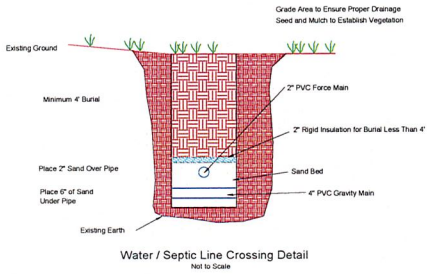
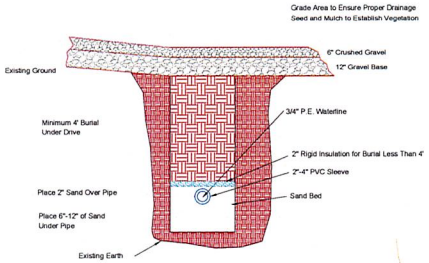
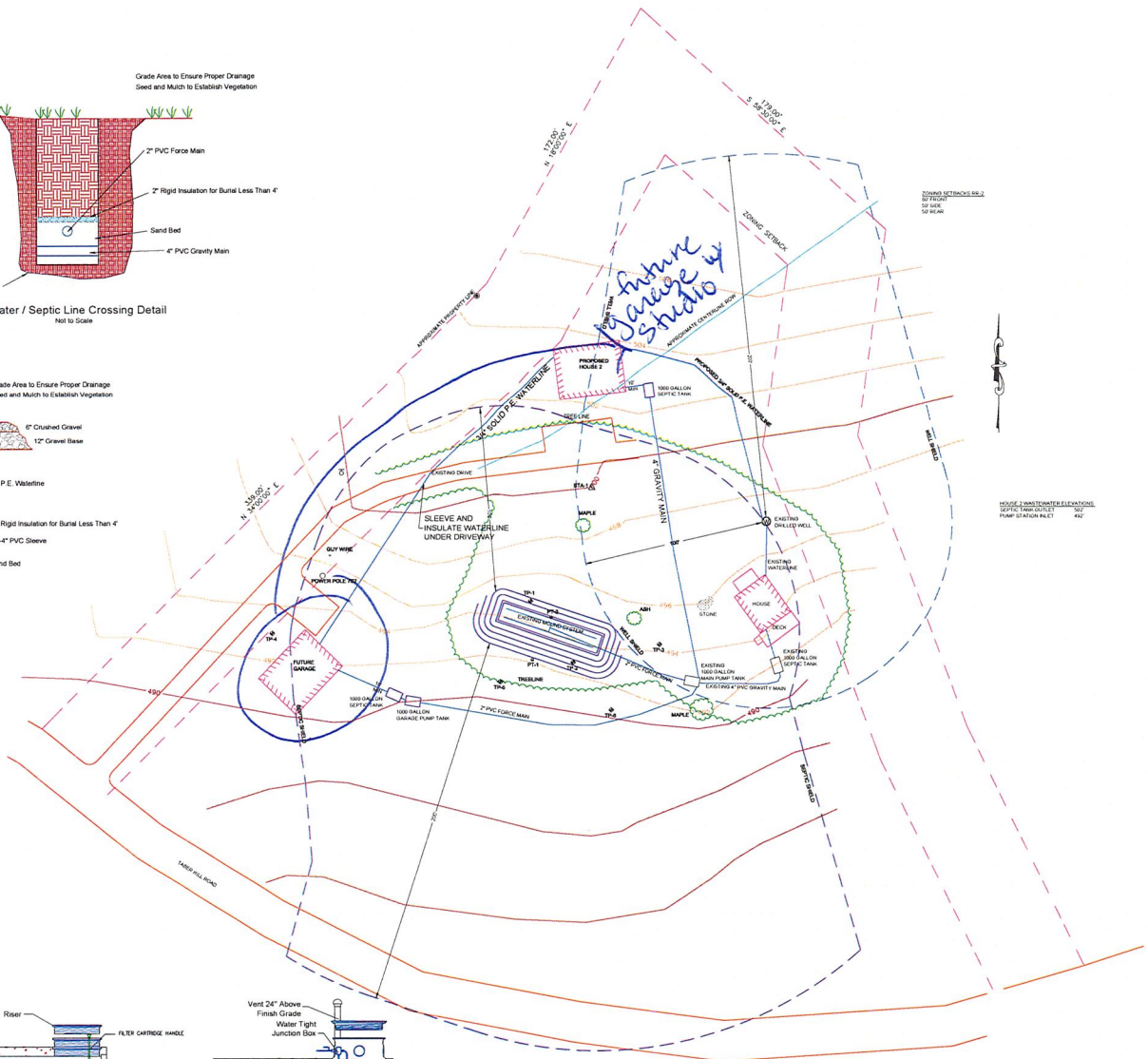
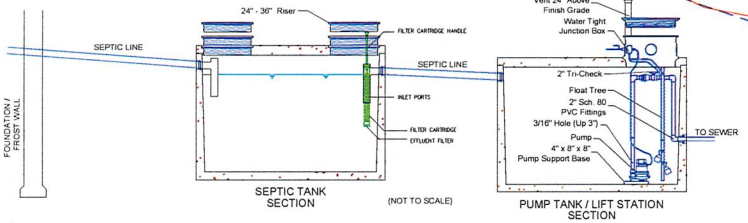


Water / Septic Line Crossing Detail
Not to Scale



Waterline Drive Crossing Detail
Not to Scale





GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

SURVEY BY TOTAL STATION
This is NOT a boundary survey
and does not conform to 27 VSA 1403
Boundary information received from land owner

NOTES

Septic Tanks (See Detail)
1) Use 1000 gallon concrete septic tanks with access risers to grade.
Existing tank may be used if found in good condition.
2) Tanks should contain an inlet baffle or "T".
3) Use 4" SCH 40 PVC or cast iron from the house to the tank.
4) Gray water lines must be connected to a State approved wastewater system.
5) Install septic tanks with access risers to grade.
6) Fit septic tanks with effluent filters to prevent passage of 1/8" and larger solids.
7) It is recommended that the septic tanks be pumped every 3 years.

Septic Pipes (House to Tank and Tank to Pump Station)
1) Slope SCH 40 PVC at 1/4" per foot from house to tank and tank to pump station.
2) Insulate with 2" rigid insulation where burial is less than 4'.

Pump Station (See Detail)
1) Use 1000 gallon pump station.
2) Install pump station with access risers to grade.
3) Pump to deliver 25 GPM at 8' TDH.

Force Main
1) Use 2" SDR 21 PVC.
2) Insulate with 2" rigid insulation where burial is less than 4'.

Leachfield Sizing Calculations
1) 1 bedroom house at 140 gpd and 3 bedroom house at 420 gpd.
Residential garage with bathroom but no increase in daily flow.
2) Load mound at 1.0 gallons per square foot per day.
3) 560 Square feet of trench is required.
4) 1 Bed at 10' by 56' equals 560 square feet.

Well / Waterline
1) Well is not to be closer than 50' from the septic tank.
2) Maintain 25' of separation between waterline and septic components.
3) Well is to be tested to ensure drinking water standards are met.

To Be Tested And Certified By The Designer
1) Forcemain is to be tested at 50psi for 2 hours.
2) Pressure should not vary by more than 5psi from start to finish.

Additional Notes
1) Lot owner is to verify all easements and right of ways.
2) Lot owner is to ensure all other local zoning requirements are met.

MAIN PUMP SIZING CALCULATIONS

Existing 1 Bedroom Residence	140 GPD
Proposed 3 Bedroom Residence	420 GPD
Application Rate	1.0 GPD/SF/Day
Bed Area Required	560 SF min
Bed Area Provided 56 X 10 =	560 SF

Headlosses **Elevational**
486' at Proposed Pump
490' at Existing Pump Tank
= 4' Elevational Head

Friction

160' of Force Main	= 0.62'
Risers and Fittings (80.4')	= 0.31'
Total Friction Losses	= 0.93'

Total Headlosses = (4 + 1.0 + 2.3') = 7.3'
+ 10% for safety = 8'

Dosing
Dose volume of Forcemain and Risers -
(160' + 8')(.0069)(3.14)(7.48 GAL/CF) = 27.2 GAL
Must pump 25 GAL/MIN
Set pump to deliver 50 gallon doses to the leachfield pump station.
*Drill weep hole after check valve to break siphon if tank is higher that discharge elevation.

Pump Sizing
Pump must deliver 25 GPM at 8' TDH

GARAGE PUMP SIZING CALCULATIONS

Headlosses **Elevational**
487' at Proposed Pump
490' at Main Pump Tank
= 3' Elevational Head

Friction

155' of Force Main	= 0.20'
Risers and Fittings (80.4')	= 0.15'
Total Friction Losses	= 0.35'

Total Headlosses = (3 + .4 + 2.3') = 5.7'
+ 10% for safety = 7'

Dosing
Dose volume of Forcemain and Risers -
(155' + 8')(.0069)(3.14)(7.48 GAL/CF) = 26.41 GAL
Must pump 5 GAL/MIN
Set pump to deliver 50 gallon doses to the leachfield pump station.
*Drill weep hole after check valve to break siphon if tank is higher thaN discharge elevation.

Pump Sizing
Pump must deliver 5 GPM at 7' TDH

STATE OF VERMONT
PAUL A. TAYLOR
450
LICENSED DESIGNER

Septic System for
Nancy Dumont
1241 Taber Hill Road
Stowe, VT 05672

Project Location: 2+/- Acres, 1241 Taber Hill, Stowe

Job Number: 2014-09-1
Drawing File: Work/2014-09 Dumont
Scale: 1"=30'

TRAILHEAD DESIGNS, LLC
P O Box 671
Barre, VT 05641
(802) 229-1777
Licensed Designer: Paul A. Taylor
Licensed Designer Type B* Number: 450

Date: June 15, 2022 Sheet 1 of 1