TOPSOIL AND ORGANIC MATERIAL TO BE REMOVED FROM DISPOSAL AREA PRIOR TO PLACING SAND OR FILL.
FINAL GRADING TO SHED SURFACE WATER AWAY FROM SYSTEM COMPONENTS (MIN 2%)



PRESBY ADVANCE ENVIRO-SEPTIC



PIPE *1-14
IN INV. 105.08'
BOTTOM SAND 104.00

REPAIR PERMIT * 20-07

SEWAGE DISPOSAL SYSTEM
FOR
LORI PRUE
200 WEST SUTTON ROAD
SUTTON, MA 01590

DATE: MAY 20, 2020 SCALE: 1" = 20'

CIVIL SITE ENGINEERING
80 MAPLE STREET
DOUGLAS MA 01516
508-476-0011
SITE PLANNING SEPTIC DESIGN WETLANDS

PROJ.* S20119P.DGN