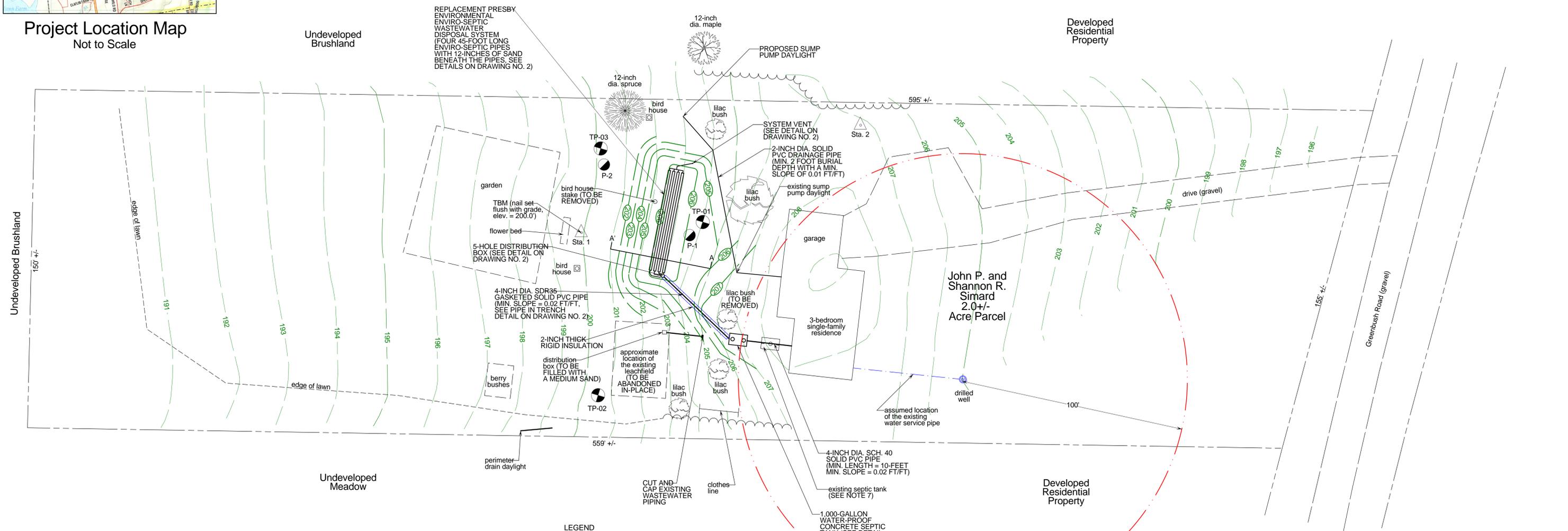
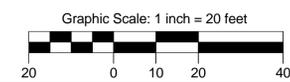
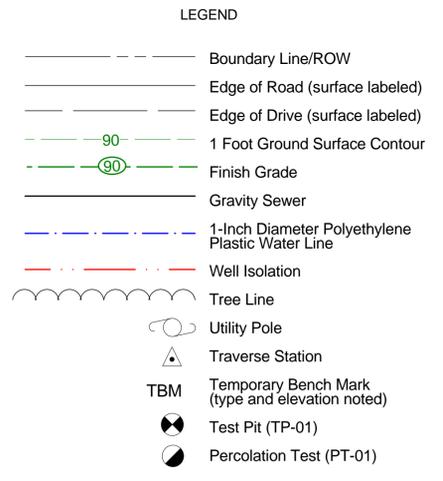


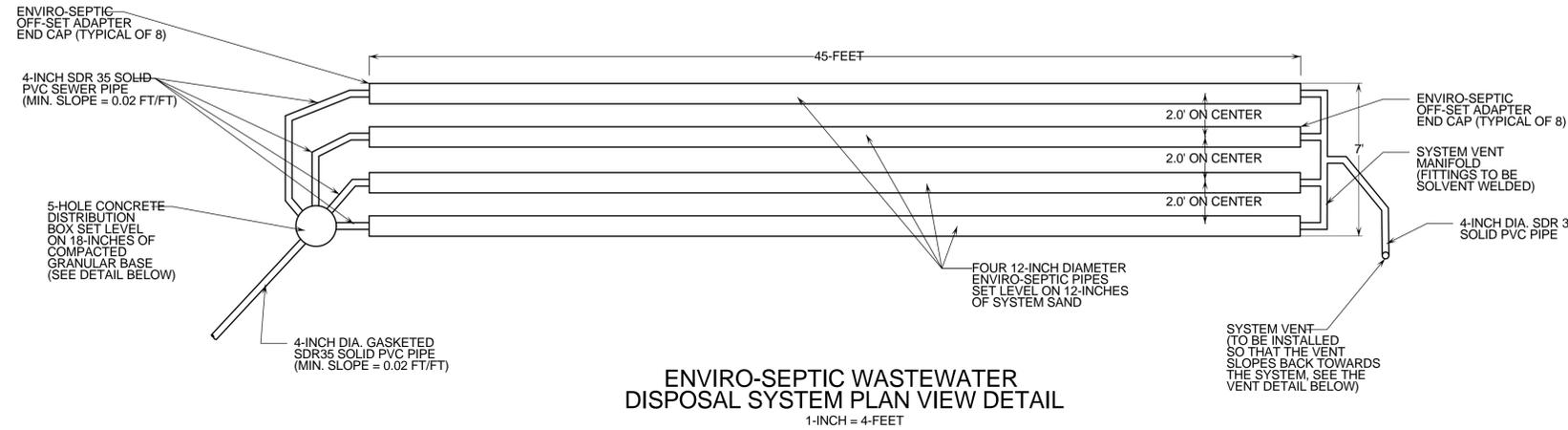
Project Location Map
Not to Scale



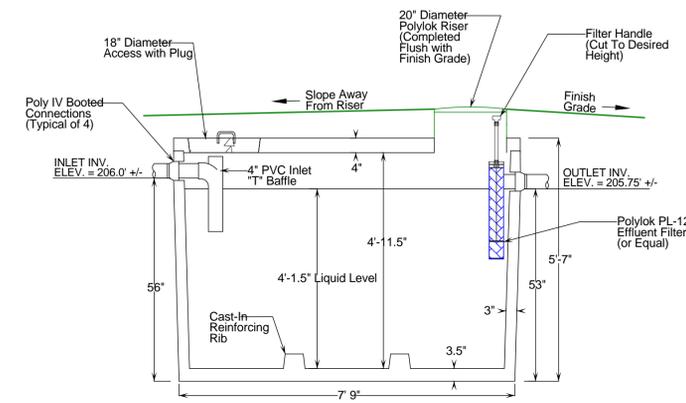
- PROJECT NOTES**
- THESE PLANS ARE BASED ON A TOPOGRAPHIC SURVEY CONDUCTED BY JASON BARNARD CONSULTING, LLC ON MARCH 9, 2009.
 - ELEVATIONS ARE BASED ON AN ASSUMED ELEVATION OF 200.00' AT STATION NO. 1.
 - THE PROPERTY LINES SHOWN HEREON ARE BASED ON PHYSICAL EVIDENCE FOUND DURING THE MARCH 9, 2009 TOPOGRAPHIC SURVEY AND A JOHN A. MARSH SURVEY PLAT DATED AUGUST 10, 1972. THIS IS NOT A BOUNDARY SURVEY AND NO WARRANTY IS MADE REGARDING THE BOUNDARY LINES SHOWN HEREON.
 - FOR CLARITY, TEXT IDENTIFYING EXISTING ITEMS ARE LOWER CASE, AND TEXT IDENTIFYING PROPOSED ITEMS ARE UPPER CASE.
 - THE REPLACEMENT WASTEWATER DISPOSAL SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE STATE OF VERMONT, AGENCY OF NATURAL RESOURCES, ENVIRONMENTAL PROTECTION RULES, CHAPTER 1, "WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES" EFFECTIVE SEPTEMBER 29, 2007.
 - THE LOCATION OF THE EXISTING WASTEWATER SYSTEM IS CONSIDERED APPROXIMATE AND WAS NOT FIELD VERIFIED.
 - THE EXISTING SEPTIC TANK WILL NEED TO BE PUMPED OUT. THE TOP SHALL BE REMOVED AND THE TANK SHALL BE FILLED WITH A MEDIUM SAND AND GRAVEL FILL. THE EXISTING TANK SHALL BE REPLACED WITH A NEW 1,000-GALLON WATER-PROOF CONCRETE SEPTIC TANK WITH AN APPROVED EFFLUENT FILTER.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL HEALTH AND SAFETY ASPECTS ASSOCIATED WITH THE PROJECT.
 - ALL EXCAVATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE STATE OF VERMONT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (VOSH) GUIDELINES FOR TRENCH EXCAVATIONS.
 - THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE DIG SAFE NETWORK AT LEAST 48 HOURS BEFORE PERFORMING ANY EXCAVATING WORK AT THE SITE.



PERMITTING TITLE:	<p>Jason Barnard Consulting, LLC 4400 VT Route 17 Starksboro, VT 05487 Telephone: (802) 453-2597 Fax number: (802) 453-8497 E-mail: jbsitotech@hotmail.com</p>		DRAWING NO.
SITE PLAN	DATE:	REVISIONS:	1
	MARCH 10, 2009		
SIGNATURE:	SCALE: 1" = 20'		SHEET 1 OF 2
	 JASON S. BARNARD LICENSED DESIGNER #430-B	DRAWN BY: JB	

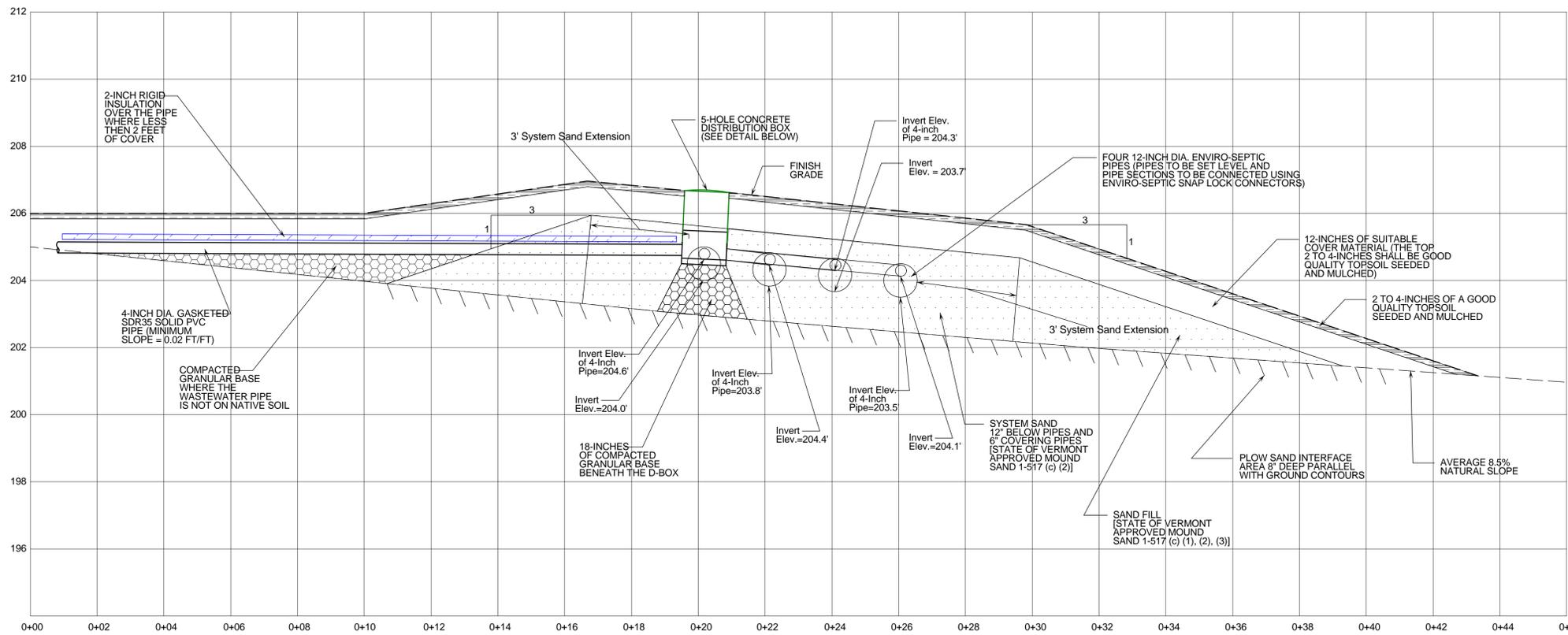


ENVIRO-SEPTIC WASTEWATER DISPOSAL SYSTEM PLAN VIEW DETAIL
1-INCH = 4-FOOT

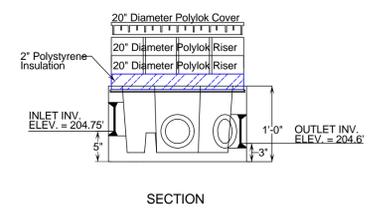
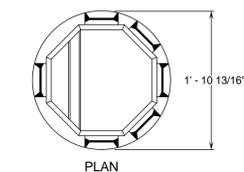


- NOTES:
1. SEPTIC TANK SHALL BE SET LEVEL ON A MINIMUM OF SIX INCHES OF COMPACTED GRANULAR BASE.
 2. AN INLET "T" BAFFLE IS REQUIRED.
 3. IF WATER-PROOF BOOTED CONNECTIONS ARE NOT USED, ALL PIPE PENETRATIONS SHALL BE SEALED WITH A "WATER PLUG" NON-SHRINK HYDRAULIC CEMENT.
 4. EFFLUENT FILTER ACCESS SHALL BE COMPLETED FLUSH WITH FINISH GRADE.

1,000-GALLON CONCRETE WATER-PROOF SEPTIC TANK
NOT TO SCALE

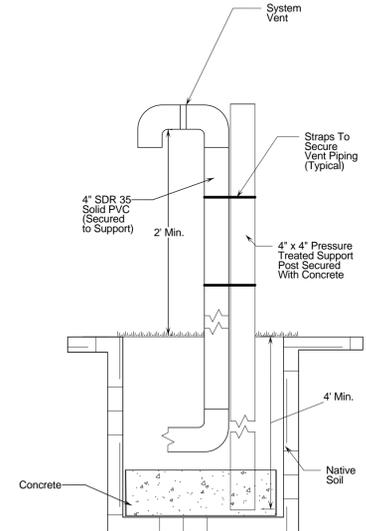


ENVIRO-SEPTIC SYSTEM SECTION
HORIZONTAL SCALE: 1-INCH = 2-FOOT
VERTICAL SCALE: 1-INCH = 2-FOOT



- NOTES:
1. DISTRIBUTION BOX TO BE SET ON 6" OF GRANULAR BASE.
 2. FLOW EQUALIZERS ARE REQUIRED.
 3. D-BOX AND FLOW EQUALIZERS SHALL BE WATER LEVELED.
 4. ALL PIPE PENETRATIONS TO BE SEALED WITH A "WATER PLUG" NON-SHRINK HYDRAULIC CEMENT.
 5. DISTRIBUTION BOX COVER SHALL BE COMPLETED FLUSH WITH FINISH GRADE.

5-OUTLET ROUND CONCRETE DISTRIBUTION BOX
NOT TO SCALE

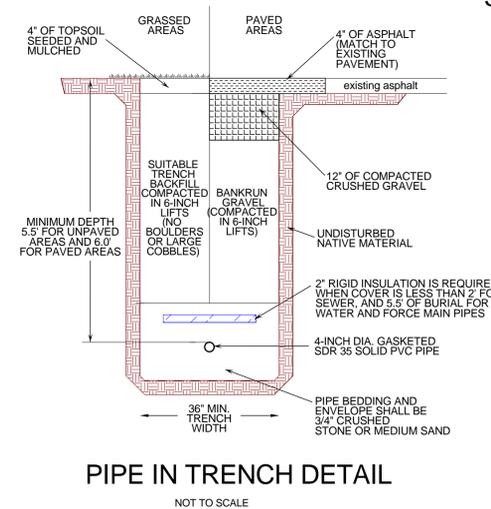
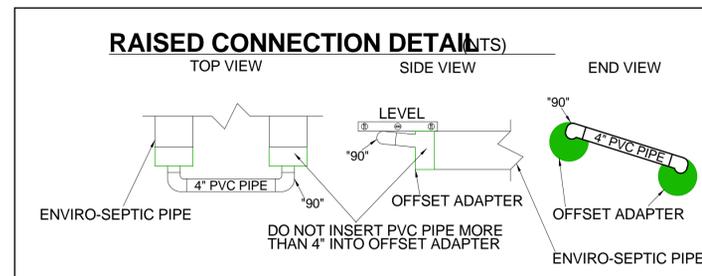


- NOTES:
1. CONNECT VENT PIPE TO THE END OFF-SET ADAPTER AND SLOPE PIPE BACK TOWARD OFF-SET ADAPTER.

SYSTEM VENT
NOT TO SCALE

WASTEWATER DISPOSAL SYSTEM CONSTRUCTION AND MAINTENANCE NOTES

1. THE REPLACEMENT WASTEWATER DISPOSAL SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF CHARLOTTE PERMITTED DESIGN DRAWINGS.
2. THE REPLACEMENT WASTEWATER DISPOSAL SYSTEM LOCATION SHALL BE STAKED OUT BY THE DESIGNER PRIOR TO START OF CONSTRUCTION.
3. THE DESIGNER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE FOR INSPECTIONS OF THE SEPTIC TANK. PREPARATION OF THE GROUND SURFACE PRIOR TO PLACING THE SYSTEM SAND AND PRIOR TO THE FINAL COVERING OF THE ENVIRO-SEPTIC SYSTEM.
4. THE DESIGNER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE FOR THE REQUIRED SYSTEM INSPECTIONS LISTED ABOVE.
5. WASTEWATER SYSTEM FINISH GRADES WILL VARY WITH NATURAL TOPOGRAPHY. PRIORITY IS TO MAINTAIN A MINIMUM OF 3 ON 1 TOE SLOPES.
6. SEPTIC TANK EFFLUENT FILTER SHOULD BE REMOVED AND RINSED BACK INTO THE SEPTIC TANK ONCE A YEAR.
7. THE SEPTIC TANK SHALL BE PUMPED OUT EVERY 3 YEARS.
8. FOLLOWING THE ENVIRO-SEPTIC WASTEWATER SYSTEM INSTALLATION, FINISH GRADE SHALL BE SEEDED AND MULCHED WITH A CONSERVATION GRASS SEED MIX.
9. WATER SOFTENER BACKWASH, SEPTIC TANK ADDITIVES, GREASE OR SANITIZERS SHALL NOT BE INTRODUCED INTO THE WASTEWATER DISPOSAL SYSTEM



PIPE IN TRENCH DETAIL
NOT TO SCALE

<p>PERMITTING TITLE: REPLACEMENT WASTEWATER SYSTEM NOTES AND DETAILS</p>		<p>Jason Barnard Consulting, LLC 4400 VT Route 17 Starksboro, VT 05487 Telephone: (802) 453-2597 Fax number: (802) 453-8497 E-mail: jbsittech@hotmail.com</p>	
<p>SIGNATURE: JASON S. BARNARD LICENSED DESIGNER #430-B</p>		<p>JOHN P. AND SHANNON R. SMARD REPLACEMENT WASTEWATER DISPOSAL SYSTEM DESIGN 4126 GREENBUSH ROAD CHARLOTTE, VERMONT</p>	
DATE: MARCH 10, 2009	REVISIONS:	DRAWING NO. 2	
SCALE: AS NOTED		SHEET 2 OF 2	
		DRAWN BY: JB	

TEST PIT LOG

Client: John and Shannon Simard Date: March 2, 2009 Location: 4126 Greenbush Road, Charlotte, Vermont

Project Description: Replacement Wastewater System Design and Permitting

Logged By: Jason Barnard, Licensed Designer #430-B Topographic Setting: Gently Sloping

Current/Historic Land Use: Residential Slope: 5-10% Vegetation: Lawn

Weather Conditions: 12° Partly Cloudy Method of Excavation: Tracked Excavator

Test Pit #	Depth (inches)	Dominant Color	Soil Texture	Soil Structure	Consistency	Mottles	Comments
01	0-3"	Dark brown	Very fine sandy loam topsoil	Crumb blocky	Friable	No	Frost to 3"
	3-15"	Brown	Very fine to fine sandy loam	Crumb blocky	Friable	No	Well drained
	15-25"	Orange-brown	Very fine sandy loam	Crumb blocky	Friable	No	Well drained
	25-50"	Olive-gray to brown	Very fine sandy loam with some stones	Crumb blocky	Friable	Fine, faint, few at 25". Prominent, common and distinct at 27"	No groundwater or bedrock to 50".
02	0-11"	Brown	Very fine sandy loam topsoil	Granular to crumb blocky	Friable	No	Well drained
	11-26"	Orange-brown	Very fine sandy loam	Crumb blocky	Friable	Fine, faint, few at 26".	Well drained
	26-48"	Olive-gray	Gravelly, very fine sandy loam	Crumb blocky	Friable	Prominent, common and distinct at 28".	No groundwater or bedrock to 48".

Test Pit #	Depth (inches)	Dominant Color	Soil Texture	Soil Structure	Consistency	Mottles	Comments
03	0-7"	Brown	Very fine sandy loam topsoil	Granular to crumb blocky	Friable	No	Well drained
	7-24"	Orange-brown	Very fine sandy loam	Crumb blocky	Friable	Fine, faint, few at 24".	Well drained
	24-50"	Brown to olive-gray	Very fine sandy loam	Crumb blocky	Friable	Prominent, common and distinct at 26".	Groundwater seeps at 40". No bedrock to 50".

John P. and Shannon R. Simard
Replacement Wastewater System Design
4126 Greenbush Road, Charlotte, Vermont

Percolation Tests of March 9, 2009

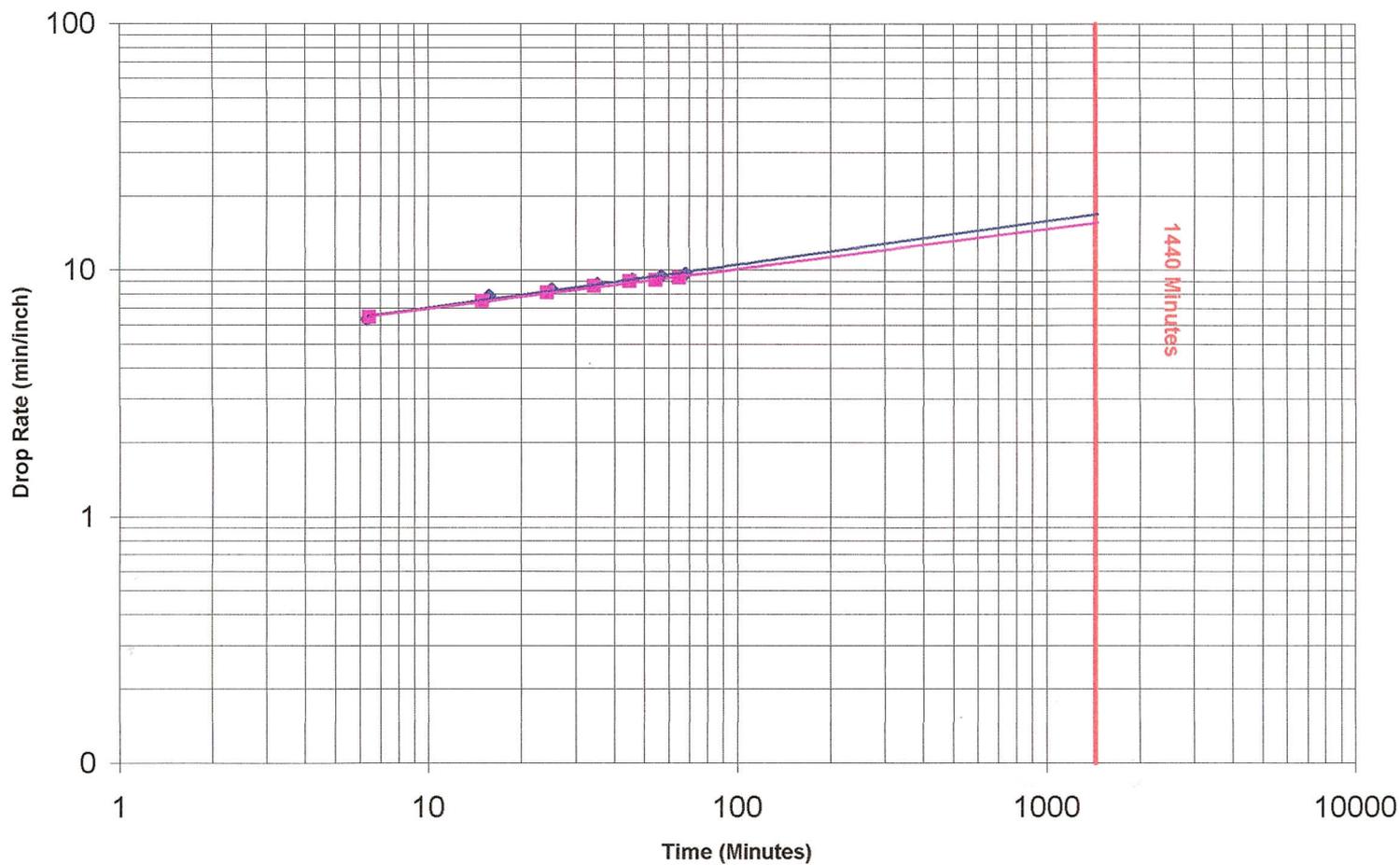
P-01	Drop Time (min)	Total Drop Time (min)	Total Drop (inches)	Drop Rate (min/inch)
	6.33	6.33	1	6.33
	9.42	15.75	2	7.88
	9.33	25.08	3	8.36
	10.25	35.33	4	8.83
	10.47	45.80	5	9.16
	11.05	56.85	6	9.48
	11.15	68.00	7	9.71
	---	1440.00	---	16.83

P-02	Drop Time (min)	Total Drop Time (min)	Total Drop (inches)	Drop Rate (min/inch)
	6.45	6.45	1	6.45
	8.52	14.97	2	7.49
	9.30	24.27	3	8.09
	10.25	34.52	4	8.63
	10.45	44.97	5	8.99
	9.65	54.62	6	9.10
	10.50	65.12	7	9.30
	---	1440.00	---	15.53

NOTES:

1. Percolation tests performed at 12 to 20-inches below ground surface.

Percolation Tests of March 9, 2009



STATE MOUND SAND SPECIFICATIONS

(c) 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:

(1).

<u>Sieve Number</u>	<u>Opening (mm)</u>	<u>Percent Passing, by Weight</u>
10	2.000	85-100
40	0.420	25-75
60	0.240	0-30
100	0.149	0-10
200	0.074	0-5

(2).

<u>Sieve Number</u>	<u>Opening (mm)</u>	<u>Percent Passing, by Weight</u>
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

(3).

<u>Sieve Number</u>	<u>Opening (mm)</u>	<u>Percent Passing, by Weight</u>
10	2.000	85-100
40	0.420	30-50
200	0.074	0-10

The material must meet specifications 1, 2, or 3 above. Interpolation of analyses is not permitted. Fill material 2 is ASTM Specification C-33 and is intended for manufactured material.