

**Commonwealth of Virginia
Application for a Sewage Disposal and/or Water Supply Permit**

Health Department ID# _____ (VDH Use)

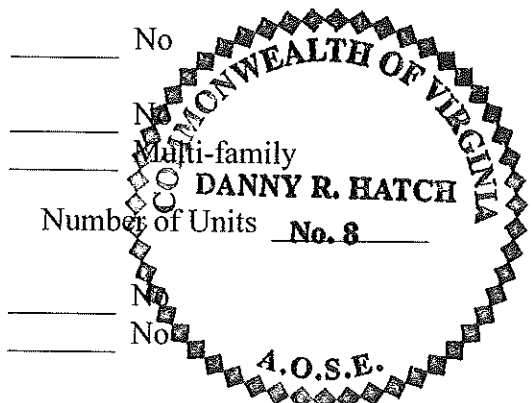
Owner William Monahan Telephone 607-785-2528
Address 180 Nelson Road, Vestal NY 13850

Agent Same Telephone _____
Address _____

Directions to Property: From I-95 take 610 West to right on Doc Stone Rd. to left on Juggins Road;
property on left and right

Subdivision _____ Section _____ Block _____ Lot 2
Other Property Identification _____ Map Reference TM-20-66
Dimension/size of Lot/Property 3.50938 AC

Residential Use X Yes _____ No
Termite Treatment X Yes _____ No
X Single Family _____ No
Number of Bedrooms 4
Basement X Yes _____ No
Fixtures in Basement X Yes _____ No



Proposed Sewage Disposal Method:

Onsite Sewage Disposal System: _____ Septic Tank Drainfield _____ LPD _____ Mound X* Other
* Drip with FAST pretreatment

Water Supply: _____ Public _____ New _____ Existing
X Private X New _____ Existing

Describe: Drilled IIIB

The property lines, building location and sewage disposal system site are clearly marked and the property is sufficiently visible to see the topography. I give permission to the Department to enter onto the property described for the purpose of processing this application and to perform quality assurance checks as necessary until the sewage disposal system has been constructed and approved.

Signature of Owner/Agent _____

Date _____

Site Sketch

Monahan Property

Lot 2

Notes:

1-On and off site features noted within 200 feet of proposed drainfield and well areas are shown.

Scale 1inch=100± feet

Pit #

P1-P5 (primary)

P1-P4 (reserve)

Slope Direction →

6% (primary)

9% (reserve)

Drainfield Corner Stakes

A-E (primary)

K-N (reserve)

F-J (addition area)

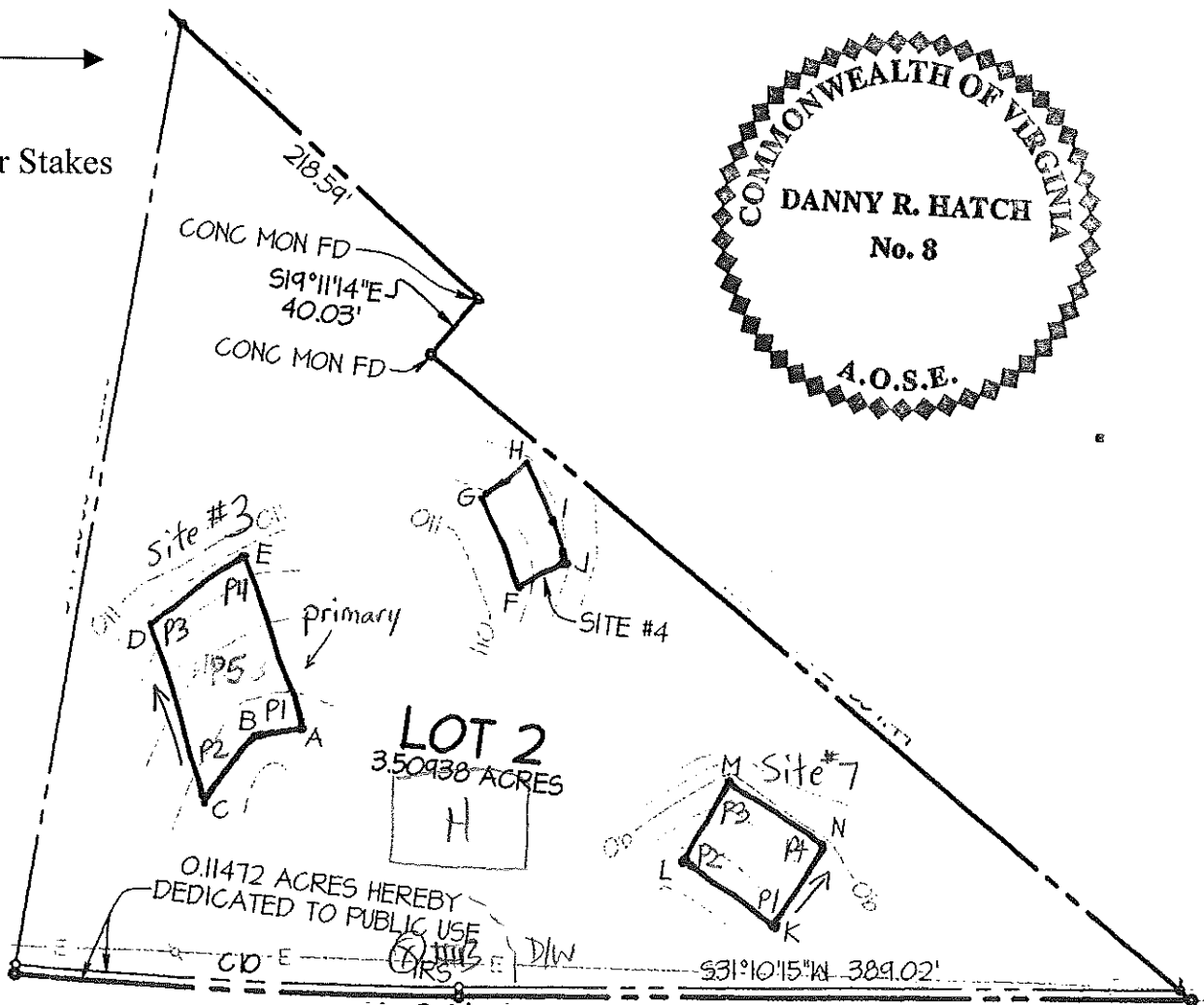
Well Site

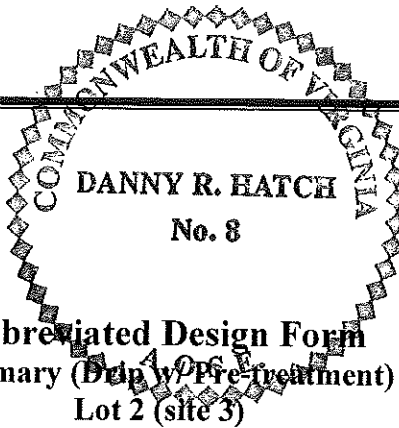
Proposed



House

Proposed





Abbreviated Design Form
Primary (Drip w/ Pre-treatment)
Lot 2 (site 3)

Res

Design Basis

A.	a. Estimated percolation rate. (minute per inch)	80
	b. Recommended drip tubing installation. (inches)	1-6
	c. Depth to impervious strata/ pervious Cr horizon/ or water table/ or limit of evaluation. (inches)	36/33/26/36
	d. Minimum separation distance required. (inches)	18/12/12/18
	e. Separation distances in inches provided in design (Ac-Ab).	30/27/20/30
	f. Minimum trench bottom due to slope ($(\% \text{ slope} - 8)/2 + (12 \text{ or } 18)$). (inches)	N/A
	g. Is the slope greater than 10, 20 or 30%?	No
	h. If Ag is Yes, does 24 inches or greater to rock/impervious strata exist below Ab?	N/A
	i. If no to Ag, add 17% more area for 10-19% slope, 33% for 20-29% slope, or 50% for 30-39% slope.	0

B.	Area square feet required per bedroom from (Table 5.4 GMP).	LPD	375
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C.	Number of bedrooms	4
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Area Calculations

D.	a. Length of lines. (feet)	66
	b. Length of available area. (feet)	63-70
E.	Width of line. (inches)	1
F.	Number of lines.	35
G.	Center-to-center spacing. (feet)	2
H.	a. Width required $(G(F-1) + E)$. (feet)	68
	b. Width of available area. (feet)	100
I.	Total square footage required $(B \times C \times 3 \{\text{drip}\})$.	4500
J.	Square footage (area) in footprint $(D_a \times H_b)$.	6600
K.	Linear feet of drip tubing required $(I \div 2)$.	2250
L.	Drip tubing provided $(D_a \times F)$.	2310

M.	Is a reserve area required?	Yes	X	No
	Percent required	100		
	Percent available	100+		

Notes: See attached abbreviated design for PuraFlo reserve. Addition area available (site 3) 30 x 66 and (site 4) 28 x 54 if needed.

Abbreviated Design Form
Lot 2 (Puraflo w/ trenches)
 (100% Reserve)

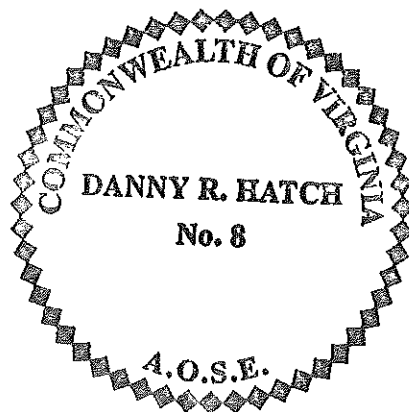
Pri

Design Basis

A.	a. Estimated percolation rate. (minutes per inch)	75
	b. Recommended trench bottom. (inches)	12
	c. Depth to impervious strata/ pervious Cr horizon/or water table/ or limit of evaluation. (inches)	48/34/48/48
	d. Minimum separation distance required. (inches)	18/12/12/18
	e. Separation distances in inches provided in design (Ac-Ab).	36/22/36/36
	f. Minimum trench bottom due to slope $((\% \text{ slope} - 8)/2 + (10))$. (inches)	10.5
	g. Minimum uphill trench bottom due to slope $(\% \text{ slope} \times .01 \times 24'' + Ab)$. (in.)	14.16
	h. Is the slope greater than 10%?	No
	i. If Ag is Yes, does 24 inches or greater to rock/ impervious strata exist below Ab?	N/A
	j. If yes to Ah, add 1 ft. to the minimum center-to-center spacing beginning at 20% slope and continue for each 10% slope increase above 20%. If no to Ai, add 1 ft. to the minimum center-to-center spacing beginning at 10% slope and continue for each 10% slope increase above 10%. (Report the value, in feet, of the increase in center-to-center spacing above the minimum.	0
B.	Trench bottom square feet required	
	loading rate from GMP (Table 2).	.67
C.	Number of bedrooms (design flow gpd)	4(600)

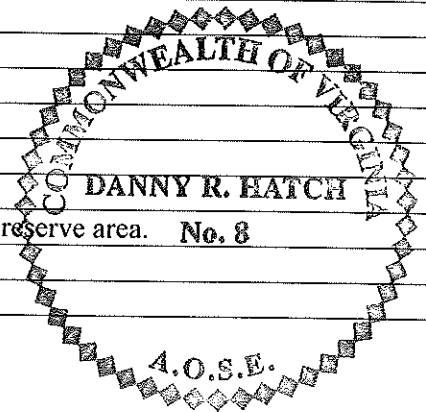
Area Calculations

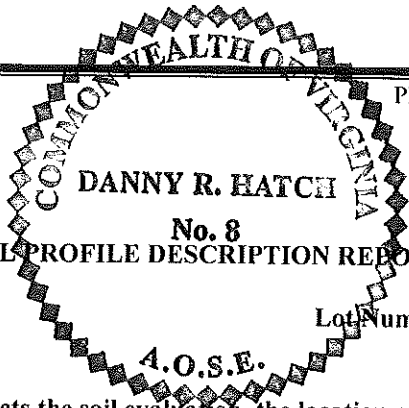
D.	a. Length of trench. (feet)	64
	b. Length of available area. (feet)	64
E.	Width of trench. (feet)	2
F.	Number of trenches.	7
G.	Center-to-center spacing. (feet)	6
H.	a. Width required $(G(F-1) + E)$. (feet)	38
	b. Width of available area. (feet)	49
I.	Total square footage required $(C \div B)$.	896
J.	Square footage in design $(Da \times E \times F)$.	896



Soil Summary Report Primary (Site 3)

General Information											
Date: 03-23-05			Submitted to: Stafford County Health Department								
Applicant: William Monahan						Telephone No: 607-785-2528					
Address: 180 Nelson Road, Vestal NY 13850											
Owner: Same											
Address:											
Location: From I-95 take 610 West to right on Doc Stone Rd. to left on Juggins Road; property on left and right											
Tax Map: TM-20-66						Subdivision:					
Block/Section:						Lot: 2					
1. Position in landscape satisfactory: Yes											
Describe: Summit in mature hardwood trees											
2. Slope: 6%											
3a. Depth to rock or impervious strata			Max. > 36 inches			Min. >36					
3b. Depth to pervious Cr horizon			Max. > 43 inches			Min. 33					
4. Depth to seasonal water table (gray mottling or gray color)											
			No			Yes			X		
						26			inches		
5. Free water present											
			No			X			Yes		
									range in inches		
6. Soil percolation rate estimated											
			Yes			X					
			No								
						Texture group			I		
						II			III		
						IV					
						Estimated rate			80		
									min/inch		
7. Permeability test performed											
			Yes								
			No			X					
If yes, note type of test performed and attach:											
X Site Approved: Drainfield to be placed at 1-6 inch depth at site designated on permit.											
Site Disapproved:											
Reasons for rejection:											
1. Position in landscape subject to flooding or periodic saturation.											
2. Insufficient depth of suitable soil over hard rock.											
3. Insufficient depth of suitable soil too seasonal water table.											
4. Rate of absorption too slow.											
5. Insufficient area of acceptable soil for required drainfield, and/or reserve area. No. 8											
6. Proposed system too close to well.											
7. Other: specify (attach additional pages if necessary)											





DANNY R. HATCH
No. 8
SOIL PROFILE DESCRIPTION REPORT

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Date of Evaluation 2/9/05

Lot Number 3 (primary)

Where the local health department conducts the soil evaluation, the location of profile holes may be shown on the schematic drawing on the construction permit or the sketch submitted with the application. If soil evaluations are conducted by a private soil scientist, location of profile holes and sketch of the area investigated including all structural features, i.e., sewage disposal systems, wells, etc., within 100 feet of site (See Section 4) and reserve site shall be shown on the reverse side of this page or prepared on a separate page and attached on this form.

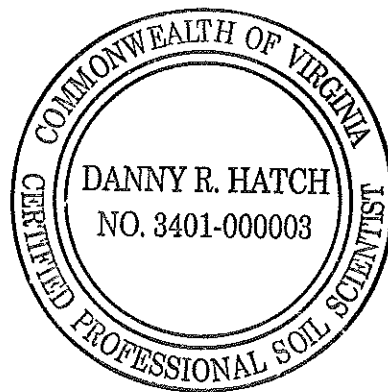
See application sketch

See construction permit

See sketch on reverse side or page attached to this form.

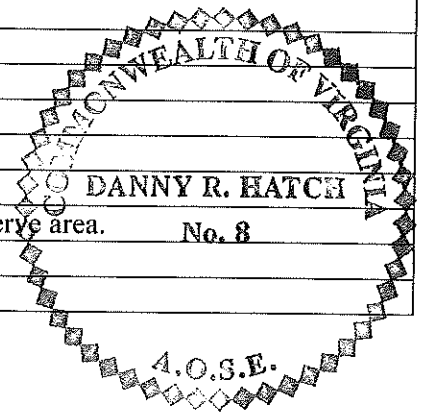
Hole #	Horizon	Depth (inches)	Description of color, texture, etc	Texture Group
P-1	A	0-1	Light reddish brown (2.5YR6/3) silt loam; weak medium granular structure.	III
	E	1-5	Light yellowish brown (10YR6/4) loam; weak medium subangular blocky structure.	II
	Bt	5-16	Yellowish red (5YR5/6) heavy silty clay loam; moderate medium subangular blocky structure.	III
	BCt	16-25	Yellowish red (5YR5/6) heavy silt loam; common medium prominent yellow (10YR7/8) mottles; weak coarse subangular blocky structure parting to moderate medium platy structure.	III
	C	25-36	Mottled weak red (10R5/4) and yellowish red (5YR5/6) silt loam.	III
	Cr	36-45	Pervious schist.	N/A
P-2	A	0-2	Light yellowish brown (2.5Y6/3) silt loam; weak medium granular structure; 5% round gravel.	III
	E	2-7	Light yellowish brown (2.5Y6/4) silt loam; weak coarse subangular blocky structure; 5% round gravel.	III
	Bt	7-18	Yellowish brown (10YR5/6) clay loam; weak coarse subangular blocky structure parting to weak medium subangular blocky structure; 5% round gravel.	III
	2BC	18-36	Mottled yellowish brown (10YR5/6), red (10R4/6), white (10YR8/1) (parent material) silty clay; massive structure.	IV
P-3	A	0-3	Light yellowish brown (2.5Y6/3) gravelly silt loam; moderate medium granular structure; 20% round gravel.	III
	E	3-7	Light yellowish brown (2.5Y6/4) silt loam; weak medium subangular blocky structure; 10% round gravel.	III
	Bt	7-24	Yellowish red (5YR5/6) silt loam; weak medium subangular blocky structure.	III
	C	24-33	Mottled red (2.5YR4/6) and yellow (10YR7/8) silt loam.	III
	Cr	33-43	Pervious schist.	N/A

Hole #	Horizon	Depth (inches)	Description of color, texture, etc	Texture Group
P-4	A	0-3	Light yellowish brown (2.5Y6/3) gravelly silt loam; moderate medium granular structure; 20% round gravel.	III
	E	3-8	Light yellowish brown (2.5Y6/4) silt loam; weak medium subangular blocky structure; 10% round gravel.	III
	2Bt	8-20	Yellowish red (5YR5/6) silt loam; weak medium subangular blocky structure.	III
	2C	20-38	Mottled strong brown (7.5YR5/6) and pale yellow (2.5Y7/3) channery silt loam; massive structure; 30% crushable channers.	III
P-5	A	0-3	Light yellowish brown (2.5Y6/3) silt loam; weak medium granular structure; 5% round gravel.	III
	E	3-9	Light yellowish brown (2.5Y6/4) silt loam; weak coarse subangular blocky structure; 5% round gravel.	III
	Bt1	9-14	Strong brown (7.5YR5/6) silty clay loam; weak fine subangular blocky structure parting to weak medium subangular blocky structure; common distinct clay films; 5% round gravel.	III
	2Bt2	14-20	Yellowish red (5YR5/6) silty clay; moderate fine subangular blocky structure parting to moderate medium subangular blocky structure; many distinct clay films.	IV
	2BCt	20-26	Yellowish red (5YR5/6) silty clay loam; moderate medium platy structure; common distinct clay films.	IV
	2C	26-41	Mottled red (2.5YR5/6) and strong brown (7.5YR4/6) silt loam; few medium distinct light brownish gray (10YR6/2) iron depletions; massive structure.	III



Soil Summary Report
Reserve (Site 7)

General Information									
Date:	03-23-05	Submitted to:	Stafford County Health Department						
Applicant:	William Monahan					Telephone No:	607-785-2528		
Address:	180 Nelson Road, Vestal NY 13850								
Owner:	Same								
Address:									
Location:	From I-95 take 610 West to right on Doc Stone Rd. to left on Juggins Road; property on left and right								
Tax Map:	TM-20-66				Subdivision:				
Block/Section:						Lot:	2		
1.	Position in landscape satisfactory:	Yes							
	Describe:	Backslope in mature hardwood trees							
2.	Slope	9 %							
3a.	Depth to rock or impervious strata	Max.	> 48 inches	Min.					
3b.	Depth to pervious Cr horizon	Max.	> 48 inches	Min.	34				
4.	Depth to seasonal water table (gray mottling or gray color)	No	<input checked="" type="checkbox"/>	Yes					inches
5.	Free water present	No	<input checked="" type="checkbox"/>	Yes					range in inches
6.	Soil percolation rate estimated	Yes	<input checked="" type="checkbox"/>	Texture group	I	II	III	IV	
		No		Estimated rate	75 min/inch				
7.	Permeability test performed	Yes							
		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 12 inch depth at site designated on permit.								
	Site Disapproved:								
Reasons for rejection:									
1.	Position in landscape subject to flooding or periodic saturation.								
2.	Insufficient depth of suitable soil over hard rock.								
3.	Insufficient depth of suitable soil too seasonal water table.								
4.	Rate of absorption too slow.								
5.	Insufficient area of acceptable soil for required drainfield, and/or reserve area.								
6.	Proposed system too close to well.								
7.	Other: specify (attach additional pages if necessary)								



SOIL PROFILE DESCRIPTION REPORT

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Date of Evaluation 4/11/05 Site# 7(reserve) Lot Number 2

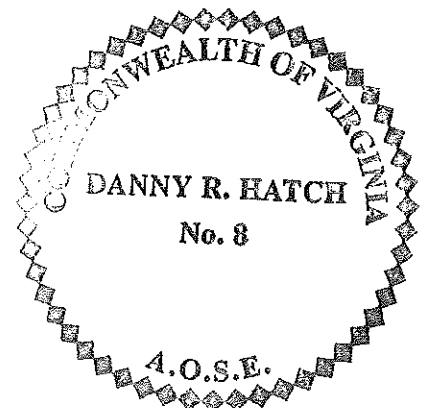
Where the local health department conducts the soil evaluation, the location of profile holes may be shown on the schematic drawing on the construction permit or the sketch submitted with the application. If soil evaluations are conducted by a private soil scientist, location of profile holes and sketch of the area investigated including all structural features, i.e. , sewage disposal systems, wells, etc., within 100 feet of site (See Section 4) and reserve site shall be shown on the reverse side of the this page or prepared on a separate page and attached on this form.

See application sketch

See construction permit

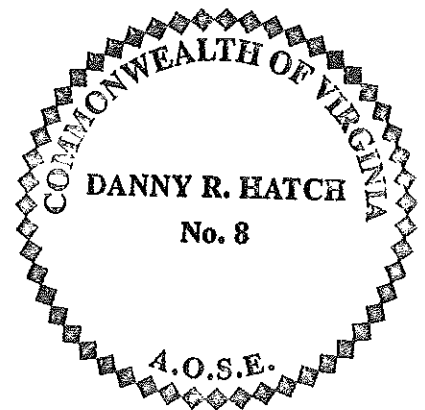
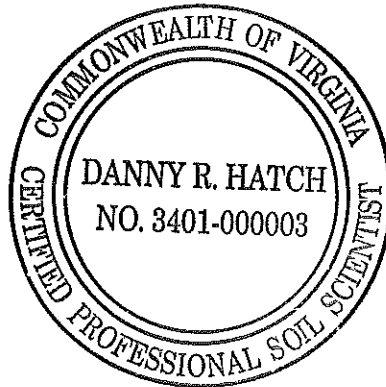
(X) See sketch on reverse side or page attached to this form.

Hole #	Horizon	Depth (Inches)	Description of color, texture, etc	Texture Group
P-1	A	0-4	Dark gray brown (10YR4/2) gravelly silt loam; moderate medium granular structure; 20 percent rounded gravel; friable.	III
	E	4-9	Light yellowish brown (10YR6/4) gravelly silt loam; weak medium subangular blocky structure; 20 percent rounded gravel; friable.	III
	Bt1	9-15	Yellowish brown (10YR5/6) silty clay loam; moderate medium subangular blocky structure; common distinct clay films; 10 percent rounded gravel; friable.	III
	2Bt2	15-25	Strong brown (7.5YR5/8) heavy silty clay loam; moderate medium subangular blocky structure; common distinct clay films; friable.	III
	2C	25-34	Mottled yellowish red (5YR5/6), yellow (10YR7/8) and dark yellowish brown (10YR4/4) light silt loam; massive structure; friable.	III
	2Cr	34-50	Pervious schist	
P-2	A	0-3	Dark gray brown (10YR4/2) silt loam; moderate medium granular structure; friable.	III
	Bt	3-20	Yellowish red (5YR5/6) heavy silty clay loam; moderate medium subangular blocky structure; common distinct clay films; friable.	III
	BCt	20-31	Yellowish red (5YR5/6) light silty clay loam; few medium prominent yellow (10YR7/8) and weak red (10R4/4) mottles; weak coarse subangular blocky structure; few distinct clay films; friable.	III
	C	31-60	Mottled yellowish red (5YR5/6), yellow (10YR7/8) and dark yellowish brown (10YR4/4) light silt loam; massive structure; friable	III



Date of Evaluation 4/11/05 Site# 7(reserve) Lot Number 2

Hole #	Horizon	Depth (Inches)	Description of color, texture, etc	Texture Group
P-3	A	0-2	Dark gray brown (10YR4/2) silt loam; moderate medium granular structure; friable.	III
	Bt	2-20	Yellowish red (5YR5/6) heavy silty clay loam; moderate medium subangular blocky structure; common distinct clay films; friable.	III
	C	20-36	Yellowish red (5YR5/6) very channery silt loam; massive structure; 60 percent soft schist channers; friable	III
	Cr	36-48	Pervious schist	III
P-4	A	0-2	Dark gray brown (10YR4/2) gravelly silt loam; moderate medium granular structure; 20 percent rounded gravel; friable.	III
	E	2-12	Light yellowish brown (10YR6/4) gravelly silt loam; weak medium subangular blocky structure; 20 percent rounded gravel; friable.	III
	2Bt	12-29	Yellowish red (5YR5/6) silty clay; moderate fine subangular blocky structure; many distinct clay films; friable	IV
	2BCt	29-36	Yellowish red (5YR5/6) light silty clay loam; few medium prominent yellow (10YR7/8) and weak red (10R4/4) mottles; weak coarse subangular blocky structure; few distinct clay films; friable.	III
	2C	36-62	Mottled yellowish red (5YR5/6), yellow (10YR7/8) and dark yellowish brown (10YR4/4) light silt loam; massive structure; friable	III



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SOIL PROFILE DESCRIPTION REPORT

Date of Evaluation 2/9/05 Site# 4 Lot Number 2 (additional)

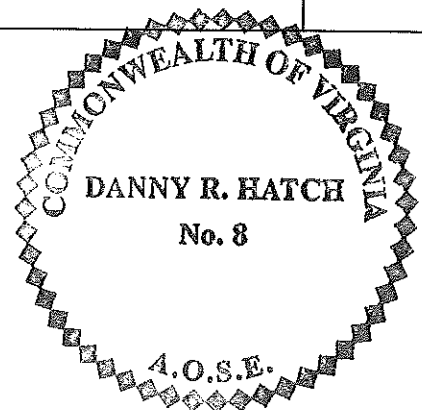
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See application sketch

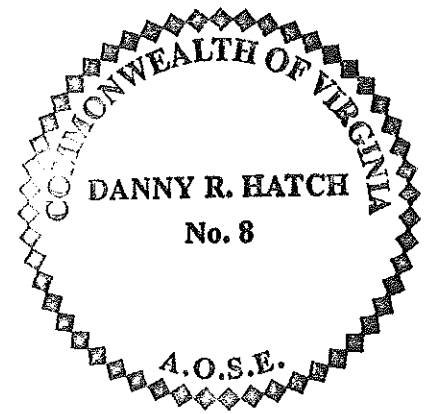
See construction permit

(X) See sketch on reverse side or page attached to this form.

Hole #	Horizon	Depth (Inches)	Description of color, texture, etc	Texture Group
P-1	A	0-1	Light olive brown (2.5Y5/3) silt loam; moderate medium granular structure.	III
	E	1-4	Light yellowish brown (10YR6/4) silt loam; moderate medium subangular blocky structure.	III
	Bt	4-24	Strong brown (7.5YR5/6) silty clay; weak coarse subangular blocky structure parting to moderate fine subangular blocky structure.	IV
	C	24-40	Mottled yellowish brown (10YR5/6) and light yellowish brown (2.5Y6/3) silt loam; massive structure.	III
P-2	A	0-2	Light olive brown (2.5Y5/3) silt loam; moderate medium granular structure.	III
	E	2-7	Light yellowish brown (10YR6/4) silt loam; moderate medium subangular blocky structure.	III
	Bt	7-22	Strong brown (7.5YR5/6) silty clay; weak coarse subangular blocky structure parting to moderate fine subangular blocky structure.	IV
	C	22-45	Mottled yellowish brown (10YR5/6) and light yellowish brown (2.5Y6/3) silt loam; massive structure.	III
P-3	A	0-1	Light olive brown (2.5Y5/3) silt loam; moderate medium granular structure.	III
	E	1-6	Light yellowish brown (10YR6/4) silt loam; moderate medium subangular blocky structure.	III
	Bt	6-24	Yellowish red (5YR5/6) silty clay; moderate fine subangular blocky structure; many distinct clay films.	IV
	C	24-44	Mottled yellow (10YR7/8) and strong brown (7.5YR5/8) silt loam; massive structure.	III



Hole #	Horizon	Depth (Inches)	Description of color, texture, etc	Texture Group
P-4	A	0-2	Light olive brown (2.5Y5/3) silt loam; moderate medium granular structure.	III
	E	2-7	Light yellowish brown (10YR6/4) silt loam; moderate medium subangular blocky structure.	III
	Bt	7-19	Strong brown (7.5YR5/6) silty clay; weak coarse subangular blocky structure parting to moderate fine subangular blocky structure.	IV
	C	19-30	Mottled yellow (10YR7/8), dark brown (7.5YR4/4), and white (10YR8/1) silt loam; massive structure; 10% crushable channers; slightly dense in place.	III
	Cr	30-45	Pervious schist.	N/A
P-5	A	0-1	Light olive brown (2.5Y5/3) silt loam; moderate medium granular structure.	III
	E	1-6	Light yellowish brown (10YR6/4) silt loam; moderate medium subangular blocky structure.	III
	Bt	6-21	Yellowish red (5YR5/6) silty clay; moderate fine subangular blocky structure; many distinct clay films.	IV
	C	21-45	Mottled yellow (10YR7/8) and strong brown (7.5YR5/8) silt loam; massive structure.	III



Certification Statement

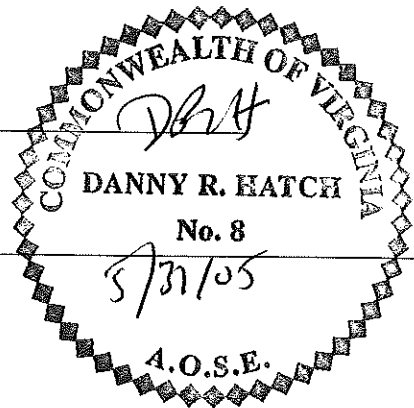
County: Stafford Date: 5/25/05

Property Identification: William Monahan Lot 2; TM 20-66

Submitted by: Danny R. Hatch, CPSS# 3401-000003

This is to certify according to 32.1-163.5 of the Code of Virginia that work submitted for the referred property is in accordance to and complies with the Sewage handling and Disposal Regulations of the Virginia Department of Health. I recommend a **subdivision approval** (1) be approved (2).

AOSE Danny R. Hatch



Danny R. Hatch, CPSS
Virginia Certified Professional Soil Scientist
5110 Southpoint Parkway
Fredericksburg, Virginia 22407

(1) This blank must be filled in with one of the following terms: 'permit', certification letter', or subdivision approval'.
(2) This blank must be filled in with either the term 'approved' or 'denied'.