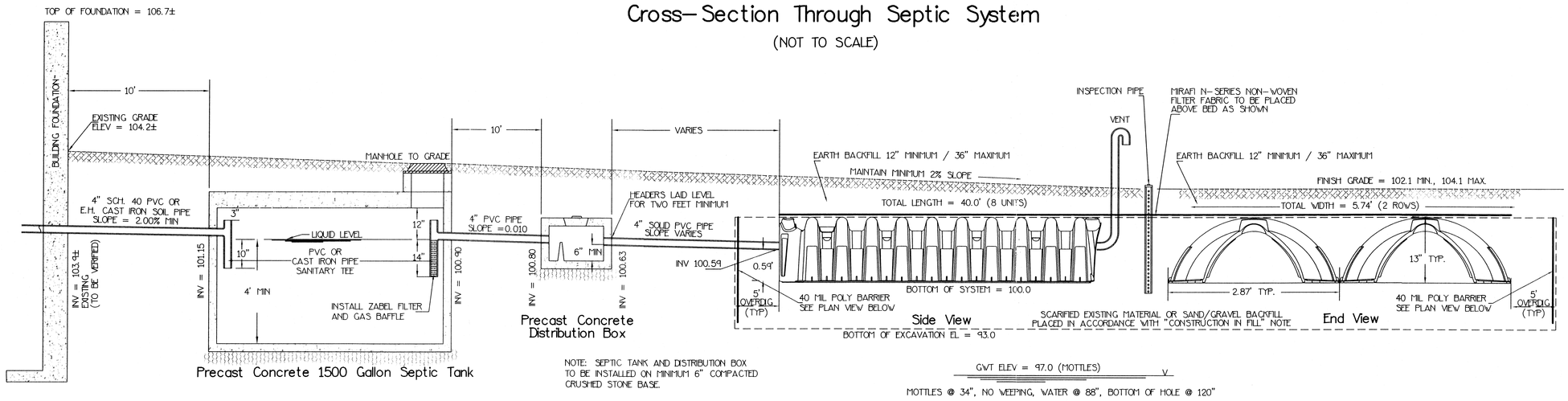
Cross–Section Through Septic System

(NOT TO SCALE)

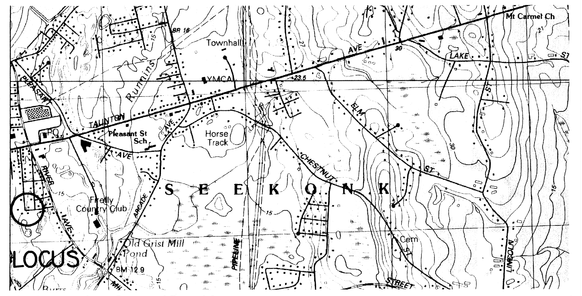


NOTE: SEPTIC TANK AND DISTRIBUTION BOX TO BE INSTALLED ON MINIMUM 6" COMPACTED CRUSHED STONE BASE.

NOTE: DISCHARGE FROM A WATER TREATMENT SYSTEM (SOFTENER) IS NOT ALLOWED INTO THIS SEPTIC SYSTEM.

Typical Open Bottom Leaching Chambers

Location (not to scale) Map



Notes & Specifications

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF 310 CMR 15 (TITLE V) OF THE COMMONWEALTH OF MASSACHUSETTS AND THOSE OF THE TOWN OF SEEKONK BOARD OF HEALTH.

THE REQUIRED INSPECTION SCHEDULE DURING THE PROCESS OF CONSTRUCTION SHALL BE ARRANGED BY THE CONTRACTOR WITH THE BOARD OF HEALTH & DESIGN ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

1500 GALLON SEPTIC TANK AND 5 OUTLET DISTRIBUTION BOX SHALL BE STANDARD DUTY DESIGN AS MANUFACTURED BY BRISTOL COUNTY PRECAST, INC. OR APPROVED EQUAL.

OPEN BOTTOM LEACHING CHAMBERS SHALL BE STANDARD DUTY DESIGN BY ADS, INFILTRATOR CULTEC, OR APPROVED EQUAL.

ALL PIPING SHALL BE 4" DIA. SCHD. 40 NSF PVC, WITH ALL JOINTS SEALED WATERTIGHT.

ALL STONE SHALL BE DOUBLE WASHED AND FREE OF IRONS, CLAY OR FINES AND SHALL BE SATISFACTORY TO THE TOWN OF SEEKONK BOARD OF HEALTH.

THIS SYSTEM IS NOT DESIGNED TO ACCOMODATE A GARBAGE DISPOSAL OR OTHER HIGH WATER USE UNITS.

THE PROPOSED SEPTIC SYSTEM IS NOT LOCATED WITHIN THE CONE OF INFLUENCE OF ANY MUNICIPAL WELL NOR ARE THERE ANY PRIVATE WELLS LOCATED WITHIN 100 FEET (RADIALLY) OF THE PROPOSED SYSTEM.

EXCAVATE ALL TOP, SUB AND ANY OTHER SOILS ENCOUNTERED DOWN INTO THE COARSE, SAND LAYER, ELEVATION 93.0 AND FOR A HORIZONTAL DISTANCE OF 5' ON ALL SIDES OF THE PROPOSED SYSTEM. BACKFILL TO ELEVATION = 101.1 WITH SELECT ON–SITE OR IMPORTED SOIL MATERIAL CONSISTING OF CLEAN GRANULAR SAND, FREE OF ORGANIC MATTER OR OTHER DELETERIOUS SUBSTANCES AND MEETING THE SIEVE SIZE REQUIREMENTS OF 310 CMR 15.255(3) & (5) [CONSTRUCTION IN FILL].

ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON ASSUMED DATUM.

MAGNETIC LOCATION TAPE TO BE PLACED OVER SEPTIC SYSTEM COMPONENTS IN ACCORDANCE WITH 310 CMR 15.221 (12)

SOIL ABSORPTION SYSTEM SHALL HAVE A MINIMUM OF ONE (1) INSPECTION PORT CONSISTING OF A PERFORATED FOUR (4) INCH PIPE PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND FILL BELOW THE STONE. THE PIPE SHALL BE CAPPED WITH A SCREW TYPE CAP AND ACCESSIBLE TO WITHIN THREE (3) INCHES OF FINISH GRADE IN ACCORDANCE WITH 310 CMR 15.240 (13)

CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO THE CONTINUATION OF CONSTRUCTION

Requested Variances

1. REDUCTION IN HORIZONTAL SEPARATION FROM EDGE OF LEACHING FIELD TO CELLAR WALL FROM 20' TO 10' IN ACCORDANCE WITH 310 CMR 15.405 (1) (b).

2. REDUCTION IN VERTICAL SEPARATION FROM BASE OF LEACHING FIELD TO THE ESTIMATED SEASONAL HIGH WATER TABLE FROM 4' TO 3' IN ACCORDANCE WITH 310 CMR 15.405 (1) (h).

Design Data

Average Daily Sewage Flow (gallons)

EXISTING 2 BEDROOM DWELLING @ 110 GPD PER BEDROOM = 220 GPD

* REQUIRES A TWO BEDROOM DEED RESTRICTION PER THE BOARD OF HEALTH

Septic Tank Sizing (gallons)

200% AVERAGE DAILY FLOW = 2 (220) = 440 GALLONS
2 BEDROOM HOME REQUIRES 1500 GALLON TANK (MINIMUM).

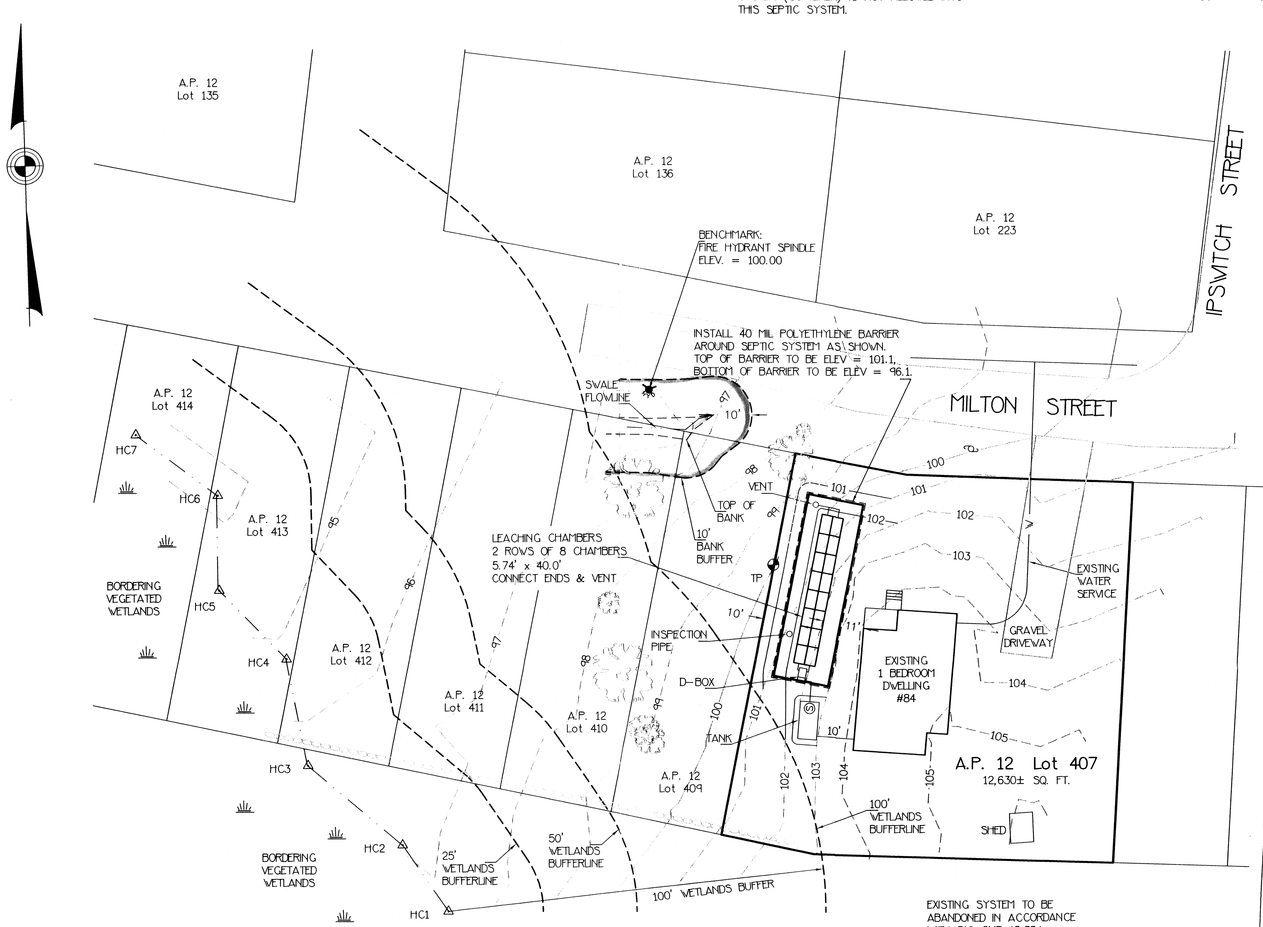
Leaching Area Calculation

SOIL CLASS: CLASS I (SAND) PERC IN TP WAS 10 MPI
DESIGN FOR 10 MPI PER TITLE V

Required Minimum Leaching Area:

ADF = 220 GPD / 0.60 GPD / SF = 367 SF MINIMUM
TRY: OPEN BOTTOM LEACHING CHAMBERS
367 SF / 4.80 SF/LF OF CHAMBER = 77 LF OF CHAMBERS
2 ROWS OF 8 CHAMBERS @ 5.0 LF EACH = 80 LF OF CHAMBERS

DESIGN = 80 LF > REQUIRED = 77 LF OK



Legend

SOIL TEST PIT TP
EXISTING CONTOUR ----99----
PROPOSED CONTOUR ——100——
STONE WALL

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NOTE: CERTIFICATION IS HEREBY MADE THAT THE PROPOSED WATER SERVICE CURB STOP IS SHOWN CORRECTLY AND THAT THE PROPOSED WATER SERVICE LINE LOCATION IS MORE THAN 15' FROM THE PROPOSED SEPTIC SYSTEM.

Page 2 of 3

Location Address or Lot No 84 MILTON STREET

On-site Review

Deep Hole Number 1 Date 4/1/13 Time 10:20 Weather SUNNY
Location (identify on site plan)
Land Use RESIDENTIAL Slope (%) Surface Stones NONE
Vegetation LAWN
Landform FLAT
Position on landscape (sketch on the back)
Distances from:
Open Water Body ~ feet Drainage way ~ feet
Possible Wet Area 200 feet Property Line 210 feet
Drinking Water Well ~ feet Other

DEEP OBSERVATION HOLE LOG*

Depth from Surface (inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other: Structure, Stones, Boulders, Consistence, % Gravel
0-8"	A	LOAM	10YR 3/2	NONE	FRIABLE
8"-30"	B	SANDY LOAM	10YR 4/6	NONE	FRIABLE
30-66"	C_1	SAND	10YR 5/3	@ 34" 10YR 5/8	MEDIUM - FINE
66-120"	C_2	SAND	10YR 5/4		COARSE, 5% GRAVEL

* MINIMUM OF 2 HOLES IN ZONE OF LEACHING FIELD AND PROPOSED DISPOSAL AREA

Parent Material (geology) OUTWASH Depth to Bedrock UNKNOWN
Depth to Groundwater Standing Water in Hole 88" Weeping from Pit Face NONE
Estimated Seasonal High Ground Water 34"

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 84 MILTON STREET

COMMONWEALTH OF MASSACHUSETTS
SEEKONK, Massachusetts

Percolation Test*

Date: 4/1/13	Time: 10:30	
Observation Hole #	1	
Depth of Perc	50"	
Start Pre-soak	11:06	
End Pre-soak	11:23	
Time at 12"	11:23	
Time at 9"	11:44	
Time at 6"	12:12	
Time (9"-6")	28 MINS	
Rate Min./Inch	10 MPI	

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

Site Passed ☐ Site Failed ☐ REPAIR

Performed By: ROBERT M. BERUBE, P.E.
Witnessed By: BOTH HALLAL, AGENT
Comments:

Soil Report & Test Data

Septic System Repair Plan

A.P. 12 Lot 407
84 Milton Street, Seekonk, Massachusetts

PREPARED FOR

Lillian George
107 Taunton Avenue, Seekonk, Massachusetts 02771

RECEIVED
JUL 15 2013
SEEKONK CONSERVATION

ROA 84 Milton

PREPARED BY

Pro–Line Engineering, Inc.
Civil/Environmental Engineering & Land Surveying
190 GARDNERS NECK ROAD, SWANSEA, MA 02777
PHONE: 508/672–3137 FAX: 508/672–3307
EMAIL: PROLINEENG@COMCAST.NET

ROBERT M. BERUBE 24880 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

Date: April 18, 2013 Scale: 1" = 20'
Revised: May 13, 2013 BOH Comments
Revised: July 3, 2013 Con Comm Comments
Revised: July 15, 2013 Con Comm Comments

13–020ss4

\\AutoDesk\SDSK\PRO.l\proline\2013\13-020ss4.dwg, 7/15/2013 3:49:44 PM, bberube

13-020