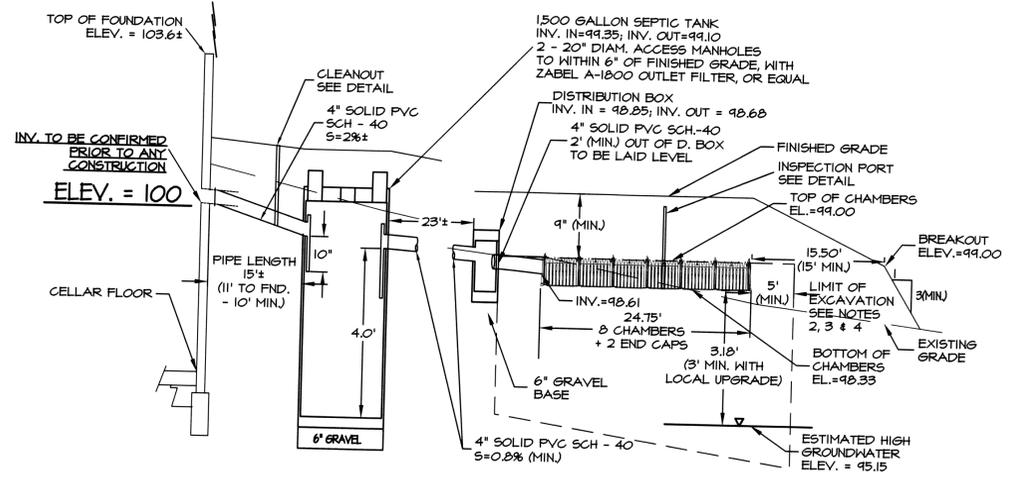
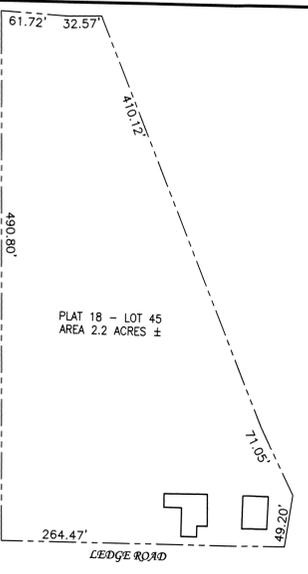


SITE PLAN
SCALE 1"=30'

DESCRIPTION	ELEVATION
TOP OF FOUNDATION	103.6±
INVERT AT FOUNDATION	99.35
INVERT IN - SEPTIC TANK	TO BE DETERMINED
INVERT OUT - SEPTIC TANK	43.10
INVERT IN - DIST. BOX	48.85
INVERT OUT - DIST. BOX	48.85
INVERT BEGINNING CHAMBERS	48.85
ELEV. TOP OF CHAMBERS (BREAKOUT)	44.00
ELEV. BOTTOM OF CHAMBERS	48.33
EST. SEASONAL HIGH GW	45.15

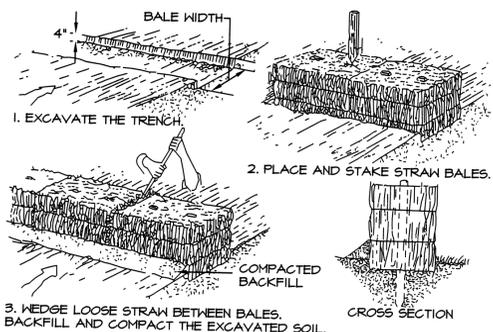


QUICK4 PLUS STANDARD LOW PROFILE CHAMBER SYSTEM PROFILE
SCALES (HORIZONTAL 1"=10' VERTICAL 1"=2')

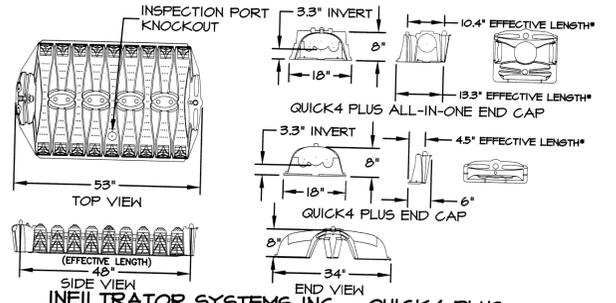


EROSION & SEDIMENTATION CONTROL NOTES:

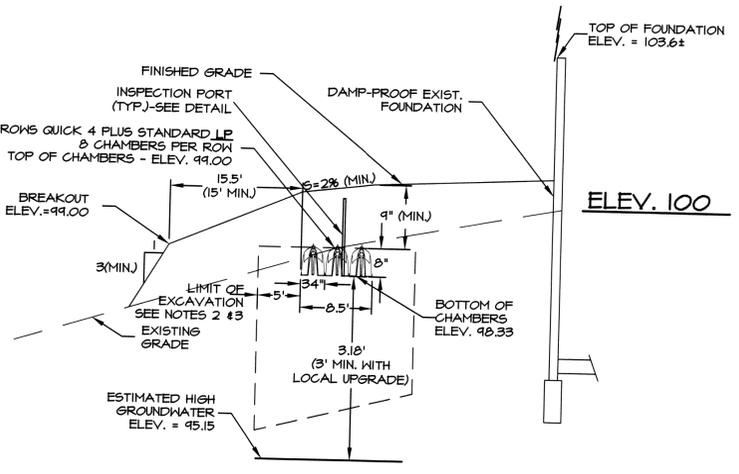
- ALL PERIMETER EROSION AND SEDIMENTATION CONTROLS MUST BE INSTALLED PRIOR TO THE COMMENCEMENT OF EARTHWORK.
- ACCESSIBLE RESERVES OF HAY BALES AND STAKES ARE TO BE MAINTAINED ON SITE FOR ROUTINE MAINTENANCE AND IN THE EVENT OF UNANTICIPATED PROBLEMS REQUIRING EMERGENCY RESPONSE.
- HAY BALES SHOULD BE INSTALLED IN ACCORDANCE WITH THE DETAILS PROVIDED.
- NO WORK IS TO OCCUR ON THE WETLAND SIDE OF THE PERIMETER EROSION AND SEDIMENTATION CONTROLS. ALL PERIMETER CONTROLS SERVE AS THE PROJECT LIMIT OF DISTURBANCE.
- NO STONES, BRUSH, CONSTRUCTION DEBRIS, LITTER, OR OTHER MATERIALS ARE TO BE DEPOSITED ON THE WETLAND SIDE OF THE EROSION AND SEDIMENTATION CONTROLS.
- ALL DISTURBED SOILS NOT DESIGNATED FOR OTHER SURFACE TREATMENT ARE TO BE LOAMED AND SEEDED IMMEDIATELY FOLLOWING FINAL GRADING. APPROPRIATE PRECAUTIONS SHOULD BE TAKEN TO PREVENT THE TRANSPORT OF SOIL OFFSITE FROM CONSTRUCTION EQUIPMENT.
- ALL PERIMETER EROSION AND SEDIMENTATION CONTROLS MUST BE PROPERLY MAINTAINED AND MUST REMAIN IN PLACE UNTIL THE SOILS HAVE BEEN STABILIZED TO THE SATISFACTION OF THE ENGINEER AND THE SEEKONK CONSERVATION COMMISSION.



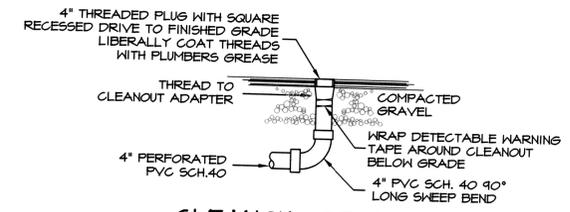
HAY BALE DETAIL
(NOT TO SCALE)



INFILTRATOR SYSTEMS INC. - QUICK4 PLUS STANDARD LOW PROFILE CHAMBER
(NOT TO SCALE)



QUICK4 PLUS STANDARD LOW PROFILE CHAMBER BED SECTION DETAIL
SCALES (HORIZONTAL 1"=10' VERTICAL 1"=2')



CLEANOUT DETAIL
NOT TO SCALE

DESIGN DATA:

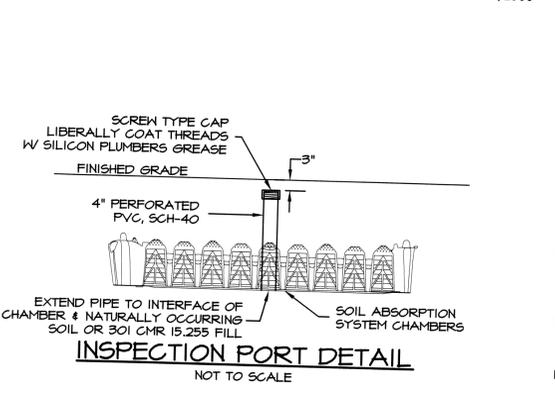
DAILY SEWAGE FLOW
EXISTING BEDROOMS - ONE
DAILY FLOW = 110 GAL/DAY/BEDROOM x 1 BEDROOM = 110 GALLONS
MINIMUM DAILY FLOW WITH DEED RESTRICTION - 220 GALLONS

SEPTIC TANK REQUIREMENTS
VOLUME = 2 x DAILY FLOW = 220 GALLONS
MINIMUM SIZE = 1500 GALLONS

LOADING:
PERCOLATION TEST - SIEVE ANALYSIS
EFFLUENT LOADING RATE - CLASS 1 SOIL - 0.14 GAL/SF/DAY @ 85% SAND
MINIMUM LEACHING AREA REQUIRED - 110 GPD/0.14 GAL/SF/DAY = 785 SF.
INFILTRATOR QUICK 4 PLUS STANDARD LP (3.3-INCH INVERT) - 4.73 SF/LP IN FIELD
MINIMUM LENGTH REQUIRED 144 SF/4.73 SF/LP = 32 LF.
PROPOSED LEACHING AREA 24 UNITS - USE 3 ROWS X 8 UNITS LONG + 2 END CAPS/ROW
TOTAL LEACHING AREA = (24 x 4') + (2 x 0.375' x 3 ROWS) x 4.73 SF/LP = 98 L.F. x 4.73 = 464 SF.
TOTAL LEACHING CAPACITY = 98 L.F. x 4.73 SF/LP x 0.14 GPD/SF. = 343 GAL/DAY > 110 GPD
DEED RESTRICTION REQUIRED

TEST HOLE 2				
ORIGINAL GROUND ELEVATION = 97.15				
DEPTH	HORIZON	TEXTURE	COLOR	MOTTLING
0' - 24"	FILL	GRAVEL	-	-
24" - 32"	A	LOAM	10 YR 2/1	24"
32" - 40"	B	SANDY LOAM	2.5 Y 7/2	-
40" - 54"	C1	FINE S. LOAM	2.5 Y 9/4	-
OBSERVED GROUNDWATER - 10' WEeping FROM PIT FACE - 26"				
ESTIMATED S.H.G.W. = 24" (ELEV. 45.15) TOO NET TO PERG.				

TEST HOLE 3				
ORIGINAL GROUND ELEVATION = 98.5				
DEPTH	HORIZON	TEXTURE	COLOR	MOTTLING
0' - 34"	FILL	GRAVEL	-	-
34" - 44"	A	LOAM	10 YR 2/1	-
44" - 100"	B	FINE S. LOAM	2.5 Y 7/2	-
OBSERVED GROUNDWATER - NONE WEeping FROM PIT FACE - 52"				
ESTIMATED S.H.G.W. = 52" (ELEV. 94.17) TOO NET TO PERG. - SAMPLE TAKEN FROM C1 AT 52"				
TESTING BY RALPH I. MALOON - SE. 1468 TESTING WITNESS BETH HALLAL				



INSPECTION PORT DETAIL
NOT TO SCALE

LOT INFORMATION
640 LEDGE ROAD
ASSESSORS PLAT NO. 18, LOT 45
ZONE - R-2
AREA = 2.2± AC
OWNER: ROBERT A. FIERO

LEGEND

100	EXISTING CONTOUR	+ 100.00	FINISHED SPOT GRADE
-100	PROPOSED CONTOUR	X 100.00	EXISTING SPOT GRADE
M.A. STD.	MASSACHUSETTS STANDARD	T. C.	TOP OF CURB
INV.	INVERT OF PIPE	B.	BOTTOM OF CURB
P. V. C.	POLYVINYL CHLORIDE PIPE	ST	SEPTIC TANK
S. C. R.	STANDARD DIMENSION RATIO	DB	DISTRIBUTION BOX
REINFORCED	REINFORCED CONCRETE PIPE	DB	DEEP OBSERVATION HOLE
CONC.	CONCRETE (BIT. OR P. C.)		
BIT.	BITUMINOUS		
P.	PORTLAND CEMENT		
TYP.	TYPICAL		

LOCATION MAP
NOT TO SCALE

- NOTES:**
- ALL WORK SHALL CONFORM TO THE 310 CMR 15.00 STATE ENVIRONMENTAL CODE - TITLE 5 AND THE RULES AND REGULATIONS OF THE SEEKONK BOARD OF HEALTH.
 - STRIP ALL TOPSOIL, SUBSOIL, FILL AND UNSUITABLE MATERIAL, TREE ROOTS AND STUMPS AND ANY OTHER IMPERVIOUS OR SPECIFIED SOIL IN THE AREA OF THE ALL DIRECTIONS, WHERE POSSIBLE. STRIP MATERIAL VERTICALLY 3" MINIMUM INTO THE NATURALLY OCCURRING FERROUS MATERIAL. REPLACE WITH GRANULAR FILL MEETING THE LATEST SPECIFICATIONS OF 310 CMR 15.255(3). ACTUAL FILL MATERIAL IS SUBJECT TO APPROVAL BY THE DESIGN ENGINEER AND/OR SEEKONK HEALTH AGENT. THE DESIGN ENGINEER AND/OR THE SEEKONK HEALTH AGENT MAY ALSO REQUIRE A SIEVE ANALYSIS OF THE FILL MATERIAL.
 - THE CONTRACTOR IS TO REMOVE ALL UNSUITABLE MATERIAL BELOW THE PROPOSED SOIL ABSORPTION SYSTEM PRIOR TO INSTALLATION. SEE DEEP OBSERVATION HOLES FOR FURTHER INFORMATION.
 - UNUSABLE MATERIAL USED TO BACKFILL THE TEST HOLES SHALL BE REMOVED AND REPLACED WITH GRANULAR FILL MEETING THE LATEST SPECIFICATIONS OF 310 CMR 15.255(3).
 - ALL PIPE TO BE 4" P. V. C. SCHEDULE 40 UNLESS OTHERWISE NOTED.
 - PLACE 6" MINIMUM COMPACTED CRUSHED STONE UNDER SEPTIC TANK, AND DISTRIBUTION BOX.
 - SOIL TESTING FOR THIS PROJECT WAS PERFORMED BY RALPH I. MALOON AND WITNESSED BY THE SEEKONK BOARD OF HEALTH AGENT, BETH HALLAL. IF THOSE SHOWN ON THIS PLAN, NOTIFY CAPUTO AND WICK, LTD. AND SEEKONK BOARD OF HEALTH BEFORE PROCEEDING WITH CONSTRUCTION. **IF IN DOUBT, ASK.**
 - GARBAGE GRINDER IS NOT ALLOWED WITH THIS DESIGN.
 - INLET AND OUTLET TEES FOR SEPTIC TANK ARE TO BE LOCATED DIRECTLY BELOW ACCESS COVERS.
 - SEPTIC TANK AND DISTRIBUTION BOX SHALL BE DESIGNED FOR HS-10, AND SHALL BE PROTECTED FROM VEHICULAR TRAFFIC BOTH DURING AND AFTER INSTALLATION. IT IS RECOMMENDED THAT THE SEPTIC TANK BE INSPECTED TWICE A YEAR, AND BE CLEANED WHEN THE SOLIDS EQUAL ONE THIRD THE LIQUID DEPTH. EFFLUENT FILTER MUST BE CLEANED ANNUALLY, AT A MINIMUM.
 - BREAKOUT ELEVATION = 99.00. NO FINISHED GRADE BELOW 99.00 FOR 15 FEET (MINIMUM) FROM THE EDGE OF THE LEACHING AREA.
 - CONTRACTOR SHALL CONTACT "DIG-SAFE" PRIOR TO CONSTRUCTION. LOCATION OF UTILITIES ON THIS PLAN ARE FROM BEST AVAILABLE EXISTING INFORMATION, BUT ARE ONLY TO BE CONSIDERED APPROXIMATE.
 - EXISTING AND PROPOSED WATER WELLS FOUND WITHIN 200' OF PROPOSED SEWAGE DISPOSAL SYSTEM ARE SHOWN. EXISTING AND PROPOSED SEWAGE DISPOSAL SYSTEMS FOUND WITHIN 200' OF PROPOSED WATER WELL ARE SHOWN. LOCATION OF MATERIAL AND EQUIPMENT FROM ALTERNATE MANUFACTURERS MAY BE USED IF ENGINEER AND THE BOARD OF HEALTH PRIOR TO CONSTRUCTION. FULL SPECIFICATIONS FOR ALTERNATE EQUIPMENT MUST BE PROVIDED BY CONTRACTOR. INSPECTING OR SUPERVISING THE ACTUAL CONSTRUCTION WORK. AFTER EXCAVATING AND PRIOR TO INSTALLING ANY IMPORTED MATERIAL, CONTACT THE BOARD OF HEALTH AGENT FOR PLACE AND PRIOR TO BACKFILLING, CONTACT THE DESIGNER TO VERIFY THE LOCATION AND ELEVATION OF SYSTEM COMPONENTS AND PREPARE A RECORD DRAWING AS REQUIRED BY THE BOARD OF HEALTH.
 - THE DESIGNER EXPRESSLY DISCLAIMS ANY RESPONSIBILITY FOR THE INSTALLATION AND MAINTENANCE OF THE SYSTEM. IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO CONSTRUCT THE SYSTEM IN ACCORDANCE WITH 310 CMR 15.00 AND THE LOCAL BOARD OF HEALTH REGULATIONS AND THE RESPONSIBILITY OF THE OWNER FOR PROPERLY MAINTAINING THE SYSTEM IN ACCORDANCE WITH 310 CMR 15.00 AND THE LOCAL BOARD OF HEALTH REGULATIONS.
 - REFER TO 310 CMR 15.00 AND THE LOCAL BOARD OF HEALTH REGULATIONS FOR ADDITIONAL INFORMATION CONCERNING THE CONSTRUCTION AND OPERATION OF THE SYSTEM. THE INSTALLER AND OWNER SHOULD REVIEW AND APPLY 310 CMR 15.00 AND THE LOCAL BOARD OF HEALTH REGULATIONS SYSTEM TO BE CONSTRUCTED BY AN INSTALLER LICENSED BY THE SEEKONK BOARD OF HEALTH.
 - FILL MEETING THE REQUIREMENTS OF 310 CMR 15.255(6). MUST BE PLACED ON DE-WATERING AS REQUIRED AND ALL WORK SHALL BE PERFORMED UNDER DRY CONDITIONS PER 310 CMR 15.255(6).
 - AFTER THOROUGH CLEANING, THE TOP OF THE STRUCTURE IS TO BE REMOVED AND THEN FILLED WITH CLEAN SOIL. THE STRUCTURE MAY BE REMOVED AFTER CLEANING IF DESIRED.
 - THE CONTRACTOR SHALL VERIFY INVERT ELEVATION OF EXISTING BUILDING SEWER PRIOR TO ANY CONSTRUCTION. A MINIMUM 2% SLOPE TO NEW SEPTIC TANK SHALL BE PROVIDED.
 - INSTALL MAGNETIC TAPE OVER ALL PIPE AND SYSTEM COMPONENTS.
 - ALL DISTURBED AREAS NOT DEPICATED TO HAVE OTHER FINAL SURFACE TREATMENT SHALL RECEIVE 4" LOAM AND SEED.
 - SOIL DATA OBTAINED FROM A PLAN ENTITLED "SEWAGE DISPOSAL PLAN FOR UPGRADE - 640 LEDGE ROAD IN SEEKONK, MA" DATED DEC. 1, 2011 BY RIM ENGINEERING CO. RECEIVED BY THE SEEKONK BOARD OF HEALTH FEB. 14, 2012.
 - WETLAND DELINEATION BY JOHN CHAMBERLAIN OF RIM ENGINEERING.
 - THE CONTRACTOR MUST BE FAMILIAR WITH THE PROPOSED ALTERNATIVE SOIL ABSORPTION SYSTEM TECHNOLOGY AND MUST STRICTLY FOLLOW MANUFACTURERS INSTALLATION INSTRUCTION AND MAINTENANCE CERTIFICATION.

I CERTIFY THAT I HAVE CONTACTED THE SEEKONK WATER DISTRICT FOR THE LOCATION OF THE EXISTING WATER SERVICE CURB STOP FOR PLAT 18, LOT 45 AND WAS INFORMED THAT THERE IS NO CURB STOP NOR WATER SERVICE WELL TO BE INSTALLED IN CONFORMANCE WITH THE SEEKONK BOARD OF HEALTH REGULATIONS.

LOCAL UPGRADE APPROVALS REQUIRED:

- 310 CMR 15.405(1)(b) - REDUCTION OF THE FOUR FOOT MINIMUM VERTICAL SEPARATION TO GROUNDWATER (310 CMR 15.405(1)(b)). MINIMUM THREE FOOT SEPARATION PROVIDED WITH (1' REDUCTION).
- 310 CMR 15.405(1)(i) - SIEVE ANALYSIS IN LIEU OF PERCOLATION TEST DUE TO HIGH GROUNDWATER.

REPAIR

SEWAGE DISPOSAL SYSTEM
640 LEDGE ROAD
ASSESSORS PLAT 18 - LOT 45
SEEKONK, MASSACHUSETTS

CAPUTO AND WICK LTD. DATE: **OCTOBER 2014**

Agnd Surveying, Civil Engineering, Environmental Services, Traffic Engineering and Architectural Engineering
1150 WINDYBROOK AVE
MILFORD, MA 01930-1897
Tel: 978-454-1611

SHEET CONSERVATION SUBMISSION