

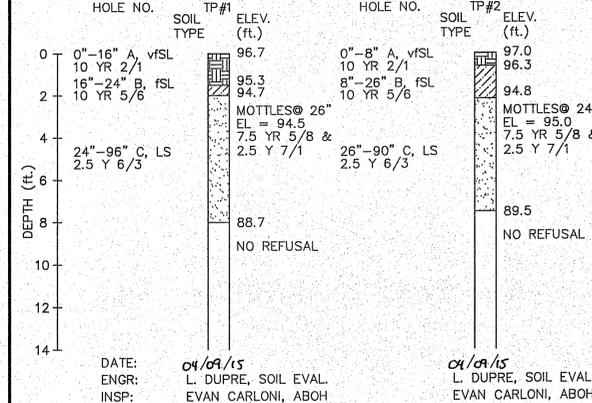
DESIGN CRITERIA

Ref: The State Environmental Code, Title 5: Minimum Requirements For The Subsurface Disposal Of Sanitary Sewage

GENERAL NOTES & SPECIFICATIONS

- This plan is intended for the location and design of the sewage disposal system only.
- The location, size and orientation of all proposed buildings as shown is suggested in accordance with owner instructions or may be otherwise assumed. Should changes occur which alter the sewage disposal system/building relationship, the design engineer shall be notified for revisions to this design. Conformance with zoning by-laws shall be the responsibility of the owner.
- The occupancy requirements (number of bedrooms, etc.) for the existing building(s) as indicated in the calculations below and as shown herein are based on owner supplied information. No certification is made regarding this information.
- Groundwater elevations at the foundation have not been determined. It shall be the responsibility of the owner to ensure that cellar slabs are constructed above the groundwater elevation and/or to provide proper drainage.
- Designations shown as (min.) or (max.) only indicate that the dimension shown is specifically limited and does not imply that the value given can be liberally increased or decreased, respectively.
- The plot plan shown is from a plan titled, "Plan of Land in Acton, MA", prepared by Bruce Saluk & Assoc., Inc., dated August 3, 1996 and recorded as Plan 1205 of 1996 MSDRD. No certification is made regarding this plan.
- The topographic survey was performed on 04/04/15 by Anthony L. Del Galzo, PE.
- This plan shows features which were visually apparent at the time the topographic survey was performed. No determination as to the existence of subsurface structures, utilities, etc., or of undiscovered ledge, boulders or other underground features has been made and the absence of same is not implied or intended.
- There are no existing private wells or suction lines within 100 feet of the soil absorption system and 100 feet of the septic tank. All wells within 200 feet of the proposed subsurface sewage disposal system have been shown.
- There are no existing surface waters within 100 feet of the septic tank or soil absorption system.
- There are no existing public wells or surface water supplies within 400 feet of the soil absorption system or septic tank. There are no existing tributaries to surface water supplies within 200 feet of the septic tank or soil absorption system.
- All new private water supply wells shall be installed 100 feet (min.) from all soil absorption systems and 100 feet (min.) from all septic tanks. The location of a proposed well when shown is suggested only.
- There are no open, surface or subsurface, drains which discharge to surface water supplies or tributaries thereto within 50 feet of the soil absorption system and 50 feet of the septic tank.
- There are no other open, surface or subsurface, drains which intercept seasonal high groundwater within 50 feet of the soil absorption system and 50 feet of the septic tank.
- There are no subsurface roof drains ("other" subsurface drains) within 5 feet of the soil absorption system or septic tank.
- There are no existing leaching catch basins, dry wells or subsurface drains (excluding foundation drains) within 50 feet of the soil absorption system and 50 feet of the septic tank.
- There are no existing certified vernal pools within 100 feet of the soil absorption system and 100 feet of the septic tank.
- All streams, seasonal brooks and swales, brooks, great ponds, rivers, swamps, drains and all other wetland resource areas within 150 feet of the sewage disposal system are shown.
- All large boulders, topsoil, subsoil and organic or impervious material shall be removed from the soil absorption system area and for a distance of 5 feet laterally in all directions beyond its outer perimeter to the depth of naturally occurring pervious material prior to the soil absorption system installation.
- All filling required for the construction of the soil absorption system shall be clean granular sand, conforming to 310 CMR 15.255 (3), and shall be installed in six (6) inch lifts using a vibratory compactor.
- All construction activity within 100 feet of a wetland or resource area requires filing in accordance with the Wetland Protection Act, MGL chapter 131 section 40.
- It shall be the responsibility of the installer to notify the design engineer of any discrepancy between observed field conditions and conditions as described on this plan, before proceeding with the installation.
- This sewage disposal system is NOT designed for garbage disposal units. The use of water softeners is not recommended with this or any septic system. The use of water softeners sharply reduces the longevity of the soil absorption system.
- Deviation from an approved plan is permissible only with the consent of the Board of Health and the design engineer.
- No component of the subsurface sewage disposal system shall be concealed without inspection and permission by the design engineer and Board of Health. An As-Built Survey is required from the design engineer and installer.
- The contractor shall provide the design engineer 48 hours advance notice of requesting the as-built survey. Design engineer and installer certification of repaired system components location and construction is required.
- The system, including the leaching facility, septic tank and pump chamber shall be staked in the field by the design engineer prior to construction.
- A Local Upgrade Approval is required to allow a reduction in the groundwater offset from 4 ft. min to 3 ft. min.
- A Local Upgrade Approval is required to allow the use of a sewer analysis in lieu of a permit.

DEEP OBSERVATION HOLE LOGS



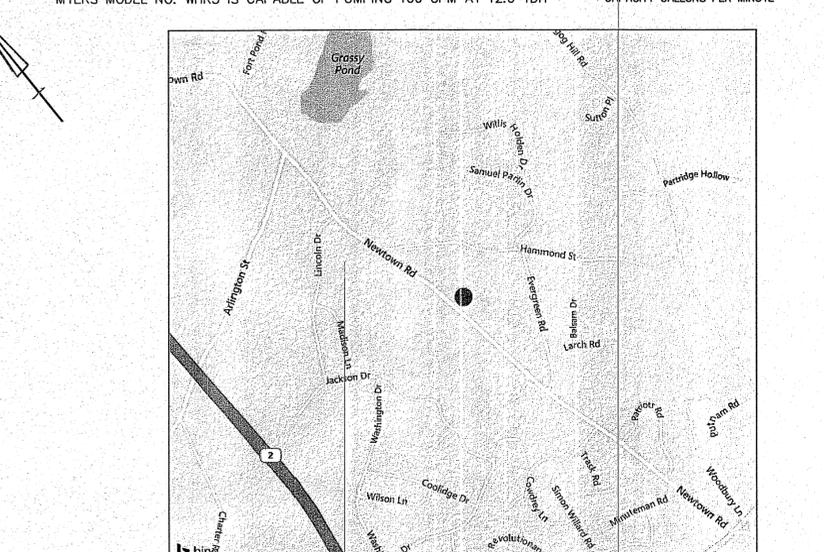
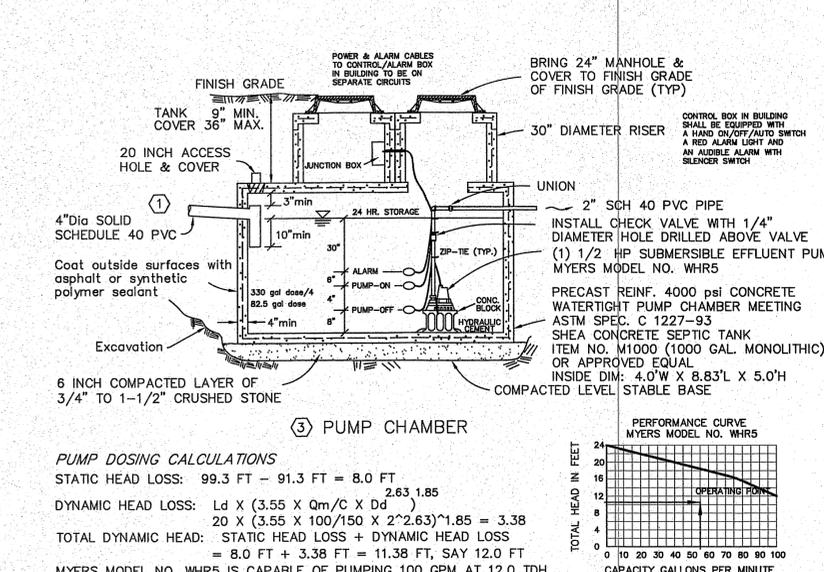
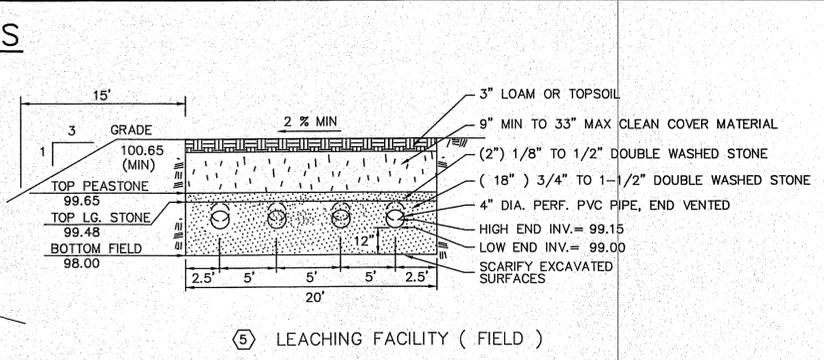
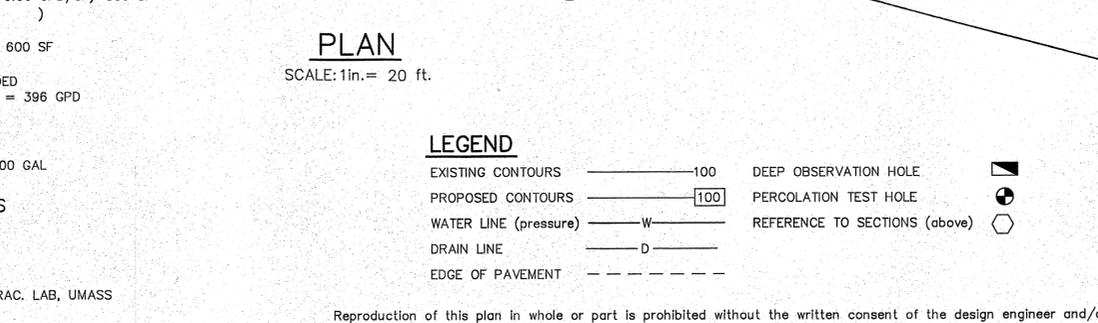
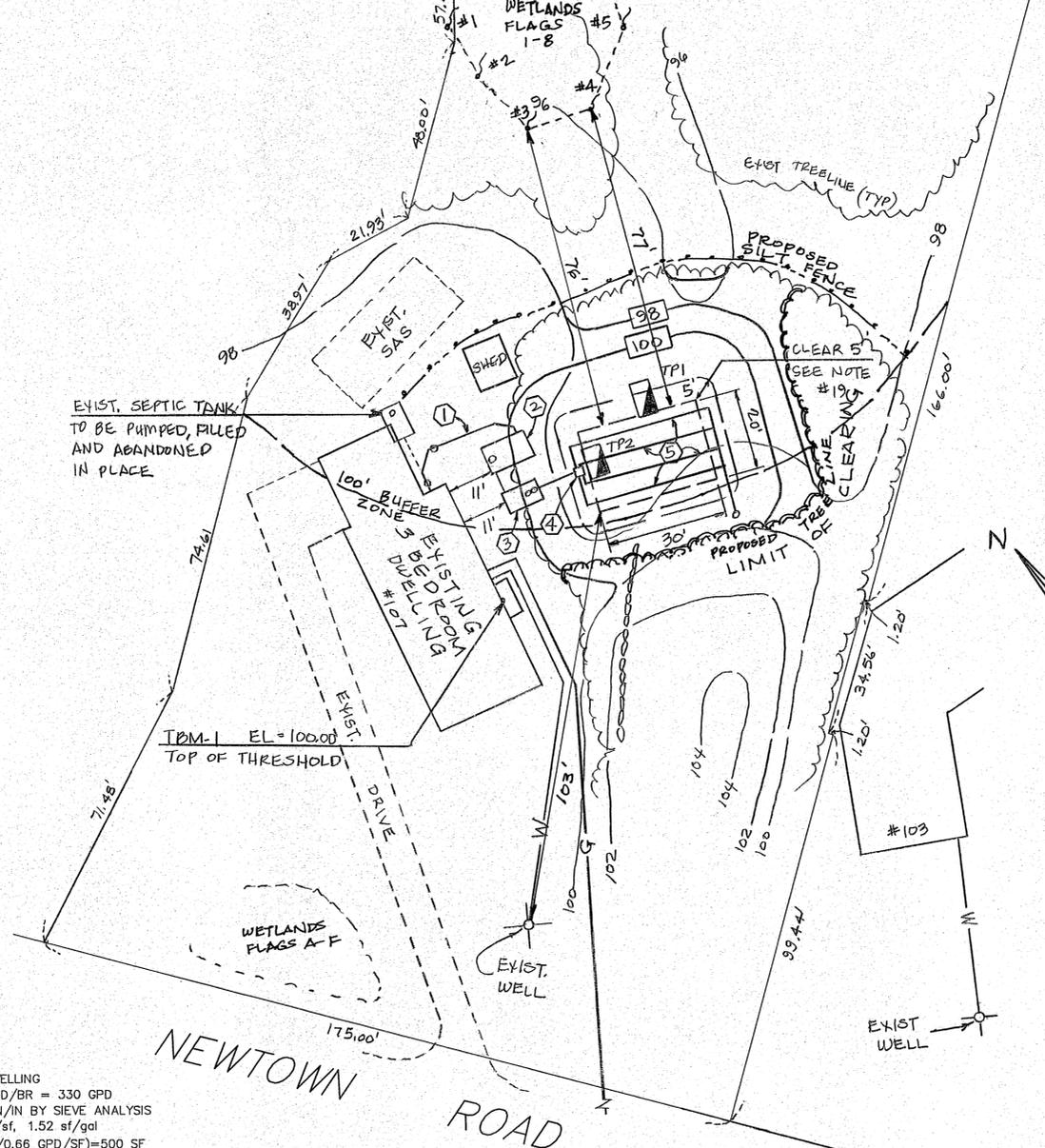
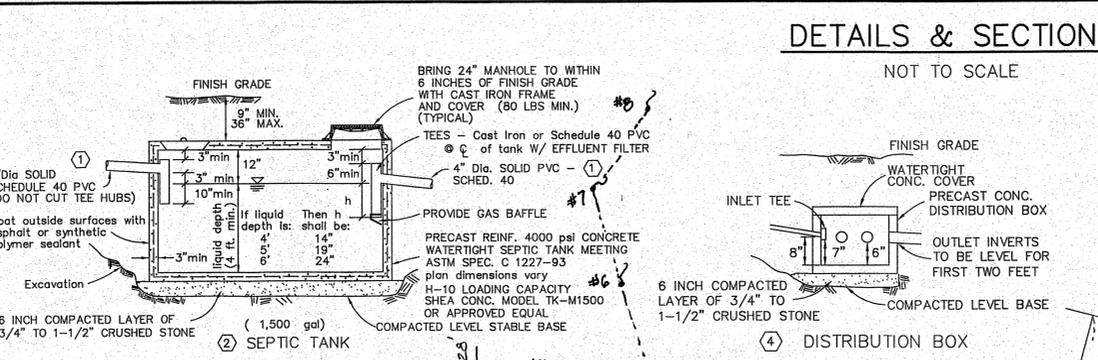
CALCULATIONS

OCCUPANCY: EXISTING 3 BEDROOM DWELLING
 DAILY SEWAGE FLOW: 3 BR X 110 GPD/BR = 330 GPD
 PERCOLATION RATE: N/A min./in. 8 MIN/IN BY SIEVE ANALYSIS
 EFFLUENT LOADING RATE: 0.66 gpd/sf, 1.52 sf/gal
 LEACHING AREA REQUIRED: (330 GPD/0.66 GPD/SF)=500 SF
 LEACHING AREA PROVIDED (FIELD)

SIDEWALL: N/A
 BOTTOM: 20 FT W X 30 FT L = 600 SF
 TOTAL AREA: 600 SF
 DAILY SEWAGE FLOW CAPACITY PROVIDED
 BOTTOM: 600 SF X 0.66 GPD/SF = 396 GPD
 TOTAL: 396 GPD
 SEPTIC TANK REQUIREMENTS:
 CAPACITY: 1,500
 SEPTIC TANK CAPACITY PROVIDED: 1,500 GAL

PERCOLATION TEST RESULTS

HOLE: SIEVE ANALYSIS
 BOT. EL: N/A
 RATE: 8 MIN/IN
 DATE: 04/09/15
 ENGR: MICKEY SPOKAS, SOIL CHARAC. LAB, UMASS
 INSP: EVAN CARLONI, ABOH



SUBSURFACE SEWAGE DISPOSAL SYSTEM REPAIR

SCALE: AS SHOWN DATE: MAY 2, 2015

Map E3 Parcel 1 107 NEWTOWN ROAD ACTON, MA

Prepared for: MARC JORRENS 116 PRINCE CHARLES COURT KILL DEVIL HILLS, NC 27948

203-858-6903

Raggs, Inc.
 Post Office Box 1027 Concord, MA 01742 (508) 369-1100

Design ALD
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 Sheet 1 of 1
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