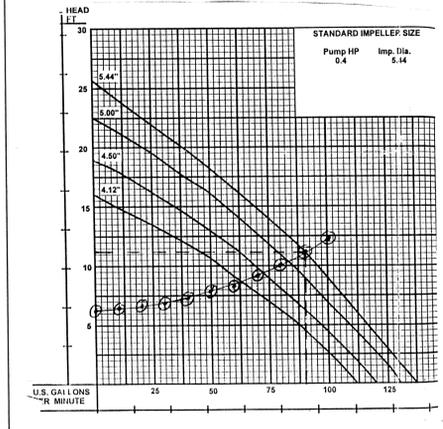


VARIANCE REQUEST:

- 310 CMR 15.105 Procedure for Performing a Percolation Test. WE ARE REQUESTING APPROVAL TO ALLOW THE PROPOSED SEPTIC SYSTEM REPAIR DESIGN TO BE BASED, IN PART, ON A PERCOLATION RATE DERIVED EMPIRICALLY FROM SOIL DATA OBTAINED THROUGH LABORATORY TESTING.
- 310 CMR 15.261 Use of Tight Tanks in Special Areas. A. (4) The design of the soil absorption system shall be based on a maximum effluent loading rate of 0.15 gpd/square foot. WE REQUEST A VARIANCE TO ALLOW A 38% REDUCTION IN THE REQUIRED SAS SIZE DUE TO LIMITING FACTORS OF SET BACKS FROM FOUNDATION AND PROPERTY LINE, SEEKONK WATER DISTRICT REGULATIONS PERTAINING TO SETBACK FROM FORCE MAINS TO SAS, DRAINAGE AND RUNOFF CONSIDERATIONS, AND ENVIRONMENTAL REGULATIONS PERTAINING TO WETLANDS. B. (5) The tank design specified at 310 CMR 15.260 shall be modified to include: (b) a minimum of two-day storage capacity between the outlet invert elevation and the top of the outlet tee; WE ARE REQUESTING A VARIANCE FROM THIS STORAGE REQUIREMENT DUE TO THE FACT THAT THE EFFLUENT HAS BEEN PRETREATED IN THE EXISTING 1,250 GALLON SEPTIC TANK AND THE NEW 1,000 GALLON PUMP CHAMBER.
- 310 CMR 15.404(2)(b) A minimum of four feet of separation between the bottom of soil absorption system and the high groundwater elevation shall be provided, using fill if necessary. The local approving authority may allow a three foot separation only in full compliance with 310 CMR 15.405(1). WE ARE REQUESTING A VARIANCE TO REDUCE THE MINIMUM GROUNDWATER SEPARATION OF 4 FEET TO 3 FEET AS PER 310 CMR 15.404, APPROVALS FOR UPGRADES TO MAXIMUM FEASIBLE COMPLIANCE. THIS REQUEST ALSO REQUIRES A VARIANCE FROM 310 CMR 15.405(1) AS STATED IN VARIANCE REQUEST 2A.



PERCOLATION TESTS
 PERCOLATION TEST # 1 DATE: 12/29/98
 PERCOLATION RATE: >200mp/ MIN./IN.
 DEPTH OF PERC: SOIL SAMPLE TAKEN FOR LABORATORY ANALYSIS FROM C2 LAYER AT 88" TO 140". FIELD TEST ABORTED DUE TO SATURATED CONDITIONS.
 DESIGN PERCOLATION RATE: 200 MIN/INCH

BENCH MARKS
 TEMPORARY BENCH MARK #1 ASSUMED DATUM: 50.00'
 DESCRIPTION: TOP OF WALL AS SHOWN

DESIGN CALCULATIONS

FLOW: (3BDRM)(110GPD/BDRM) = 330 GPD 660 PEAK
 SEPTIC TANK: EXISTING 1,250GAL. TANK > 660
 MODIFIED TIGHT TANK EXISTING 1,250GAL. TANK > 660
 LEACHING FIELD: USE 20'x65.7'-71.1' = 13675 SF

PUMP CHAMBER: USE 1000GAL H-20 TANK
 ONE 330 GAL DOSING CYCLE PER DAY
 CHAMBER CAPACITY: 1000 GAL
 DEPTH OF CYCLE: 1.47'
 DEPTH OF RESERVE VOLUME: 2.28'
 RESERVE VOLUME=513GAL
 NOTE: USE H-20 1000 GAL TANK TO AVOID TANK UPLIFT IN HIGH GROUNDWATER CONDITIONS

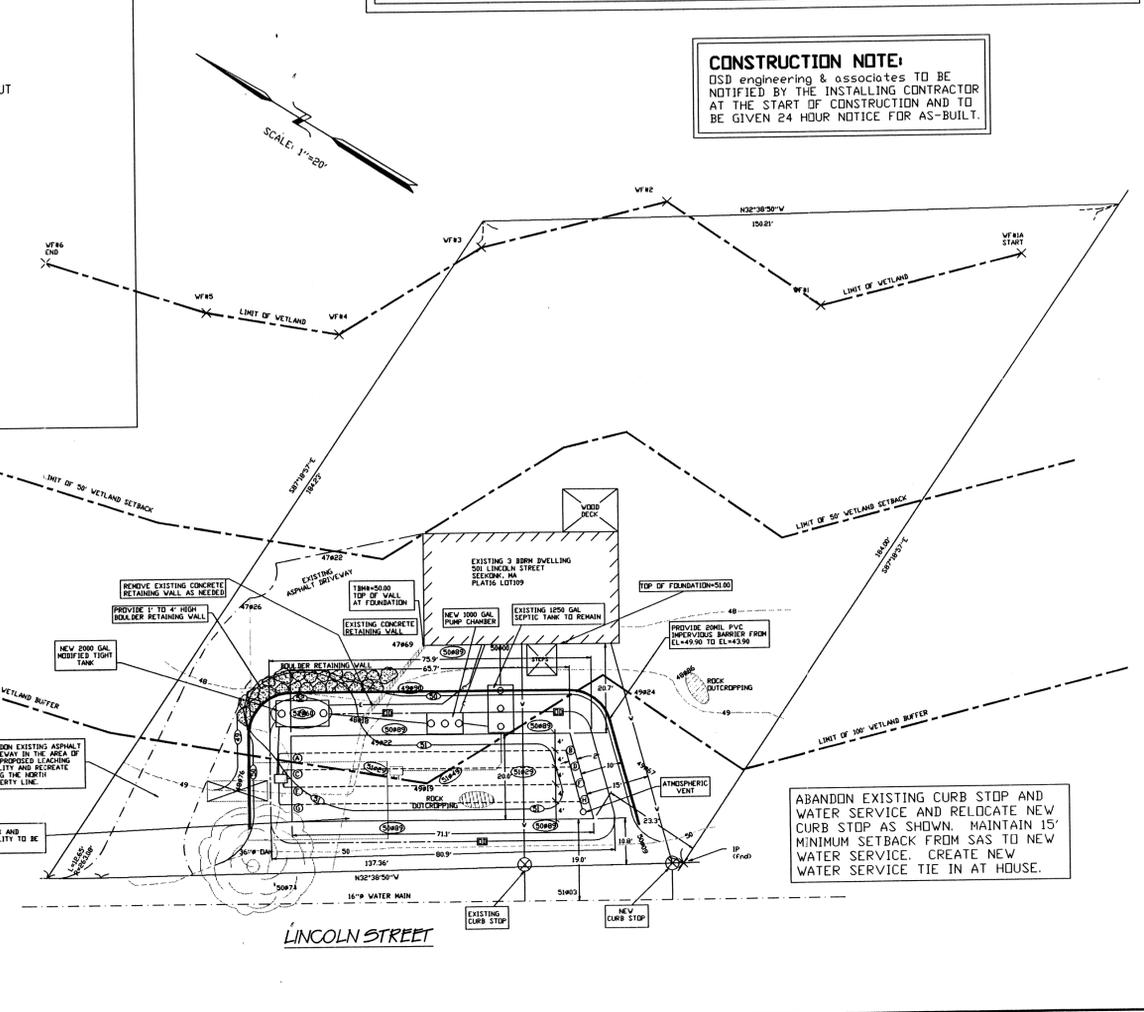
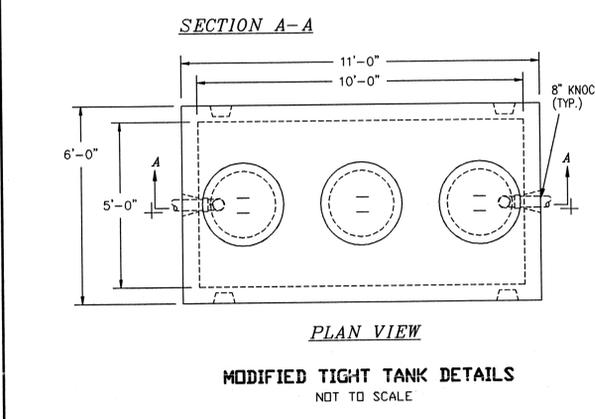
DESIGN ELEVATIONS

HOUSE ELEVATIONS:
 BUILDING SEWER AT FOUNDATION: EXISTING
 SEPTIC TANK: SIZE OF SEPTIC TANK: EXISTING 1,250GALLONS
 INLET-EXISTING: 47.80
 OUTLET: 47.80

PUMP CHAMBER:
 GRAVITY FEED INLET INVERT: 47.68
 2' FORCE MAIN OUTLET INVERT: 47.00
 MODIFIED TIGHT TANK
 2' FORCE MAIN INLET INVERT: 51.25
 GRAVITY FEED OUTLET INVERT: 50.01
 HIGH WATER ALARM: 50.42

DISTRIBUTION BOX: (WITH BAFFLE)
 INLET: 49.90
 OULETS: 49.73

LATERAL INVERTS:
 (A) 49.73 (B) 49.40
 (C) 49.73 (D) 49.40
 (E) 49.73 (F) 49.39
 (G) 49.73 (H) 49.39



TEST PIT LOG
 NOT TO SCALE

Date Excavated: December 16, 1998
 Logged by: Dean Monsees
 Observed by: Harold Chenevert, Jr.
 Board of Health: Seekonk
 Geologic Material: Till
 Landform: Glacial Drumlin
 See percolation test note

DEPTH (FEET)	SOIL TYPE	PERCENT SAND (S)	PERCENT SILT (Si)	PERCENT CLAY (C)	ELEVATION (FEET)
0	FILL				49.22
1	A/B - Sandy Loam, 2.5Y 4/3				48.47
2					46.05
3					
4					
5					
6	C1 - Silty Loam, 2.5Y 7/6				41.89
7					
8					
9					
10	C2 - Silty Loam, 2.5Y 5/3				
11	Bottom				37.55

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE TOWN OF SEEKONK BOARD OF HEALTH RULES AND REGULATIONS AND TITLE 5, THE STATE ENVIRONMENTAL CODE.
- THIS PLAN IS TO BE USED ONLY FOR THE CONSTRUCTION OF THE DESIGN DISPOSAL SYSTEM AND DOES NOT REPRESENT ACTUAL AS BUILT CONDITIONS UNLESS OTHERWISE NOTED.
- THE PROPOSED SYSTEM SHOWN HEREON IS NOT DESIGNED FOR THE USE OF A GARBAGE DISPOSAL AND SAID USE IS NOT ALLOWED.
- THE SEPTIC TANK SHOULD BE PUMPED OUT EVERY ONE TO THREE YEARS DEPENDING ON USE.
- ALL BASE AGGREGATE FOR LEACHING STRUCTURES SHALL CONSIST OF DOUBLE WASHED STONE FREE OF IRON, FINES, AND DUST IN PLACE.
- TIGHT JOINT PIPING TO CONSIST OF POLYVINYL CHLORIDE PIPE (PVC) SCHEDULE 40, UNLESS OTHERWISE NOTED.
- NO PERMANENT STRUCTURE MAY BE CONSTRUCTED OVER THE CONSTRUCTION AREA.
- BEFORE BEGINNING ANY EXCAVATION OR DEMOLITION CALL "DIG SAFE" AT 1-888-344-7233 TO NOTIFY MEMBER UTILITIES.
- THE OVER-DIG AREA AS SHOWN HEREON IS TO BE STRIPPED OF ALL TREES, BRUSH, STUMPS, TOPSOIL, PEAT OR OTHER IMPERVIOUS MATERIALS. THE AREA EXTENDS 5 FEET HORIZONTALLY AROUND THE PROPOSED SYSTEM AND TO THE DEPTH SPECIFIED. THE REPLACEMENT MATERIAL SHALL MEET SPECIFICATIONS OF 310 CMR 15.255 OF THE STATE ENVIRONMENTAL CODE.

MODIFIED CONCRETE TIGHT TANK NOTES:

- THE TANK SHALL BE WATERPROOF AND WATER TIGHT BY USE OF BUTYL RUBBER GASKET BETWEEN THE TOP AND BOTTOM SECTION, THIS SEAM TO BE SEALED ON THE INSIDE WITH MASONRY CAULK, AND A BITUMINOUS EXTERIOR COATING TO BE APPLIED TO THE BOTTOM HALF OF THE TANK PRIOR TO INSTALLATION.
- THE TANK SHALL BE PUMPED DRY AT LEAST ONCE A YEAR BY A LICENSED SEPTAGE HAULER AND CONTENTS SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH THE HAULERS LICENSING.
- THE TANK SHALL HAVE AT LEAST ONE 24" DIA. CAST IRON FRAME AND COVER AT FINISHED GRADE SO AS TO ELIMINATE ENTRANCE OF SURFACE WATERS.
- HIGH WATER ALARM SHALL SOUND AUDIBLE AND VISUAL ALARM INSIDE THE DWELLING AND ALSO DEACTIVATE THE PUMP INSIDE THE PUMP CHAMBER.
- THE OUTLET PIPE SHALL BE FITTED WITH AN ACCESSIBLE GATE VALVE.

SEEKONK NOTES

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THERE ARE NO WATER WELLS WITHIN 100 FT. OF THE PROPOSED SEPTIC SYSTEM REPAIR.

I CERTIFY THAT I HAVE CONTACTED THE SEEKONK WATER DISTRICT FOR THE LOCATION OF THE EXISTING WATER SERVICE CURB STOP TO LOT 109 AND IT IS SHOWN CORRECTLY. THE WATER SERVICE SHOWN ON THIS PLAN IS IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE SEEKONK WATER DISTRICT.

LEGEND

PERFORATED PIPE	---
TEST PIT	⊕
EXISTING GRADE	--- 48 ---
DISTRIBUTION BOX	⊕
PUMP CHAMBER	⊕
SEPTIC TANK	⊕
PROPOSED CONTOURS	⊕
MODIFIED TIGHT TANK	⊕
PROPOSED SPOT GRADES	⊕
OVERDIG AREA	⊕
WATER SERVICE	---
WETLAND FLAGS/LIMITS	WF #4
ELECTRICAL CONDUIT	---
ROCK OUTCROPPING	⊕

REVISIONS

DATE	DESCRIPTION

SEWAGE DISPOSAL SYSTEM REPAIR

LOT NUMBER: 109 AREA OF LOT: 22,621 SF PLAT: 16
 LOT ADDRESS: 501 LINCOLN STREET
 IN
SEEKONK, MASS.
 PREPARED FOR:
 SHIRLEY KAY GOSNEAR
 8 DAVIS ROAD
 TEWKSBURY, MA 01876

SCALE: AS SHOWN
 DATE: FEBRUARY 7, 1999
 REVISIONS:

DESIGNED BY: DRM
 JOB NO: 99-107
 FILE: 501LINCOLN.DWG

OSD engineering & associates
 CIVIL ENGINEERS
 45 ASTRAL AVE.
 RIVERSIDE, RI 02915
 401/438-6216