

Afton Soil Consulting
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November 8, 2017

Chip Jones, Senior Advisor
SVN Motleys
3600 Deepwater Terminal Blvd.
Suite 200
Richmond, VA 23234

re: Soils Evaluation on Green Mountain Farm
Secretarys Sand Road
Tax Map 119-54, Albemarle County, VA

Dear Mr. Jones,

On November 7, 2017, I visited the above-referenced property on Secretarys Sand Road to determine whether the land being sold as Tract 2 could accommodate a drainfield and reserve drainfield area large enough to serve a house site with a potential new home with as many as 5 bedrooms.

My investigation consisted of augering a number of holes in an area of the property slightly downslope from a potential house site (near the southeast corner of Tax Map 119-55A) with convex, well-drained landform. After assessing the soils using common field methods, I then marked my boring locations with 18" orange wire flags.

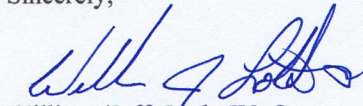
The soils I encountered were deep and well-drained enough for the installation of a traditional septic tank and drainfield with the capacity for a 5-bedroom home. A pump would not be required, as the drainfield area is at a lower elevation than the proposed homesite.

There is room on the parcel for the required 100% Reserve Area as well. The Reserve Area soils are to be left relatively undisturbed (no buildings or excavations) as a potential future area in which a new drainfield can be installed when/if the initial drainfield should begin to cease to function properly.

Please find enclosed partial documentation of the site and soil conditions I encountered, along with a rough site sketch depicting the area investigated.

I hope this letter suits your needs, and if you have any questions, please do not hesitate to contact me.

Sincerely,



William (Jeff) Loth, IV, Owner
Afton Soil Consulting

Soil Summary Report

General Information

Date: 11/7/17	Submitted to _____ Health Department		
Applicant: Chip Jones, SVN Motleys		Telephone: (804) 822-3145	
Address: 3600 Deepwater Terminal Blvd., Suite 200, Richmond, VA 23234			
Owner: Steger Family Trust		Address: 1525 Old Ballard Rd., Charlottesville, VA 22901	
Location: east of Rt. 717, 1.4 mile south of Rt. 719			
Tax Map: 119-55A		Subdivision:	
Property Size: 156.9 ac.		Lot:	

Soil Information Summary

1. Position in landscape satisfactory? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Describe: shoulder and sideslope			
2. Slope (max) 24 %			
3. Depth to Rock or impervious strata:	Max.	in.	Min. 60+ in.
4. Depth to seasonal water table (gray mottling or gray color):	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Inches	
5. Free water present: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> range in inches -			
6. Soil percolation rate estimated?	Yes <input checked="" type="checkbox"/>	Texture Group I <input type="checkbox"/> II <input type="checkbox"/> III <input checked="" type="checkbox"/> IV <input type="checkbox"/>	
	No <input type="checkbox"/>	Estimated rate 65 min/inch	
7. Permeability test performed Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
If yes, note type of test performed and attach			

<input checked="" type="checkbox"/> Site Approved	Drainfield to be placed at 36" depth at site designated on site sketch
<input type="checkbox"/> Site Disapproved	
Reason for Rejection	
1. <input type="checkbox"/>	Position in landscape subject to flooding or periodic saturation
2. <input type="checkbox"/>	Insufficient depth of suitable soil over hard rock
3. <input type="checkbox"/>	Insufficient depth of suitable soil to seasonal water table
4. <input type="checkbox"/>	Rates of absorption too slow.
5. <input type="checkbox"/>	Insufficient area of acceptable soil for required drainfield, and or reserve area
6. <input type="checkbox"/>	Proposed system too close to well
7. <input type="checkbox"/>	Other Specify

Soil Profile

Hole	Hrzn	Depth (in)	Material Description	Txt Grp
1	Ap	0-3	10yr3/3 dark brown Loam	2
	Bt	3-15	5yr5/6 yellowish red Clay Loam, weak SBK	3
	BtC	15-60	2.5yr4/6 red Clay Loam, weak SBK, and increasing very highly weathered schist fragments	3
2	Ap	0-4	10yr3/3 dark brown Loam	2
	Bt	4-12	5yr5/8 yellowish red Clay Loam, weak SBK	3
	BtC	12-60	2.5yr4/6 red Clay Loam, weak SBK, and increasing very highly weathered schist fragments	3
3	Ap	0-3	10yr3/3 dark brown Loam	2
	Bt	3-18	5yr5/6 yellowish red Clay Loam, weak SBK	3
	BtC	18-60	2.5yr4/6 red Clay Loam, weak SBK, and increasing very highly weathered schist fragments	3

Design Calculations

Design Basis

A. Estimated Percolation Rate	65 @ 36 in.
B. Trench bottom square feet required per bedroom	496 - 25% = 372 (GMP #135.A)
C. Number of bedrooms	5

Area Calculations

A. Length of trench (ft.)	<u>75</u>
B. Length of available area (ft.)	<u>75</u>
C. Width of trench (ft.)	<u>3</u>
D. Number of trenches	<u>9</u>
E. Center-to-center spacing (ft.)	<u>9</u>
F. Width required (ft.)	<u>75</u>
G. Width of available area (ft.)	<u>75</u>
H. Total square footage required	<u>2480 - 25% = 1860</u>
I. Square footage in design	<u>2025</u>
J. Is a reserve area required?	Yes, <u>100%</u> Reserve Area available

(Note: Some items on map may not appear in legend)



November 8, 2017



Map is for Display Purposes Only • Aerial Imagery from the Commonwealth of Virginia and Other Sources