LEGEND

- 336 EXISTING CONTOUR
- APPROXIMATE PROPERTY LINE
- IRON PIN FOUND
- SS GRAVITY SEWER LINE
- FM FORCE MAIN
- W WATER LINE
- OE OVERHEAD ELECTRIC
- UE UNDERGROUND ELECTRIC
- T TELEPHONE LINE
- POWER POLE
- DECIDUOUS TREE
- CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- DRAINAGE SWALE
- TP TEST PIT
- PT PERCOLATION TEST
- W WELL
- PROJECT BENCHMARK

VCS GRID

VERMONT WATER SUPPLY RULE – CHAPTER 21
TABLE A – REQUIRED MINIMUM SEPARATION DISTANCES

Potential Source of Contamination and other Siting Limitations	Separation Distance
Roadway, Parking Lot (outer edge of shoulder)	25'
Driveway (less than 3 residences)	15'
Sewage System Disposal Fields	a.
Subsurface Wastewater Piping and Related Tanks	50'
Property Line	10'b
Limit of Herbicide Application on Utility R.O.W.	100'c
Surface Water	10'd
Flood ways	e.
Buildings	10'
Concentrated Livestock Holding Area & Manure Storage Systems	200'
Hazardous or Solid Waste Disposal Site	f.
Non–sewage Wastewater Disposal Fields	f.

a. See Table B

b. Increased to 50' when adjacent to agricultural cropland.

c. Applies to rights–of–way (ROW) where herbicides have been applied in the past 12 months or may be applied in the future. This distance may be increased to 200' depending on the active ingredient in the herbicide according to Vermont Regulations for Control of Pesticides.

d. For Public water sources, see Appendix A, part 3, Subpart 3.3.8.

e. Water sources shall not be located in a flood way.

f. If a water source is potentially downgradient of a source of contamination, then the Agency shall apply the criteria in 11.4.2.2.

GENERAL NOTES

1. Utilities shown do not purport to constitute or represent all utilities located upon or adjacent to the surveyed premises. Existing utility locations are approximate only. The Contractor shall field verify all utility conflicts. All discrepancies shall be reported to the Engineer. The Contractor shall contact Dig Safe (888-344-7233) prior to any construction.

2. All existing utilities not incorporated into the final design shall be removed or abandoned as indicated on the plans or directed by the Engineer.

3. The Contractor shall repair/restore all disturbed areas (on or off the site) as a direct or indirect result of the construction.

4. All grassed areas shall be maintained until full vegetation is established.

5. Maintain all trees outside of construction limits.

6. The Contractor shall be responsible for all work necessary for complete and operable facilities and utilities.

7. In addition to the requirements set in these plans and specifications, the Contractor shall complete the work in accordance with all permit conditions and any local Public Works Standards.

8. The tolerance for finish grades for all pavement, walkways and lawn areas shall be 0.1 feet.

9. Any dewatering necessary for the completion of the sitework shall be considered as part of the contract and shall be the Contractor's responsibility.

10. The Contractor shall coordinate all work within Town Road R.O.W. with Town authorities.

11. The Contractor shall install the electrical, cable and telephone services in accordance with the utility companies requirements.

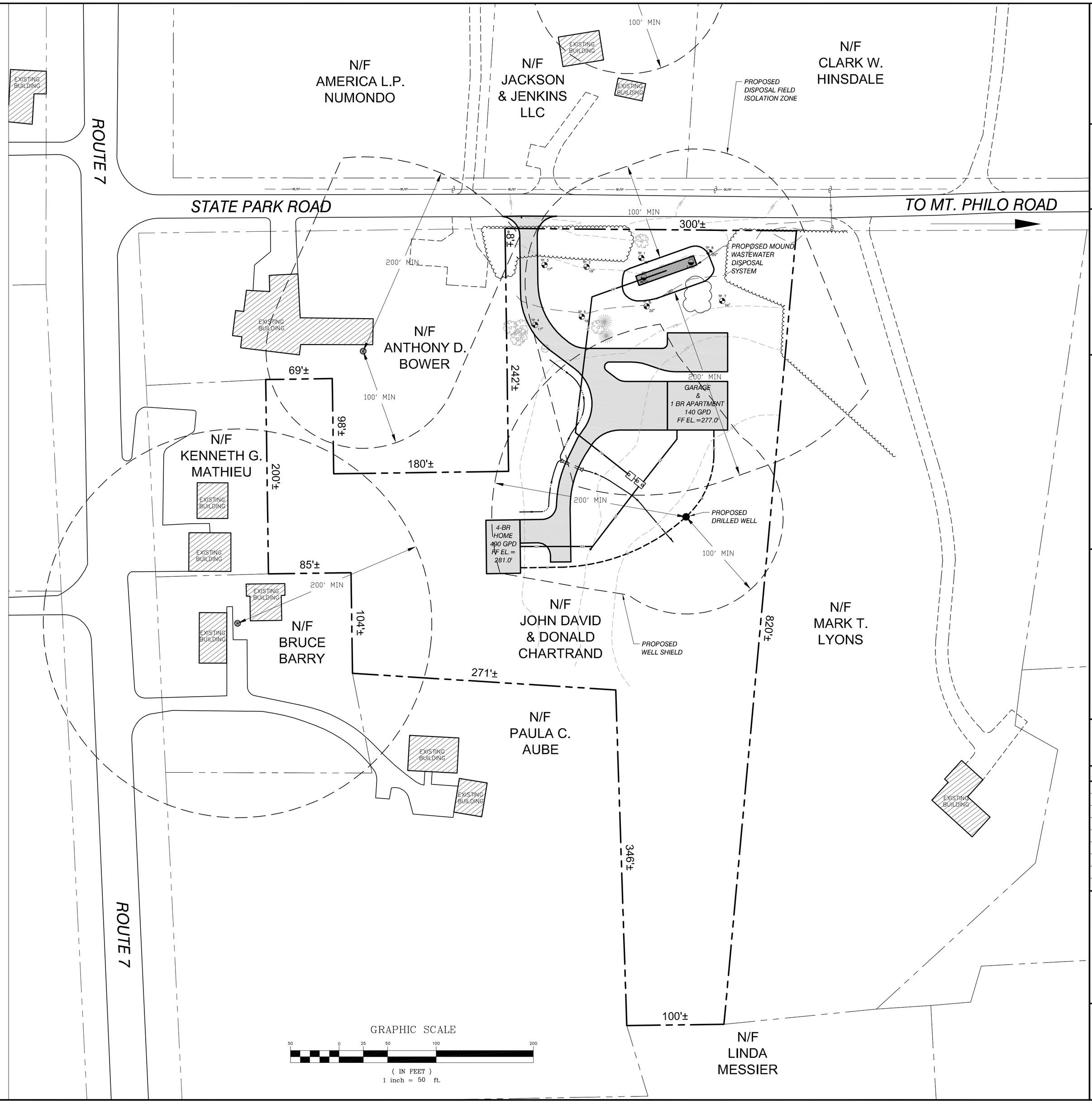
12. Existing pavement and tree stumps to be removed shall be disposed of at an approved off-site location. All pavement cuts shall be made with a pavement saw.

13. If there are any conflicts or inconsistencies with the plans or specifications, the Contractor shall contact the Engineer for verification before work continues on the item in question.

14. Property line information was abstracted from the Town of Charlotte Land Records and is based on pertinent deeds, parcel mapping and plans of record.

15. This plan is not a boundary survey and is not intended to be used as one.

16. Site information is based upon a field survey performed by Civil Engineering Associates, Inc. on May 29, 2012. Vertical datum datum scaled from USGS quad "Mt. Philo" (NGVD 29).



SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: GAC/JDL
CHECKED: DSM
APPROVED: DSM

OWNER:

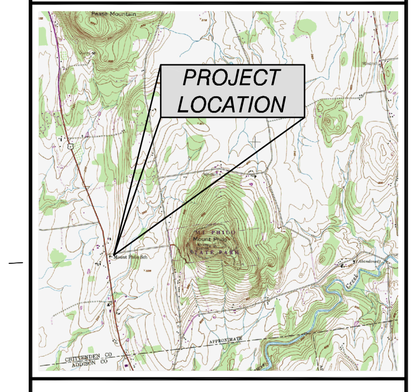
BENJAMIN CHARTRAND

3371 MT. PHILO RD
CHARLOTTE, VERMONT

PROJECT:

PROPOSED WASTEWATER DISPOSAL SYSTEM

100 STATE PARK ROAD
CHARLOTTE, VERMONT



LOCATION MAP
NOT TO SCALE

DATE	CHECKED	REVISION

OVERALL SITE PLAN

DATE: JULY, 2012
SCALE: 1" = 50'
PROJ. NO.: 12173

DRAWING NUMBER: C1.0

Chartrand Property Test Pitting

May 29, 2012

S. Harris
D. Marshall
Kevin of Denton Excavating

TP #1
0"-6" Friable brown loamy sand
6"-19" Loose orange brown loamy coarse sand
19"-25" Medium compact loamy coarse sand and gravel, some cobbles
25"-27" Loose brown coarse sand
27"-30" Medium compact brown loamy sand
30"-48" Firm grey brown sandy loam

SHGWT 29" Roots to 29"
No seeps No ledge

TP #2
0"-7" Loose brown sandy loam
7"-21" Medium compact orange brown loamy coarse sand
21"-47" Firm gray brown silty clay

SHGWT 19" Roots to 21"
No seeps No ledge

TP #3
0"-6" Loose brown sandy loam
6"-20" Medium compact orange brown loamy coarse sand
20"-39" Firm gray brown silty clay

SHGWT 17" Roots to 19"
No seeps No ledge

TP #4
0"-7" Loose brown sandy loam
7"-14" Loose orange brown sandy loam
14-20" Medium compact gray brown fine sandy loam
20"-28" Medium compact gray moist fine sandy loam
28"-46" Medium compact gray sandy loam

SHGWT 17" Roots to 21"
Seeps at 25" No ledge

TP #5
0"-9" Loose brown loamy sand
9"-15" Medium compact brown loamy fine sand
15"-22" Medium compact brown sandy loam
22"-34" Compact gray brown fine sandy loam
34"-46" Compact orange gray fine sandy loam

SHGWT 19" Roots to 23"
No seeps No ledge

TP #6
0"-9" Loose brown loamy fine sand
9"-15" Loose orange brown loamy sand
15"-21" Medium compact orange brown sandy loam
21"-33" Medium firm gray brown silty clay
33"-48" Firm gray brown silty clay

SHGWT 20" Roots to 21"
No seeps No ledge

TP #7
0"-10" Loose brown loamy sand
10"-20" Loose orange brown loamy coarse sand
20"-27" Medium compact gray brown loamy gravel
27"-42" Firm gray brown silty clay

SHGWT 24" Roots to 21"
No seeps No ledge

TP #8
0"-8" Loose brown loamy sand
8"-13" Loose orange brown loamy fine sand
13"-21" Medium compact orange brown gravely loam
21"-44" Firm gray silty clay

SHGWT 20" Roots to 17"
No seeps No Ledge

Percolation Test Results

On: 7-7-12
By: Becca Gilson
Anders F.

Perc Test West: 4.1 min/in
Perc Test East: 19 min/in

Basis of Design

Design Flow
4-BR Home 490 GPD
1-BR Apartment 140 GPD
Total Flow 630 GPD

Performance Based Design Approach
Limiting Soil Condition - Sandy Loam
Limiting Slope Condition - 5.8%
Linear Loading Rate - 18.7 GPD/LF/VLF

Design Trench - 10-foot Seepage Bed
Standard Effluent Application Rate = 1 GPD/SF
Design Linear Loading Rate - 10 GPD/LF

Resulting Groundwater Mounding
(10 GPD/LF)/(18.7 GPD/LF) = 0.54 ft = 6.5"

Limiting Depth to SHGWT under Bed/Trench = 20"
Resulting Unsaturated Depth = 20" - 6.5" = 13.5"

Required Separation to Mounded SHGWT = 36"
Min. Required Depth of Sand under Bed 36" - 13.5" = 22.5"

Limiting Depth to SHGWT at Toe of Mound = 20"
Resulting Unsaturated Depth = 20" - 6.5" = 13.5"

Limiting Depth to SHGWT at 25' below Toe of Mound = 20"
Resulting Unsaturated Depth = 20" - 6.5" = 13.5"

Disposal Field
Min Required Length of Bed 630 GPD / (10 GPD/LF) = 63 feet
Limiting Percolation Rate = See Above
Required Effective Basal Area = 630 GPD/(0.74 GPD/SF) = 852 SF
Basal Area Provided = 1,779 SF
Separation Distance to Property Line
10 FT to Toe, 17 FT provided
25 FT to bed, 27 FT provided
Required Separation to Bedrock = 4 FT, 6 FT min. provided

Pressure Distribution System
Minimum Required Number of Orifices
63 LF Bed x 10 FT width / (25 GPD/SF) = 25.2 Use 26.
Provide Two 1.5" Distribution Pipes, 59 FT long
See Detail for Orifice Sizing and Layout
Fill Volume of Distribution Piping = 10.8 Gal
Minimum Required Dose Volume = 10.8 Gal x 5 = 55 Gal
Minimum Number of Doses per Day = 4
Maximum Dose Size = 630 GPD/4 = 157 Gal

Pump Sizing
284.63 = Invert of Distribution Piping in Mound (or High Pt of FM)
_____ = Low Elevation in Pump Station (FT)
_____ = Elevation Head (FT)

Length of SDR 26 PVC Force Main = 290 FT
Diameter of Force Main = 2"
Design Flow Rate = 25 GPM
Friction Loss per 100 LF = 5.3 FT
15.37 = Resulting Friction Head (FT)
_____ = Elevation Head (FT)
3.0 = Minor Losses (FT)
3.0 = Design Residual Pressure (FT)
_____ = Design TDH
Use Hydromatic _____, 1 Ph, 60 Hz, 230 V, 0.4 HP or approved equal

Pump Station Emergency Storage
Required=630 GAL, 650 GAL Provided

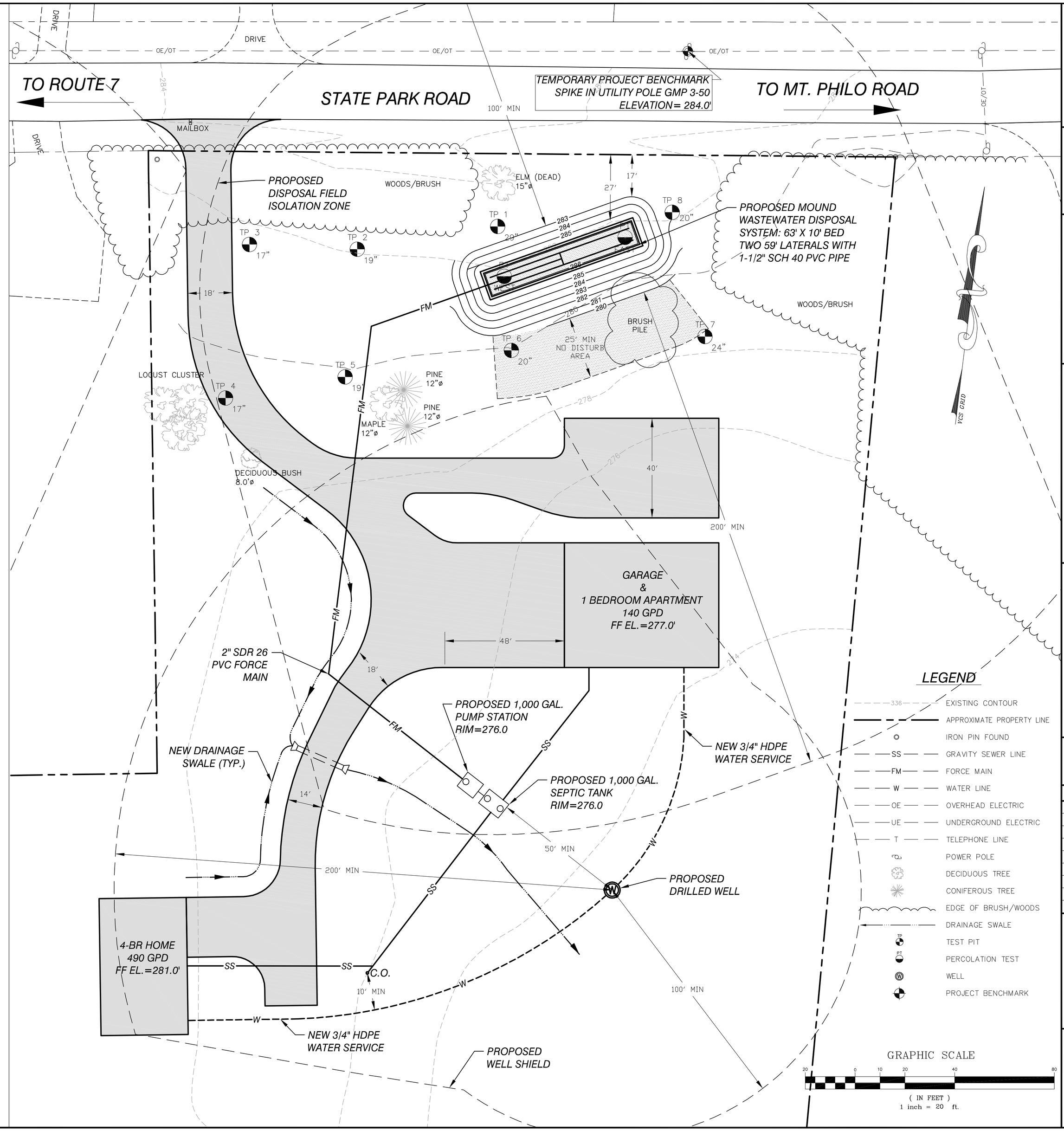
Septic Tank
Minimum Size Required = 1,000 Gal for Design Flows <667 GPD
Effluent Filter Required

MINIMUM ISOLATION DISTANCES

(Contact Engineer for any Clarifications or Conflicts)

	Horizontal Distance (Feet)		
	Leachfield	Septic Tank	Sewer
Drilled Well Serving 1 Home – Up Slope of Disposal Field	100 (Min.)[1]	50	50
Drilled Well Serving 1 Home – Down Slope of Disposal Field	200 (Min.)[1]	50	50
Shallow Well or Spring, Up Slope of Disposal Field	150 (Min.)[1]	75	75
Shallow Well or Spring, Down Slope of Disposal Field	500 (Min.)[1]	75	75
Lakes, Ponds and Impoundment	50	25	25
Rivers, Streams	50	25	10
Drainage Swales, Roadway Ditches	25	–	–
Municipal Water Main	50	50	10
Service Water Lines	25	25	10
Roadways, Driveways, Buildings	10	5	5[4]
Top of embankment or slope > 30%	25	10	–
Property Line	10 (25 Downslope)[2]	10	10
Trees	10	10	10
Replacement Area	10	–	–
Foundation, Footing Drains	35 (75 Downslope)[3]	10	–

1. Isolation distances to well locations may vary due to site conditions – contact Engineer for verification with the Vermont Water Supply Rule Regulations.
2. For mound disposal systems, the limit of mound fill must be 25 feet from any downhill property line and 10 feet from side or uphill property lines.
3. If a curtain or foundation drain is downslope of the leachfield, the leachfield cannot be closer than 75 feet to the drain. If the drain is upslope of the leachfield, it shall be 35' if possible and 20' minimum.
4. Sewers under roads, driveways or parking lots may require protective conduits or sleeves.



SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN GAC/JDL
CHECKED DSM
APPROVED DSM

OWNER:

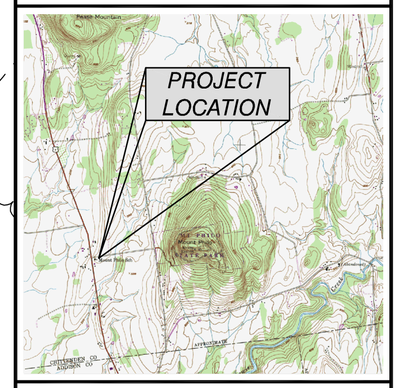
BENJAMIN CHARTRAND

3371 MT. PHILO RD
CHARLOTTE, VERMONT

PROJECT:

PROPOSED WASTEWATER DISPOSAL SYSTEM

100 STATE PARK ROAD
CHARLOTTE, VERMONT



LOCATION MAP

NOT TO SCALE

DATE	CHECKED	REVISION

PROPOSED SITE PLAN

DATE JULY, 2012
SCALE 1" = 20'
PROJ. NO. 12173

DRAWING NUMBER C2.0

MOUND DISPOSAL FIELDS & FORCE MAINS

PART 1 – GENERAL

1.01 Summary

A. Section includes:
1. Wastewater Disposal Field
2. Force Main Materials

1.02 References

A. All work shall be done in accordance with the State of Vermont Environmental Protection Rules effective September 29, 2007.

PART 2 – PRODUCTS

2.01 General

A. Disposal Fields: Schedule 40 PVC pipe meeting the requirements of the latest revision of ASTM Specification D–1785. Fittings used in the disposal fields shall be compatible with distribution lines material.

B. Force Mains: PVC pipe shall conform in all respects to the latest revisions of ASTM Specifications D–2241. All pipe fittings shall be SDR 26 (or SCH 40) clearly marked as follows:

– Manufacturer's Name and Trademark
– Nominal Pipe Size (as shown on plans)
– Material Designation

Joints shall be push–on type using elastomeric gaskets factory installed conforming to ASTM Specification D–3212.

C. Crushed stone shall be clean, durable and no smaller than 3/4" or larger than 1 1/2 inches in diameter.

PART 3 – EXECUTION

3.01 Mound Construction

A. The mound system shall be inspected during critical stages of construction by a qualified consultant from Civil Engineering Associates. This shall include the staking of the mound, the plowed surface prior to sand placement, installation and pressure test of the distribution piping, and a final inspection of the entire system. The Contractor will be responsible for contacting the Engineer to set up the inspection schedule.

B. Aboveground vegetation shall be closely cut and removed from the ground surface throughout the area to be utilized for the placement of the fill material. Prior to plowing, the dosing pump discharge line from the pump chamber or dosing chamber to the point of connection with the distribution piping header shall be installed. The area shall then be plowed to a depth of seven to eight inches, parallel to the land contour with the plow throwing the soil upslope to provide a proper interface between the fill and natural soils. Tree stumps should be cut flush with the surface of the ground and roots should not be pulled. Once plowing of the mound area is completed, the area shall be fenced to prevent vehicles and equipment from entering the plowed area.

C. To prevent compaction, construction equipment shall not be moved across the plowed surface or the effluent disposal area. However, after placement of a minimum of six inches of sand fill over the plowed area, construction equipment may be driven over the protected surface to expedite construction. Construction equipment shall be kept off the area down gradient of the disposal field. Construction and/or plowing shall not be initiated when the soil moisture content is high.

D. Construction should be initiated immediately after preparation of the soil interface by placing all of the sand fill needed for the mound to a minimum depth of 27 inches. This depth will permit excavation of trenches to accommodate the crushed stone (12 inches) necessary for the distribution piping.

E. The pressure distribution pipe should be laid level on top of the stone and flushing valves installed at the ends of the pipe. Upon completion of the distribution piping, the qualified consultant shall test the system with clean water. The test shall show that a minimum pressure of three feet of head is present at the ends of the pipe and that the difference in discharge rate between the two orifices with the greatest difference in discharge rates is not greater than 15 percent. After connecting the distribution pipe to the force main, the distribution pipe shall be covered with at least two inches of clean stone aggregate. The stone aggregate shall be covered completely with filter fabric.

F. After installation of the distribution system, crown the entire mound with cover of soil less permeable than the mound fill, covering with 12 inches on the side slopes and a minimum of 18 inches over the center of the mound. Native soil from the site is normally suitable for cover material, though the top two to four inches of this cover should be topsoil. The entire mound shall be seeded, sodded or otherwise provided with vegetative cover to assure stability of the installation.

G. The area surrounding the disposal field shall be graded to provide diversion of surface runoff waters if required.

3.02 Testing Notes

A. The wastewater system shall be inspected during critical stages of construction by a qualified consultant. This shall include at a minimum the staking of the disposal field, the trenches after the initial 9 inches of stone and distribution piping is placed, the installation and pressure test of distribution piping, and a final inspection of the entire system. The Contractor will be responsible for contacting the Engineer to set up the inspection schedule.

B. Testing of pressure distribution shall be done in the Engineer's presence. Pressure shall be measured to insure a minimum of 1 psi. (See section E above).

C. The distribution line shall then be carefully placed on the bedding with no slope, orifice shields snapped into place, and covered with at least 2" of crushed stone

D. All work shall be done in accordance with the State of Vermont Environmental Protection Rules and the Towns Sewage Ordinance Standards.

E. Prior to use of the system, the qualified consultant shall submit a written report to the State of Vermont stating that the system has been installed according to the approved plans and permit. The report shall specifically address the inspection of the site preparations and include numerical results of the orifice discharge rate comparison.

3.03 Pressure Pipe Leakage Testing

A. General: All force mains shall pass the hydrostatic pressure test and leakage test described herein. Prior to testing, all anchors and braces shall be installed. All concrete thrust blocks and restraints shall be in place and cured at least seven days. All buried pipe shall be backfilled. Suitable test plugs shall be installed and air release valves shall be installed at the high points.

B. Hydrostatic Test: The following procedure shall be used:
1. All air release valves shall be opened and the pipe shall be filled with water at a rate not to exceed the venting capacity of the air release valves.
2. The water pressure shall be raised to 150 percent of the designed operating pressure or 60 psi minimum at the highest point.
3. Failure to hold the designated pressure within 5 psi of the specified test pressure for the two hour period constitutes a failure of the section tested.

C. Leakage Test: The following procedure shall be used:
1. Leakage shall be defined as the quantity of water that must be supplied into the pipe being tested to maintain pressure within 5 psi of the specified test pressure.
2. No pipe installation shall be accepted if the leakage is greater than that determined by the following formula:

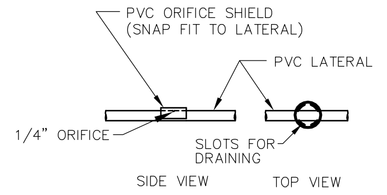
$$L = \frac{ND(P)0.5}{7{,}400}$$

Whichever is less

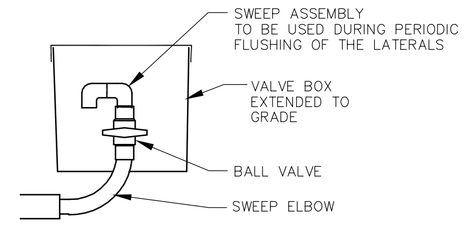
$$L = \frac{SD(P)0.5}{148{,}000}$$

S = Length of Pipe Testing (ft)
L = Allowable Leakage in Gal/Hr
D = Nominal Diameter of Pipe (in)
P = Average Test Pressure (psi)
N = Number of Joints in the Pipeline Tested

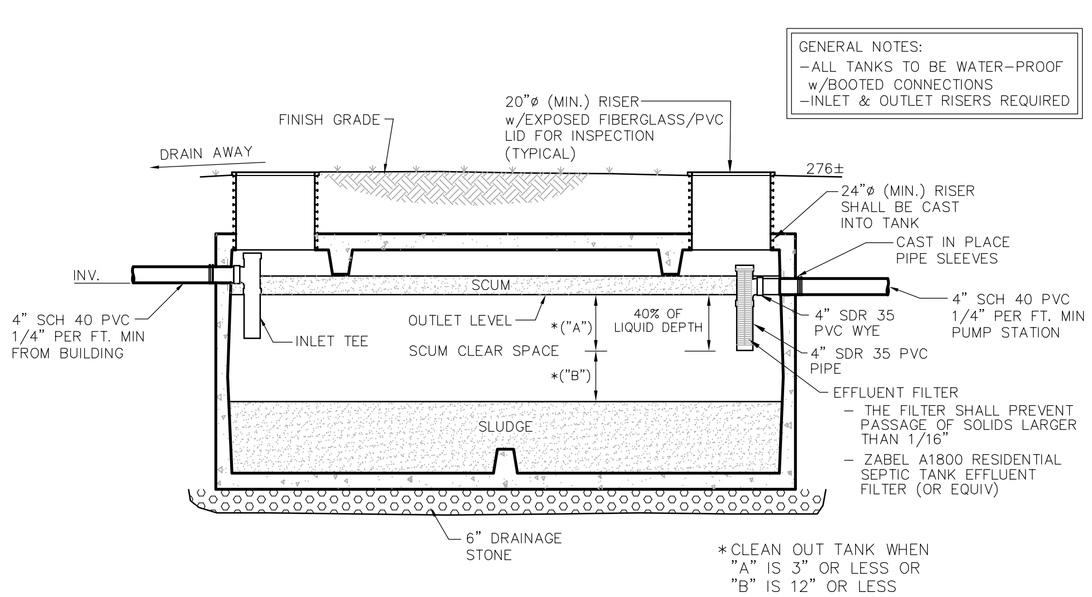
All testing shall be conducted in accordance with AWWA C600–87 or latest revision.



ORIFICE SHIELD DETAIL
N.T.S.



FLUSHING VALVE DETAIL
N.T.S.



1000 GALLON SEPTIC TANK
N.T.S.

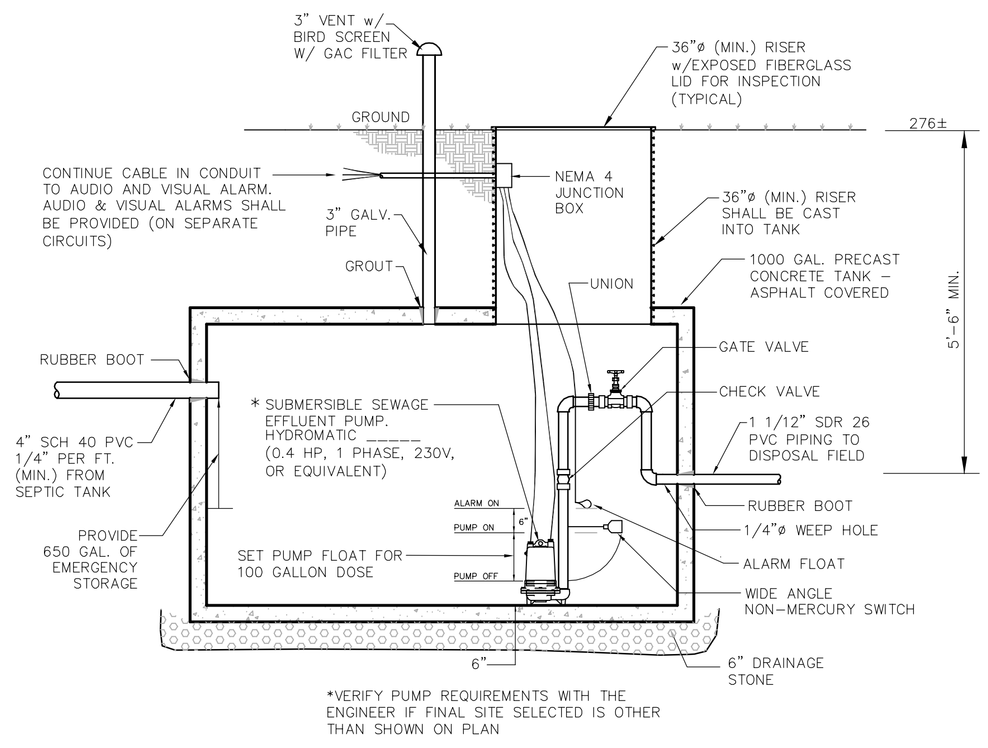
Septic Tank Notes

1. Septic tank shall be a precast concrete tank, unless otherwise approved.

2. Maintenance
   – At least once a year, the depth of sludge and scum in the septic tank should be measured. The tank should be pumped if:
   – The sludge is closer than twelve inches to the outlet baffle or;
   – The scum layer is closer than three inches to the outlet baffle.
   – Under no circumstances should anyone enter a septic tank.

3. Recommendations
   – The use of garbage grinders is discouraged as sludge accumulation in the septic tank can be increased by up to 40%. If used, the septic tank will require more frequent pumping.
   – The septic system is designed to handle human waste and toilet paper, plus water from plumbing fixtures such as toilets, baths and sinks. Moderate use of household cleaners, detergents and bleach should not damage your system; however, indiscriminate use may cause problems. Non–degradable paper products and any other non–biodegradable substances should not be put in your wastewater system.
   – Minimize the amount of water used in the household. Excessive water could flush solids from the septic tank to the disposal field which leads to clogging or plugging of the piping. When dishwashers and washers are used, make sure loads are full and stagger their use to reduce peak flows, i.e. stagger loads of laundry over several days instead of one day.
4. Walkways, patios and decks or other permanent structures should not be constructed over the septic tank.

5. There should be no need to use commercial "starter", "bacterial feeds", or "cleaners", etc. Bacteria in a septic tank system occurs naturally.



*VERIFY PUMP REQUIREMENTS WITH THE ENGINEER IF FINAL SITE SELECTED IS OTHER THAN SHOWN ON PLAN

1000 GALLON PUMP STATION DETAIL
N.T.S.

PUMP STATION / SEPTIC TANK TESTING

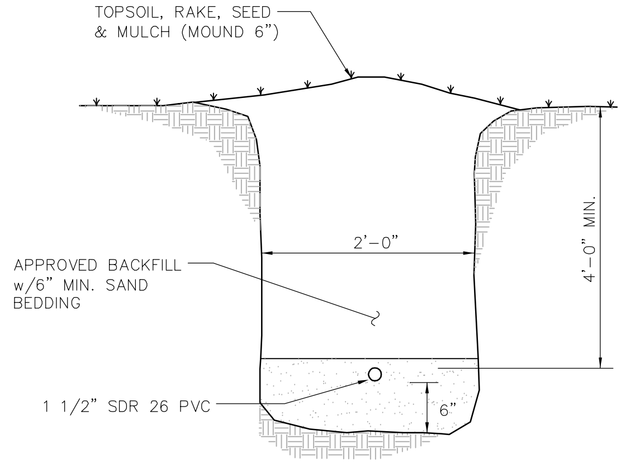
The tanks shall be tested by the following procedure and in conformance with the State of Vermont – Environmental Protection Rules:

1. Exfiltration Leakage Test: All pipes and other openings into the tank shall be suitably plugged and the plugs braced to prevent blowout. The tank shall then be filled with water to the top of the riser section. A period of time may be permitted, if the Contractor so wishes, to allow for absorption. At the end of this period, the tank shall be refilled to the top of the riser, if necessary, and the measuring time of at least four hours begun. At the end of the test period, the tank shall be refilled to the top of the riser, measuring the volume of water added. This amount shall be converted to gallons per vertical foot depth for 24 hours. The leakage for each tank shall not exceed four gallon/vertical foot/day. If leakage exceeds the allowable rate, repairs shall be made as approved by the Engineer and the tank retested. If the Contractor elects to backfill prior to testing, the testing shall be at his own risk, and it shall be incumbent upon the Contractor to determine the reason for any failure of the test. No adjustment in the leakage allowance will be made for unknown causes such as leaking plugs, absorption, etc. It will be assumed that all loss of water during the test is a result of leaks through the joints or through the concrete. Furthermore, the Contractor shall take any steps necessary to assure the Engineer that the water table is below the bottom of the tank throughout the test.

OR

2. Vacuum test in accordance with ASTM C1227–03, Standard Specification for Precast Concrete Septic Tanks, except as noted below:

–seal the empty tank and apply a vacuum to 5 inches (100mm) of mercury. The tank is approved if 90% of vacuum is held for 5 minutes.



FM TRENCH SECTION
N.T.S.

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: JDL
CHECKED: DSM
APPROVED: DSM

OWNER:

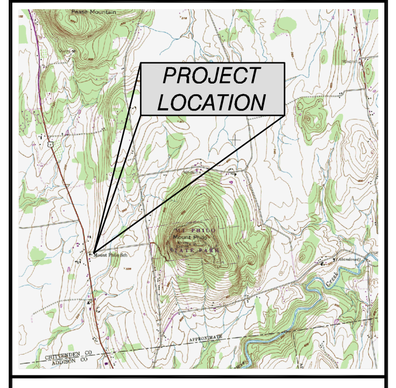
BENJAMIN CHARTRAND

3371 MT. PHILO RD
CHARLOTTE, VERMONT

PROJECT:

PROPOSED WASTEWATER DISPOSAL SYSTEM

100 STATE PARK ROAD
CHARLOTTE, VERMONT



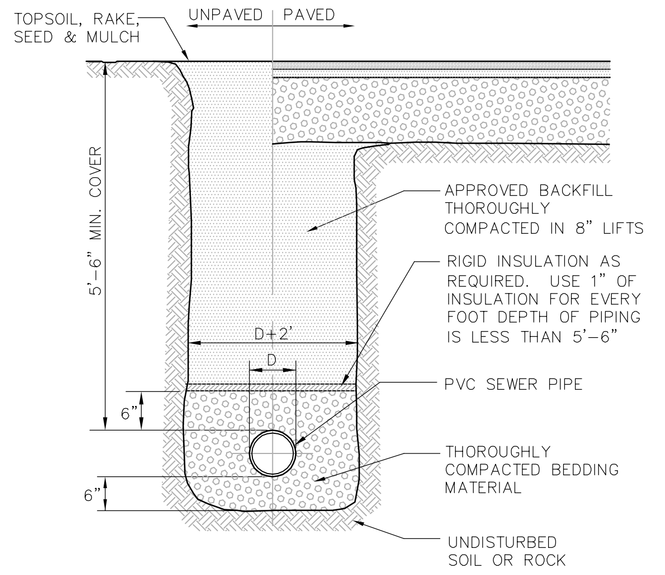
LOCATION MAP
NOT TO SCALE

DATE	CHECKED	REVISION

WASTEWATER DETAILS

DATE: JULY, 2012
SCALE: AS SHOWN
PROJ. NO.: 12173

DRAWING NUMBER: C3.0

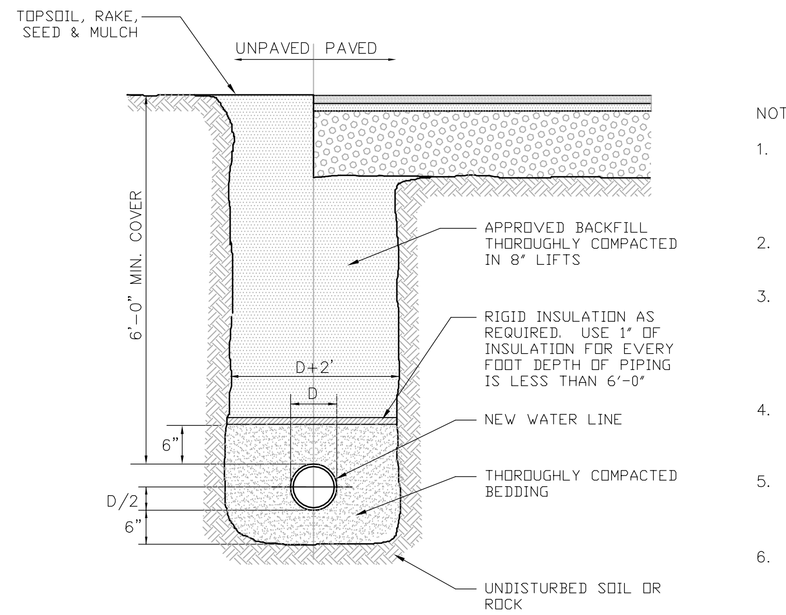


NOTES:

1. Compaction of backfill and bedding shall be a minimum of 90% (95% under roadway surfaces) of maximum dry density determined in the standard proctor test (ASTM D698).
2. Bedding material shall not be placed on frozen subgrade.
3. Approved backfill shall not contain any stones more than 12" in largest dimension (6" in roadways, 2" maximum diameter within 2' of the outside of the pipe), or contain any frozen, wet, or organic material.
4. Trenches shall be completely dewatered prior to placing of pipe bedding material and kept dewatered during installation of pipe and backfill.
5. In trenches with unstable materials, trench bottom shall first be stabilized by placement of filter fabric then crushed stone (3/4" maximum).
6. The sides of 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.
7. Bedding material shall consist of crushed stone, gravel or sand with a maximum size of 3/4". Submit a sample to the Engineer for approval.

TYPICAL SEWER TRENCH DETAIL

N.T.S.

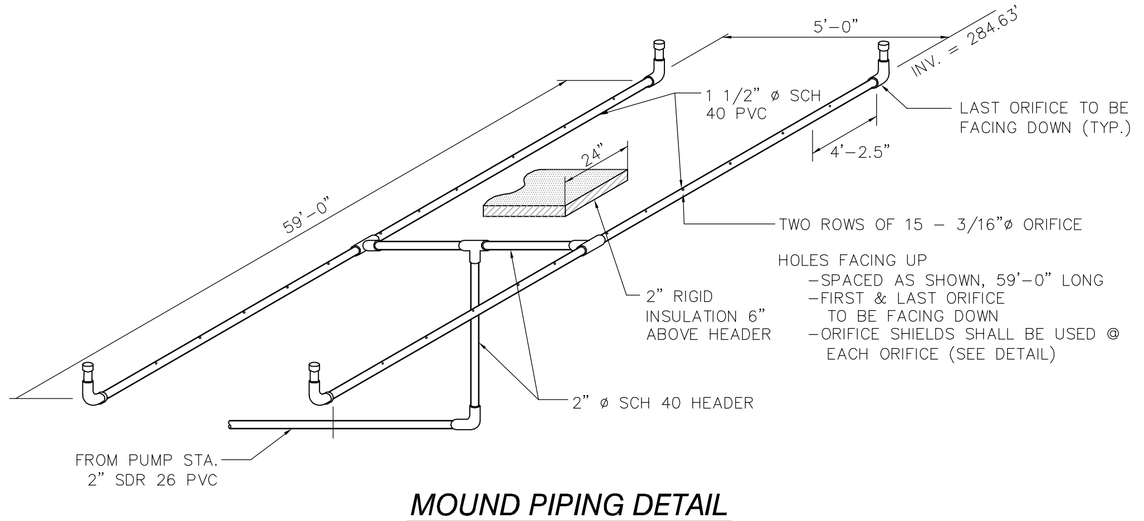


NOTES:

1. Compaction of backfill and bedding shall be a minimum of 90% (95% under roadway surfaces) of maximum dry density determined in the standard proctor test (ASTM D698).
2. Bedding material shall not be placed on frozen subgrade.
3. Approved backfill shall not contain any stones more than 12" in largest dimension (6" in roadways, 2" maximum diameter within 2' of the outside of the pipe), or contain any frozen, wet, or organic material.
4. Trenches shall be completely dewatered prior to placing of pipe bedding material and kept dewatered during installation of pipe and backfill.
5. In trenches with unstable materials, trench bottom shall first be stabilized by placement of filter fabric then crushed stone (3/4" maximum).
6. The sides of 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.

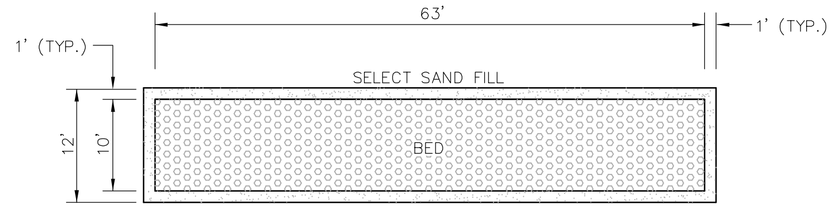
TYPICAL WATER TRENCH DETAIL

N.T.S.



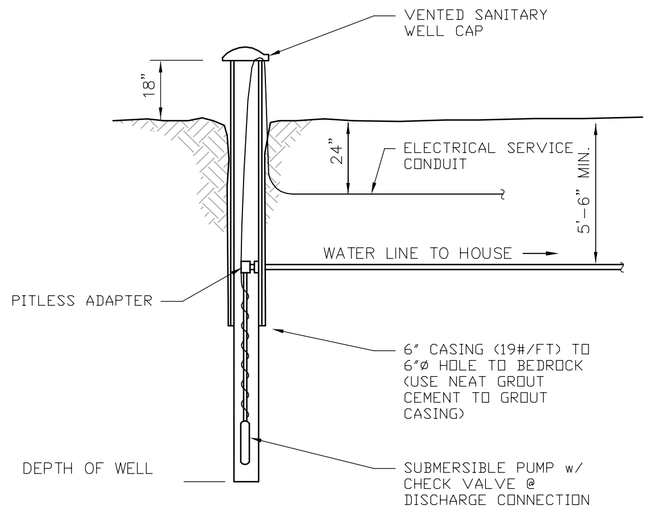
MOUND PIPING DETAIL

N.T.S.



TYPICAL BED PLAN

N.T.S.



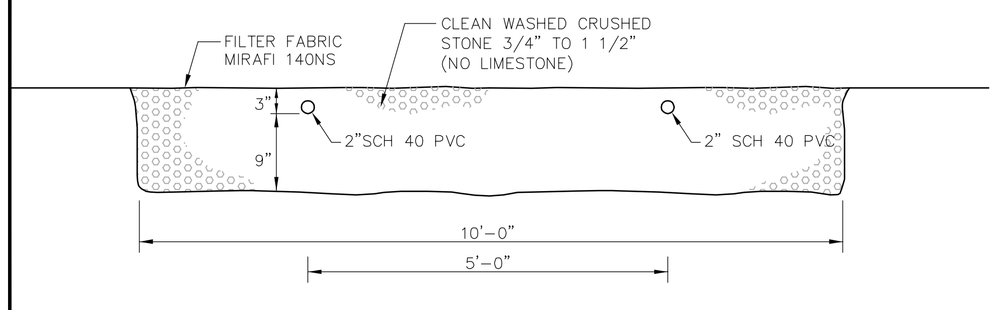
DESIGN BASIS:
AVERAGE DAILY DEMAND = 600 GALLONS (4 BEDROOMS @ 150 GPD)
MAXIMUM DAY DEMAND 600 GPD/720 MIN. = 0.8 GPM INSTANTANEOUS
PEAK DEMAND = 5 GPM (RESIDENTIAL UNIT)

NOTE:

THE WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE VERMONT WATER SUPPLY RULE - CHAPTER 21 (PART II SMALL SCALE WATER SUPPLY SYSTEMS)

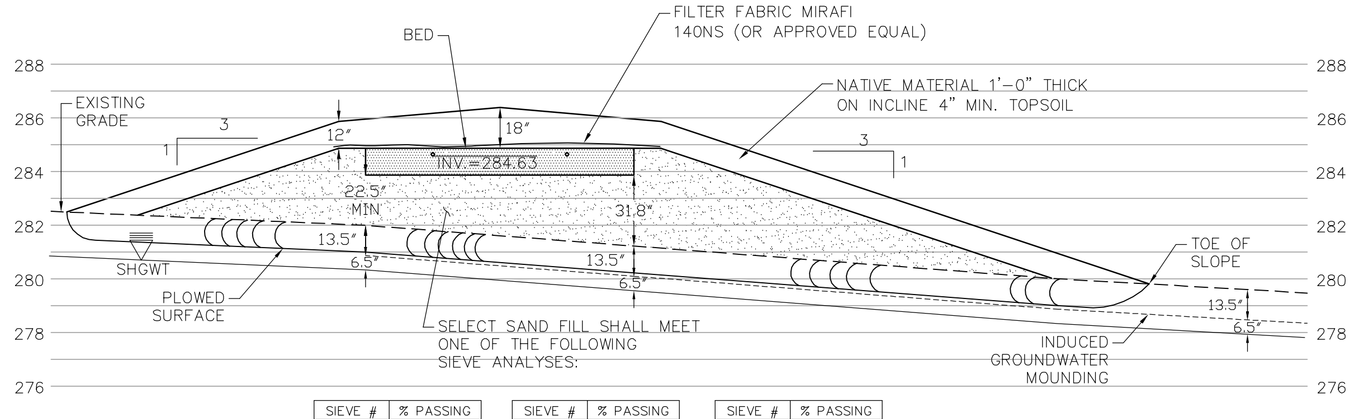
DRILLED WELL DETAIL

N.T.S.



TYPICAL BED SECTION

N.T.S.



SIEVE #	% PASSING
3/8	85-100
40	25-75
60	0-30
100	0-10
200	0-5

SIEVE #	% PASSING
4	95-100
8	80-100
16	50-85
30	25-60
50	10-30
100	2-10

SIEVE #	% PASSING
3/8	85-100
40	30-50
200	0-10

SECTION A-A

1/4" = 1'-0"

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN: JDL
CHECKED: DSM
APPROVED: DSM

OWNER:

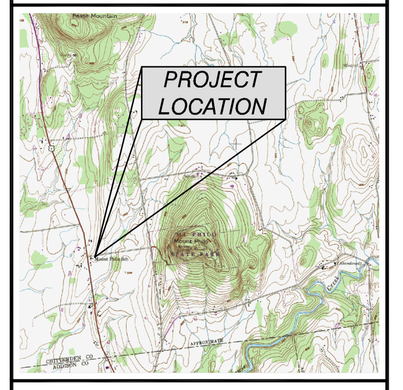
BENJAMIN CHARTRAND

3371 MT. PHILO RD
CHARLOTTE, VERMONT

PROJECT:

PROPOSED WASTEWATER DISPOSAL SYSTEM

100 STATE PARK ROAD
CHARLOTTE, VERMONT



LOCATION MAP
NOT TO SCALE

DATE	CHECKED	REVISION

WASTEWATER DETAILS

DATE: JULY, 2012
SCALE: AS SHOWN
PROJ. NO.: 12173

DRAWING NUMBER: C3.1