IMPORTANT NOTE:
This is not a boundary survey. No certifications, expressed or otherwise, are made to the boundary lines shown hereon. The boundary lines shown hereon were based solely on tax maps. LaRose Surveys, P.C. waives any and all responsibility from problems and/or issues relating to the boundary lines shown hereon including but not limited to setback lines and encroachments.

Individual Drilled Well Design Data

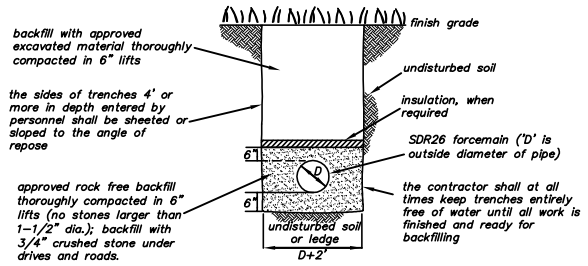
1. The drilled well(s) construction, location, disinfection, and testing shall be in accordance with the State of Vermont Water Supply Rules.

2. The basis of design for each drilled well is:

A. Average Day Demand: 140 gpd x # of bedrooms for the first three bedrooms, and 70 gpd for each additional bedroom

B. Maximum Daily Demand: (140 gpd X # of bedrooms)/720 min/day =
0.58 gpm (3 bedrooms)
0.68 gpm (4 bedrooms)

C. Operating pressure range: 40–60 psi at pressure switch

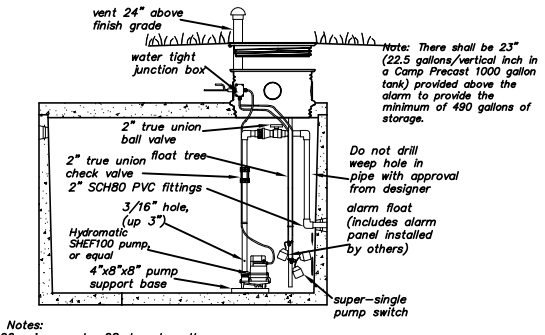


Note: If cover is less than 5', place 2" wide by 4" thick insulation board, suitable for burial, on a 6" bed of sand over pipe. In no case shall depth of cover be less than 3'. At driveway and road crossings, depth of cover shall not be less than 4'.

Forcemain Trench Notes:

1. Backfill and bedding shall be properly compacted.
2. Bedding material shall normally consist of well–graded sands and gravels with a maximum size of 3/4".
3. Backfill shall not contain:
   a. Any stones more than 12" (1–1/2" max. diameter within 2' of the outside of the pipe) in the largest dimension.
   b. Be greater than 50 pounds.
   c. Contain any frozen, wet or organic material.
4. Use rigid foam insulation at the rate of 1" for every foot less than 4' of cover over forcemain.
5. Forcemain shall be tested for leakage.
6. At any crossing under a road or drive, forcemain shall be encased in a 4" PVC sleeve. Said sleeve is to extend 8' in either direction from edge of traveled way.
7. The sides of the trenches 4' or more in depth entered by personnel shall be sheeted or sloped to the angle of repose as defined by O.S.H.A. standards.

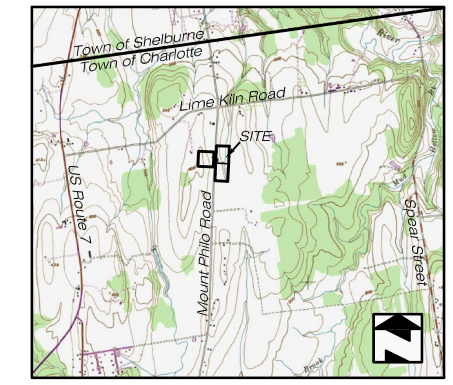
Forcemain Trench
NTS



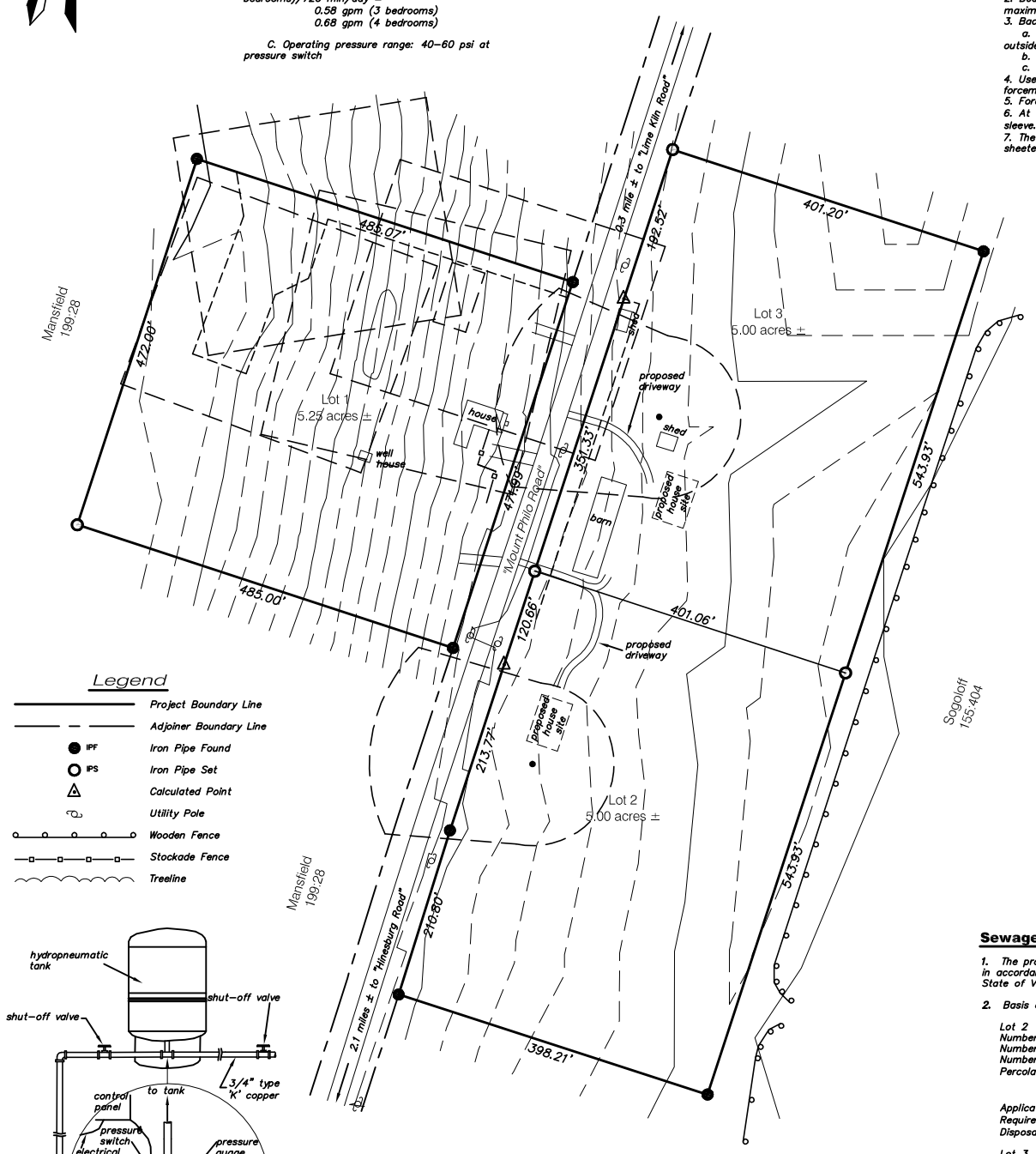
Note: There shall be 23" (22.5 gallons/vertical inch in a Camp Precast 1000 gallon tank) provided above the alarm to provide the minimum of 480 gallons of storage.

Design Notes:
1. 4000 psi concrete, 28 day strength.
2. Low pressure seals designed to accept 4" C.I. or PVC pipe.
3. Requires effluent pump and a super single pump switch with a swing setting for a 123 gallon dose set 6" above the base of the pump with a high level alarm set 6" above the "pump on" setting. There shall be a minimum of one day storage above "alarm on" level.
4. Pump station shall be leak tested for 24 hours prior to backfilling.
5. It should be noted that any deviation in the location or elevation of the septic tank, pump station, or the disposal system from the designed location may require a different size pump.

1000 Gallon Seamless Precast Concrete Pump Station
NTS



Location Plan n.t.s.

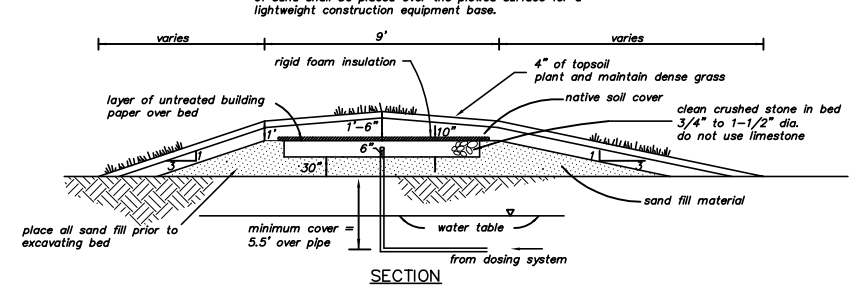


Legend

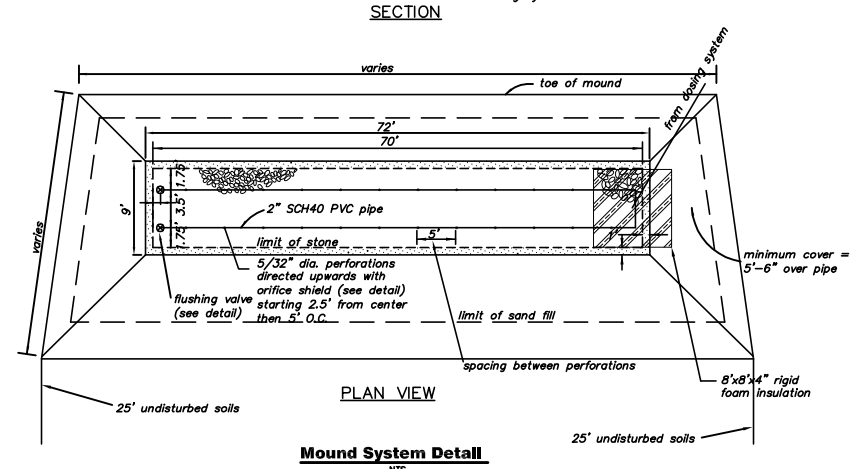
- Project Boundary Line
- Adjoiner Boundary Line
- IPF Iron Pipe Found
- IPS Iron Pipe Set
- Calculated Point
- Utility Pole
- Wooden Fence
- Stockade Fence
- Treeline

Note: Cut and remove all above ground vegetation with a hand mower. The existing ground shall not be graded or excavated. The contractor shall plow the surface to a depth of 7"–8", parallel to the land contour with the plow throwing the soil uphill.

Construction equipment shall not be driven across the original ground or the plowed surface. A minimum of 6" of sand shall be placed over the plowed surface for a lightweight construction equipment base.

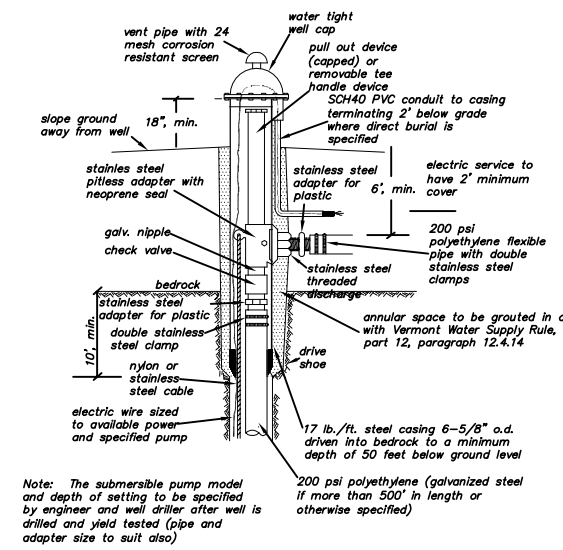


SECTION



PLAN VIEW

Mound System Detail
NTS



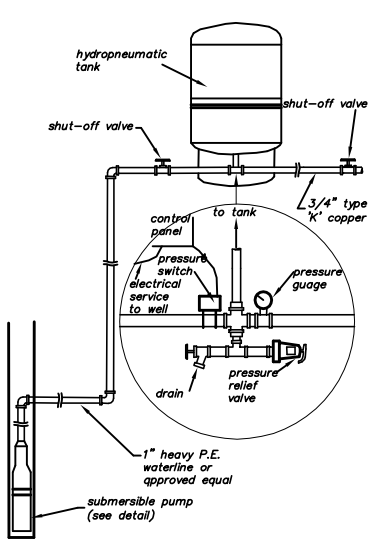
Note: The submersible pump model and depth of setting to be specified by engineer and well driller after well is drilled and yield tested (pipe and adapter size to suit also)

Typical Individual Drilled Well
NTS

Drilled Well Isolation Distances

Item	Horizontal Distance (feet) Disposal field	Septic tank	Sewer
Drilled well	a*	50	50
Lake and pond impoundment – standing water	50	25	25
River, streams	50	25	10
Drainage swales, roadway ditches	25	–	–
Main or municipal water lines	50	50	b*
Service water lines	25	25	b*
Roadways, driveways, parking lots	10	5	–
Top of embankment, or slope greater than 30%	25	10	–
Property line	25	10	10
Trees	10	10	10
Other disposal field or replacement area	10	–	–
Foundation, footing drains, curtain drains	35	10	–
Suction water line	100	50	50

* a) see presumptive isolation zone on plan
* b) see Vermont Water Supply Rule



Typical Individual Water System
NTS

Sewage Design Information

1. The proposed sewage disposal system shall be constructed in accordance with all applicable Town Regulations and the State of Vermont Environmental Protection Rules.

2. Basis of design:

Lot 2
Number of bedrooms = 4
Number of occupants = 7
Number of gallons per day = 490

Percolation Rates = Perc Test	Depth	Rate (mpi)
A	24"	23.9
B	24"	32.6

Application Rate = 1.0 gpd/sf
Required Disposal Area = 490 gpd/1.0 gpd/sf = 490 sf
Disposal Area Provided = 7' x 70' bed = 490 sf

Lot 3
Number of bedrooms = 4
Number of occupants = 7
Number of gallons per day = 490

Percolation Rates = Perc Test	Depth	Rate (mpi)
A	24"	19.2
B	24"	28.6

Application Rate = 1.0 gpd/sf
Required Disposal Area = 490 gpd/1.0 gpd/sf = 490 sf
Disposal Area Provided = 7' x 70' bed = 490 sf

3. The use of garbage disposals is not recommended.

4. If a water treatment system (water softener) is going to be used, the backwash water may not be discharged into the disposal system.

State of Vermont Mound Sand Specifications

Fill Material: The fill material from the natural soil plowed surface to the top of the trench or bed shall be sand texture with one of the following sieve analyses:

a.

Sieve Number	Opening (mm)	Percent Passing, by Weight
3/8	9.500	85 – 100
40	0.420	25 – 75
60	0.240	0 – 30
100	0.149	0 – 10
200	0.074	0 – 5

b.

Sieve Number	Opening (mm)	Percent Passing, by Weight
4	4.750	95 – 100
8	2.380	80 – 100
16	1.190	50 – 85
30	0.590	25 – 60
50	0.297	10 – 30
100	0.149	2 – 10

c.

Sieve Number	Opening (mm)	Percent Passing, by Weight
3/8	9.500	85 – 100
40	0.420	30 – 50
200	0.074	0 – 10

The material must meet specifications a, b, or c. Interpolation of analyses is not permitted. Fill material b is ASTM Specification C–33 and is intended for manufactured material.

Deed Reference: 211:402
Total Area = 15.25 acres ±
Zoning District: RUR – Rural District
Parcel ID# M02B02L04

GRAPHIC SCALE
0 100 200 300 400 500
1 inch = 100 feet

compiled & prepared by
LaRose Surveys, P.C.
Land Surveyors – Boundary Consultants
Water & Septic System Designers
P.O. Box 388 - 25A West Street
Bristol, Vermont 05443
802.453.3818
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info@larosesurveys.com

NOTE: Within the parcel boundaries shown hereon, the contour interval is two–feet and is based on a topographical survey prepared by LaRose Surveys, PC completed in September, 2013. Outside the parcel boundaries, the contour interval is ten–feet and is based solely on the State of Vermont Natural Resources Atlas. No liability is assumed by the undersigned as to the accuracy of said contours.

THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1–888–DIG–SAFE PRIOR TO ANY EXCAVATION.

STATE OF VERMONT
KEVIN R. LAROSE
No. 439
LICENSED DESIGNER

an overallsite plan showing
a subdivision of lands of

SCOTT HARDY

Mount Philo Road
Charlotte, Chittenden County, Vermont

March 26, 2014

PROJECT #13064