

**Traffic Impact Study; Parking Study
and Transportation Demand
Management Plan
Proposed Bean 2 Roof Addition
Maine Medical Center - Bramhall Campus
Portland, Maine**

Prepared for:

**Maine Medical Center
22 Bramhall Street
Portland, Maine 04102**

May 2013

Prepared by:



Gorrill-Palmer Consulting Engineers, Inc.

Engineering Excellence Since 1998

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Portland, Maine

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Maine DOT Crash Data
Trip Generation Calculations

Executive Summary

The following Executive Summary is prepared for the reader's convenience, but is not intended to be a substitute for reading the full report.

Gorrill-Palmer Consulting Engineers, Inc. was retained by Maine Medical Center (MMC) to prepare this traffic and parking assessment as well as a Transportation Demand Management Plan Review for the proposed addition to the Bean 2 building at their Bramhall campus in Portland, Maine. Proposed for the site is a 18,758 square foot addition on top of the Bean 2 building. A total of 49 staff will be added as a result of the project. Based on MMC records, a total of 184 staff have been added since the previous expansion of the Bramhall campus. The additional parking demand for the 49 employees is forecast to be 41 spaces and MMC plans to accommodate them at their parking facilities at 887 Congress Street and at 995 Congress Street.

Based on this study, our office has determined the following:

1. The proposed development is forecast to generate 28 and 30 trip ends in the weekday AM and PM peak hours respectively. The increase since the previous project is estimated to be 77 and 84 trip ends in the weekday AM and PM peak hours respectively (Note: A trip end is either a trip in or out of the site. Thus a round trip would equal two trip ends). At this level of trip generation, this project does not require a traffic permit from the Maine Department of Transportation.
2. Gorrill-Palmer Consulting Engineers, Inc. referenced the Maine DOT collision records to determine that are five high crash locations in the vicinity of the project.
3. Gorrill-Palmer Consulting Engineers, Inc. estimates that the additional 49 employees will generate a demand for 41 parking spaces. It is our understanding from MMC that this additional demand can be accommodated at 887 Congress Street and at 995 Congress Street.
4. Maine Medical Center has a comprehensive Demand Management Plan for their Bramhall campus which supports the City's transportation and environmental sustainability goals by encouraging and promoting bicycling, walking, and use of transit. MMC is planning to add two additional bike racks which will accommodate up to 36 bikes as well as a parking space for a U-Share car on the Bramhall campus.

Based on these findings, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the proposed project can be accommodated by the City's transportation system.

I. *Existing and Proposed Site*

The proposed project consists of an addition to the top of the existing Bean 2 building at Maine Medical Center's (MMC) Bramhall campus in Portland, Maine.

Proposed for the site is a 18,758 sf addition which is forecast by MMC to add 49 employees. MMC estimates that they have added approximately 184 employees since the last major addition to the Bramhall Campus.

II. *Background Conditions*

Gorrill-Palmer Consulting Engineers, Inc. based the study on the following information:

- A site plan, Sheet A01-01 prepared by Perkins + Will dated April 3, 2013.
- Crash data for 2009-2011 provided by the Maine Department of Transportation.

III. *Trip Generation*

Gorrill-Palmer Consulting Engineers, Inc. used the Institute of Transportation Engineers (ITE) publication *Trip Generation*, 7th Edition, to estimate the potential trip generation for the proposed expansion. Based on MMC records, a total of 184 staff have been added since the previous expansion of the Bramhall campus. With the planned staff addition of 49 employees associated with this project, the total additional staff is 233 since the previous expansion resulting in a total staff level of 4,804 following the expansion. Based on Land Use Code (LUC) 610, Hospital, Gorrill-Palmer Consulting Engineers, Inc. has estimated the difference in trip ends using the prior employee level of 4,571 and the post development level of 4804 (Note a trip end is either a trip in or out of the site; thus one round trip is equal to two trip ends):

AM Peak Hour of MMC	77 trip ends
PM Peak Hour of MMC	84 trip ends

Maine Medical received a traffic movement permit for their previous expansion. The level of forecast traffic increase associated with the employee increase since that time does not require a traffic movement permit from the MaineDOT since the peak hour traffic increase is less than 100 trip ends.

IV. *Crash Data*

In order to evaluate whether a location has a crash problem, Maine DOT uses two criteria to define High Crash Locations (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual accident rate to the rate for similar intersections in the State. A CRF of less than 1.00 indicates a rate less than average) and;
2. A minimum of 8 crashes over a three-year period.

Our office reviewed the 2009-2011 crash data in this area and has summarized the high crash locations or areas which are close to meeting that definition below:

Intersections with Significant Collision History

Location	No. of Collisions	Critical Rate Factor
Congress/Gilman	10	1.89
Bramhall/Congress/Deering	17	0.64
Congress/Valley	23	1.31
Congress/St. John	24	0.75

Roadway Segment with Significant Collision History

Location	No. of Collisions	Critical Rate Factor
Congress between Ellsworth and Weymouth	10	1.52
Congress between Weymouth and Forest St	10	1.50
St. John between C St and A St	11	2.68

This information shows that there are five high crash locations in the vicinity of the site. The MaineDOT furnished the collision reports for these locations and our office is preparing the collision diagrams which will be furnished to the City upon completion.

A copy of the collision history is included in the appendix.

V. *Parking Demand*

Gorrill-Palmer Consulting Engineers, Inc. used the Institute of Transportation Engineers (ITE) publication *Parking Generation*, 3rd Edition, to estimate the potential parking demand for the proposed expansion. Land Use Code 610, Hospital, estimates an average demand of 0.83 spaces per employee. Based on the estimated 49 employees to be added with the planned addition, the project will create a demand for 41 additional parking spaces. It is our understanding from MMC that this additional demand can be accommodated at 887 Congress Street and at 995 Congress Street.

It is our understanding from John Peverada of the City's parking department staff that, they have done periodic checking of MMC's parking garages at the corner of Gilman Road and Congress Street and has seen vacancies. He also observed that the parking meeting on the Eastern Promenade were underutilized.

VI. Transportation Demand Management Plan

Maine Medical Center has maintained a robust Transportation Demand Management Plan since their prior expansion which will supports the City's transportation and environmental sustainability goals by encouraging and promoting bicycling, walking, and use of transit. MMC is planning to add two additional bike racks which will accommodate up to 36 bikes as well as a parking space for a U-Share car on the Bramhall campus. Gorrill Palmer Consulting Engineers, Inc. does not recommend any additional measures beyond these.

Appendix A

MaineDOT Crash Data

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

Crash Summary I Section Detail Crash Summary II 1320 Public 1320 Private 1320 Summary

REPORT DESCRIPTION

Bramhall area

REPORT PARAMETERS

Year 2009, Start Month 1 through Year 2011 End Month: 12

Route: 0560160

Start Node: 16825
 End Node: 16765

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Route: 0560785

Start Node: 12751
 End Node: 12625

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Route: 3200519

Start Node: 60369
 End Node: 12751

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Route: 0560077

Start Node: 16825
 End Node: 12625

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Route: 0560071

Start Node: 19111
 End Node: 19112

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Route: 0560128

Start Node: 19112
 End Node: 12624

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Route: 0560171

Start Node: 12619
 End Node: 12624

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Route: 0560251

Start Node: 12617
 End Node: 16826

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Route: 0560780

Start Node: 12622
 End Node: 12623

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Route: 0560076

Start Node: 18352
 End Node: 15476

Start Offset: 0
 End Offset: 0

Exclude First Node
 Exclude Last Node

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

- Crash Summary I
 Section Detail
 Crash Summary II
 1320 Public
 1320 Private
 1320 Summary

REPORT DESCRIPTION

Bramhall area

REPORT PARAMETERS

Year 2009, Start Month 1 through Year 2011 End Month: 12

Route: 0560369

Start Node: 12618
End Node: 12621

Start Offset: 0
End Offset: 0

- Exclude First Node
 Exclude Last Node

Route: 0560633

Start Node: 12620
End Node: 19112

Start Offset: 0
End Offset: 0

- Exclude First Node
 Exclude Last Node

Route: 0560314

Start Node: 19081
End Node: 18571

Start Offset: 0
End Offset: 0

- Exclude First Node
 Exclude Last Node

Route: 3201019

Start Node: 16750
End Node: 16752

Start Offset: 0
End Offset: 0

- Exclude First Node
 Exclude Last Node

Route: 3201042

Start Node: 16763
End Node: 16765

Start Offset: 0
End Offset: 0

- Exclude First Node
 Exclude Last Node

Route: 0560001

Start Node: 16751
End Node: 16764

Start Offset: 0
End Offset: 0

- Exclude First Node
 Exclude Last Node

Route: 0560001

Start Node: 19080
End Node: 16751

Start Offset: 0
End Offset: 0

- Exclude First Node
 Exclude Last Node

Route: 0560100

Start Node: 16750
End Node: 16763

Start Offset: 0
End Offset: 0

- Exclude First Node
 Exclude Last Node

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes							Percent Annual Injury Ent-Veh	Crash Rate	Critical Rate	CRF
					K	A	B	C	PD	Injury	Ent-Veh				
16825	0560160 - 1.94	Int of BRAMHALL ST CONGRESS ST DEERING AV	9	17	0	0	0	4	13	23.5	9.018	0.63	0.99	0.00	
												Statewide Crash Rate:	0.62		
16826	0560160 - 2	Int of CONGRESS ST ELLSWORTH ST	2	2	0	0	1	0	1	50.0	5.057	0.13	0.34	0.00	
												Statewide Crash Rate:	0.13		
16827	0560160 - 2.10	Int of CONGRESS ST WEYMOUTH ST	2	2	0	0	0	1	1	50.0	5.576	0.12	0.33	0.00	
												Statewide Crash Rate:	0.13		
16828	0560160 - 2.20	Int of CONGRESS ST FOREST ST	2	2	0	0	0	1	1	50.0	5.256	0.13	0.33	0.00	
												Statewide Crash Rate:	0.13		
18571	0560160 - 2.24	Int of CONGRESS ST GILMAN ST	2	10	0	0	2	1	7	30.0	5.323	0.63	0.33	1.89	
												Statewide Crash Rate:	0.13		
16752	0560160 - 2.28	Int of CONGRESS ST VALLEY ST	9	23	0	0	1	7	15	34.8	5.334	1.44	1.10	1.31	
												Statewide Crash Rate:	0.62		
16765	0560160 - 2.33	Int of CONGRESS ST ST JOHN ST	9	24	0	1	3	4	16	33.3	11.050	0.72	0.96	0.00	
												Statewide Crash Rate:	0.62		
12751	0560785 - 0.60	Int of WEST ST, WESTERN PROM	2	0	0	0	0	0	0	0.0	0.400	0.00	0.60	0.00	
												Statewide Crash Rate:	0.14		
60369	0560785 - 0.62	Non-Int WESTERN PROM	2	0	0	0	0	0	0	0.0	0.416	0.00	0.60	0.00	
												Statewide Crash Rate:	0.14		
12625	0560785 - 0.65	Int of BRAMHALL ST, WESTERN PROM	2	0	0	0	0	0	0	0.0	0.412	0.00	0.60	0.00	
												Statewide Crash Rate:	0.14		
18352	0560077 - 0.01	0508771 POR, BRAMHALL RD, BRAMHALL PLACE	2	0	0	0	0	0	0	0.0	3.198	0.00	0.40	0.00	
												Statewide Crash Rate:	0.14		
12604	0560077 - 0.03	0503016 POR, BRAMHALL, VAUGHN ST.	2	2	0	0	0	0	2	0.0	3.150	0.21	0.40	0.00	
												Statewide Crash Rate:	0.14		
12621	0560077 - 0.06	0503033 POR, BRAMHALL, HILL ST.	2	0	0	0	0	0	0	0.0	1.689	0.00	0.47	0.00	
												Statewide Crash Rate:	0.14		
19111	0560077 - 0.11	0509531 POR, BRACKETT, BRAMHALL ST.	2	1	0	0	0	1	0	100.0	1.666	0.20	0.47	0.00	
												Statewide Crash Rate:	0.14		
12603	0560077 - 0.13	0503015 POR, BRAMHALL, BRACKETT, CHADWICK	2	0	0	0	0	0	0	0.0	1.280	0.00	0.50	0.00	
												Statewide Crash Rate:	0.14		
12625	0560077 - 0.24	Int of BRAMHALL ST, WESTERN PROM	2	0	0	0	0	0	0	0.0	0.412	0.00	0.60	0.00	
												Statewide Crash Rate:	0.14		
19112	0560071 - 0.82	0509532 POR, CHARLES, BRACKETT ST.	2	0	0	0	0	0	0	0.0	0.568	0.00	0.58	0.00	
												Statewide Crash Rate:	0.14		
12617	0560128 - 0.03	0503029 POR, ELLSWORTH, CHARLES ST.	2	0	0	0	0	0	0	0.0	0.270	0.00	0.59	0.00	
												Statewide Crash Rate:	0.14		
12624	0560128 - 0.09	0503036 POR, CHARLES, CRESCENT ST.	2	0	0	0	0	0	0	0.0	0.001	0.00	-164.09	0.00	
												Statewide Crash Rate:	0.14		
12623	0560171 - 0.05	0503035 POR, CRESCENT, WESCOTT ST.	2	0	0	0	0	0	0	0.0	0.987	0.00	0.53	0.00	
												Statewide Crash Rate:	0.14		
12622	0560251 - 0.03	0503034 POR, WESCOTT, ELLSWORTH ST.	2	0	0	0	0	0	0	0.0	2.024	0.00	0.45	0.00	
												Statewide Crash Rate:	0.14		
12618	0560251 - 0.05	0503030 POR, ELLSWORTH, HILL ST.	2	0	0	0	0	0	0	0.0	1.530	0.00	0.48	0.00	
												Statewide Crash Rate:	0.14		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Node	Route - MP	Node Description	U/R	Notes										Percent Annual M Ent-Veh	Crash Rate	Critical Rate	CRF	
				Crashes	K	A	A	B	C	PD	Injury	Crashes	Crash Rate					
12619	0560251 - 0.07	0503031 POR, CRESCENT, ELLSWORTH ST.	2	0	0	0	0	0	0	0	0	0	0	0	0.662	0.00	0.57	0.00
															Statewide Crash Rate:	0.14		
15476	0560251 - 0.08	0505893 PORELLSWORTH ST, BRAMHALL PL.	2	0	0	0	0	0	0	0	0	0	0	0.555	0.00	0.59	0.00	
															Statewide Crash Rate:	0.14		
12620	0560369 - 0.03	0503032 POR, HILL, RUSSELL ST.	2	0	0	0	0	0	0	0	0	0	0	0.637	0.00	0.58	0.00	
															Statewide Crash Rate:	0.14		
19081	0560314 - 0	0509501 POR, GILMAN ST, END	2	0	0	0	0	0	0	0	0	0	0	0.020	0.00	-4.29	0.00	
															Statewide Crash Rate:	0.14		
19080	0560314 - 0.10	0509500 POR, GILMAN, 'A' ST.	2	1	0	0	0	0	0	0	1	0	0	0.060	5.59	-0.37	0.00	
															Statewide Crash Rate:	0.14		
16750	3201019 - 0.49	Int of C ST VALLEY ST	2	0	0	0	0	0	0	0	0	0	0	1.369	0.00	0.47	0.00	
															Statewide Crash Rate:	0.13		
16751	3201019 - 0.60	Int of A ST VALLEY ST	2	2	0	0	0	1	1	1	1	50.0	1.536	0.43	0.45	0.00	0.00	
															Statewide Crash Rate:	0.13		
16763	3201042 - 0.45	Int of C ST ST JOHN ST	2	1	0	0	0	0	0	1	0	0	0	2.787	0.12	0.39	0.00	
															Statewide Crash Rate:	0.13		
16764	3201042 - 0.55	Int of A ST ST JOHN ST	2	6	0	0	0	2	4	4	33.3	3.605	0.55	0.37	0.55	0.37	1.52	
															Statewide Crash Rate:	0.13		
Study Years: 3.00																		
NODE TOTALS:			93	0	0	1	7	22	63	32.3	75.848	0.41	0.39	1.05				

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes					Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
								A	B	C	PD	K					
16825	16826	3106408	0 - 0.06	0560160 - 1.94	0.06	2	4	0	0	1	3	25.0	0.00293	455.74	486.17	0.00	
Int of BRAMHALL ST CONGRESS ST DEERING RD INV 05 60160 AV																	
16826	16827	3106410	0 - 0.10	0560160 - 2	0.10	2	10	0	0	2	7	22.2	0.00524	636.41	418.86	1.52	
Int of CONGRESS ST ELLSWORTH ST RD INV 05 60160																	
16827	16828	3120728	0 - 0.10	0560160 - 2.10	0.10	2	10	0	1	3	6	40.0	0.00534	624.35	416.86	1.50	
Int of CONGRESS ST WEYMOUTH ST RD INV 05 60160																	
16828	18571	3106411	0 - 0.04	0560160 - 2.20	0.04	2	1	0	0	1	0	100.0	0.00207	161.11	531.81	0.00	
Int of CONGRESS ST FOREST ST RD INV 05 60160																	
16752	16765	3106394	0 - 0.05	0560160 - 2.23	0.05	2	2	0	0	0	2	0.0	0.00229	290.61	517.81	0.00	
Int of CONGRESS ST VALLEY ST RD INV 05 60160																	
16752	18571	3106395	0 - 0.04	0560160 - 2.24	0.04	2	3	0	0	1	2	33.3	0.00204	490.53	533.84	0.00	
Int of CONGRESS ST VALLEY ST RD INV 05 60160																	
12625	60369	2074703	0 - 0.03	0560785 - 0.59	0.03	2	0	0	0	0	0	0.0	0.00012	0.00	1453.87	0.00	
Int of BRAMHALL ST, WESTERN PROM RD INV 05 60785																	
60369	12751	3097430	0 - 0.02	0560785 - 0.60	0.02	2	0	0	0	0	0	0.0	0.00004	0.00	697.05	0.00	
Non-Int WESTERN PROM RD INV 05 60785																	
60369	12751	3097439	0 - 0.02	3200519 - 0	0.02	2	0	0	0	0	0	0.0	0.00003	0.00	147.25	0.00	
Non-Int WESTERN PROM RD INV 3200519																	
16825	18352	192521	0 - 0.01	0560077 - 0	0.01	2	0	0	0	0	0	0.0	0.00032	0.00	1355.44	0.00	
Int of BRAMHALL ST CONGRESS ST DEERING RD INV 05 60077 AV																	
12604	18352	186995	0 - 0.02	0560077 - 0.01	0.02	2	0	0	0	0	0	0.0	0.00063	0.00	1169.54	0.00	
0503016 POR, BRAMHALL, VAUGHN ST. RD INV 05 60077																	
12603	12625	186992	0 - 0.11	0560077 - 0.02	0.11	2	2	0	0	0	2	0.0	0.00048	1396.50	1247.72	1.12	
0503015 POR, BRAMHALL, BRACKETT, CHADWICK RD INV 05 60077																	
12604	12621	186994	0 - 0.03	0560077 - 0.03	0.03	2	0	0	0	0	0	0.0	0.00050	0.00	1232.21	0.00	
0503016 POR, BRAMHALL, VAUGHN ST. RD INV 05 60077																	
12621	19111	187026	0 - 0.05	0560077 - 0.06	0.05	2	2	0	0	0	2	0.0	0.00055	1208.39	1207.08	0.00	
0503033 POR, BRAMHALL, HILL ST. RD INV 05 60077																	
12603	19111	186993	0 - 0.02	0560077 - 0.11	0.02	2	0	0	0	0	0	0.0	0.00026	0.00	1404.98	0.00	
0503015 POR, BRAMHALL, BRACKETT, CHADWICK RD INV 05 60077																	
19111	19112	194833	0 - 0.04	0560071 - 0.78	0.04	2	0	0	0	0	0	0.0	0.00024	0.00	1418.93	0.00	
0509531 POR, BRACKETT, BRAMHALL ST. RD INV 05 60071																	
12617	12624	187017	0 - 0.06	0560128 - -0.03	0.06	2	1	0	0	0	1	0.0	0.00000	304414.00	-	0.00	
0503029 POR, ELLSWORTH, CHARLES ST. RD INV 05 60128																	
12617	19112	187018	0 - 0.03	0560128 - 0	0.03	2	0	0	0	0	0	0.0	0.00016	0.00	1468.38	0.00	
0503029 POR, ELLSWORTH, CHARLES ST. RD INV 05 60128																	

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	Injury Crashes							Annual HMVM	Crash Rate	Critical Rate	CRF
							K	A	B	C	PD	Injury	Percent				
12619	12623	187022	0 - 0.05	0560171 - 0	0.05	2	1	0	0	0	0	0	0.0	0.00006	5761.78	1068.37	5.39
0503031	POR,CRESCENT,ELLSWORTH ST.			RD INV 05 60171											Statewide Crash Rate: 340.60		
12623	12624	187028	0 - 0.04	0560171 - 0.01	0.04	2	1	0	0	0	1	0.0	0.00039	844.03	1299.76	0.00	
0503035	POR,CRESCENT,WESCOTT ST.			RD INV 05 60171											Statewide Crash Rate: 340.60		
12617	12622	187016	0 - 0.03	0560251 - 0	0.03	2	0	0	0	0	0	0.0	0.00016	0.00	1468.38	0.00	
0503029	POR,ELLSWORTH,CHARLES ST.			RD INV 05 60251											Statewide Crash Rate: 340.60		
12618	12622	187021	0 - 0.02	0560251 - 0.03	0.02	2	0	0	0	0	0	0.0	0.00023	0.00	1423.50	0.00	
0503030	POR,ELLSWORTH,HILL ST.			RD INV 05 60251											Statewide Crash Rate: 340.60		
12618	12619	187019	0 - 0.02	0560251 - 0.05	0.02	2	0	0	0	0	0	0.0	0.00013	0.00	1467.21	0.00	
0503030	POR,ELLSWORTH,HILL ST.			RD INV 05 60251											Statewide Crash Rate: 340.60		
15476	16826	191013	0 - 0.02	0560251 - 0.06	0.02	2	0	0	0	0	0	0.0	0.00010	0.00	1431.70	0.00	
0505893	PORELLSWORTH ST,BRAMHALL PL.			RD INV 05 60251											Statewide Crash Rate: 340.60		
12619	15476	187023	0 - 0.01	0560251 - 0.07	0.01	2	0	0	0	0	0	0.0	0.00005	0.00	1002.78	0.00	
0503031	POR,CRESCENT,ELLSWORTH ST.			RD INV 05 60251											Statewide Crash Rate: 340.60		
12622	12623	187027	0 - 0.05	0560780 - 0	0.05	2	1	0	0	0	1	0.0	0.00059	568.82	1190.04	0.00	
0503034	POR,WESCOTT,ELLSWORTH ST.			RD INV 05 60780											Statewide Crash Rate: 340.60		
15476	18352	191014	0 - 0.06	0560076 - 0	0.06	2	0	0	0	0	0	0.0	0.00004	0.00	335.76	0.00	
0505893	PORELLSWORTH ST,BRAMHALL PL.			RD INV 05 60076											Statewide Crash Rate: 340.60		
12618	12620	187020	0 - 0.03	0560369 - 0	0.03	2	0	0	0	0	0	0.0	0.00017	0.00	1464.72	0.00	
0503030	POR,ELLSWORTH,HILL ST.			RD INV 05 60369											Statewide Crash Rate: 340.60		
12620	12621	187024	0 - 0.02	0560369 - 0.01	0.02	2	0	0	0	0	0	0.0	0.00012	0.00	1455.72	0.00	
0503032	POR,HILL,RUSSELL ST.			RD INV 05 60369											Statewide Crash Rate: 340.60		
12620	19112	187025	0 - 0.05	0560633 - 0	0.05	2	0	0	0	0	0	0.0	0.00003	0.00	-524.94	0.00	
0503032	POR,HILL,RUSSELL ST.			RD INV 05 60633											Statewide Crash Rate: 340.60		
19080	19081	194795	0 - 0.10	0560314 - 0	0.10	2	3	0	0	0	3	0.0	0.00004	25135.10	503.01	49.97	
0509500	POR,GILMAN,'A' ST.			RD INV 05 60314											Statewide Crash Rate: 340.60		
18571	19080	194101	0 - 0.07	0560314 - 0.03	0.07	2	1	0	0	0	1	0.0	0.00002	16514.32	-1807.16	0.00	
Int of CONGRESS ST GILMAN ST				RD INV 05 60314											Statewide Crash Rate: 340.60		
16750	16751	3117941	0 - 0.11	3201019 - 0.49	0.11	2	3	0	0	1	0	2	33.3	0.00140	714.07	587.13	1.22
Int of C ST VALLEY ST				RD INV 3201019											Statewide Crash Rate: 177.16		
16751	16752	3117942	0 - 0.07	3201019 - 0.53	0.07	2	4	0	0	1	3	25.0	0.00069	1935.65	689.45	2.81	
Int of A ST VALLEY ST				RD INV 3201019											Statewide Crash Rate: 177.16		
16763	16764	3119255	0 - 0.10	3201042 - 0.45	0.10	2	11	0	3	1	0	7	36.4	0.00277	1323.36	493.08	2.68
Int of C ST ST JOHN ST				RD INV 3201042											Statewide Crash Rate: 177.16		
16764	16765	3106397	0 - 0.06	3201042 - 0.49	0.06	2	3	0	0	0	3	0.0	0.00221	453.45	523.12	0.00	
Int of A ST ST JOHN ST				RD INV 3201042											Statewide Crash Rate: 177.16		
16751	16764	192419	0 - 0.05	0560001 - 0.03	0.05	2	0	0	0	0	0	0.0	0.00038	0.00	1308.92	0.00	
Int of A ST VALLEY ST				RD INV 05 60001											Statewide Crash Rate: 340.60		
16751	19080	192420	0 - 0.03	0560001 - 0	0.03	2	1	0	0	0	1	0.0	0.00002	21900.29	-3574.07	0.00	
Int of A ST VALLEY ST				RD INV 05 60001											Statewide Crash Rate: 340.60		

Crash Summary I

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	Sections					Annual HMVM	Crash Rate	Critical Rate	CRF				
							K	A	B	C	PD					Injury	Percent Injury		
16750	16763	192417	0 - 0.05	0560100 - 0 RD INV 05 60100	0.05	2	0	0	0	0	0	0	0.00007	0.00	1279.93	0.00			
Int of C ST VALLEY ST							64	0	3	3	9	47	23.4	0.03291	648.14	319.47	2.03		
Study Years: 3.00							Section Totals:	157	0	4	10	31	110	28.7	0.03291	1589.97	439.19	3.62	
Grand Totals:							1.87	1.87	157	0	4	10	31	110	28.7	0.03291	1589.97	439.19	3.62

Crash Summary

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
16825	16826	3106408	0 - 0.06	0560160 - 1.94	4	0	0	0	1	3	2010-22503C 2009-16559C 2010-26337C	09/29/2010 07/17/2009 11/18/2010	1.95 1.95 1.95	C PD PD
16826	16827	3106410	0 - 0.10	0560160 - 2	10	0	0	0	2	7	2009-6362C 2011-8713C 2009-24850C 2009-32640C 2011-19204 2009-32781C 2011-7769C	06/10/2011 10/11/2009 11/16/2009 12/13/2011 12/09/2009 04/20/2011	2.01 2.01 2.03 2.06 2.08	C PD PD C PD
16827	16828	3120728	0 - 0.10	0560160 - 2.10	10	0	0	1	3	6	2009-6200C 2010-5366C 2010-9543C 2009-32667C 2009-24529C 2010-18329C 2009-24517C 2011-7767C 2009-24539C	09/12/2009 03/10/2010 05/03/2010 11/18/2009 09/12/2009 08/24/2010 09/10/2009 04/20/2011 09/15/2009	2.09 2.09 2.09 2.09 2.11 2.14 2.14 2.15	PD PD PD PD PD B C C
16828	18571	3106411	0 - 0.04	0560160 - 2.20	1	0	0	0	1	0	2009-6546C	01/16/2009	2.15	PD
16752	18571	3106395	0 - 0.04	0560160 - 2.24	3	0	0	0	1	2	2009-6426C 2009-15189C 2009-2081C 2011-2947C 2010-18269C 2009-15176C 2009-24613C	03/04/2009 07/10/2009 01/27/2009 02/09/2011 08/20/2010 07/08/2009 09/27/2009	2.15 2.15 2.19 2.19 2.22 2.26 2.26	PD PD PD PD C C PD
16752	16765	3106394	0 - 0.05	0560160 - 2.28	2	0	0	0	0	2	2011-4111 2009-16547C 2009-18449C	07/06/2011 07/21/2009 08/17/2009	2.26 2.29 2.32	PD PD PD
60369	12751	3097430	0 - 0.02	0560785 - 0.60	0	0	0	0	0	0				
12625	60369	2074703	0 - 0.03	0560785 - 0.62	0	0	0	0	0	0				
60369	12751	3097439	0 - 0.02	3200519 - 0	0	0	0	0	0	0				
16825	18352	192521	0 - 0.01	0560077 - 0	0	0	0	0	0	0				

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes			Injury Crashes			Crash Report	Crash Date	Crash Mile Point	Injury Degree
					K	A	B	C	PD					
12604	18352	186995	0 - 0.02	0560077 - 0.01	0	0	0	0	0	0				
12604	12621	186994	0 - 0.03	0560077 - 0.03	0	0	0	0	0	0				
12621	19111	187026	0 - 0.05	0560077 - 0.06	2	0	0	0	0	2	2011-15452	11/13/2011	0.07	PD
12603	19111	186993	0 - 0.02	0560077 - 0.11	0	0	0	0	0	0	2009-16781C	07/21/2009	0.09	PD
12603	12625	186992	0 - 0.11	0560077 - 0.13	2	0	0	0	0	2	2011-5507C	03/20/2011	0.16	PD
19111	19112	194833	0 - 0.04	0560071 - 0.78	0	0	0	0	0	0				
12617	19112	187018	0 - 0.03	0560128 - 0	0	0	0	0	0	0				
12617	12624	187017	0 - 0.06	0560128 - 0.03	1	0	0	0	0	1	2011-3300	06/23/2011	0.06	PD
12619	12623	187022	0 - 0.05	0560171 - 0	1	0	0	0	0	0	2011-4304C	02/25/2011	0.01	PD
12623	12624	187028	0 - 0.04	0560171 - 0.05	1	0	0	0	0	1	2010-24459C	11/08/2010	0.08	PD
12617	12622	187016	0 - 0.03	0560251 - 0	0	0	0	0	0	0				
12618	12622	187021	0 - 0.02	0560251 - 0.03	0	0	0	0	0	0				
12618	12619	187019	0 - 0.02	0560251 - 0.05	0	0	0	0	0	0				
12619	15476	187023	0 - 0.01	0560251 - 0.07	0	0	0	0	0	0				
15476	16826	191013	0 - 0.02	0560251 - 0.08	0	0	0	0	0	0				
12622	12623	187027	0 - 0.05	0560780 - 0	1	0	0	0	0	1	2010-22661C	10/17/2010	0.04	PD
15476	18352	191014	0 - 0.06	0560076 - 0	0	0	0	0	0	0				
12618	12620	187020	0 - 0.03	0560369 - 0	0	0	0	0	0	0				
12620	12621	187024	0 - 0.02	0560369 - 0.03	0	0	0	0	0	0				
12620	19112	187025	0 - 0.05	0560633 - 0	0	0	0	0	0	0				
19080	19081	194795	0 - 0.10	0560314 - 0	3	0	0	0	0	3	2011-1380C	01/22/2011	0.01	PD
18571	19080	194101	0 - 0.07	0560314 - 0.10	1	0	0	0	0	1	2010-2204C	01/30/2010	0.05	PD
16750	16751	3117941	0 - 0.11	3201019 - 0.49	3	0	0	1	0	2	2009-16504C	07/15/2009	0.09	PD
16751	16752	3117942	0 - 0.07	3201019 - 0.60	4	0	0	0	1	3	2009-7442C	03/31/2009	0.15	PD
											2009-2147C	01/26/2009	0.50	PD
											2011-15986	11/19/2011	0.53	B
											2011-2902C	01/29/2011	0.54	PD
											2010-22524C	09/25/2010	0.66	C
											2009-6327C	02/20/2009	0.66	PD
											2009-6554C	02/27/2009	0.66	PD
											2010-18278C	08/21/2010	0.66	PD

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												Un	Tot												
	12	1	2	3	4	5	6	7	8	9	10	11			12	1	2	3	4	5	6	7	8	9	10	11
SUNDAY	2	1	0	0	0	1	0	0	1	0	2	1	2	1	1	1	0	0	0	0	0	3	1	0	0	16
MONDAY	0	0	0	0	0	2	1	1	1	0	0	0	1	1	2	1	2	3	1	0	0	0	0	1	0	17
TUESDAY	1	0	0	0	0	0	3	0	1	4	2	4	3	3	3	1	1	2	0	1	1	1	1	1	0	32
WEDNESDAY	0	1	0	0	0	2	3	2	2	1	3	1	2	2	3	2	3	0	1	1	0	0	0	0	0	29
THURSDAY	0	1	0	0	0	0	0	2	1	0	0	1	5	4	2	2	2	2	0	0	0	0	1	0	0	23
FRIDAY	0	0	1	0	0	0	1	0	3	0	2	4	4	1	3	0	0	3	0	1	1	1	1	0	0	25
SATURDAY	2	0	0	0	1	0	0	0	1	1	1	1	0	2	0	1	0	2	1	1	0	1	0	0	0	15
Totals	5	3	1	0	1	0	5	8	5	10	6	10	12	17	14	14	7	8	12	3	4	5	5	2	0	157

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	170	23-Bicyclist	5
2-(Sport) Utility Vehicle	57	24-Witness	37
3-Passenger Van	25	25-Other	4
4-Cargo Van (10K lbs or Less)	1	Total	356
5-Pickup	32		
6-Motor Home	0		
7-School Bus	0		
8-Transit Bus	2		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	2		
12-Moped	1		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	14		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	6		

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	12	8	1	0	0	0	21
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	16	15	1	0	0	0	32
Ran Red Light	1	2	0	0	0	0	3
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	1	0	0	0	0	0	1
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	1	1	0	0	0	0	2
Drove Too Fast For Conditions	0	0	0	0	0	0	0
Improper Turn	6	3	0	0	0	0	9
Improper Backing	9	1	0	0	0	0	10
Improper Passing	3	3	0	0	0	0	6
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	6	7	1	0	0	0	14
Failed to Keep in Proper Lane	2	3	0	0	0	0	5
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	1	1	0	0	0	0	2
Unknown	1	1	0	0	0	0	2
Total	59	45	3	0	0	0	107

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	143	135	7	0	0	3	288
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional (Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	4	1	0	0	0	1	6
Other	2	4	1	0	0	0	7
Total	150	140	8	0	0	4	302

Driver Age by Unit Type

Age	Driver	Bicycle	Snow/Mobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	9	0	0	0	0	9
20-24	43	0	0	0	0	43
25-29	36	0	0	0	0	36
30-39	54	0	0	0	0	54
40-49	64	0	0	0	0	64
50-59	50	0	0	0	0	50
60-69	26	0	0	0	0	26
70-79	8	0	0	0	0	8
80-Over	6	0	0	0	0	6
Unknown	12	5	0	6	0	23
Total	308	5	0	6	0	319

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Most Harmful Event		Total
1-Overturn / Rollover	1	0
2-Fire / Explosion	0	3
3-Immersion	0	0
4-Jackknife	0	0
5-Cargo / Equipment Loss Or Shift	0	45
6-Fell / Jumped from Motor Vehicle	0	
7-Thrown or Falling Object	0	
8-Other Non-Collision	0	
9-Pedestrian	3	
10-Pedalcycle	0	
11-Railway Vehicle - Train, Engine	0	
12-Animal	0	
13-Motor Vehicle in Transport	36	
14-Parked Motor Vehicle	2	
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0	
16-Work Zone / Maintenance Equipment	0	
17-Other Non-Fixed Object	0	
18-Impact Attenuator / Crash Cushion	0	
19-Bridge Overhead Structure	0	
20-Bridge Pier or Support	0	
21-Bridge Rail	0	
22-Cable Barrier	0	
23-Culvert	0	
24-Curb	0	
25-Ditch	0	
26-Embankment	0	
27-Guardrail Face	0	
28-Guardrail End	0	
29-Concrete Traffic Barrier	0	
30-Other Traffic Barrier	0	
31-Tree (Standing)	0	
32-Utility Pole / Light Support	0	
33-Traffic Sign Support	0	
34-Traffic Signal Support	0	
35-Fence	0	
36-Mailbox	0	
37-Other Post Pole or Support	0	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	4	4
B	10	11
C	31	37
PD	110	0
Total	155	52

Road Character		Total
Road Grade		
1-Level		76
2-On Grade		62
3-Top of Hill		13
4-Bottom of Hill		6
5-Other		0
Total		157

Traffic Control Devices		Total
Traffic Control Device		
1-Traffic Signals (Stop & Go)		68
2-Traffic Signals (Flashing)		3
3-Advisory/Warning Sign		0
4-Stop Signs - All Approaches		4
5-Stop Signs - Other		18
6-Yield Sign		0
7-Curve Warning Sign		0
8-Officer, Flagman, School Patrol		0
9-School Bus Stop Arm		0
10-School Zone Sign		0
11-R.R. Crossing Device		0
12-No Passing Zone		2
13-None		60
14-Other		2
Total		157

Light		Total
Light Condition		
1-Daylight		112
2-Dawn		2
3-Dusk		4
4-Dark - Lighted		37
5-Dark - Not Lighted		0
6-Dark - Unknown Lighting		2
7-Unknown		0
Total		157

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Year and Month

Month	2009	2010	2011	Total
JANUARY	9	1	7	17
FEBRUARY	6	5	5	16
MARCH	4	2	3	9
APRIL	3	4	4	11
MAY	2	2	2	6
JUNE	4	1	7	12
JULY	9	4	3	16
AUGUST	2	5	5	12
SEPTEMBER	10	7	3	20
OCTOBER	6	3	1	10
NOVEMBER	5	3	5	13
DECEMBER	7	3	5	15
Total	67	40	50	157

Report is limited to the last 10 years of data.

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Total
Object in Road	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Rear End / Sideswipe	31	2	7	35	0	9	0	0	0	0	0	0	0	84
Head-on / Sideswipe	4	2	0	0	0	0	0	0	0	0	0	0	0	6
Intersection Movement	0	0	3	38	0	11	0	0	0	0	0	0	0	52
Pedestrians	3	0	1	2	0	0	0	0	0	0	0	0	0	6
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	1	1	0	0	0	0	0	0	0	0	0	0	0	2
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	2	0	0	2	0	1	0	0	0	0	0	0	0	5
Other	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	42	5	11	77	0	22	0	0	0	0	0	0	0	157

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	23	1	0	0	0	0	0	0	0	0	0	24
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	2	0	0	0	0	0	0	0	0	0	0	2
Dawn	2	0	0	0	0	0	0	0	0	0	0	2
Daylight	75	2	0	0	0	0	0	1	0	0	6	84
Dusk	3	0	0	0	0	0	0	0	0	0	0	3
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	1	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	9	0	0	0	0	0	0	0	0	0	3	12
Dusk	0	0	0	0	0	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

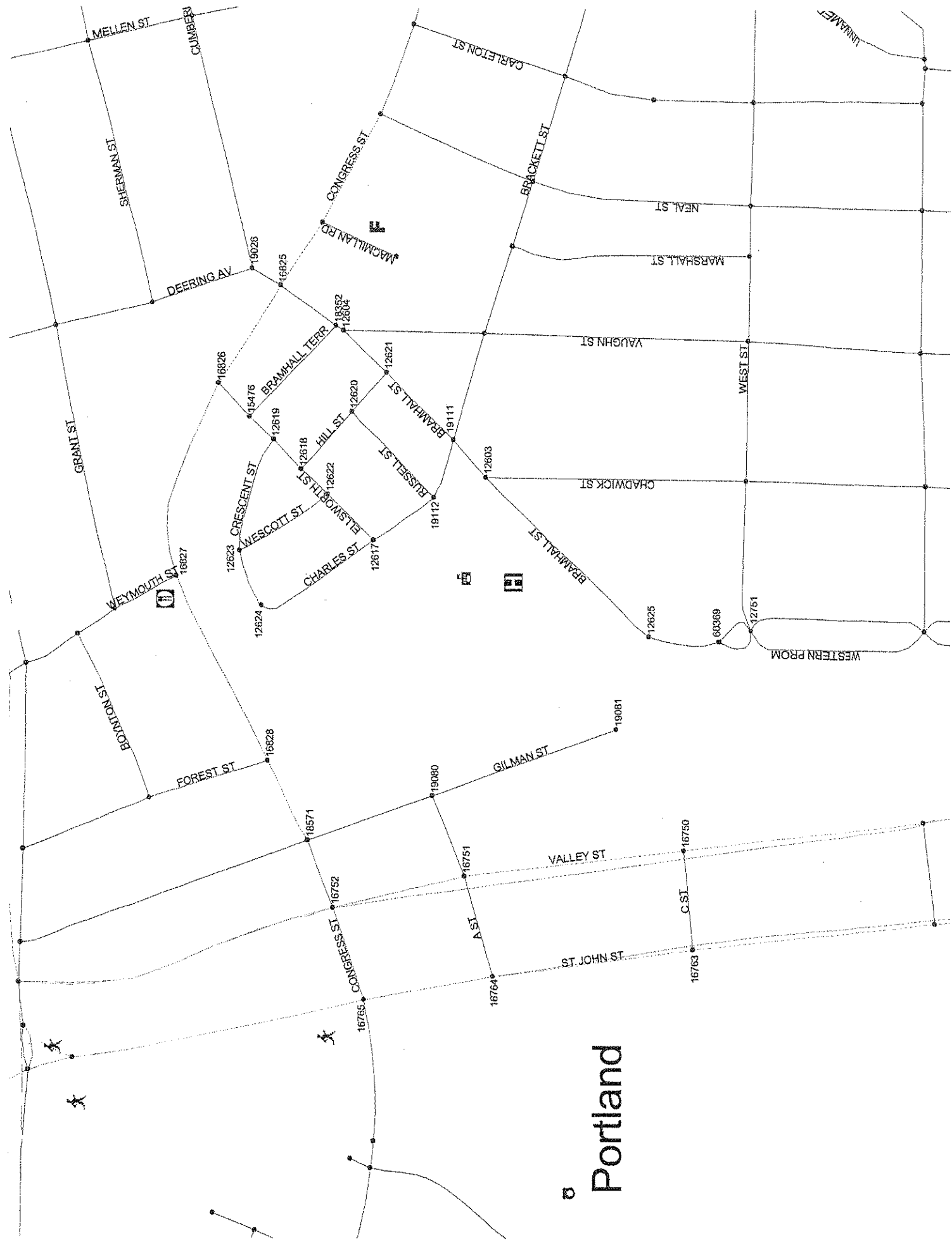
Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	8	8
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	13	13
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Maine Department Of Transportation - Traffic Engineering, Crash Records Section
Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	2	0	0	0	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	116	4	0	0	0	0	0	4	0	0	0	157



Portland

Appendix B

Trip Generation Calculations

JN: 2776
 Project Description: Bean 2 Addition
 Project Location: Bramhall Campus-Portland
 Date: 05/08/13

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

Hospital
 Land Use Code (LUC) 610

Employees 4,571

Fitted Curve:

Time Period	ITE Trip Rate	Trip Ends	Directional Split*		Directional Distribution		Sample Size/R2
			IN	OUT	IN	OUT	
Weekday	$T = 4.40 (X) + 711.46$	20824	50%	50%	10412	10412	19/77
AM Peak Adjacent Street	$T = 0.32 (X) + 35.15$	1498	80%	20%	1198	300	9/77
PM Peak Adjacent Street	$T = 0.28 (X) + 75.75$	1356	35%	65%	475	881	8/69
AM Peak of Generator	$T = 0.33 (X) + 66.57$	1575	65%	35%	1024	551	8/83
PM Peak of Generator	$T = 0.36 (X) + 97.41$	1743	40%	60%	697	1046	15/73
Saturday	$T = 2.95 (X) + 691.43$	14176	50%	50%	7088	7088	15/84
Saturday Peak of Generator	Not given	-	55%	45%	-	-	4

* Percentages rounded to nearest 5%

Average Rate:

Time Period	ITE Trip Rate	Trip Ends	Directional Split*		Directional Distribution		Sample Size
			IN	OUT	IN	OUT	
Weekday	$T = 5.2 (X)$	23769	50%	50%	11885	11884	19
AM Peak Adjacent Street	$T = 0.34 (X)$	1554	80%	20%	1243	311	9
PM Peak Adjacent Street	$T = 0.33 (X)$	1508	35%	65%	528	980	8
AM Peak of Generator	$T = 0.39 (X)$	1783	65%	35%	1159	624	8
PM Peak of Generator	$T = 0.47 (X)$	2148	40%	60%	859	1289	15
Saturday	$T = 3.78 (X)$	17278	50%	50%	8639	8639	15
Saturday Peak of Generator	$T = 0.53 (X)$	2423	55%	45%	1333	1090	4

* Percentages rounded to nearest 5%

JN: 2776
 Project Description: Bean 2 Addition
 Project Location: Bramhall Campus-Portland
 Date: 05/28/13

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

Hospital
 Land Use Code (LUC) 610

Employees 4,804

Fitted Curve:

Time Period	ITE Trip Rate	Trip Ends	Directional Split*		Directional Distribution		Sample Size/R2
			IN	OUT	IN	OUT	
Weekday	$T = 4.40 (X) + 711.46$	21849	50%	50%	10925	10924	19/77
AM Peak Adjacent Street	$T = 0.32 (X) + 35.15$	1572	80%	20%	1258	314	9/77
PM Peak Adjacent Street	$T = 0.28 (X) + 75.75$	1421	35%	65%	497	924	8/89
AM Peak of Generator	$T = 0.33 (X) + 66.57$	1652	65%	35%	1074	578	8/83
PM Peak of Generator	$T = 0.36 (X) + 87.41$	1827	40%	60%	731	1096	15/73
Saturday	$T = 2.95 (X) + 691.43$	14863	50%	50%	7432	7431	15/84
Saturday Peak of Generator	Not given	-	55%	45%	-	-	4

* Percentages rounded to nearest 5%

Average Rate:

Time Period	ITE Trip Rate	Trip Ends	Directional Split*		Directional Distribution		Sample Size
			IN	OUT	IN	OUT	
Weekday	$T = 5.2 (X)$	24981	50%	50%	12491	12490	19
AM Peak Adjacent Street	$T = 0.34 (X)$	1633	80%	20%	1306	327	9
PM Peak Adjacent Street	$T = 0.33 (X)$	1585	35%	65%	555	1030	8
AM Peak of Generator	$T = 0.39 (X)$	1874	65%	35%	1218	656	8
PM Peak of Generator	$T = 0.47 (X)$	2258	40%	60%	903	1355	15
Saturday	$T = 3.78 (X)$	18159	50%	50%	9080	9079	15
Saturday Peak of Generator	$T = 0.53 (X)$	2546	55%	45%	1400	1146	4

* Percentages rounded to nearest 5%

* Past Project level minus level of employees from previous application.

Maine Medical Center

Get On Board!

Alternative Commute Program

May 24, 2013 Update

Transportation Demand Management

As required by the city of Portland, Maine Medical Center developed a Transportation Demand Management plan that was implemented in June of 2008.

The objective of the plan was to reduce the number of single occupant vehicles coming to MMC and to reduce the impact of traffic to the peninsula.

To meet this challenge, Maine Medical Center formed a multidisciplinary team of employees who volunteered to develop this plan, and continue to support its components in an advisory capacity. The name of the plan is "Get On Board."

The director for Security, Parking and Outside Services, Steve Hobart, was the leader of this dedicated group and served as chair of MMC's TDM Advisory Council (Get On Board). Steve continues to direct the implementation of the TDM plan which has continued to thrive and grow, to change and evolve, into an integral part of the fabric and culture of MMC.

Statistics

The following is a break down of the year by year change in the running total number of employees that have signed up for “Get On Board” on our intranet site.

Commuter Mode	2008	2009	2010	2011	2012	2013
Bike	119	121	123	142	153	153
Walk	83	83	91	95	99	99
Mass Transit	88	93	106	118	123	131
Ride Share	358	371	398	474	537	565
Totals	648	668	718	829	906	948

Analysis:

1. All methods of alternative commuting to MMC continue to attract more employees.
2. Biking, walking and mass transit, which primarily attracts those that live the closest to the hospital, are attracting a large percentage of these people. As an example, we have approximately 1500 employees that live in Portland and a total of 383 employees that have signed up on our web site for these three forms of commute.
3. Ride Share continues to attract the most employees and has shown the best rate of growth with mass transit running a strong second.

A History of Get On Board

MMC's TDM plan is the result of extensive planning by the team and the team's coordination with resources outside of our hospital environment. These resources included the Greater Portland Council of Governments and the "GOMAINÉ" commuter program.

In June of 2008 MMC rolled out our comprehensive TDM program with an extensive marketing and communications campaign including full management presentations, intranet news items, emails, flyers, hallway demos of our web site, sign boards and presentations to staff.

Our program is fully supported by MMC's management and features subsidized alternative commuting options for ride share, mass transit, bikers and walkers.

The "Get On Board" web site includes information and resources for alternative modes of commuting and ties directly to "GOMAINÉ" so employees can easily access the additional benefits of this program.

As a result of the strong marketing of TDM, the program was immediately embraced by our employees and within the first week we had several hundred staff enroll and we are proud of our steady growth each year since its implementation.

Not only have the initial elements of the plan continued to perform but MMC has added elements to strengthen the plan that will be outlined later in this report.

Update on the Elements of the TDM Plan

New Employee Information Package

All new employees receive “Get on Board” information at the first day of orientation with instructions on how to join the program. This has increased the number of people that join the program at the start of their employment and has made our “Get on Board” program a focus of institutional policy instead of a program on the side here at MMC.

Share Ride

Carpoolers get the best parking in our main Gilman Parking Garage... and for FREE!

This is a gated, card access only area that connects directly to the Main Lobby on the ground floor of the hospital.

Employees that participate in our Ride Share program have no stairs to climb or elevators to wait for when entering the hospital.

We currently have 122 active Share Ride groups enrolled... but there is more. The idea of Share Ride has caught on and we have many carpools entering the garage on a daily basis that have not yet signed up and these will be part of the force to drive future growth of the program.

Share Ride is kept fresh for our employees through regular signs and intranet communications.

Bikers and Bike Racks

MMC has worked diligently to make bikers feel welcome and safe. We started the program with five strategically located bike racks and ten bike lockers in 2008 and are now up to 13 bike racks and ten bike lockers with a total capacity of 148 bicycles. We are currently looking for additional space on campus for more bike racks.

Our biking population also has access to a group tools shed that has basic tools and supplies that may be needed in a pinch for a flat tire or a slipped chain.

We can not forget the motorcyclists. Soon after implementing our TDM plan we were confronted with a need to expand our parking area for these enthusiasts and we are now close to filling this additional space also.

Mass Transit Ticket Info

Employees are able to purchase discounted bus tickets conveniently in our cafeteria. MMC buys the tickets at the regular price and offers them to employees at the reduced prices listed below. This is a clear demonstration of MMC's commitment to making the TDM plan work for our employees and for the city of Portland.

Pricing

	Regular Price	MMC Sale Price
Metro	\$13.50	\$8.00
S. Portland	\$13.50	\$8.00
Zoom 10 ride	\$39.00	\$29.60
Zoom monthly	\$100.00	\$84.50
Zoom quarterly	\$260.00	\$197.50

Number combined units sold:

2010	771
2011	794
2012	830

An increase in the sales of tickets has been seen for both the Zoom and Metro buses. The 2012 Metro bus tickets accounted for 760 tickets sold, the Zoom Monthly ticket sales were 39 while the Zoom Quarterly ticket sales were 31. The continued increase in mass transit ticket sales seems to indicate a long term commitment and culture change by our employees to make these systems part of their lifestyle.

New MMC Additions to our TDM Plan

Contractor Parking

To reduce traffic in the vicinity of MMC and to ease parking congestion we have instituted a shuttle service for contractors to the hospital from our off site Classic Parking Lot at 993 Congress Street. This has reduced the number of contractor vehicles and contractor commuter vehicles on campus. Only essential contractor vehicles are allowed to park on site at this time. This is controlled by the Engineering department who issues contractor parking passes since they have the best understanding of the essential needs of the projects. The result of this change is seen daily on our neighborhood streets that used to be crowded with contractor company vehicles and their employee's vehicles. Now the Western Promenade parking is more open, neighbors have less traffic in front of their homes and street side parking is more available.

Inter Campus Shuttles

Brighton Campus Shuttle

An employee shuttle service has been instituted between our 22 Bramhall campus and the 335 Brighton Ave campus to reduce vehicle traffic between the two campuses and to ease parking congestion at both campuses. The shuttle runs from 7am-5pm Monday through Friday on a fixed time schedule with three round trips per hour. The predictable, set schedule has increased rider use on the shuttle which has helped reduced inter campus traffic.

110 Free Street and Gateway Shuttle

The Gateway Shuttle service has been expanded to include the 110 Free Street office building to reduce vehicle traffic to and from these two office complexes. This shuttle runs from 6am-6pm Monday through Friday on a fixed time schedule with three round trips per hour. The predictable, set schedule has increased rider use on the shuttle which has helped reduced cross town traffic on the busy Congress Street corridor.

Conclusion

Maine Medical Center's TDM plan is meeting its objective of reducing single occupant vehicle traffic in the vicinity of our Bramhall Campus, which was asked of us by the city of Portland. We continue to actively promote and grow the initial elements of our plan and proactively add additional ones as opportunities are presented. MMC has not only done the requirements of a TDM plan but has caught the spirit of what TDM is and how it can affect our community, our employees and our customers. We look forward to working hand in hand with the city of Portland to make our community prosper and grow in a way that benefits all.

Maine Medical Center
Parking Space Inventory

Location	Cars	Ambulances	Handicap	Bicycles
Gilman Garage	1280	n/a	n/a	26 (2 Racks)
Patient/Visitor Garage	480	n/a	14	10 (Bike Lockers)
ED	n/a	16	n/a	10 (1 Rack)
Main Entrances	n/a	n/a	12	52 (6 Racks)
South Lot	300	n/a	13	14 (2 Racks)
100 Chadwick	23	n/a	n/a	n/a
7 Bramhall	27	n/a	3	n/a
Dana Circle	19	n/a	4	36 (2 Racks)
Small Loading Dock	5	n/a	n/a	n/a
Forest Street Employee	202	n/a	n/a	n/a
1 st Atlantic Lot	282	n/a	n/a	n/a
Classic Lot	97	n/a	n/a	n/a
Totals	2715	16	46	148 10 Bike Lockers 13 Bike Racks