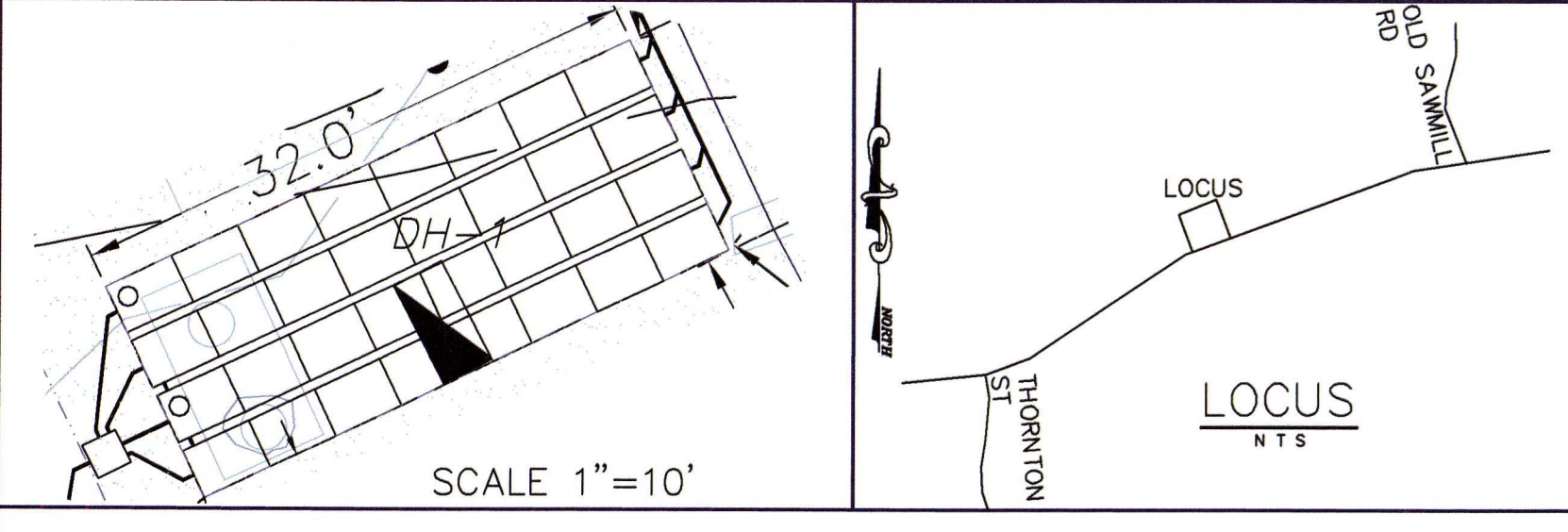


SOIL TEST DATA

PERFORMED BY: MICHAEL A. CATALANO JR.
 WITNESSED BY: TOM RYDER, P.E. - Health Agent
 DATE OF TEST: 07-29-2020

Soil was too wet to perc and was sent to the Lab. Yankee Engineering Soil Gradation analyses report:
 1. USDA Textural Class = Loamy Sand
 2. MA Sec 15.24.3 Class = Class 1
 3. Perc. Rate = 10 MIN/IN

O.H. #	Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Matting	Other (Structures, Stones, Boulders, Consistency % Gravel)
1	00-08"	A	FSL	10 YR 3/2		FRIABLE, LOOSE FRIABLE, SINGLE GRAIN FINE SAND FIRM BLOCKY
	08-20"	C1	SL	10 YR 6/1		
	20-30"	C2	SL	10 YR 6/4		
	30-111"	C3	SL	10 YR 3/1	◎30	
2	00-10"	A	FSL	10 YR 3/2		FRIABLE, LOOSE FRIABLE, SINGLE GRAIN FIRM, GRANULAR FIRM, GRANULAR
	10-36"	B	SL	10 YR 5/4		
	36-84"	C2	SL	5 YR 5/4		
	84-111"	C3	SL	10 YR 3/1		



CONSTRUCTION SEQUENCE & EROSION CONTROLS

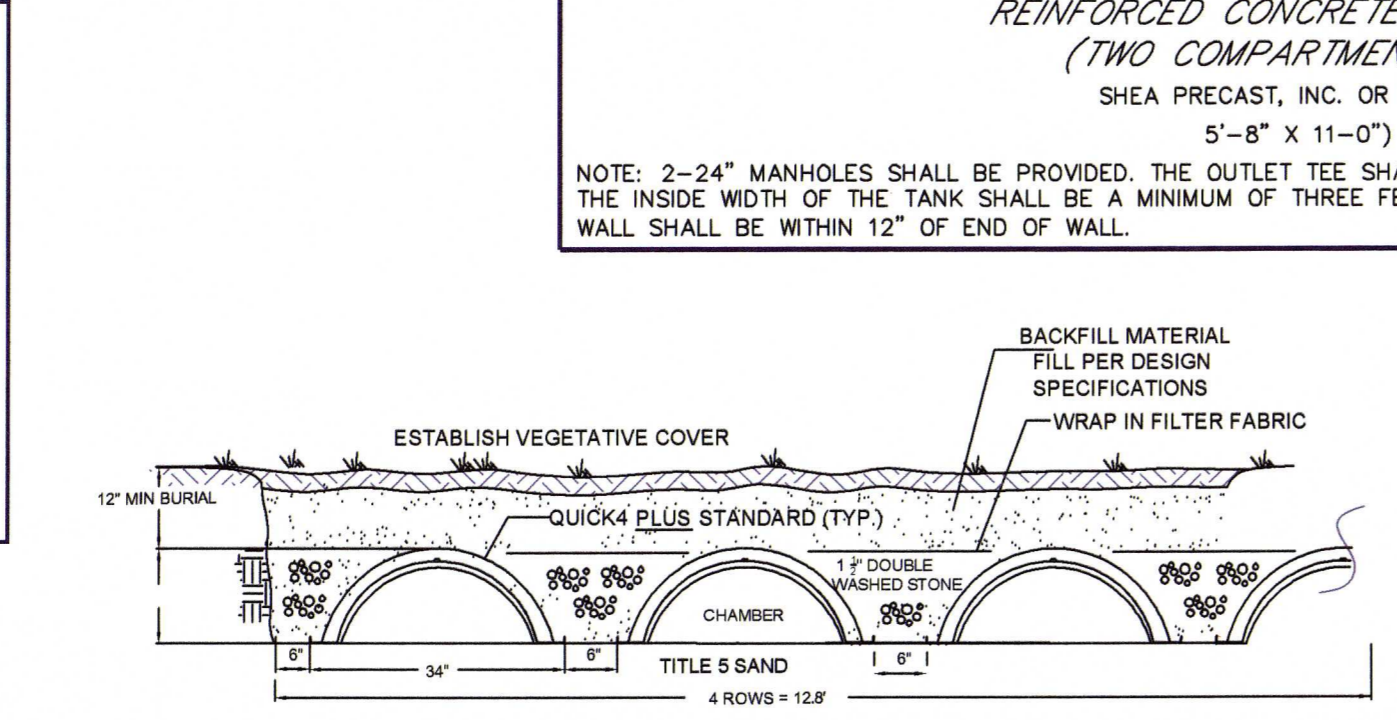
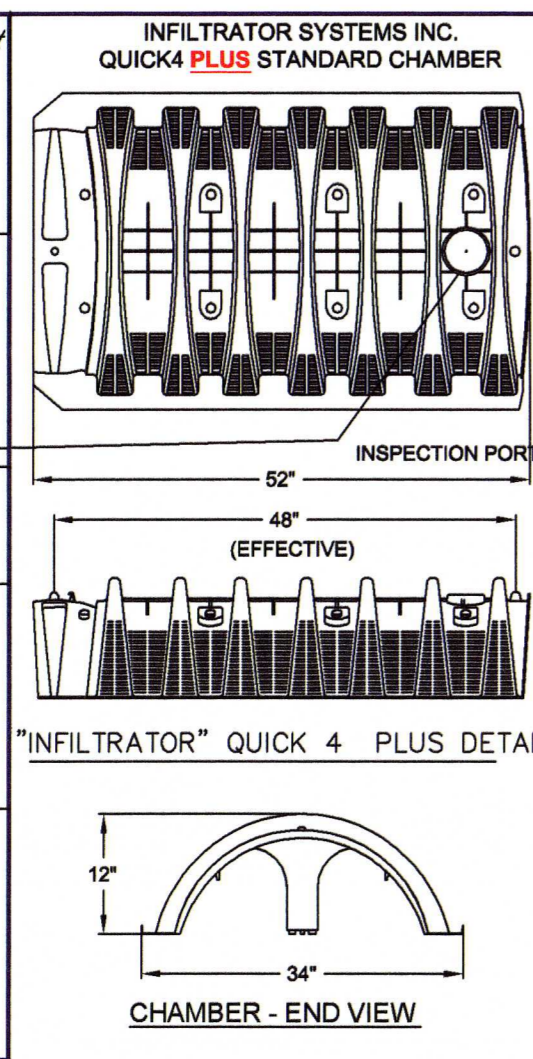
1. THE CONTRACTOR AND ALL SUB-CONTRACTORS ARE TO BE MADE AWARE OF THE ORDER OF CONDITIONS AS GRANTED BY THE MENDON CONSERVATION COMMISSION AND ITS REGULATIONS APPLICABLE TO THIS PROJECT.
2. STAKED STRAW WATTLES AND SILT FENCES ARE TO BE INSTALLED WHERE SHOWN ON THE SITE PLANS. THE CONTRACTOR AND THE OWNER ARE RESPONSIBLE FOR THE PROPER MAINTENANCE OF THE STRAW WATTLE DIKE AND TO IDENTIFY AND CORRECT ALL SOURCES OF EROSION. EXTRA STRAW WATTLES ARE TO BE STORED ON SITE IN ORDER TO QUICKLY REPAIR EROSION PRONE AREAS.
3. ROUGH GRADING AND STUMP REMOVAL ARE TO BE CONFINED TO AREAS AS SHOWN ON THE DESIGN PLAN. CONSTRUCTION MATERIALS ARE TO BE STOCKPILED BEHIND THE EROSION CONTROLS IN A MANNER WHICH WILL NOT IMPACT THE LOCAL WETLAND RESOURCE AREA. ALL FUELING OF CONSTRUCTION EQUIPMENT IS TO BE DONE IN THE UPLANDS OUTSIDE OF THE BUFFER ZONE WHEN PRACTICABLE.
4. TEMPORARY STABILIZATION OF DISTURBED AREAS IS TO LIMIT EROSION TOWARD THE WETLAND AREAS. ALL TRENCHES ARE TO BE FILLED ON A DAILY BASIS WITH SPECIAL CARE TAKEN TO AVOID ROUTING RAINFALL THROUGH GULLIES TOWARD THE WETLAND AREAS. THE CONTRACTOR IS TO USE PROPER JUDGMENT RELATIVE TO CONSTRUCTION PRACTICES DURING ADVERSE WEATHER CONDITIONS OR PERIODS OF HIGH GROUNDWATER.
5. PERIODIC MAINTENANCE OF THE EROSION CONTROL STRUCTURES IS REQUIRED. THE STRAW WATTLE DIKE IS TO SERVE AS THE LIMIT OF WORK.
6. ALL GRADED AREAS ARE TO BE LOAMED AND SEEDED AS SOON AS POSSIBLE IN ORDER TO INSURE THE RAPID STABILIZATION OF THE EROSION PRONE AREAS. A CONSERVATION SSEED MIXTURE OF 20% ANNUAL RYEGRASS, 30% CREEPING RED FESCUE & 50% MERRIAM KENTUCKY BLUEGRASS IS RECOMMENDED.
7. THE EROSION CONTROL STRUCTURES ARE TO REMAIN IN PLACE FOR AT LEAST ONE FULL GROWING SEASON. PERIODIC INSPECTIONS OF THESE EROSION CONTROL STRUCTURES IS TO CONTINUE DURING THIS PHASE OF VEGETATION STABILIZATION. IN AREAS WHERE SILT FENCES HAVE BEEN INSTALLED, THEY ARE TO BE REMOVED ONCE THE SLOPES HAVE BEEN STABILIZED IN ORDER TO PROMOTE MIGRATION OF LOCAL AMPHIBIOUS SPECIES.
8. THE CONTRACTOR IS TO STABILIZE ALL SLOPES IMMEDIATELY UPON COMPLETION OF WORK WITHIN EACH PHASE TO PREVENT EROSION OF SOILS INTO THE RESOURCE AREAS OR THEIR ASSOCIATED BUFFER ZONES. DURING THE GROW-IN PERIOD, IF EROSION OF SLOPES SHOULD OCCUR, IMMEDIATE ATTENTION IS TO BE GIVEN TO STABILIZING THESE AREAS TO PREVENT IMPACTS TO RESOURCE AREAS AND OR THEIR ASSOCIATED BUFFER ZONES.
9. PERIODIC INSPECTIONS OF THE ENTIRE CONSTRUCTION SITE ARE TO BE PERFORMED BY A COMPETENT REPRESENTATIVE WHO WILL INSURE THE ADHERENCE TO THE REGULATIONS AS SET FORTH IN 310 CMR 10.00. THE CONTRACTOR IS TO ALLOW UNIMPEDED ACCESS TO THE JURISDICTIONAL AREAS BY ALL MEMBERS OF THE MENDON CONSERVATION COMMISSION IN ORDER THAT THEY MAY VIEW THE CONSTRUCTION PROCEDURES. NO UNAUTHORIZED INDIVIDUALS ARE TO ENTER THE CONSTRUCTION AREA WITHOUT THE EXPRESSED CONSENT OF THE OWNER.

ALL KNOWN SEPTIC SYSTEMS WITHIN 100' OF PROPOSED WELL ARE SHOWN ON THE PLAN

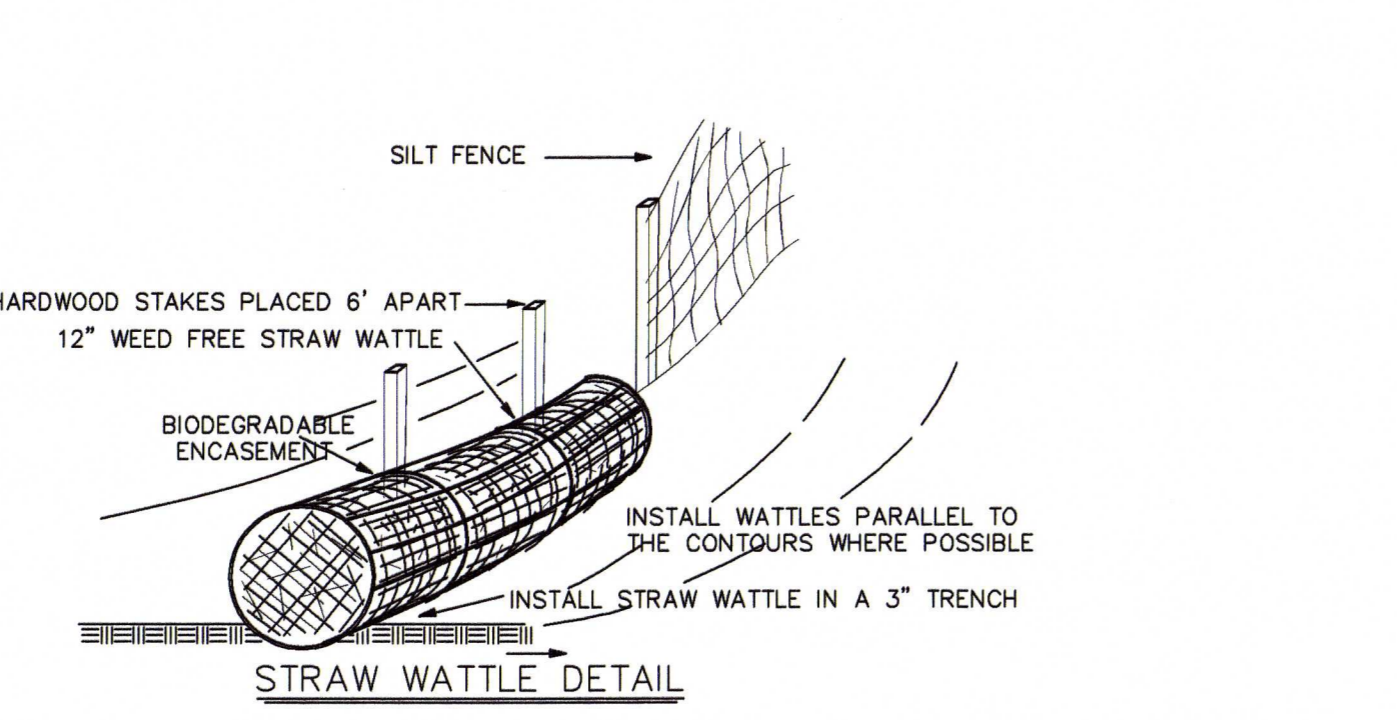
LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC., AND COMPILING INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. THE LOCATION SHOWN SHALL BE CONSIDERED APPROXIMATE BEFORE CONSTRUCTION. THE LOCATION OF UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR. IN ACCORDANCE WITH CH. 82, SEC. 40 AS AMENDED, ALL UTILITY COMPANIES AND APPLICABLE GOVERNMENT AGENCIES MUST BE CONTACTED. CONTACT "DIG-SAFE" AT 1-888-344-7233.

EXISTING WELL NOTES:

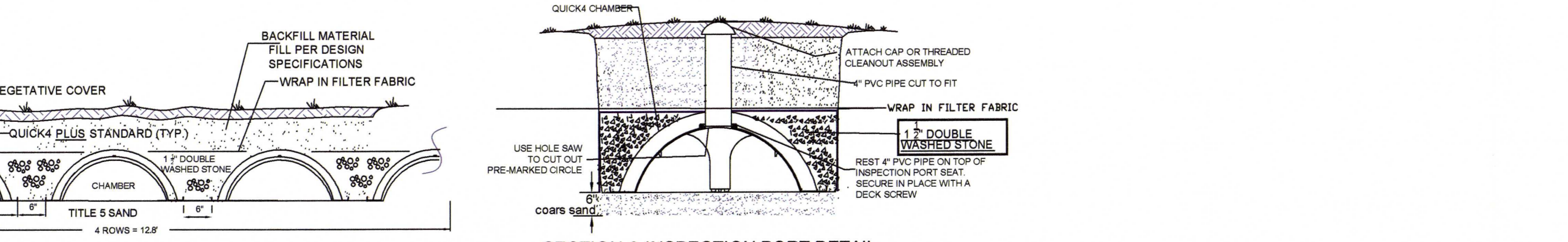
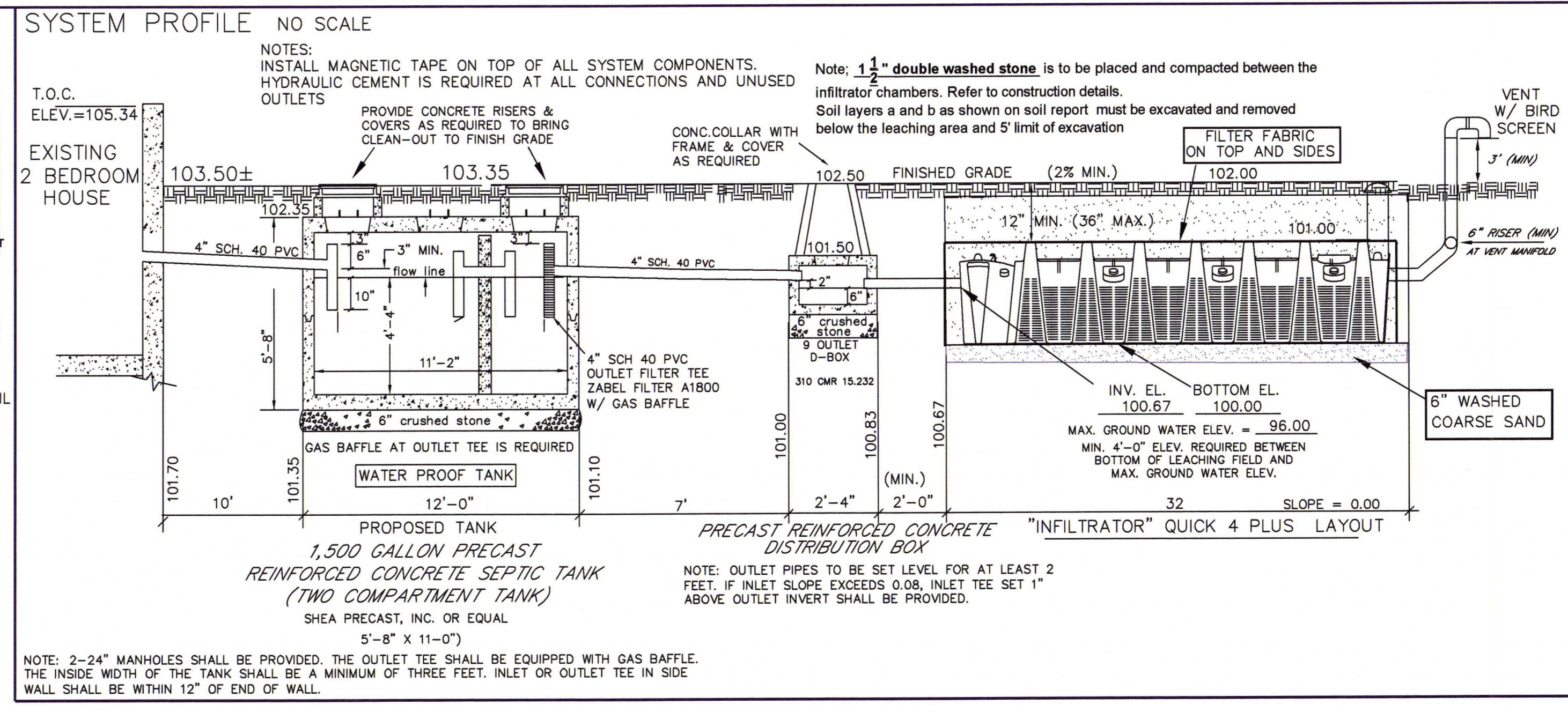
- 1) ABANDONED WELL SHALL BE DECOMMISSIONED SO AS TO PREVENT THE WELL INCLUDING THE ANNULAR SPACE OUTSIDE THE CASING, FROM BEING A CHANNEL ALLOWING THE VERTICAL MOVEMENT OF WATER.
- 2) THE PROPERTY OWNER SHALL ENSURE THAT ABANDONED WELL IS PROPERLY PLUGGED BEFORE WORK AT THE SITE IS COMPLETED. ONLY CERTIFIED WELL DRILLERS MAY PLUG ABANDONED WELL.
- 3) ABANDONED WELL SHALL BE COMPLETELY FILLED WITH A LOW PERMEABILITY GROUT, WHICH CURES WITH A FINAL PERMEABILITY OF LESS THAN 1X10⁻⁷ CM/SEC. WELLS SHALL BE PLUGGED WITH NEAT CEMENT GROUT, SAND CEMENT GROUT, CONCRETE, OR BENTONITE GROUT.



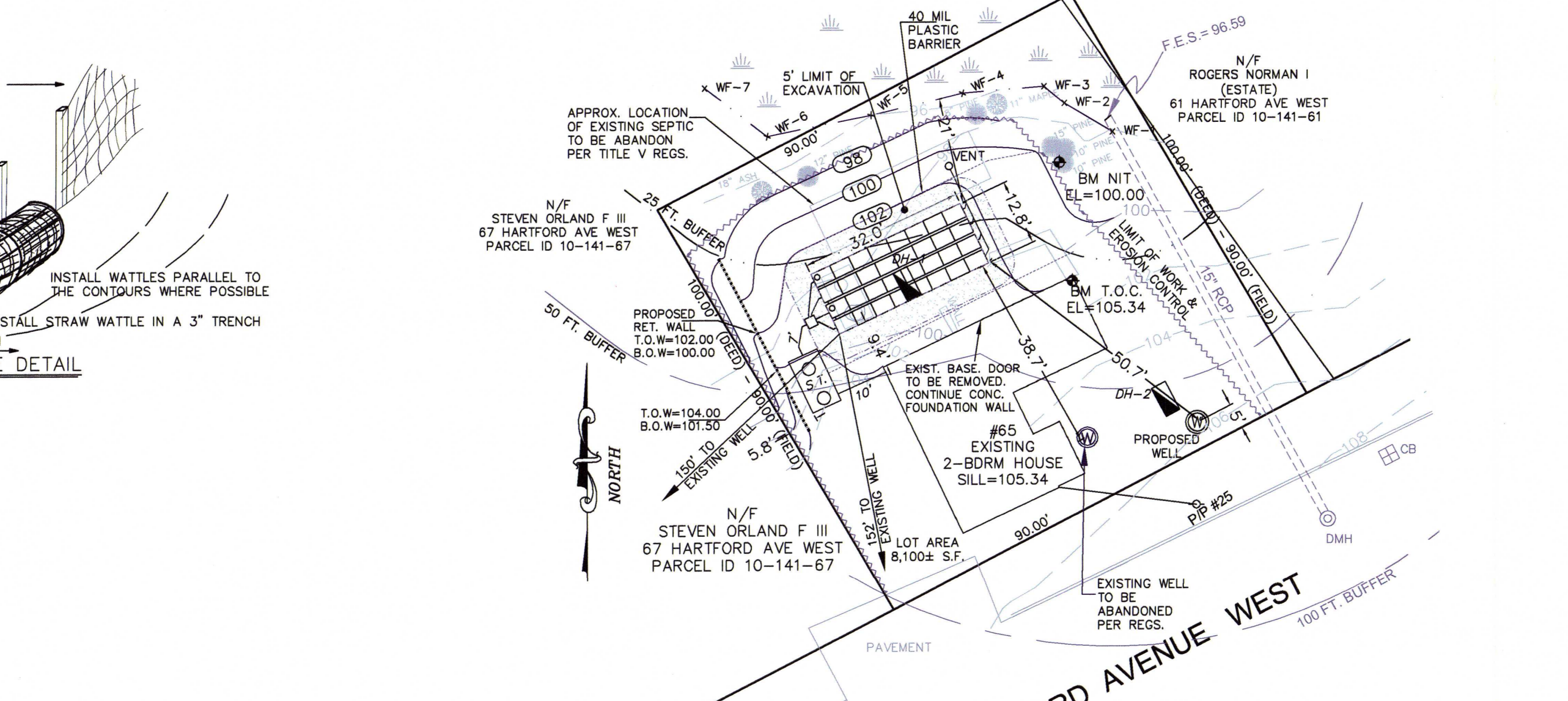
INFILTRATOR SYSTEMS INC. QUICK4 PLUS STANDARD CHAMBER BED NOT TO SCALE



STRAW WATTLE DETAIL



SECTION & INSPECTION PORT DETAIL



GRAPHIC SCALE 1 inch = 20 ft

WAIVER REQUESTS

SECTION#	DESCRIPTION	REQUIRED	PROVIDED
15.211(1)	DISTANCE TO PROPOSED PRIVATE WELL ON THE PROPERTY	100'	50.7'
15.211(1)	SAS TO FOUNDATION WALL	20'	9.4'
15.211(1)	TANK TO PROPERTY LINE	10'	5.8'
Well Regs	WELL TO PROPERTY LINE	10'	5'±

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION TO CONFORM TO TITLE 5 OF THE MASSACHUSETTS STATE ENVIRONMENTAL CODE (310 CMR 15.000) AND THE BOARD OF HEALTH REQUIREMENTS FOR THE TOWN OF MENDON MASSACHUSETTS.
2. TIGHT JOINT (TJ) PIPING TO CONSIST OF POLYVINYL CHLORIDE PIPE (PVC) SCHEDULE 40, UNLESS OTHERWISE NOTED, OR AUTHORIZED. ALL PIPES TO BE LAID ON A FIRM BASE. TIGHT JOINT PIPES TO BE WATER TIGHT.
3. ALL TOPSOIL AND DELETERIOUS MATERIAL, IF ANY, MUST BE EXCAVATED AND REMOVED BELOW THE LEACHING AREA AND TO A DISTANCE OF 5 FEET FROM ALL SIDES OF THE LEACHING AREA. BACK FILL AS REQUIRED WITH A CLEAN GRAVEL OR SAND FILL MATERIAL, FREE FROM FINES, CLAY, ORGANIC MATTER AND LARGE BOULDERS. HAVING A PERCOLATION RATE IN ITS ORIGINAL LOCATION AND AFTER PLACEMENT OF 2 MINUTES PER INCH OR FASTER. FILL SHALL BE PROPERLY PLACED AND COMPACTED TO MINIMIZE SETTLEMENT. FILL AS PER 310CMR 15.255 (3)
4. HEAVY MACHINERY SHALL NOT BE PERMITTED TO PASS OVER THE LEACHING AREA.
5. FOR PROPER PERFORMANCE, SEPTIC TANK SHOULD BE INSPECTED AT LEAST ONCE A YEAR AND WHEN THE TOTAL DEPTH OF SCUM AND SOLIDS EXCEEDS 1/3 OF THE LIQUID DEPTH OF THE TANK, THE SEPTIC TANK SHOULD BE PUMPED. USUALLY EVERY 2 YEARS.
6. ANY CONDITIONS ENCOUNTERED DURING CONSTRUCTION DIFFERING FROM THOSE SHOWN HEREON SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE CONSTRUCTION CONTINUES.
7. THE SUBSURFACE SEWAGE DISPOSAL SYSTEM SHALL NOT BE BACK-FILLED PRIOR TO INSPECTION BY THE MENDON BOARD OF HEALTH AND RAOUF MANKARYOUS, THE DESIGN ENGINEER.
8. UNDERGROUND, AS WELL AS OVERHEAD UTILITY DATA INDICATED IS PLOTTED FROM VISIBLE FIELD LOCATIONS AND AVAILABLE RECORDS. THE LOCATIONS ARE APPROXIMATE ONLY AND VERIFICATION SHOULD BE MADE IN THE FIELD. DIAL 1-888-DIG-SAFE PRIOR TO CONSTRUCTION.
9. NO PROPERTY SURVEY WAS MADE AS PART OF THIS PLAN. PROPERTY LINE INFORMATION INDICATED WAS OBTAINED FROM DEED OF LAND. EXISTING PROPERTY LINES TO REMAIN UNCHANGED.
10. TOPOGRAPHIC SURVEY CONDUCTED BY RAOUF MANKARYOUS AND IS BASED UPON AN ASSUMED (B.M.) ELEV. = SEE PLAN
11. THE PROPOSED CONSTRUCTION IS SUBJECT TO THE WETLANDS PROTECTION ACT. THE MENDON CONSERVATION COMMISSION NEED TO BE CONTACTED. WETLANDS LESS THAN 100' AWAY.
12. ALL KNOWN AND PROPOSED WATER SUPPLIES WITHIN 200' OF SYSTEM ARE SHOWN.
13. SEPTIC TANK AND LEACHING FACILITY TO BE A MIN. OF 25' FROM ALL SURFACE AND SUBSURFACE DRAINS.
14. WATER SOFTENERS ARE NOT TO BE CONNECTED TO SEPTIC TANK.
15. HYDRAULIC CEMENT REQUIRED AT ALL CONNECTIONS.
16. AREA IS NOT A TRIBUTARY TO A PUBLIC DRINKING WATER SUPPLY. PUBLIC DRINKING WATER SUPPLIES: NONE WITHIN 500' OF SEPTIC SYSTEM.
17. DEED REFERENCE: WORCESTER COUNTY, BOOK 64037 PAGE 352 ASSESSOR PARCEL ID 10-141-65-0

310 CMR 15.255(3) SYSTEM FILL SPECIFICATIONS

SEIVE SIZE	EFFECTIVE PARTICLE SIZE	% THAT MUST PASS SEIVE
#4	4.75 mm	100%
#50	0.30 mm	10%-100%
#100	0.15 mm	0%-20%
#200	0.075 mm	0%-5%

NOTES: A SEIVE ANALYSIS IS REQUIRED FOR ALL SEPTIC SYSTEM SAND PRIOR TO INSTALLATION. DOCUMENTATION OF SEIVE ANALYSIS IS REQUIRED.

RAOUF MANKARYOUS R.S. #1359

DESIGN CRITERIA - TITLE 5

1. TYPE OF ESTABLISHMENT: 2-BEDROOM HOUSE
2. DESIGN FLOW: (MINIMUM 3 BDRM) 3-BEDROOMS AT 110 gpd = 330 gpd
3. SEPTIC TANK SIZE: 1,500 GALLONS NO ADDITIONAL CAPACITY HAS BEEN PROVIDED FOR A GARBAGE DISPOSAL, NO GARBAGE GRINDER (DISPOSAL) ALLOWED.
4. DESIGN PERCOLATION RATE: 8 min./inch SOIL CLASS: LONG TERM ACCEPTANCE RATE (LTAR): 0.66 gpd/sq.ft.
5. LEACHING CAPACITY PROVIDED: INFILTRATOR QUICK 4 PLUS LEACHING AREA REQUIRED = 330/0.66 = 500 SF EFFECTIVE LEACHING AREA IN BED SYSTEM = 4.72 SF/LF TOTAL LENGTH REQUIRED = 500/4.72 = 106 LF NUMBER OF QUICK 4 PLUS STD CHAMBERS REQUIRED = 106/4 = 27 NUMBER OF QUICK 4 PLUS STD CHAMBERS PROPOSED = 32

LEGEND

---100--- EXISTING CONTOURS ◻ TEST PIT LOCATION
 ---00--- PROPOSED CONTOURS ◉ PERCOLATION TEST LOCATION

DESIGNED BY: R. MANKARYOUS DRAWN BY: R. MANKARYOUS DATE: 05-10-2021
 SCALE: 1" = 20' SURVEY BY: CREW SHEET: 1 OF 1

ALPHA OMEGA ENGINEERING INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 ENVIRONMENTAL CONSULTANTS
 25 HIGHLAND VIEW DR
 SUTTON, MA 01590
 508-865-9551

SEPTIC SYSTEM REPAIR AND WELL PLAN
 LOCATED AT
 65 HARTFORD AVE. WEST
 PREPARED FOR AND OWNED BY
ANDREY BELOV
 3124 POST ROAD
 WARWICK, RI 02886

REVISION: B.O.H. PERMIT JOB # 21-0520

