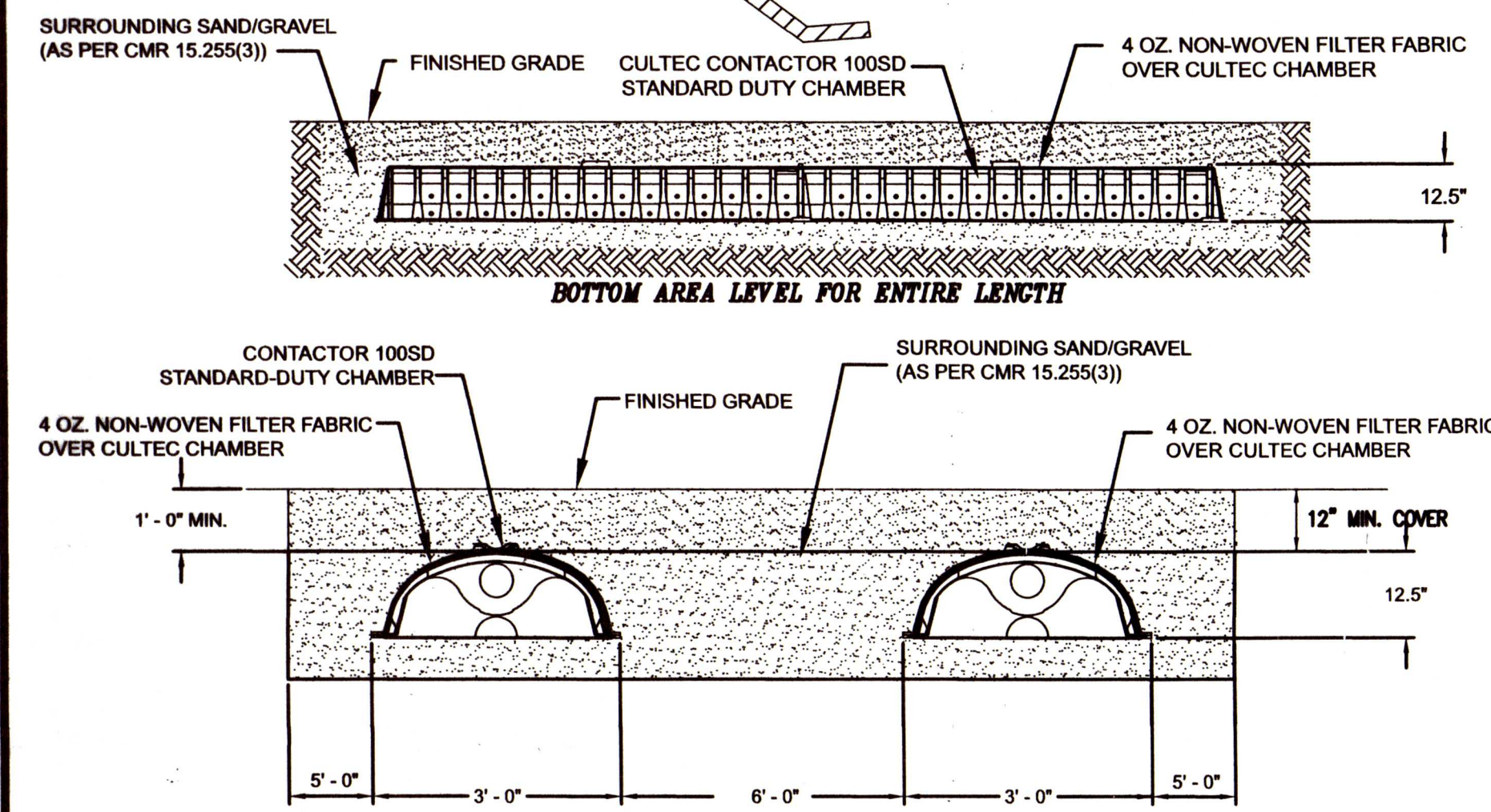


LOCUS PLAN  
NOT TO SCALE



GENERAL NOTES  
CONTRACTOR 100SD BY CULTEC, INC. OF BROOKFIELD, CT.  
STORAGE PROVIDED = 3.90 GFI/FT PER DESIGN UNIT.  
REFER TO CULTEC, INC.'S CURRENT RECOMMENDED  
INSTALLATION GUIDELINES.

END VIEW

ALL CONTRACTOR 100 CHAMBERS MUST BE INSTALLED IN  
ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND  
FEDERAL REGULATIONS.

**LOCAL UPGRADE REQUESTED**

310 CMR: 15.406 (1)(b) - REDUCTION IN THE SEPARATION DISTANCE BETWEEN LEACH SYSTEM LOCATION AND SLAB/CELLAR WALL. (13' REQUESTED)

310 CMR: 15.406 (1)(b) - REDUCTION IN THE SEPARATION DISTANCE BETWEEN LEACH SYSTEM LOCATION AND PRIVATE WATER SUPPLY WELLS. (67' REQUESTED - PARCEL 18) (63" & 68" REQUESTED - PARCEL 18) (89' REQUESTED - PARCEL 21)

**LOCAL VARIANCE REQUESTED**

TOWN OF MENDON - PRIVATE WELL REGULATIONS : 5.2 WELL LOCATION REQUIREMENTS:  
SEPARATION DISTANCE BETWEEN DRINKING WATER SUPPLY WELL AND DWELLING / OVERHANG ( 12' REQUESTED )

**BUOYANCY CALCULATIONS**

BUOYANCY - 1500 GAL. SEPTIC TANK  
1.5' x 10' x 5.2' = 78 C.F.  
78 C.F. x 62.4 P.C.F. = 4,867 LBS.

1500 GALLON TANK = 11,400 LBS.  
+ SOIL WEIGHT (COVER)  
+ SOIL FRICTION

CONCRETE WEIGHT - 1000 GAL. = 8,000 LBS.  
+ SOIL WEIGHT (COVER)  
+ SOIL FRICTION

**Stabilization**

-Max sloping is to be 3:1  
-All sloping and disturbed areas to be loamed, seeded, fertilized and mulched.  
-Stabilization of disturbed areas shall be checked throughout construction phases until vegetation is established and repaired as needed.

**TYPICAL SINGLE FAMILY DWELLING SEWAGE PUMP CHART**

TOTAL LENGTH OF DISCHARGE PIPE IN FEET

TOTAL VERT. LIFT	100'	150'	200'	250'	300'
1'	1 TDH PUMP GPM	1 TDH PUMP GPM	1 TDH PUMP GPM	1 TDH PUMP GPM	1 TDH PUMP GPM
6'	1 7.9' 9S 61 GPM	1 8.5' 9S 58 GPM	1 9.2' 9S 55 GPM	1 9.8' 9S 51 GPM	1 10.5' 9S 46 GPM
7'	1 8.9' 9S 56 GPM	1 9.5' 9S 52 GPM	1 10.2' 9S 48 GPM	1 10.8' 9S 44 GPM	1 11.5' 9S 39 GPM
8'	1 9.9' 9S 50 GPM	1 10.5' 9S 46 GPM	1 11.2' 9S 42 GPM	1 11.8' 9S 38 GPM	1 12.5' 9S 33 GPM
9'	1 10.9' 9S 44 GPM	1 11.5' 9S 39 GPM	1 12.2' 9S 36 GPM	1 12.8' 9S 32 GPM	1 13.5' 9S 28 GPM

**PUMP NOTES**

- THE PUMP CHAMBER SHALL BE A 1000 GALLON SEPTIC TANK AS PRODUCED BY JOLLEY PRECAST OR ITS APPROVED EQUIVALENT. ALL JOINTS SHALL BE MORTARED AND WATER TIGHT.
- THE PUMP SHALL BE LITTLE GRAFT 9S-CM, 0.4 HP OR APPROVED EQUAL WITH A 2" DISCHARGE LINE AND SHALL BE EQUIPPED WITH #10101 HW CONTROLLER, #101 HW ALARM, WITH GFT-AUTO-ON SWITCH IN A CONTROL PANEL.
- HIGH WATER ALARM TO CONSIST OF MERCURY FLOAT SWITCH WITH A SEPARATE POWER CIRCUIT, SEPARATE OF PUMP POWER, WITH LIGHT AND AUDIBLE BELL OR BUZZER WITH SILENCER SWITCH AND TEST SWITCH, SET TO ACTIVATE ALARM IN THE HOUSE WHEN WATER REACHES ALARM ELEVATION.
- ALL WIRING TO BE PLACED OUTSIDE THE HOUSE WILL BE WATER PROOF AND INSTALLED ACCORDING TO APPLICABLE CODES
- ALL MANHOLES SHALL BE BROUGHT TO FINISH GRADE AND MARKED FOR THE PURPOSE OF PERIODIC INSPECTIONS, CLEANING AND MAINTENANCE
- THE DISTRIBUTION BOX SHALL BE EQUIPPED WITH Baffle
- ANY Baffle OR TEE THAT OBSTRUCTS THE DISCHARGE LINE SHALL BE REMOVED
- 2" DISCHARGE LINE SHALL BE INSTALLED WITH NO SAGS BETWEEN THE PUMP CHAMBER AND THE DISTRIBUTION BOX. DISCHARGE TO BE SELF DRAINING WITH CONTINUOUS SLOPE TO PUMP CHAMBER.

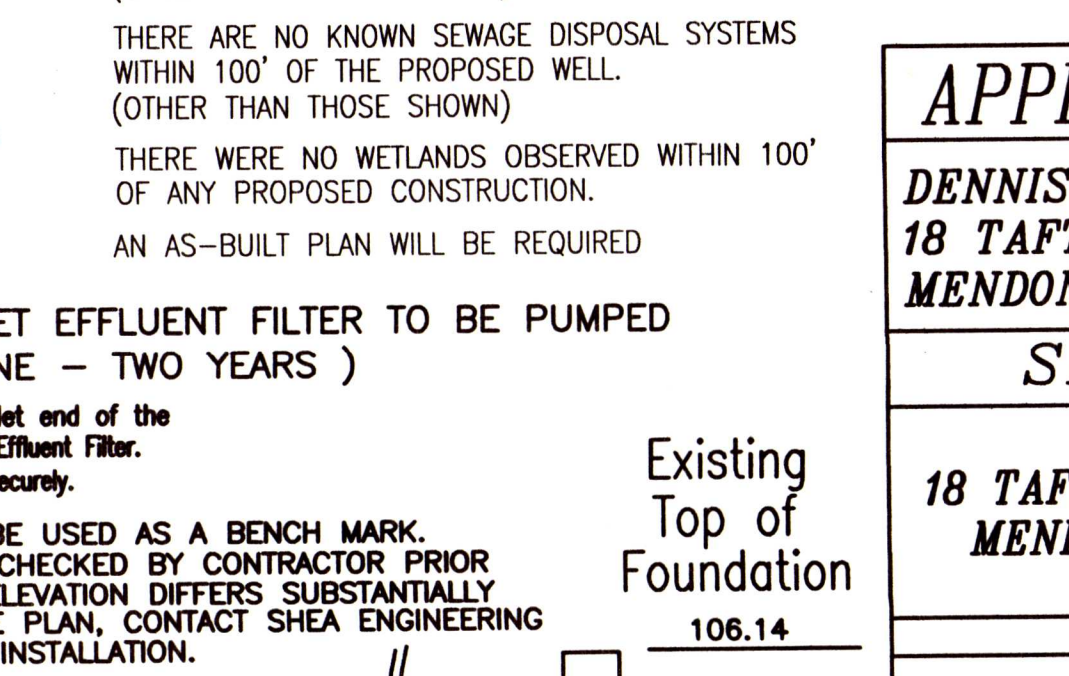
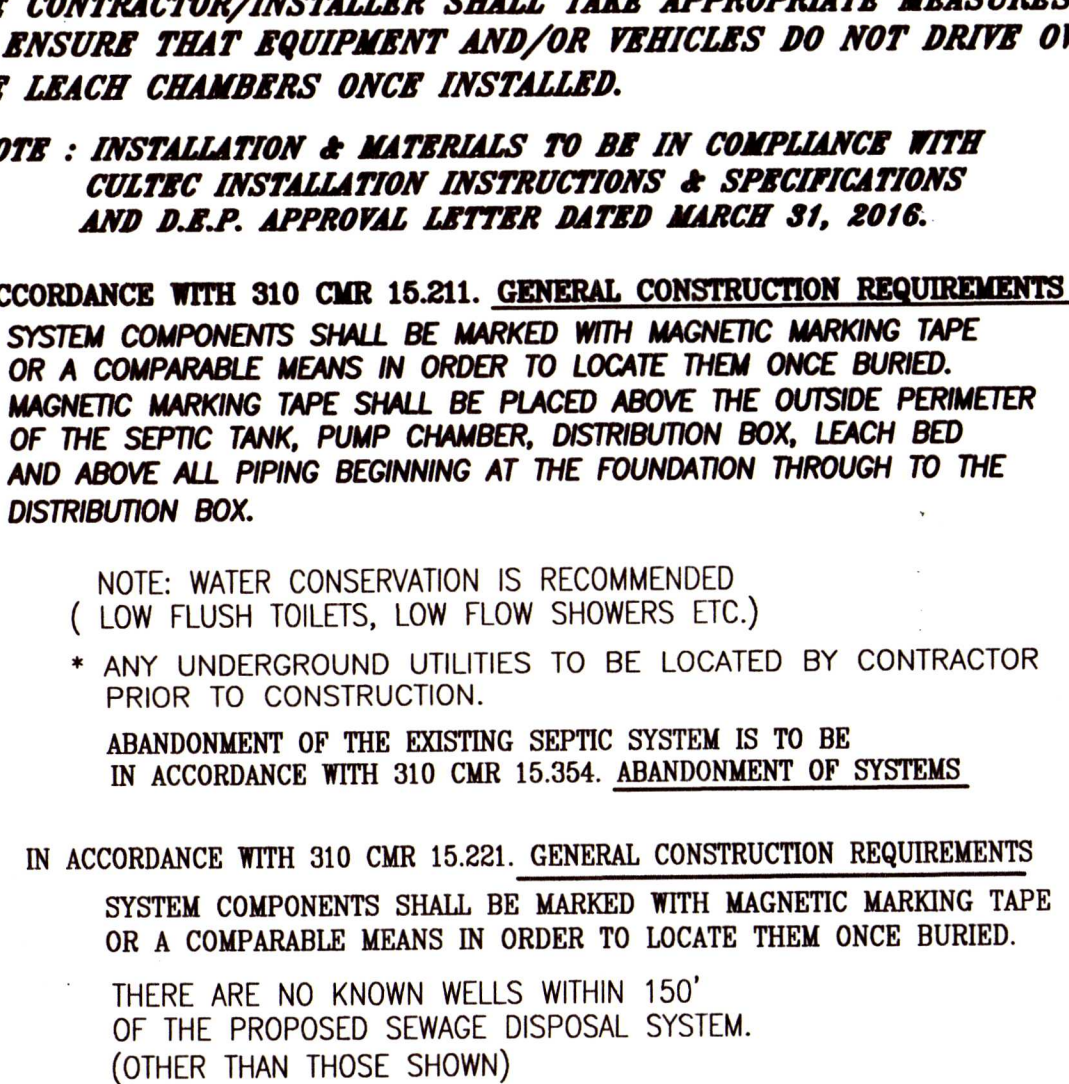
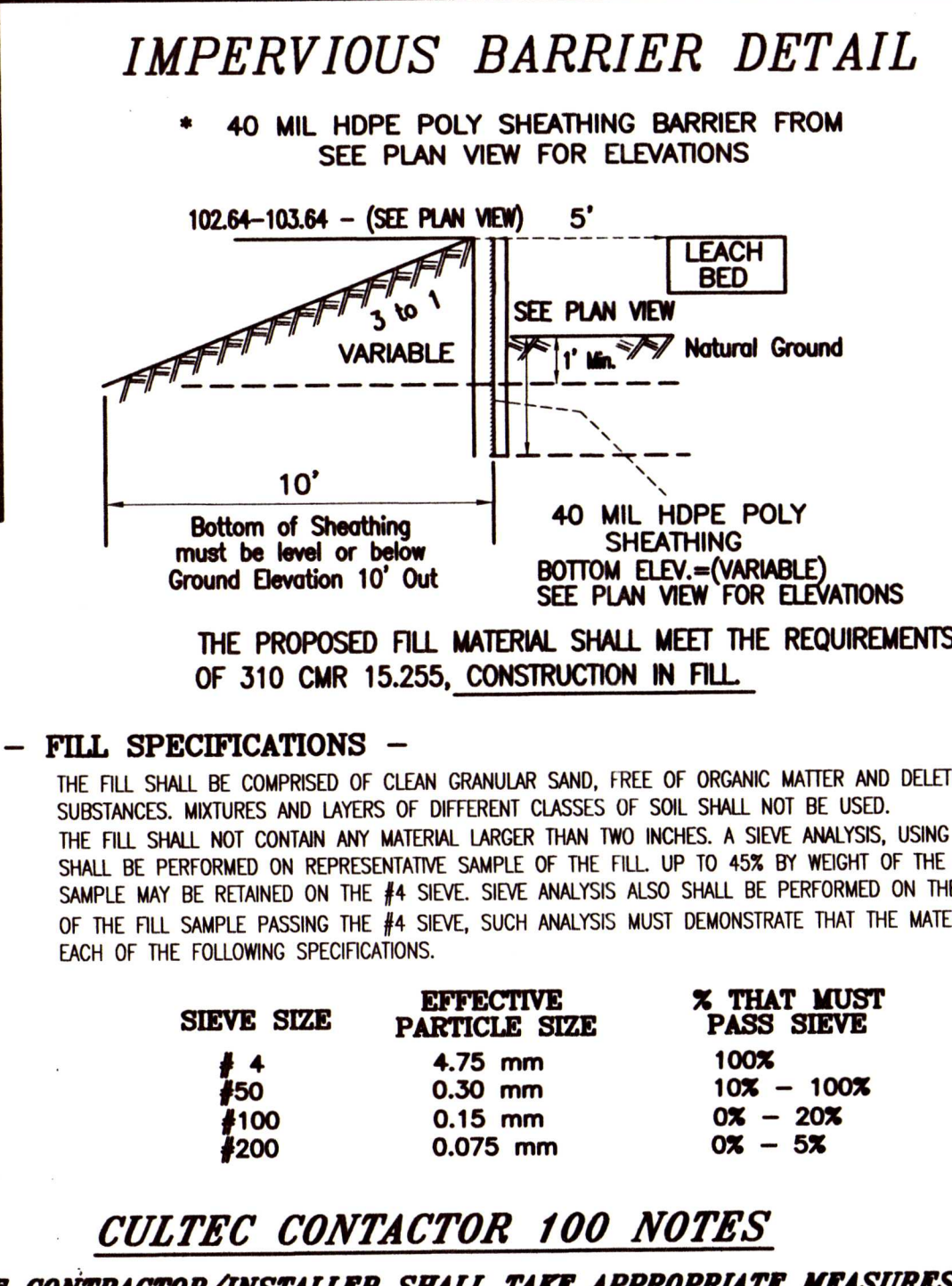
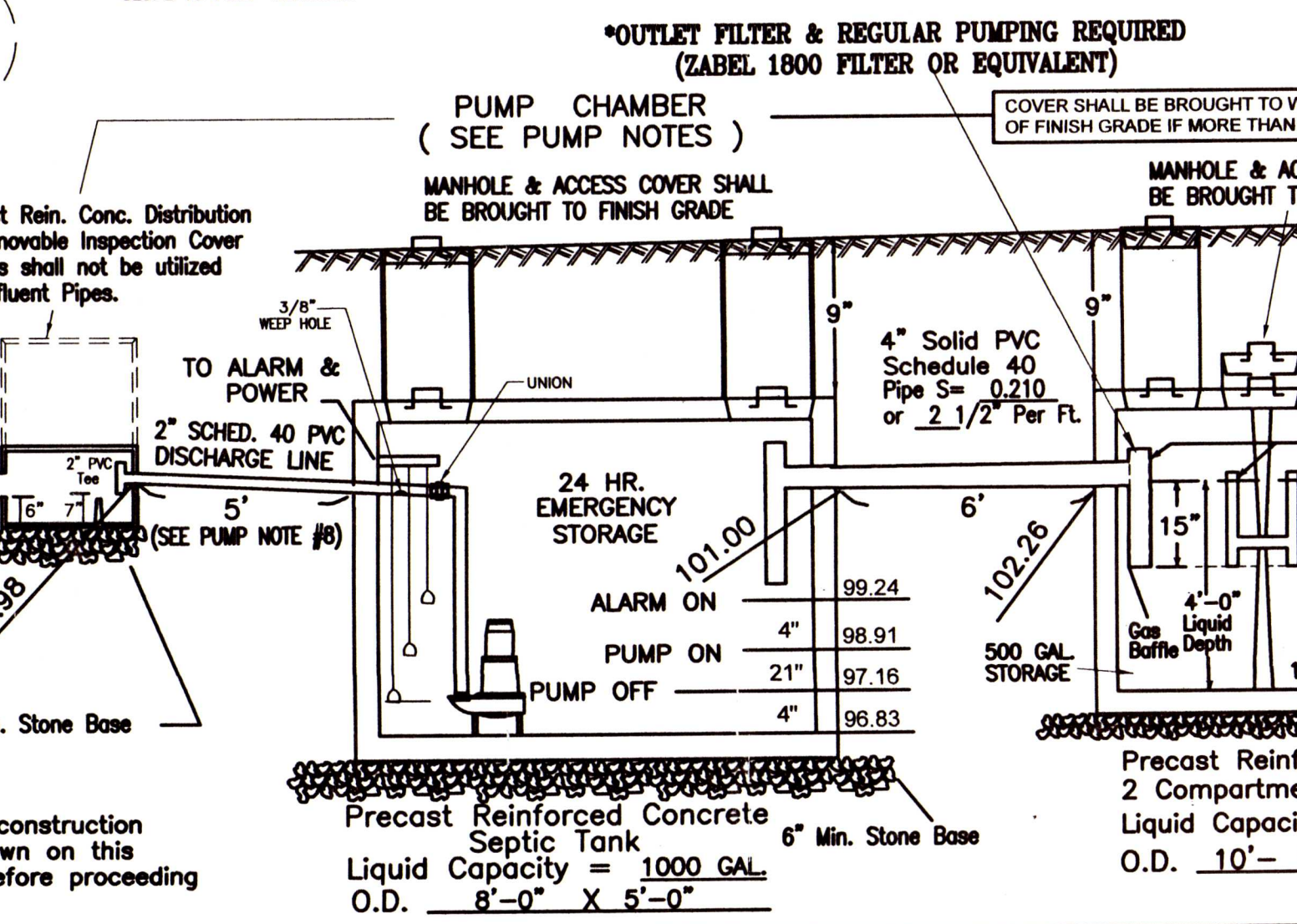
**DOSING CALCULATIONS**

16" = 1.33 FT. x 250 GAL./FT. = 333 GAL./DOSE  
330 GAL. = 333 GAL./DOSE = 1 DOSE/DAY (TITLE V)  
333 GAL. = 7.48 GAL./C.F. = 44.5 C.F.  
44.5 C.F. = 405 S.F. = 0.11 = 1 3/8" DEPTH

( SEPTIC TANK AND OUTLET EFFLUENT FILTER TO BE PUMPED AND CLEANED EVERY ONE - TWO YEARS )

Manhole is to be placed over the outlet end of the Septic Tank for access & maintenance of Effluent Filter. Manhole Cover is to be locked or bolted securely.

\* EXISTING PIPE IS NOT TO BE USED AS A BENCH MARK. PIPE ELEVATION SHALL BE CHECKED BY CONTRACTOR PRIOR TO INSTALLATION. IF PIPE ELEVATION DIFFERS SUBSTANTIALLY FROM THAT SHOWN ON THE PLAN, CONTACT SHEA ENGINEERING BEFORE PROCEEDING WITH INSTALLATION.



I CERTIFY THAT I AM CURRENTLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO 310 CMR 15.017 TO CONDUCT SOIL EVALUATIONS AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE, AND EXPERIENCE DESCRIBED IN 310 CMR 15.017. I FURTHER CERTIFY I CERTIFY THAT THE RESULTS OF MY SOIL EVALUATION, AS INDICATED ON THE ATTACHED SOIL EVALUATION FORM, ARE ACCURATE AND IN ACCORDANCE WITH 310CMR 15.100 THROUGH 15.107.

SIGNATURE *Steven Donatelli* DATE *3/11/2020*

**TEST HOLE 1**

	0	101.7
A	FINE SANDY LOAM	100.9
Bw	SANDY LOAM	98.9
C	SANDY LOAM MOTTLES	96.9
	5Y 6/2	92.2

DIGSAFE #2019-450-6254  
Soil Evaluator - STEVEN DONATELLI  
Witness - LENNY IZZO  
Date of Test - 8/27/19  
Perc Rate - 5 M.P.I.  
Design Rate - 0.60 LTAR (CLASS II SOILS)  
Design G.W. - (58") ELEV.= 97.2 (TR#3)  
Mottling - 58"

**CONSTRUCTION NOTES**

ALL TOPSOIL AND SUBSOIL OR ANY OTHER IMPERVIOUS MATERIAL BELOW THE TOP OF THE PEASTONE AND FOR A DISTANCE OF 5' IN ALL DIRECTIONS FROM THE LEACHING FACILITY TO BE REMOVED AND REPLACED WITH CLEAN GRANULAR SAND/GRAVEL.

THE FOLLOWING INSPECTIONS IF CHECKED ARE REQUIRED BY THE BOARD OF HEALTH.

- After Excavation
- After Pipe And Stone Placement
- After Final Grading 24 hr. Notice Required

DESIGN	CRITERIA	Total Daily Flow
3	Bdrms x 110 Gal/Bdrn/Day =	330 Gal/Day
No. of Leach Trenches	2	Length 45' Width 3'
Depth Below Inlet	6"	
Effective Leaching Area is equal to 6.7' times Total Linear Feet.		
90.0 L.F. x 6.7 =	603 S.F. Effective Leaching Area	
603 S.F. x 0.60	= 362 Gal/Day	
Total Leaching Area	gpD/Sq.Ft. =	Total Leaching Capacity

\* GARBAGE GRINDERS NOT ALLOWED / TO BE REMOVED IF ONE EXISTS

**APPLICANT**

DENNIS GRADY  
18 TAFT AVENUE  
MENDON, MA

**SITE**

18 TAFT AVENUE  
MENDON, MA.

**LEGEND**

T-103.3 - TOP IMPERVIOUS BARRIER  
B-101.0 - BOTTOM IMPERVIOUS BARRIER

--- FLOW DIRECTION  
--- 100 --- EXISTING CONTOUR  
--- 100.0 --- PROPOSED CONTOUR  
--- 100.00 --- EXISTING SPOT ELEVATION  
--- 100.00 --- PROPOSED SPOT ELEV.  
--- DEEP HOLE  
--- PERC HOLE

BENCH MARKS: ASSUMED DATUM  
PAINT DOT COR. WALL ELEV.= 100.00 / TOP OF FOUNDATION ELEV.= 106.14

**~ REPAIR IA SYSTEM ~**

**SEWAGE DISPOSAL PLAN**  
IN  
**MENDON, MA**

SCALE 1" = 10' MARCH 4, 2020

I CERTIFY THAT THE SEWAGE DISPOSAL FACILITY IS DESIGNED IN ACCORDANCE WITH TITLE 5 OF THE STATE ENVIRONMENTAL CODE AND THE REGULATIONS OF THE MENDON BOARD OF HEALTH.

NOTE: THIS PLAN WAS NOT MADE FROM AN INSTRUMENT PROPERTY LINE SURVEY AND IS DRAWN FOR SEWAGE DISPOSAL PURPOSES ONLY AND NOT FOR PROPERTY LINE DETERMINATION.

APPROVAL

DISAPPROVAL

SIGNATURE

DATE

EDWARD C. SHEA  
No. 29798  
CIVIL  
REGISTERED ENGINEER

RECEIVED  
MAR 11 2020  
By *CSH*

**Shea ENGINEERING & SURVEYING, INC.**  
76 UXBRIDGE ROAD, MENDON, MASS. - (508) 473-1163  
GRADY - 18 TAFT AVENUE - MENDON