SITE PREPARATION AND FILL - RAISED SYSTEMS

Check DESIGN INTENT and verify the elevation of existing ground (upslope side) before disturbing site. The "DESIGN INTENT" must be maintained.

Remove all trees, brush, boulders, and debris from the area to be filled. Stumps not to be buried within 75' of Effluent Disposal Area, unless upslope (35' min.).

Remove topsoil, leave subsoil in place, do not compact subsoil with machinery, scarify with teeth of excavator before placing fill. Scarify parallel with contours, working from the center outward. Soil must be dry prior to preparation.

MATERIAL SPECIFICATIONS:
- TOPSOIL: 6" of clean loam to be placed as a blanket on top and side slopes.
- CLEAN FILL: Permeable soil free of roots, debris, organics, clay, silt, fines, or stones greater that 3".
- SEPTIC SAND: Fill to raise the system and for the side slopes as shown on the cross sections to meet the following specification: clean medium to coarse textured sand, no greater than 5% passing the number 200 sieve, and no particles larger than 3".
- BEDDING SAND: Use clean coarse sand meeting ASTM standard C-33 (washed concrete sand). Bedding sand used between, 12" around, and 6" above and below tubes.

Sand fill to be pushed onto prepared surface from the side. Do not allow equipment on the scarified soil surface. Fill between tubes to be carefully placed with excavator.

Place fill in 12" loose layers using a track type tractor with blade. Always keep a minimum of 9" of fill material beneath tracks of tractor of to minimize compaction of natural soil. Each layer shall be spread in uniform thickness prior to placing next layer. Continuous grading and shaping shall be carried out to assure uniform density throughout each layer.

Entire filled area should be covered with topsoil, seeded, and mulched immediately after backfilling to prevent erosion.

Backfill depth over system to be 12", crowned at 2% to allow runoff.

GENERAL NOTES - LEACHING TUBE SYSTEMS

THIS PLAN DOES NOT REPRESENT A PROPERTY BOUNDAY SURVEY OR ENGINEERED SITE PLAN.

Every attempt has been made to accurately identify the relevant property lines depicted on this plan. However, septic system plans are not intended to be used as a survey. A licensed land surveyor should be retained to lay out all buildings on the site and verify that the location will be in compliance with all applicable local zoning requirements prior to construction.

Jason Pohopek Design & Construction, LLC accepts no liability if this plan is used inappropriately.

Any discrepancy between these plans and the apparent field conditions are to be reported to the designer prior to the commencement of any construction.

Leaching tubes to be Enviro-Septic and are to be installed per manufacturer's installation manual.

All septic tanks must have baffles at inlets, outles, and between compartments.

Outlet baffles to extend 18" below effluent level.

All plastic unions of the baffles are to be primed, glue and reinforced with a stainless steel screw.

All pipe fittings to be primed and glued.

Septic tank to be water tight. All inserted pipe fittings to be rubber booted or be sealed with non-shrink hydrolic cement.

Septic tank must be a minimum of 5 feet from foundations with drains; leaching tubes to be a minimum of 15 feet from foundations with drains.

The foundation drain outlet to be a minimum of 35 feet from the septic tank and leaching tubes.

Sewer line from house to tank to be 4" schedule 40 PVC.
Sewer line from septic tank to effluent disposal area to be 4" schedule 35.
Piping within the Effluent Disposal Area to be 4" schedule 35.

Minimum pipe slopes: building to tank = 2% tank to EDA = 1%

Any distribution box shall have flow equalizers on all outlets, unless system utilizes a pump.

Provide a minimum of a 2" drop between any distribution box outlet and tube inlet.

Inlet / outlet interconnections to leaching tubes shall extend no more than 4" into tube but no less than 2" into tube.

All connections from leaching tubes to 4" piping to be made with an offset adapter supplied by the distributer of leacing pipes. See installation manual for specifics.

System must be inspected and approved by NH-DES prior to backfilling.

Effleuent Disposal Area may be rebuildt in place, should failure occur, provided that NHDES repair in kind approval has been obtained.

OPERATION AND MAINTENANCE

It is the owner's responsibility to maintain this system in accordance with these "OPERATION AND MAINTENANCE" instructions.

Every system's design capacity is limited. Careful and reasonable water use is required to maximize the system's life.

This system must be operated within its design capacity. The average daily flow to the effluent disposal area should be no more than half its approved design capacity.

This sytem is not design to handle a sewage ejector pump into the septic tanks.

System is not designed to handle a garbage disposal.

System is not designed to handle discharge from a jacuzzi type bath tub, or similar.

Do not dispose of grease, chemicals, solvents etc. into this system.

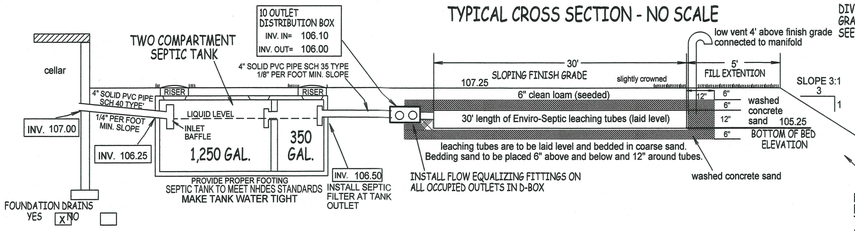
Do not discharge the backwash from water softeners into the septic system. Curmet NH-DES rules allow that water softener backwash be discharged to a separate drywell. No design or approval is required for this.

Septic tank must be pumped by a licensed hauler at least every two years. Keep pumping receipts as proof of maintenance. Check tank yearly. If sludge and surface scum exceed one-third of liquid depth, have tank pumped.

Do not allow vehicular traffic over any component of the system.

The owner should keep a copy of this plan with his/her important documents for future reference. This plan should be provided to any future owner. Copies are available from this office.

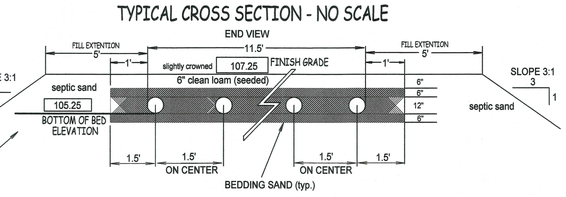
If this design utilizes a septic tank outlet filter, have filter cleaned when tank is pumped. If there area any signs of plumbing backup, call pumper and have the tank and filter cleaned.



DIVERT SURFACE RUNOFF FROM FINISH GRADE TO PREVENT SURFACE PONDING. SEED AND LOAM, PROTECT FROM EROSION

FILL MATERIAL WITHIN FOOTPRINT OF THE FILL EXTENTIONS AND SIDE SLOPES TO BE SEPTIC SAND

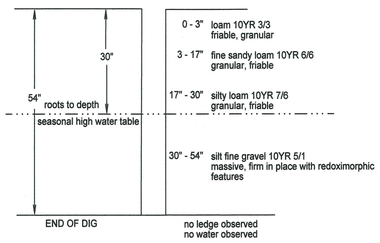
REMOVE ALL ORGANIC SOIL AND ROOTS FROM DISPOSAL AND FILL EXTENSION AREAS



Test Pit #1

date: 09/11/2015
evaluated by: Jason B. Pohopek
witnessed by: Mark Morong

PERCOLATION TEST
date: 09/11/15
depth: 24"
final rate: 8 min./inch



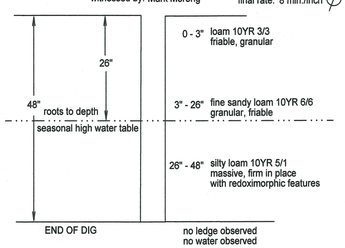
- 0 - 3" loam 10YR 3/3 friable, granular
- 3 - 17" fine sandy loam 10YR 6/6 granular, friable
- 17" - 30" silty loam 10YR 7/6 granular, friable
- 30" - 54" silt fine gravel 10YR 5/1 massive, firm in place with redoximorphic features

no ledge observed
no water observed

Test Pit #2

date: 09/11/2015
evaluated by: Jason B. Pohopek
witnessed by: Mark Morong

PERCOLATION TEST
date: 09/11/15
depth: 24"
final rate: 8 min./inch

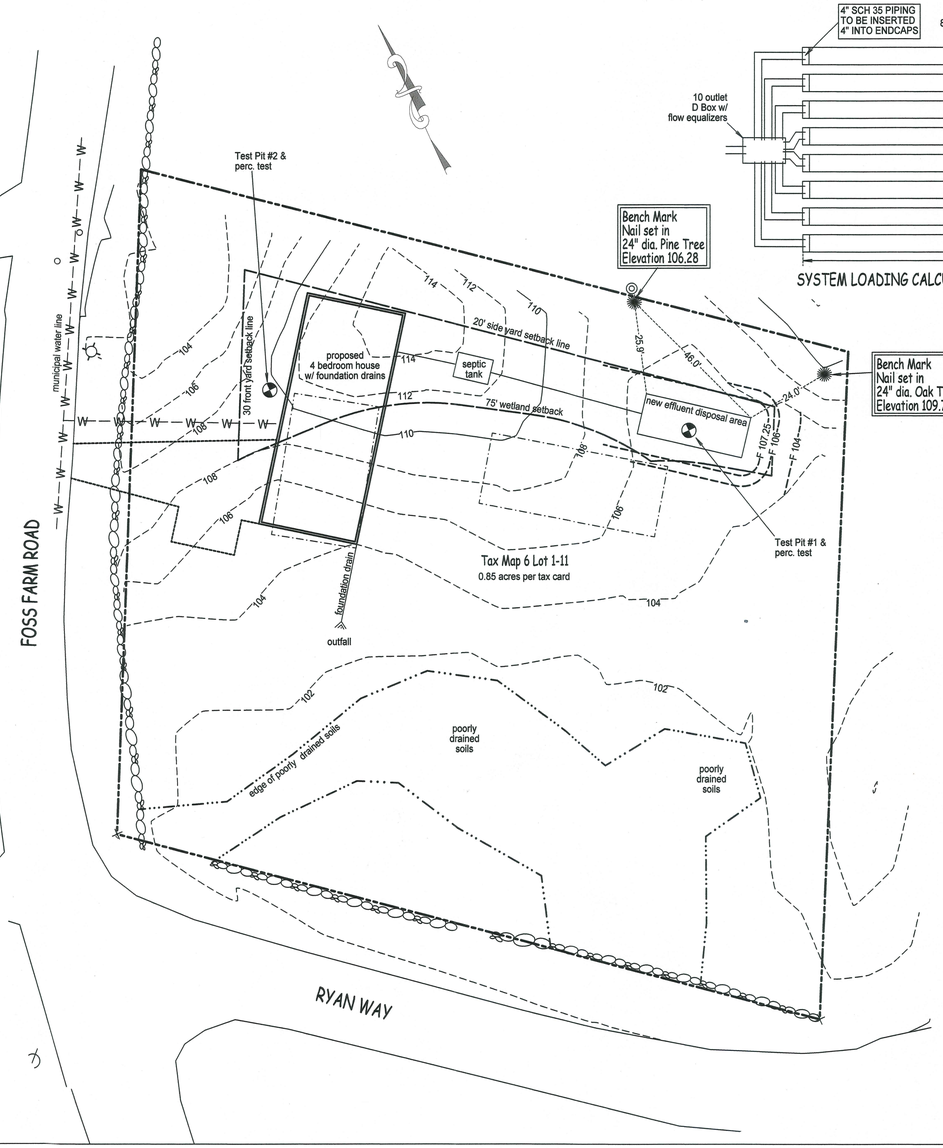


- 0 - 3" loam 10YR 3/3 friable, granular
- 3" - 26" fine sandy loam 10YR 6/6 granular, friable
- 26" - 48" silty loam 10YR 5/1 massive, firm in place with redoximorphic features

no ledge observed
no water observed

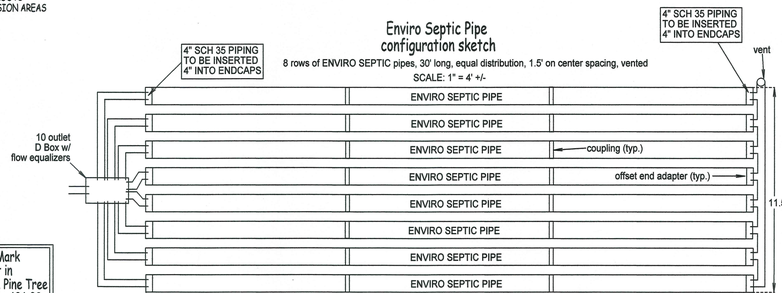
LOT LOADING

$$\frac{2000 \times [0.85 \text{ acres} - 0.00 \text{ (well radius)}]}{1.76 \text{ (soil factor)}} = 965 \text{ GPDs allowed or 6 bedrooms}$$



Enviro Septic Pipe configuration sketch

8 rows of ENVIRO SEPTIC pipes, 30' long, equal distribution, 1.5' on center spacing, vented
SCALE: 1" = 4' +/-



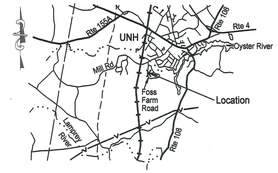
SYSTEM LOADING CALCULATIONS: TOTAL NUMBER OF PROPOSED BEDROOMS = 4 @ PERCOLATION RATE OF 8 MIN. PER INCH
REQUIRED AMOUNT OF LINEAR FEET OF ENVIRO-SEPTIC PIPING = 220 LF
PROVIDED AMOUNT OF LINEAR FEET OF ENVIRO-SEPTIC PIPING = 240 LF

DESIGN INTENT
Bed bottom to be set at the grade 105.25 which is the exisitng grade of the upslope corner of the proposed effluent disposal area.

WATER SOURCE
municipal water supply

S.C.S. SOILS DATA
ScA Scantic silt loam
0 to 3% slopes
sheet 30

LOCATION PLAN
not to scale



Enviro Septic Subsurface System Design

prepared for
Gael Ulrich
of lot identifed as
Tax Map 6 Lot 1-11
located on
FOSS FARM ROAD & RYAN WAY
Town of Durham, County of Strafford
State of New Hampshire
Date: May 21, 2015
Plan View Scale: 1" = 20'

PREPARED BY:
JASON POHOPEK
DESIGN & CONSTRUCTION, LLC
PO Box 651
Barrington, NH 03825
(603) 842-2467

NEW HAMPSHIRE Designer of Subsurface Disposal Systems ★★★ Jason B. Pohopek No. 1512 Department of Environmental Services