MOUNTAIN SOILS, INCORPORATED

71 LEDFORD DRIVE FRANKLIN, NC 28734
EMAIL: MOUNTAINSOILS@FRONTIER.COM WEBSITE: WWW.MOUNTAINSOILS.COM
OFFICE/FAX: (828) 524-5962 CELL: (828) 421-3149

138 Hileath Drive (owned by Diane Schwab) **REVISED 10-12-2010**
PIN #: 4626689899 (Iredell County, NC)

Onsite Wastewater Septic System Overview:

The following report has been prepared by Mountain Soils, Inc. (MSI) for 138 Hileath Drive (PIN 4626689899) in Iredell County, North Carolina. Please note that this is an existing house (2-bedroom) which is proposed to be renovated. No additional bedrooms will be added and the footprint will not be expanded.

It should be noted that the existing system was attempted to be located. An existing septic tank was located in the front of the house with a 4" SCH 40 PVC pipe extending down the southern side of the property. The drainfield has not been located at this time.

This report details how a new septic system can be installed to meet current onsite regulations. It is also recommended to pump then crush and fill the existing septic system prior to renovation of the 2-bedroom house.

Application Type:	N/A (Opinion)				
Number of Bedrooms:	Proposed Septic System	**GPD**	**Soil Group**	**Site Specific LTAR**	**Linear Feet Required Calculation (in Square Feet)**
Initial Septic System:	25% Reduction	240	III	0.375	240 gpd / 0.375 gpd/ft^2 = 640 ft^2 640 ft^2 / 4 ft trench eq. = 160 ft (See calculations below)
Repair Septic System:	TS II Drip Irrigation	240	III	0.1875	240 gpd / 0.1875 gpd/ft^2 = 1,280 ft^2 or 640 linear feet of drip irrigation tubing (See calculations below)
Easement Required:	NO				

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138 Hileath Drive; Mooresville 10/12/2010
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Septic System Calculation Worksheet

Initial System: 25% Reduction

Recommended Trench Bottom Depth: 24"

Gal / Day	Trench Width (Inches)	Trench Equivalency (Feet)	Soil Depth on 0% Slope	(factors in 24" trench depth)
240	36	4	36	

Slope	Pit# / Auger#	Soil Depth (in.)	Total Suitable Pit Depth/ Sap. Depth (in.)	Soil Needed (slope adjusted) (in.)	[1] Total Depth of Saprolite Required (2:1 ratio) factoring Soil Depth (in.)	Fill Material Required (in.)	Morphological Based Field LTAR
12%	P1	21	66+	40.32	52	0	0.5
0%	A1	0	85+	36	48	0	0.5
0%	A2	21	65+	36	48	0	0.5
12%	A3	28	63+	40.32	52	0	0.5
12%	A4	36	61+	40.32	44	0	0.5
					LTAR Utilized		0.375
					Linear Feet Required		160

Repair System: TS II Drip Irrigation

Recommended Drip Tubing Depth: 12"

Gal / Day	Trench Width (Inches)	Trench Equivalency (Feet)	Soil Depth on 0% Slope	(factors in 12" tubing depth)
240			24	

Slope	Pit# / Auger#	Soil Depth (in.)	Total Suitable Pit Depth/ Sap. Depth (in.)	Soil Needed (slope adjusted) (in.)	[1] Total Depth of Saprolite Required (2:1 ratio) factoring Soil Depth (in.)	Fill Material Required (in.)	Morphological Based Field LTAR
10%	A5	21	66+	24	27	0	0.5
					LTAR Utilized		0.188
					Linear Feet Required		640

[1] [(soil depth needed-soil depth) x 2] + Soil depth = sap. Depth needed
Above equation only to be used if the difference in soil depth needed and actual soil depth present = 12" or less

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

Sheet: 1 of 2
Property ID: 4626-68-9899
Lot #: 501
File #: 163209
AppID:

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

Owner: Diane Schwab
Address: 138 Hileath Dr. Mooresville, NC 28117
Proposed Facility: SFR Design Flow (.1949) 240 GPD
Location of Site: Same
Water Supply: [ ] Public [x] Individual [x] Well [ ] Spring [ ] Other
Evaluation Method: [x] Auger Boring [x] Pit [ ] Cut
Type of Wastewater: [x] Sewage [ ] Industrial Process [ ] Mixed

Applicant: Jeff Calhoun
Date Evaluated: 10/11/2010
Property Size: .58 AC
Property Recorded: Yes

PROFILE #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941		b PROFILE FACTORS				Profile Class & LTAR
			.1941 Structure/ Texture	.1941 Consistence Mineralogy	.1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	
AB	0%	0-28	FILL		NA				
1	LINEAR	28-50	SL,MASS	VFR	NA				
		50-85	LS,MASS	VFR	NA	0"	S	>85"	.375
AB	0%	0-9	SL	VFR	NA				
2	LINEAR	9-13	L,GR	VFR	NA				
		13-21	L,M,SBK	VFR	NA				
		21-65	LS,MASS	VFR	NA	21"	S	>65"	.375
AB	12%	0-6	L,M,GR	VFR	NA				
3	LINEAR	6-21	SCL,M,SBK	FR	NA				
		21-28	SL,SBK	VFR	NA				
		28-63	LS,MASS	VFR	NA	28"	S	>63"	.375
AB	12%	0-6	SL,M,GR	FR	NA				
4	LINEAR	6-19	SCL,M,SBK	FR	NA				
		19-28	L,M,SBK	VFR	NA				
		28-36	SL,M,SBK	VFR	NA				
		36-61	SL,MASS	VFR	NA	36"	S	>61"	.375

Description	Initial System	Repair System
Available Space (.1945)	S	S
System Type(s)	G-25%	TS-II DRIP
Site LTAR	.375	.188

Other Factors (.1946):

Soil Evaluation By: Steve Melin & Ben Aldridge
Others Present: None

Site Classification (.1948): S

Site Evaluation By: Steve Melin & Ben Aldridge
Others Present: None