

SOIL CONDITIONS SUMMARY TABLE

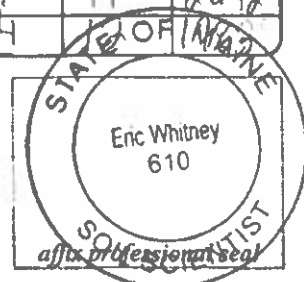
SUMMARY LOG OF SUBSURFACE EXPLORATIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Lot No.	Exploration Symbol (TP 1, B 2, etc.)	☒ if at SSWD Field	Description of subsurface materials by: ● Soil profile/condition (# by S.E.), ● Soil series name (# by C.S.S.), or by ● Geologic unit (# by C.G.)	Depths to (inches):				Ground Surface Slope (%)	Ground Surface Elevation
				Redoximorphic Features	Bedrock	Hydraulically Restrictive Layer	Limit of Exploration		
	TPA-2	<input type="checkbox"/>	Peru	18	—	18	48	8	1725'
	TPA-3	<input type="checkbox"/>	Peru	28	—	28	120	16	1725'
	TPA-4	<input type="checkbox"/>	Peru	18	—	24	48	8	1924'
	TPA-5	<input type="checkbox"/>	Peru	18	—	24	48	25	2000'
	TPA-6	<input type="checkbox"/>	Brayton	7	—	18	48	11	2040'
	TPA-7	<input type="checkbox"/>	Peru	18	—	24	48	12	2070'
	TPA-8	<input type="checkbox"/>	Naskeag	22	—		48	15	2143'
	TPA-10	<input type="checkbox"/>	Colonel	8	—	24	40	10	2208'
	TPA-12	<input type="checkbox"/>	Colonel	12	—	24	126	17	1770
	TPA-13	<input type="checkbox"/>	Peru	20	—	38	132	18	1850'
	TPA-14	<input type="checkbox"/>	Colonel	12	—	28	144	20	1898'
	TPB-1	<input type="checkbox"/>	Peru	16	—	22	144	13	1554'
	TPB-2	<input type="checkbox"/>	Croghan	20	—		144	11	1585'
	TPB-3	<input type="checkbox"/>	Colonel	12	—	30	144	10	1533'
	TPB-4	<input type="checkbox"/>	Colonel	10	—	12	90	10	1497'
	TPB-5	<input type="checkbox"/>	Colonel	14	—	24	120	8	1475'
	TB-1	<input type="checkbox"/>	Colonel	11	—	24	24	16	2063'
	TB-2	<input type="checkbox"/>	Colonel	12	—	20	20	7	1560
	TPC-1	<input type="checkbox"/>	Colonel	13	—	24	132	16	1782'
	TPC-2	<input type="checkbox"/>	Colonel	12	—	23	120	9	1687'
	TPC-3	<input type="checkbox"/>	Peru	20	—	20	90	8	1737'
	TPC-4	<input type="checkbox"/>	Peru	24	72	24	72	13	2008'
	TPC-5	<input type="checkbox"/>	Colonel	15	—	25	132	20	1686'
	TPC-6	<input type="checkbox"/>	Peru	16	—	24	144	10	1554'
	TPC-7	<input type="checkbox"/>	Brayton	0	—	22	24	3	2070'
	TBA-1	<input type="checkbox"/>	Colonel	9	—	20	24	15	1815'
	TPC-8	<input type="checkbox"/>	Peru	18	—	22	22	18	1890'
	TPD-1	<input type="checkbox"/>	Surplus	18	—	13	60	20	2938'
	TPD-2	<input type="checkbox"/>	Colonel	12	—	27	144	15	2130'
	TBD-1	<input type="checkbox"/>	Peru	18	—	22	22	13	2200'
	TBD-3	<input type="checkbox"/>	Brayton	6	—	22	24	11	2042'
	TBD-5	<input type="checkbox"/>	Colonel	8	—	22	24		

INVESTIGATOR INFORMATION AND SIGNATURE

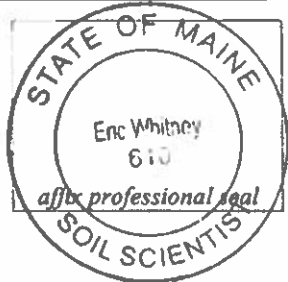
Signature	<i>Eric Whitney</i>	Date	4/26/2021
Name Printed	ERIC R.T. WHITNEY	Cert/Lic/Reg. #	61055
Qualification	<input type="checkbox"/> Licensed Site Evaluator <input type="checkbox"/> Certified Geologist	<input checked="" type="checkbox"/> Certified Soil Scientist <input type="checkbox"/> Other:	



SOIL CONDITIONS SUMMARY TABLE	SUMMARY LOG OF SUBSURFACE EXPLORATIONS AT PROJECT SITES
Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION	Applicant Name: VANASSE HAGEN BRUSTLIN, INC
Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT	

Lot No.	Exploration Symbol (TP 1, B 2, etc.)	* If at SSWD Field	Description of subsurface materials by: ● Soil profile/condition (if by S.E.), ● Soil series name (if by C.S.S.), or by ● Geologic unit (if by C.G.)	Depths to (inches):				Ground Surface Slope (%)	Ground Surface Elevation
				Redoximorphic Features	Bedrock	Hydraulically Restrictive Layer	Limit of Exploration		
	TBD-6	<input type="checkbox"/>	Peru	16	—	22	24	13	1894'
	TBD-7	<input type="checkbox"/>	Colonel	13	—	20	22	12	1896'
	TBD-8	<input type="checkbox"/>	Colonel	13	—	18	20	19	1798'
	TBD-9	<input type="checkbox"/>	Colonel	12	—	23	24	13	1811'
	TBD-10	<input type="checkbox"/>	Colonel	12	—	23	24	17	1814'
	TBD-11	<input type="checkbox"/>	Colonel	12	—	20	20	13	1800'
	TBD-13	<input type="checkbox"/>	Colone l	14	—	32	32	10	1787'
	TBD-14	<input type="checkbox"/>	Peru	17	—	27	28	20	1796'
	TBD-15	<input type="checkbox"/>	Brayton	7	—	20	20	12	1796'
	TBD-16	<input type="checkbox"/>	Brayton	6	—	22	24	13	1779'
	TBD-2	<input type="checkbox"/>	Colone l	12	—	20	24	12	2087'
		<input type="checkbox"/>							
		<input type="checkbox"/>							
		<input type="checkbox"/>							
		<input type="checkbox"/>							
		<input type="checkbox"/>							
		<input type="checkbox"/>							
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		<input type="checkbox"/>							

INVESTIGATOR INFORMATION AND SIGNATURE	
Signature	Date
Name Printed	Cert/Lic/Reg. #
Qualification	Other:



01-04-2022: Revised Soil logs to add TBD-2 data

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # TPA-2 Test Pit Boring Probe
3 " Organic horizon thickness Ground surface elev. 1725'
48 " Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
	Friable	10YR 3/3	None
0-10		7.5 YR	
10-20		5/6	
20-30	Firm	10YR 6/2	↓
30-40		2.5 Y 5/3	Common, Distinct
40-50		5Y 4/2	

Soil Classification: Peru Slope: 8 Percent Limiting Factor: 18 Depth: 18 " Groundwater Restrictive Layer Bedrock

Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic: C Soil Group

Exploration Symbol # TPA-3 Test Pit Boring Probe
3 " Organic horizon thickness Ground surface elev. 1725'
120 " Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
	Friable	7.5 YR 3/4	None
0-10		10Y 1/8	
10-20		5/3	
20-30	Firm	2.5 Y 5/3	Common, Distinct
30-40		5Y 4/3	

Soil Classification: Peru Slope: 16 Percent Limiting Factor: 28 Depth: 28 " Groundwater Restrictive Layer Bedrock

Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic: C Soil Group

Exploration Symbol # TPA-4 Test Pit Boring Probe
3 " Organic horizon thickness Ground surface elev. 1924'
48 " Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
	Friable	7.5 YR 3/4	
0-10		10Y 1/8 5/3	
10-20		2.5 Y 5/3	Common, Distinct
20-30	Firm	5Y 4/3	Many, Distinct
30-40			
40-50			

Soil Classification: Peru Slope: 6 Percent Limiting Factor: 18 Depth: 18 " Groundwater Restrictive Layer Bedrock

Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic: C Soil Group

Exploration Symbol # TPA-5 Test Pit Boring Probe
3 " Organic horizon thickness Ground surface elev. 2000'
48 " Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
	Friable	7.5 YR 3/4	
0-10		10Y 1/8 5/3	
10-20		2.5 Y 5/3	Common, Distinct
20-30	Firm	5Y 4/3	Many, Distinct
30-40			
40-50			

Soil Classification: Peru Slope: 25 Percent Limiting Factor: 18 Depth: 18 " Groundwater Restrictive Layer Bedrock

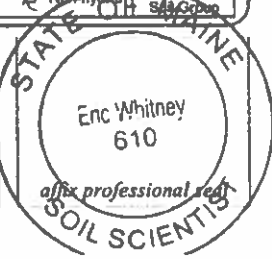
Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic: C Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Eric Whitney Date: 4/26/2021

Name Printed: ERIC R.T. WHITNEY Cert/Lic/Reg. #: 610

Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # TPA-6 Test Pit Boring Probe
5 * Organic horizon thickness Ground surface elev. 2040'
48 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam	Friable	10YR 2/1 2.5Y 5/3	None
10				Faint, Fe _o
20		Firm	2.5Y 6/1	Manip, Prominent
30				
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Condition Slope 11 Limiting Factor 7 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Brayton Hydric Non-hydric Hydrologic D Soil Group

Exploration Symbol # TPA-7 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 2070'
48 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0		Friable	10YR 8/3	None
10	Fine Sandy Loam		10YR 5/3 2.5Y 5/4	
20			2.5Y 6/1	Common, Faint
30		Firm		
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Condition Slope 12 Limiting Factor 18 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic C Soil Group

Exploration Symbol # TPA-8 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 2143'
48 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Sandy Loam	Friable	10YR 3/3	
10			10YR 4/3	
20				Common, Faint
30				
40	Loamy Sand	Very Friable	5Y 5/2	Ground Water
50				
60				

Soil Details by S.E. Soil Classification: Profile Condition Slope 15 Limiting Factor 22 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Nas Keag Hydric Non-hydric Hydrologic C Soil Group

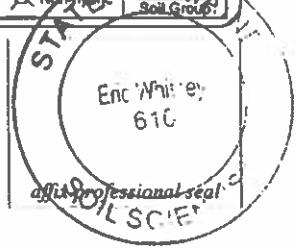
Exploration Symbol # TPA-10 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 2208'
24 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam	Friable	10YR 3/3	
10			6Y 5/3	Ground water
20			10YR 5/1	
30				
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Condition Slope 10 Limiting Factor 8 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic OFu Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Eric Whitney Date: 4/26/2021
 Name Printed: ERIC R.T. WHITNEY Cert/Lic/Reg. #: 610
 Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # TPA-12 Test Pit Boring Probe
4 " Organic horizon thickness Ground surface elev. 1770
126 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam	Friable	10YR 2/1	None
10			10YR 7/1	
15			10YR 5/3	Few, Distinct
20				
25		Firm	10YR 5/2	Common, Distinct
30				
40			10YR 7/1	
50				
60		Vary Firm		
150		Bedrock		

Soil Details by S.E. Soil Classification: Profile Colone1 Condition Slope 17 Percent Limiting Factor 12 Depth Groundwater Restrictive Layer Bedrock Hydric Non-hydric Hydrologic 0 Soil Group

Exploration Symbol # TPA-13 Test Pit Boring Probe
3 " Organic horizon thickness Ground surface elev. 1850
132 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam	Friable	10YR 2/1 to 7/1	
10			7.5 YR 5/6	
20			7.5 YR 5/3	
25			2.5 Y 5/2	Few, Distinct
30				
40		Firm	2.5 Y 6/1	Many, Prom
50				
60				
140	Bouldery FSL	Very Firm		

Soil Details by S.E. Soil Classification: Profile Peru Condition Slope 18 Percent Limiting Factor 20 Depth Groundwater Restrictive Layer Bedrock Hydric Non-hydric Hydrologic 0 Soil Group

Exploration Symbol # TPA-14 Test Pit Boring Probe
3 " Organic horizon thickness Ground surface elev. 1896
144 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam	Friable	10YR 2/1	
10			7.5 YR 5/6	
20			2.5 Y 5/2	Few, Distinct
30		Firm	2.5 Y 6/1	Many, Prom
40				
50	Bouldery FSL	Very Firm		
60				
120				

Soil Details by S.E. Soil Classification: Profile Colone1 Condition Slope 20 Percent Limiting Factor 12 Depth Groundwater Restrictive Layer Bedrock Hydric Non-hydric Hydrologic 0 Soil Group

Exploration Symbol # TPB-1 Test Pit Boring Probe
3 " Organic horizon thickness Ground surface elev. 1554
144 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam	Friable	10YR 3/3	
10			10YR 5/3	
20				Few, Distinct
25		Firm	2.5 Y 5/3	Many, Prom
30				
40				
50				
60				
70				
90				
120	Stony Loamy Sand			Groundwater

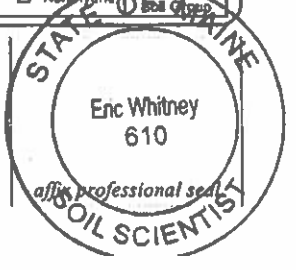
Soil Details by S.E. Soil Classification: Profile Peru Condition Slope 13 Percent Limiting Factor 16 Depth Groundwater Restrictive Layer Bedrock Hydric Non-hydric Hydrologic 0 Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Eric Whitney Date: 4/26/2021

Name Printed: ERIC R.T. WHITNEY Cert/Lic/Reg. # 610 SS

Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # TPB-2 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 1585
144 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sand	Very Friable	10YR 2/1	
10		Friable	5Y 4/3	
20	Loamy Sand		5Y 4/1	Many, Dis
30			2.5Y 5/2	Few, Dis
40				
50				
60				
70	Fine Sandy Loam	Friable		
80				
90				
100				
110				
120				
130				
140				
150				

Soil Classification: Croghan Slope: 11 Percent Limiting Factor: 20 Depth: 20 Groundwater Restrictive Layer Bedrock
 Profile: Croghan Condition: 11 Soil Series/Phase Name: Croghan Hydric Non-hydric Hydrologic Soil Group: B

Exploration Symbol # TPB-3 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1533
144 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0		Friable	10YR 3/3	
10	Fine Sandy Loam		10YR 5/3	Few, Distinct
20				
30		Firm	5Y 4/2	Common, Prom
40				
50				
60				
70		Very Firm		
80				
90	Loamy Sand	Very Friable		
100				
110				
120				
130				
140				
150				

Soil Classification: Colonel Slope: 10 Percent Limiting Factor: 10 Depth: 10 Groundwater Restrictive Layer Bedrock
 Profile: Colonel Condition: 10 Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic Soil Group: D

Exploration Symbol # TPB-4 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1497
96 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0		Friable	10YR 3/3	
10	Fine Sandy Loam		7.5YR 4/3	Few, Distinct
20			2.5Y 5/2	
30		Firm	5Y 5/2	Many, Prom
40				
50				
60				
70				
80				
90	Bouldery Fine Sandy Loam	Very Firm		
100				
110				
120				
130				
140				
150				

Soil Classification: Colonel Slope: 10 Percent Limiting Factor: 12 Depth: 12 Groundwater Restrictive Layer Bedrock
 Profile: Colonel Condition: 10 Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic Soil Group: D

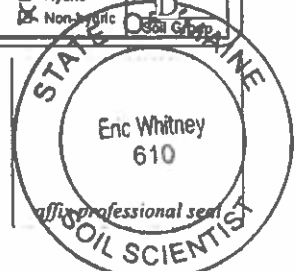
Exploration Symbol # TPB-5 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1475
120 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam	Friable	10YR 3/3	
10			7.5YR 4/3	
20			2.5Y 5/2	Few, Faint
30	Loamy Sand	Firm	5Y 4/1	Common, Distinct
40				
50				
60				
70				
80				
90				
100				
110				
120	Sand			
130				
140				
150				

Soil Classification: Colonel Slope: 8 Percent Limiting Factor: 14 Depth: 14 Groundwater Restrictive Layer Bedrock
 Profile: Colonel Condition: 8 Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic Soil Group: D

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Eric Whitney Date: 4/26/2021
 Name Printed: ERIC R.T. WHITNEY Cert/Lic/Reg. #: 610
 Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION **DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES**

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # TB-1 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 2063
24 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0		Friable	10YR 3/3	
10	Fine Sandy Loam		5Y 4/3	
20			5Y 4/1	Few Faint
30		Firm		
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Colo Condition 1 Slope 16 Percent Limiting Factor 11 Depth 11 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colo Hydric Non-hydric Hydrologic Soil Group: D

Exploration Symbol # TB-2 Test Pit Boring Probe
1 * Organic horizon thickness Ground surface elev. 1560
20 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam		10YR 3/3	
10			10YR 5/3	
20	Stony FSL	Firm	5Y 4/1	Saturation
30				
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Colo Condition 1 Slope 7 Percent Limiting Factor 12 Depth 12 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colo Hydric Non-hydric Hydrologic Soil Group: D

Exploration Symbol # TPC-1 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1782
132 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam		10YR 5/3	
10				
20		Friable	2.5Y 5/2	Saturation, Few, Distinct
30		Firm		Common, Prom
40				
50			2.5Y 6/1	
60				
70				
80				
90				
100				
110				
120				
130				
140				
150				
160				
170				
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200				
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220				
230				
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250				
260				
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280				
290				
300				

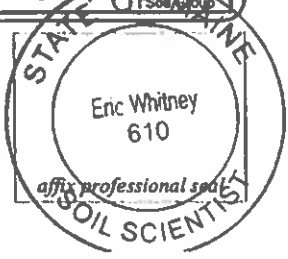
Soil Details by S.E. Soil Classification: Profile Colo Condition 1 Slope 16 Percent Limiting Factor 13 Depth 13 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colo Hydric Non-hydric Hydrologic Soil Group: D

Exploration Symbol # TPC-2 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1687
120 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy Loam	Friable	10YR 8/1 to 10YR 3/2	
10				
20			2.5Y 6/2	Few, Faint
30		Firm	2.5Y 6/1	Common, Distinct
40				
50				
60				
70				
80				
90				
100				
110				
120				
130				
140				
150				
160				
170				
180				
190				
200				
210				
220				
230				
240				
250				
260				
270				
280				
290				
300				

Soil Details by S.E. Soil Classification: Profile Colo Condition 1 Slope 9 Percent Limiting Factor 12 Depth 12 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colo Hydric Non-hydric Hydrologic Soil Group: D

INVESTIGATOR INFORMATION AND SIGNATURE
 Signature: Eric Whitney Date: 4/26/2021
 Name Printed: ERIC R.T. WHITNEY Cert/Lic/Reg. #: 619
 Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # TPC-3 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1737
90 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Bouldery	Friable	10YR	
10	Fine Sandy		5/3	
20	Loam	Firm		Few Distinct
30				
40				
50			5Y 5/2	
60				

Soil Details by S.E. Soil Classification: Peru Slope: 8 Percent Limiting Factor: 20 Depth Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic: C Soil Group

Exploration Symbol # TPC-4 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 2008
72 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy	Friable	10YR 3/3	
10	Loam		5YR 3/4	
20			2.5Y 5/2	
30	Loamy Sand	Firm	5Y 6/2	Faint, few
40				
50	Fine Sandy Loam			Common, Prominent
60				

Soil Details by S.E. Soil Classification: Peru Slope: 13 Percent Limiting Factor: 24 Depth Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic: C Soil Group

Exploration Symbol # TPC-5 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1686
132 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy	Friable	10YR 3/3	
10	Loam		7.5YR 5/3	
20			2.5Y 5/2	Saturation Common, Distinct
30		Firm	5Y 5/1	Many, Prominent
40				
50				
60				Standing water

Soil Details by S.E. Soil Classification: Colone Slope: 20 Percent Limiting Factor: 15 Depth Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colone Hydric Non-hydric Hydrologic: D Soil Group

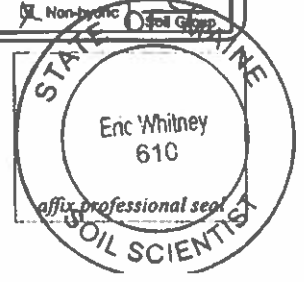
Exploration Symbol # TPC-6 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1554
144 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine Sandy	Friable	10YR 3/3	
10	Loam		7.5YR 5/3	
20			2.5Y 5/2	Few, faint
30		Firm	5Y 5/1	Common, Prominent
40				
50				
60				

Soil Details by S.E. Soil Classification: Peru Slope: 10 Percent Limiting Factor: 16 Depth Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic: D Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Eric Whitney Date: 4/26/2021
 Name Printed: ERIC R. T. WHITNEY Cert/Lic/Reg. #: 6010
 Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # TPC-7 Test Pit Boring Probe
5 " Organic horizon thickness Ground surface elev. 2070
24 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 2/1	Ground Water
10	Sandy Loam		2.5Y 5/1	
20		Firm		

Soil Details by S.E. Soil Classification: Profile Brayton Condition Slope 3 Percent Limiting Factor 0 Depth " Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Brayton Hydric Non-hydric Hydrologic D Soil Group

Exploration Symbol # TBA-1 Test Pit Boring Probe
2 " Organic horizon thickness Ground surface elev. 1815
24 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		5Y 5/3	Few, Faint
20		Firm	5Y 5/1	Common, Distinct

Soil Details by S.E. Soil Classification: Profile Colanel Condition Slope 15 Percent Limiting Factor 8 Depth " Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Colanel Hydric Non-hydric Hydrologic D Soil Group

Exploration Symbol # TPC-8 Test Pit Boring Probe
3 " Organic horizon thickness Ground surface elev. 1890
22 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 2/1	
10	Sandy Loam		10YR 3/3	
20		Firm	7.5YR 5/6	Few, Distinct
30			2.5Y 5/2	

Soil Details by S.E. Soil Classification: Profile Peru Condition Slope 18 Percent Limiting Factor 18 Depth " Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic C Soil Group

Exploration Symbol # TPD-1 Test Pit Boring Probe
2 " Organic horizon thickness Ground surface elev. 2938
60 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Stony	Friable	7.5YR	
10	Fine Sandy Loam		3/3	
20		Firm	2.5Y 5/4	
30	Bouldery Fine Sandy Loam		2.5Y 5/2	Faint, Few

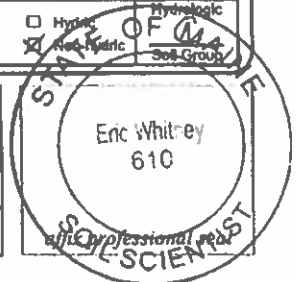
Soil Details by S.E. Soil Classification: Profile Surplus Condition Slope 28 Percent Limiting Factor 18 Depth " Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Surplus Hydric Non-hydric Hydrologic C Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Eric Whitney Date: 4/26/2021

Name Printed: ERIC R.T. WHITNEY Cer/Lic/Reg. #: 610

Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # TPD-2 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 2130
144 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		2.5Y 5/3	Few, faint
20				Common, Distinct
30		Firm	2.5Y 4/2	
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Colonel Condition Slope 15 Percent Limiting Factor 12 Depth Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic 0 Soil Group

Exploration Symbol # TBD-1 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 2200
22 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		2.5Y 4/4	
20	Loamy Sand	Firm	2.5Y 5/2	Few, Distinct
30				
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Pery Condition Slope 13 Percent Limiting Factor 18 Depth Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Pery Hydric Non-hydric Hydrologic C Soil Group

Exploration Symbol # TBD-3 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 2042
24 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		7.5YR 5/4	Saturation
20			2.5Y 5/2	Few, Distinct
30	Loamy Sand	Firm	2.5Y 5/1	Common, Prominent
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Brayton Condition Slope 11 Percent Limiting Factor 6 Depth Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Brayton Hydric Non-hydric Hydrologic P Soil Group

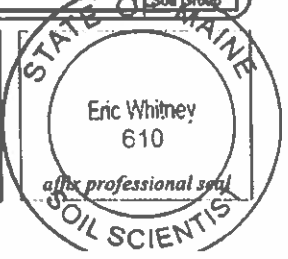
Exploration Symbol # TBD-5 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 1982
24 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 2/1 to 2.5Y 7/1	
10	Sandy Loam		2.5Y 5/2	Few, faint
20				
30		Firm	5Y 5/1	Common, Distinct
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Colonel Condition Slope 12 Percent Limiting Factor 4 Depth Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic 0 Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Eric Whitney Date: 4/26/2021
 Name Printed: ERIC R.T. WHITNEY Cert/Lic/Reg. #: 610
 Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # TBD-6 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1894
24 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		2.5Y 6/3	
20			2.5Y 5/6	Faint, Few
30		Firm		
40				
50				
60				

Soil Details by S.E. Soil Classification: Peru Slope: 13 Percent Limiting Factor: 16 Depth Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic: C Soil Group

Exploration Symbol # TBD-7 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 1896
22 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		2.5Y 6/3	
20			2.5Y 5/2	Faint, Few
30		Firm		
40				
50				
60				

Soil Details by S.E. Soil Classification: Colo nel Slope: 12 Percent Limiting Factor: 13 Depth Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colo nel Hydric Non-hydric Hydrologic: D Soil Group

Exploration Symbol # TBD-8 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 1798
20 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		7.5YR 5/6	
20			10YR 5/2	Few, Faint
30		Firm		
40				
50				
60				

Soil Details by S.E. Soil Classification: Colo nel Slope: 10 Percent Limiting Factor: 13 Depth Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colo nel Hydric Non-hydric Hydrologic: D Soil Group

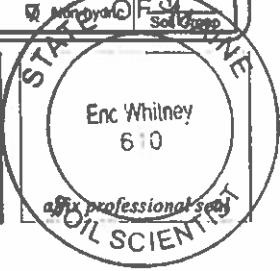
Exploration Symbol # TBD-9 Test Pit Boring Probe
3 * Organic horizon thickness Ground surface elev. 1811
24 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 2/2	
10	Sandy Loam		7.5YR 5/6	
20			10YR 5/3	Few
30		Firm	2.5Y 5/2	Faint
40				
50				
60				

Soil Details by S.E. Soil Classification: Colo nel Slope: 13 Percent Limiting Factor: 12 Depth Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colo nel Hydric Non-hydric Hydrologic: D Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Eric Whitney Date: 4/26/2021
 Name Printed: ERIC R. T. WHITNEY Cert/Lic/Reg. #: 610
 Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: **BOYNE RESORTS WEST MOUNTAIN EXPANSION**

Applicant Name: **VANASSE HAGEN BRUSTLIN, INC**

Project Location (municipality): **WEST MOUNTAIN RD, SUGARLOAF SKI RESORT**

Exploration Symbol # TBD-10 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1814
24 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		7.5YR 5/6	
20			10YR 5/2	Few, faint
30		Firm	2.5Y 5/1	
40				
50				
60				

Soil Details by S.E. Eric R. T. Whitney
 Soil Classification: Profile Colo Condition 1 Slope 17 Percent Limiting Factor 12 Depth
 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic D Soil Group

Exploration Symbol # TBD-11 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. _____
20 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		7.5YR 5/6	
20			2.5Y 5/1	Faint, Few
30		Firm		
40				
50				
60				

Soil Details by S.E. Eric R. T. Whitney
 Soil Classification: Profile Colo Condition 1 Slope 13 Percent Limiting Factor 12 Depth
 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic D Soil Group

Exploration Symbol # TBD-13 Test Pit Boring Probe
1 * Organic horizon thickness Ground surface elev. 1787
32 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 5/3	
10	Sandy Loam		7.5YR 6/3	
20			2.5Y 6/2	Few, faint
30		Firm		Common, Distinct
40				
50				
60				

Soil Details by S.E. Eric R. T. Whitney
 Soil Classification: Profile Colo Condition 1 Slope 10 Percent Limiting Factor 14 Depth
 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic D Soil Group

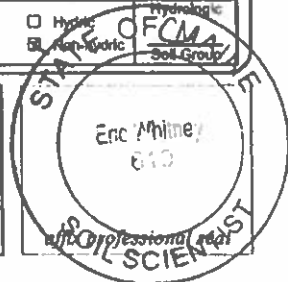
Exploration Symbol # TBD-14 Test Pit Boring Probe
2 * Organic horizon thickness Ground surface elev. 1796
28 * Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		10YR 4/3	
20			2.5Y 5/2	Few, faint
30		Firm		
40				
50				
60				

Soil Details by S.E. Eric R. T. Whitney
 Soil Classification: Profile Peru Condition 1 Slope 20 Percent Limiting Factor 17 Depth
 Groundwater Restrictive Layer Bedrock
 S.S. Soil Series/Phase Name: Peru Hydric Non-hydric Hydrologic FCMA Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Eric R. T. Whitney Date: 4/26/2021
 Name Printed: ERIC R. T. WHITNEY Cert/Lic/Reg. #: 610
 Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: BOYNE RESORTS WEST MOUNTAIN EXPANSION Applicant Name: VANASSE HAGEN BRUSTLIN, INC Project Location (municipality): WEST MOUNTAIN RD, SUGARLOAF SKI RESORT

Exploration Symbol # 18D-15 Test Pit Boring Probe
4 " Organic horizon thickness Ground surface elev. 1796
20 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR2/1	
10	Sandy Loam		2.5Y4/3	Faint, few
20		Firm	2.5Y6/1	Common
30				
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Condition Slope 12 Percent Limiting Factor 7 Depth Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Brayton Hydric Non-hydric Hydrologic D Soil Group

Exploration Symbol # TBD-16 Test Pit Boring Probe
2 " Organic horizon thickness Ground surface elev. 1779
24 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR2/1	
10	Sandy Loam		2.5Y4/3	Faint, few
20		Firm	2.5Y6/1	
30				
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Condition Slope 13 Percent Limiting Factor 6 Depth Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Brayton Hydric Non-hydric Hydrologic D Soil Group

Exploration Symbol # TBD-2 Test Pit Boring Probe
2 " Organic horizon thickness Ground surface elev. 2087
24 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Fine	Friable	10YR 3/3	
10	Sandy Loam		7.5YR 5/6	
20		Firm	10YR 5/2	Few, Faint
30			2.5Y 5/1	
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Condition Slope 12 Percent Limiting Factor 12 Depth Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: Colonel Hydric Non-hydric Hydrologic D Soil Group

Exploration Symbol # _____ Test Pit Boring Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E. Soil Classification: Profile Condition Slope _____ Percent Limiting Factor _____ Depth Groundwater Restrictive Layer Bedrock S.S. Soil Series/Phase Name: _____ Hydric Non-hydric Hydrologic _____ Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

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Title: Licensed Site Evaluator Certified Soil Scientist Certified Geologist Professional Engineer

