Maine Department of Transportation
Highway Program

GEOTECHNICAL SERIES 100 REPORT

Route 2
Pittsfield, Maine

Prepared by:
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Somerset County

PIN 17313.00
Federal Number IB-1731(300)E
January 4, 2011

Soils Report No. 2011-101
Tedocs # 1092257

Highway Program

Brad Foley, Program Manager

Memorandum

DATE: January 4, 2011

TO: Dennis Lovely **DEPT:** Region 4

FROM: Scott A. Hayden **DEPT:** Highway Program

SUBJECT: Final Soils – Pittsfield, Route 2, 17313.00
Report # 2011-101

Project Description

A subsurface investigation has been completed for a 3.4 mile portion of Route 2 in the town of Pittsfield. The project begins 0.24 mi east of the Canaan/Pittsfield town line and extends easterly 3.4 miles to the intersection of Pooler Road.

The investigation included the use of a drill rig, falling weight deflectometer (FWD) and ground penetrating radar (GPR). Stationing was determined by using a distance measuring instrument (DMI). A beginning station of 26+85 was used as identified in the field by Region 4 personnel.

FWD Results

Detailed FWD results are included as a separate attachment to this memo. As a summary, 22% of the project was found to be deficient based upon the existing structural number being less than the future traffic structural number. The subgrade resilient modulus values range between 2838 psi and 14893 psi (shallow rock) with an average value of 5200 psi. The 75^{th} percentile is 5769 psi.

A very low (< 3000 psi) subgrade resilient modulus value was encountered at station 50+67 (See FWD Summary Sheet and Performance Data Summary Sheet). The low subgrade resilient modulus is likely due to the presence of moist to wet silty soils. The soils between stations 49+50 and 52+00 could be soft especially during the spring months. Depending on the conditions at the time of construction the use of additional base material may be necessary to support construction equipment and traffic once the existing pavement has been milled.

Very high (> 8000psi) subgrade resilient modulus values were encountered between stations 59+50 – 69+00, 112+00 – 114+00, 117+00 – 122+00, and 154+00 – 162+00. These high M_r values are likely indicative of relatively shallow bedrock.

Note: The FWD results provided in this report have been calculated using the existing pavement thickness, base thickness and base quality as determined from boring information and sample data. The purpose of using the existing pavement and base information is to determine the

relative strength or weakness of the existing pavement structure. By identifying significant disparities in the pavement structure, individual design/construction options can be considered for individual areas along the project if these areas extend for considerable distances. This can provide greater design flexibility and reduce costs by eliminating the over design or under design (one design fits all) of large portions of a project. See the attached FWD data and Performance Data Summary for potential performance differences.

Boring Information

The purpose of the subsurface investigation was to determine the existing roadway structure within the travel lanes, shoulders, and to obtain subsurface soil, bedrock, and ground water information. Subsurface explorations were conducted by Maine DOT using a CME 45C truck mounted drill rig. Bore hole logging was performed by Maine DOT.

A total of 25 power augers borings were conducted along the project (See Boring Logs). Power auger borings were conducted using 5" solid stem augers. Boring locations were determined based upon FWD deflection results and visual observations made during an on-site visit. Soils were described and sampled from the auger flights.

Pavement Conditions

The existing pavement conditions along this project are fair to poor. Poor pavement conditions consist of:

- Large transverse cracking between the travel lane and shoulder joint
- Wheelpath rutting. The rutting appears to be slightly greater in the outside wheelpath.
- Aligator cracking in the outside wheelpath.
- Longitudinal cracking along the roadway quarterpoint.

The pavement condition throughout the majority of this project shows signs of deterioration. Pavement conditions are worse between stations 46+00 – 55+00, 100+00 – 105+00, 114+00 – 118+00, and 140+00 – 175+00. In the majority of these areas the existing structural number fails to meet the future structural number (See FWD and Performance Data Summary sheet). Additional structure may be required if future pavement performance expectations are to be met.

Existing Pavement Thickness

Existing pavement thickness has been estimated based upon a small number of power auger boring/pavement cores and ground penetrating radar. For a complete listing of pavement measurements using each of these methods refer to the Power Auger Boring/Core Pavement Depth summary sheet and the Ground Penetrating Radar Estimated Pavement depth summary sheets. A summary of the estimated pavement thickness follows:

	Power Auger Boring/Coring Method	Ground Penetrating Radar Method
Range of Pavement Thickness	6.0" – 9.0"	3.9" – 12.7"
Average Pavement Thickness	7.4"	7.6"

Note: Pavement thickness estimates from bore holes and cores are based upon 25 power auger borings and 5 pavement cores. The maximum sample spacing for the boring/core data is 3100 feet with an average spacing of 700 feet. Pavement thickness estimates from the ground penetrating radar are based upon 2 tests per linear foot along the entire length of the project. In addition, 16 GPR power auger borings were conducted to ground truth the GPR pavement thickness estimates. Actual pavement thickness may vary.

Existing Base Material

A summary of the existing base material follows below:

Existing Base Material Type:	silty sandy Gravel silty gravelly Sand
Percent Passing #200:	3% - 16%
Range of Base Material Thickness:	17" – 36"
Average Thickness:	25"
Quality of Drainage (AASHTO):	Poor to Good
Permeability:	5' – 255' per day

Existing Shoulder Material

Six power auger borings were conducted within the existing shoulders to their structure (See boring logs HB-PITT- 102, 108, 110, 124, 126, and 129). A summary follows below:

Average Pavement thickness:	2.8"
Pavement Thickness range:	1.2" – 3.6"
Existing Shoulder Base Material:	silty gravelly Sand
Average Shoulder Base Thickness:	31"
Range of Shoulder Base Thickness:	15" – 57"
Percent Passing #200:	6% - 14%

Subgrade Soils

The subgrade soils underlying this project consist primarily of silty SANDS and sandy SILTS (Glacial Till). These till soils are likely to contain a large number of cobbles. Due to frost action, some of these cobbles may be present within the existing base material directly beneath the pavement. Several shallow power auger refusals were encountered and it is anticipated that these refusals were due to cobbles.

These till soils are similar to samples, S7, S4, S9, S11, S12, S14, S16, and S22. This material is classified (AASHTO) as an A-4 soil with 38% - 56% passing the # 200 sieve. These soils are highly frost susceptible.

These soils can perform adequately as a subgrade soil if they are properly compacted and drained. However, these soils will swell and lose much of their stability if they are not properly compacted and drained.

A very low (< 3000 psi) subgrade resilient modulus value was encountered between stations 49+50 and 52+00 (See FWD Summary Sheet and Performance Data Summary Sheet). The low subgrade resilient modulus is likely due to the presence of moist to wet silty soils. This area could be very soft especially during the spring months. Depending on the soil conditions at the time of construction the use of additional base material may be necessary to support construction equipment and traffic once the existing pavement has been milled.

Wet subgrade conditions were encountered at the following boring locations:

Station	Boring No.	Depth to Wet Conditions
40+66	HB-PITT-124	Wet @ 2.2’
100+66	HB-PITT-114	Wet @ 3.2’
100+94	HB-PITT-116	Wet @ 3.0’
101+66	HB-PITT-113	Wet @ 2.0’
115+76	HB-PITT-119	Wet @ 2.5’

In these wet areas the existing structural number generally failed to meet the future traffic structural number.

Clay silt soils (S20) were encountered at one boring location (station 40+66). Based upon FWD deflections and subgrade modulus values it is anticipated that the presence of these moisture sensitive soils is isolated to this general area. This soil is very silty with 88% passing the #200 sieve. This soil will lose much its stability if not well drained. Depending on seasonal conditions, this soil can be problematic, especially in the spring and early summer.

Bedrock

Several power auger borings encountered refusals. It is anticipated that these refusals are due to the presence of cobbles in the till soil and not bedrock.

However, based upon FWD defections and very high subgrade resilient modulus values, it is anticipated that bedrock may be relatively shallow bedrock between the following stations:

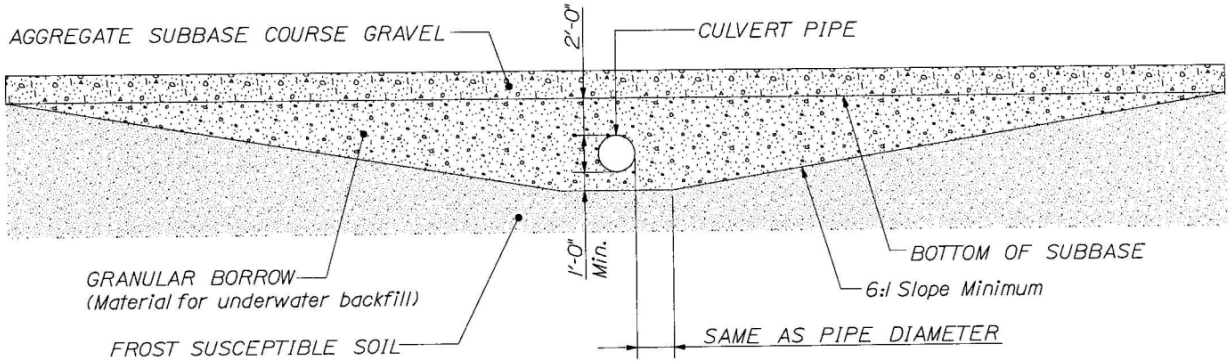
59+00 – 69+50, 112+00 – 122+00, 154+00 – 162+00, 172+00 – 174+50

Existing pavement conditions within these possible shallow bedrock areas is poor to fair. It is anticipated that these conditions are due to the shallow rock and lack of drainage. Frost heaving could be an issue in these areas.

Recommendations

1. It is recommended that drainage be improved or restored especially within the poorer performing areas between stations 46+00 – 55+00, 100+00 – 105+00, 114+00 – 118+00, and 140+00 – 175+00. Ditching in these areas should be as deep as possible.

2. It is recommended that the cross pipe at station 99+66 be lowered or replaced. This shallow concrete pipe has very little cover and sits high throughout the year. The pipe is even more problematic in the winter. In addition, the subgrade soils in this area are wet and the roadway is performing poorly between stations 99+66 and 104+00. Borings encountered wet soil conditions as shallow as 2.0' below top of pavement. Deepening this pipe will allow for the right ditch to be lowered. To aid in the prevention of differential heaving at the pipe trench, it is recommended that the pipe be installed based upon the following schematic:



3. It is recommended that the existing left underdrain between stations 99+66 and 104+00 be examined and possibly replaced. It is anticipated that this underdrain may not be working. The roadway is very rough in this area and borings indicate that wet soil conditions exist as shallow as 2' below top of pavement. Assuming a 6' deep underdrain, it is anticipated that these shallow wet soil conditions would not be present if the underedrain was working properly.

4. It is recommended that all existing underain along this project be examined in order to determine if the underdrain is still operating properly.

5. The worse pavement conditions along this project were encountered between stations 46+00 – 55+00, 100+00 – 105+00, 114+00 – 118+00, and 140+00 – 175+00. The existing structural number fails to meet the future structural number throughout much of these worse areas.

   It is recommended that additional structure be provided if future pavement performance expectations are to be met.

Performance Data Summary

Pittsfield Route 2
17313.00

Performance Data Summary

A Performance Data Summary (PDS) is included on the next pages. The purpose of the (PDS) is to identify potential performance differences by station based upon 4 minimal performance criteria (asphalt thickness, base thickness, subgrade resilient modulus, and existing/future structural number comparison. The PDS is color coded and should be printed in color to fully utilize the information.

If the roadway fails to meet any of the 4 performance criteria this is recorded as a deficiency in the deficiency (Def) column located on the left side of the PDS sheet next to the Station column. For an example, if the roadway fails to meet 1 performance criteria a 1 is placed in the deficiency column and so fourth. Pavement performance expectations become decrease as the number of deficiencies increase.

The pavement condition throughout the majority of this project shows signs of deterioration. Existing pavement conditions are best in areas where all of the performance criteria are met. These areas have a zero in the deficiency column.

Pavement conditions along this project tend to show more signs of deterioration in areas where at least 1 deficiency was encountered. The worse pavement conditions were encountered between stations 46+00 – 55+00, 100+00 – 105+00, 114+00 – 118+00, and 140+00 – 175+00. The existing structural number fails to meet the future structural number throughout much of these worse areas (See Performance Data Summary sheet). Additional structure may be required if future pavement performance expectations are to be met.

Based upon FWD calculations, the existing structural number fails to meet the future traffic structural number for 22% of the project.

* SP = Solid Pavement Layer
* UP = Unbound Pavement Layer
SP+UP = Total Pavement Thickness
* Base Thickness = Red indicates presence of “treated base”

Performance Data Summary

Pittsfield Route 2
17313.00

Station (FWD)	D E F	Minimum Performance Data Criteria				Boring Location (Plan View)	Base Material		Subgrade Soils	
							AASHTO Class	% #200	AASHTO Class	% #200
						KEY				
Station		Red – Fail Green - Met				Solid Pave Thick Unbound Pave - UP Base Thickness (inches)	Soil Type AASHTO Sample #	% 200 Frost Moisture	Soil Type AASHTO Sample #	% 200 Frost Moisture
						CL				
23+00	0	Pavement Thickness (6 inches)	Base Thickness (24 inches)	Subgrade Modulus (3000 psi)	Structural Number					
25+50	0									
28+00	0									
30+50	0					7.2 - 28.8	SiGSa A-1-a S17	3 0 Dry	GSiSa A-2-4 S18	30 II Moist
33+00	1									
35+50	1									
38+00	1									
40+50	1					7.2 - 19.2	SiGSa A-1-a S17	3 0 Dry	ClSi A-4 S20	88 IV Wet 2.2’
43+00	1									
45+50	1									
48+00	2									
50+50	2					7.8 - 30.6	SiGSa A-1-b S21	6 0 Damp	SaSi A-4 S22	48 III Moist
53+00	1									
55+50	1					7.2 - 22.8	SiGSa A-1-b S21	6 0 Damp	SaSi A-4 S22	48 III Moist
58+00	1									
60+50	1						High Subgrade Resilient Modulus Values may be Indicative of Shallow Bedrock			
63+00	1									
65+50	1									
68+00	1									
70+50	1									
73+00	1					7.2 - 22.8	SiSaG A-1-a S15	10 0 Dry	GSiSa A-4 S16	42 III Moist
75+50	1									
78+00	1						Beans Corner Rd. = 78+90			

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Performance Data Summary

Pittsfield Route 2
17313.00

Station (FWD)	D E F	Minimum Performance Data Criteria				Boring Location (Plan View)	Base Material		Subgrade Soils	
							AASHTO Class	% #200	AASHTO Class	% #200
						KEY				
Station		Red – Fail Green - Met				Solid Pave Thick Unbound Pave - UP Base Thickness (inches)	Soil Type AASHTO Sample #	% 200 Frost Moisture	Soil Type AASHTO Sample #	% 200 Frost Moisture
		Pavement Thickness (6 inches)	Base Thickness (24 inches)	Subgrade Modulus (3000 psi)	Structural Number	**CL**				
80+50	0									
83+00	0					7.2 - 27.6	SiSaG A-1-a S15	10 0 Dry	GSiSa A-4 S16	42 III Moist
85+50	0									
88+00	1									
90+50	1									
93+00	1					8.4 - 22.8	SiGSa A-1-b S13	13 II Damp	GSaSi A-4 S14	55 IV Moist
95+50	1									
98+00	0									
100+66	0					6.6 - 31.8	SiGSa A-1-b S10	11 0 Damp	SaSi A-4 S11	50 IV Wet 3.2’
100+94	1					7.8 - 28.2	SiGSa A-1-b S10	11 0 Damp	SaSi A-4 S11	50 IV Wet 3.0’
101+66	2					7.2 - 16.8	SiGSa A-1-b S10	11 0 Damp	SaSi A-4 S11	50 IV Wet 2.0’
103+00	2									
105+50	2									
108+00	1									
110+50	0					7.2 - 28.8	SiGSa A-1-b S8	7 0 Damp	GSiSa A-4 S9	38 III Moist
113+00	0									
115+50	2					6.6 - 19.8	SiGSa A-1-b S8	7 0 Damp	GSaSi A-4 S12	49 IV Wet 2.5’
118+00	1						Dyer Court Rd. = 117+95 High Subgrade Resilient Modulus Values may be Indicative of Shallow Bedrock			
120+50	1					6.6 - 17.4	SiGSa A-1-b S8	7 0 Damp	GSiSa A-4 S9	38 III Moist

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SP+UP = Total Pavement Thickness
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Performance Data Summary

Pittsfield Route 2
17313.00

Station (FWD)	D E F	Minimum Performance Data Criteria				Boring Location (Plan View)	Base Material		Subgrade Soils	
							AASHTO Class	% #200	AASHTO Class	% #200
						KEY				
Station		Red – Fail Green - Met				Solid Pave Thick Unbound Pave - UP Base Thickness (inches)	Soil Type AASHTO Sample #	% 200 Frost Moisture	Soil Type AASHTO Sample #	% 200 Frost Moisture
						CL				
125+50	0									
128+00	0									
130+50	0						Higgins Rd. = 131+20			
133+00	1					7.2 - 30	SiGSa A-1-b S6	16 II Damp	GSiSa A-4 S7	44 III Moist
135+50	1									
138+00	0									
140+50	1									
143+00	2									
145+50	2									
148+00	2					7.2 - 14.4	SiGSa A-1-b S5	10 0 Damp	SiGSa A-1-b S5	10 0 Damp
150+50	2						Powers Rd. = 151+04			
153+00	2									
155+50	2						High Subgrade Resilient Modulus Values may be Indicative of Shallow Bedrock			
158+00	1									
160+50	1									
163+00	2									
165+50	2									
168+00	2									
170+50	1					6.0 - 18.0	SiGSa A-1-b S3	15 II Damp	SaSi A-4 S4	56 IV Moist
173+00	1						High Subgrade Resilient Modulus Values may be Indicative of Shallow Bedrock			
175+50	2									
178+00	1									
180+50	0									
183+00	0									
185+50	0									

Pavement Thickness (6 inches)
Base Thickness (24 inches)
Subgrade Modulus (3000 psi)
Structural Number

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SP+UP = Total Pavement Thickness
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Performance Data Summary

Pittsfield Route 2
17313.00

Station (FWD)	D E F	Minimum Performance Data Criteria				Boring Location (Plan View)	Base Material		Subgrade Soils	
							AASHTO Class	% #200	AASHTO Class	% #200
						KEY				
Station		Red – Fail Green - Met				Solid Pave Thick Unbound Pave - UP Base Thickness (inches)	Soil Type AASHTO Sample #	% 200 Frost Moisture	Soil Type AASHTO Sample #	% 200 Frost Moisture
						CL				
188+00	0					6.0 - 33.6	SiGSa A-1-b S1	14 II Damp	GSaSi A-4 S2	52 IV Moist
190+50	0									
193+00	0									
195+50	0									
198+00	0									
200+50	0					6.0 - 36.0	SiGSa A-1-b S1	14 II Damp	GSaSi A-4 S2	52 IV Moist
203+00	0									
205+50	0									
208+00	0						Pooler Rd. = 208+31			

Pavement Thickness (6 inches) | Base Thickness (24 inches) | Subgrade Modulus (3000 psi) | Structural Number

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* UP = Unbound Pavement Layer
SP+UP = Total Pavement Thickness
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December 30, 2010

Falling Weight Deflectometer (FWD)
Summary Sheet

Project #: 17313.00
Town(s): Pittsfield
Route(s): 2
Date Tested: 09/23/2010
Requested By: S. Hayden
Direction of Testing: West to East

Of FWD tests: 74
Of Power Augers/Spoons - 18
Design Life: 12 Yrs
Future 18-kip ESALs (Design Life): 4,301,160
Initial Serviceability: 4.5
Terminal Serviceability: 2.5
Reliability Level: 90
Overall Standard Deviation: .45
Functional Class: Minor Arterial

Locations

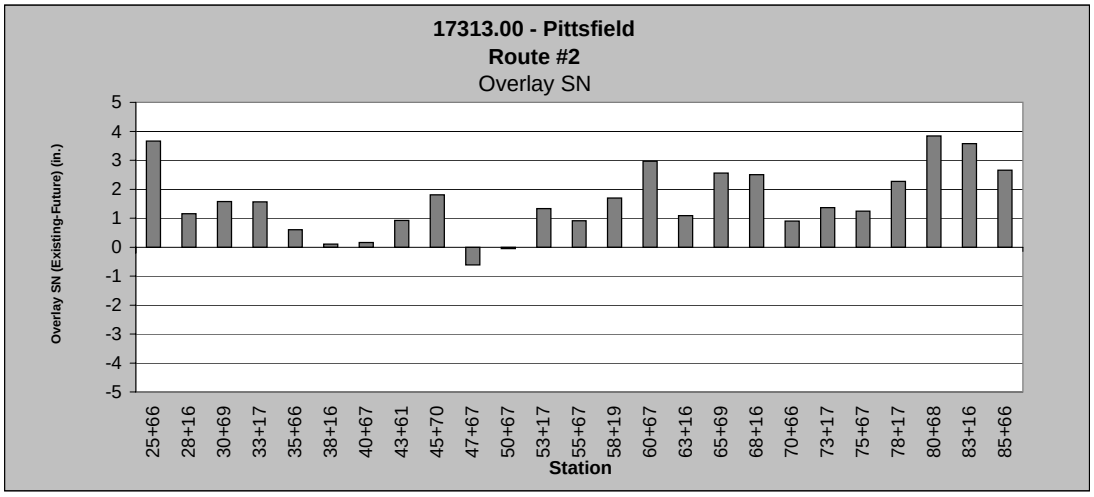
Station (Feet)	Description
Project Stationing	

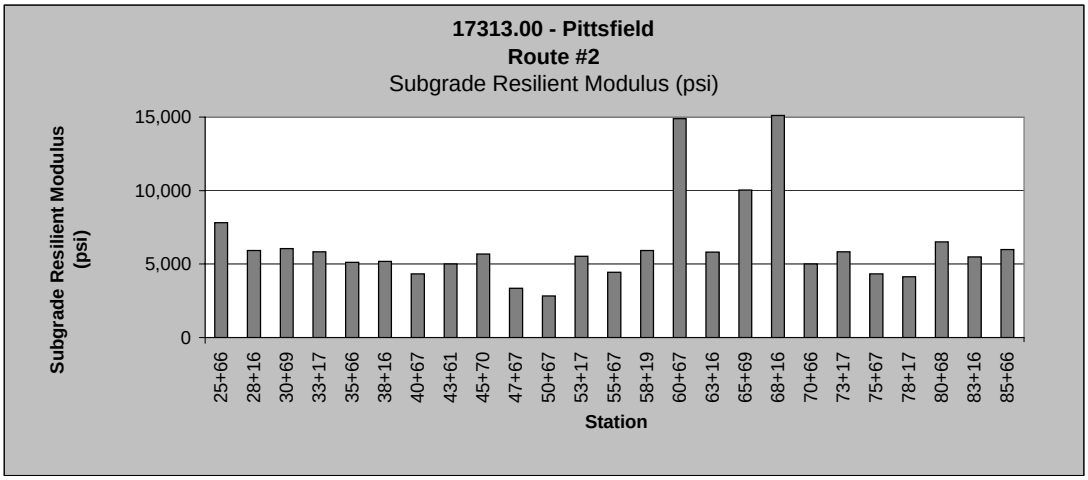
Comments:

17313.00 Pittsfield
Route #2

Station (Feet)	Existing Structural Number (in.)	Future Traffic Structural Number (in.)	Overlay Structural Number (Existing - Future)	Recommended Pavement Thickness (in.)	Pavement Modulus (psi)	Subgrade Resilient Modulus (psi)	Pavement Depth (in)	Combined Pavement/Gravel Depth Used for Calculation (in)
25+66	7.81	4.15	3.66	-	193,505	7,812	8	30
28+16	5.71	4.55	1.16	-	75,776	5,921	7.4	30
30+69	6.09	4.52	1.57	-	91,690	6,043	7.6	30
33+17	6.13	4.57	1.56	-	93,552	5,824	7.3	30
35+66	5.37	4.77	0.6	-	62,767	5,113	7	30
38+16	4.86	4.75	0.11	-	46,540	5,178	7.1	30
40+67	5.19	5.03	0.16	-	56,953	4,335	7.2	30
43+61	5.72	4.8	0.92	-	76,204	5,013	8.1	30
45+70	6.42	4.61	1.81	-	107,438	5,682	7.6	30
47+67	4.85	5.46	-0.61	1.39	60,129	3,343	7.5	27.5
50+67	5.69	5.74	-0.05	0.11	89,318	2,838	8.3	28.3
53+17	5.98	4.65	1.33	-	102,605	5,520	8.4	28.4
55+67	5.91	5	0.91	-	92,962	4,432	8.5	29
58+19	6.25	4.55	1.7	-	120,854	5,928	7.6	28.1
60+67	6.28	3.31	2.97	-	138,319	14,893	6.5	27
63+16	5.67	4.58	1.09	-	100,704	5,802	6.6	27.1
65+69	6.36	3.8	2.56	-	137,092	10,030	6.9	27.4
68+16	5.79	3.29	2.5	-	100,352	15,105	7.2	27.7
70+66	5.7	4.8	0.9	-	94,805	5,008	7.3	27.8
73+17	5.94	4.57	1.37	-	115,482	5,825	6.6	27.1
75+67	6.27	5.03	1.24	-	100,364	4,336	7.2	30
78+17	7.38	5.11	2.27	-	163,126	4,129	7.7	30
80+68	8.25	4.41	3.84	-	228,039	6,519	8.2	30
83+16	8.24	4.66	3.58	-	227,302	5,484	8.2	30
85+66	7.19	4.53	2.66	-	150,973	5,995	9.2	30

Possible Weak Soils (<3000)
Possible Shallow Bedrock (>8000)
For actual Gravel Depths, see logdraft forms



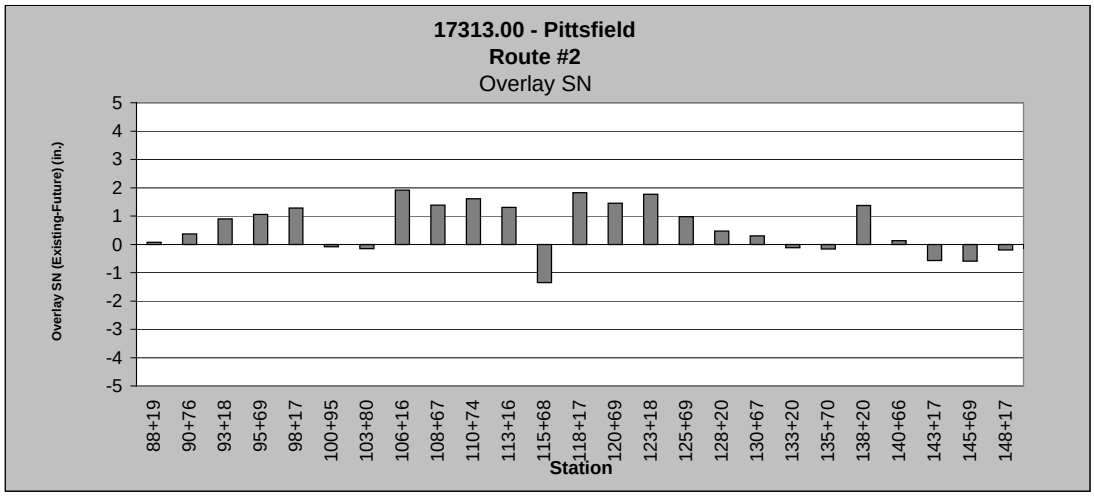


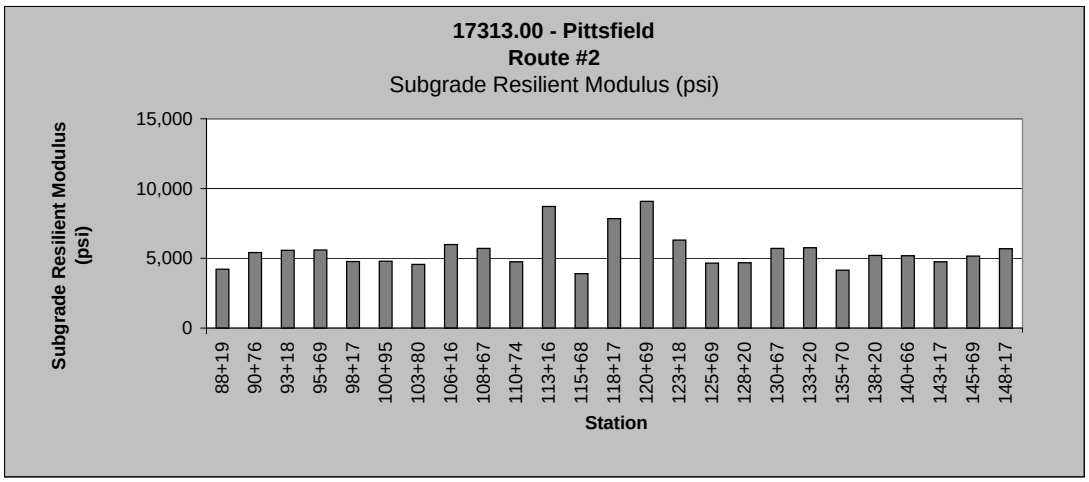
17313.00 Pittsfield
Route #2

Station (Feet)	Existing Structural Number (in.)	Future Traffic Structural Number (in.)	Overlay Structural Number (Existing - Future)	Recommended Pavement Thickness (in.)	Pavement Modulus (psi)	Subgrade Resilient Modulus (psi)	Pavement Depth (in)	Combined Pavement/Gravel Depth Used for Calculation (in)
88+19	5.14	5.07	0.07	-	75,585	4,221	7.6	27
90+76	5.23	4.86	0.37	-	80,784	5,419	7.5	26.9
93+18	5.54	4.64	0.9	-	86,872	5,566	8.4	27.8
95+69	5.69	4.63	1.06	-	99,193	5,607	7.9	27.3
98+17	6.16	4.88	1.28	-	119,619	4,769	8.4	27.8
100+95	4.79	4.87	-0.08	0.18	56,041	4,803	7.8	27.8
103+80	4.8	4.95	-0.15	0.34	106,244	4,556	7.4	22.5
106+16	6.44	4.53	1.91	-	145,906	5,993	6.7	27.2
108+67	5.98	4.6	1.38	-	113,892	5,714	6.9	27.4
110+74	6.5	4.89	1.61	-	125,141	4,740	8.4	28.9
113+16	5.29	3.99	1.3	-	123,488	8,713	7.9	23.6
115+68	3.85	5.2	-1.35	3.07	56,434	3,906	6.6	22.3
118+17	5.96	4.14	1.82	-	93,278	7,838	8.1	29.2
120+69	5.39	3.94	1.45	-	70,521	9,076	7.9	29
123+18	6.23	4.46	1.77	-	104,493	6,300	8.3	29.4
125+69	5.9	4.92	0.98	-	85,340	4,661	8.7	29.8
128+20	5.38	4.91	0.47	-	65,079	4,687	8.6	29.7
130+67	4.9	4.6	0.3	-	56,312	5,703	7.9	28.4
133+20	4.47	4.59	-0.12	0.27	46,212	5,768	7.2	27.7
135+70	4.94	5.1	-0.16	0.36	54,728	4,151	8.4	28.9
138+20	6.11	4.74	1.37	-	117,804	5,215	7.2	27.7
140+66	4.88	4.75	0.13	-	142,041	5,188	7.8	20.8
143+17	4.32	4.89	-0.57	1.3	115,448	4,738	6.7	**19.7**
145+69	4.17	4.76	-0.59	1.34	105,472	5,161	6.6	**19.6**
148+17	4.41	4.61	-0.2	0.45	109,402	5,682	75	20.5

Possible Weak Soils (<3000)
Possible Shallow Bedrock (>8000)

For actual Gravel Depths, see logdraft forms





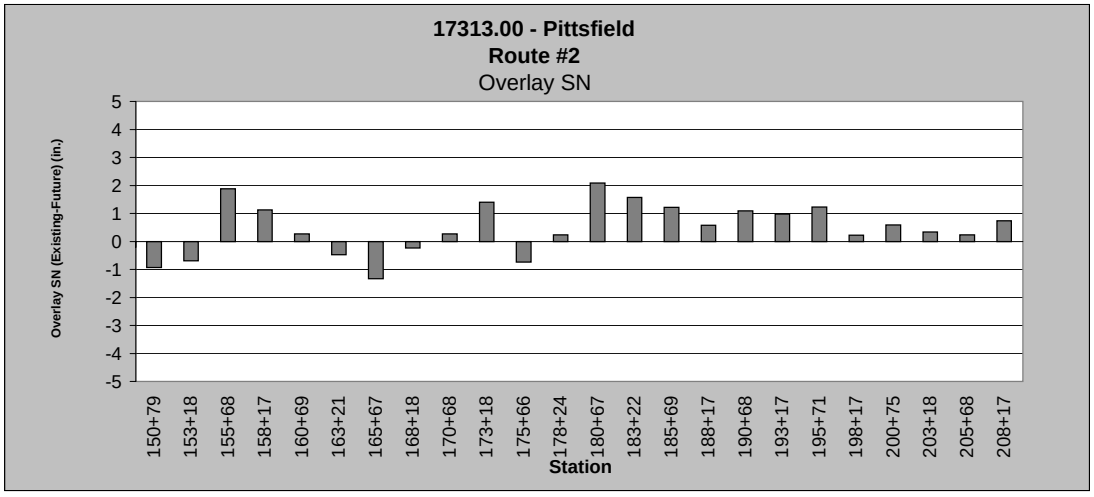
17313.00 Pittsfield
Route #2

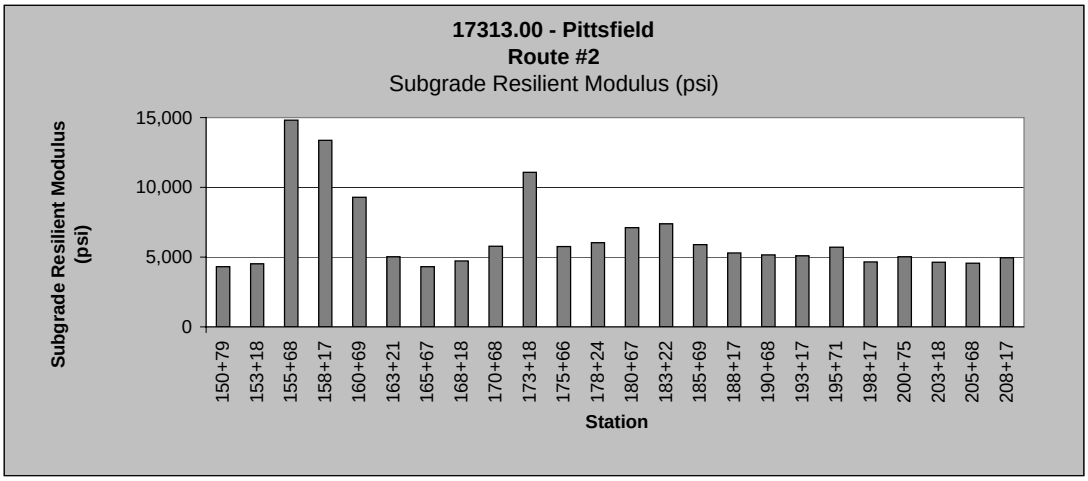
Station (Feet)	Existing Structural Number (in.)	Future Traffic Structural Number (in.)	Overlay Structural Number (Existing - Future)	Recommended Pavement Thickness (in.)	Pavement Modulus (psi)	Subgrade Resilient Modulus (psi)	Pavement Depth (in)	Combined Pavement/Gravel Depth Used for Calculation (in)
150+79	4.11	5.04	-0.93	2.11	89,773	4,313	7.4	20.4
153+18	4.28	4.97	-0.69	1.57	114,319	4,515	6.6	**19.6**
155+68	5.19	3.31	1.88	-	200,117	14,818	6.7	**19.7**
158+17	4.57	3.44	1.13	-	138,950	13,373	6.6	**19.6**
160+69	4.18	3.91	0.27	-	98,886	9,281	7.1	20.1
163+21	4.32	4.8	-0.48	1.09	99,872	5,028	7.7	20.7
165+67	3.71	5.04	-1.33	3.02	78,974	4,316	6.2	**19.2**
168+18	4.65	4.89	-0.24	0.55	94,519	4,729	7	22.7
170+68	4.86	4.59	0.27	-	123,150	5,769	6	21.7
173+18	5.07	3.67	1.4	-	115,902	11,081	7.4	23.1
175+66	3.85	4.59	-0.74	1.68	49,971	5,751	7.5	23.2
178+24	4.76	4.52	0.24	-	91,069	6,039	7.8	23.5
180+67	6.37	4.28	2.09	-	127,901	7,119	7.6	28.1
183+22	5.8	4.23	1.57	-	92,565	7,382	8	28.5
185+69	5.77	4.55	1.22	-	95,254	5,898	7.6	28.1
188+17	5.3	4.72	0.58	-	87,814	5,302	6	26.5
190+68	5.85	4.76	1.09	-	100,024	5,155	7.5	28
193+17	5.76	4.78	0.98	-	95,626	5,085	7.5	28
195+71	5.83	4.6	1.23	-	96,012	5,710	7.8	28.3
198+17	5.14	4.92	0.22	-	65,880	4,648	7.8	28.3
200+75	5.39	4.8	0.59	-	74,825	5,021	7.9	28.4
203+18	5.27	4.93	0.34	-	69,326	4,622	8	28.5
205+68	5.19	4.95	0.24	-	66,240	4,574	8	28.5
208+17	5.56	4.82	0.74	-	77,254	4,945	8.5	29

Possible Weak Soils (<3000)

Possible Shallow Bedrock (>8000)

For actual Gravel Depths, see logdraft forms





STATE OF MAINE

FILE: RTE 2

INTERDEPARTMENTAL MEMORANDUM

Date of Request: 11/5/2010 Return: 11/15/2010
Latest Date Needed By ASAP

To: **Mike Morgan** Dept.: MDOT, Bureau of Planning

From: **Matt Connor** Dept.: Highway Program, Region 4

Subject: **Request for Traffic Information** Project Manager: **Denis Lovely**

TOWN(S): Pittsfield P.I.N. **17313.00** Consultant Proj ☐

COUNTY: Somerset ROUTE: 2

LOCATION/ DESCRIPTION: US Route 2 in Pittsfield. Beginning .12 mi. east of the Pittsfield/Canan town line, and extending easterly 3.86 mi. to the intersection of Canan Rd./ Grant Rd./ Phillips Corner Rd.

	Roadway Changes or Relocation (Attach Sketch)	Turning Movement needed (Provide Locations under Comments)	Other Please Describe Under Comments
Please Check Box if Applicable:	☐	☐	☐

Prep By: MAM / JG

Description of Sections	Sec. 1 Pittsfield - US 2 W/O IR 493 Higgins Rd	Sec. 2	Sec. 3	Sec. 4	Sec. 5
1 Latest AADT (Year)	4700 (2008)				
2 Current **2011** AADT	4990				
3 Future **2023** AADT	6190				
4 Future _____ AADT					
5 DHV - % of AADT	11%	%	%	%	%
6 Design Hourly Volume	681				
7 % Heavy Trucks (AADT)	15%	%	%	%	%
8 % Heavy Trucks (DHV)	12%	%	%	%	%
9 Direct.Dist. (DHV)	53%	%	%	%	%
10 18-KIP Equivalent P 2.0	1031				
11 18-KIP Equivalent P 2.5	982				

Notes or Remarks: 18-Kip ESALS is based on 12 year life

PLEASE PROVIDE: (1) PIN NUMBER, (2) THE CURRENT & FUTURE YEARS FOR WHICH YOU WANT AADT CALCULATED, AND SEND TO MIKE MORGAN. (A LOCATION MAP IS NO LONGER NEEDED.)
TRAFFIC REQUESTS WILL BE FILLED ON A FIRST COME / SERVE BASIS. PLEASE SEND WHEN PROJECT KICKS OFF!!!

Need Only Data Items Numbered **All**

Comments: Requesting sections 1 through 11.

Tied in with Traffic Request PIN 15618.00 (6/24/2009 Canaan-Pittsfield - Bridge No 2767

Power Auger Boring / Pavement Core
Pavement Depths
17313.00 Pittsfield Route 2

Station			Left Travel Lane	CL	Right Travel Lane	Right Shoulder		
			Inches	Inches	Inches	Inches		
31+16					7.2			
40+66					7.2	3.6		
45+32			7.2					
49+66				7.8	7.8	3.0		
54+66					7.2	3.6		
58+35			8.4					
69+35			7.2					
73+66					7.2			
78+24			8.4					
83+01					7.2			
83+35			7.8					
91+00			7.2					
93+16					8.4			
96+85			7.2					
100+66				7.2	6.6			
100+94					7.8			
101+66					7.2			
102+26			7.2					
110+16					7.2			
112+85			7.2					
114+35			7.2					
115+66					6.6			
115+71					6.6			
115+76					6.6			
118+16			7.2	6.6	6.0			
124+70			9.0					
133+16				7.8	7.2	3.0		
136+85			9.0					
140+10			9.0					
143+32			9.0					
147+16					7.2	2.4		
170+66			6.0	6.0				
201+16					6.0	1.2		
Average			**7.8**	**7.1**	**7.1**	**2.8**		

17313.00 Pittsfield - Route #2
Estimated Pavement Depths
Ground Penetrating Radar (GPR)

STATION	AVERAGE DEPTH
23+16 - 24+16	6.7
24+16 - 25+16	7.3
25+16 - 26+16	8.0
26+16 - 27+16	7.7
27+16 - 28+16	7.4
28+16 - 29+16	7.9
29+16 - 30+16	7.3
30+16 - 31+16	7.6
31+16 - 32+16	7.6
32+16 - 33+16	7.8
33+16 - 34+16	7.3
34+16 - 35+16	7.3
35+16 - 36+16	7.0
36+16 - 37+16	6.8
37+16 - 38+16	7.1
38+16 - 39+16	7.5
39+16 - 40+16	7.4
40+16 - 41+16	7.0
41+16 - 42+16	7.1
42+16 - 43+16	7.0
43+16 - 44+16	8.1
44+16 - 45+16	7.6
45+16 - 46+16	7.6
46+16 - 47+16	7.6
47+16 - 48+16	7.5
48+16 - 49+16	8.4
49+16 - 50+16	8.3
50+16 - 51+16	8.3
51+16 - 52+16	8.0
52+16 - 53+16	8.4

STATION	AVERAGE DEPTH
53+16 - 54+16	8.4
54+16 - 55+16	8.6
55+16 - 56+16	8.5
56+16 - 57+16	8.4
57+16 - 58+16	7.8
58+16 - 59+16	7.6
59+16 - 60+16	6.9
60+16 - 61+16	6.5
61+16 - 62+16	6.6
62+16 - 63+16	6.6
63+16 - 64+16	6.9
64+16 - 65+16	7.1
65+16 - 66+16	6.9
66+16 - 67+16	7.9
67+16 - 68+16	7.2
68+16 - 69+16	7.1
69+16 - 70+16	6.6
70+16 - 71+16	7.3
71+16 - 72+16	7.6
72+16 - 73+16	7.6
73+16 - 74+16	6.6
74+16 - 75+16	6.5
75+16 - 76+16	7.2
76+16 - 77+16	7.7
77+16 - 78+16	8.0
78+16 - 79+16	7.7
79+16 - 80+16	8.1
80+16 - 81+16	8.2
81+16 - 82+16	7.9
82+16 - 83+16	8.2

STATION	AVERAGE DEPTH
83+16 - 84+16	9.6
84+16 - 85+16	9.0
85+16 - 86+16	9.2
86+16 - 87+16	8.1
87+16 - 88+16	8.1
88+16 - 89+16	7.6
89+16 - 90+16	7.9
90+16 - 91+16	7.5
91+16 - 92+16	7.7
92+16 - 93+16	7.8
93+16 - 94+16	7.9
94+16 - 95+16	8.0
95+16 - 96+16	7.9
96+16 - 97+16	8.4
97+16 - 98+16	8.6
98+16 - 99+16	8.4
99+16 - 100+16	7.7
100+16 - 101+16	7.6
101+16 - 102+16	7.1
102+16 - 103+16	7.2
103+16 - 104+16	7.4
104+16 - 105+16	8.0
105+16 - 106+16	6.7
106+16 - 107+16	6.3
107+16 - 108+16	6.6
108+16 - 109+16	6.9
109+16 - 110+16	7.4
110+16 - 111+16	8.4
111+16 - 112+16	8.3
112+16 - 113+16	7.9

STATION	AVERAGE DEPTH
113+16 - 114+16	7.4
114+16 - 115+16	8.2
115+16 - 116+16	7.7
116+16 - 117+16	7.8
117+16 - 118+16	8.0
118+16 - 119+16	8.1
119+16 - 120+16	7.5
120+16 - 121+16	7.9
121+16 - 122+16	8.4
122+16 - 123+16	8.0
123+16 - 124+16	8.3
124+16 - 125+16	8.4
125+16 - 126+16	8.7
126+16 - 127+16	8.6
127+16 - 128+16	8.9
128+16 - 129+16	8.6
129+16 - 130+16	7.8
130+16 - 131+16	7.9
131+16 - 132+16	7.5
132+16 - 133+16	8.3
133+16 - 134+16	8.9
134+16 - 135+16	8.8
135+16 - 136+16	8.4
136+16 - 137+16	8.3
137+16 - 138+16	8.1
138+16 - 139+16	7.2
139+16 - 140+16	7.4
140+16 - 141+16	7.8
141+16 - 142+16	7.6
142+16 - 143+16	7.3

17313.00 Pittsfield - Route #2
Estimated Pavement Depths
Ground Penetrating Radar (GPR)

STATION	AVERAGE DEPTH	STATION	AVERAGE DEPTH	STATION	AVERAGE DEPTH	STATION	AVERAGE DEPTH
143+16 - 144+16	6.7	173+16 - 174+16	7.4	203+16 - 204+16	8.0		
144+16 - 145+16	6.3	174+16 - 175+16	7.8	204+16 - 205+16	8.1		
145+16 - 146+16	6.6	175+16 - 176+16	7.5	205+16 - 206+16	8.0		
146+16 - 147+16	7.1	176+16 - 177+16	8.6	206+16 - 207+16	7.3		
147+16 - 148+16	7.7	177+16 - 178+16	8.1	207+16 - 208+16	7.3		
148+16 - 149+16	7.5	178+16 - 179+16	7.8	208+16 - 209+05	8.5		
149+16 - 150+16	7.2	179+16 - 180+16	7.9				
150+16 - 151+16	7.4	180+16 - 181+16	7.6				
151+16 - 152+16	6.9	181+16 - 182+16	7.6				
152+16 - 153+16	7.0	182+16 - 183+16	7.7				
153+16 - 154+16	6.6	183+16 - 184+16	8.0				
154+16 - 155+16	7.1	184+16 - 185+16	7.7				
155+16 - 156+16	6.7	185+16 - 186+16	7.6				
156+16 - 157+16	6.8	186+16 - 187+16	7.9				
157+16 - 158+16	7.3	187+16 - 188+16	7.6				
158+16 - 159+16	6.6	188+16 - 189+16	7.7				
159+16 - 160+16	6.8	189+16 - 190+16	7.3				
160+16 - 161+16	7.1	190+16 - 191+16	7.5				
161+16 - 162+16	6.5	191+16 - 192+16	7.5				
162+16 - 163+16	7.2	192+16 - 193+16	7.3				
163+16 - 164+16	7.7	193+16 - 194+16	7.5				
164+16 - 165+16	7.0	194+16 - 195+16	7.8				
165+16 - 166+16	6.2	195+16 - 196+16	7.8				
166+16 - 167+16	6.3	196+16 - 197+16	7.7				
167+16 - 168+16	6.4	197+16 - 198+16	7.8				
168+16 - 169+16	7.0	198+16 - 199+16	7.8				
169+16 - 170+16	6.9	199+16 - 200+16	7.4				
170+16 - 171+16	7.0	200+16 - 201+16	7.9				
171+16 - 172+16	7.1	201+16 - 202+16	7.8				
172+16 - 173+16	7.1	202+16 - 203+16	7.9				

State of Maine - Department of Transportation

Laboratory Testing Summary Sheet

Town(s): Pittsfield Project Number: 17313.00

Boring & Sample Identification Number	Station (Feet)	Offset (Feet)	Depth (Feet)	Reference Number	G.S.D.C. Sheet	W.C.	% Passing 200 Sieve	Classification		
								Unified	AASHTO	Frost
HB-PITT-101, S1	201+16	11.0 Rt.	0.5-3.5	245465	1	5.0	14.3	SM	A-1-b	II
HB-PITT-101, S2	201+16	11.0 Rt.	3.5-5.0	245466	1	23.7	52.3	ML	A-4	IV
HB-PITT-105, S3	170+66	8.0 Lt.	0.5-2.0	245467	1	4.4	14.9	SM	A-1-b	II
HB-PITT-105, S4	170+66	8.0 Lt.	2.0-5.0	245468	1	13.3	55.6	ML	A-4	IV
HB-PITT-108, S5	147+16	14.0 Rt.	0.2-5.0	245469	1	4.4	10.3	SP-SM	A-1-b	0
HB-PITT-109, S6	133+16	10.0 Rt.	0.6-3.1	245470	2	4.3	15.7	SM	A-1-b	II
HB-PITT-109, S7	133+16	10.0 Rt.	3.1-5.0	245471	2	16.7	43.7	SM	A-4	III
HB-PITT-112, S8	110+16	8.5 Rt.	0.6-3.0	245472	2	2.7	6.8	SW-SM	A-1-b	0
HB-PITT-112, S9	110+16	8.5 Rt.	3.0-5.0	245473	2	17.9	37.8	SM	A-4	III
HB-PITT-113, S10	101+66	8.0 Rt.	0.6-2.0	245474	2	3.4	11.4	SW-SM	A-1-b	0
HB-PITT-113, S11	101+66	8.0 Rt.	2.0-8.0	245475	2	12.5	50.3	ML	A-4	IV
HB-PITT-119, S12	115+76	8.0 Rt.	2.5-5.0	245476	3	21.6	49.1	SM	A-4	IV
HB-PITT-120, S13	93+16	8.5 Rt.	0.7-2.6	245477	3	3.3	12.7	SM	A-1-b	II
HB-PITT-120, S14	93+16	8.5 Rt.	2.6-5.0	245478	3	11.2	54.5	ML	A-4	IV
HB-PITT-121, S15	83+01	8.0 Rt.	0.6-2.9	245479	3	2.8	9.8	GP-GM	A-1-a	0
HB-PITT-121, S16	83+01	8.0 Rt.	2.9-5.0	245480	3	17.5	41.5	SM	A-4	III
HB-PITT-122, S17	31+16	8.0 Rt.	0.6-3.0	245481	4	3.9	2.9	SW	A-1-a	0
HB-PITT-122, S18	31+16	8.0 Rt.	3.0-5.0	245482	4	10.0	30.4	SM	A-2-4	II
HB-PITT-124, S19	40+66	15.0 Rt.	0.3-2.2	245483	4	6.3	12.6	SM	A-1-b	II
HB-PITT-124, S20	40+66	15.0 Rt.	2.2-5.0	245484	4	20.7	87.9	CL-ML	A-4	IV
HB-PITT-125, S21	49+66	8.5 Rt.	0.65-3.2	245485	4	5.0	5.9	SW-SM	A-1-b	0
HB-PITT-125, S22	49+66	8.5 Rt.	3.2-5.0	245486	4	14.1	47.8	SM	A-4	III
Laboratory Test Results are in boring and sample order rather than station order.										

Classification of these soil samples is in accordance with AASHTO Classification System M-145-40. This classification is followed by the "Frost Susceptibility Rating" from zero (non-frost susceptible) to Class IV (highly frost susceptible). The "Frost Susceptibility Rating" is based upon the MDOT and Corps of Engineers Classification Systems.

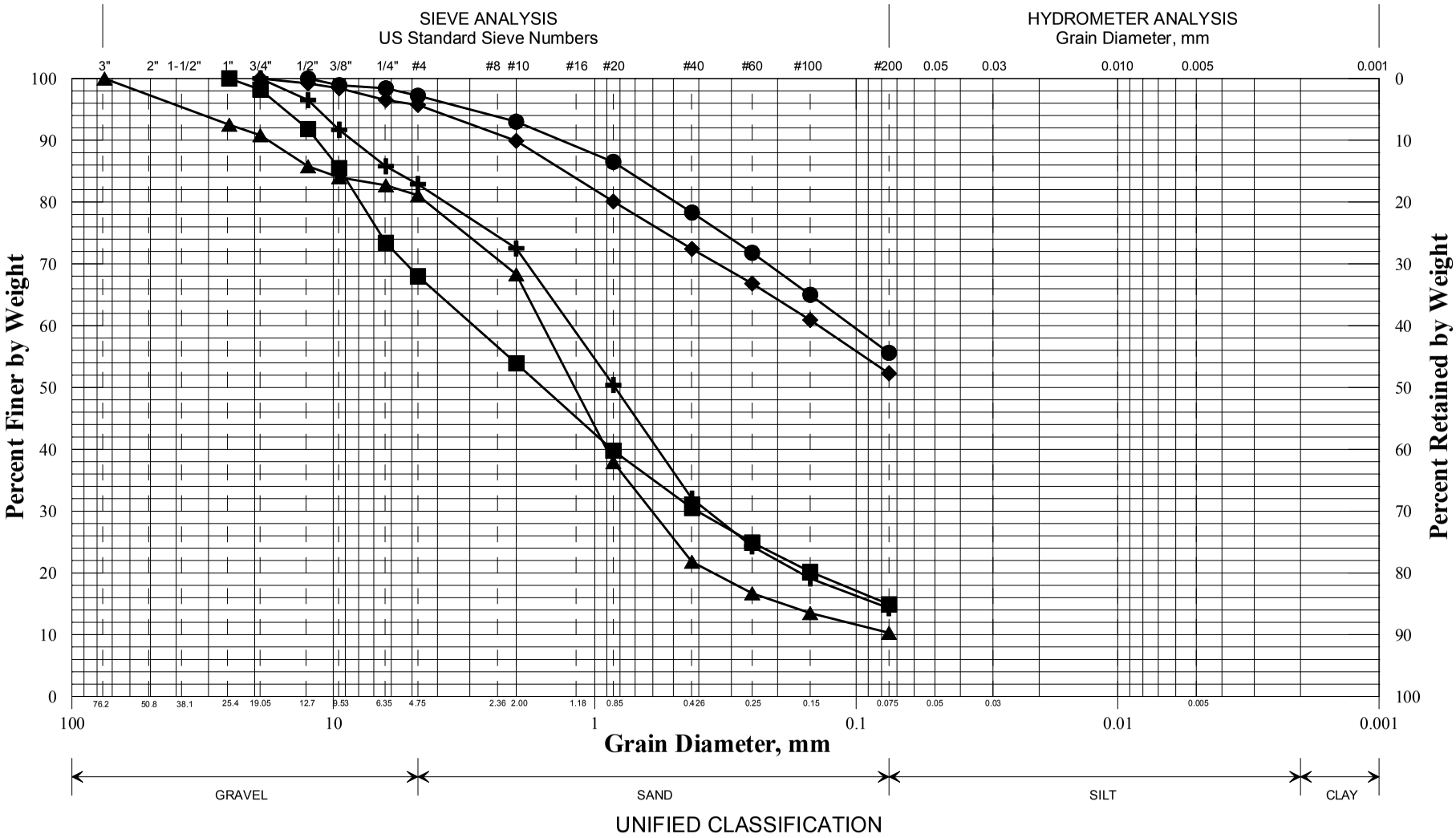
GSDC = Grain Size Distribution Curve as determined by AASHTO T 88-93 (1996) and/or ASTM D 422-63 (Reapproved 1998)

WC = water content as determined by AASHTO T 265-93 and/or ASTM D 2216-98

LL = Liquid limit as determined by AASHTO T 89-96 and/or ASTM D 4318-98

PI = Plasticity Index as determined by AASHTO 90-96 and/or ASTM D4318-98

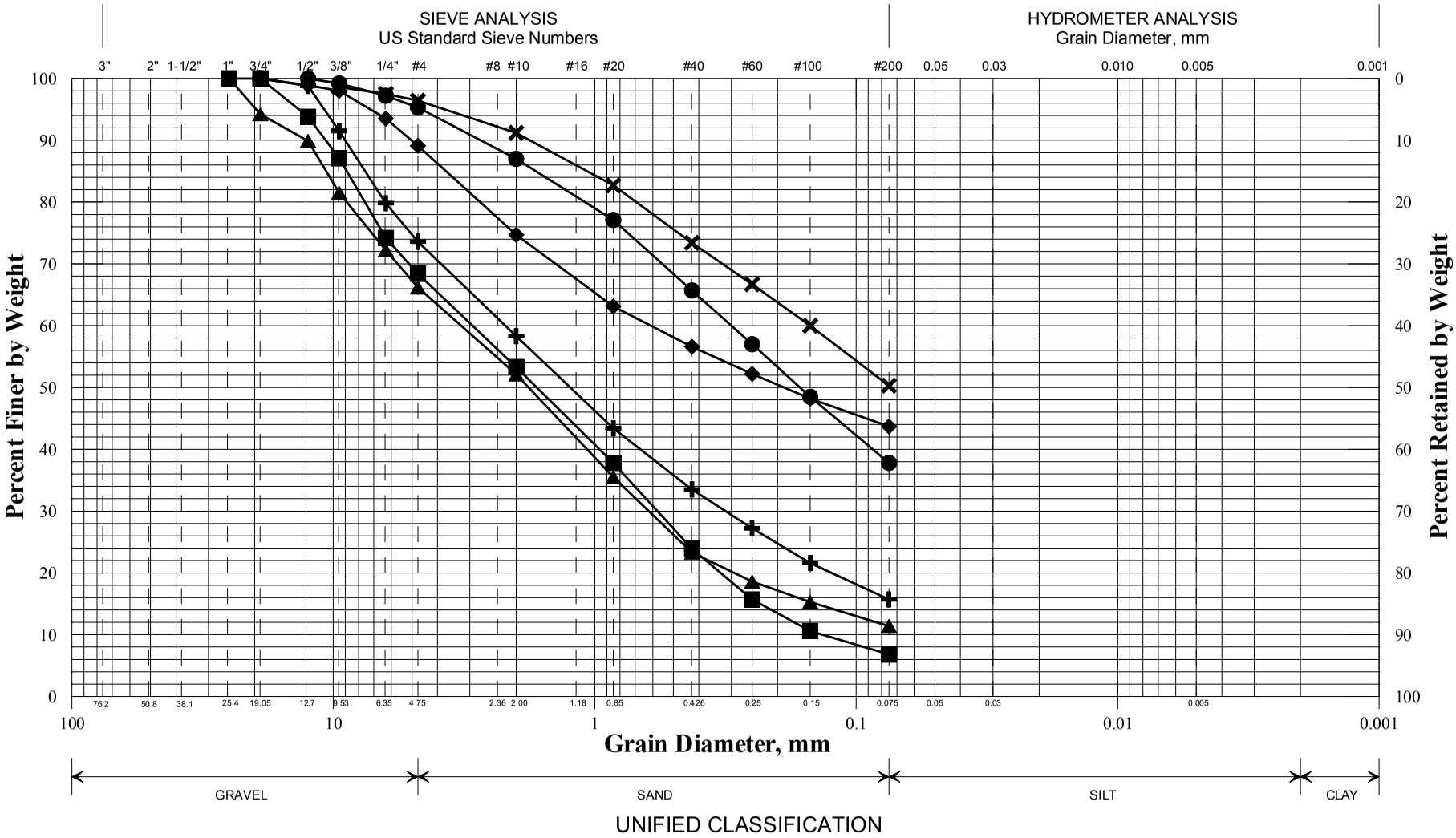
State of Maine Department of Transportation
GRAIN SIZE DISTRIBUTION CURVE



	Boring/Sample No.	Station	Offset, ft	Depth, ft	Description	W, %	LL	PL	PI
✚	HB-PITT-101/S1	201+16	11.0 RT	0.5-3.5	SAND, little gravel, little silt.	5.0			
◆	HB-PITT-101/S2	201+16	11.0 RT	3.5-5.0	Sandy SILT, trace gravel.	23.7			
■	HB-PITT-105/S3	170+66	8.0 LT	0.5-2.0	SAND, some gravel, little silt.	4.4			
●	HB-PITT-105/S4	170+66	8.0 LT	2.0-5.0	Sandy SILT, trace gravel.	13.3			
▲	HB-PITT-108/S5	147+16	14.0 RT	0.2-5.0	SAND, little gravel, trace silt.	4.4			
✖									

PIN
017313.00
Town
Pittsfield
Reported by/Date
WHITE, TERRY A 12/28/2010

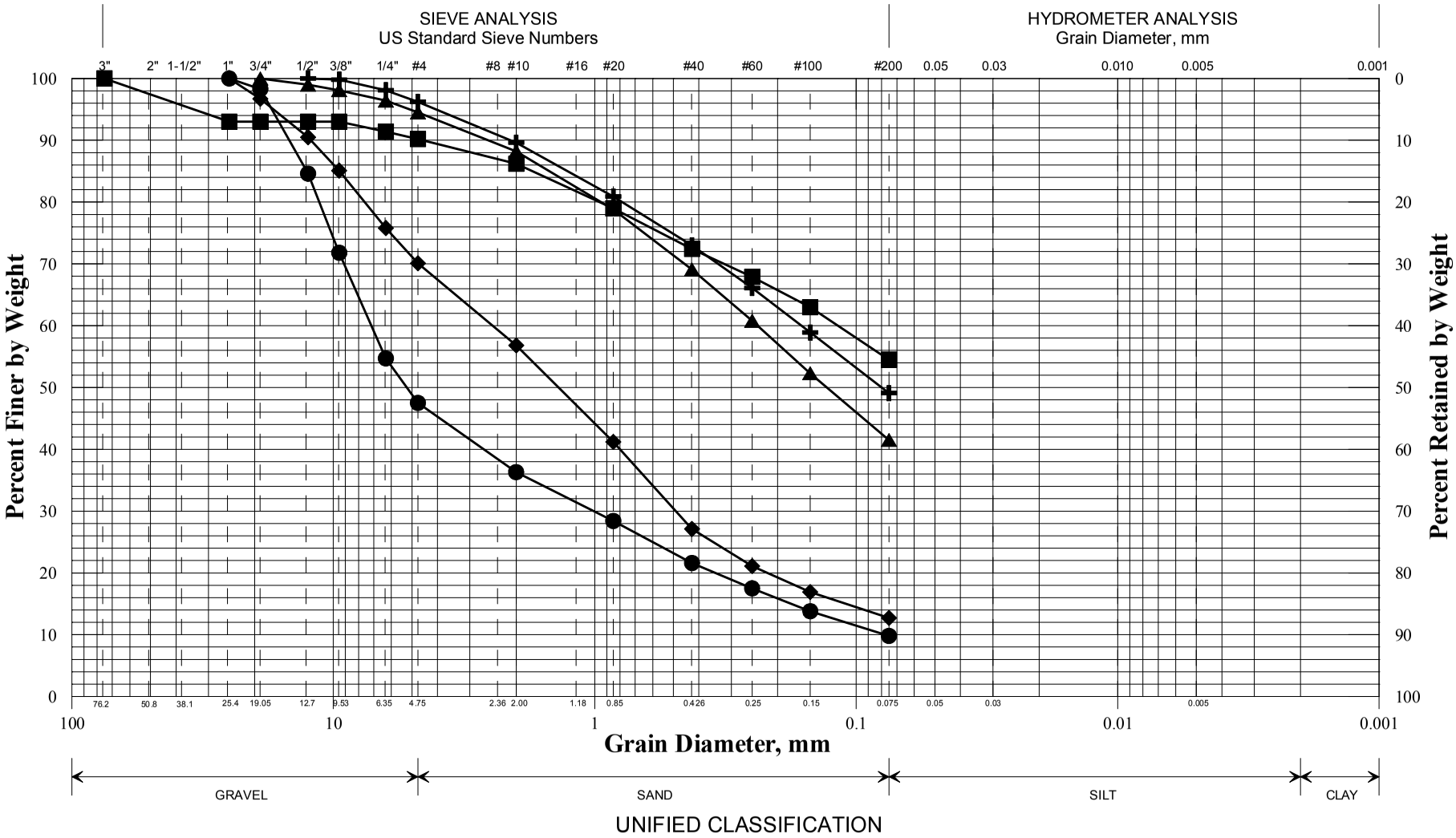
State of Maine Department of Transportation
GRAIN SIZE DISTRIBUTION CURVE



	Boring/Sample No.	Station	Offset, ft	Depth, ft	Description	W, %	LL	PL	PI
✚	HB-PITT-109/S6	133+16	10.0 RT	0.6-3.1	SAND, some gravel, little silt.	4.3			
◆	HB-PITT-109/S7	133+16	10.0 RT	3.1-5.0	Silty SAND, little gravel.	16.7			
■	HB-PITT-112/S8	110+16	8.5 RT	0.6-3.0	SAND, some gravel, trace silt.	2.7			
●	HB-PITT-112/S9	110+16	8.5 RT	3.0-5.0	Silty SAND, trace gravel.	17.9			
▲	HB-PITT-113/S10	101+66	8.0 RT	0.6-2.0	SAND, some gravel, little silt.	3.4			
✕	HB-PITT-113/S11	101+66	8.0 RT	2.0-8.0	Sandy SILT, trace gravel.	12.5			

PIN
017313.00
Town
Pittsfield
Reported by/Date
WHITE, TERRY A 12/28/2010

State of Maine Department of Transportation
GRAIN SIZE DISTRIBUTION CURVE



	Boring/Sample No.	Station	Offset, ft	Depth, ft	Description	W, %	LL	PL	PI
✚	HB-PITT-119/S12	115+76	8.0 RT	2.5-5.0	Sandy SILT, trace gravel.	21.6			
◆	HB-PITT-120/S13	93+16	8.5 RT	0.7-2.6	SAND, some gravel, little silt.	3.3			
■	HB-PITT-120/S14	93+16	8.5 RT	2.6-5.0	SILT, some sand, trace gravel.	11.2			
●	HB-PITT-121/S15	83+01	8.0 RT	0.6-2.9	Sandy GRAVEL, trace silt.	2.8			
▲	HB-PITT-121/S16	83+01	8.0 RT	2.9-5.0	Silty SAND, trace gravel.	17.5			
✕									

PIN
017313.00
Town
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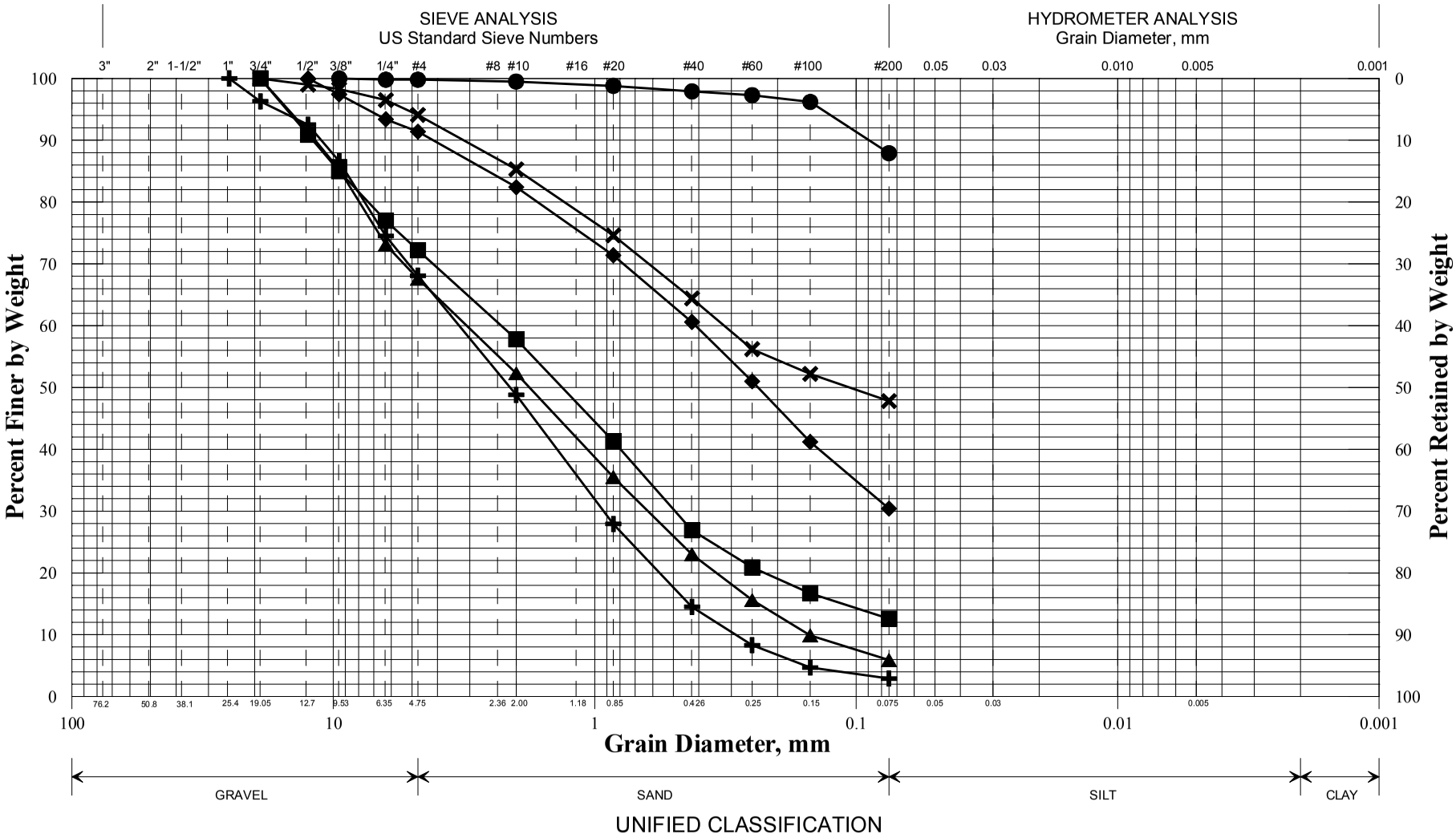
Reported by/Date
WHITE, TERRY A 12/28/2010

State of Maine Department of Transportation
GRAIN SIZE DISTRIBUTION CURVE



	Boring/Sample No.	Station	Offset, ft	Depth, ft	Description	W, %	LL	PL	PI
✚	HB-PITT-122/S17	31+16	8.0 RT	0.6-3.0	SAND, some gravel, trace silt.	3.9			
◆	HB-PITT-122/S18	31+16	8.0 RT	3.0-5.0	SAND, some silt, trace gravel.	10.0			
■	HB-PITT-124/S19	40+66	15.0 RT	0.3-2.2	SAND, some gravel, little silt.	6.3			
●	HB-PITT-124/S20	40+66	15.0 RT	2.2-5.0	SILT, little sand, trace gravel.	20.7			
▲	HB-PITT-125/S21	49+66	8.5 RT	0.65-3.2	SAND, some gravel, trace silt.	5.0			
✕	HB-PITT-125/S22	49+66	8.5 RT	3.2-5.0	Sandy SILT, trace gravel.	14.1			

PIN
017313.00
Town
Pittsfield
Reported by/Date
WHITE, TERRY A 12/28/2010

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-1
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	133+66, 8.5 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.70		PAVEMENT.	
									0.70	
									Brown, damp, gravelly, fine to coarse SAND, little silt.	
							-1.80		1.80	
									Grey, moist, silty, fine to medium SAND.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface.	
									NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-2
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	143+32, 8.5 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.75		PAVEMENT.	
									0.75 — Brown, damp, gravelly, fine to coarse SAND, little silt.	
							-2.80		Cobble from 2.5-2.8 ft bgs.	
							-3.00		2.80 — Grey, moist, silty, fine to medium SAND, trace gravel.	
									3.00 — **Bottom of Exploration at 3.00 feet below ground surface.** NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-3
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	140+10, 8.6 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.75		PAVEMENT.	
									0.75	
									Brown, dry, gravelly, fine to coarse SAND, trace silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-4
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	136+85, 8.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.75		PAVEMENT.	
									0.75	
									Brown, damp, gravelly, fine to coarse SAND, little silt.	
									Cobble from 2.4-2.8 ft bgs.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface.	
									NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-5
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	124+70, 7.5 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.75		PAVEMENT. 0.75	
									Brown, damp, gravelly, fine to coarse SAND, little silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-6
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	118+16, 8.5 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Brown, damp, gravelly, fine to coarse SAND, trace silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-7
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	114+35, 8.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Brown, damp, gravelly, fine to coarse SAND, trace silt.	
							-1.90		1.90	
									Brown, moist, silty, fine to coarse SAND.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-8
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	112+85, 8.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Brown, gravelly, fine to coarse SAND, trace silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-9
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	102+26, 8.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Brown, damp, gravelly, fine to coarse SAND, trace silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-10
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	96+85, 8.5 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Brown, dry, gravelly, fine to coarse SAND, trace silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-11
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	91+00, 9.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Brown, dry, gravelly, fine to coarse SAND, trace silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-12
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	83+35, 8.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.65		PAVEMENT. 0.65	
									Brown, dry, gravelly, fine to coarse SAND, little silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-13
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	78+24, 9.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.70		PAVEMENT.	
									Brown, gravelly, fine to coarse SAND, trace silt.	
							-3.00			
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-14
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	69+35, 8.5 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Brown, damp, gravelly, fine to coarse SAND, trace silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-15
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	58+35, 8.5 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.70		PAVEMENT.	
									Brown, damp, gravelly, fine to coarse SAND, trace silt.	
							-3.00		0.70	
									3.00	
									Bottom of Exploration at 3.00 feet below ground surface.	
									NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: GPR-16
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	45+32, 8.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Brown, gravelly, fine to coarse SAND, trace silt.	
							-3.00		3.00	
									Bottom of Exploration at 3.00 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.
Skipped probes at Stations 72+35, due to bad site distance for flaggers and 28+95, 25+35 due to probes in construction zone.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-101
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/7/10-12/7/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	201+16, 11.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S1		0.50 - 3.50			SSA	-0.50		PAVEMENT.	
									0.50 — Brown, damp, fine to coarse SAND, some gravel, trace silt.	G#245465 A-1-b, SM WC=5.0%
	S2		3.50 - 5.00				-3.50		3.50 — Dark brown, moist, SILT, little fine SAND.	G#245466 A-4, ML WC=23.7%
5							-5.00		5.00 — **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Boring No.: HB-PITT-101

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-102
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/7/10-12/7/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	201+16, 15.0 ft Rt. Shoulder	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.10		PAVEMENT.	
									0.10	
									Brown, damp, fine to coarse SAND, some gravel, trace silt. ≅S1	
							-3.50		3.50	
									Dark brown, moist, SILT, little fine SAND. ≅S2	
5							-5.00		5.00	
									Bottom of Exploration at 5.00 feet below ground surface.	
									NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-103
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/7/10-12/7/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	188+16, 10.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.50		PAVEMENT.	
									0.50 — Brown, damp, fine to coarse SAND, some gravel, trace silt. ≅S1	
							-3.30		3.30 — Dark brown, moist, SILT, little fine SAND. ≅S2	
5							-5.00		5.00 — **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-104
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/7/10-12/7/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	188+16 CL	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.55		PAVEMENT. 0.55	
									Bottom of Exploration at 0.55 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-105
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/7/10-12/7/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	170+66, 8.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S3		0.50 - 2.00			SSA	-0.50		PAVEMENT.	
									0.50 — Brown, damp, fine to coarse SAND, some gravel, little silt.	G#245467 A-1-b, SM WC=4.4%
	S4		2.00 - 5.00				-2.00		2.00 — Light brown, moist, silty, fine to medium SAND, trace gravel.	G#245468 A-4, ML WC=13.3%
5							-5.00		5.00 — **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-106
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	170+66, 2.0 ft Lt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.50		PAVEMENT.	
									0.50	
									Bottom of Exploration at 0.50 feet below ground surface.	
									NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-107
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	147+16, 8.5 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
							-1.80		Brown, gravelly, fine to coarse SAND, little silt. 1.80	
									Bottom of Exploration at 1.80 feet below ground surface. BOULDER REFUSAL ?	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-108
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	147+16, 14 ft Rt. Shoulder	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S5		0.20 - 5.00			SSA	-0.20		PAVEMENT. 0.20	G#245469 A-1-b, SP-SM WC=4.4%
									Brown, damp, gravelly, fine to coarse SAND, trace silt.	
5							-5.00		5.00	
									Bottom of Exploration at 5.00 feet below ground surface. NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-109
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	133+16, 10.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S6		0.60 - 3.10			SSA	-0.60		PAVEMENT.	
									0.60 Brown, damp, gravelly, fine to coarse SAND, little silt.	G#245470 A-1-b, SM WC=4.3%
	S7		3.10 - 5.00				-3.10		3.10 Light brown, moist, silty, fine to medium SAND, trace gravel.	G#245471 A-4, SM WC=16.7%
5							-5.00		5.00 **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-110
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	133+16, 14.0 ft Rt. Shoulder	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.25		PAVEMENT.	
									0.25	
									Brown, damp, gravelly, fine to coarse SAND, little silt. ≅S6	
							-2.70		2.70	
									Light brown, moist, silty, fine to medium SAND, trace gravel. ≅S7	
5							-5.00		5.00	
									Bottom of Exploration at 5.00 feet below ground surface.	
									NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-111
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	133+16, 2.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.65		PAVEMENT. 0.65	
									Bottom of Exploration at 0.65 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-112
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	110+16, 8.5 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S8		0.60 - 3.00			SSA	-0.60		PAVEMENT.	
									0.60 Black-brown, damp, gravelly, fine to coarse SAND, trace silt.	G#245472 A-1-b, SW-SM WC=2.7%
	S9		3.00 - 5.00				-3.00		3.00 Olive, moist, fine to medium SAND, some silt.	G#245473 A-4, SM WC=17.9%
5							-5.00		5.00 **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-113
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	101+66, 8.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S10		0.60 - 2.00			SSA	-0.60		PAVEMENT.	
									0.60 Brown, damp, gravelly, fine to coarse SAND, little silt.	G#245474 A-1-b, SW-SM WC=3.4%
	S11		2.00 - 8.00				-2.00		2.00 Brown, wet, silty, fine to medium SAND, trace gravel.	G#245475 A-4, ML WC=12.5%
5										
							-8.00		8.00 **Bottom of Exploration at 8.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-114
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	100+66, 8.5 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.55		PAVEMENT.	
									0.55 — Brown, damp, gravelly, fine to coarse SAND, little silt. ≅S10	
							-3.20		3.20 — Brown, wet, silty, fine to medium SAND, trace gravel. ≅S11	
5										
							-8.00		8.00 — **Bottom of Exploration at 8.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-115
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	100+66, 2.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Bottom of Exploration at 0.60 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-116
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/8/10-12/8/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	100+94, 8.5 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.65		PAVEMENT.	
									Brown, damp, gravelly, fine to coarse SAND, little silt. ≅S10	
							-3.00		Brown, wet, silty, fine to medium SAND, trace gravel. ≅S11	
5										
							-8.00		**Bottom of Exploration at 8.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-117
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	115+66, 8.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.55		PAVEMENT.	
									0.55	
									Black-brown, damp, gravelly, fine to coarse SAND, trace silt. ≅S8	
							-2.00		2.00	
									Olive, moist, fine to medium SAND, some silt. ≅S9	
							-3.50		3.50	
									Bottom of Exploration at 3.50 feet below ground surface.	
5									BOULDER REFUSAL ?	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-118
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	115+71, 8.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.55		PAVEMENT.	
									0.55	
							-1.50		Black-brown, damp, gravelly, fine to coarse SAND, trace silt. ≅S8	
									1.50	
									Bottom of Exploration at 1.50 feet below ground surface.	
									BOULDER REFUSAL ?	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-119
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	115+76, 8.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.55		PAVEMENT.	
									0.55 — Black-brown, damp, gravelly, fine to coarse SAND, trace silt. ≅S8	
	S12		2.50 - 5.00				-2.50		Cobble from 2.2-2.5 ft bgs.	G#245476 A-4, SM WC=21.6%
									2.50 — Olive-brown, wet, silty, fine to medium SAMD.	
5							-5.00		5.00 — **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-120
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	93+16, 8.5 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S13		0.70 - 2.60			SSA	-0.70		PAVEMENT.	
									0.70 Brown, damp, gravelly, fine to coarse SAND, little silt.	G#245477 A-1-b, SM WC=3.3%
	S14		2.60 - 5.00				-2.60		2.60 Brown, moist, silty, fine to coarse SAND, little gravel.	G#245478 A-4, ML WC=11.2%
5							-5.00		5.00 **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-121
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	83+01, 8.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S15		0.60 - 2.90			SSA	-0.60		PAVEMENT.	
									0.60 Brown, dry, gravelly, fine to coarse SAND, trace silt.	G#245479 A-1-a, GP-GM WC=2.8%
	S16		2.90 - 5.00				-2.90		2.90 Olive-grey, moist, silty, fine to medium SAND.	G#245480 A-4, SM WC=17.5%
5							-5.00		5.00 **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.
Overhead wires at Sta. 70+00.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-122
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	31+16, 8.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S17		0.60 - 3.00			SSA	-0.60		PAVEMENT.	
									0.60 Black, dry, gravelly, fine to coarse SAND, trace silt.	G#245481 A-1-a, SW WC=3.9%
	S18		3.00 - 5.00				-3.00		3.00 Brown, moist, fine to medium SAND, some silt.	G#245482 A-2-4, SM WC=10.0%
5							-5.00		5.00 **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-123
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	40+66, 8.5 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
							-1.40		Black, dry, gravelly, fine to coarse SAND, trace silt. ≅S17 1.40	
									Bottom of Exploration at 1.40 feet below ground surface. BOULDER REFUSAL ?	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-124
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	40+66, 15.0 ft Rt. Shoulder	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S19		0.30 - 2.20			SSA	-0.30		PAVEMENT.	
									0.30 — Black, damp, gravelly, fine to coarse SAND, trace silt.	G#245483 A-1-b, SM WC=6.3%
	S20		2.20 - 5.00				-2.20		2.20 — Brown, wet, silty, fine to medium SAND, trace clay.	G#245484 A-4, CL-ML WC=20.7%
5							-5.00		5.00 — **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-125
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	49+66, 8.5 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	S21		0.65 - 3.20			SSA	-0.65		PAVEMENT.	
									0.65 — Brown, damp, gravelly, fine to coarse SAND, trace silt.	G#245485 A-1-b, SW-SM WC=5.0%
	S22		3.20 - 5.00				-3.20		3.20 — Olive-brown, moist, silty, fine to medium SAND, trace gravel.	G#245486 A-4, SM WC=14.1%
5							-5.00		5.00 — **Bottom of Exploration at 5.00 feet below ground surface.** NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-126
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	49+66, 14 ft Rt. Shoulder	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.25		PAVEMENT.	
									0.25	
									Brown, damp, gravelly, fine to coarse SAND, trace silt. ≅S21	
							-2.20		2.20	
									Olive-brown, moist, silty, fine to medium SAND, trace gravel. ≅S22	
5							-5.00		5.00	
									Bottom of Exploration at 5.00 feet below ground surface.	
									NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-127
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	49+66, 2.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.65		PAVEMENT. 0.65	
									Bottom of Exploration at 0.65 feet below ground surface. NO REFUSAL	
5										
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-128
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	54+66, 8.5 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT.	
									0.60	
									Brown, damp, gravelly, fine to coarse SAND, trace silt. ≅S21	
							-2.50		2.50	
									Olive-brown, moist, silty, fine to medium SAND, trace gravel. ≅S22	
5							-5.00		5.00	
									Bottom of Exploration at 5.00 feet below ground surface.	
									NO REFUSAL	
10										
15										
20										
25										

Remarks:

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-129
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	54+66, 14.5 ft Rt. Shoulder	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.30		PAVEMENT.	
									0.30	
							-1.60		Brown, damp, gravelly, fine to coarse SAND, trace silt. ≅S21	
									1.60	
									Olive-brown, moist, silty, fine to medium SAND, trace gravel. ≅S22	
5							-5.00		5.00	
									Bottom of Exploration at 5.00 feet below ground surface.	
									NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.

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Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: US Route 2
Location: Pittsfield, Maine

Boring No.: HB-PITT-130
PIN: 17313.00

Driller:	MaineDOT	**Elevation (ft.)**		**Auger ID/OD:**	5" Dia.
Operator:	Giguere/Giles	**Datum:**	NAVD88	**Sampler:**	Off Flights
Logged By:	B. Wilder	**Rig Type:**	CME 45C	**Hammer Wt./Fall:**	N/A
Date Start/Finish:	12/9/10-12/9/10	**Drilling Method:**	Solid Stem Auger	**Core Barrel:**	N/A
Boring Location:	73+66, 8.0 ft Rt.	**Casing ID/OD:**	N/A	**Water Level*:**	None Observed

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
R = Rock Core Sample
V = Insitu Vane Shear Test
SSA = Solid Stem Auger

Definitions:
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WOH = weight of 140lb. hammer
WOR = weight of rods WOC = weight of casing

Definitions:
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample Information: Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Shear Strength (psf) or RQD (%)	N-value	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0						SSA	-0.60		PAVEMENT. 0.60	
									Brown, dry, gravelly, fine to coarse SAND, trace silt. ≅S15	
							-2.50		2.50	
									Olive-grey, moist, silty, fine to medium SAND. ≅S16	
5							-5.00		5.00	
									Bottom of Exploration at 5.00 feet below ground surface. NO REFUSAL	
10										
15										
20										
25										

Remarks:

Offsets are from Existing Roadway Centerline.
Overhead wires at Sta. 83+16.

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