

2012

# Esta Road, Kristin Road & Charlotte Drive

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Traffic Data Collection & Analysis Project

Plymouth, MA

Local Highway Technical Assistance Project  
3/19/2012

Old Colony Planning Council  
70 School Street  
Brockton, MA 02301





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The Old Colony MPO fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. The Old Colony MPO operates without regard to race, color, national origin, English Proficiency, ancestry, creed, income, gender, age, and/ or disability. Any person who believes him/herself or any specific class of persons, to be subjected to discrimination prohibited by Title VI may by him/herself or by representative file a written complaint with the Old Colony MPO. Complaints are to be filed no later than 180 days from the date of the alleged discrimination. Please contact Pat Ciaramella at 508-583-1833 for more information.



# Old Colony Planning Council



Robert G. Moran, Jr.  
President

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March 28, 2012

Mr. Jonathan Beder, DPW Director  
Department of Public Works  
159 Camelot Drive  
Plymouth, MA 02360

RE: Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection & Analysis Project,  
Plymouth, MA

Dear Mr. Beder,

Per your request, please find the results of the ***Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection & Analysis Project***. The project included the collection of three (3) Automatic Traffic Recorder (ATR) counts:

- Esta Road, north of Carver Road
- Kristin Road, south of Plympton Road (Route 80)
- Charlotte Drive, south of Plympton Road (Route 80)

The counts were conducted in 2011 to provide the town with current traffic volumes, speeds, and classifications for Esta Road, Kristin Road & Charlotte Drive.

This correspondence includes the aforementioned Automatic Traffic Recorder (ATR) counts; previous ATR counts conducted in 2006 and 2000 for comparison; traffic data summary charts/tables; and the original letter of request.

Should you have any questions regarding this material, or if any additional information is needed, please contact Kyle Mowatt at 508.583.1833 x214 or [kmowatt@ocpcrpa.org](mailto:kmowatt@ocpcrpa.org).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Charles Kilmer', followed by a horizontal line.

Charles Kilmer, AICP  
Transportation Program Manager

Enclosures:

Esta Road, Kristen Road & Charlotte Drive Traffic Data Collection & Analysis Project

cc: Mr. William P. Hallisey, Jr., Chairman, Plymouth Board of Selectmen  
Mr. Edward Buckley, Highway Manager, Plymouth Highway Department  
Chief Michael E. Botieri, Plymouth Police Department  
Mr. Marc Garrett, Chairman, Plymouth Planning Board  
Mr. Lee Hartmann, Director, Plymouth Planning and Development, Plymouth Delegate,  
OCPC  
Mr. Sid Kashi, P.E., Town Engineer, Plymouth Delegate, Old Colony Joint Transportation  
Committee  
Ms. Pamela Haznar, P.E., MassDOT District 5  
Ms. Karen Pearson, MassDOT Office of Transportation Planning  
Mr. Paul Maloney, P.E., Metropolitan Planner, FHWA  
Ms. Valerie Massard, Senior Planner, Plymouth Alternate, OCPC

# Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection & Analysis Project Plymouth, MA

## Executive Summary

In April, 2011, the Town of Plymouth requested that the Old Colony Planning Council complete Automatic Traffic Recorder (ATR) counts as well as provide supplemental traffic conditions analyses for Esta Road and Kristin Road. These roadways were selected because of concerns raised by residents regarding safety, speeding and large vehicle cut-through traffic. Consultation with the Town of Plymouth Engineering Department led to the addition of Charlotte Drive as it recently received traffic calming measures to alleviate similar issues, and, therefore, testing the effectiveness of those applications seemed appropriate. In addition, due to availability of historic data, OCPC provided a historic traffic comparison for enhanced analysis of the study roadways.

In the event that the town decides that future actions include a Heavy Commercial Vehicle Exclusion; Traffic Calming; and/or Signage Improvement, guidance material is included in the Appendix of this report.

## Data Collection Locations

In November 2011, OCPC conducted Automatic Traffic Recorder (ATR) counts at the following locations:

- Esta Road, north of Carver Road
- Kristin Road, south of Plympton Road (Route 80)
- Charlotte Drive, south of Plympton Road (Route 80)

## Data Collection Results

<i>Location</i>	Esta Road, north of Carver Road		Kristin Road, south of Plympton Road (Route 80)		Charlotte Drive, south of Plympton Road (Route 80)		
	<i>Year</i>	<b>2011</b>	<b>2006</b>	<b>2011</b>	<b>2006</b>	<b>2011</b>	<b>2000</b>
<b>Average Daily Traffic (ADT)</b>		589	740	1,659	1,949	789	992
<b>85th Percentile Speed</b>		29 MPH	39 MPH	32 MPH	33 MPH	33 MPH	<i>n/a</i>
<b>Heavy Vehicle Percentage</b>		9.3%	5.8%	7.4%	2.6%	8.2%	<i>n/a</i>

Overall, traffic volumes and vehicular speeds decreased from 2006 to 2011; however, the percentages of Heavy Vehicles increased on Esta Road & Kristin Road. For the Charlotte Drive count, only traffic volumes were collected in 2000.

## Analysis Summary

### 85<sup>th</sup> Percentile Speed:

**Definition:** The speed at or below which 85 percent of all vehicles in the sample area are traveling.

**Application:** Used for establishing speed controls/limits.

**Heavy Vehicle Percentage:**

**Definition:** The percentage of buses and vehicles with two (2) or more axles and six or more tires.

**Application:** A heavy vehicle percentage of 5% or more is one of the criteria used to determine Heavy Commercial Vehicle Exclusion in Massachusetts. This 5% threshold includes traffic traveling in both directions on a roadway (Northbound/Southbound or Eastbound/Westbound).

*Esta Road, north of Carver Road*

The Average Daily Traffic (ADT) heading northbound was 277, while southbound ADT was 312 vehicles. The speed limit at this location is 25 MPH. The 85<sup>th</sup> Percentile speed heading northbound was 27 MPH, while the southbound speed was 31 MPH. According to the 2006 Mass Amendments to the 2003 MUTCD, both southbound and northbound traffic surpassed the 5% threshold. In order to obtain a Heavy Commercial Vehicle Exclusion on a particular road, the percentage of heavy vehicles must be over 5%. Southbound traffic had a heavy vehicle percentage of 11.6%, and northbound traffic was 6.8%. The total combined heavy vehicle percentage was 9.3%, which is above the State's minimum threshold.

*Kristin Road, south of Plympton Road (Route 80)*

The ADT heading northbound was 788, while southbound ADT was 871 vehicles. The speed limit at this location is 25 MPH. The 85<sup>th</sup> Percentile speed heading northbound was 32 MPH, while the southbound 85<sup>th</sup> Percentile speed was 33 MPH. Regarding Heavy Commercial Vehicle Exclusion, the northbound traffic fell just short of the 5% threshold at 4.9%, while the southbound traffic was well above the 5% threshold at 9.7%. The total combined heavy vehicle percentage was 7.4%, which is above the State's minimum threshold.

*Charlotte Drive, south of Plympton Road (Route 80)*

The ADT heading northbound was 360, while southbound ADT was 429 vehicles. The speed limit at this location is 30 MPH. The 85<sup>th</sup> Percentile speed heading northbound was 33 MPH, while the southbound 85<sup>th</sup> Percentile speed was 33 MPH. Regarding Heavy Commercial Vehicle Exclusion, both southbound and northbound traffic surpassed the 5% threshold. Southbound traffic had a heavy vehicle percentage of 8.6%, and northbound traffic was 7.8%. The total combined heavy vehicle percentage was 8.2%, which is above the State's minimum threshold.



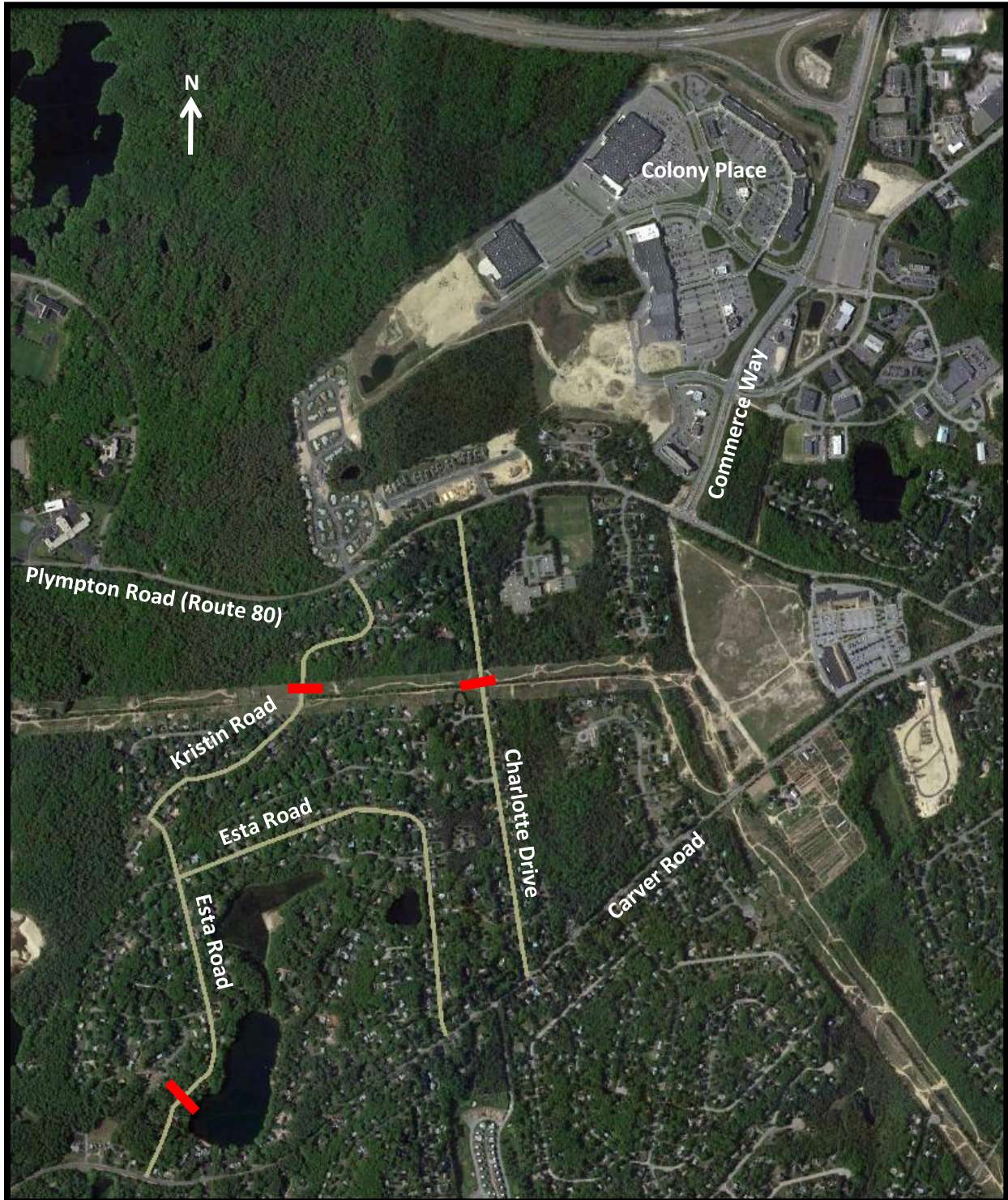
# Old Colony Planning Council

## Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection & Analysis Project

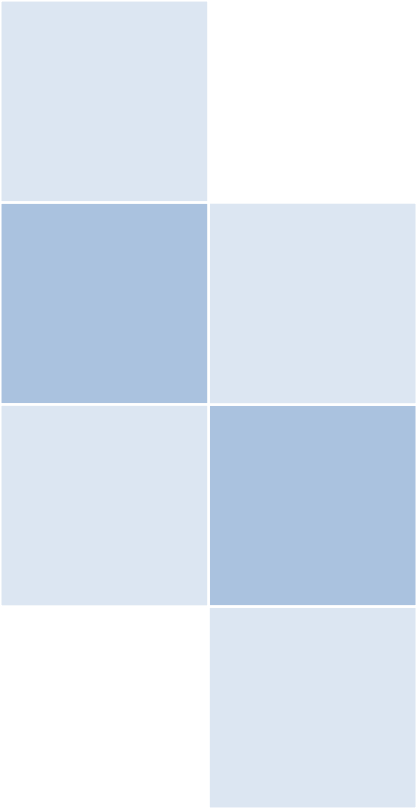
Plymouth, MA

Traffic Data Collection Locations

 = Automatic Traffic Recorder Location







# 2011 Data Collection Analysis



## Old Colony Planning Council

### Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection & Analysis Project Plymouth, MA

**Automatic Traffic Recorder (ATR) Count(s) Summary**

DATE	LOCATION	ADT	AADT	AM PEAK HOUR (PH)	AM PH VOLUME	PM PEAK HOUR (PH)	PM PH VOLUME	SPEED LIMIT	AVG SPEED	85% SPEED	10 MPH PACE SPEED	HEAVY VEHICLE %
11/15-16/11	<b>Esta Road, north of Carver Road</b>											
	Northbound	277	269	7:00 AM	20	4:00 PM	23	25 MPH	19 MPH	27 MPH	20-29 MPH	6.8%
	Southbound	312	303	8:00 AM	20	3:00 PM	30	25 MPH	22 MPH	31 MPH	22-31 MPH	11.6%
	<b>Average Combined Total</b>	<b>589</b>	<b>571</b>	<b>11:00 AM</b>	<b>40</b>	<b>3:00 PM</b>	<b>52</b>	<b>25 MPH</b>	<b>21 MPH</b>	<b>29 MPH</b>	<b>21-30 MPH</b>	<b>9.3%</b>
11/15-16/11	<b>Kristin Road, south of Plympton Road (Route 80)</b>											
	Northbound	788	764	7:00 AM	84	4:00 PM	48	25 MPH	28 MPH	32 MPH	24-33 MPH	4.9%
	Southbound	871	845	11:00 AM	46	5:00 PM	100	25 MPH	28 MPH	33 MPH	25-34 MPH	9.7%
	<b>Average Combined Total</b>	<b>1,659</b>	<b>1,609</b>	<b>7:00 AM</b>	<b>113</b>	<b>5:00 PM</b>	<b>146</b>	<b>25 MPH</b>	<b>28 MPH</b>	<b>32 MPH</b>	<b>24-33 MPH</b>	<b>7.4%</b>
11/15-16/11	<b>Charlotte Drive, south of Plympton Road (Route 80)</b>											
	Northbound	360	349	8:00 AM	46	3:00 PM	30	30 MPH	27 MPH	33 MPH	24-33 MPH	7.8%
	Southbound	429	416	10:00 AM	20	4:00 PM	52	30 MPH	27 MPH	33 MPH	24-33 MPH	8.6%
	<b>Average Combined Total</b>	<b>789</b>	<b>765</b>	<b>8:00 AM</b>	<b>60</b>	<b>3:00 PM</b>	<b>77</b>	<b>30 MPH</b>	<b>27 MPH</b>	<b>33 MPH</b>	<b>24-33 MPH</b>	<b>8.2%</b>

Average Daily Traffic (ADT) - The average number of vehicles for a weekday (24 hours, non weekend or holiday) collected over a 24 to 48 hour period

Annual Average Daily Traffic (AADT) - The average number of vehicles for a weekday collected over a 24 or 48 hour period that is adjusted using a seasonal adjustment factor

Peak Hour - The hour of the day at which the highest volume of traffic is recorded

Peak Hour Volume - The volume of traffic occurring during the peak hour

Average Speed - The sum of all speeds in the sample divided by the number of vehicles in the sample

85th Percentile Speed (85% Speed) - The speed at or below which 85 percent of all vehicles in the sample area are traveling

10 MPH Pace Speed - The pace is the speed range within defined limits, usually 10 MPH, which contains the largest number of observations

Heavy Vehicle Percentage - The percentage of buses and vehicles with two (2) or more axles and six or more tires



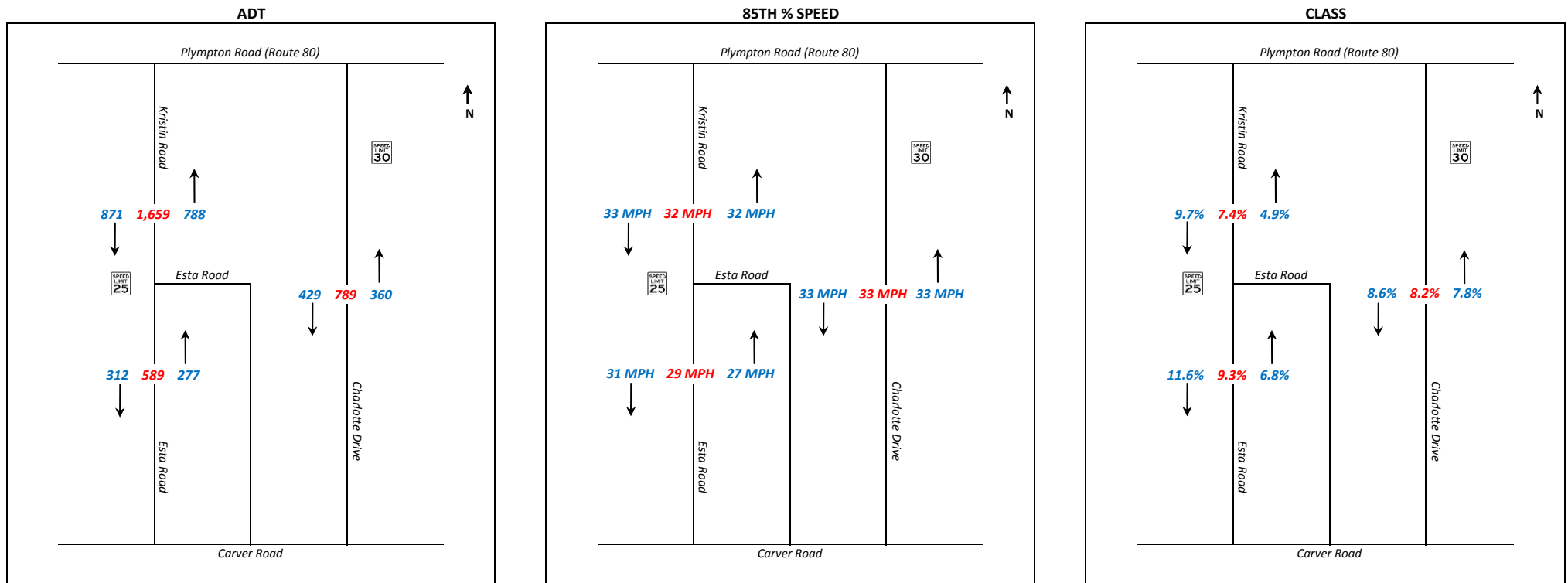
# Old Colony Planning Council

## Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection and Analysis Project

### Plymouth, MA

STREET NAME	LOCATION	FUNCTIONAL CLASS	JURISDICTION	ADT	85TH % SPEED	HEAVY VEHICLE %
Esta Road	North of Carver Road	Urban Principal Arterial	Town	589	29 MPH	9.3%
Kristin Road	South of Plympton Road (Route 80)	Urban Principal Arterial	Town	1,659	32 MPH	7.4%
Charlotte Drive	South of Plympton Road (Route 80)	Urban Principal Arterial	Town	789	33 MPH	8.2%

**2011 Automatic Traffic Recorder (ATR) Directional Count Summary Table**



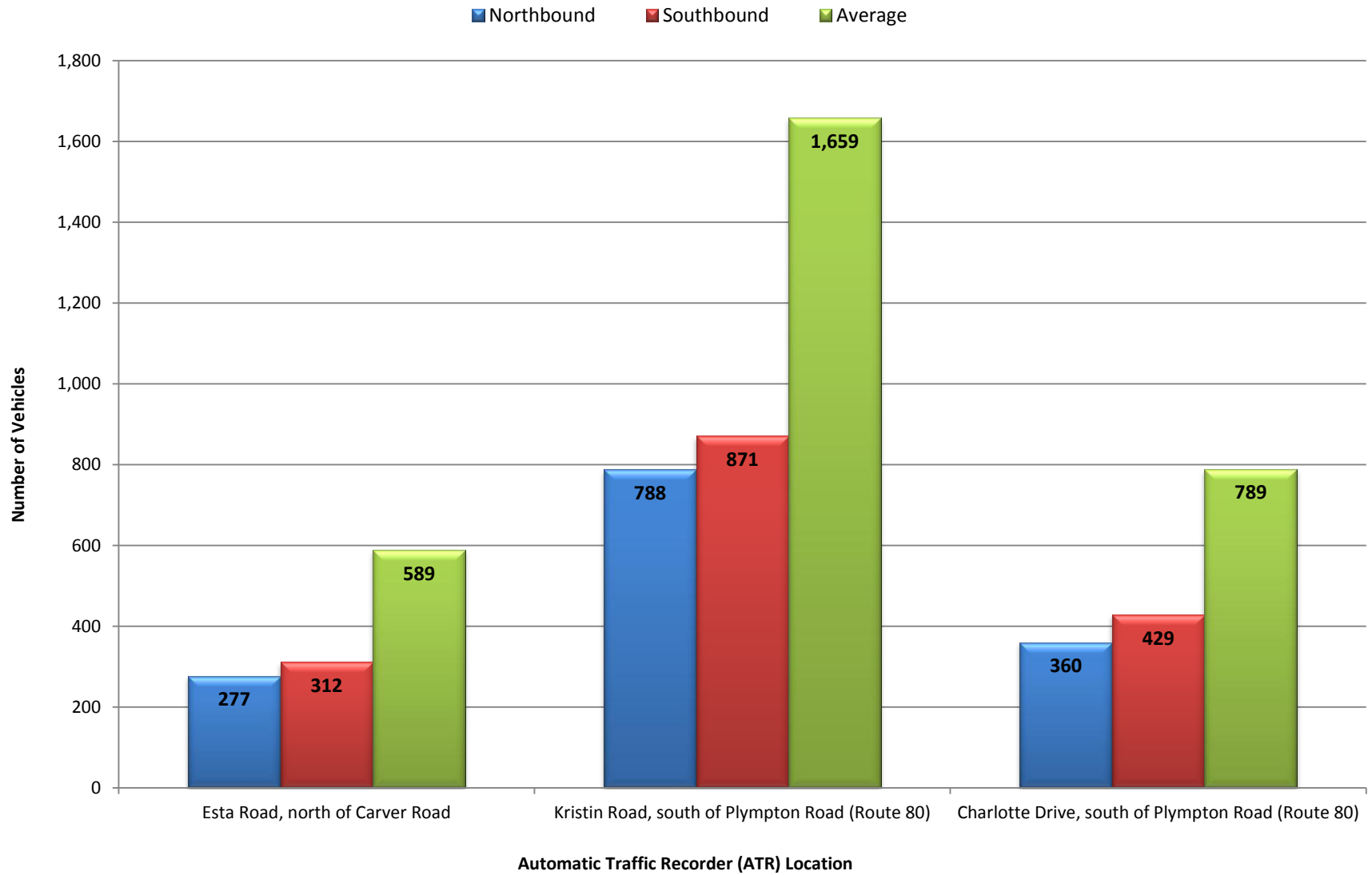
Notes:  
 Data Collection Period = November 15-16, 2011  
 Charlotte Drive= Speed Limit Not Posted- Used Thickly Settled Designation (MGL Chapter 90, Section 17)





# Old Colony Planning Council

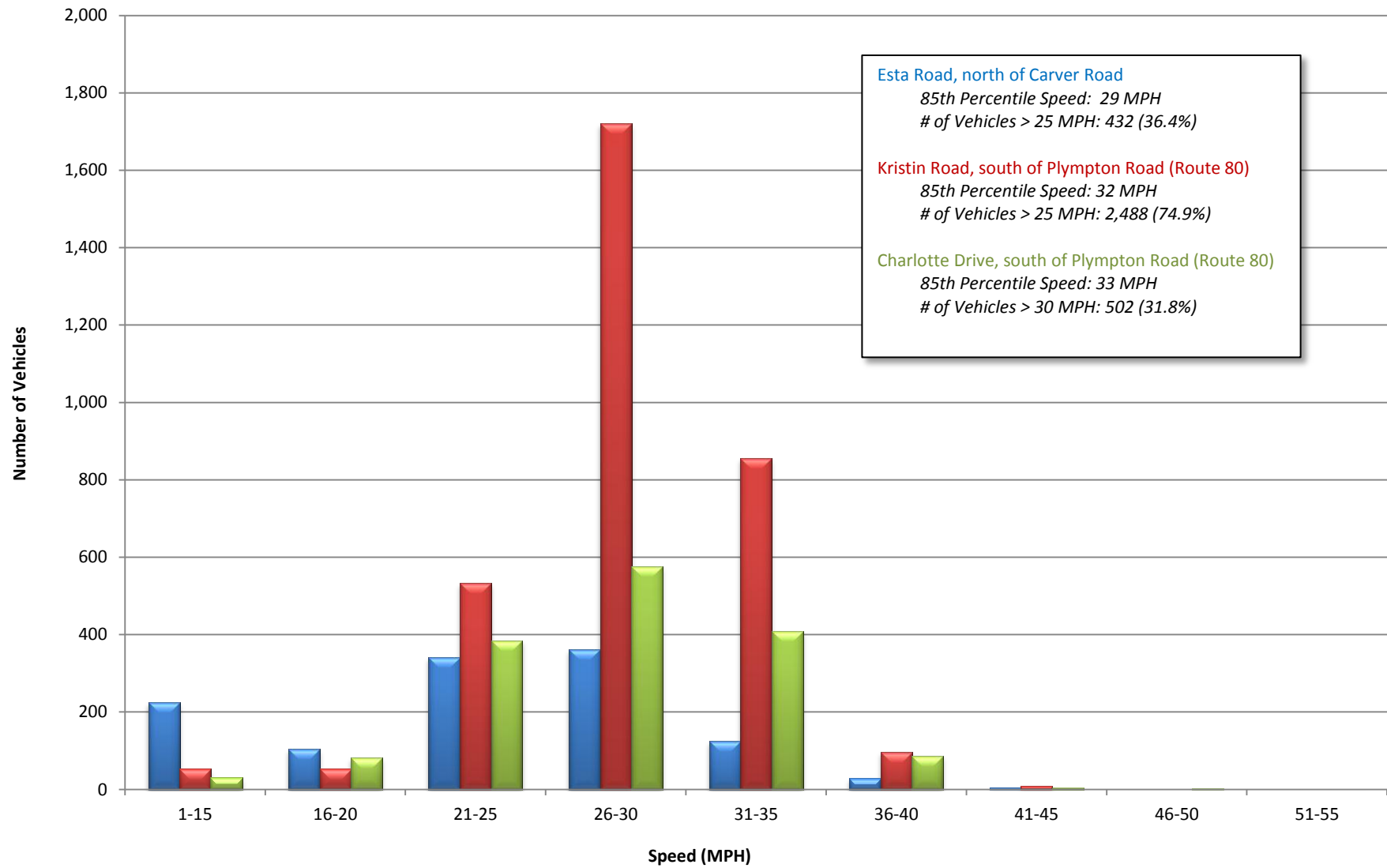
## Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection & Analysis Project 2011 Volume Results





# Old Colony Planning Council

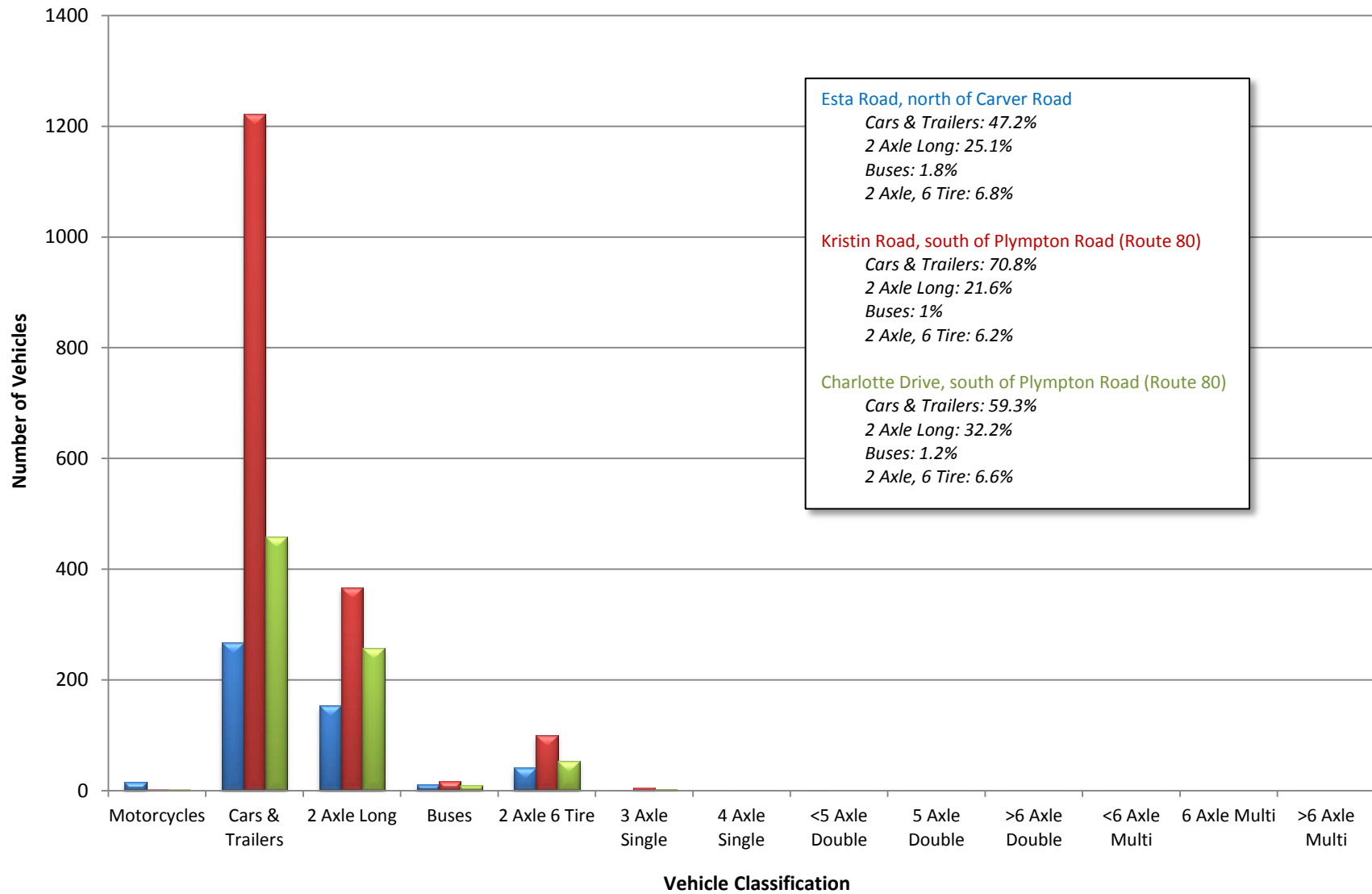
## Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection & Analysis Project 2011 Combined Speed Classification



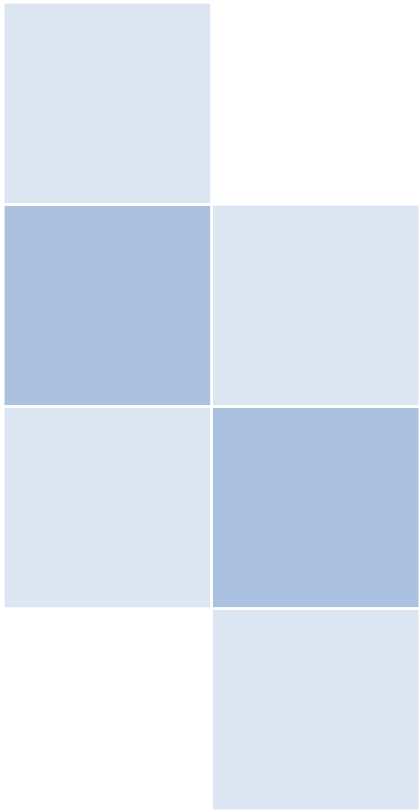


# Old Colony Planning Council

## Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection & Analysis Project 2011 Vehicle Classification







## Historic Comparison





**Old Colony Planning Council**  
**Esta Road, Kristin Road & Charlotte Drive Traffic Data Collection & Analysis Project**  
**Plymouth, MA**

**Automatic Traffic Recorder (ATR) Counts Summary: Historic Data Comparison**

DATE	LOCATION	ADT	AADT	AM PEAK HOUR (PH)	AM PH VOLUME	PM PEAK HOUR (PH)	PM PH VOLUME	SPEED LIMIT	AVG SPEED	85% SPEED	10 MPH PACE SPEED	HEAVY VEHICLE %
11/15-16/11	<b>Esta Road, north of Carver Road</b>											
	Northbound	277	269	7:00 AM	20	4:00 PM	23	25 MPH	19 MPH	27 MPH	20-29 MPH	6.8%
	Southbound	312	303	8:00 AM	20	3:00 PM	30	25 MPH	22 MPH	31 MPH	22-31 MPH	11.6%
	<b>Average Combined Total</b>	<b>589</b>	<b>571</b>	<b>11:00 AM</b>	<b>40</b>	<b>3:00 PM</b>	<b>52</b>	<b>25 MPH</b>	<b>21 MPH</b>	<b>29 MPH</b>	<b>21-30 MPH</b>	<b>9.3%</b>
9/13-14/06	<b>Esta Road, north of Carver Road</b>											
	Northbound	341	317	11:00 AM	22	4:00 PM	32	25 MPH	33 MPH	39 MPH	31-40 MPH	5.6%
	Southbound	399	371	8:00 AM	36	2:00 PM	32	25 MPH	32 MPH	39 MPH	26-35 MPH	5.8%
	<b>Average Combined Total</b>	<b>740</b>	<b>688</b>	<b>8:00 AM</b>	<b>48</b>	<b>3:00 PM</b>	<b>61</b>	<b>25 MPH</b>	<b>33 MPH</b>	<b>39 MPH</b>	<b>31-40 MPH</b>	<b>5.8%</b>
11/15-16/11	<b>Kristin Road, south of Plympton Road (Route 80)</b>											
	Northbound	788	764	7:00 AM	84	4:00 PM	48	25 MPH	28 MPH	32 MPH	24-33 MPH	4.9%
	Southbound	871	845	11:00 AM	46	5:00 PM	100	25 MPH	28 MPH	33 MPH	25-34 MPH	9.7%
	<b>Average Combined Total</b>	<b>1,659</b>	<b>1,609</b>	<b>7:00 AM</b>	<b>113</b>	<b>5:00 PM</b>	<b>146</b>	<b>25 MPH</b>	<b>28 MPH</b>	<b>32 MPH</b>	<b>24-33 MPH</b>	<b>7.4%</b>
9/13-14/06	<b>Kristin Road, south of Plympton Road (Route 80)</b>											
	Northbound	897	834	7:00 AM	112	3:00 PM	56	25 MPH	28 MPH	33 MPH	26-35 MPH	1.8%
	Southbound	1,052	978	11:00 AM	40	5:00 PM	114	25 MPH	29 MPH	34 MPH	26-35 MPH	3.2%
	<b>Average Combined Total</b>	<b>1,949</b>	<b>1,813</b>	<b>7:00 AM</b>	<b>142</b>	<b>5:00 PM</b>	<b>166</b>	<b>25 MPH</b>	<b>28 MPH</b>	<b>33 MPH</b>	<b>26-35 MPH</b>	<b>2.6%</b>
11/15-16/11	<b>Charlotte Drive, south of Plympton Road (Route 80)</b>											
	Northbound	360	349	8:00 AM	46	3:00 PM	30	30 MPH	27 MPH	33 MPH	24-33 MPH	7.8%
	Southbound	429	416	10:00 AM	20	4:00 PM	52	30 MPH	27 MPH	33 MPH	24-33 MPH	8.6%
	<b>Average Combined Total</b>	<b>789</b>	<b>765</b>	<b>8:00 AM</b>	<b>60</b>	<b>3:00 PM</b>	<b>77</b>	<b>30 MPH</b>	<b>27 MPH</b>	<b>33 MPH</b>	<b>24-33 MPH</b>	<b>8.2%</b>
5/16-18/00	<b>Charlotte Drive, south of Plympton Road (Route 80)</b>											
	Northbound	438	399	7:00 AM	52	3:00 PM	30	30 MPH	n/a	n/a	n/a	n/a
	Southbound	554	504	11:00 AM	24	5:00 PM	80	30 MPH	n/a	n/a	n/a	n/a
	<b>Average Combined Total</b>	<b>992</b>	<b>903</b>	<b>7:00 AM</b>	<b>72</b>	<b>5:00 PM</b>	<b>108</b>	<b>30 MPH</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>

Average Daily Traffic (ADT) - The average number of vehicles for a weekday (24 hours, non weekend or holiday) collected over a 24 to 48 hour period

Annual Average Daily Traffic (AADT) - The average number of vehicles for a weekday collected over a 24 or 48 hour period that is adjusted using a seasonal adjustment factor

Peak Hour - The hour of the day at which the highest volume of traffic is recorded

Peak Hour Volume - The volume of traffic occurring during the peak hour

Average Speed - The sum of all speeds in the sample divided by the number of vehicles in the sample

85th Percentile Speed (85% Speed) - The speed at or below which 85 percent of all vehicles in the sample area are traveling

10 MPH Pace Speed - The pace is the speed range within defined limits, usually 10 MPH, which contains the largest number of observations

Heavy Vehicle Percentage - The percentage of buses and vehicles with two (2) or more axles and six or more tires



# Appendix

## Automatic Traffic Recorder (ATR) Counts

**2011**

*Esta Road, north of Carver Road*

*Kristin Road, south of Plympton Road (Route 80)*

*Charlotte Drive, south of Plympton Road (Route 80)*

**2006**

*Esta Road, north of Carver Road*

*Kristin Road, south of Plympton Road (Route 80)*

**2000**

*Charlotte Drive, south of Plympton Road (Route 80)*

## Letter of Request

## 2006 Mass Amendments to the 2003 MUTCD

## 2005 MHD Speed Zoning on State and Municipal Roadways

## Speed Limits & Speed Limit Setting



**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

Start Time	14-Nov-11		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	4	1	3	2	*	*	*	*	*	*	*	*	4	2
01:00	*	*	1	0	0	1	*	*	*	*	*	*	*	*	0	0
02:00	*	*	0	0	1	1	*	*	*	*	*	*	*	*	0	0
03:00	*	*	0	1	1	1	*	*	*	*	*	*	*	*	0	1
04:00	*	*	1	0	0	0	*	*	*	*	*	*	*	*	0	0
05:00	*	*	4	0	2	4	*	*	*	*	*	*	*	*	3	2
06:00	*	*	20	6	17	7	*	*	*	*	*	*	*	*	18	6
07:00	*	*	14	25	11	14	*	*	*	*	*	*	*	*	12	20
08:00	*	*	18	14	23	22	*	*	*	*	*	*	*	*	20	18
09:00	*	*	11	9	17	16	*	*	*	*	*	*	*	*	14	12
10:00	*	*	14	8	11	8	*	*	*	*	*	*	*	*	12	8
11:00	*	*	28	21	13	19	*	*	*	*	*	*	*	*	20	20
12:00 PM	*	*	14	11	18	15	*	*	*	*	*	*	*	*	16	13
01:00	*	*	21	19	25	24	*	*	*	*	*	*	*	*	23	22
02:00	*	*	28	23	16	17	*	*	*	*	*	*	*	*	22	20
03:00	*	*	28	21	32	24	*	*	*	*	*	*	*	*	30	22
04:00	*	*	31	18	25	28	*	*	*	*	*	*	*	*	28	23
05:00	*	*	31	11	22	34	*	*	*	*	*	*	*	*	26	22
06:00	*	*	19	11	22	25	*	*	*	*	*	*	*	*	20	18
07:00	*	*	10	16	17	20	*	*	*	*	*	*	*	*	14	18
08:00	*	*	5	13	13	11	*	*	*	*	*	*	*	*	9	12
09:00	*	*	9	8	14	13	*	*	*	*	*	*	*	*	12	10
10:00	*	*	8	5	6	4	*	*	*	*	*	*	*	*	7	4
11:00	*	*	1	2	2	5	*	*	*	*	*	*	*	*	2	4
Total	0	0	320	243	311	315	0	0	0	0	0	0	0	0	312	277
Day	0	0	563		626		0	0	0	0	0	0	0	0	589	
AM Peak			11:00	07:00	08:00	08:00									08:00	07:00
Vol.			28	25	23	22									20	20
PM Peak			16:00	14:00	15:00	17:00									15:00	16:00
Vol.			31	23	32	34									30	23
Comb. Total	0	0	563		626		0	0	0	0	0	0	0	0	589	

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

Start Time	15-Nov-11		SB		NB		Combined		16-Nov- Wed	SB		NB		Combined	
	Tue		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00			3	5	1	1	4	6		1	5	0	2	1	7
12:15			1	4	0	2	1	6		0	6	1	6	1	12
12:30			0	4	0	4	0	8		1	7	1	4	2	11
12:45			0	1	0	4	0	5		1	0	0	3	1	3
01:00			0	3	0	4	0	7		0	11	0	6	0	17
01:15			0	8	0	7	0	15		0	4	0	5	0	9
01:30			1	5	0	6	1	11		0	7	0	8	0	15
01:45			0	5	0	2	0	7		0	3	1	5	1	8
02:00			0	8	0	6	0	14		0	5	1	3	1	8
02:15			0	3	0	5	0	8		1	1	0	4	1	5
02:30			0	7	0	7	0	14		0	7	0	5	0	12
02:45			0	10	0	5	0	15		0	3	0	5	0	8
03:00			0	5	0	6	0	11		0	6	0	5	0	11
03:15			0	11	0	8	0	19		0	9	0	4	0	13
03:30			0	6	0	5	0	11		0	9	0	9	0	18
03:45			0	6	1	2	1	8		1	8	1	6	2	14
04:00			0	5	0	8	0	13		0	6	0	4	0	10
04:15			0	12	0	3	0	15		0	5	0	7	0	12
04:30			1	9	0	2	1	11		0	5	0	9	0	14
04:45			0	5	0	5	0	10		0	9	0	8	0	17
05:00			1	11	0	2	1	13		1	8	0	9	1	17
05:15			0	9	0	3	0	12		0	10	1	9	1	19
05:30			3	6	0	2	3	8		0	2	3	6	3	8
05:45			0	5	0	4	0	9		1	2	0	10	1	12
06:00			3	4	0	3	3	7		1	4	0	9	1	13
06:15			4	4	0	1	4	5		6	7	1	6	7	13
06:30			9	10	4	4	13	14		7	7	4	5	11	12
06:45			4	1	2	3	6	4		3	4	2	5	5	9
07:00			2	2	4	3	6	5		1	3	1	3	2	6
07:15			1	1	5	4	6	5		3	6	3	8	6	14
07:30			5	4	11	8	16	12		4	5	6	7	10	12
07:45			6	3	5	1	11	4		3	3	4	2	7	5
08:00			4	1	1	2	5	3		10	3	3	3	13	6
08:15			2	0	5	4	7	4		6	3	6	1	12	4
08:30			8	1	5	3	13	4		3	6	6	5	9	11
08:45			4	3	3	4	7	7		4	1	7	2	11	3
09:00			0	4	1	2	1	6		3	5	3	2	6	7
09:15			3	2	5	2	8	4		6	2	5	4	11	6
09:30			5	2	2	4	7	6		6	3	6	3	12	6
09:45			3	1	1	0	4	1		2	4	2	4	4	8
10:00			5	4	2	3	7	7		3	2	1	0	4	2
10:15			3	3	1	1	4	4		5	2	1	3	6	5
10:30			4	0	1	0	5	0		2	0	1	0	3	0
10:45			2	1	4	1	6	2		1	2	5	1	6	3
11:00			9	0	7	1	16	1		3	0	6	1	9	1
11:15			6	0	5	0	11	0		5	0	3	1	8	1
11:30			9	0	5	0	14	0		2	2	5	1	7	3
11:45			4	1	4	1	8	2		3	0	5	2	8	2
<b>Total</b>			<b>115</b>	<b>205</b>	<b>85</b>	<b>158</b>	<b>200</b>	<b>363</b>		<b>99</b>	<b>212</b>	<b>95</b>	<b>220</b>	<b>194</b>	<b>432</b>
<b>Day Total</b>			<b>320</b>		<b>243</b>		<b>563</b>			<b>311</b>		<b>315</b>		<b>626</b>	
<b>% Total</b>			<b>20.4%</b>	<b>36.4%</b>	<b>15.1%</b>	<b>28.1%</b>				<b>15.8%</b>	<b>33.9%</b>	<b>15.2%</b>	<b>35.1%</b>		
<b>Peak</b>			<b>11:00</b>	<b>04:15</b>	<b>07:00</b>	<b>02:30</b>	<b>11:00</b>	<b>02:30</b>		<b>07:30</b>	<b>03:00</b>	<b>08:00</b>	<b>04:30</b>	<b>08:00</b>	<b>04:30</b>
<b>Vol.</b>			<b>28</b>	<b>37</b>	<b>25</b>	<b>26</b>	<b>49</b>	<b>59</b>		<b>23</b>	<b>32</b>	<b>22</b>	<b>35</b>	<b>45</b>	<b>67</b>
<b>P.H.F.</b>			<b>0.778</b>	<b>0.771</b>	<b>0.568</b>	<b>0.813</b>	<b>0.766</b>	<b>0.776</b>		<b>0.575</b>	<b>0.889</b>	<b>0.786</b>	<b>0.972</b>	<b>0.865</b>	<b>0.882</b>

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

Start Time	14-Nov-11 Mon	15-Nov-11 Tue	16-Nov-11 Wed	17-Nov-11 Thu	18-Nov-11 Fri	19-Nov-11 Sat	20-Nov-11 Sun	Week Average
12:00 AM	*	5	5	*	*	*	*	5
01:00	*	1	1	*	*	*	*	1
02:00	*	0	2	*	*	*	*	1
03:00	*	1	2	*	*	*	*	2
04:00	*	1	0	*	*	*	*	0
05:00	*	4	6	*	*	*	*	5
06:00	*	26	24	*	*	*	*	25
07:00	*	39	25	*	*	*	*	32
08:00	*	32	45	*	*	*	*	38
09:00	*	20	33	*	*	*	*	26
10:00	*	22	19	*	*	*	*	20
11:00	*	49	32	*	*	*	*	40
12:00 PM	*	25	33	*	*	*	*	29
01:00	*	40	49	*	*	*	*	44
02:00	*	51	33	*	*	*	*	42
03:00	*	49	56	*	*	*	*	52
04:00	*	49	53	*	*	*	*	51
05:00	*	42	56	*	*	*	*	49
06:00	*	30	47	*	*	*	*	38
07:00	*	26	37	*	*	*	*	32
08:00	*	18	24	*	*	*	*	21
09:00	*	17	27	*	*	*	*	22
10:00	*	13	10	*	*	*	*	12
11:00	*	3	7	*	*	*	*	5
Total	0	563	626	0	0	0	0	592
Percentage	0.0%	95.1%	105.7%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	08:00					11:00
Vol.		49	45					40
PM Peak		14:00	15:00					15:00
Vol.		51	56					52

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 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

**SB**

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
11/15/1																												
1	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
06:00	1	3	5	8	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
07:00	1	1	3	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	
08:00	4	0	6	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	
09:00	3	0	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
10:00	3	2	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	
11:00	4	3	6	8	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	
12 PM	2	1	2	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	
13:00	3	1	8	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
14:00	5	0	6	10	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	
15:00	1	1	9	14	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	
16:00	5	4	13	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	
17:00	3	2	9	13	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	
18:00	3	2	1	8	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	
19:00	1	0	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
20:00	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
21:00	2	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
22:00	2	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
23:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	46	20	86	112	42	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	

Daily

15th Percentile : 9 MPH  
 50th Percentile : 24 MPH  
 85th Percentile : 30 MPH  
 95th Percentile : 34 MPH

Mean Speed(Average) : 22 MPH  
 10 MPH Pace Speed : 22-31 MPH  
 Number in Pace : 160  
 Percent in Pace : 50.0%  
 Number of Vehicles > 25 MPH : 144  
 Percent of Vehicles > 25 MPH : 45.0%



**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

**SB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/16/1															
1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
06:00	2	2	4	5	4	0	0	0	0	0	0	0	0	0	17
07:00	0	1	4	5	1	0	0	0	0	0	0	0	0	0	11
08:00	4	0	6	10	3	0	0	0	0	0	0	0	0	0	23
09:00	4	1	5	5	2	0	0	0	0	0	0	0	0	0	17
10:00	2	1	2	4	2	0	0	0	0	0	0	0	0	0	11
11:00	2	0	2	4	4	1	0	0	0	0	0	0	0	0	13
12 PM	3	3	4	6	1	0	1	0	0	0	0	0	0	0	18
13:00	2	3	8	10	2	0	0	0	0	0	0	0	0	0	25
14:00	5	0	2	4	5	0	0	0	0	0	0	0	0	0	16
15:00	7	0	5	10	9	1	0	0	0	0	0	0	0	0	32
16:00	5	1	2	7	5	5	0	0	0	0	0	0	0	0	25
17:00	7	0	3	2	4	4	2	0	0	0	0	0	0	0	22
18:00	10	1	8	1	2	0	0	0	0	0	0	0	0	0	22
19:00	6	0	3	4	3	1	0	0	0	0	0	0	0	0	17
20:00	3	1	4	1	4	0	0	0	0	0	0	0	0	0	13
21:00	5	0	1	2	4	2	0	0	0	0	0	0	0	0	14
22:00	2	0	1	1	2	0	0	0	0	0	0	0	0	0	6
23:00	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2
<b>Total</b>	<b>72</b>	<b>14</b>	<b>64</b>	<b>84</b>	<b>58</b>	<b>16</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>311</b>

Daily

15th Percentile : 7 MPH  
 50th Percentile : 22 MPH  
 85th Percentile : 31 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 21 MPH  
 10 MPH Pace Speed : 23-32 MPH  
 Number in Pace : 121  
 Percent in Pace : 38.9%  
 Number of Vehicles > 25 MPH : 131  
 Percent of Vehicles > 25 MPH : 42.2%

<b>Grand Total</b>	<b>118</b>	<b>34</b>	<b>150</b>	<b>196</b>	<b>100</b>	<b>29</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>631</b>
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Overall

15th Percentile : 8 MPH  
 50th Percentile : 23 MPH  
 85th Percentile : 31 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 22 MPH  
 10 MPH Pace Speed : 22-31 MPH  
 Number in Pace : 278  
 Percent in Pace : 44.1%  
 Number of Vehicles > 25 MPH : 275  
 Percent of Vehicles > 25 MPH : 43.6%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

**NB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/15/1															
1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	3	3	0	0	0	0	0	0	0	0	0	0	6
07:00	3	6	7	9	0	0	0	0	0	0	0	0	0	0	25
08:00	1	2	4	6	1	0	0	0	0	0	0	0	0	0	14
09:00	1	2	4	2	0	0	0	0	0	0	0	0	0	0	9
10:00	2	3	2	1	0	0	0	0	0	0	0	0	0	0	8
11:00	4	3	9	5	0	0	0	0	0	0	0	0	0	0	21
12 PM	1	2	2	5	0	0	1	0	0	0	0	0	0	0	11
13:00	6	2	5	4	2	0	0	0	0	0	0	0	0	0	19
14:00	1	6	11	5	0	0	0	0	0	0	0	0	0	0	23
15:00	1	3	10	7	0	0	0	0	0	0	0	0	0	0	21
16:00	2	4	7	4	1	0	0	0	0	0	0	0	0	0	18
17:00	0	0	4	6	1	0	0	0	0	0	0	0	0	0	11
18:00	0	0	7	4	0	0	0	0	0	0	0	0	0	0	11
19:00	0	0	11	5	0	0	0	0	0	0	0	0	0	0	16
20:00	2	1	4	5	1	0	0	0	0	0	0	0	0	0	13
21:00	0	1	1	5	1	0	0	0	0	0	0	0	0	0	8
22:00	1	0	3	1	0	0	0	0	0	0	0	0	0	0	5
23:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
<b>Total</b>	<b>25</b>	<b>35</b>	<b>94</b>	<b>81</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>243</b>

Daily

15th Percentile :	11 MPH
50th Percentile :	22 MPH
85th Percentile :	27 MPH
95th Percentile :	30 MPH
Mean Speed(Average) :	21 MPH
10 MPH Pace Speed :	20-29 MPH
Number in Pace :	139
Percent in Pace :	57.2%
Number of Vehicles > 25 MPH :	78
Percent of Vehicles > 25 MPH :	32.3%

**Old Colony Planning Council**  
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Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

**NB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/16/1															
1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	1	0	1	1	0	0	0	0	0	0	0	0	0	4
06:00	0	3	2	1	1	0	0	0	0	0	0	0	0	0	7
07:00	2	2	3	7	0	0	0	0	0	0	0	0	0	0	14
08:00	4	3	5	9	1	0	0	0	0	0	0	0	0	0	22
09:00	3	3	4	5	1	0	0	0	0	0	0	0	0	0	16
10:00	1	1	1	5	0	0	0	0	0	0	0	0	0	0	8
11:00	2	3	6	7	1	0	0	0	0	0	0	0	0	0	19
12 PM	3	2	4	4	2	0	0	0	0	0	0	0	0	0	15
13:00	4	2	12	6	0	0	0	0	0	0	0	0	0	0	24
14:00	2	2	3	8	2	0	0	0	0	0	0	0	0	0	17
15:00	7	0	8	8	1	0	0	0	0	0	0	0	0	0	24
16:00	10	2	9	7	0	0	0	0	0	0	0	0	0	0	28
17:00	13	1	10	6	4	0	0	0	0	0	0	0	0	0	34
18:00	9	2	11	2	1	0	0	0	0	0	0	0	0	0	25
19:00	8	5	7	0	0	0	0	0	0	0	0	0	0	0	20
20:00	3	1	5	0	2	0	0	0	0	0	0	0	0	0	11
21:00	5	2	3	3	0	0	0	0	0	0	0	0	0	0	13
22:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0	4
23:00	2	0	1	2	0	0	0	0	0	0	0	0	0	0	5
<b>Total</b>	<b>82</b>	<b>35</b>	<b>97</b>	<b>84</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>315</b>

Daily

15th Percentile : 7 MPH  
 50th Percentile : 19 MPH  
 85th Percentile : 27 MPH  
 95th Percentile : 30 MPH

Mean Speed(Average) : 18 MPH  
 10 MPH Pace Speed : 20-29 MPH  
 Number in Pace : 131  
 Percent in Pace : 41.6%  
 Number of Vehicles > 25 MPH : 81  
 Percent of Vehicles > 25 MPH : 25.8%

<b>Grand Total</b>	<b>107</b>	<b>70</b>	<b>191</b>	<b>165</b>	<b>24</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>558</b>
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Overall

15th Percentile : 8 MPH  
 50th Percentile : 20 MPH  
 85th Percentile : 27 MPH  
 95th Percentile : 30 MPH

Mean Speed(Average) : 19 MPH  
 10 MPH Pace Speed : 20-29 MPH  
 Number in Pace : 268  
 Percent in Pace : 48.0%  
 Number of Vehicles > 25 MPH : 159  
 Percent of Vehicles > 25 MPH : 28.5%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

**SB, NB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/15/1															
1	1	0	1	3	0	0	0	0	0	0	0	0	0	0	5
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
06:00	1	3	8	11	1	1	1	0	0	0	0	0	0	0	26
07:00	4	7	10	15	3	0	0	0	0	0	0	0	0	0	39
08:00	5	2	10	12	3	0	0	0	0	0	0	0	0	0	32
09:00	4	2	8	4	2	0	0	0	0	0	0	0	0	0	20
10:00	5	5	6	5	1	0	0	0	0	0	0	0	0	0	22
11:00	8	6	15	13	4	3	0	0	0	0	0	0	0	0	49
12 PM	3	3	4	9	3	2	1	0	0	0	0	0	0	0	25
13:00	9	3	13	11	4	0	0	0	0	0	0	0	0	0	40
14:00	6	6	17	15	5	2	0	0	0	0	0	0	0	0	51
15:00	2	4	19	21	2	1	0	0	0	0	0	0	0	0	49
16:00	7	8	20	10	4	0	0	0	0	0	0	0	0	0	49
17:00	3	2	13	19	3	2	0	0	0	0	0	0	0	0	42
18:00	3	2	8	12	3	2	0	0	0	0	0	0	0	0	30
19:00	1	0	14	9	2	0	0	0	0	0	0	0	0	0	26
20:00	2	1	7	7	1	0	0	0	0	0	0	0	0	0	18
21:00	2	1	1	8	5	0	0	0	0	0	0	0	0	0	17
22:00	3	0	6	3	1	0	0	0	0	0	0	0	0	0	13
23:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
<b>Total</b>	<b>71</b>	<b>55</b>	<b>180</b>	<b>193</b>	<b>49</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>563</b>

Daily

15th Percentile :	10 MPH
50th Percentile :	23 MPH
85th Percentile :	29 MPH
95th Percentile :	33 MPH
Mean Speed(Average) :	22 MPH
10 MPH Pace Speed :	21-30 MPH
Number in Pace :	296
Percent in Pace :	52.6%
Number of Vehicles > 25 MPH :	222
Percent of Vehicles > 25 MPH :	39.5%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

**SB, NB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/16/1															
1	3	0	0	1	1	0	0	0	0	0	0	0	0	0	5
01:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	1	0	2	1	1	0	0	0	0	0	0	0	0	6
06:00	2	5	6	6	5	0	0	0	0	0	0	0	0	0	24
07:00	2	3	7	12	1	0	0	0	0	0	0	0	0	0	25
08:00	8	3	11	19	4	0	0	0	0	0	0	0	0	0	45
09:00	7	4	9	10	3	0	0	0	0	0	0	0	0	0	33
10:00	3	2	3	9	2	0	0	0	0	0	0	0	0	0	19
11:00	4	3	8	11	5	1	0	0	0	0	0	0	0	0	32
12 PM	6	5	8	10	3	0	1	0	0	0	0	0	0	0	33
13:00	6	5	20	16	2	0	0	0	0	0	0	0	0	0	49
14:00	7	2	5	12	7	0	0	0	0	0	0	0	0	0	33
15:00	14	0	13	18	10	1	0	0	0	0	0	0	0	0	56
16:00	15	3	11	14	5	5	0	0	0	0	0	0	0	0	53
17:00	20	1	13	8	8	4	2	0	0	0	0	0	0	0	56
18:00	19	3	19	3	3	0	0	0	0	0	0	0	0	0	47
19:00	14	5	10	4	3	1	0	0	0	0	0	0	0	0	37
20:00	6	2	9	1	6	0	0	0	0	0	0	0	0	0	24
21:00	10	2	4	5	4	2	0	0	0	0	0	0	0	0	27
22:00	4	0	3	1	2	0	0	0	0	0	0	0	0	0	10
23:00	3	0	1	2	0	1	0	0	0	0	0	0	0	0	7
<b>Total</b>	<b>154</b>	<b>49</b>	<b>161</b>	<b>168</b>	<b>75</b>	<b>16</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>626</b>

Daily  
 15th Percentile : 7 MPH  
 50th Percentile : 20 MPH  
 85th Percentile : 29 MPH  
 95th Percentile : 33 MPH  
 Mean Speed(Average) : 20 MPH  
 10 MPH Pace Speed : 21-30 MPH  
 Number in Pace : 246  
 Percent in Pace : 39.3%  
 Number of Vehicles > 25 MPH : 211  
 Percent of Vehicles > 25 MPH : 33.8%

<b>Grand Total</b>	<b>225</b>	<b>104</b>	<b>341</b>	<b>361</b>	<b>124</b>	<b>29</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1189</b>
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Overall  
 15th Percentile : 8 MPH  
 50th Percentile : 22 MPH  
 85th Percentile : 29 MPH  
 95th Percentile : 33 MPH  
 Mean Speed(Average) : 21 MPH  
 10 MPH Pace Speed : 21-30 MPH  
 Number in Pace : 540  
 Percent in Pace : 45.4%  
 Number of Vehicles > 25 MPH : 432  
 Percent of Vehicles > 25 MPH : 36.4%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total	Truck Total
11/15/1																
1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	4	0
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2	4	1
06:00	0	12	3	0	3	0	0	0	0	0	0	0	0	2	20	3
07:00	1	6	4	1	1	0	0	0	0	0	0	0	0	1	14	2
08:00	0	7	4	0	3	0	0	0	0	0	0	0	0	4	18	3
09:00	0	4	3	0	1	0	0	0	0	0	0	0	0	3	11	1
10:00	0	5	4	0	0	0	0	1	0	0	0	0	0	4	14	1
11:00	0	8	13	0	2	0	0	0	0	0	0	0	0	5	28	2
12 PM	0	6	4	0	1	1	0	1	0	0	0	0	0	1	14	3
13:00	0	8	6	1	3	0	0	0	0	0	0	0	0	3	21	4
14:00	2	14	8	0	1	0	0	0	0	0	0	0	0	3	28	1
15:00	0	12	11	1	2	0	0	1	0	0	0	0	0	1	28	4
16:00	0	14	6	0	5	0	0	0	0	0	0	0	0	6	31	5
17:00	0	20	4	0	2	1	0	0	0	0	0	0	0	4	31	3
18:00	0	5	11	0	1	0	0	0	0	0	0	0	0	2	19	1
19:00	1	4	3	0	1	0	0	0	0	0	0	0	0	1	10	1
20:00	0	3	2	0	0	0	0	0	0	0	0	0	0	0	5	0
21:00	0	4	4	0	0	0	0	0	0	0	0	0	0	1	9	0
22:00	1	4	0	0	1	0	0	0	0	0	0	0	0	2	8	1
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
<b>Total</b>	<b>6</b>	<b>141</b>	<b>91</b>	<b>3</b>	<b>28</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>320</b>	<b>36</b>
<b>Percent</b>	<b>1.9%</b>	<b>44.1%</b>	<b>28.4%</b>	<b>0.9%</b>	<b>8.8%</b>	<b>0.6%</b>	<b>0.0%</b>	<b>0.9%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>14.4%</b>		<b>11.3%</b>
<b>AM Peak</b>	00:00	06:00	11:00	07:00	06:00			10:00						11:00	11:00	06:00
<b>Vol.</b>	1	12	13	1	3			1						5	28	3
<b>PM Peak</b>	14:00	17:00	15:00	13:00	16:00	12:00		12:00						16:00	16:00	16:00
<b>Vol.</b>	2	20	11	1	5	1		1						6	31	5

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total	Truck Total
11/16/1																
1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	3	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
06:00	0	8	3	0	3	0	0	0	0	0	0	0	0	3	17	3
07:00	0	7	2	1	1	0	0	0	0	0	0	0	0	0	11	2
08:00	1	7	6	0	4	0	0	0	0	0	0	0	0	5	23	4
09:00	0	5	4	0	3	0	0	1	0	0	0	0	0	4	17	4
10:00	0	4	5	0	1	0	0	0	0	0	0	0	0	1	11	1
11:00	0	3	8	0	1	0	0	0	0	0	0	0	0	1	13	1
12 PM	2	7	3	2	1	0	0	0	0	0	0	0	0	3	18	3
13:00	1	11	6	0	4	0	0	0	0	0	0	0	0	3	25	4
14:00	2	4	7	0	0	0	0	0	0	0	0	0	0	3	16	0
15:00	0	11	12	0	2	0	0	0	0	0	0	0	0	7	32	2
16:00	0	3	12	0	6	0	0	0	0	0	0	0	0	4	25	6
17:00	0	2	10	0	3	0	0	0	0	0	0	0	0	7	22	3
18:00	1	6	3	0	1	0	0	0	0	0	0	0	0	11	22	1
19:00	0	2	8	0	1	0	0	0	0	0	0	0	0	6	17	1
20:00	1	5	3	0	1	0	0	0	0	0	0	0	0	3	13	1
21:00	0	3	5	0	1	0	0	0	0	0	0	0	0	5	14	1
22:00	1	1	2	0	0	0	0	0	0	0	0	0	0	2	6	0
23:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	0
<b>Total</b>	<b>9</b>	<b>90</b>	<b>105</b>	<b>3</b>	<b>33</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>311</b>	<b>37</b>
<b>Percent</b>	<b>2.9%</b>	<b>28.9%</b>	<b>33.8%</b>	<b>1.0%</b>	<b>10.6%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>22.5%</b>		<b>11.9%</b>
<b>AM Peak</b>	08:00	06:00	11:00	07:00	08:00			09:00						08:00	08:00	08:00
<b>Vol.</b>	1	8	8	1	4			1						5	23	4
<b>PM Peak</b>	12:00	13:00	15:00	12:00	16:00									18:00	15:00	16:00
<b>Vol.</b>	2	11	12	2	6									11	32	6
<b>Grand Total</b>	<b>15</b>	<b>231</b>	<b>196</b>	<b>6</b>	<b>61</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>116</b>	<b>631</b>	<b>73</b>
<b>Percent</b>	<b>2.4%</b>	<b>36.6%</b>	<b>31.1%</b>	<b>1.0%</b>	<b>9.7%</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.6%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>18.4%</b>		<b>11.6%</b>

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
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Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

**NB**

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total	Truck Total
11/15/1																
1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	4	0	2	0	0	0	0	0	0	0	0	0	0	6	2
07:00	0	16	7	1	0	0	0	0	0	0	0	0	0	1	25	1
08:00	0	5	5	1	3	0	0	0	0	0	0	0	0	0	14	4
09:00	0	4	2	0	2	0	0	0	0	0	0	0	0	1	9	2
10:00	1	3	3	0	0	0	0	0	0	0	0	0	0	1	8	0
11:00	0	13	4	0	2	0	0	1	0	0	0	0	0	1	21	3
12 PM	1	5	4	0	1	0	0	0	0	0	0	0	0	0	11	1
13:00	2	8	3	0	1	0	0	1	0	0	0	0	0	4	19	2
14:00	0	15	6	2	0	0	0	0	0	0	0	0	0	0	23	2
15:00	0	14	5	1	1	0	0	0	0	0	0	0	0	0	21	2
16:00	0	12	4	0	0	0	0	0	0	0	0	0	0	2	18	0
17:00	0	9	2	0	0	0	0	0	0	0	0	0	0	0	11	0
18:00	0	8	2	0	1	0	0	0	0	0	0	0	0	0	11	1
19:00	0	12	3	0	1	0	0	0	0	0	0	0	0	0	16	1
20:00	0	11	1	0	0	0	0	0	0	0	0	0	0	1	13	0
21:00	0	6	2	0	0	0	0	0	0	0	0	0	0	0	8	0
22:00	0	4	0	0	0	0	0	0	0	0	0	0	0	1	5	0
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Total	4	153	53	7	12	0	0	2	0	0	0	0	0	12	243	21
Percent	1.6%	63.0%	21.8%	2.9%	4.9%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	4.9%		8.6%
AM Peak Vol.	10:00	07:00	07:00	06:00	08:00			11:00						07:00	07:00	08:00
PM Peak Vol.	13:00	14:00	14:00	14:00	12:00			13:00						13:00	14:00	13:00



**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

**NB**

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total	Truck Total
11/16/1																
1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	2	1	1	0	0	0	0	0	0	0	0	0	0	0	4	0
06:00	0	4	0	2	1	0	0	0	0	0	0	0	0	0	7	3
07:00	0	7	4	1	1	0	0	0	0	0	0	0	0	1	14	2
08:00	2	11	7	1	0	0	0	0	0	0	0	0	0	1	22	1
09:00	0	11	2	0	1	0	0	0	0	0	0	0	0	2	16	1
10:00	0	7	1	0	0	0	0	0	0	0	0	0	0	0	8	0
11:00	0	15	1	2	0	0	0	0	0	0	0	0	0	1	19	2
12 PM	0	7	4	1	0	1	0	0	0	0	0	0	0	2	15	2
13:00	1	15	6	1	0	0	0	0	0	0	0	0	0	1	24	1
14:00	1	14	2	0	0	0	0	0	0	0	0	0	0	0	17	0
15:00	0	15	2	0	0	0	0	0	0	0	0	0	0	7	24	0
16:00	0	15	3	0	0	0	0	0	0	0	0	0	0	10	28	0
17:00	1	12	5	0	4	0	0	0	0	0	0	0	0	12	34	4
18:00	0	11	5	0	0	0	0	0	0	0	0	0	0	9	25	0
19:00	0	9	4	0	0	0	0	0	0	0	0	0	0	7	20	0
20:00	0	7	1	0	0	0	0	0	0	0	0	0	0	3	11	0
21:00	0	7	1	0	0	0	0	0	0	0	0	0	0	5	13	0
22:00	0	3	0	0	0	0	0	0	0	0	0	0	0	1	4	0
23:00	0	2	0	0	1	0	0	0	0	0	0	0	0	2	5	1
<b>Total</b>	<b>7</b>	<b>177</b>	<b>49</b>	<b>8</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>65</b>	<b>315</b>	<b>17</b>
<b>Percent</b>	<b>2.2%</b>	<b>56.2%</b>	<b>15.6%</b>	<b>2.5%</b>	<b>2.5%</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>20.6%</b>		<b>5.4%</b>
<b>AM Peak Vol.</b>	05:00	11:00	08:00	06:00	06:00									09:00	08:00	06:00
<b>PM Peak Vol.</b>	13:00	13:00	13:00	12:00	17:00	12:00								17:00	17:00	17:00
<b>Grand Total Percent</b>	<b>11</b>	<b>330</b>	<b>102</b>	<b>15</b>	<b>20</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>77</b>	<b>558</b>	<b>38</b>
	<b>2.0%</b>	<b>59.1%</b>	<b>18.3%</b>	<b>2.7%</b>	<b>3.6%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.4%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>13.8%</b>		<b>6.8%</b>

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

SB, NB	Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total	Truck Total
	11/15/1																
	1	1	3	0	0	0	0	0	0	0	0	0	0	0	1	5	0
	01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	05:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2	4	1
	06:00	0	16	3	2	3	0	0	0	0	0	0	0	0	2	26	5
	07:00	1	22	11	2	1	0	0	0	0	0	0	0	0	2	39	3
	08:00	0	12	9	1	6	0	0	0	0	0	0	0	0	4	32	7
	09:00	0	8	5	0	3	0	0	0	0	0	0	0	0	4	20	3
	10:00	1	8	7	0	0	0	0	1	0	0	0	0	0	5	22	1
	11:00	0	21	17	0	4	0	0	1	0	0	0	0	0	6	49	5
	12 PM	1	11	8	0	2	1	0	1	0	0	0	0	0	1	25	4
	13:00	2	16	9	1	4	0	0	1	0	0	0	0	0	7	40	6
	14:00	2	29	14	2	1	0	0	0	0	0	0	0	0	3	51	3
	15:00	0	26	16	2	3	0	0	1	0	0	0	0	0	1	49	6
	16:00	0	26	10	0	5	0	0	0	0	0	0	0	0	8	49	5
	17:00	0	29	6	0	2	1	0	0	0	0	0	0	0	4	42	3
	18:00	0	13	13	0	2	0	0	0	0	0	0	0	0	2	30	2
	19:00	1	16	6	0	2	0	0	0	0	0	0	0	0	1	26	2
	20:00	0	14	3	0	0	0	0	0	0	0	0	0	0	1	18	0
	21:00	0	10	6	0	0	0	0	0	0	0	0	0	0	1	17	0
	22:00	1	8	0	0	1	0	0	0	0	0	0	0	0	3	13	1
	23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0
	Total	10	294	144	10	40	2	0	5	0	0	0	0	0	58	563	57
	Percent	1.8%	52.2%	25.6%	1.8%	7.1%	0.4%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	10.3%		10.1%
AM Peak	00:00	07:00	11:00	06:00	08:00				10:00						11:00	11:00	08:00
Vol.	1	22	17	2	6				1						6	49	7
PM Peak	13:00	14:00	15:00	14:00	16:00	12:00			12:00						16:00	14:00	13:00
Vol.	2	29	16	2	5	1			1						8	51	6

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #17  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Esta Rd, north of Carver Rd

SB, NB	Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classe	Total	Truck Total
	11/16/1																
	1	0	2	1	0	0	0	0	0	0	0	0	0	0	2	5	0
	01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0
	03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	05:00	2	1	3	0	0	0	0	0	0	0	0	0	0	0	6	0
	06:00	0	12	3	2	4	0	0	0	0	0	0	0	0	3	24	6
	07:00	0	14	6	2	2	0	0	0	0	0	0	0	0	1	25	4
	08:00	3	18	13	1	4	0	0	0	0	0	0	0	0	6	45	5
	09:00	0	16	6	0	4	0	0	1	0	0	0	0	0	6	33	5
	10:00	0	11	6	0	1	0	0	0	0	0	0	0	0	1	19	1
	11:00	0	18	9	2	1	0	0	0	0	0	0	0	0	2	32	3
	12 PM	2	14	7	3	1	1	0	0	0	0	0	0	0	5	33	5
	13:00	2	26	12	1	4	0	0	0	0	0	0	0	0	4	49	5
	14:00	3	18	9	0	0	0	0	0	0	0	0	0	0	3	33	0
	15:00	0	26	14	0	2	0	0	0	0	0	0	0	0	14	56	2
	16:00	0	18	15	0	6	0	0	0	0	0	0	0	0	14	53	6
	17:00	1	14	15	0	7	0	0	0	0	0	0	0	0	19	56	7
	18:00	1	17	8	0	1	0	0	0	0	0	0	0	0	20	47	1
	19:00	0	11	12	0	1	0	0	0	0	0	0	0	0	13	37	1
	20:00	1	12	4	0	1	0	0	0	0	0	0	0	0	6	24	1
	21:00	0	10	6	0	1	0	0	0	0	0	0	0	0	10	27	1
	22:00	1	4	2	0	0	0	0	0	0	0	0	0	0	3	10	0
	23:00	0	2	1	0	1	0	0	0	0	0	0	0	0	3	7	1
	<b>Total</b>	16	267	154	11	41	1	0	1	0	0	0	0	0	135	626	54
	<b>Percent</b>	2.6%	42.7%	24.6%	1.8%	6.5%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	21.6%		8.6%
	<b>AM Peak</b>	08:00	08:00	08:00	06:00	06:00			09:00						08:00	08:00	06:00
	<b>Vol.</b>	3	18	13	2	4			1						6	45	6
	<b>PM Peak</b>	14:00	13:00	16:00	12:00	17:00	12:00								18:00	15:00	17:00
	<b>Vol.</b>	3	26	15	3	7	1								20	56	7
	<b>Grand Total</b>	26	561	298	21	81	3	0	6	0	0	0	0	0	193	1189	111
	<b>Percent</b>	2.2%	47.2%	25.1%	1.8%	6.8%	0.3%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	16.2%		9.3%



**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

Start Time	14-Nov-11		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	2	9	2	6	*	*	*	*	*	*	*	*	2	8
01:00	*	*	0	3	2	2	*	*	*	*	*	*	*	*	1	2
02:00	*	*	0	0	2	1	*	*	*	*	*	*	*	*	1	0
03:00	*	*	4	0	3	2	*	*	*	*	*	*	*	*	4	1
04:00	*	*	10	1	9	3	*	*	*	*	*	*	*	*	10	2
05:00	*	*	30	4	40	6	*	*	*	*	*	*	*	*	35	5
06:00	*	*	68	10	64	4	*	*	*	*	*	*	*	*	66	7
07:00	*	*	<b>80</b>	24	<b>89</b>	33	*	*	*	*	*	*	*	*	<b>84</b>	28
08:00	*	*	64	22	79	25	*	*	*	*	*	*	*	*	72	24
09:00	*	*	55	25	48	34	*	*	*	*	*	*	*	*	52	30
10:00	*	*	40	29	42	40	*	*	*	*	*	*	*	*	41	34
11:00	*	*	50	<b>45</b>	42	<b>47</b>	*	*	*	*	*	*	*	*	46	<b>46</b>
12:00 PM	*	*	37	45	<b>49</b>	54	*	*	*	*	*	*	*	*	43	50
01:00	*	*	38	47	48	50	*	*	*	*	*	*	*	*	43	48
02:00	*	*	42	61	49	72	*	*	*	*	*	*	*	*	46	66
03:00	*	*	48	90	38	91	*	*	*	*	*	*	*	*	43	90
04:00	*	*	<b>51</b>	94	46	84	*	*	*	*	*	*	*	*	<b>48</b>	89
05:00	*	*	48	<b>106</b>	45	<b>94</b>	*	*	*	*	*	*	*	*	46	<b>100</b>
06:00	*	*	30	83	37	87	*	*	*	*	*	*	*	*	34	85
07:00	*	*	23	37	26	53	*	*	*	*	*	*	*	*	24	45
08:00	*	*	22	50	19	44	*	*	*	*	*	*	*	*	20	47
09:00	*	*	13	29	13	41	*	*	*	*	*	*	*	*	13	35
10:00	*	*	3	18	13	15	*	*	*	*	*	*	*	*	8	16
11:00	*	*	4	11	8	15	*	*	*	*	*	*	*	*	6	13
Total	0	0	762	843	813	903	0	0	0	0	0	0	0	0	788	871
Day	0	0	1605		1716		0	0	0	0	0	0	0	0	1659	
AM Peak			07:00	11:00	07:00	11:00									07:00	11:00
Vol.			80	45	89	47									84	46
PM Peak			16:00	17:00	12:00	17:00									16:00	17:00
Vol.			51	106	49	94									48	100
Comb. Total	0	0	1605		1716		0	0	0	0	0	0	0	0	1659	

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

Start Time	15-Nov-11		NB		SB		Combined		16-Nov- Wed	NB		SB		Combined	
	Tue		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00			1	4	3	12	4	16		0	13	1	14	1	27
12:15			0	8	3	10	3	18		1	11	1	14	2	25
12:30			1	8	1	10	2	18		1	13	0	11	1	24
12:45			0	17	2	13	2	30		0	12	4	15	4	27
01:00			0	10	1	7	1	17		1	12	1	17	2	29
01:15			0	9	0	15	0	24		0	14	1	10	1	24
01:30			0	11	1	15	1	26		1	15	0	14	1	29
01:45			0	8	1	10	1	18		0	7	0	9	0	16
02:00			0	5	0	11	0	16		1	16	1	19	2	35
02:15			0	7	0	15	0	22		0	6	0	11	0	17
02:30			0	14	0	14	0	28		0	16	0	15	0	31
02:45			0	16	0	21	0	37		1	11	0	27	1	38
03:00			2	8	0	25	2	33		0	5	0	23	0	28
03:15			0	15	0	26	0	41		0	12	1	23	1	35
03:30			1	10	0	24	1	34		2	11	1	27	3	38
03:45			1	15	0	15	1	30		1	10	0	18	1	28
04:00			0	13	0	31	0	44		0	9	1	22	1	31
04:15			1	14	0	20	1	34		3	12	0	21	3	33
04:30			4	7	0	21	4	28		2	11	0	15	2	26
04:45			5	17	1	22	6	39		4	14	2	26	6	40
05:00			6	9	0	29	6	38		9	15	0	20	9	35
05:15			9	16	1	19	10	35		8	12	2	22	10	34
05:30			6	14	1	28	7	42		10	6	0	20	10	26
05:45			9	9	2	30	11	39		13	12	4	32	17	44
06:00			19	8	2	28	21	36		14	11	0	24	14	35
06:15			14	11	3	15	17	26		10	14	1	24	11	38
06:30			15	4	3	30	18	34		16	9	0	23	16	32
06:45			20	7	2	10	22	17		24	3	3	16	27	19
07:00			17	8	3	10	20	18		22	3	1	13	23	16
07:15			22	4	5	4	27	8		23	12	9	15	32	27
07:30			23	7	4	13	27	20		19	6	13	14	32	20
07:45			18	4	12	10	30	14		25	5	10	11	35	16
08:00			12	9	5	15	17	24		9	5	6	10	15	15
08:15			15	3	2	15	17	18		15	3	7	17	22	20
08:30			23	3	6	14	29	17		32	4	4	12	36	16
08:45			14	7	9	6	23	13		23	7	8	5	31	12
09:00			16	6	9	8	25	14		13	4	13	11	26	15
09:15			15	3	5	9	20	12		13	6	7	10	20	16
09:30			13	4	6	6	19	10		11	1	8	6	19	7
09:45			11	0	5	6	16	6		11	2	6	14	17	16
10:00			8	1	7	2	15	3		7	7	17	6	24	13
10:15			12	1	3	6	15	7		15	3	7	4	22	7
10:30			8	0	7	5	15	5		10	2	9	2	19	4
10:45			12	1	12	5	24	6		10	1	7	3	17	4
11:00			14	2	10	3	24	5		12	4	9	2	21	6
11:15			7	1	12	2	19	3		11	1	12	6	23	7
11:30			16	1	14	4	30	5		9	2	12	4	21	6
11:45			13	0	9	2	22	2		10	1	14	3	24	4
<b>Total</b>			<b>403</b>	<b>359</b>	<b>172</b>	<b>671</b>	<b>575</b>	<b>1030</b>		<b>422</b>	<b>391</b>	<b>203</b>	<b>700</b>	<b>625</b>	<b>1091</b>
<b>Day Total</b>			<b>762</b>		<b>843</b>		<b>1605</b>			<b>813</b>		<b>903</b>		<b>1716</b>	
<b>% Total</b>			<b>25.1%</b>	<b>22.4%</b>	<b>10.7%</b>	<b>41.8%</b>				<b>24.6%</b>	<b>22.8%</b>	<b>11.8%</b>	<b>40.8%</b>		
<b>Peak</b>			<b>06:45</b>	<b>04:45</b>	<b>10:45</b>	<b>05:00</b>	<b>07:00</b>	<b>04:45</b>		<b>07:00</b>	<b>00:45</b>	<b>11:00</b>	<b>05:45</b>	<b>07:00</b>	<b>05:45</b>
<b>Vol.</b>			<b>82</b>	<b>56</b>	<b>48</b>	<b>106</b>	<b>104</b>	<b>154</b>		<b>89</b>	<b>53</b>	<b>47</b>	<b>103</b>	<b>122</b>	<b>149</b>
<b>P.H.F.</b>			<b>0.891</b>	<b>0.824</b>	<b>0.857</b>	<b>0.883</b>	<b>0.867</b>	<b>0.875</b>		<b>0.890</b>	<b>0.883</b>	<b>0.839</b>	<b>0.805</b>	<b>0.871</b>	<b>0.847</b>

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

Start Time	14-Nov-11 Mon	15-Nov-11 Tue	16-Nov-11 Wed	17-Nov-11 Thu	18-Nov-11 Fri	19-Nov-11 Sat	20-Nov-11 Sun	Week Average
12:00 AM	*	11	8	*	*	*	*	10
01:00	*	3	4	*	*	*	*	4
02:00	*	0	3	*	*	*	*	2
03:00	*	4	5	*	*	*	*	4
04:00	*	11	12	*	*	*	*	12
05:00	*	34	46	*	*	*	*	40
06:00	*	78	68	*	*	*	*	73
07:00	*	<b>104</b>	<b>122</b>	*	*	*	*	<b>113</b>
08:00	*	86	104	*	*	*	*	95
09:00	*	80	82	*	*	*	*	81
10:00	*	69	82	*	*	*	*	76
11:00	*	95	89	*	*	*	*	92
12:00 PM	*	82	103	*	*	*	*	92
01:00	*	85	98	*	*	*	*	92
02:00	*	103	121	*	*	*	*	112
03:00	*	138	129	*	*	*	*	134
04:00	*	145	130	*	*	*	*	138
05:00	*	<b>154</b>	<b>139</b>	*	*	*	*	<b>146</b>
06:00	*	113	124	*	*	*	*	118
07:00	*	60	79	*	*	*	*	70
08:00	*	72	63	*	*	*	*	68
09:00	*	42	54	*	*	*	*	48
10:00	*	21	28	*	*	*	*	24
11:00	*	15	23	*	*	*	*	19
Total	0	1605	1716	0	0	0	0	1663
Percentage	0.0%	96.5%	103.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00					07:00
Vol.		104	122					113
PM Peak		17:00	17:00					17:00
Vol.		154	139					146

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 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

**NB**

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
11/15/1																												
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
04:00	0	1	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
05:00	0	1	2	22	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	
06:00	0	0	11	35	19	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	
07:00	0	1	12	39	27	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	
08:00	1	0	9	38	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	
09:00	2	1	12	26	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	
10:00	0	0	9	20	8	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	
11:00	0	0	6	31	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	
12 PM	0	2	4	25	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	
13:00	0	0	11	18	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	
14:00	0	1	12	25	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	
15:00	3	1	18	20	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	
16:00	4	2	11	23	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	
17:00	2	0	7	23	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	
18:00	1	0	3	19	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	
19:00	0	0	4	15	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	
20:00	0	0	0	15	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	
21:00	0	0	3	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
22:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
23:00	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
<b>Total</b>	<b>13</b>	<b>10</b>	<b>140</b>	<b>407</b>	<b>173</b>	<b>16</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>762</b>	

Daily

15th Percentile : 22 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 32 MPH  
 95th Percentile : 34 MPH

Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 556  
 Percent in Pace : 73.0%  
 Number of Vehicles > 25 MPH : 556  
 Percent of Vehicles > 25 MPH : 72.9%



**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

**NB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/16/1															
1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
03:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3
04:00	0	0	3	3	3	0	0	0	0	0	0	0	0	0	9
05:00	1	1	7	21	8	2	0	0	0	0	0	0	0	0	40
06:00	2	1	16	27	14	4	0	0	0	0	0	0	0	0	64
07:00	0	0	11	51	26	1	0	0	0	0	0	0	0	0	89
08:00	1	1	16	39	21	1	0	0	0	0	0	0	0	0	79
09:00	0	1	7	26	13	1	0	0	0	0	0	0	0	0	48
10:00	0	0	2	24	16	0	0	0	0	0	0	0	0	0	42
11:00	1	2	8	24	7	0	0	0	0	0	0	0	0	0	42
12 PM	0	0	14	24	8	3	0	0	0	0	0	0	0	0	49
13:00	0	0	12	27	9	0	0	0	0	0	0	0	0	0	48
14:00	1	1	8	29	9	1	0	0	0	0	0	0	0	0	49
15:00	1	1	7	17	11	1	0	0	0	0	0	0	0	0	38
16:00	0	2	8	28	7	1	0	0	0	0	0	0	0	0	46
17:00	1	1	8	28	7	0	0	0	0	0	0	0	0	0	45
18:00	1	2	15	17	2	0	0	0	0	0	0	0	0	0	37
19:00	1	0	10	11	4	0	0	0	0	0	0	0	0	0	26
20:00	1	0	3	10	5	0	0	0	0	0	0	0	0	0	19
21:00	1	0	1	8	3	0	0	0	0	0	0	0	0	0	13
22:00	0	1	2	9	1	0	0	0	0	0	0	0	0	0	13
23:00	0	0	3	4	1	0	0	0	0	0	0	0	0	0	8
<b>Total</b>	<b>12</b>	<b>14</b>	<b>162</b>	<b>431</b>	<b>179</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>813</b>

Daily  
 15th Percentile : 22 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 31 MPH  
 95th Percentile : 34 MPH  
  
 Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 591  
 Percent in Pace : 72.7%  
 Number of Vehicles > 25 MPH : 581  
 Percent of Vehicles > 25 MPH : 71.4%

<b>Grand Total</b>	<b>25</b>	<b>24</b>	<b>302</b>	<b>838</b>	<b>352</b>	<b>31</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1575</b>
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Overall  
 15th Percentile : 22 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 32 MPH  
 95th Percentile : 34 MPH  
  
 Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 1147  
 Percent in Pace : 72.8%  
 Number of Vehicles > 25 MPH : 1137  
 Percent of Vehicles > 25 MPH : 72.2%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

**SB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/15/1															
1	0	0	1	4	3	1	0	0	0	0	0	0	0	0	9
01:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4
06:00	0	0	4	4	1	1	0	0	0	0	0	0	0	0	10
07:00	0	0	6	7	10	1	0	0	0	0	0	0	0	0	24
08:00	0	0	0	13	8	1	0	0	0	0	0	0	0	0	22
09:00	1	0	4	10	8	2	0	0	0	0	0	0	0	0	25
10:00	0	0	2	15	11	1	0	0	0	0	0	0	0	0	29
11:00	0	1	5	26	13	0	0	0	0	0	0	0	0	0	45
12 PM	0	0	4	27	11	3	0	0	0	0	0	0	0	0	45
13:00	0	0	9	20	15	2	1	0	0	0	0	0	0	0	47
14:00	3	3	6	26	19	4	0	0	0	0	0	0	0	0	61
15:00	5	2	20	44	17	2	0	0	0	0	0	0	0	0	90
16:00	2	2	16	45	26	3	0	0	0	0	0	0	0	0	94
17:00	1	0	12	50	40	3	0	0	0	0	0	0	0	0	106
18:00	0	0	8	47	19	9	0	0	0	0	0	0	0	0	83
19:00	0	0	2	19	15	1	0	0	0	0	0	0	0	0	37
20:00	3	1	5	16	24	1	0	0	0	0	0	0	0	0	50
21:00	0	1	1	11	13	2	1	0	0	0	0	0	0	0	29
22:00	0	0	1	10	6	0	1	0	0	0	0	0	0	0	18
23:00	0	0	0	7	2	2	0	0	0	0	0	0	0	0	11
Total	15	10	107	406	263	39	3	0	0	0	0	0	0	0	843

Daily

15th Percentile : 23 MPH  
 50th Percentile : 28 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 29 MPH  
 10 MPH Pace Speed : 25-34 MPH  
 Number in Pace : 605  
 Percent in Pace : 71.8%  
 Number of Vehicles > 25 MPH : 662  
 Percent of Vehicles > 25 MPH : 78.5%

**Old Colony Planning Council**  
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Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

**SB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/16/1															
1	0	0	1	5	0	0	0	0	0	0	0	0	0	0	6
01:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
05:00	0	0	1	2	3	0	0	0	0	0	0	0	0	0	6
06:00	0	0	0	1	2	1	0	0	0	0	0	0	0	0	4
07:00	2	0	3	16	11	1	0	0	0	0	0	0	0	0	33
08:00	1	0	2	16	5	1	0	0	0	0	0	0	0	0	25
09:00	0	1	2	18	11	2	0	0	0	0	0	0	0	0	34
10:00	0	0	5	26	8	1	0	0	0	0	0	0	0	0	40
11:00	1	2	3	21	15	4	1	0	0	0	0	0	0	0	47
12 PM	1	0	14	22	15	1	1	0	0	0	0	0	0	0	54
13:00	0	0	7	23	20	0	0	0	0	0	0	0	0	0	50
14:00	3	0	10	31	26	2	0	0	0	0	0	0	0	0	72
15:00	3	3	10	43	29	3	0	0	0	0	0	0	0	0	91
16:00	0	2	11	47	22	2	0	0	0	0	0	0	0	0	84
17:00	1	2	14	62	13	2	0	0	0	0	0	0	0	0	94
18:00	1	5	26	41	14	0	0	0	0	0	0	0	0	0	87
19:00	0	0	3	32	16	2	0	0	0	0	0	0	0	0	53
20:00	0	0	9	25	9	0	1	0	0	0	0	0	0	0	44
21:00	0	2	0	24	15	0	0	0	0	0	0	0	0	0	41
22:00	0	1	2	8	3	1	0	0	0	0	0	0	0	0	15
23:00	0	1	1	9	2	2	0	0	0	0	0	0	0	0	15
<b>Total</b>	<b>13</b>	<b>19</b>	<b>124</b>	<b>477</b>	<b>240</b>	<b>27</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>903</b>

Daily

15th Percentile : 23 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 32 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 25-34 MPH  
 Number in Pace : 657  
 Percent in Pace : 72.8%  
 Number of Vehicles > 25 MPH : 689  
 Percent of Vehicles > 25 MPH : 76.4%

<b>Grand Total</b>	<b>28</b>	<b>29</b>	<b>231</b>	<b>883</b>	<b>503</b>	<b>66</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1746</b>
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Overall

15th Percentile : 23 MPH  
 50th Percentile : 28 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 25-34 MPH  
 Number in Pace : 1261  
 Percent in Pace : 72.2%  
 Number of Vehicles > 25 MPH : 1351  
 Percent of Vehicles > 25 MPH : 77.4%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

**NB, SB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/15/1															
1	0	0	1	5	4	1	0	0	0	0	0	0	0	0	11
01:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	0	3	0	0	0	0	0	0	0	0	0	4
04:00	0	1	3	6	1	0	0	0	0	0	0	0	0	0	11
05:00	0	1	3	24	5	1	0	0	0	0	0	0	0	0	34
06:00	0	0	15	39	20	3	1	0	0	0	0	0	0	0	78
07:00	0	1	18	46	37	2	0	0	0	0	0	0	0	0	104
08:00	1	0	9	51	22	3	0	0	0	0	0	0	0	0	86
09:00	3	1	16	36	22	2	0	0	0	0	0	0	0	0	80
10:00	0	0	11	35	19	2	2	0	0	0	0	0	0	0	69
11:00	0	1	11	57	26	0	0	0	0	0	0	0	0	0	95
12 PM	0	2	8	52	16	4	0	0	0	0	0	0	0	0	82
13:00	0	0	20	38	22	4	1	0	0	0	0	0	0	0	85
14:00	3	4	18	51	23	4	0	0	0	0	0	0	0	0	103
15:00	8	3	38	64	22	3	0	0	0	0	0	0	0	0	138
16:00	6	4	27	68	37	3	0	0	0	0	0	0	0	0	145
17:00	3	0	19	73	55	4	0	0	0	0	0	0	0	0	154
18:00	1	0	11	66	26	9	0	0	0	0	0	0	0	0	113
19:00	0	0	6	34	17	3	0	0	0	0	0	0	0	0	60
20:00	3	1	5	31	30	2	0	0	0	0	0	0	0	0	72
21:00	0	1	4	16	17	3	1	0	0	0	0	0	0	0	42
22:00	0	0	2	11	7	0	1	0	0	0	0	0	0	0	21
23:00	0	0	1	8	4	2	0	0	0	0	0	0	0	0	15
<b>Total</b>	<b>28</b>	<b>20</b>	<b>247</b>	<b>813</b>	<b>436</b>	<b>55</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1605</b>

Daily

15th Percentile : 23 MPH  
 50th Percentile : 28 MPH  
 85th Percentile : 32 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 25-34 MPH  
 Number in Pace : 1150  
 Percent in Pace : 71.7%  
 Number of Vehicles > 25 MPH : 1218  
 Percent of Vehicles > 25 MPH : 75.9%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

**NB, SB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/16/1															
1	0	0	1	6	1	0	0	0	0	0	0	0	0	0	8
01:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4
02:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
03:00	0	0	1	3	1	0	0	0	0	0	0	0	0	0	5
04:00	0	0	3	5	4	0	0	0	0	0	0	0	0	0	12
05:00	1	1	8	23	11	2	0	0	0	0	0	0	0	0	46
06:00	2	1	16	28	16	5	0	0	0	0	0	0	0	0	68
07:00	2	0	14	67	37	2	0	0	0	0	0	0	0	0	122
08:00	2	1	18	55	26	2	0	0	0	0	0	0	0	0	104
09:00	0	2	9	44	24	3	0	0	0	0	0	0	0	0	82
10:00	0	0	7	50	24	1	0	0	0	0	0	0	0	0	82
11:00	2	4	11	45	22	4	1	0	0	0	0	0	0	0	89
12 PM	1	0	28	46	23	4	1	0	0	0	0	0	0	0	103
13:00	0	0	19	50	29	0	0	0	0	0	0	0	0	0	98
14:00	4	1	18	60	35	3	0	0	0	0	0	0	0	0	121
15:00	4	4	17	60	40	4	0	0	0	0	0	0	0	0	129
16:00	0	4	19	75	29	3	0	0	0	0	0	0	0	0	130
17:00	2	3	22	90	20	2	0	0	0	0	0	0	0	0	139
18:00	2	7	41	58	16	0	0	0	0	0	0	0	0	0	124
19:00	1	0	13	43	20	2	0	0	0	0	0	0	0	0	79
20:00	1	0	12	35	14	0	1	0	0	0	0	0	0	0	63
21:00	1	2	1	32	18	0	0	0	0	0	0	0	0	0	54
22:00	0	2	4	17	4	1	0	0	0	0	0	0	0	0	28
23:00	0	1	4	13	3	2	0	0	0	0	0	0	0	0	23
<b>Total</b>	<b>25</b>	<b>33</b>	<b>286</b>	<b>908</b>	<b>419</b>	<b>42</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1716</b>

Daily

15th Percentile : 22 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 32 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 1247  
 Percent in Pace : 72.7%  
 Number of Vehicles > 25 MPH : 1270  
 Percent of Vehicles > 25 MPH : 74.0%

<b>Grand Total</b>	<b>53</b>	<b>53</b>	<b>533</b>	<b>1721</b>	<b>855</b>	<b>97</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3321</b>
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Overall

15th Percentile : 23 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 32 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 2397  
 Percent in Pace : 72.2%  
 Number of Vehicles > 25 MPH : 2488  
 Percent of Vehicles > 25 MPH : 74.9%





**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

SB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total	Truck Total
11/15/11	0	6	2	0	1	0	0	0	0	0	0	0	0	9	1
01:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
05:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
06:00	0	3	3	2	2	0	0	0	0	0	0	0	0	10	4
07:00	0	15	7	1	1	0	0	0	0	0	0	0	0	24	2
08:00	0	15	5	0	2	0	0	0	0	0	0	0	0	22	2
09:00	0	17	5	0	3	0	0	0	0	0	0	0	0	25	3
10:00	0	18	8	0	3	0	0	0	0	0	0	0	0	29	3
11:00	0	27	15	0	3	0	0	0	0	0	0	0	0	45	3
12 PM	0	33	8	0	4	0	0	0	0	0	0	0	0	45	4
13:00	1	29	11	0	6	0	0	0	0	0	0	0	0	47	6
14:00	0	37	14	1	8	0	0	0	0	0	0	0	0	60	9
15:00	0	59	20	2	7	0	0	1	0	0	0	0	0	89	10
16:00	0	64	17	1	12	0	0	0	0	0	0	0	0	94	13
17:00	0	73	24	0	8	1	0	0	0	0	0	0	0	106	9
18:00	0	60	20	0	3	0	0	0	0	0	0	0	0	83	3
19:00	0	31	5	0	1	0	0	0	0	0	0	0	0	37	1
20:00	0	29	15	0	5	0	0	0	0	0	0	0	0	49	5
21:00	0	21	7	0	1	0	0	0	0	0	0	0	0	29	1
22:00	0	14	3	0	1	0	0	0	0	0	0	0	0	18	1
23:00	0	5	3	0	3	0	0	0	0	0	0	0	0	11	3
Total	1	562	193	7	75	1	0	1	0	0	0	0	0	840	84
Percent	0.1%	66.9%	23.0%	0.8%	8.9%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%		10.0%
AM Peak		11:00	11:00	06:00	09:00									11:00	06:00
Vol.		27	15	2	3									45	4
PM Peak	13:00	17:00	17:00	15:00	16:00	17:00		15:00						17:00	16:00
Vol.	1	73	24	2	12	1		1						106	13





**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #6  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Kristin Rd, south of Plympton Rd (80)

NB, SB	Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total	Truck Total
	11/15/11	0	8	2	0	1	0	0	0	0	0	0	0	0	11	1
	01:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3	1
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	3	0	0	1	0	0	0	0	0	0	0	0	4	1
	04:00	0	7	4	0	0	0	0	0	0	0	0	0	0	11	0
	05:00	0	22	11	0	1	0	0	0	0	0	0	0	0	34	1
	06:00	0	54	14	4	6	0	0	0	0	0	0	0	0	78	10
	07:00	0	80	20	2	2	0	0	0	0	0	0	0	0	104	4
	08:00	0	63	19	1	3	0	0	0	0	0	0	0	0	86	4
	09:00	0	62	15	0	3	0	0	0	0	0	0	0	0	80	3
	10:00	1	47	18	0	3	0	0	0	0	0	0	0	0	69	3
	11:00	0	62	27	0	6	0	0	0	0	0	0	0	0	95	6
	12 PM	0	61	14	1	6	0	0	0	0	0	0	0	0	82	7
	13:00	1	58	18	0	8	0	0	0	0	0	0	0	0	85	8
	14:00	0	62	25	3	11	1	0	0	0	0	0	0	0	102	15
	15:00	1	90	30	5	9	0	0	1	0	0	0	0	0	136	15
	16:00	0	103	26	1	15	0	0	0	0	0	0	0	0	145	16
	17:00	0	111	34	0	8	1	0	0	0	0	0	0	0	154	9
	18:00	0	80	25	0	8	0	0	0	0	0	0	0	0	113	8
	19:00	0	48	11	0	1	0	0	0	0	0	0	0	0	60	1
	20:00	0	46	19	0	6	0	0	0	0	0	0	0	0	71	6
	21:00	0	33	8	0	1	0	0	0	0	0	0	0	0	42	1
	22:00	0	15	5	0	1	0	0	0	0	0	0	0	0	21	1
	23:00	0	8	4	0	3	0	0	0	0	0	0	0	0	15	3
	Total	3	1124	350	17	104	2	0	1	0	0	0	0	0	1601	124
	Percent	0.2%	70.2%	21.9%	1.1%	6.5%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%		7.7%
	AM Peak	10:00	07:00	11:00	06:00	06:00									07:00	06:00
	Vol.	1	80	27	4	6									104	10
	PM Peak	13:00	17:00	17:00	15:00	16:00	14:00		15:00						17:00	16:00
	Vol.	1	111	34	5	15	1		1						154	16





**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

Start Time	14-Nov-11		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	1	0	0	0	*	*	*	*	*	*	*	*	0	0
01:00	*	*	2	0	0	1	*	*	*	*	*	*	*	*	1	0
02:00	*	*	0	0	0	0	*	*	*	*	*	*	*	*	0	0
03:00	*	*	1	1	0	1	*	*	*	*	*	*	*	*	0	1
04:00	*	*	0	6	0	11	*	*	*	*	*	*	*	*	0	8
05:00	*	*	1	18	1	11	*	*	*	*	*	*	*	*	1	14
06:00	*	*	5	21	7	22	*	*	*	*	*	*	*	*	6	22
07:00	*	*	15	42	15	37	*	*	*	*	*	*	*	*	15	40
08:00	*	*	12	49	18	42	*	*	*	*	*	*	*	*	15	46
09:00	*	*	20	24	14	24	*	*	*	*	*	*	*	*	17	24
10:00	*	*	24	23	16	21	*	*	*	*	*	*	*	*	20	22
11:00	*	*	12	20	23	12	*	*	*	*	*	*	*	*	18	16
12:00 PM	*	*	28	17	26	19	*	*	*	*	*	*	*	*	27	18
01:00	*	*	20	20	29	21	*	*	*	*	*	*	*	*	24	20
02:00	*	*	40	22	40	25	*	*	*	*	*	*	*	*	40	24
03:00	*	*	58	38	37	21	*	*	*	*	*	*	*	*	48	30
04:00	*	*	48	21	57	22	*	*	*	*	*	*	*	*	52	22
05:00	*	*	49	17	52	15	*	*	*	*	*	*	*	*	50	16
06:00	*	*	28	13	38	17	*	*	*	*	*	*	*	*	33	15
07:00	*	*	28	6	24	9	*	*	*	*	*	*	*	*	26	8
08:00	*	*	17	4	17	9	*	*	*	*	*	*	*	*	17	6
09:00	*	*	8	3	13	4	*	*	*	*	*	*	*	*	10	4
10:00	*	*	2	2	5	1	*	*	*	*	*	*	*	*	4	2
11:00	*	*	5	1	5	2	*	*	*	*	*	*	*	*	5	2
Total	0	0	424	368	437	347	0	0	0	0	0	0	0	0	429	360
Day	0	0	792		784		0	0	0	0	0	0	0	0	789	
AM Peak			10:00	08:00	11:00	08:00									10:00	08:00
Vol.			24	49	23	42									20	46
PM Peak			15:00	15:00	16:00	14:00									16:00	15:00
Vol.			58	38	57	25									52	30
Comb. Total	0	0	792		784		0	0	0	0	0	0	0	0	789	

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

Start Time	15-Nov-11 Tue		SB		NB		Combined		16-Nov-11 Wed		SB		NB		Combined	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	1	10	0	3	1	13	0	10	0	2	0	12				
12:15	0	9	0	5	0	14	0	10	0	2	0	12				
12:30	0	6	0	4	0	10	0	5	0	8	0	13				
12:45	0	3	0	5	0	8	0	1	0	7	0	8				
01:00	0	8	0	4	0	12	0	8	0	6	0	14				
01:15	1	8	0	6	1	14	0	6	0	7	0	13				
01:30	1	1	0	5	1	6	0	8	0	3	0	11				
01:45	0	3	0	5	0	8	0	7	1	5	1	12				
02:00	0	9	0	2	0	11	0	12	0	5	0	17				
02:15	0	9	0	8	0	17	0	8	0	7	0	15				
02:30	0	13	0	5	0	18	0	9	0	3	0	12				
02:45	0	9	0	7	0	16	0	11	0	10	0	21				
03:00	0	11	0	13	0	24	0	7	0	5	0	12				
03:15	0	13	0	13	0	26	0	4	0	5	0	9				
03:30	1	20	1	8	2	28	0	13	0	3	0	16				
03:45	0	14	0	4	0	18	0	13	1	8	1	21				
04:00	0	13	1	4	1	17	0	19	2	6	2	25				
04:15	0	10	0	4	0	14	0	17	0	10	0	27				
04:30	0	13	2	8	2	21	0	16	0	4	0	20				
04:45	0	12	3	5	3	17	0	5	9	2	9	7				
05:00	0	11	5	2	5	13	0	10	2	4	2	14				
05:15	0	14	2	7	2	21	1	17	3	3	4	20				
05:30	1	17	2	2	3	19	0	9	2	2	2	11				
05:45	0	7	9	6	9	13	0	16	4	6	4	22				
06:00	1	9	7	5	8	14	2	17	6	6	8	23				
06:15	1	6	4	2	5	8	0	6	6	3	6	9				
06:30	3	8	4	2	7	10	4	4	4	3	8	7				
06:45	0	5	6	4	6	9	1	11	6	5	7	16				
07:00	2	6	6	0	8	6	4	2	6	1	10	3				
07:15	3	8	8	1	11	9	1	6	8	2	9	8				
07:30	4	4	14	4	18	8	5	5	8	3	13	8				
07:45	6	10	14	1	20	11	5	11	15	3	20	14				
08:00	2	5	8	0	10	5	2	2	9	2	11	4				
08:15	3	4	13	2	16	6	4	5	10	5	14	10				
08:30	3	3	18	0	21	3	2	8	10	2	12	10				
08:45	4	5	10	2	14	7	10	2	13	0	23	2				
09:00	2	2	3	0	5	2	4	4	7	0	11	4				
09:15	5	3	12	1	17	4	3	3	9	2	12	5				
09:30	7	1	3	2	10	3	3	2	7	1	10	3				
09:45	6	2	6	0	12	2	4	4	1	1	5	5				
10:00	8	0	9	1	17	1	1	3	6	1	7	4				
10:15	5	1	3	1	8	2	1	1	5	0	6	1				
10:30	5	0	5	0	10	0	10	0	2	0	12	0				
10:45	6	1	6	0	12	1	4	1	8	0	12	1				
11:00	1	4	6	0	7	4	3	1	5	1	8	2				
11:15	2	0	10	0	12	0	5	0	1	1	6	1				
11:30	4	0	2	0	6	0	7	3	5	0	12	3				
11:45	5	1	2	1	7	2	8	1	1	0	9	1				
<b>Total</b>	<b>93</b>	<b>331</b>	<b>204</b>	<b>164</b>	<b>297</b>	<b>495</b>	<b>94</b>	<b>343</b>	<b>182</b>	<b>165</b>	<b>276</b>	<b>508</b>				
<b>Day Total</b>	<b>424</b>		<b>368</b>		<b>792</b>		<b>437</b>		<b>347</b>		<b>784</b>					
<b>% Total</b>	<b>11.7%</b>	<b>41.8%</b>	<b>25.8%</b>	<b>20.7%</b>			<b>12.0%</b>	<b>43.8%</b>	<b>23.2%</b>	<b>21.0%</b>						
<b>Peak</b>	<b>09:15</b>	<b>03:15</b>	<b>07:45</b>	<b>02:45</b>	<b>07:45</b>	<b>03:00</b>	<b>11:00</b>	<b>03:45</b>	<b>07:45</b>	<b>00:30</b>	<b>08:00</b>	<b>03:45</b>				
<b>Vol.</b>	<b>26</b>	<b>60</b>	<b>53</b>	<b>41</b>	<b>67</b>	<b>96</b>	<b>23</b>	<b>65</b>	<b>44</b>	<b>28</b>	<b>60</b>	<b>93</b>				
<b>P.H.F.</b>	<b>0.813</b>	<b>0.750</b>	<b>0.736</b>	<b>0.788</b>	<b>0.798</b>	<b>0.857</b>	<b>0.719</b>	<b>0.855</b>	<b>0.733</b>	<b>0.875</b>	<b>0.652</b>	<b>0.861</b>				

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

Start Time	14-Nov-11 Mon	15-Nov-11 Tue	16-Nov-11 Wed	17-Nov-11 Thu	18-Nov-11 Fri	19-Nov-11 Sat	20-Nov-11 Sun	Week Average
12:00 AM	*	1	0	*	*	*	*	0
01:00	*	2	1	*	*	*	*	2
02:00	*	0	0	*	*	*	*	0
03:00	*	2	1	*	*	*	*	2
04:00	*	6	11	*	*	*	*	8
05:00	*	19	12	*	*	*	*	16
06:00	*	26	29	*	*	*	*	28
07:00	*	57	52	*	*	*	*	54
08:00	*	<b>61</b>	<b>60</b>	*	*	*	*	<b>60</b>
09:00	*	44	38	*	*	*	*	41
10:00	*	47	37	*	*	*	*	42
11:00	*	32	35	*	*	*	*	34
12:00 PM	*	45	45	*	*	*	*	45
01:00	*	40	50	*	*	*	*	45
02:00	*	62	65	*	*	*	*	64
03:00	*	<b>96</b>	<b>58</b>	*	*	*	*	<b>77</b>
04:00	*	69	<b>79</b>	*	*	*	*	74
05:00	*	66	67	*	*	*	*	66
06:00	*	41	55	*	*	*	*	48
07:00	*	34	33	*	*	*	*	34
08:00	*	21	26	*	*	*	*	24
09:00	*	11	17	*	*	*	*	14
10:00	*	4	6	*	*	*	*	5
11:00	*	6	7	*	*	*	*	6
Total	0	792	784	0	0	0	0	789
Percentage	0.0%	100.4%	99.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak		08:00	08:00					08:00
Vol.		61	60					60
PM Peak		15:00	16:00					15:00
Vol.		96	79					77

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Community: Plymouth  
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 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

**SB**

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
11/15/1																												
1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
07:00	0	0	2	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
08:00	0	1	3	5	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
09:00	0	5	3	5	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
10:00	4	0	4	11	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
11:00	0	2	3	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
12 PM	0	2	6	7	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
13:00	0	0	8	7	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
14:00	0	0	17	16	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
15:00	2	2	16	23	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
16:00	0	3	9	14	21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
17:00	0	3	11	20	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
18:00	0	0	4	12	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
19:00	0	1	3	18	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
20:00	0	0	3	5	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
21:00	0	0	1	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
22:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
23:00	0	0	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	6	19	99	161	120	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	424

Daily

15th Percentile : 21 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 264  
 Percent in Pace : 62.3%  
 Number of Vehicles > 30 MPH : 139  
 Percent of Vehicles > 30 MPH : 32.8%



**Old Colony Planning Council**  
**70 School Street**  
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Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

**SB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/16/1															
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
06:00	0	1	2	2	2	0	0	0	0	0	0	0	0	0	7
07:00	0	0	4	3	6	2	0	0	0	0	0	0	0	0	15
08:00	0	1	4	6	5	2	0	0	0	0	0	0	0	0	18
09:00	1	0	2	2	8	1	0	0	0	0	0	0	0	0	14
10:00	0	0	8	4	3	1	0	0	0	0	0	0	0	0	16
11:00	0	3	6	7	5	2	0	0	0	0	0	0	0	0	23
12 PM	0	1	7	8	6	4	0	0	0	0	0	0	0	0	26
13:00	1	1	7	11	8	1	0	0	0	0	0	0	0	0	29
14:00	1	1	8	16	13	1	0	0	0	0	0	0	0	0	40
15:00	0	2	7	13	11	4	0	0	0	0	0	0	0	0	37
16:00	0	3	14	24	14	2	0	0	0	0	0	0	0	0	57
17:00	1	3	15	21	9	3	0	0	0	0	0	0	0	0	52
18:00	2	2	15	13	6	0	0	0	0	0	0	0	0	0	38
19:00	0	7	8	6	2	1	0	0	0	0	0	0	0	0	24
20:00	0	2	6	7	2	0	0	0	0	0	0	0	0	0	17
21:00	0	0	5	5	3	0	0	0	0	0	0	0	0	0	13
22:00	0	0	3	2	0	0	0	0	0	0	0	0	0	0	5
23:00	0	0	0	1	3	1	0	0	0	0	0	0	0	0	5
<b>Total</b>	<b>6</b>	<b>27</b>	<b>121</b>	<b>151</b>	<b>107</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>437</b>

Daily

15th Percentile : 20 MPH  
 50th Percentile : 26 MPH  
 85th Percentile : 32 MPH  
 95th Percentile : 36 MPH

Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 23-32 MPH  
 Number in Pace : 256  
 Percent in Pace : 58.6%  
 Number of Vehicles > 30 MPH : 132  
 Percent of Vehicles > 30 MPH : 30.2%

<b>Grand Total</b>	<b>12</b>	<b>46</b>	<b>220</b>	<b>312</b>	<b>227</b>	<b>44</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>861</b>
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Overall

15th Percentile : 20 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 35 MPH

Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 517  
 Percent in Pace : 60.0%  
 Number of Vehicles > 30 MPH : 271  
 Percent of Vehicles > 30 MPH : 31.5%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

**NB**

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
11/15/1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
05:00	1	1	1	4	5	5	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
06:00	0	1	1	7	7	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
07:00	0	1	1	3	20	15	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
08:00	3	2	2	11	21	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
09:00	1	2	2	4	8	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
10:00	1	2	2	5	9	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
11:00	0	1	1	7	8	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
12 PM	0	0	0	5	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
13:00	0	2	2	6	9	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
14:00	0	1	1	7	9	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
15:00	2	2	2	6	15	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
16:00	1	0	0	4	9	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
17:00	0	0	0	4	4	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
18:00	1	0	0	3	1	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
19:00	0	0	0	0	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
20:00	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
21:00	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
22:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
23:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	10	15	15	79	143	94	24	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	368

Daily  
 15th Percentile : 20 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 36 MPH

Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 222  
 Percent in Pace : 60.3%  
 Number of Vehicles > 30 MPH : 122  
 Percent of Vehicles > 30 MPH : 33.1%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

**NB**

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
11/16/1																												
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	3	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
05:00	0	1	2	3	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
06:00	0	1	6	9	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
07:00	0	1	8	10	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
08:00	0	2	11	17	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
09:00	1	3	7	6	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
10:00	0	3	2	13	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
11:00	1	1	2	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
12 PM	1	1	7	5	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
13:00	1	0	7	6	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
14:00	0	0	6	8	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
15:00	0	0	9	5	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
16:00	1	1	4	7	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
17:00	1	1	3	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
18:00	1	3	4	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
19:00	1	1	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
20:00	0	1	1	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
21:00	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23:00	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	9	20	86	122	87	19	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	347

Daily  
 15th Percentile : 19 MPH  
 50th Percentile : 26 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 36 MPH  
 Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 23-32 MPH  
 Number in Pace : 199  
 Percent in Pace : 57.3%  
 Number of Vehicles > 30 MPH : 109  
 Percent of Vehicles > 30 MPH : 31.4%

Grand Total	19	35	165	265	181	43	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	715
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Overall  
 15th Percentile : 20 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 36 MPH  
 Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 420  
 Percent in Pace : 58.7%  
 Number of Vehicles > 30 MPH : 231  
 Percent of Vehicles > 30 MPH : 32.2%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

**SB, NB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
11/15/1															
1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
01:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
04:00	0	0	2	1	2	1	0	0	0	0	0	0	0	0	6
05:00	1	1	5	5	5	1	1	0	0	0	0	0	0	0	19
06:00	0	1	9	8	8	0	0	0	0	0	0	0	0	0	26
07:00	0	1	5	28	20	3	0	0	0	0	0	0	0	0	57
08:00	3	3	14	26	14	1	0	0	0	0	0	0	0	0	61
09:00	1	7	7	13	12	4	0	0	0	0	0	0	0	0	44
10:00	5	2	9	20	10	1	0	0	0	0	0	0	0	0	47
11:00	0	3	10	11	5	3	0	0	0	0	0	0	0	0	32
12 PM	0	2	11	17	15	0	0	0	0	0	0	0	0	0	45
13:00	0	2	14	16	4	4	0	0	0	0	0	0	0	0	40
14:00	0	1	24	25	10	2	0	0	0	0	0	0	0	0	62
15:00	4	4	22	38	25	3	0	0	0	0	0	0	0	0	96
16:00	1	3	13	23	28	1	0	0	0	0	0	0	0	0	69
17:00	0	3	15	24	17	7	0	0	0	0	0	0	0	0	66
18:00	1	0	7	13	15	5	0	0	0	0	0	0	0	0	41
19:00	0	1	3	21	7	1	1	0	0	0	0	0	0	0	34
20:00	0	0	4	6	9	2	0	0	0	0	0	0	0	0	21
21:00	0	0	1	3	5	1	0	1	0	0	0	0	0	0	11
22:00	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
23:00	0	0	1	1	3	1	0	0	0	0	0	0	0	0	6
<b>Total</b>	<b>16</b>	<b>34</b>	<b>178</b>	<b>304</b>	<b>214</b>	<b>43</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>792</b>

Daily

15th Percentile : 21 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 36 MPH

Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 485  
 Percent in Pace : 61.2%  
 Number of Vehicles > 30 MPH : 261  
 Percent of Vehicles > 30 MPH : 33.0%

**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

**SB, NB**

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/16/1															
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:00	0	0	3	6	1	1	0	0	0	0	0	0	0	0	11
05:00	0	1	2	3	3	2	0	1	0	0	0	0	0	0	12
06:00	0	2	8	11	8	0	0	0	0	0	0	0	0	0	29
07:00	0	1	12	13	23	3	0	0	0	0	0	0	0	0	52
08:00	0	3	15	23	15	4	0	0	0	0	0	0	0	0	60
09:00	2	3	9	8	14	2	0	0	0	0	0	0	0	0	38
10:00	0	3	10	17	6	1	0	0	0	0	0	0	0	0	37
11:00	1	4	8	12	8	2	0	0	0	0	0	0	0	0	35
12 PM	1	2	14	13	8	7	0	0	0	0	0	0	0	0	45
13:00	2	1	14	17	14	2	0	0	0	0	0	0	0	0	50
14:00	1	1	14	24	21	3	1	0	0	0	0	0	0	0	65
15:00	0	2	16	18	15	7	0	0	0	0	0	0	0	0	58
16:00	1	4	18	31	21	4	0	0	0	0	0	0	0	0	79
17:00	2	4	18	27	13	3	0	0	0	0	0	0	0	0	67
18:00	3	5	19	17	11	0	0	0	0	0	0	0	0	0	55
19:00	1	8	10	9	4	1	0	0	0	0	0	0	0	0	33
20:00	0	3	7	13	3	0	0	0	0	0	0	0	0	0	26
21:00	0	0	5	8	3	0	0	1	0	0	0	0	0	0	17
22:00	0	0	4	2	0	0	0	0	0	0	0	0	0	0	6
23:00	1	0	0	1	3	1	1	0	0	0	0	0	0	0	7
<b>Total</b>	<b>15</b>	<b>47</b>	<b>207</b>	<b>273</b>	<b>194</b>	<b>44</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>784</b>

Daily  
 15th Percentile : 20 MPH  
 50th Percentile : 26 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 36 MPH  
  
 Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 23-32 MPH  
 Number in Pace : 454  
 Percent in Pace : 57.9%  
 Number of Vehicles > 30 MPH : 241  
 Percent of Vehicles > 30 MPH : 30.7%

<b>Grand Total</b>	<b>31</b>	<b>81</b>	<b>385</b>	<b>577</b>	<b>408</b>	<b>87</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1576</b>
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Overall  
 15th Percentile : 20 MPH  
 50th Percentile : 27 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 36 MPH  
  
 Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 24-33 MPH  
 Number in Pace : 937  
 Percent in Pace : 59.5%  
 Number of Vehicles > 30 MPH : 502  
 Percent of Vehicles > 30 MPH : 31.8%





**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

NB	Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total	Truck Total
	11/15/11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1
	04:00	0	3	2	0	1	0	0	0	0	0	0	0	0	6	1
	05:00	0	13	4	0	1	0	0	0	0	0	0	0	0	18	1
	06:00	0	15	4	0	2	0	0	0	0	0	0	0	0	21	2
	07:00	0	25	16	0	1	0	0	0	0	0	0	0	0	42	1
	08:00	0	27	18	2	2	0	0	0	0	0	0	0	0	49	4
	09:00	0	12	8	0	2	1	0	1	0	0	0	0	0	24	4
	10:00	0	14	8	0	1	0	0	0	0	0	0	0	0	23	1
	11:00	0	8	8	0	4	0	0	0	0	0	0	0	0	20	4
	12 PM	0	8	7	1	1	0	0	0	0	0	0	0	0	17	2
	13:00	0	15	5	0	0	0	0	0	0	0	0	0	0	20	0
	14:00	0	18	4	0	0	0	0	0	0	0	0	0	0	22	0
	15:00	0	20	14	1	3	0	0	0	0	0	0	0	0	38	4
	16:00	0	11	6	0	3	0	0	1	0	0	0	0	0	21	4
	17:00	0	10	6	0	1	0	0	0	0	0	0	0	0	17	1
	18:00	0	9	3	0	1	0	0	0	0	0	0	0	0	13	1
	19:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6	0
	20:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
	21:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
	22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0
	23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
	Total	0	222	115	4	24	1	0	2	0	0	0	0	0	368	31
	Percent	0.0%	60.3%	31.3%	1.1%	6.5%	0.3%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%		8.4%
	AM Peak		08:00	08:00	08:00	11:00	09:00		09:00						08:00	08:00
	Vol.		27	18	2	4	1		1						49	4
	PM Peak		15:00	15:00	12:00	15:00			16:00						15:00	15:00
	Vol.		20	14	1	3			1						38	4





**Old Colony Planning Council**  
**70 School Street**  
**Brockton, MA 02301**  
**(508) 583-1833**  
**www.ocpcrpa.org**

Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

SB, NB	Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total	Truck Total
	11/15/11	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
	01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	2
	04:00	0	3	2	0	1	0	0	0	0	0	0	0	0	6	1
	05:00	0	14	4	0	1	0	0	0	0	0	0	0	0	19	1
	06:00	0	18	6	0	2	0	0	0	0	0	0	0	0	26	2
	07:00	0	34	22	0	1	0	0	0	0	0	0	0	0	57	1
	08:00	0	31	25	2	3	0	0	0	0	0	0	0	0	61	5
	09:00	0	17	20	1	3	1	0	2	0	0	0	0	0	44	7
	10:00	1	28	14	0	4	0	0	0	0	0	0	0	0	47	4
	11:00	0	12	16	0	4	0	0	0	0	0	0	0	0	32	4
	12 PM	0	26	14	1	4	0	0	0	0	0	0	0	0	45	5
	13:00	0	29	11	0	0	0	0	0	0	0	0	0	0	40	0
	14:00	0	44	18	0	0	0	0	0	0	0	0	0	0	62	0
	15:00	0	54	30	5	7	0	0	0	0	0	0	0	0	96	12
	16:00	0	38	20	0	10	0	0	1	0	0	0	0	0	69	11
	17:00	1	40	19	0	6	0	0	0	0	0	0	0	0	66	6
	18:00	0	26	13	0	2	0	0	0	0	0	0	0	0	41	2
	19:00	0	25	8	0	1	0	0	0	0	0	0	0	0	34	1
	20:00	0	16	5	0	0	0	0	0	0	0	0	0	0	21	0
	21:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11	0
	22:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4	0
	23:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0
	Total	2	475	251	10	50	1	0	3	0	0	0	0	0	792	64
	Percent	0.3%	60.0%	31.7%	1.3%	6.3%	0.1%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%		8.1%
	AM Peak	10:00	07:00	08:00	08:00	10:00	09:00		09:00						08:00	09:00
	Vol.	1	34	25	2	4	1		2						61	7
	PM Peak	17:00	15:00	15:00	15:00	16:00			16:00						15:00	15:00
	Vol.	1	54	30	5	10			1						96	12

**Old Colony Planning Council**  
**70 School Street**  
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Community: Plymouth  
 Com#\_UR/FC: 239\_U0  
 Recorder #: Jamar #16  
 Layout: L6 Basic (2')

Station ID:  
 Site Code: 239  
 Date Start: 15-Nov-11  
 Date End: 16-Nov-11  
 Charlotte Dr, south of Plympton Rd (80)

SB, NB	Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total	Truck Total
	11/16/11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1
	04:00	0	6	3	0	2	0	0	0	0	0	0	0	0	11	2
	05:00	0	7	5	0	0	0	0	0	0	0	0	0	0	12	0
	06:00	0	18	8	0	3	0	0	0	0	0	0	0	0	29	3
	07:00	0	26	23	0	3	0	0	0	0	0	0	0	0	52	3
	08:00	0	35	17	2	6	0	0	0	0	0	0	0	0	60	8
	09:00	0	27	7	0	4	0	0	0	0	0	0	0	0	38	4
	10:00	0	19	15	0	3	0	0	0	0	0	0	0	0	37	3
	11:00	0	18	10	2	3	2	0	0	0	0	0	0	0	35	7
	12 PM	0	26	13	1	5	0	0	0	0	0	0	0	0	45	6
	13:00	0	30	13	4	2	1	0	0	0	0	0	0	0	50	7
	14:00	0	44	18	0	3	0	0	0	0	0	0	0	0	65	3
	15:00	0	32	24	0	2	0	0	0	0	0	0	0	0	58	2
	16:00	0	41	34	0	4	0	0	0	0	0	0	0	0	79	4
	17:00	2	40	20	0	5	0	0	0	0	0	0	0	0	67	5
	18:00	0	32	21	0	2	0	0	0	0	0	0	0	0	55	2
	19:00	0	21	9	0	3	0	0	0	0	0	0	0	0	33	3
	20:00	0	12	13	0	1	0	0	0	0	0	0	0	0	26	1
	21:00	0	13	2	0	2	0	0	0	0	0	0	0	0	17	2
	22:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6	0
	23:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0
	<b>Total</b>	<b>2</b>	<b>459</b>	<b>257</b>	<b>9</b>	<b>54</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>784</b>	<b>66</b>
	<b>Percent</b>	<b>0.3%</b>	<b>58.5%</b>	<b>32.8%</b>	<b>1.1%</b>	<b>6.9%</b>	<b>0.4%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>		<b>8.4%</b>
	<b>AM Peak</b>		<b>08:00</b>	<b>07:00</b>	<b>08:00</b>	<b>08:00</b>	<b>11:00</b>								<b>08:00</b>	<b>08:00</b>
	<b>Vol.</b>		<b>35</b>	<b>23</b>	<b>2</b>	<b>6</b>	<b>2</b>								<b>60</b>	<b>8</b>
	<b>PM Peak</b>	<b>17:00</b>	<b>14:00</b>	<b>16:00</b>	<b>13:00</b>	<b>12:00</b>	<b>13:00</b>								<b>16:00</b>	<b>13:00</b>
	<b>Vol.</b>	<b>2</b>	<b>44</b>	<b>34</b>	<b>4</b>	<b>5</b>	<b>1</b>								<b>79</b>	<b>7</b>
	<b>Grand Total</b>	<b>4</b>	<b>934</b>	<b>508</b>	<b>19</b>	<b>104</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1576</b>	<b>130</b>
	<b>Percent</b>	<b>0.3%</b>	<b>59.3%</b>	<b>32.2%</b>	<b>1.2%</b>	<b>6.6%</b>	<b>0.3%</b>	<b>0.0%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>		<b>8.2%</b>



Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06  
 Esta Rd, north of Carver Rd

Start Time	11-Sep-06		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	3	2	2	3	*	*	*	*	*	*	2	2
01:00	*	*	*	*	1	2	2	2	*	*	*	*	*	*	2	2
02:00	*	*	*	*	0	2	1	0	*	*	*	*	*	*	0	1
03:00	*	*	*	*	0	0	0	0	*	*	*	*	*	*	0	0
04:00	*	*	*	*	1	1	3	1	*	*	*	*	*	*	2	1
05:00	*	*	*	*	6	0	4	3	*	*	*	*	*	*	5	2
06:00	*	*	*	*	29	9	25	7	*	*	*	*	*	*	27	8
07:00	*	*	*	*	25	20	20	13	*	*	*	*	*	*	22	16
08:00	*	*	*	*	32	11	40	12	*	*	*	*	*	*	36	12
09:00	*	*	*	*	17	16	30	19	*	*	*	*	*	*	24	18
10:00	*	*	*	*	15	15	24	16	*	*	*	*	*	*	20	16
11:00	*	*	*	*	20	22	15	21	*	*	*	*	*	*	18	22
12:00 PM	*	*	*	*	27	18	25	23	*	*	*	*	*	*	26	20
01:00	*	*	*	*	28	16	21	18	*	*	*	*	*	*	24	17
02:00	*	*	*	*	31	25	33	29	*	*	*	*	*	*	32	27
03:00	*	*	*	*	27	29	35	31	*	*	*	*	*	*	31	30
04:00	*	*	*	*	25	30	22	33	*	*	*	*	*	*	24	32
05:00	*	*	*	*	33	33	23	27	*	*	*	*	*	*	28	30
06:00	*	*	*	*	23	30	19	21	*	*	*	*	*	*	21	26
07:00	*	*	*	*	24	19	12	22	*	*	*	*	*	*	18	20
08:00	*	*	*	*	15	16	12	16	*	*	*	*	*	*	14	16
09:00	*	*	*	*	14	15	9	9	*	*	*	*	*	*	12	12
10:00	*	*	*	*	5	10	5	4	*	*	*	*	*	*	5	7
11:00	*	*	*	*	5	3	6	6	*	*	*	*	*	*	6	4
Lane Day	0	0	0	0	406	344	388	336	0	0	0	0	0	0	399	341
AM Peak Vol.					750		724								740	
PM Peak Vol.																
Comb. Total	0		0		750		724		0		0		0		740	
ADT	Not Calculated															

Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06  
 Esta Rd, north of Carver Rd

Start Time	11-Sep-06 Mon	12-Sep-06 Tue	13-Sep-06 Wed	14-Sep-06 Thu	15-Sep-06 Fri	16-Sep-06 Sat	17-Sep-06 Sun	Week Average
12:00 AM	*	*	5	5	*	*	*	5
01:00	*	*	3	4	*	*	*	4
02:00	*	*	2	1	*	*	*	2
03:00	*	*	0	0	*	*	*	0
04:00	*	*	2	4	*	*	*	3
05:00	*	*	6	7	*	*	*	6
06:00	*	*	38	32	*	*	*	35
07:00	*	*	45	33	*	*	*	39
08:00	*	*	43	52	*	*	*	48
09:00	*	*	33	49	*	*	*	41
10:00	*	*	30	40	*	*	*	35
11:00	*	*	42	36	*	*	*	39
12:00 PM	*	*	45	48	*	*	*	46
01:00	*	*	44	39	*	*	*	42
02:00	*	*	56	62	*	*	*	59
03:00	*	*	56	66	*	*	*	61
04:00	*	*	55	55	*	*	*	55
05:00	*	*	66	50	*	*	*	58
06:00	*	*	53	40	*	*	*	46
07:00	*	*	43	34	*	*	*	38
08:00	*	*	31	28	*	*	*	30
09:00	*	*	29	18	*	*	*	24
10:00	*	*	15	9	*	*	*	12
11:00	*	*	8	12	*	*	*	10
Total	0	0	750	724	0	0	0	738
Percentage	0.0%	0.0%	101.6%	98.1%	0.0%	0.0%	0.0%	
AM Peak			07:00	08:00				08:00
Vol.			45	52				48
PM Peak			17:00	15:00				15:00
Vol.			66	66				61



Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic  
 SB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06  
 Esta Rd, north of Carver Rd

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
09/14/06	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
01:00	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2
02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
05:00	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4
06:00	1	1	3	5	8	7	0	0	0	0	0	0	0	0	25
07:00	0	0	0	9	4	5	2	0	0	0	0	0	0	0	20
08:00	0	0	3	8	16	9	4	0	0	0	0	0	0	0	40
09:00	0	1	2	5	13	8	1	0	0	0	0	0	0	0	30
10:00	0	0	4	3	9	7	1	0	0	0	0	0	0	0	24
11:00	0	0	0	2	8	3	2	0	0	0	0	0	0	0	15
12 PM	0	1	2	5	12	5	0	0	0	0	0	0	0	0	25
13:00	0	0	0	5	11	3	2	0	0	0	0	0	0	0	21
14:00	0	0	0	6	13	7	7	0	0	0	0	0	0	0	33
15:00	1	0	3	9	11	10	1	0	0	0	0	0	0	0	35
16:00	1	0	0	3	10	7	1	0	0	0	0	0	0	0	22
17:00	0	0	1	5	10	6	0	1	0	0	0	0	0	0	23
18:00	0	0	0	5	10	4	0	0	0	0	0	0	0	0	19
19:00	0	0	1	4	3	1	3	0	0	0	0	0	0	0	12
20:00	0	0	1	2	5	4	0	0	0	0	0	0	0	0	12
21:00	0	0	1	2	3	2	1	0	0	0	0	0	0	0	9
22:00	0	0	0	2	1	1	1	0	0	0	0	0	0	0	5
23:00	0	0	1	2	2	0	1	0	0	0	0	0	0	0	6
Total	3	3	24	85	153	91	27	1	0	1	0	0	0	0	388
Grand Total	20	5	38	178	328	172	47	5	0	1	0	0	0	0	794

15th Percentile : 27 MPH  
 50th Percentile : 33 MPH  
 85th Percentile : 39 MPH  
 95th Percentile : 42 MPH

Stats  
 Mean Speed(Average) : 32 MPH  
 10 MPH Pace Speed : 26-35 MPH  
 Number in Pace : 506  
 Percent in Pace : 63.7%  
 Number of Vehicles > 25 MPH : 731  
 Percent of Vehicles > 25 MPH : 92.1%



Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic  
 NB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06  
 Esta Rd, north of Carver Rd

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
09/13/06	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	1	0	3	3	2	0	0	0	0	0	0	0	0	9
07:00	5	0	1	2	4	7	1	0	0	0	0	0	0	0	20
08:00	0	0	1	4	2	4	0	0	0	0	0	0	0	0	11
09:00	1	0	1	4	4	5	1	0	0	0	0	0	0	0	16
10:00	2	1	1	2	7	2	0	0	0	0	0	0	0	0	15
11:00	0	0	0	3	14	4	1	0	0	0	0	0	0	0	22
12 PM	0	0	0	8	4	4	2	0	0	0	0	0	0	0	18
13:00	0	0	0	3	5	6	2	0	0	0	0	0	0	0	16
14:00	0	0	1	6	9	8	1	0	0	0	0	0	0	0	25
15:00	0	0	3	5	12	7	2	0	0	0	0	0	0	0	29
16:00	0	0	1	6	15	6	2	0	0	0	0	0	0	0	30
17:00	0	0	4	4	15	8	2	0	0	0	0	0	0	0	33
18:00	4	0	2	3	11	7	3	0	0	0	0	0	0	0	30
19:00	0	0	0	1	10	7	0	1	0	0	0	0	0	0	19
20:00	0	0	2	2	7	4	0	0	0	0	1	0	0	0	16
21:00	0	0	0	4	3	6	2	0	0	0	0	0	0	0	15
22:00	0	0	0	3	4	3	0	0	0	0	0	0	0	0	10
23:00	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
Total	12	2	17	64	131	95	21	1	0	0	1	0	0	0	344

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic  
 NB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06  
 Esta Rd, north of Carver Rd

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
09/14/06	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3
01:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	1	0	1	1	0	0	0	0	0	0	0	0	3
06:00	1	0	0	4	2	0	0	0	0	0	0	0	0	0	7
07:00	1	0	0	2	3	6	1	0	0	0	0	0	0	0	13
08:00	0	0	0	4	6	1	1	0	0	0	0	0	0	0	12
09:00	0	0	1	7	6	5	0	0	0	0	0	0	0	0	19
10:00	0	0	1	5	4	3	2	1	0	0	0	0	0	0	16
11:00	0	0	1	3	10	6	1	0	0	0	0	0	0	0	21
12 PM	0	0	2	5	5	10	1	0	0	0	0	0	0	0	23
13:00	0	0	0	6	4	8	0	0	0	0	0	0	0	0	18
14:00	2	0	1	5	10	9	2	0	0	0	0	0	0	0	29
15:00	0	0	1	13	7	8	2	0	0	0	0	0	0	0	31
16:00	0	0	0	0	12	16	5	0	0	0	0	0	0	0	33
17:00	1	0	1	1	14	8	2	0	0	0	0	0	0	0	27
18:00	0	0	0	5	8	7	1	0	0	0	0	0	0	0	21
19:00	0	0	0	4	10	7	1	0	0	0	0	0	0	0	22
20:00	1	0	0	2	4	7	2	0	0	0	0	0	0	0	16
21:00	1	0	0	0	7	1	0	0	0	0	0	0	0	0	9
22:00	0	0	0	1	0	3	0	0	0	0	0	0	0	0	4
23:00	0	0	0	1	3	1	1	0	0	0	0	0	0	0	6
Total	7	0	10	69	118	109	22	1	0	0	0	0	0	0	336
Grand Total	19	2	27	133	249	204	43	2	0	0	1	0	0	0	680

15th Percentile : 28 MPH  
 50th Percentile : 34 MPH  
 85th Percentile : 39 MPH  
 95th Percentile : 42 MPH

Stats  
 Mean Speed(Average) : 33 MPH  
 10 MPH Pace Speed : 31-40 MPH  
 Number in Pace : 453  
 Percent in Pace : 66.6%  
 Number of Vehicles > 25 MPH : 632  
 Percent of Vehicles > 25 MPH : 92.9%

Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic  
 SB, NB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06  
 Esta Rd, north of Carver Rd

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
09/13/06	1	0	0	1	1	2	0	0	0	0	0	0	0	0	5
01:00	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
05:00	0	0	0	0	4	2	0	0	0	0	0	0	0	0	6
06:00	1	1	1	12	12	8	1	2	0	0	0	0	0	0	38
07:00	12	0	1	8	13	10	1	0	0	0	0	0	0	0	45
08:00	1	1	3	11	13	11	3	0	0	0	0	0	0	0	43
09:00	1	0	1	7	13	9	2	0	0	0	0	0	0	0	33
10:00	3	1	1	5	15	4	1	0	0	0	0	0	0	0	30
11:00	0	0	1	6	26	8	1	0	0	0	0	0	0	0	42
12 PM	0	0	1	17	14	9	4	0	0	0	0	0	0	0	45
13:00	0	0	0	7	20	12	5	0	0	0	0	0	0	0	44
14:00	1	0	3	15	23	13	1	0	0	0	0	0	0	0	56
15:00	0	0	4	10	27	12	3	0	0	0	0	0	0	0	56
16:00	0	0	4	15	23	9	4	0	0	0	0	0	0	0	55
17:00	0	0	4	9	35	16	2	0	0	0	0	0	0	0	66
18:00	8	0	2	5	21	14	3	0	0	0	0	0	0	0	53
19:00	0	0	0	8	19	11	3	2	0	0	0	0	0	0	43
20:00	0	1	3	7	9	8	2	0	0	0	1	0	0	0	31
21:00	0	0	0	7	10	9	3	0	0	0	0	0	0	0	29
22:00	0	0	0	5	4	5	0	1	0	0	0	0	0	0	15
23:00	1	0	2	0	1	2	2	0	0	0	0	0	0	0	8
Total	29	4	31	157	306	176	41	5	0	0	1	0	0	0	750

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic  
 SB, NB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06  
 Esta Rd, north of Carver Rd

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
09/14/06	0	0	1	0	1	3	0	0	0	0	0	0	0	0	5
01:00	0	0	1	1	1	0	0	0	0	1	0	0	0	0	4
02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4
05:00	0	0	1	1	4	1	0	0	0	0	0	0	0	0	7
06:00	2	1	3	9	10	7	0	0	0	0	0	0	0	0	32
07:00	1	0	0	11	7	11	3	0	0	0	0	0	0	0	33
08:00	0	0	3	12	22	10	5	0	0	0	0	0	0	0	52
09:00	0	1	3	12	19	13	1	0	0	0	0	0	0	0	49
10:00	0	0	5	8	13	10	3	1	0	0	0	0	0	0	40
11:00	0	0	1	5	18	9	3	0	0	0	0	0	0	0	36
12 PM	0	1	4	10	17	15	1	0	0	0	0	0	0	0	48
13:00	0	0	0	11	15	11	2	0	0	0	0	0	0	0	39
14:00	2	0	1	11	23	16	9	0	0	0	0	0	0	0	62
15:00	1	0	4	22	18	18	3	0	0	0	0	0	0	0	66
16:00	1	0	0	3	22	23	6	0	0	0	0	0	0	0	55
17:00	1	0	2	6	24	14	2	1	0	0	0	0	0	0	50
18:00	0	0	0	10	18	11	1	0	0	0	0	0	0	0	40
19:00	0	0	1	8	13	8	4	0	0	0	0	0	0	0	34
20:00	1	0	1	4	9	11	2	0	0	0	0	0	0	0	28
21:00	1	0	1	2	10	3	1	0	0	0	0	0	0	0	18
22:00	0	0	0	3	1	4	1	0	0	0	0	0	0	0	9
23:00	0	0	1	3	5	1	2	0	0	0	0	0	0	0	12
Total	10	3	34	154	271	200	49	2	0	1	1	0	0	0	724
Grand Total	39	7	65	311	577	376	90	7	0	1	1	0	0	0	1474

15th Percentile : 27 MPH  
 50th Percentile : 33 MPH  
 85th Percentile : 39 MPH  
 95th Percentile : 42 MPH

Stats  
 Mean Speed(Average) : 33 MPH  
 10 MPH Pace Speed : 31-40 MPH  
 Number in Pace : 953  
 Percent in Pace : 64.7%  
 Number of Vehicles > 25 MPH : 1363  
 Percent of Vehicles > 25 MPH : 92.5%



Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_UO  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic  
 SB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06

Esta Rd, north of Carver Rd

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/14/06	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
05:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
06:00	0	17	8	0	0	0	0	0	0	0	0	0	0	25
07:00	1	12	4	1	2	0	0	0	0	0	0	0	0	20
08:00	1	30	7	1	1	0	0	0	0	0	0	0	0	40
09:00	0	22	6	0	2	0	0	0	0	0	0	0	0	30
10:00	0	14	8	0	1	0	0	1	0	0	0	0	0	24
11:00	0	9	6	0	0	0	0	0	0	0	0	0	0	15
12 PM	0	15	8	0	1	0	0	1	0	0	0	0	0	25
13:00	0	14	4	0	3	0	0	0	0	0	0	0	0	21
14:00	0	26	5	1	1	0	0	0	0	0	0	0	0	33
15:00	0	28	5	1	1	0	0	0	0	0	0	0	0	35
16:00	0	15	7	0	0	0	0	0	0	0	0	0	0	22
17:00	0	15	7	0	1	0	0	0	0	0	0	0	0	23
18:00	0	15	4	0	0	0	0	0	0	0	0	0	0	19
19:00	0	8	3	0	1	0	0	0	0	0	0	0	0	12
20:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12
21:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
22:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
23:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Total	2	278	87	4	15	0	0	2	0	0	0	0	0	388
Percent	0.5%	71.6%	22.4%	1.0%	3.9%	0.0%	0.0%	0.5%	1.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	06:00	07:00	07:00			10:00						08:00
Vol.	1	30	8	1	2			1						40
PM Peak		15:00	12:00	14:00	13:00			12:00						15:00
Vol.		28	8	1	3			1						35
Grand Total	6	553	189	9	34	1	0	2	0	0	0	0	0	794
Percent	0.8%	69.6%	23.8%	1.1%	4.3%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	



Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic  
 NB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06

Esta Rd, north of Carver Rd

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/14/06	0	1	2	0	0	0	0	0	0	0	0	0	0	3
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
06:00	0	1	5	1	0	0	0	0	0	0	0	0	0	7
07:00	1	6	3	0	3	0	0	0	0	0	0	0	0	13
08:00	0	4	5	0	2	0	0	1	0	0	0	0	0	12
09:00	0	11	7	0	1	0	0	0	0	0	0	0	0	19
10:00	0	10	5	0	1	0	0	0	0	0	0	0	0	16
11:00	0	11	9	0	1	0	0	0	0	0	0	0	0	21
12 PM	0	18	4	0	0	0	0	1	0	0	0	0	0	23
13:00	0	13	4	0	1	0	0	0	0	0	0	0	0	18
14:00	0	20	7	0	2	0	0	0	0	0	0	0	0	29
15:00	0	23	6	0	1	0	0	1	0	0	0	0	0	31
16:00	0	22	11	0	0	0	0	0	0	0	0	0	0	33
17:00	0	19	8	0	0	0	0	0	0	0	0	0	0	27
18:00	0	14	6	0	1	0	0	0	0	0	0	0	0	21
19:00	0	16	5	0	1	0	0	0	0	0	0	0	0	22
20:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16
21:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
22:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
23:00	0	3	3	0	0	0	0	0	0	0	0	0	0	6
Total	1	222	95	1	14	0	0	3	0	0	0	0	0	336
Percent	0.3%	66.1%	28.3%	0.3%	4.2%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	09:00	11:00	06:00	07:00			08:00						11:00
Vol.	1	11	9	1	3			1						21
PM Peak		15:00	16:00		14:00			12:00						16:00
Vol.		23	11		2			1						33
Grand Total	1	433	205	3	33	2	0	3	0	0	0	0	0	680
Percent	0.1%	63.7%	30.1%	0.4%	4.9%	0.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	





Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #9  
 Tube Layout: L6 Basic

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06

Esta Rd, north of Carver Rd

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/14/06	0	3	2	0	0	0	0	0	0	0	0	0	0	5
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
05:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
06:00	0	18	13	1	0	0	0	0	0	0	0	0	0	32
07:00	2	18	7	1	5	0	0	0	0	0	0	0	0	33
08:00	1	34	12	1	3	0	0	1	0	0	0	0	0	52
09:00	0	33	13	0	3	0	0	0	0	0	0	0	0	49
10:00	0	24	13	0	2	0	0	1	0	0	0	0	0	40
11:00	0	20	15	0	1	0	0	0	0	0	0	0	0	36
12 PM	0	33	12	0	1	0	0	2	0	0	0	0	0	48
13:00	0	27	8	0	4	0	0	0	0	0	0	0	0	39
14:00	0	46	12	1	3	0	0	0	0	0	0	0	0	62
15:00	0	51	11	1	2	0	0	1	0	0	0	0	0	66
16:00	0	37	18	0	0	0	0	0	0	0	0	0	0	55
17:00	0	34	15	0	1	0	0	0	0	0	0	0	0	50
18:00	0	29	10	0	1	0	0	0	0	0	0	0	0	40
19:00	0	24	8	0	2	0	0	0	0	0	0	0	0	34
20:00	0	26	2	0	0	0	0	0	0	0	0	0	0	28
21:00	0	15	3	0	0	0	0	0	0	0	0	0	0	18
22:00	0	8	0	0	1	0	0	0	0	0	0	0	0	9
23:00	0	9	3	0	0	0	0	0	0	0	0	0	0	12
Total	3	500	182	5	29	0	0	5	0	0	0	0	0	724
Percent	0.4%	69.1%	25.1%	0.7%	4.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	11:00	06:00	07:00			08:00						08:00
Vol.	2	34	15	1	5			1						52
PM Peak		15:00	16:00	14:00	13:00			12:00						15:00
Vol.		51	18	1	4			2						66
Grand Total	7	986	394	12	67	3	0	5	0	0	0	0	0	1474
Percent	0.5%	66.9%	26.7%	0.8%	4.5%	0.2%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	



Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #1  
 Tube Layout: L6 Basic

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06  
 Kristin Rd, south of Plympton Rd

Start Time	11-Sep-06 Mon	12-Sep-06 Tue	13-Sep-06 Wed	14-Sep-06 Thu	15-Sep-06 Fri	16-Sep-06 Sat	17-Sep-06 Sun	Week Average
12:00 AM	*	*	21	23	*	*	*	22
01:00	*	*	13	2	*	*	*	8
02:00	*	*	4	2	*	*	*	3
03:00	*	*	6	4	*	*	*	5
04:00	*	*	10	10	*	*	*	10
05:00	*	*	39	46	*	*	*	42
06:00	*	*	99	100	*	*	*	100
07:00	*	*	143	142	*	*	*	142
08:00	*	*	107	100	*	*	*	104
09:00	*	*	84	76	*	*	*	80
10:00	*	*	68	78	*	*	*	73
11:00	*	*	86	68	*	*	*	77
12:00 PM	*	*	110	100	*	*	*	105
01:00	*	*	99	105	*	*	*	102
02:00	*	*	144	113	*	*	*	128
03:00	*	*	150	153	*	*	*	152
04:00	*	*	181	140	*	*	*	160
05:00	*	*	166	167	*	*	*	166
06:00	*	*	154	138	*	*	*	146
07:00	*	*	116	100	*	*	*	108
08:00	*	*	84	99	*	*	*	92
09:00	*	*	61	58	*	*	*	60
10:00	*	*	38	35	*	*	*	36
11:00	*	*	30	30	*	*	*	30
Total	0	0	2013	1889	0	0	0	1951
Percentage	0.0%	0.0%	103.2%	96.8%	0.0%	0.0%	0.0%	
AM Peak			07:00	07:00				07:00
Vol.			143	142				142
PM Peak			16:00	17:00				17:00
Vol.			181	167				166



Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #1  
 Tube Layout: L6 Basic  
 NB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06

Kristin Rd, south of Plympton Rd

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
09/14/06	1	0	0	3	3	0	0	0	0	0	0	0	0	0	7
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4
04:00	0	0	0	4	5	0	0	0	0	0	0	0	0	0	9
05:00	1	0	8	18	12	1	0	0	0	0	0	0	0	0	40
06:00	5	0	14	46	21	1	0	0	0	0	0	0	0	0	87
07:00	3	0	23	51	31	0	0	0	0	0	0	0	0	0	108
08:00	6	1	5	37	17	0	0	0	0	0	0	0	0	0	66
09:00	1	0	3	24	14	1	0	0	0	0	0	0	0	0	43
10:00	3	0	8	23	11	0	0	0	0	0	0	0	0	0	45
11:00	1	0	6	17	5	0	0	0	0	0	0	0	0	0	29
12 PM	4	0	10	28	10	0	0	0	0	0	0	0	0	0	52
13:00	5	0	12	19	13	2	0	0	0	0	0	0	0	0	51
14:00	4	0	1	18	10	2	0	0	0	0	0	0	0	0	35
15:00	1	1	13	32	13	0	0	0	0	0	0	0	0	0	60
16:00	2	0	8	23	11	0	0	0	0	0	0	0	0	0	44
17:00	1	1	10	29	20	0	0	0	0	0	0	0	0	0	61
18:00	1	1	5	26	13	0	0	0	0	0	0	0	0	0	46
19:00	0	0	6	21	5	0	0	0	0	0	0	0	0	0	32
20:00	3	2	2	9	6	1	0	0	0	0	0	0	0	0	23
21:00	1	0	1	9	3	0	0	0	0	0	0	0	0	0	14
22:00	0	0	0	6	3	0	0	0	0	0	0	0	0	0	9
23:00	0	0	1	4	2	0	0	0	0	0	0	0	0	0	7
Total	43	6	137	449	230	8	0	0	0	0	0	0	0	0	873
Grand Total	85	32	286	905	455	33	1	0	0	0	0	0	0	0	1797

15th Percentile : 23 MPH  
 50th Percentile : 28 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 35 MPH

Stats  
 Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 26-35 MPH  
 Number in Pace : 1360  
 Percent in Pace : 75.7%  
 Number of Vehicles > 25 MPH : 1394  
 Percent of Vehicles > 25 MPH : 77.6%



Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #1  
 Tube Layout: L6 Basic  
 SB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06

Kristin Rd, south of Plympton Rd

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
09/14/06	0	0	0	1	5	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
01:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:00	1	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
06:00	1	0	3	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
07:00	1	1	3	21	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
08:00	1	1	7	13	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
09:00	5	0	5	15	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	
10:00	1	0	2	17	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	
11:00	0	0	4	25	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	
12 PM	0	0	4	26	16	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	
13:00	2	2	2	23	20	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	
14:00	2	1	9	43	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	
15:00	1	1	16	53	17	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93	
16:00	0	2	5	53	33	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	
17:00	0	0	4	51	45	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106	
18:00	2	1	7	51	29	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92	
19:00	0	0	13	38	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	
20:00	2	2	10	49	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	
21:00	0	0	4	25	12	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	
22:00	0	0	1	15	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	
23:00	0	0	1	7	12	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	
Total	19	11	103	543	291	45	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1016	
Grand Total	39	19	217	1093	638	87	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2105	

15th Percentile : 26 MPH  
 50th Percentile : 29 MPH  
 85th Percentile : 34 MPH  
 95th Percentile : 35 MPH

Stats  
 Mean Speed(Average) : 29 MPH  
 10 MPH Pace Speed : 26-35 MPH  
 Number in Pace : 1731  
 Percent in Pace : 82.2%  
 Number of Vehicles > 25 MPH : 1830  
 Percent of Vehicles > 25 MPH : 86.9%





Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #1  
 Tube Layout: L6 Basic  
 NB, SB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06

Kristin Rd, south of Plympton Rd

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
09/14/06	1	0	1	8	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	
01:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
02:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
03:00	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
04:00	0	0	1	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
05:00	2	0	9	21	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	
06:00	6	0	17	54	22	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
07:00	4	1	26	72	38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	142	
08:00	7	2	12	50	27	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
09:00	6	0	8	39	18	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	
10:00	4	0	10	40	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	
11:00	1	0	10	42	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	
12 PM	4	0	14	54	26	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
13:00	7	2	14	42	33	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105	
14:00	6	1	10	61	30	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	
15:00	2	2	29	85	30	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	153	
16:00	2	2	13	76	44	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	
17:00	1	1	14	80	65	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	167	
18:00	3	2	12	77	42	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138	
19:00	0	0	19	59	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
20:00	5	4	12	58	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	
21:00	1	0	5	34	15	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	
22:00	0	0	1	21	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	
23:00	0	0	2	11	14	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	
Total	62	17	240	992	521	53	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1889	
Grand Total	124	51	503	1998	1093	120	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3902	

15th Percentile : 25 MPH  
 50th Percentile : 29 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 35 MPH

Stats  
 Mean Speed(Average) : 28 MPH  
 10 MPH Pace Speed : 26-35 MPH  
 Number in Pace : 3091  
 Percent in Pace : 79.2%  
 Number of Vehicles > 25 MPH : 3224  
 Percent of Vehicles > 25 MPH : 82.6%

Old Colony Planning Council  
 70 School Street  
 Brockton, MA 02301  
 508-583-1833

Community: Plymouth  
 Community#\_FC: 239\_U0  
 Recorder #: Jamar #1  
 Tube Layout: L6 Basic  
 NB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06

Kristin Rd, south of Plympton Rd

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/13/06	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	5	3	0	0	0	0	0	0	0	0	0	0	8
05:00	0	25	12	0	0	0	0	0	0	0	0	0	0	37
06:00	1	65	19	1	1	0	0	0	0	0	0	0	0	87
07:00	0	92	23	0	1	0	0	0	0	0	0	0	0	116
08:00	1	61	13	2	2	0	0	0	0	0	0	0	0	79
09:00	0	44	8	0	0	0	0	0	0	0	0	0	0	52
10:00	0	33	4	0	1	0	0	0	0	0	0	0	0	38
11:00	1	30	10	1	1	1	0	0	0	0	0	0	0	44
12 PM	0	31	11	2	0	0	0	0	0	0	0	0	0	44
13:00	0	28	7	1	0	0	0	1	0	0	0	0	0	37
14:00	0	54	17	0	1	0	0	0	0	0	0	0	0	72
15:00	0	39	11	0	1	0	0	2	0	0	0	0	0	53
16:00	0	46	15	0	0	0	0	0	0	0	0	0	0	61
17:00	2	34	9	0	0	0	0	0	0	0	0	0	0	45
18:00	0	34	8	0	0	0	0	0	0	0	0	0	0	42
19:00	0	33	5	0	0	0	0	0	0	0	0	0	0	38
20:00	0	26	3	0	0	0	0	0	0	0	0	0	0	29
21:00	1	9	1	0	0	0	0	0	0	0	0	0	0	11
22:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
23:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
Total	6	716	183	7	8	1	0	3	0	0	0	0	0	924
Percent	0.6%	77.5%	19.8%	0.8%	0.9%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	08:00	08:00	11:00								07:00
Vol.	1	92	23	2	2	1								116
PM Peak	17:00	14:00	14:00	12:00	14:00			15:00						14:00
Vol.	2	54	17	2	1			2						72

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Community: Plymouth  
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 Recorder #: Jamar #1  
 Tube Layout: L6 Basic  
 NB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06

Kristin Rd, south of Plympton Rd

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/14/06	0	7	0	0	0	0	0	0	0	0	0	0	0	7
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
05:00	0	30	10	0	0	0	0	0	0	0	0	0	0	40
06:00	0	65	21	0	1	0	0	0	0	0	0	0	0	87
07:00	0	82	22	0	3	0	0	0	0	0	0	0	0	107
08:00	0	51	13	0	1	0	0	1	0	0	0	0	0	66
09:00	0	35	7	0	1	0	0	0	0	0	0	0	0	43
10:00	0	36	8	0	1	0	0	0	0	0	0	0	0	45
11:00	0	21	8	0	0	0	0	0	0	0	0	0	0	29
12 PM	0	36	16	0	0	0	0	0	0	0	0	0	0	52
13:00	0	43	7	0	1	0	0	0	0	0	0	0	0	51
14:00	0	27	7	0	1	0	0	0	0	0	0	0	0	35
15:00	0	46	12	1	1	0	0	0	0	0	0	0	0	60
16:00	0	37	7	0	0	0	0	0	0	0	0	0	0	44
17:00	0	49	12	0	0	0	0	0	0	0	0	0	0	61
18:00	0	40	5	0	1	0	0	0	0	0	0	0	0	46
19:00	0	24	8	0	0	0	0	0	0	0	0	0	0	32
20:00	0	20	3	0	0	0	0	0	0	0	0	0	0	23
21:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14
22:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9
23:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
Total	0	687	172	1	11	0	0	1	0	0	0	0	0	872
Percent	0.0%	78.8%	19.7%	0.1%	1.3%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	07:00		07:00			08:00						07:00
Vol.		82	22		3			1						107
PM Peak		17:00	12:00	15:00	13:00									17:00
Vol.		49	16	1	1									61
Grand Total	6	1403	355	8	19	1	0	4	0	0	0	0	0	1796
Percent	0.3%	78.1%	19.8%	0.4%	1.1%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	

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 Recorder #: Jamar #1  
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 SB

Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
 Date End: 14-Sep-06

Kristin Rd, south of Plympton Rd

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/13/06	0	13	4	0	0	0	0	0	0	0	0	0	0	17
01:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
05:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
06:00	0	3	7	2	0	0	0	0	0	0	0	0	0	12
07:00	0	11	13	2	1	0	0	0	0	0	0	0	0	27
08:00	0	17	8	2	1	0	0	0	0	0	0	0	0	28
09:00	0	20	10	0	1	1	0	0	0	0	0	0	0	32
10:00	0	17	13	0	0	0	0	0	0	0	0	0	0	30
11:00	0	24	13	2	1	1	0	0	0	0	0	0	0	41
12 PM	1	48	14	1	2	0	0	0	0	0	0	0	0	66
13:00	0	41	18	1	2	0	0	0	0	0	0	0	0	62
14:00	1	52	17	0	2	0	0	0	0	0	0	0	0	72
15:00	0	72	19	1	4	0	0	1	0	0	0	0	0	97
16:00	0	94	26	0	0	0	0	0	0	0	0	0	0	120
17:00	1	91	28	0	1	0	0	0	0	0	0	0	0	121
18:00	2	86	22	0	2	0	0	0	0	0	0	0	0	112
19:00	0	66	12	0	0	0	0	0	0	0	0	0	0	78
20:00	0	47	8	0	0	0	0	0	0	0	0	0	0	55
21:00	0	38	11	0	1	0	0	0	0	0	0	0	0	50
22:00	0	27	1	0	0	0	0	0	0	0	0	0	0	28
23:00	0	17	6	0	0	0	0	0	0	0	0	0	0	23
Total	5	797	254	11	18	2	0	1	0	0	0	0	0	1088
Percent	0.5%	73.3%	23.3%	1.0%	1.7%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	07:00	06:00	07:00	09:00								11:00
Vol.		24	13	2	1	1								41
PM Peak	18:00	16:00	17:00	12:00	15:00			15:00						17:00
Vol.	2	94	28	1	4			1						121



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Station ID:  
 Site Code: 239  
 Date Start: 13-Sep-06  
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Kristin Rd, south of Plympton Rd

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/13/06	0	17	4	0	0	0	0	0	0	0	0	0	0	21
01:00	0	11	2	0	0	0	0	0	0	0	0	0	0	13
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
04:00	0	5	5	0	0	0	0	0	0	0	0	0	0	10
05:00	0	26	13	0	0	0	0	0	0	0	0	0	0	39
06:00	1	68	26	3	1	0	0	0	0	0	0	0	0	99
07:00	0	103	36	2	2	0	0	0	0	0	0	0	0	143
08:00	1	78	21	4	3	0	0	0	0	0	0	0	0	107
09:00	0	64	18	0	1	1	0	0	0	0	0	0	0	84
10:00	0	50	17	0	1	0	0	0	0	0	0	0	0	68
11:00	1	54	23	3	2	2	0	0	0	0	0	0	0	85
12 PM	1	79	25	3	2	0	0	0	0	0	0	0	0	110
13:00	0	69	25	2	2	0	0	1	0	0	0	0	0	99
14:00	1	106	34	0	3	0	0	0	0	0	0	0	0	144
15:00	0	111	30	1	5	0	0	3	0	0	0	0	0	150
16:00	0	140	41	0	0	0	0	0	0	0	0	0	0	181
17:00	3	125	37	0	1	0	0	0	0	0	0	0	0	166
18:00	2	120	30	0	2	0	0	0	0	0	0	0	0	154
19:00	0	99	17	0	0	0	0	0	0	0	0	0	0	116
20:00	0	73	11	0	0	0	0	0	0	0	0	0	0	84
21:00	1	47	12	0	1	0	0	0	0	0	0	0	0	61
22:00	0	36	2	0	0	0	0	0	0	0	0	0	0	38
23:00	0	24	6	0	0	0	0	0	0	0	0	0	0	30
Total	11	1513	437	18	26	3	0	4	0	0	0	0	0	2012
Percent	0.5%	75.2%	21.7%	0.9%	1.3%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	08:00	08:00	11:00								07:00
Vol.	1	103	36	4	3	2								143
PM Peak	17:00	16:00	16:00	12:00	15:00			15:00						16:00
Vol.	3	140	41	3	5			3						181

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 Date Start: 13-Sep-06  
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Kristin Rd, south of Plympton Rd

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
09/14/06	0	22	1	0	0	0	0	0	0	0	0	0	0	23
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
04:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
05:00	0	34	12	0	0	0	0	0	0	0	0	0	0	46
06:00	0	70	27	2	1	0	0	0	0	0	0	0	0	100
07:00	0	100	34	2	5	0	0	0	0	0	0	0	0	141
08:00	1	69	24	2	2	0	0	1	0	0	0	0	0	99
09:00	0	54	21	0	1	0	0	0	0	0	0	0	0	76
10:00	0	61	16	0	1	0	0	0	0	0	0	0	0	78
11:00	0	50	16	1	1	0	0	0	0	0	0	0	0	68
12 PM	0	64	35	0	1	0	0	0	0	0	0	0	0	100
13:00	0	85	15	1	4	0	0	0	0	0	0	0	0	105
14:00	0	79	30	0	4	0	0	0	0	0	0	0	0	113
15:00	0	114	32	4	3	0	0	0	0	0	0	0	0	153
16:00	0	105	31	1	3	0	0	0	0	0	0	0	0	140
17:00	0	123	42	0	2	0	0	0	0	0	0	0	0	167
18:00	0	112	21	0	4	0	0	0	0	0	0	0	0	137
19:00	0	82	17	0	1	0	0	0	0	0	0	0	0	100
20:00	0	78	20	0	1	0	0	0	0	0	0	0	0	99
21:00	0	48	8	0	2	0	0	0	0	0	0	0	0	58
22:00	0	29	6	0	0	0	0	0	0	0	0	0	0	35
23:00	0	25	5	0	0	0	0	0	0	0	0	0	0	30
Total	1	1417	418	13	36	0	0	1	0	0	0	0	0	1886
Percent	0.1%	75.1%	22.2%	0.7%	1.9%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	06:00	07:00			08:00						07:00
Vol.	1	100	34	2	5			1						141
PM Peak		17:00	17:00	15:00	13:00									17:00
Vol.		123	42	4	4									167
Grand Total	12	2930	855	31	62	3	0	5	0	0	0	0	0	3898
Percent	0.3%	75.2%	21.9%	0.8%	1.6%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	









# TOWN OF PLYMOUTH

Department of Public Works  
11 Lincoln Street  
Plymouth, Massachusetts 02360



April 11, 2011

Old Colony Planning Council  
Attn: Charles Kilmer  
Transportation Program Manager  
70 School Street  
Brockton, MA 02301-4097

**Subject: Request for Traffic Data & Analysis for Esta Road, in the Town of Plymouth**

Dear Mr. Kilmer:

Please accept this letter as the Town's request for Automatic Traffic Recorder (ATR) counts as well as supplemental traffic conditions analysis conducted by Old Colony Planning Council (OCPC) for Esta Road and Kristin Road, in the Town of Plymouth.

This information will be used for determining the need for further action and the possible development of Heavy Commercial Vehicle Exclusion, Traffic Calming, and/or Signage in this area.

Concerns have been raised by residents in regards to safety, speeding and large vehicle cut-through traffic along the aforementioned roads. I have attached their letter expressing concern and requesting action.

I thank you in advance for your assistance. Please call me if you have any questions or need additional information concerning this matter.

Very truly yours,

  
James Downey  
Plymouth Transportation Engineer





The Massachusetts  
Amendments to the

**Manual on Uniform  
Traffic Control Devices**

2003 EDITION

and the  
Standard Municipal  
Traffic Code

**October 2006**

**MASS HIGHWAY**

• *Ten Park Plaza* •

*Boston, MA 02116-3973 • 617-973-7800*

This Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways of Massachusetts has been correlated with and conforms, as closely as Massachusetts laws and conditions will allow, to the standards adopted by the Federal Highway Administrator as a National Standard for application on all Classes of Highways.

Modifications that were deemed necessary to cover local requirements and to incorporate in these official standards the most recent traffic engineering recommendations of MassHighway have been made and are hereby presented as Amendments and addenda in the manual as the OFFICIAL STANDARDS OF MASSHIGHWAY, authorized by Chapter 85, Section 2 of the General Laws.

For the purpose of clarity and continuity with the Massachusetts General Laws, MassHighway shall be referred to as “the Department” throughout this Manual.

In addition to Parts 1 through 10 which are included in the 2003 Edition of the Manual of Uniform Traffic Control Devices (MUTCD), this manual contains

- Traffic Regulations (Part 11)
- Rules and Regulations for Entering State Highways (Part 12)
- Sample Traffic Control Agreement (Part 13)
- The following appendices:

#### APPENDIX

- A. A sample regulation for a standard municipal traffic code
- B. A sample pedestrian regulation for adoption by a municipality
- C. A sample tow away zone regulation for adoption by a municipality
- D. Pertinent Statutes
- E. Massachusetts Amendments and Addenda to the National MUTCD

The Department will upon the request of local authorities, advise municipalities on all aspects of these regulations and controls required. The appendices detail some sample regulations.

The standards in this Manual apply to any and all streets and highways regardless of type or class. Where a device is intended for limited application only or for a specific system, the text specifies the restriction on its use.

These standards and principles can be of great value of finding solutions to traffic situations and weighing the merits of proposals advanced by various citizen groups.

In the 1920s, members of the Joint Committee (JC) on Uniform Traffic Control Devices, which included representatives of the American Association of State Highway Officials (AASHO) and the National Conference on Street and Highway Safety (NCSHS), were responsible for writing and formatting the MUTCD. In 1954, the Joint Committee became the National Joint Committee (NJC) on Uniform Traffic Control Devices.

In 1971, the Federal Highway Administration (FHWA) assumed control of the MUTCD. As a result, the role of the NJC shifted to an advisory capacity. The NJC then changed its name to the National Advisory Committee (NAC) on Uniform Traffic Control Devices. In 1979, the NAC disbanded after FHWA withdrew its sponsorship in order to comply with President Carter's policy to limit the number of Federal advisory committees. Later that same year, former NAC members reorganized themselves into an independent committee called the National Committee on Uniform Traffic Control Devices (NCUTCD).

The NCUTCD is a private organization that has no official association with the Federal government. Its current members are State and local employees of agencies directly involved with traffic engineering activities or representatives of other organizations who have a major interest in traffic control issues. NCUTCD members are volunteers and they receive no compensation for their contributions. Committee members meet twice a year to discuss the manual and develop comments, which come from 150 to 200 experts who are involved in the daily operation of highways or streets. These comments are then submitted to the FHWA for consideration.

This process allows for the inclusion of comments from all interested parties including the State Departments of Transportation, traffic engineering committees, trade groups, private consultants, public citizens and any other interested group or individual. This above process is important because it ensures that all parties have the opportunity to offer opinions and concerns about proposed changes to the MUTCD. The FHWA considers all comments (whether from private individuals, trade organizations, or the NCUTCD) before issuing a Final Rule, which is also published in the Federal Register.

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2003 Edition  
National MUTCD  
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## PART 11

### TRAFFIC REGULATIONS

#### Section 11A-1 Legal Authority

Chapter 85, Section 2 of the General Laws (Tercentenary Edition) directs the Department, Commonwealth of Massachusetts to erect and maintain on state highways and ways leading thereto and therefrom and on all main highways between cities and towns such direction signs, warning signs or lights, curb, street or other traffic markings, mechanical traffic signal systems, traffic devices, or parking meters as it may deem necessary for promoting the public safety and convenience and to make rules and regulations relative thereto.

Additionally, the statute provides that: "... any rule, regulation, order, ordinance or by-law of a city or town hereafter made or promulgated relative to or in connection with the erection or maintenance of signs, traffic control signals, traffic devices, school zones, parking meters or markings on any way within its control shall take effect without department approval provided such signs, traffic control signals, traffic devices, parking meters, school zones or markings in conformance with the Department 's current manual on uniform traffic control devices and the department's sample regulation for a standard municipal traffic code; provided, however, that such rule, regulation, order, ordinance or by-law shall not take effect until approved in writing by the department, or be effective after such approval is revoked, if made or promulgated relative to or in connection with the following:

- (1) any way at its intersection or junction with a state highway;
- (2) any project which is or was federally aided, in whole or in part;
- (3) any traffic signal or flasher in any city or town which does not employ a registered professional engineer in the commonwealth to design, redesign or change the timing and sequence of signal or flasher;
- (4) any sign excluding heavy commercial vehicles;
- (5) any school zone establishment or signing in relation to which the city or town intends to seek reimbursement from the commonwealth;
- (6) any one-way street sign which would prohibit the free flow of two-way traffic between adjoining cities or towns on a through way or main way, as determined by the department, or any one-way street signs which would not be placed at an intersection of public ways.
- (7) any rule, regulation, order, ordinance or by-law of a city or town which when made or promulgated would exclude motor vehicle travel on any existing way which connects one city or town with another.
- (8) Notwithstanding the foregoing, speed control signs may be established only in accordance with the provisions of section eighteen of chapter ninety."

A model set of Traffic Regulations is set forth in Appendix A.

## **Section 11A-2 Types of Permits which will be issued**

### 1. Blanket permits

To avoid unnecessary investigation and clerical labor, blanket permits are issued to all cities and towns having approved traffic regulations to cover the following subjects:

- A. Warning Signs
- B. Standard School Signs
- C. Pavement Markings
- D. Regulatory Signs
- E. Parking Meters

### 2. Specific Permits

The following items require a specific permit in each instance:

- A. Pedestrian Regulations
- B. Areas involving Traffic Control Agreements
- C. School Zones funded by the Department or on State Highway
- D. Mid-block One Ways
- E. Traffic Control Signals {unless community employs a MA Registered P.E.}
- F. Traffic Beacons {unless community employs a MA Registered P.E.}
- G. One Ways between adjoining communities
- H. Anyway at intersection or junction with State Highway
- I. Exclusion of Heavy Commercial Vehicles

## **Section 11A-3 Parking, One-Way Streets, Turning Movements, Parking Meters**

### 1. Parking One-Way Streets and Turning Movements

The streets or portions of streets in municipalities where parking is to be prohibited, restricted or otherwise regulated are matters generally left for the determination of the local rulemaking body. This also applies to one-way streets and turning movement restrictions. The Department does not usually investigate these proposals although traffic engineering advice is available on request.

#### Procedure to Obtain Legal Enforcement

- (1) Adoption of the regulation
- (2) Advertisement of the regulation
- (3) Posting of standard signs

If the control to be affected is authorized by a special legislative enabling Act, acceptance of the Act is the first requirement.

## 2. Parking Meter Standards

A "Parking Meter" shall only be construed to mean a mechanical device which shall indicate by proper legend the legal parking time established by regulation or ordinance and when operated shall at all times indicate the balance of legal parking time permitted and at the expiration of such period shall indicate illegal or overtime parking by dropping of a signal automatically or some other mechanical operation.

### A. Installation

- (1) The distance of the meter from the face of the curb shall be not less than 6 inches nor more than 24 inches but 18 inches is recommended.
- (2) The tops of the meters shall be between 46 inches and 56 inches above the sidewalk.
- (3) The metered spaces which at all times must be clearly indicated by white pavement markings shall not be less than 20 feet but 22 feet is recommended except where angle parking is permitted.

### B. Locations – Meters shall not be installed in the following locations:

- (1) In any place where parking is prohibited generally by existing regulations.
- (2) On any street for angle parking on one side where the width of roadway between curbs is less than 75 feet or for angle parking on both sides where the width is less 84 feet. This requirement may be waived for one-way streets and municipal off-street parking areas.
- (3) On any street for angle parking where more than 40% of the traffic during the hours of meter operation is through traffic, or on any numbered route.
- (4) On any street for angle parking when said street is built or improved as a Federal-Aid project.
- (5) On any State Highway.

### C. Operation

- (1) The days and hours of operation, the duration of permitted parking and the proper fee as set forth in approved regulations shall be plainly indicated on each meter.

#### **Section 11A-4 Stop Signs**

The purpose of the Stop Sign is to prevent cross collisions. It is not intended, nor shall it be used for the control of speed, traffic calming or to forestall pedestrian, rear-end or turning movement accidents.

To insure uniformity in stop sign studies and recommendations, the warrants as provided in the 2003 MUTCD, Section 2B.05 will govern. Stop Signs shall be located as provided in Section 2B.06 of the same.

Multi-way Stop Signs must meet the warrant criteria as outlined in Section 2B.07 of the 2003 MUTCD.

#### **Section 11A-5 Through Ways**

Chapter 89, Section 9 of the General Laws (Tercentenary Edition) authorizes the Department to designate any state highway or part thereof as a through way. It further authorizes any city or town to designate any way or part thereof as a through way. For such designation to be effective, the statute requires the erection of suitable signs or signals to be erected "in accordance with the requirements of the Department."

##### 1. Purpose

The application of the through way rule is intended to ensure the facility and safety of traffic flow upon arterial highways and to prevent cross collisions. This is accomplished by giving to the operator of a vehicle upon such highway a provisional right of way over vehicles entering from intersecting ways. It is also intended to protect the operator of a vehicle on the minor way upon entering a major artery, the importance and potential hazard of which they may not be aware, without first making a cautionary stop.

It should be noted that at no place in the statute is permission given, directly or by implication, for speed on through ways in excess of those limits provided by law or special regulation. Increased facility of flow upon protected ways is to be obtained by reduction in interruption rather than by increased operating speed.

##### 2. Warrants

Experience in Massachusetts and in other jurisdiction indicates that there are several conditions or warrants the absence of which establishes a presumption against application of the through way rule to any specific way. These may be summarized as follows:

- A. The way proposed for protection should carry a much larger volume of traffic than do the ways intersecting it. This volume should be of such density that under normal conditions it will carry a relatively constant flow of vehicles.

- B. The way proposed for protection should carry traffic movements which are relatively fast, as well as constant. At intersections in congested districts where there is slow movement of all traffic the rule is not needed and if used, would cause unnecessary congestion and delay. At intersections in such districts, the respective rights of drivers, because of the slow movement, should be accommodated by the use of the right-of-way rule; or, if conditions necessitate, by use of stop and go control.
- C. Except under special conditions, the proposed way should not closely parallel another way to which the rule is applied. The necessity for frequent stops by cross traffic results in irritation and disobedience, unless the protection is obviously demanded by conditions.
- D. The character of the proposed way should be such as to warrant application of the stop rule upon at least 80% of the intersecting way.

### **Section 11A-6 Pedestrian Regulations**

Chapter 90, Section 18A of the General Laws authorizes the Department and cities and towns to regulate the use by pedestrians of ways within their respective control. Pedestrian control regulations have been adopted by the Department for all State Highways. A sample regulation suitable for adoption by the municipalities is shown in Appendix B, "Sample Pedestrian Regulations." This regulation may be expanded to cover special situations in the larger cities. Particular attention is directed to the fact that municipalities that do not have these regulations will no longer receive traffic control signal permits that contain a pedestrian period in the cycle. This is necessitated by the discontinuance as standard of the red-yellow indication shown together and in its place the substitution of the WALK and DON'T WALK pedestrian control indications.

In order that cities and towns may legally control pedestrians, the following steps are necessary:

- (1) Acceptance of the enabling act.
- (2) Adoption of pedestrian control regulations.
- (3) Approval of the regulations by the Department.
- (4) Advertisement of the regulations.

### **Section 11A-7 Towing on City and Town Ways**

Under the provisions of Chapter 40, Section 22D of the General Laws (Tercentenary Edition) cities and towns are enabled to adopt regulation providing for the towing of vehicles parked in violation of a regulation prohibiting parking or in such manner as to impede snow cleaning operations. A sample regulation suitable for adoption by these municipalities is shown in Appendix C (TOW-AWAY ZONE REGULATIONS). The steps to be followed for implementation are:

- (1) Acceptance of the law by the city or town.
- (2) Adoption of the regulations by the rule making body.
- (3) Posting of signs in certain specified areas.
- (4) Advertisement of the regulation.

### **Section 11A-8 Speed Control**

Of the special regulations adopted by municipalities under the provisions of Chapter 90, Section 18 of the General Laws, the most commonly used is the special regulation of the speed of motor vehicles. Considerable data including speed observations and trial runs must be obtained by municipal officials, usually the Police Department. The final determination is based upon the 85-percentile method, which is that speed at or below which 85% of the vehicles observed were actually traveling. Department representatives are available to demonstrate the proper method for conducting the necessary studies and drafting the covering regulation, upon written request of local officials.

#### Procedure for Establishment of Legal Speed Zones

- (1) Municipality to make proper studies and submit data to the Department. (Municipalities usually accept the available services of the Department in conducting studies and assembling the data).
- (2) After the speed zones, proposed by the local authorities, are reviewed by the Department, they are returned to the municipality for formal adoption by the rule-making body.
- (3) Upon receipt of notice of formal adoption by municipality the Department, acting jointly with the Registry, will certify and approve.
- (4) Certified regulation is returned to municipality.
- (5) Official Speed Limit signs may then be installed in accordance with the specific provisions of the approved speed regulation.
- (6) The Special Speed Regulation is then enforceable against violators.

### **Section 11A-9 Heavy Commercial Vehicle Exclusion**

A truck exclusion from a municipal way may be authorized provided a suitable alternate route is available. The alternate route shall have an effective width and pavement structure which can safely accommodate the additional truck traffic. In addition the alternate route must meet one of the following conditions:

- (1) Lie wholly within the community making application,
- (2) Lie partially in an adjacent community but only on State Highway, or
- (3) Lie partially in an adjacent community but have the adjacent community's written approval.



An engineering study, as outlined in the Data requested below, must be made. In addition, one or more of the following may be sufficient justification for truck exclusion:

**1. Warrants**

- A. A volume of heavy commercial vehicles, which usually is in the range of five (5) to eight (8) percent, reduces the utilization of the facility and is cause for a substantial reduction in capacity or safety.
- B. The condition of the pavement structure of the route to be excluded indicates that further repeated heavy wheel loads will result in severe deterioration of the roadway. (subject to Department review)
- C. Notwithstanding the foregoing, in certain instances where land use is primarily residential in nature and a municipality has requested exclusion only during hours of darkness, a specific night exclusion may be granted.

**2. Data**

Before the Department can consider an exclusion proposal, the following data must be submitted by the municipality:

- A. A twenty-four hour consecutive count of all vehicles using the subject street. (If the exclusion is requested for only twelve hours, a twelve-hour count will suffice.) The count shall be broken into one-half hour intervals showing:
  - (1) Commercial vehicles with a carrying capacity over 2½ tons
  - (2) Other vehicles
- B. Map of the area, with the excluded street marked in red, the alternate route in green.
- C. Physical characteristics of excluded and alternate streets in question, i.e, length, width, type and condition of surface and sidewalk.
- D. Types of buildings or property abutting street (Residential, Business, School, Playground, etc).
- E. Zoning of Street (Residential, Industrial, etc.).
- F. Proximity of probable alternate route to the proposed excluded route and the additional distance to be traveled using the alternate route.
- G. Types of traffic control existing on street.
- H. Hours during which exclusion is to be in effect.
- I. A written statement from the municipality as to the need for the exclusion.

**PART 12**

**RULES AND REGULATION**

**FOR ENTRANCE TO STATE HIGHWAY**

**Section 12A-1 Authority**

The General Laws affecting State Highways "Chapter 81" prescribes certain powers and duties of the Commissioner of the Department. He/She is authorized to issue permits for work to be performed upon any State Highway or section thereof.

In this regard, attention is directed to "Chapter 81, Section 21" of the General Laws, effecting State Highways which provides as follows:

**Chapter 81: Section 21. Excavations or driveway openings on state highways; conditions; enforcement**

Section 21. No state highway shall be dug up, nor opening made therein for any purpose, nor shall any material be dumped or placed thereon or removed therefrom, and no tree shall be planted or removed or obstruction or structure placed thereon or removed therefrom or changed without the written permit of the department, and then only in accordance with its regulations, and the work shall be done under its supervision and to its satisfaction, and the entire expense of replacing and resurfacing the highway at the same level and in as good condition as before, with materials equal in specifications to those removed, shall be paid by the persons to whom the permit was given or by whom the work was done; but a town may dig up a state highway without the approval of the department in case of immediate necessity; but in such cases it shall forthwith be replaced in as good condition as before at the expense of the town and the town shall notify the department by registered mail, return receipt requested, within seven days of the excavation. In the case of a driveway opening on a state highway, the said department shall not grant a permit for a driveway location or alteration if the board or department in a city or town having authority over public ways and highways has notified the department by registered mail, return receipt requested, of their objection to the driveway; provided, that such objection shall be based on highway safety and accepted by the said department. The department may require a bond to guarantee the faithful and satisfactory performance of the work and payment for any damage to state highways and facilities caused by or resulting from the operations authorized by such permit. The amount of said bond shall be determined by the department not to exceed the estimated cost of the work and possible damage, but shall be not less than two thousand dollars nor more than fifty thousand dollars. Except in case of an emergency no permit for digging up or opening any state highway shall be approved or issued by the department until copies of the notices to public utility companies required by section forty of chapter eighty-two have been filed with the department by the applicant for such permit.

Any person who builds or expands a business, residential, or other facility intending to utilize an existing access or a new access to a state highway so as to generate a substantial increase in or impact on traffic shall be required to obtain a permit under this section prior to constructing or using

such access. Said person may be required by the department to install and pay for, pursuant to a permit under this section, standard traffic control devices, pavement markings, channelization, or other highway improvements to facilitate safe and efficient traffic flow, or such highway improvements may be installed by the department and up to one hundred per cent of the cost of such improvements may be assessed upon such person.

The department may issue written orders to enforce the provisions of this section or the provisions of any permit, regulation, order, or approval issued under this section. Any person who violates any provision of this section or any permit, regulation, order or approval issued thereunder (a) shall be punished by a fine of not more than one thousand dollars per day for each such violation or (b) shall be subject to a civil penalty not to exceed one thousand dollars per day for each such violation; provided, however, that each day such violation occurs or continues shall be a separate offense. The superior court shall have jurisdiction, upon petition of the commissioner of the department, to enforce the provisions of this section or of any permit, regulation, order, or approval issued thereunder.

### **Section 12A-2 Objectives**

This part of the Manual sets forth the policy of MassHighway concerning entrances and exits on State Highway and indicates the requirements for the construction of such entrances and exits.

The fundamental object is threefold:

- (1) To provide maximum protection to the public through the orderly control of traffic moving onto and from a highway.
- (2) To provide a uniform practice in the design and construction of entrances and exits.
- (3) To provide the necessary drainage.

The following requirements are applicable to all commercial and industrial establishments, service areas and primary residences having access to and/or through the right-of-way of a State Highway, insofar as the requirements for drainage, geometric design, signing, type and quality of workmanship, material used, and the work performed in the areas providing ingress and egress to said property are concerned.

Any owner of abutting property desiring to gain access to a State Highway shall do so only in strict accordance with the provisions of a permit issued by the Department. A written application must be made to secure such a permit from the Department through the District Highway Engineer/Director, having jurisdiction in the area.

## LOCATION OF THE DISTRICT HIGHWAY OFFICES

District 1 - 270 Pittsfield Rd., Lenox, MA 01240  
District 2 - 811 North King St., Northampton, MA 01060  
District 3 - 403 Belmont St., Worcester, MA 01604  
District 4 - 519 Appleton St., Arlington, MA 02174  
District 5 - 1000 County St., Taunton, MA 02780

### **Section 12A-3 Applications**

Any owner of property abutting State Highways shall, before beginning any construction, make written application to the District Highway Engineer/Director having jurisdiction in the area.

### **Section 12A-4 Driveways**

The application must be accompanied by a plan showing:

- (1) Complete details on the property in question, including any necessary signs.
- (2) Any drive that is to be altered or closed shall be so indicated.
- (3) All buildings, etc., should be shown in their correct location. It is required that all stands, buildings, gasoline pumps and structures of any kind be placed at least 12 feet back of the layout line, since the conducting of business within a State Highway layout is forbidden.
- (4) Complete detail on drainage; all drives shall be constructed on a downgrade from the edge of our highway surface or shoulder to the side line, in conformity with the Department's policy on permits.

### **Section 12A-5 New Streets**

#### 1. Applications

Applications for the entrance of new streets on to the State layout will require attached evidence of acceptance of same including its line, grade and proposed drainage, by a local planning board if empowered, or other city or town official with such authority. Such applications will include also a profile of the entire length of said street, a plan of proposed drainage with applicable easements shown thereon and the radii of curvature at the junction with the State Highway which should conform to minimum required design standards as specified below. The plan should show the intersection of the applicant's property lines with the Highway layout line. All cities and towns in the Commonwealth are requested not to issue a building permit to property owners abutting State Highway until any necessary permit for driveways or street entrances to State Highway has been issued.

In permit provisions for new streets all grading shall be on a down slope from the edge of surface to the location line in order to eliminate future road surface drainage problems.

## 2. Entrance of Drainage from Abutters

Abutter in this case refers to abutters of the State Highway layout.

District report accompanying an application for entrance of surface drainage from abutting property, including town roads, into our system, shall include a complete topographical plan, and diagram of the system proposed for entry.

The plan shall show the area of land to be drained with information indicating the extent of the paved and unpaved areas, and be drawn with final grading contours thereon, where changes in topography are to be made. Drainage computations shall be prepared by a Registered Professional Engineer and submitted by the petitioner, including invert elevations, coefficients, flow sizes, capacities and discharge velocities, which were used as criteria in design. In addition, a complete plan of the highway drainage system involved, with pipe sizes, grades, etc., shall be submitted, together with an explanation of the easement rights at the outlet.

### **Section 12A-6 Sidewalks**

Any proposed disturbance of a sidewalk which is within the state layout but which is maintained by a city or town will require that concurrence be obtained from the appropriate municipal official on the terms to be incorporated in the State's permit.

The statement that terms are agreed will designate the municipal official by name and title.

### **Section 12A-7 Construction Responsibility**

The permit shall require that the applicant assume the following construction responsibilities:

- (1) The applicant shall furnish all materials including any necessary signs and bear all costs within the State Highway layout.
- (2) All work and material shall meet the most recent Standards of the Department.
- (3) No alteration shall be made without securing a new permit.
- (4) All driveway and street approaches will be inspected during and after construction. MassHighway has the right to stop work until such time as the objectionable conditions are corrected. All cost of material and labor shall be borne by the applicant.

### **Section 12A-8 Maintenance Responsibility**

The cost of all construction and maintenance of the work specified shall be borne by the applicant, his grantees, successors and assignees.

**Section 12A-9 Design Requirements** (see Section 15.2.3: Access Management/Driveway Design of *Massachusetts Highway Department's Project Development and Design Guide 2006*)

The design standards presented are based on the type of road, design speed, rights of the highway user and abutting property owners.

- (1) Driveways should be located to the best advantage with regard to the highway alignment profile, sight distance conditions, etc.
- (2) The standards call for not more than two driveways for any one property. Additional drives should not be requested unless there is a clear necessity for them. No circular drives are allowed, unless there is a minimum frontage of 150'.
- (3) The sub-division of a parcel of property by the owner does not in any way change the number of drives allowed under the standards. If there are a number of commercial establishments to be constructed, then a service road shall be constructed by the applicant to connect with the exit and entrance allowed under the existing standards.
- (4) The standard, for commercial drives, on roads having a design speed or an 85-percentile speed of 30 m.p.h, or less may have two 45° drives with a minimum radius of 30 feet and a minimum square width of 20 feet. If the major use of the drive is for trucks, the width may be increased to a maximum of 24 feet.
- (5) On roads having a higher assumed design speed than 30 m.p.h, the radius may be increased to a 50 foot maximum where site conditions permit, with a maximum square width of 24 feet.
- (6) In the case of a short frontage, where it would be impossible to construct two 45° drives and a dividing island, or where warranted by other site conditions, a single 90° driveway 24 feet wide measured the point of tangency to the drive, and two 30 foot radii may be used.
- (7) In the case of an entrance to a high volume traffic generator such as a shopping plaza, a channelizing island shall be constructed in the throat of a 90° drive. The drives on each side of the central island shall be a minimum 24 foot width measured at the point of tangency to the drive, with a maximum radius of 50 feet. (Unusually large traffic generators may require special design.) The location of the traffic island is to be determined by control radii not less than 40 feet but preferably 50 feet. This design is to be used primarily on an undivided highway and on a divided highway in conjunction with a left turn storage lane at a median opening. All islands proposed between commercial driveways shall be 8 inches in height and edged with curb or berm. Large island surfaces may be loamed and seeded. Small island surfaces shall be paved according to Department standards.
- (8) The radii of a private drive may not extend beyond the applicant's property line unless the application is accompanied by a letter from the applicant's abutter indicating his approval of this condition.

- (9) The radii of a street approach may extend beyond the range of the street sideline.
- (10) All signs must conform to the Massachusetts Standard Specification. The cost and the responsibility for erections are to be borne by the applicant.
- (11) In the case of a car wash, a trench drain shall be installed at the car wash exit to prevent drainage and/or icing on state highway from the property.
- (12) All driveways and street designs shall be reviewed by the District Traffic Engineer and shall be approved by the District Highway Engineer/Director.

**Section 12A-10 Delineation of Drives, Islands and Street Radii**

- (1) Delineation of drives, islands and street radii are required, by either curb or a bituminous berm to join existing edging, if any, and shall be installed according to the prevailing construction standards. The edging shall extend onto the applicant's property to that point where the radii becomes tangent and the required square width is defined.
- (2) A traffic island is also specified between openings, extending from curb or shoulder line to side line in order to prevent use of state property for commercial purposes and to define the path of entering and exiting vehicles.
- (3) If shoulders exist, drives shall be curbed or bermed along edge of shoulder, with a minimum setback of 2 feet.
- (4) Where sidewalks exist on major highways and are not frequently used, the sidewalk shall be depressed and graded from the gutter line to the side line, and the drive is then to be defined by radius curb or berm whichever is in use.
- (5) At locations where sidewalks exist and curb corners (3 foot minimum) are used sidewalk curb returns shall be dissipated within the driveway opening. A 6 inch berm shall be installed along the sideline on both sides of drive where directed to define the drive opening.
- (6) The curb returns on the inside of the 45° driveway depend on distance from edge to location line, and may vary but usually have a 5 to 10 foot radius.

**Section 12A-11 Storage of Vehicles Off of State Highway**

Take-out restaurants/coffee establishments or car washes generate high volumes of traffic entering the establishment, usually within a short period of time. It will be necessary in this case for the owner to make allowances for storage of these vehicles on his property. It is recommended that an area be provided that will accommodate at least a minimum of 12 vehicles for take-out restaurants/coffee establishments and 25 vehicles for a car wash.

### **Section 12A-12 Locations of Drives in Respect to Intersections**

Wherever possible, drives are to be set back 50 feet or more from a street corner, measured between the nearest edge of the driveway and the crossroad edge of pavement. At all intersections and particularly at signalized intersections, it is Department policy that drives shall not be approved at street corners. A driver entering the highway from a corner driveway would not be faced with a direct signal indication and thus his entrance would introduce a potential hazard. Vehicles entering such a drive from the highway would also have to follow paths unacceptable from a traffic safety viewpoint.

### **Section 12A-13 Acceleration and Deceleration lanes**

If feasible and the frontage allows acceleration and deceleration lanes may be used, with the agreement in writing from the parties involved that no other drive shall enter the State Highway within the limits of these speed change lanes.

### **Section 12A-14 Driveway on Rotaries and Ramps**

1. Driveways located directly on a rotary are not allowed since weaving distances are too short and a serious hazard in the form of rear end and massing accidents could result.
2. Drives requested on ramps of grade separations not controlled by limited access are not allowed, since entering or exiting vehicles are not expected, thereby causing confusion and possible collision.

### **Section 12A-15 Design of Street Entrances**

1. The design of street entrances depends upon the roadway widths and radii needed to coincide with the layout approved by the cities and towns. Wherever possible large radii should be used with a maximum of 50 feet.
2. If a traffic island is warranted in the throat of a street approach, its location and size should be determined.

### **Section 12A-16 Residential Driveways**

In the case of residential driveways the problems are somewhat similar to commercial drives, but they are not as acute. In the standard design a single driveway is approved with the emphasis being placed upon the exit drive from State Highway where a 12 foot radius curve is needed. Experience has shown that when leaving a highway, at either a commercial or a residential drive, the operator is more or less at the mercy of following traffic when slowing down or turning. At the exit drive the operator has the opportunity to pick a favorable opportunity to proceed.



# STANDARD DRIVES

On Roads Having An 85 Percentile Speed of 30 M.P.H. or Less

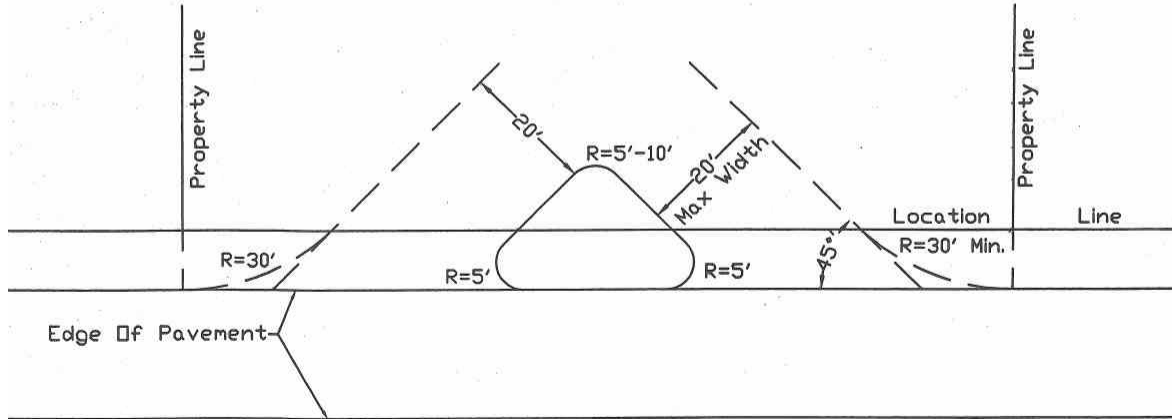


FIGURE 12-1

On Roads Having An 85 Percentile Speed More Than 30 M.P.H.

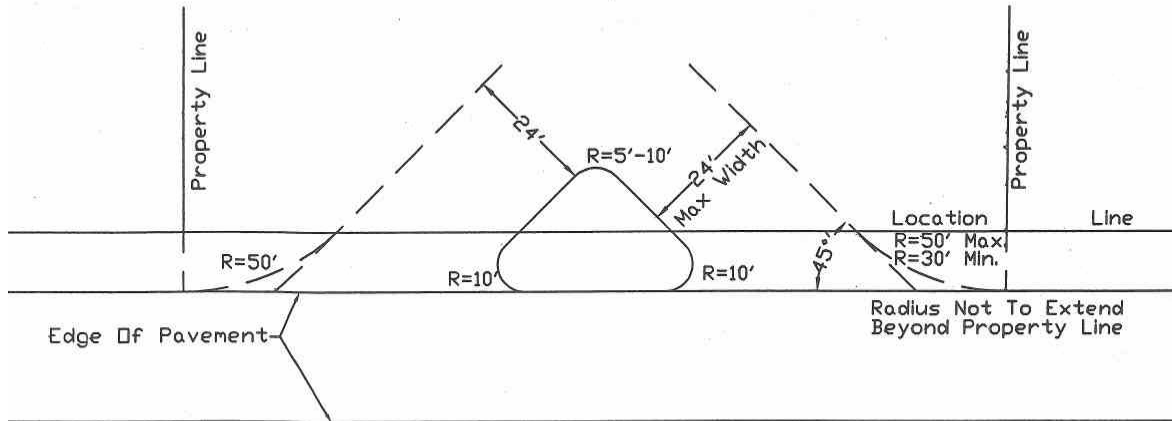
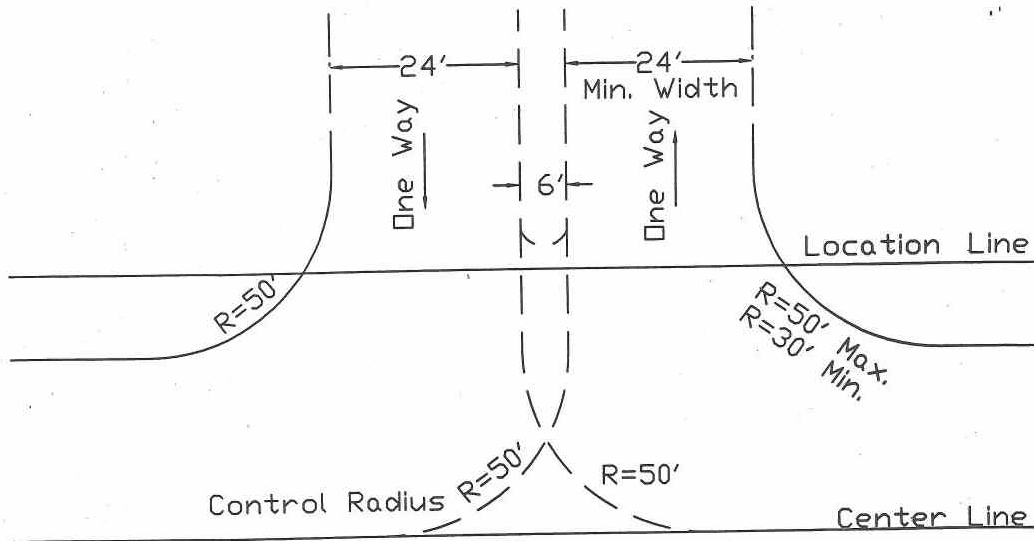


FIGURE 12-2

NOTE: SIDEWALKS MUST BE DESIGNED TO MEET ADA/AAB REQUIREMENTS

STANDARD DRIVES  
For Shopping Plaza or Mall



Minimum Length of Island 20' Preferred  
Minimum Width of Island is 6', 10' To 20' is Preferred

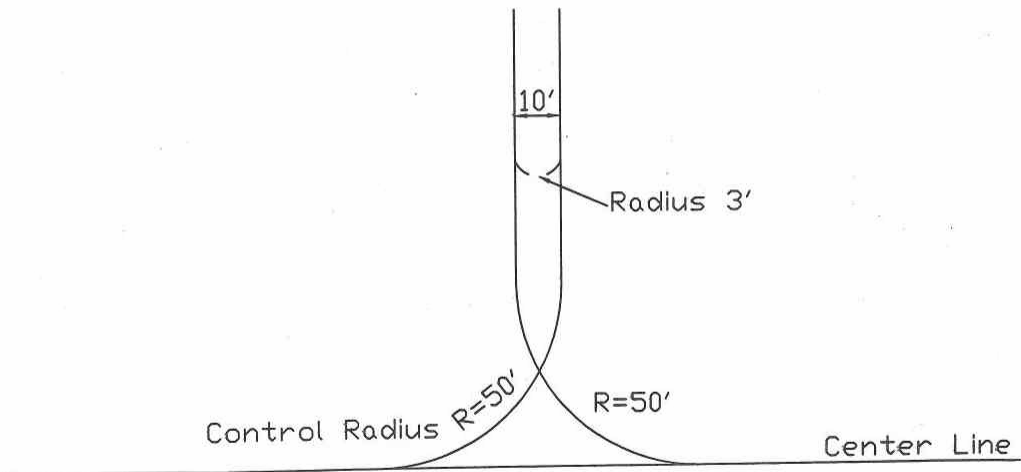
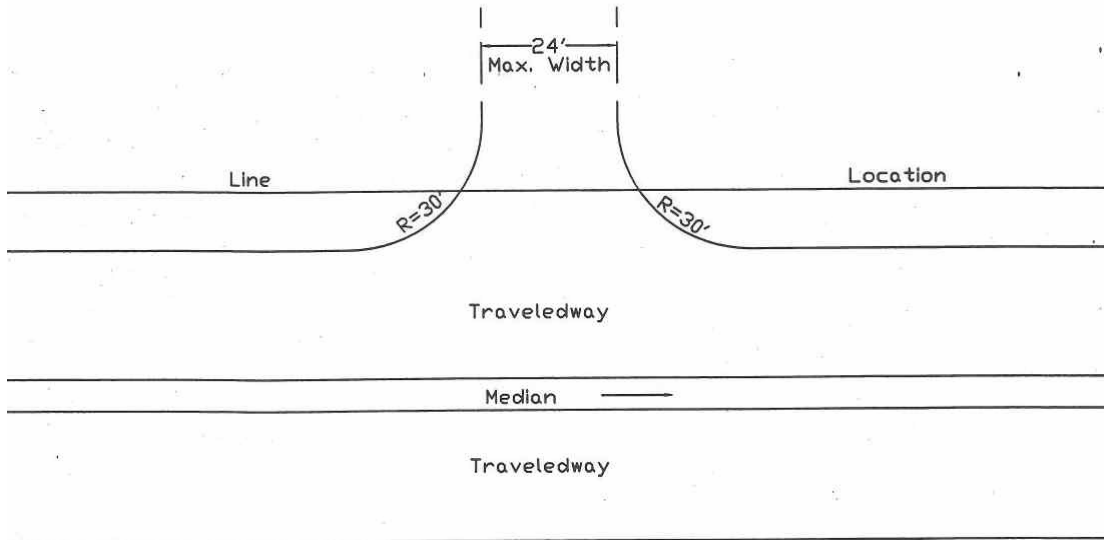


FIGURE 12-4

NOTE: SIDEWALKS MUST BE DESIGNED TO MEET ADA/AAB REQUIREMENTS

STANDARD DRIVES  
For Short Frontage Or Site Condition



For Shopping Plaza Or Mall  
On A Divided Highway

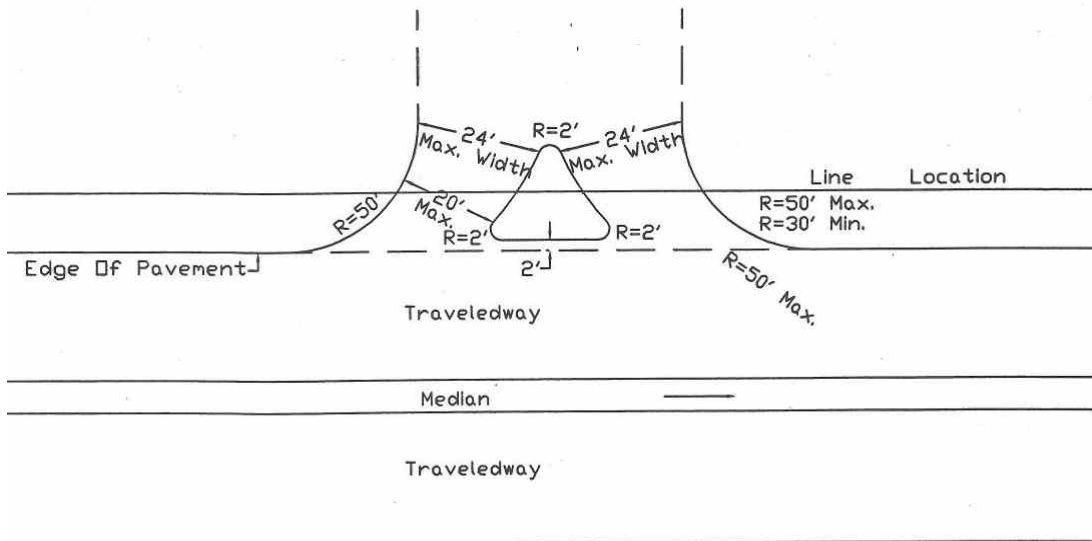
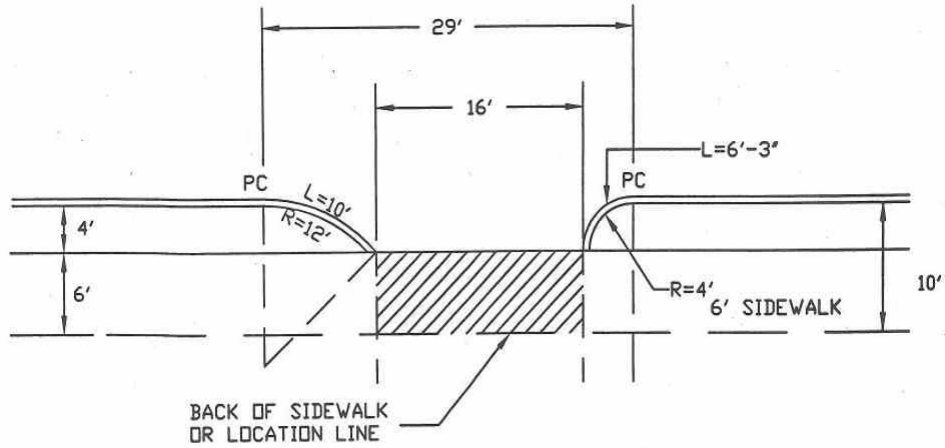


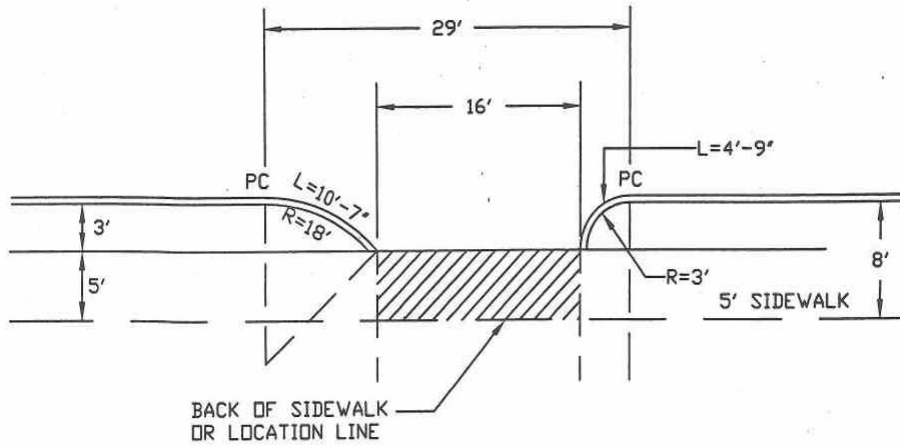
FIGURE 12-5

NOTE: SIDEWALKS MUST BE DESIGNED TO MEET ADA/AAB REQUIREMENTS

STANDARD DRIVES RESIDENTIAL  
RURAL AREAS ONLY



10' SIDEWALK LAYOUT



8' SIDEWALK LAYOUT

NOTES: WHEN THE SIDEWALK IS PAVED TO THE CURB LINE, USE SHORT CURB RETURNS AT THE HIGHWAY CURB LINE PC'S, SHOWN IN THESE DESIGNS.

NOTE: SIDEWALKS MUST MEET ADA/AAB REQUIREMENTS  
URBAN RESIDENTIAL DRIVES AND SIDEWALKS REQUIRE INDIVIDUAL  
DESIGNS

FIGURE 12-6

**PART 13**

**TRAFFIC CONTROL AGREEMENT (SAMPLE)**

**AGREEMENT BETWEEN THE  
COMMONWEALTH OF MASSACHUSETTS  
MASSHIGHWAY AND THE  
CITY / TOWN OF**  
\_\_\_\_\_

***FEDERAL AID PROJECT NO.*** \_\_\_\_\_  
***AGREEMENT NO.*** \_\_\_\_\_

**Section 13A-1 Introduction**

AGREEMENT, made this \_\_\_ day of \_\_\_\_\_, 2004, by and between the Commonwealth of Massachusetts, through, MASSHIGHWAY hereinafter called "**MASSHIGHWAY**", and the CITY/TOWN of \_\_\_\_\_, hereinafter called the "**CITY/TOWN**", pursuant to the provisions of Title 23, Sections 109(d) and 116, of the United States Code and in accordance with the official standards of MASSHIGHWAY, which have been adopted in conformity with the provisions and recommendations of the Manual on Uniform Traffic Control Devices for Streets and Highways published by the Department of Transportation, Federal Highway Administration, hereinafter called "**STANDARDS**".

WHEREAS, MASSHIGHWAY and the CITY/TOWN have agreed that \_\_\_\_\_, being in whole or in part a city way, has qualified to participate in the Federal Aid Program with the work being financed in part by the Federal Government; and

WHEREAS, the United States Government, through its Department of Transportation, Federal Highway Administration, requires that the project area upon completion will be operated and maintained in an adequate manner; and

WHEREAS, the CITY/TOWN approves the proposed plans for the improvements and upon completion of the project will be the responsibility of the CITY/TOWN.

NOW, THEREFORE, in consideration thereof, the CITY/TOWN hereby agrees to conform to the following provisions:

**Section 13A-2    General Provisions**

- A. All information, regulatory or warning signs, all traffic control signals, flashing beacons, traffic islands or other traffic control devices and all pavement or other markings within the ways located in the project area shall be designed, located and operated in accordance with the STANDARDS of MASSHIGHWAY for such devices.
- B. The Police Department of the CITY/TOWN is the enforcement agency for traffic regulations established in accordance with this Agreement and the traffic devices installed in connection therewith.
- C. Signed, dated and attested copies of amendments to the CITY/TOWN traffic ordinances necessary for the enforcement of any specific provisions will be forwarded forthwith by the CITY/TOWN to MASSHIGHWAY.

**Section 13A-3    Specific Provisions**

The following provisions are examples of possible temporary restrictions that need implementation during the construction of roadway projects.

- A. NO PARKING ANY TIME –**
- B. NO PARKING-BUS STOP-TOW ZONE –**
- C. STOP SIGNS –**
- D. LEFT TURN YIELD ON GREEN –**

- E. DO NOT ENTER**
- F. NO RIGHT TURN**
- G. NO LEFT TURN**
- H. NO TURN ON RED –**
- I. LEFT LANE MUST TURN LEFT –**
- J. RIGHT LANE MUST TURN RIGHT –**
- K. KEEP RIGHT –**
- L. ONE WAY (DO NOT ENTER)-**
- M. YIELD CONTROL –**

**Section 13A-4 Access and Egress**

Within the limits of the Federal Aid Project, neither additional driveways (residential or commercial) nor relocation or alteration of existing driveways shall be permitted unless they are in conformance with MASSHIGHWAY STANDARDS and receive prior written approval from MASSHIGHWAY.

**Section 13A-5 Traffic Islands**

Traffic islands or median islands and traffic devices thereon are not to be installed, altered or removed without the prior written approval of MASSHIGHWAY. Parking is prohibited on and adjacent to all traffic islands and median islands within the Federal Aid Project area.

**Section 13A-6 Traffic Control Signals**

- A. Traffic Control Signals shall be operated in strict accordance with the requirements of the applicable permit.
- B. Changes in the operation of the traffic control signals located in the Federal Aid Project area are not to be made without the prior written approval of MASSHIGHWAY.
- C. Traffic Control Signals, the operation of which is pertinent to the Federal Aid Project area covered

by this Agreement, will be installed to control traffic as shown on the plans for this Federal Aid Project. All power charges for the operation of the installation will be the responsibility of the CITY/TOWN as well as charges for maintenance and control. The traffic control signals listed below will be under the ownership and control of the CITY/TOWN.

*LIST INTERSECTIONS HERE*

\_\_\_\_\_  
\_\_\_\_\_

**Section 13A-7 Miscellaneous**

Traffic Controls or regulations instituted whether by the MASSHIGHWAY or the CITY/TOWN on ways or parts thereof within the Federal Aid Project are to remain in force and effect until proposed future changes have been approved in writing by the MASSHIGHWAY.

MASSHIGHWAY will not approve any future proposed traffic control changes within the Federal Aid Project which will in the opinion of MASSHIGHWAY, lessen to any degree the efficient utilization of the highway for traffic purposes.

**Section 13A-8 Maintenance**

The CITY/TOWN, in accordance with the provisions of Sections 109(d) and 116 of Title 23 USC, will properly maintain the way and all traffic signs and pavement markings under the control of the CITY/TOWN within the project area.

**Section 13A-9 Penalty**

Continued and willful failure on the part of the CITY/TOWN to fulfill its responsibility in the proper maintenance and operation and the enforcement of the traffic regulations of the completed project, may disqualify the CITY/TOWN from participation in future Federal Aid Projects in which the CITY/TOWN has maintenance responsibility, as provided in Title 23 USC.

Such failure shall result in the withholding or withdrawal of the unexpended balance of any funds assigned to the CITY/TOWN, under the provisions of Chapter 90, Section 34, of the Massachusetts General Laws.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the day and year first written.

CITY/TOWN OF \_\_\_\_\_

**COMMONWEALTH OF MASSACHUSETTS  
MASSHIGHWAY DEPARTMENT**

\_\_\_\_\_  
**MAYOR**

\_\_\_\_\_  
**COMMISSIONER**



**LEGAL CERTIFICATION**

This will certify that the City/Town has complied with all applicable State Laws and its By-Laws and Ordinances as they apply to this Agreement and that this Agreement is a valid, binding Agreement with the City/Town.

\_\_\_\_\_ **DATE** \_\_\_\_\_  
**CITY SOLICITOR**

**CERTIFICATE OF SIGNATORY**

This will certify that the below named individuals are duly authorized and empowered to execute and deliver this Agreement on behalf of the City of \_\_\_\_\_.

**NAME** \_\_\_\_\_ **TITLE** \_\_\_\_\_  
**DATE** \_\_\_\_\_ **ATTEST** \_\_\_\_\_  
**TOWN CLERK**

**NAME** \_\_\_\_\_

**APPENDIX A**

**A SAMPLE REGULATION FOR  
A STANDARD MUNICIPAL TRAFFIC CODE**

CITY (TOWN) OF .....

TRAFFIC .....

The following vote was duly passed:

The ..... of the City (Town of ..... ) acting by virtue of the power given to it by Section 22 of Chapter 40 of the General Laws of Massachusetts and by virtue of any other power it hereto enabling, hereby adopts and makes the rules and orders for the regulation of carriages and vehicles used in the said town for regulating traffic upon the streets and highways of said City (Town) of ..... ; insofar as the said rules and orders or any of them are the same as the regulations, rules and orders now in force they shall be deemed to be a continuation thereof.

**ARTICLE I**

**DEFINITIONS**

**SECTION 1-1 Definitions**

For the purpose of these ....., the words and phrases used herein shall have the following meanings except in those instances where the context clearly indicates a different meaning.

**SECTION 1-2 Bus Stops**

An area in the roadway set aside for the boarding of or alighting from and the parking of buses.

**SECTION 1-3 Crosswalks**

That portion of a roadway ordinarily included within the prolongation or connection of curb lines and property lines at intersections, or at any portion of a roadway clearly indicated for pedestrian crossing by lines on the road surface or by other marking or signs.

**SECTION 1-4 Curb Marking, Official**

That portion of a curbing, the painting of which has been authorized by the ....., and which has the written approval of MassHighway.

**SECTION 1-5 Emergency Vehicles**

Vehicles of the Fire Department (Fire Patrol), police vehicles, ambulances and emergency vehicles of federal, state and municipal departments or public service corporations when the latter are responding to an emergency in relation to the police or fire department.

**SECTION 1-6 Funerals**

Any procession of mourners properly identified as such accompanying the remains of a human body.

**SECTION 1-7 Intersection**

The area embraced within the extensions of the lateral curb lines or, if none, then the lateral boundary lines, of intersecting ways as defined in Section 1 of Chapter 90 of the General Laws, including divided ways.

The rules and regulations herein contained governing and restricting the movement of vehicles at and near intersecting ways shall apply at any place along any way at which drivers are to be controlled by traffic control signals whether or not such place is an intersection as herein defined.

**SECTION 1-8 Lane**

A longitudinal division of a roadway into a strip of sufficient width to accommodate the

passage of a single line of vehicles.

**SECTION 1-9 Officers**

Any officer of the ..... Police Department or any officer authorized to direct or regulate traffic or to make arrests for the violation of traffic regulations.

**SECTION 1-10 Parking**

The standing of a vehicle, whether occupied or not, otherwise than temporarily for the purpose of and while actually engaged in loading or unloading, or in obedience to an officer or traffic signs or signals, or while making emergency repairs or, if disabled, while arrangements are being made to move such vehicle.

**SECTION 1-11 Pedestrian**

Any person afoot or riding on a conveyance moving by human muscular power, except bicycles or tricycles, as defined in Chapter 90, Section 1SA (General Laws).

**SECTION 1-12 Railroad Crossing**

Any intersection of ways with a railroad right-of-way.

**SECTION 1-13 Roadways**

That portion of a street or highway between the regularly established curb lines or that part, exclusive or shoulders, improved and intended to be used for vehicular traffic.

**SECTION 1-14 Rotary-Traffic**

The counter clockwise operation of a vehicle around an object or structure.

**SECTION 1-15 Safety Zone**

Any area or space set aside within a roadway for the exclusive use of pedestrian and which has been indicated by signs, lines or markings, having the written approval of the Department, Commonwealth of Massachusetts.

**SECTION 1-16 Service Zone**

An area in the roadway set aside for the accommodation of commercial and transient vehicular traffic.

**SECTION 1-17 Street or Highway**

The entire width between property lines of every way open to the use of the public for purposes of travel.

**SECTION 1-18 Street Marking, Official**

Any painted line, legend, marking or marker of any description painted or placed upon any way which purports to direct or regulate traffic and which has been authorized by the ..... and which has the written approval of the Highway Department, Commonwealth of Massachusetts.

**SECTION 1-19 Taxicab Stands**

An area in the roadway in which certain taxicabs are authorized and required to park while waiting to be engaged.

**SECTION 1-20 Traffic**

Pedestrians, ridden or herded animals, vehicles, street cars or other conveyances either singly or together while using any street or highway for the purpose of travel.

**SECTION 1-21 Traffic Control Area**

Any area along any way, other than an intersecting way, at which drivers are to be controlled

**SECTION 1-22 Traffic Control Signal**

Any device using colored lights which conforms to the standards as prescribed by the Highway Department, Commonwealth of Massachusetts, whether manually, electrically or mechanically operated, by which traffic may be alternately directed to stop and to proceed.

**SECTION 1-23 Traffic Islands**

Any area or space set aside within a roadway, which is not intended for use by vehicular traffic.

**SECTION 1-24 Traffic Signs, Official**

All signs, markings and devices, other than signals, not inconsistent with these rules and orders, and which conform to the standards prescribed by the Highway Department of the Commonwealth of Massachusetts and placed or erected by authority of public body or official having jurisdiction for the purpose of guiding, directing, warning, or regulating traffic.

**SECTION 1-25 Traffic Signals, Official**

All signals, conforming to the standards as prescribed by the Highway Department of the Commonwealth of Massachusetts, not inconsistent with these rules and orders, placed or erected by authority of a public body or official having jurisdiction, for the purpose of directing or warning traffic.

**SECTION 1-26 U-Turn**

The turning of a vehicle by means of a continuous turn whereby the direction of such vehicle is reversed.

**SECTION 1-27 Vehicles**

Every device in, upon or by which any person or property is or may be transported or drawn upon a highway, including bicycles when the provisions of these rules are applicable to them, except other devices moved by human power or used exclusively upon stationary rails or tracks and devices which derive their for operation from stationary overhead wires.

**SECTION 1-28 Vehicles, Commercial**

Any vehicle being used in the transportation of goods, wares or merchandise for commercial purposes.

**SECTION 1-29 Vehicle, Heavy Commercial**

Any commercial vehicle of over two and one-half (2½) ton capacity.

**SECTION 1-30 People**

The word "person" shall mean and include any individual, firm, co-partnership, association or corporation.

**SECTION 1-31 Parking Meters**

The words "parking meter" shall mean any mechanical device, not inconsistent with the provisions of this regulation, and placed or erected on any public way or municipal off-street parking area within the ..... for the regulation of parking. Each parking meter installed shall indicate by proper legend the legal parking time established by this regulation and when operated shall at all times indicate the balance of legal parking time permitted and at the expiration of such period shall indicate illegal or overtime parking.

**SECTION 1-32 Parking Meter Zone**

The words "parking meter zone" shall mean and include any street or portion thereof or municipal off-street parking area upon which parking of vehicles is permitted for a limited time subject to compliance with the further provisions of this regulation.

**SECTION 1-33 Parking Meter Space**

The words "parking meter space" shall mean any space within a parking meter zone, adjacent to a parking meter which is duly designated for the parking of a single vehicle by lines painted on the surface of the street or municipal off-street parking area adjacent to or adjoining each parking meter.

**ARTICLE II**

**AUTHORITY AND DUTIES OF POLICE**

**SECTION 2-1 Traffic, Police to Direct**

It shall be the duty of officers designated by the Chief of Police to enforce the provisions of these..... Such officers are hereby authorized to direct all traffic either in person or by means of visible or audible signal in conformance with the provisions of these .....provided that in the event of a fire or other emergency, to expedite traffic or safeguard pedestrians, officers of the Police or Fire Department may direct traffic as conditions may require, notwithstanding the provisions of these.....

**SECTION 2-2 Close Street, Police May Temporarily**

The Chief of Police is hereby authorized to close temporarily any street or highway in an impending or existing emergency, or for any lawful assemblage, demonstration or procession.

**SECTION 2-3 Parking, Police May Prohibit Temporarily**

The Chief of Police is hereby authorized to prohibit, temporarily, parking on any street or highway or part thereof in an impending or existing emergency or for a lawful assemblage demonstration or procession. Vehicles parked in places where parking is prohibited temporarily may be moved by or under the direction of an officer.

**SECTION 2-4 Exemptions**

The provisions of these..... shall not apply to drivers actually engaged in work upon a street or highway closed to travel or under construction or repair, to officers when engaged in the performance of public duties nor to drivers of emergency vehicles while operating in an emergency and in performance of public duties when the nature of the work of any of these necessitate a departure from any part of these..... These exemptions shall not, however, protect the driver of any vehicle from the consequences of a reckless disregard of the safety of others.

**ARTICLE III**

**TRAFFIC SIGNS, SIGNALS, MARKINGS  
AND ZONES**

**SECTION 3-1 Bus Stops, Taxicab Stands and Service Zones, Location of**

The location of all bus stops, taxicab stands and service zones shall be specified by .....the and in the case of taxicab stands, the Chief of Police with the approval of the..... shall designate who may use them as such.

### **SECTION 3-2 Interference with Signs, Signals and Markings Prohibited**

Any person who willfully defaces, injures, moves, obstructs or interferes with any official traffic signs, signals or marking shall be liable to a penalty not exceeding twenty (20) dollars for each and every offense.

### **SECTION 3-3 Obedience to Traffic Signs, Signals and Markings**

No driver of any vehicle or of any street car shall disobey the instructions of any official traffic control signal, sign, marking, marker or legend unless otherwise directed by a police officer.

### **SECTION 3-4 Traffic Signs and Signals**

- a. The superintendent of Streets is hereby authorized, and as to those signs and signals required hereunder it shall be his duty, to place and maintain or cause to be placed and maintained all official traffic signs, signals, markings and safety zones. All signs, signals, markings and safety zones shall conform to the standards as prescribed by the Highway Department of the Commonwealth of Massachusetts.
- b. Sections 2-2 and 2-3 of Article II and Section 5-2 and 5-3 and 5-6 and 5-8 to 5-10 inclusive of Article V relating to parking and Sections 7-7 and 7-10 of Article VII concerning turning movements and Section 7-20 of Article VII pertaining to exclusion shall be effective only during such time as official signs are erected and maintained in each block designating the provisions of such sections and located so as to be easily visible to approaching drivers.
- c. Sections relating to one-way streets shall be effective only during such time as a sufficient number of official signs are erected and maintained at the entrance and each of the exits for each one-way street, so that at least one sign will be clearly visible for a distance of at least seventy-five (75) feet to drivers approaching such an exit.

### **SECTION 3-5 Signals, Signs and Markings Prohibited, Display of Unauthorized**

No person or corporation shall place, maintain or display upon or in view of any street any unofficial device, sign, signal, curb marking or street marking which purports, to be or is an imitation of or resembles an official traffic device, sign, signal, curb marking or street marking or which attempts to direct the movement of traffic or which hides from view any official sign, signal, marking or device. The Chief of Police is hereby empowered to remove every such prohibited sign, signal, marking or device or cause it to be removed without notice.

### **SECTION 3-6 Experimental Regulation**

For the purpose of trial the may make temporary rules regulating traffic or test under actual conditions traffic signs, markings, or other devices. No such experimental rules relating to traffic shall remain in effect for a period longer than 30 days.

**ARTICLE IV**

**ZONE OF QUIET**

The Chief of Police may temporarily establish a zone of quiet upon any street where a person is seriously ill. Said temporary zone of quiet shall embrace all territory within a radius of two hundred (200) feet of the building occupied by the sick person. Said temporary zones of quiet shall be designated by the Chief of Police by causing to be placed at a conspicuous place in the street a sign or marker bearing the words ZONE OF QUIET.

**ARTICLE V**

**STOPPING, STANDING, PARKING**

**SECTION 5-1 General Prohibitions**

No person shall allow, permit or suffer any vehicle registered in his name to stand or park in any street, way, highway, road or parkway under the control of the City (Town) of .....in violation of any of the Traffic Rules or Orders adopted by the .....and in particular in any of the following places except when necessary to avoid conflict with other traffic or in compliance with the direction of a police officer or traffic sign or signal.

- a. Within an intersection "except within those intersections where the installation of parking meters has been specifically approved by MassHighway."
- b. Upon any sidewalk.
- c. Upon any crosswalk.
- d. Upon the roadway in a rural or sparsely settled district.
- e. Upon a roadway where parking is permitted unless both wheels on the right side of the vehicle are within twelve (12) inches of the curb or edge of the roadway, except upon those streets which are designated as one-way streets. On such one-way streets vehicles shall be parked in the direction in which said vehicle is moving and with both wheels within twelve (12) inches of the curb. This shall not apply to streets or parts of streets where angle parking is required by these regulations.
- f. Upon any roadway where the parking of a vehicle will not leave a clear and unobstructed lane at least ten (10) feet wide for passing traffic.



- g. Upon any street or highway within ten (10) feet of fire hydrant.
- h. In front of any private road or driveway.
- i. Upon any street or highway within twenty (20) feet of an intersecting way, except alleys.
- j. Within fifteen (15) feet of the wall of a fire station or directly across the street from such fire station provided signs are erected acquainting the driver of such restriction.
- k. Alongside or opposite any street excavation or obstruction when such stopping, standing or parking would obstruct traffic.
- i. Within twenty-five (25) feet of the nearest rail of a railroad crossing when there are no gates at such crossing, or otherwise within five (5) feet form the gate.
- m. On a bridge and the approach thereto.

**SECTION 5-2 Service Zones**

No person shall park a vehicle upon any street in any service zone for a period of time longer than thirty minutes and except while actually engaged in loading or unloading.

**SECTION 5-3 Diagonal Parking**

- a. The..... shall determine the street upon which diagonal parking will be permitted and shall cause said streets to be designated by signs and the surfaces thereof to be marked as directed by the Chief of Police.
- b. Diagonal parking is permitted upon certain sections of a number of streets as designated in Schedule No. 1, hereto appended to which reference is made and which Schedule No. 1, relative to diagonal parking is herewith specifically incorporated in this section. Where such diagonal parking is permitted, vehicles shall be parked with one wheel within twelve (12) inches of the curb and at the angle to the curb indicated by official marks and signs. The vehicle shall be parked so that all four wheels thereof shall be placed wholly within the area indicated for parking, and headed to the curb.

**SECTION 5-4 Parking Vehicle for Sale Prohibited**

It shall be unlawful for any person to park upon a street or highway any vehicle displayed for sale.

**SECTION 5-5 No All Night Parking**

No person shall allow, permit or suffer any vehicle registered in his name, other than one acting in an emergency, to be parked on any street for a period of time longer than one (1) hour between the hours of 1:00 A.M. and 6:00 A.M. of any day.

**SECTION 5-6 Parking Location and Prohibitions**

Parking is prohibited, restricted or limited as to time, space and streets in accordance with a schedule of streets designated as Schedule No. 1, hereto appended to which reference is made and which Schedule No. 1, is specifically incorporated in this section. No operator shall park a vehicle in the designated prohibited locations or in the restricted locations for a period longer than is designated in Schedule No. 1, except as otherwise provided in this Schedule, or where there is a time limit as to parking.

**SECTION 5-7.1 Parking Meter Locations and Regulations**

Parking is restricted or limited as to time, space, streets are municipal off-street parking areas on the streets and municipal off-street parking areas designated as Schedule I-A hereto appended to which reference is made and which Schedule I-A is specifically incorporated in this Section. No person shall park a vehicle for a period of time longer than one hour between the hours of 8:00 A.M. end 6:00 P.M. on any of the streets or for a period of time longer than two hours in any municipal off-street parking area hereinafter designated in Schedule I-A or as may hereafter be fixed by amendment, except that on Friday the limited parking time shall apply between the hours of 8:00 A.M. and 9:00 P.M. This restriction shall not apply on Sundays or during the hours of legal holidays during which business establishments are required by law to remain closed.

In accordance with the foregoing parking meter zones are hereby established in the streets, parts of streets or municipal off-street parking are listed in Schedule I-A.

**SECTION 5-7.2**

The Purchasing Agent is hereby empowered, with the approval of the ..... to contract, in accordance with provisions of Chapter 40 of the General Laws, for the acquisition and installation of parking meters provided for by this regulation and to maintain said meters in good workable condition.

**SECTION 5-7.3**

The City (Town) Engineer is hereby authorized and directed to install parking meters within the areas described in this regulation or cause the same to be so installed. The meters shall be placed at intervals of not less than 20 feet apart except that beginning and ending spaces may be 18 feet and except where angle parking is permitted, and not less than 12 inches nor more than 24 inches from the face of the curb adjacent to individual meter spaces. Meters shall be so constructed as to display a signal showing legal parking upon the deposit therein of the proper coin or coins of the United States as indicated by instructions on said meters and for such period of time as is or shall be indicated by meter legend. Said signal shall remain in evidence until expiration of the parking period designated at which time a dropping of a signal automatically or some other mechanical operation shall indicate expiration of said parking period.

**SECTION 5-7.4**

The City (Town) Engineer is hereby authorized and directed to establish Parking meter spaces in such parking meter zones as are herein specified, or as may be hereafter fixed by amendment and to indicate the same by white markings upon the surface of the highway.

**SECTION 5-7.5**

Whenever any vehicle shall be parked adjacent to a parking meter, the owner or operator of said vehicle shall parking within the space designated by pavement marking lines and, upon entering such space, shall immediately deposit in said meter the required coin of the United State for a maximum legal parking period or proportionate period thereof, both as indicated or shown on the meter and if so required set the mechanism in motion.

The fee for the maximum parking time in on-street parking meter zones shall be twenty-five (25) cents or five (5) cents for each proportionate period of said maximum up to the limit of one hour.

The fee for parking in municipal off-street parking areas shall be at the rate of twenty-five (25) cents per hour or proportionate period thereof up to the maximum limit of ..... hours.

It shall be unlawful for any person to deposit or cause to be deposited in a parking meter any coin for the purpose of permitting the vehicle of which he is in charge to remain in a parking space beyond the maximum period of time allowed in a particular zone.

It shall be unlawful for any person to park a vehicle within a parking meter space unless such vehicle is wholly within the painted lines adjacent to such meter.

It shall be unlawful for any unauthorized person to open, tamper with, break, injure or destroy any parking meter or to deposit or cause to be deposited in such meter any slugs, device or metallic substance or any other substitute for the coins required.

**SECTION 5-7.6**

Operators of commercial vehicles may park in a metered space without depositing a coin for a period not to exceed 30 minutes for the purposes of loading or unloading. Parking in excess of this time limit without depositing the proper coin shall be deemed a violation of the provisions of this regulation.

**SECTION 5-7.7**

The Chief of Police is hereby designated as the person authorized to collect monies deposited in parking meters or to cause the same to be so collected. Such monies shall be deposited forthwith with the Treasurer in a separate account to be known as the ..... Parking Meter Account.

**SECTION 5-7.8**

All fees received by said Treasurer from the operation and use of parking meters shall be used as authorized by Chapter 40 of the General Laws (Ter. Ed.).

**SECTION 5-7.9**

It shall be the duty of police officers to enforce the provisions of this section.

**SECTION 5-7.10**

Any person who violates any parking provisions of this regulation shall be subject to the penalties provided by Chapter 90, Section 20A½ of the General Laws and any other violation shall be punishable as may be provided by law.

**SECTION 5-7.11**

No driver, while operating any vehicle owned and bearing indicia of ownership by the City (Town) of ..... , State or Federal governments, shall be required to deposit any fee in a parking meter as provided in this section.

**SECTION 5-7.12**

All other regulations or parts of regulations which are inconsistent herewith are hereby repealed.

**SECTION 5-8 Prohibited at Safety Zones**

No person shall park a vehicle within twenty (20) feet of either end of a safety zone which is located within thirty (30) feet of the curb or edge of the roadway.

**SECTION 5-9 Bus Stops**

- a. No person shall stop or park a vehicle other than a bus in a bus stop.
- b. No person shall park a bus upon any street within a business district at any place other than a bus stop when a nearby bus stop is available for use.

**SECTION 5-10 Taxicab Stands**

- a. No person shall park a vehicle other than a taxicab upon any street within a business district in any taxicab stand. (Schedule No. II)
- b. No person shall park a taxicab upon any street within a business district at any place other than the taxicab stand or stands designated for the use of his taxicab or taxicabs.

## **ARTICLE VI**

### **ONE-WAY STREETS**

#### **SECTION 6-1 One-Way Streets**

The streets or portions thereof designated in Schedule No. III hereto appended and specifically incorporated in this section are declared to be one-way streets and all vehicular traffic shall move on those streets or portions thereof in the direction designated in said Schedule No. III.

#### **SECTION 6-2 Rotary Traffic**

Within the area set forth below vehicular traffic shall move only in a rotary counter-clockwise direction except when otherwise directed by an officer.

## **ARTICLE VII**

### **OPERATION OF VEHICLES (MGL CHAPTER 89 GOVERNS)**

#### **SECTION 7-1 Overtake Only When There is a Space Ahead**

The driver of a vehicle shall not overtake and pass a vehicle proceeding in the same direction unless there is sufficient clear space ahead on the right side of the roadway to permit the overtaking to be completed without impeding the safety operation of any vehicle ahead.

#### **SECTION 7-2 Driver to Give Way to Overtaking Vehicle**

One driver of a vehicle when about to be overtaken and passed by another vehicle approaching from the rear shall give way to the right in favor of the overtaking vehicle on suitable and visible signal being given by the driver of the overtaking vehicle, and shall not increase the speed of his vehicle until completely passed by the overtaking vehicle.

#### **SECTION 7-3 Obstructing Traffic**

- a. No person shall drive in such a manner as to obstruct unnecessarily the normal movement of traffic on any street or highway. Officers are hereby authorized to require any driver who fails to comply with this section to drive to the side of the roadway and wait until such traffic as has been delayed has passed.
- b. No driver shall enter an intersection or a marked crosswalk unless there is sufficient space on the other side of the intersection or crosswalk and on the right half of the roadway to operate the vehicle he is operating without obstructing the passage of other vehicles or pedestrians notwithstanding any traffic control signal indication to proceed.

#### **SECTION 7-4 Following Too Closely**

The driver of a vehicle shall not follow another vehicle more closely than is reasonable and prudent, having due regard to the speed of such vehicle and the traffic upon and condition of the street or highway.

#### **SECTION 7-5 Clinging to Moving Vehicles**

It shall be unlawful for any person traveling upon a bicycle, motorcycle, coaster, sled, roller skates, or any toy vehicle to cling to, or attach himself or his vehicle to any moving vehicle or street car upon any roadway.

#### **SECTION 7-6 Care in Starting, Stopping, Turning or Backing**

The driver of any vehicle before starting, stopping, turning from a direct line or backing shall first see that such movement can be made in safety. If such movement cannot be made in safety or if it interferes unduly with the non-real movement of other traffic, said driver shall wait for a more favorable opportunity to make such movement.

If the operation of another vehicle should be affected by a stopping or turning movement, the driver of such other vehicle shall be given a plainly visible signal as required by statute law.

#### **SECTION 7-7 Prohibited and Mandatory Turning Movers**

#### **SECTION 7-8 Emerging from Alley or Private Driveway**

The operator of a vehicle emerging from an alley, driveway or a garage shall stop such vehicle immediately prior to driving on to a sidewalk or on to the sidewalk area extending across alleyway or driveway.

#### **SECTION 7-9 Obedience to Traffic Control signals**

Colors and arrow indications in traffic control signals shall have the commands ascribed to them in this section, and no other meanings and every driver of a vehicle, railway car, or other conveyance shall comply therewith, except when otherwise directed by an officer or by a lawful traffic regulating sign (other than a "stop" sign), signal or device or except as provided in section 7-18(b) of these rules.

In no case shall a driver enter or proceed through an intersection without due regard to the safety of other persons within the intersection, regardless of what indications may be given by traffic control signals.

1. Green indications shall have the following meanings:

- a. Drivers facing a CIRCULAR GREEN may proceed straight through or turn right or left

unless a sign at such place prohibits either such turn. But drivers turning right or left shall yield the right-of-way to other vehicles, and to pedestrians lawfully within the intersection or an adjacent crosswalk, at the time such signal is exhibited.

- b. Drivers facing a GREEN ARROW, shown alone or in combination with another indication, may cautiously enter the intersection only to make the movement indicated by such arrow, or such other movements as is permitted by other indications shown at the same time. Such drivers shall yield the right-of-way to pedestrians lawfully within an adjacent crosswalk and to other traffic lawfully using the intersection.

2. Steady yellow indications shall have the following meanings:

- a. Drivers facing a steady CIRCULAR YELLOW OR YELLOW ARROW signal are thereby warned that the related green movement is being terminated or that a red indication will be exhibited immediately thereafter when drivers shall not enter the intersection.

3. Steady red indications shall have the following meanings:

- a. Drivers, facing a steady CIRCULAR RED signal and NO TURN ON RED SIGN shall stop at a clearly marked stop line, but if none, before entering the crosswalk on the near side of the intersection, or if none, then before entering the intersection and shall remain standing until an indication to proceed is shown except as provided in (b) below.
- b. When no sign is in place prohibiting a right turn, or a left turn from a one way street to another one way street, drivers facing a steady circular red signal may cautiously enter the intersection to make the right turn, or left turn from a one way street to another one way street, after shopping as provided in (a) above. Such drivers shall yield the right-of-way to pedestrians lawfully within an adjacent crosswalk and to other traffic lawfully using the intersection.
- c. Drivers, facing a steady RED ARROW indication may not enter the intersection to make the movement indicated by such arrow, and unless entering the intersection to make such other movement as is permitted by other indications shown at the same time, shall stop at a clearly marked stop line, but if none, before entering the crosswalk on the near side of the intersection, or if none, then before entering the intersection and shall remain standing until an indication to make the movement indicated by such arrow is shown.

5. Flashing signal indication shall have the following meanings:

- a. Flashing red (stop signal) - When a red lens is illuminated with rapid intermittent flashes, driver of vehicles shall stop at a clearly marked stop line, but if none, before entering the crosswalk on the near side of the intersection, or if none, then at the point nearest the intersecting roadway where the drivers has a view of approaching traffic on the intersecting roadway before entering the intersection, and the right to proceed shall be subject to the provisions of Chapter 89, Section 8 of the General Laws.

- b. Flashing Yellow (caution signal) - When a yellow lens is illuminated with rapid intermittent flashes, drivers of vehicles may proceed through the intersection or pass such signal only with caution.

### **SECTION 7-10 U Turns Prohibited**

No operator shall back or turn a vehicle so as to proceed in the direction opposite to that in which said vehicle is beaded or traveling on the following streets.

### **SECTION 7-11 Stop Signs, Yield Signs, Through Ways**

#### **For Stop Signs**

"In accordance with the provisions of Chapter 89, Section 9 of the General Laws the following streets are designated as streets at the intersections and in the direction indicated:"

In accordance with the foregoing, the streets listed in Schedule No. IV of these rules and orders are hereby declared to constitute stop streets or flashing red signal intersections as the case may be, and said Schedule No. IV is hereby specifically incorporated in this Section.

The same preamble should be used for designation of yield signs.

#### **For Through Ways**

"In accordance with the provisions of Chapter 89, Section 9 of the General Laws, the following ways or parts of ways are hereby designated as through ways."

### **SECTION 7-12 Keep to the Right of Roadway Division**

Upon such roadways as are divided by a parkway, grass plot, reservation, viaduct, subway or by any structure or area, drivers shall keep to the right of such a division except when otherwise directed by an officer, signs, signals, or markings.

### **SECTION 7-13 Operation of Under or Overpasses at Intersection with Islands**

At any junction or crossing of ways where the roadway grades have been separated and where the ways are connected by ramps and at any intersection of ways in which there are traffic islands, drivers of vehicles shall proceed only as indicated by official signs, signals or markings.

### **SECTION 7-14 Driving on Road Surfaces Under Construction or Repair**

No operator shall enter upon a road surface of any street or highway or section thereof, when, by reason of construction, surface treatment, maintenance or the like, or because of some unprotected hazard, such road surface of the street or highway is not to be used or when so advised



by an officer, watchman, member of a street or highway crew or employees of the town, either audibly or by signals.

#### **SECTION 7-15 No Driving on Sidewalks**

The driver of a vehicle shall not drive upon any sidewalk except at a permanent or temporary driveway.

#### **SECTION 7-16 No Driving Through Safety Zones**

It shall be unlawful for the driver of a vehicle, except on signal from a police officer to drive the same over or through a safety zone.

#### **SECTION 7-17 Funerals to be Properly Identified**

A funeral composed entirely or partly of a procession of vehicles shall be identified as such by means of black pennants bearing a purple symbol attached to both the first and last vehicles or other suitable means.

#### **SECTION 7-18 Right and Duties of Drivers in Funerals or Other Processions**

- a. It shall be the duty of each driver in a funeral or other procession to keep as near to the right edge of the roadway as is feasible and to follow the vehicle ahead as closely as practicable and safe.
- b. At an intersection where a traffic control signal is operating the driver of the first vehicle in a funeral or other procession shall be the only one required to stop for a red and/or yellow indication.
- c. At an intersection where a lawful Stop sign exists, the driver of first vehicle in a funeral or other procession shall be the only one required to stop before proceeding through the intersection.

#### **SECTION 7-19 Unlawful Riding**

It shall be unlawful for any reason to ride on any portion of a vehicle not designated or intended for the use of passengers when the vehicle is in motion. This provision shall not apply to any employee engaged in the necessary discharge of a duty or within truck bodies in space intended for merchandise.

#### **SECTION 7-20 Operation of Heavy Commercial Vehicles**

1. The use and operation of heavy commercial vehicles having a carrying capacity of more than 2½ tons, are hereby restricted on the following named streets or parts thereof, and in the manner outlined and during the period of time set forth.

2.Exemptions - Part 1 of this Section shall not apply to heavy commercial vehicles going to or coming from places upon said streets for the purpose of making deliveries of goods, materials, or merchandise to or similar collections from abutting land or buildings or adjoining streets or ways to which access cannot otherwise be gained; or to vehicles used in connection with the construction, maintenance and repair of said streets or public utilities therein; or to Federal, State, Municipal or public service corporation owned vehicles.

## **ARTICLE VIII**

### **ACCIDENT REPORTS**

#### **SECTION 8-1 Drivers Must Report Accidents**

Every person operating a motor vehicle which is in any manner involved in an accident in which any person is killed or injured or, in which there is damage in excess of one thousand dollars (\$1,000.00) to any one vehicle or other property, shall report such accident within five (5) days to the Registrar and to the Police Department in accordance with the provisions of Chapter 90, Section 26, of the General Laws.

## **ARTICLE IX**

### **PENALTIES AND REPEALS**

#### **SECTION 9-1 Penalties**

Any person violating any provisions of any rule, regulation or order regulating the parking of motor vehicles made by anybody authorized to make the same shall be dealt with as provided in General Laws, Chapter 90, Section 20A½ or any Acts in amendment thereof, or in addition thereto, and any person violating any of the rules and regulations applicable to State Highways made by MassHighway, Commonwealth of Massachusetts, under authority of General Laws, Chapter 85, Section 2, and Acts in amendment thereof, and in addition thereto, shall be subject to the penalty provided in said rules and regulations.

Any person convicted of a violation of any other rule, regulation or order made hereunder, except as otherwise provided, shall be punished by a fine not exceeding twenty dollars (\$20.00) for each offense.

**SECTION 9-2 Repeal**

These rules are adopted with the intent that each of them shall have force and effect separately and independently of every other except insofar as by express reference or necessary implication any rule or any part of a rule is made dependant upon another rule or part thereof.

All official signs, lights, markings, signal systems or devices erected or installed under prior rules or regulations and necessary to the enforcement of these regulations and necessary to the enforcement of these regulations shall be deemed to have been lawfully erected or installed hereunder provided the same are erected or installed with the permission and approval of MassHighway of the Commonwealth of Massachusetts and insofar as the same are necessary as aforesaid for the enforcement of these regulations they shall be deemed continuing hereunder but in all other respects all prior rules, orders and regulation made by the .....of..... for the regulation of vehicles are hereby expressly repealed. This repeal, however, shall not affect any punishment or penalty imposed or any complaint or prosecution pending at the time of the passage hereof for any offense committed under said prior rules, order or regulations hereby repealed, nor shall said repeal be effective unless and until these rules and regulations have been approved and published as required by law.

**SECTION 9-3 Effect of Regulations**

If any section, subsection, sentence, clause or phrase of these rules and order is for any reason unconstitutional, such decisions shall not affect the validity of the remaining portion of these rules and orders. The..... hereby declares that it would have passed these regulations and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that any one of more sections, subsection, sentence, clauses or phrases be declared unconstitutional.

**SECTION 9-4 Owner Prima Facie Responsible for Violations**

If any vehicle is found upon any street or highway in violation of any provisions of these rules and regulations and the identity of the driver cannot be determined, the owner or the person in whose name such a vehicle is registered shall be held prima facie responsible for such violations.

(Date of Passage)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Board of Selectmen/City Council

Attest: Town/City Clerk

**Schedule I**

**PARKING**

Location	Side	From	To	Type Parking
----------	------	------	----	--------------

**Schedule I-A**

**SECTION 1 - ON-STREET PARKING METER ZONES**

Location	Side	From	To
----------	------	------	----

**Schedule II**

**TAXICAB STANDS**

Location	Side	From	To	Type
----------	------	------	----	------

**Schedule III**

**ONE-WAY STREETS**

Location	Direction	From	To
----------	-----------	------	----

**Schedule IV**

**STOP SIGNS**

Location	Direction	From	To
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**APPENDIX B**

**Sample**

**Pedestrian Regulations**

Voted:

In accordance with the provisions of Chapter 90, Section 18A of the General Laws (Ter. Ed.) and in accordance with the Pedestrian Control Standards of the Highway Department, Commonwealth of Massachusetts, the City Council (Board of Selectmen) (Traffic Commission) of the City (Town) of ..... hereby enact the following regulations to govern the use of ways by pedestrians. These regulations are to become effective on .....

**PEDESTRIAN CONTROL REGULATIONS**

**SECTION 1 Pedestrian Crossing Ways or Roadways**

Pedestrians shall obey the direction of police officers directing traffic and whenever there is an officer directing traffic, a traffic control signal or a marked crosswalk within three hundred (300) feet of a pedestrian, no such pedestrian shall cross a way or roadway except within the limits of a marked crosswalk and as hereinafter provided in these regulations. For the purpose of these regulations, a marked crosswalk shall only be construed to be that area of a roadway reserved for pedestrian crossing located between two solid white reflectorized 12 inch pavement markings in rural areas or markings not less than six inches wide in urban areas, said markings or lines being no less than six feet apart.

**SECTION 2 Pedestrian Actuation**

- a. At a traffic control signal location where pedestrian indications are provided but which are shown only upon actuation by means of a pedestrian push button, no pedestrian shall cross a roadway unless or until the pedestrian control signal push button has been actuated and then cross only on the proper pedestrian signal indication.
- b. At a traffic control signal location, pedestrians shall yield the right of way to vehicles of a funeral or other procession or authorized emergency vehicle while in performance of emergency duties regardless of the signal indication given, and they shall not attempt to cross the roadway until such vehicles or procession has passed at which time pedestrians shall then cross the roadway only as provided in these regulations.

**SECTION 3 Pedestrian Obedience to Traffic Control Signals**

Traffic control signal color indications and legends shall have the commands ascribed to them in this section and no other meanings, and every pedestrian shall comply therewith, except when otherwise directed by an officer.

- a. Red Alone or "Don't Walk" - Whenever the words "Don't Walk" or any indication other than red and yellow shown together are illuminated in a traffic control signal where pedestrian indications are provided, pedestrians approaching or facing such indication shall wait on the sidewalk, edge of roadway or in the pedestrian refuge area of a traffic island and shall not enter upon or cross a roadway until the proper indication is illuminated in the traffic control signal, but any pedestrian who has partially completed his crossing on the walk indication shall proceed or return to the nearest sidewalk or safety island on the yellow indication, the red indication or when the phrase "Don't Walk" are illuminated by rapid intermittent flashes.
- b. Green Alone - At traffic control signal locations where no pedestrian indication is given or provided pedestrians facing the signal may proceed across the roadway within any marked crosswalk in the direction of the green indication.
- c. Yellow Alone, Red Alone or Flashing "Don't Walk" - Pedestrians approaching or facing a yellow, red or flashing "Don't Walk" illuminated indication shall not start to cross a roadway.
- d. Flashing Red, Yellow or Green - At any traffic control signal location where a flashing red or flashing yellow is facing a crosswalk, pedestrians shall actuate, where provided, the pedestrian signal indication and cross the roadway only on when the "Walk" indication is in operation. If no pedestrian signal is provided, pedestrians shall cross within crosswalks with due care.

#### **SECTION 4 Pedestrian Crossings and Use of Roadways**

- a. No pedestrian shall suddenly leave a side or safety island and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield the right of way.
- b. Pedestrians shall at all times attempt to cross a roadway using the right half of crosswalks.
- c. Where sidewalks are provided, it shall be unlawful for any pedestrian to walk along and upon adjacent roadway whenever the sidewalk is open to pedestrian use.
- d. Where sidewalks are not provided, any pedestrian walking along and upon a highway shall, when practicable, walk only on the left side of the roadway on its unfinished shoulder facing traffic which may approach from the opposite direction.
- e. Persons exiting from the roadway side of any vehicle parked at the curb or edge of roadway shall proceed immediately to the sidewalk or edge of roadway adjacent to vehicle, and shall cross the roadway only as authorized by these regulations.
- f. It shall be unlawful for any person to actuate a pedestrian control signal or to enter a marked crosswalk unless a crossing of the roadway is intended.

**SECTION 5 Crossing at Non-Signalized Locations**

Every pedestrian crossing a roadway at any point other than within a marked crosswalk shall yield the right of way to all vehicles upon the roadway. At a point where a pedestrian tunnel or overpass has been provided pedestrians shall cross the roadway only by the proper use of the tunnel or overpass.

**SECTION 6 Operators to Exercise Due Care**

The provisions of these regulations shall in no way abrogate the provisions of Chapter 90, Section 14 and 14A of the General Laws (Ter. Ed. ) which provide: "Precautions for Safety of Other Travelers" and for the "Protection of Blind Persons Crossing Ways." Furthermore, notwithstanding the provisions of these regulations every operator of a vehicle shall exercise due care to avoid colliding with any pedestrian upon the roadway and shall give warning by sounding the horn when necessary, and shall exercise proper precautions which may become necessary for safe operation.

**SECTION 7 Pedestrians Soliciting Rides or Business**

No person shall stand in a roadway for the purpose of soliciting a ride, employment or business from the operator or occupant of any vehicle without the written permission of the board or officer having control of such roadway or highway.

**SECTION 8 Officers to Enforce Pedestrian Regulations**

These pedestrian control regulations shall be enforced by all officers of the Town (City) of ..... on and after .....

**SECTION 9 Exemptions**

The provisions of these rules and regulations governing the use of ways by pedestrians shall not apply to pedestrians actually engaged in work upon a roadway closed to travel or under construction or repair, to municipal, state, federal or public service corporation employees while in the performance of their duties, to officers engaged in the performance of their public duties or to pedestrians acting in an emergency when such emergency necessitates departure from any part of these rules and regulations.

**SECTION 10 Penalties**

Any person who violates the provisions of this Article which deal with the proper use of ways by pedestrians shall be punished as provided in Chapter 90, Section 15A of the General Laws (Ter. Ed.).

**SECTION 11 Effect of Regulation**

All existing rules and regulations governing the operation of vehicles or the use of ways by

pedestrians which are inconsistent herewith are hereby expressly repealed. This repeal shall not, however, affect any punishment or penalty imposed or any complaint or prosecution pending at the time of passage hereof for any offense committed under any of the said rules and regulations hereby repealed.

If any section, sub-section, sentence, clause or phrase of these rules and regulations is for any reason unconstitutional, such decision shall not affect the validity of the remaining portion of these rules and regulations. The City Council (Board of Selectman) of the City of (Town of)..... hereby declare that they would have passed these rules and regulations and each section, sub-section, sentence, clause or phrase thereof, irrespective of the fact that any one or more sections, sub-sections, sentences, clauses or phrases be declared unconstitutional.

Date of passage \_\_\_\_\_

Signatures \_\_\_\_\_

Board of Selectmen \_\_\_\_\_

Attest: City / Town Clerk \_\_\_\_\_



**APPENDIX C - SAMPLE REGULATIONS**

**Tow Away Zone Regulations**

**SECTION 1 In General**

In accordance with the provisions of Chapter 40, Section 22D of the General Laws (Ter. Ed.) the City Council (Board of Selectmen) (Traffic Commission) of the City (Town) of ..... hereby enact the following regulations authorizing the removal to a convenient place of vehicles parked or standing in such manner, or in such areas as are hereinafter described on any way under the control of the City (Town) of ..... Vehicles specifically exempt by Chapter 40, Section 22D shall not however be subject to such removal.

**SECTION 2 Authorization of Police**

The moving or towing of any vehicle under the provisions of this Article shall be by and at the direction of the Chief of Police or such other Officer(s) of the rank of Sergeant or higher as he may from time to time designate.

**SECTION 3 Fees**

The City Council (Board of Selectmen) (Traffic Commission) hereby imposes upon the owner of any vehicle moved or towed to a convenient place, under the provisions of this Article, the following fees:

- a. Removal or towing fee not to exceed that which is provided in or as authorized by Statute Law.
- b. Storage Fees:

Not to exceed that which is provided in or as authorized by Statute Law.

**SECTION 4 Liability for Damage During Removal or Storage**

The contractor shall be liable to the owner for any damage arising out of negligence caused to a vehicle in the course of removal and storage.

**SECTION 5 General Prohibition Towing Zones**

No person shall stand or park or allow, permit or suffer any vehicle registered in his name to stand or park in any of the following places. Vehicles found in violation of the provisions of this Section except those specifically exempt by law, shall be removed to a convenient place under the direction of an officer of the Police Department and the owner of the vehicle so removed or towed away shall be liable to the cost of such removal and storage, if any, as set forth in Section 3 of this Article. The owner of any vehicle removed or towed away under the provisions of this Section shall also be subject to the penalties provided in Chapter 90, Section 20A½ of the General Laws (Ter.Ed.).

- a. Upon any way in such a manner as to impede the removal or plowing of snow or ice except vehicles parked in accordance with approved regulations governing All Night Parking.
- b. Upon any sidewalk.
- c. Upon any crosswalk.
- d. Upon any way within twenty (20) feet of an intersecting way except alleys.
- e. Upon a way within ten (10) feet of a fire hydrant.
- f. On a roadway side of any vehicle stopped or parked at the edge or curb of the way.
- g. In front of a public or private driveway.
- h. Upon any way where the parking of a vehicle will not leave a clear and unobstructed lane at least ten (10) feet wide for passing traffic.

#### **SECTION 6 Parking Prohibitions, Towing Zone**

No person shall stand or park or allow, permit or suffer any vehicle registered in his name to stand or park on any of the ways or parts of ways hereinafter described and during the periods of time set forth. Vehicles found in violation of the provisions of this Section except those specifically exempted by law shall be removed to a convenient place under the direction of an officer of the Police Department and the owner of the vehicle so removed, or towed away, shall be liable to the cost of such removal and storage, if any, as set forth in Section 3 of this Article. The owner of any vehicle removed or toyed away under the provisions of this Section shall also be subject to the penalties provided in Chapter 90, Section 20A½ of the General Laws (Ter. Ed.)

- a. Main Street - both sides, between North Street and South Street.
- b. Walker Street - both sides, between Cabot Street and Newhall Street.
- c. Chase Avenue - easterly side, between Adams Street and Charles St.
- d. In any Bus Stop.
- e. Etc.

#### **SECTION 7 Official Traffic Signs**

The provisions of Section 6 shall be effective only during such time as a sufficient number of official traffic signs bearing the legend TOW-AWAY ZONE are installed, erected, maintained and located so as to be visible to approaching drivers, said signs to be appended above or incorporated into the legend of Parking Prohibition Signs.

**SECTION 8 Police to Keep Record of Towed Vehicles**

The Police Department shall keep a record of all vehicles towed or removed under the provisions of this Article. Such record shall be retained for one (1) year and shall contain the following information:

1. The registration of the vehicle.
2. The location from which it was towed, and time and date of tow order.
3. The location to which it was moved.
4. The fee charged for towing.
5. Name of towing contractor, if any.
6. Name and rank of officer who authorized towing.

Date of Passage \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Board of Selectmen

Attest: City (Town) Clerk

\_\_\_\_\_

**APPENDIX D**

**Pertinent Statutes**

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40	21 s.s. 16	Supt. of streets may tow vehicles
40	22	Municipalities may regulate traffic
40	22A	And install parking meters
40	22B	And use meter funds to purchase off-street parking areas
40	22C	And install meters in parking areas
40	22D	Municipalities may tow illegally parked vehicles.
81	19	Town has police jurisdiction over State Highway
85	1	Municipalities to erect directional signs
85	2	Authority and duties of the Department
85	2A	Additional authority (Department may tow vehicles interfering with snow removal)
85	2B	Additional authorities (may make special regulations for express State Highways)
85	2C	Additional authority (towing of vehicles on State Highways)
85	10A	Municipalities may designate coasting streets
85	11A	Registration of bicycles
85	21A	Municipalities may erect school warning signs
85	30	Heavy vehicles may be regulated – certain conditions
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CHAPTER	SECTION	PROVISION
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89	7A	Vehicles near fire apparatus on fires
89	8	Right-of-way law
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90	17	Speed limits
90	18	Special regulations
90	18A	Pedestrian control
90	20A	Violation of parking rules (penalty)
90	20A½	Municipalities may set parking fines
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90	20D	Removing parking notice (penalty)
233	79F	Proof of existence of public way
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## **APPENDIX E**

### **AMENDMENTS AND ADDENDA TO NATIONAL MUTCD**

This appendix sets forth the Amendments to the National MUTCD adopted by the Department. These Amendments clarify or establish policy for the Department that may not follow some of the specifics of the National MUTCD.

### **MASSACHUSETTS MUTCD AMENDMENTS**

#### **CHAPTERS 2 & 3 - SIGNS AND PAVEMENT MARKINGS**

##### **Section 2B.36 Selective Exclusion Signs (R5-10E)**

The R5-10E (graphic) depicting “PEDESTRIANS, BICYCLES AND HORSES PROHIBITED” shall be used and the sign panel shall have a minimum size 24 inches by 24 inches.

##### **Section 2B.37 One Way Signs (R6-1, R6-2)**

R6-1 signs should be used at locations where the one-way street comes into an intersection. R6-2 signs should be used at locations where the one-way street goes away from an intersection.

##### **Section 2B.45 Traffic Signal Signs**

R10-11b signs shall be provided at all locations where a right turn is controlled by a red arrow indication. R10-17a signs shall not be used at such locations. The R10-3F sign (5 inches by 8 inches) shall be mounted immediately above or incorporated in all pedestrian push-button units.

##### **Section 2D.11 Design of Route Shields**

The design of M1-5 route shields for Massachusetts state numbered routes shall conform to current Massachusetts Highway Department standards.

##### **Section 2D.35 Destination Signs**

The design of destination signs for Massachusetts streets and highways shall conform to the current Massachusetts Highway Department “*Guide Sign Policy for Secondary State Highways*”

##### **Section 2D.38 Street Name Signs**

Street name signs for Massachusetts streets and highways shall consist of white legend on green background, unless other acceptable contrasting colors have been approved by the Massachusetts Highway Department for use on a given project.

### Section 2E.25 Route Shields and Trailblazer Assemblies

Massachusetts M1-5 route shields shall always include a border and inset, whether mounted independently or on guide signs.

### Section 2E.28 Interchange Exit Numbering

Exit number plaques for left-hand exits on Massachusetts expressways and freeways shall include the word "LEFT". The "LEFT" portion of the exit number plaque shall be black on yellow.

### Section 2F.10 Specific Service Signs

Service signing may be permitted as prescribed in the Department's *Supplemental Sign Policy* that was developed to carry out the provisions of Chapter 85, Section 2D of the M.G.L.

### Section 3B.16 Stop and Yield Lines

Yield Lines shall be used only:

- a) At entry points to roundabout intersections.
- b) To control unsignalized movements at otherwise signalized intersections.
- c) Where deemed necessary or desirable by engineering judgment, in advance of unsignalized, mid-block crosswalks, as illustrated in Figure 3B-15.

### Section 3C.01 Object Marker Design and Placement Height

H1-2 warning cluster panels conforming to current Massachusetts Highway Department standards shall be used instead of MUTCD "Type 1" markers. H1-2 panels shall be used only where traffic can pass on both sides (immediately to the right or left side) of a gore, island, or other obstruction.

H1-3 abutment warning panels conforming to current Massachusetts Highway Department standards shall be used instead of MUTCD "Type 3" markers. H1-3 panels shall be used only on roadways passing underneath bridge structures, and only where a guardrail is not present.

## **CHAPTER 4 – HIGHWAY TRAFFIC SIGNALS**

### Section 4C.01 Studies and Factors for Justifying Traffic Control Signals

The Department views Warrant 1 as paramount when justifying a traffic control signal based on vehicular traffic flow. While other volume warrants shall be considered, the Department expects that Warrant 1 be satisfied.

When considering volume warrants, traffic counts older than two calendar years are not acceptable. Volume warrants based on projected traffic must include a projection of hourly traffic throughout an average day.

#### Section 4D.15 Size, Number, and Location of Signal Faces by Approach

1. All lenses shall be 12 inches.
2. All intersection approaches include at least one overhead signal. Deviation from this amendment is only allowed when the provision of overhead indications is either physically not possible or cost prohibitive.

#### Section 4E.03 Application of Pedestrian Signal Heads

Pedestrian Signal Heads shall only be used with crosswalks connecting to viable sidewalks meeting all the requirements of ADA. Viable sidewalks are defined as part of a municipal network of sidewalks or sidewalks connecting to major pedestrian destinations.

#### Section 4E.07 Countdown Pedestrian Signals

It is the opinion of the Department that Countdown Pedestrian Signals are not viewed to provide any useful information to either the pedestrian or the motorist. The information is in direct opposition to the intent of the traffic control device (Flashing Don't Walk). Consequently, this section of the NMUTCD does not apply on Massachusetts State Highways and any projects that involve state funds.

### **SECTION 7G - OFFICIAL STANDARDS FOR SCHOOL ZONES**

As required by Chapter 90, Section 17 of the MGL  
(Tercentenary Edition as Amended)

The Department hereby adopts the following standards for the establishment of school zones to provide increased protection for school children on highways in the vicinity of schools:

Any variance from the requirements of these Standards without the written approval of the Department shall constitute the establishment of a non-standard School Zone and shall render the provisions of Chapter 90, section 17 inapplicable insofar as they refer to the speed of vehicles in School Zones.

#### **7G-1 SCHOOL ZONE DEFINED**

A School Zone as referred to in Chapter 90, Section 17 shall only be construed to be that section of a way which abuts the grounds of a school and is posted and marked in accordance with these Department Standards to indicate the applicability of the statutory speed limits of twenty miles per hour for all vehicles in accordance with the terms of the permit for the Zone.



## **7G-2 WARRANTS FOR SCHOOL ZONES**

The following **minimum warrants** are specified for the establishment of a School Zone.

The school property abuts the public right of way within the limits of the proposed zone area.

School Children have direct access to the street or roadway from the school property.

The zone must contain a marked crosswalk.

The school must involve one or more grades below Grade 9.

A School Zone is **not warranted**:

- a. When children are not required to cross the street on foot within the limits of the proposed zone area and sidewalks are provided.
- b. Where abutting school property is fenced or the crosswalk has been signalized except in the cases where investigation shows that there is no conflict between the signal indication and the school zone speed limit sign.

## **7G-3 SCHOOL ZONE SPEED LIMIT SIGNS**

The flashing sign is available in two variations. Specifications are shown in Section 7G-9. The flashers and the numeral shall be energized **only during the hours when the 20 M.P.H. speed limit is legally effective**. A non-illuminated school zone speed limit sign is also acceptable, and must be accompanied by a supplementary sign indicating the hours the 20 M.P.H. limit is in effect, or "When Children are Present".

## **7G-4 SCHOOL ZONE SPEED LIMIT SIGN USE**

The School Zone Speed Limit Sign may be used at all locations to establish legal school zone speed limits of 20 MPH where the school building or the grounds thereof abuts the street or highway. It shall not be used at any other location.

The School Zone shall not begin more than 300 feet in advance of a point where the projected nearer line of the School Building intersects the abutting highway. The sign should be placed within 50 feet of the limits of the school zone, facing traffic entering the zone. The sign may be erected on the shoulder, or it may be erected overhead.

The School Zone Speed Limit Sign should be erected over the roadway where curves, roadside development and other physical conditions do not permit at least 500 feet of advance sight distance to a side-mounted sign. Over the road mounting is recommended for all divided highways and highways of four or more lanes.

## **7G-5 SCHOOL ZONE SIGNS ON STATE HIGHWAYS**

It is the policy of the department to install standard warning signs at all approaches to potentially hazardous locations. In the case of a school abutting a State Highway, the Department will, by permit, authorize the establishment of School Zones at the request of the municipality wherein the highway lies. All costs for the establishment and maintenance of a school zone speed limit on State Highway shall be borne by the municipality. A permit for each School Zone will be issued to the municipality setting forth the applicable terms for the zone operation.

#### **7G-6 APPROACH WARNING SIGNS**

The *School Advance Sign* (S1-1) as provided in Section 7B.08 of the 2003 MUTCD shall be supplemented by a tab bearing the legend “School Zone Ahead” and shall be erected in advance of the beginning of each school Zone to notify motorists of their approach to School Zone. (See 7G-8).

#### **7G-7 WORD AND SYMBOL MARKINGS** (See Section 7C.06)

The word “SCHOOL” shall be placed at the beginning of the school zone facing approaching traffic. It shall extend across the full width of the approach lanes. The word “SCHOOL” shall be wholly on the right half of the roadway.

On approaches with two lanes a height of ten feet shall be used.

On approaches with only one lane a height of six feet shall be used.

#### **7G-8 SCHOOL ZONES WITHIN SPEED ZONES**

Where a school is within the limits of an authorized speed zone, the beginning of the speed zone shall be not less than 850 feet in advance of the school grounds in rural areas; 500 feet, or one block, whichever is smaller, in urban areas. There shall be no speed limit sign, other than a School Zone Limit 20 between the advance School Warning sign and the School Zone. A speed limit sign, to mark an authorized speed zone, shall be placed just beyond the end limit of the school zone facing traffic which has passed the school property.

When a School Zone is located on a highway not legally speed zoned the end limit of the zone shall be designated by a standard rectangular advisory sign with the legend “END SCHOOL ZONE”

#### **7G-9 SIGN SPECIFICATIONS**

##### **A. SCHOOL ZONE AHEAD TAB**

1. Color: Yellow background with black legend and border
2. Shape: Rectagonal
3. Size: Minimum 24” x 18”

##### **B. SCHOOL ZONE SPEED LIMIT SIGNS**

1. COLOR:

- a). "SCHOOL" tab portion - Yellow background with black legend and border
  - b). SPEED LIMIT portion – black legend and border on white background with two yellow lenses separated by a lens which shows red numeral 20 only when energized.
2. SHAPE:  
Rectangular, ground mount - long axis vertical. Overhead mount - long axis horizontal.
  3. SIZE:
    - a). Ground mount sign minimum size 24" x 48". Overhead mount sign minimum size 72" x 60".
    - b). Ground mount legend: "School" 4" series C, "Speed Limit" 4" series B, "When Flashing" 4" series B. Overhead sign panel specifications available upon request.
  4. LENS: Size – 8" minimum  
Color – yellow
  5. NUMERAL 20: Size not less than 6"  
Color: shall be as set forth for "Don't Walk" signal in Standard Specifications of MassHighway.
  6. HEIGHT: Ground mount sign no less than 7 feet to bottom of sign. Overhead mount sign minimum clearance of 16 feet over roadway.

#### C. END SCHOOL ZONE

1. USE: To be installed only where there is no legal speed zone beginning at the end of school zone.
2. COLOR: White with black legend and border.
3. SHAPE: Rectangular, long axis vertical.
4. SIZE: 18" x 24" minimum.

#### D. LATERAL CLEARANCE

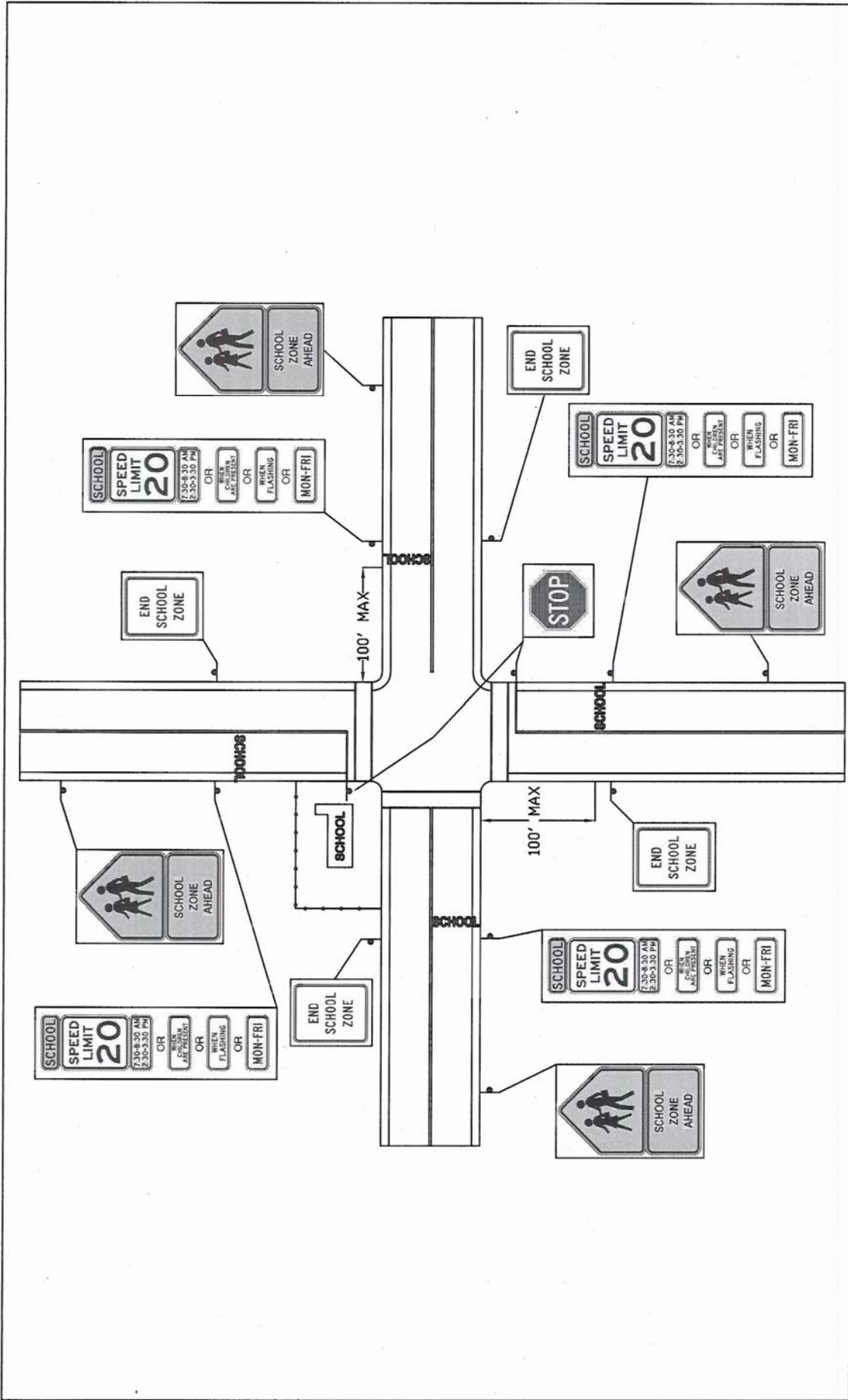
A clearance of 1 foot from the curb line is permissible where sidewalk width is limited or where existing poles are close to the curb. Otherwise, where a raised curb, guardrail or paved shoulder is present, a sign should be ordinarily placed with its nearest edge at least two feet outside such curb line, guardrail or paved shoulder.

#### **7G-10 PROCEDURE FOR APPROVAL**

On State Highways, approval of the use of school zone speed limit signs will be granted by permit from the Department to a municipality upon written application setting forth the proposed operation of the sign.

#### **7G-11 PERMISSIBLE TIMES OF OPERATION**

School zones signs may be permitted to flash and show the 20 mph speed limit only during the school noon hour, school recess or during those periods when children are going to or leaving school during opening and closing hours.



THE MASSACHUSETTS  
 AMENDMENTS TO THE MUTCD  
 AND THE STANDARD MUNICIPAL  
 TRAFFIC CODE  
 2006

FIGURE 1  
 SCHOOL ZONE  
 INTERSECTION  
 NOT TO SCALE



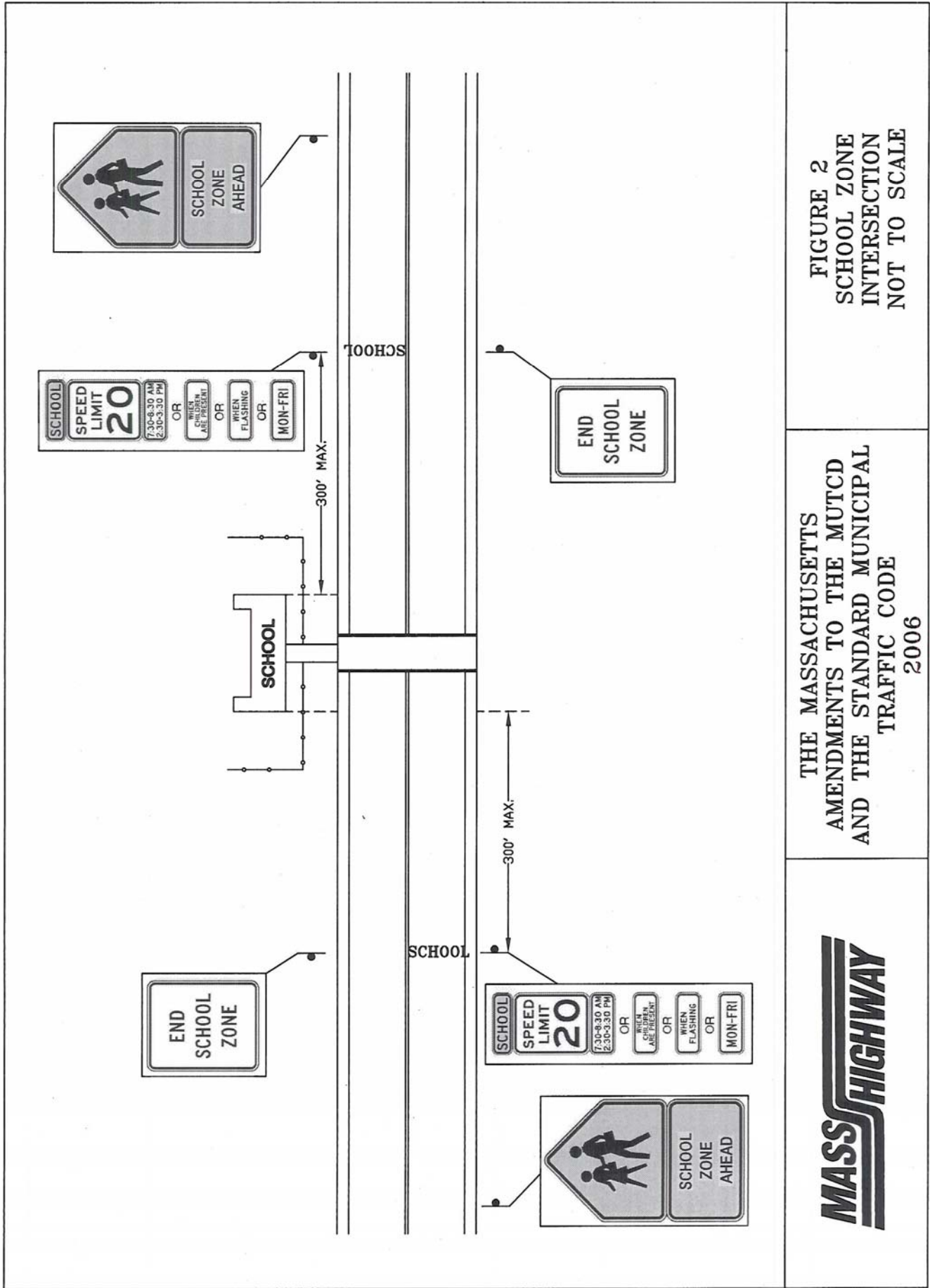


FIGURE 2  
SCHOOL ZONE  
INTERSECTION  
NOT TO SCALE

THE MASSACHUSETTS  
AMENDMENTS TO THE MUTCD  
AND THE STANDARD MUNICIPAL  
TRAFFIC CODE  
2006



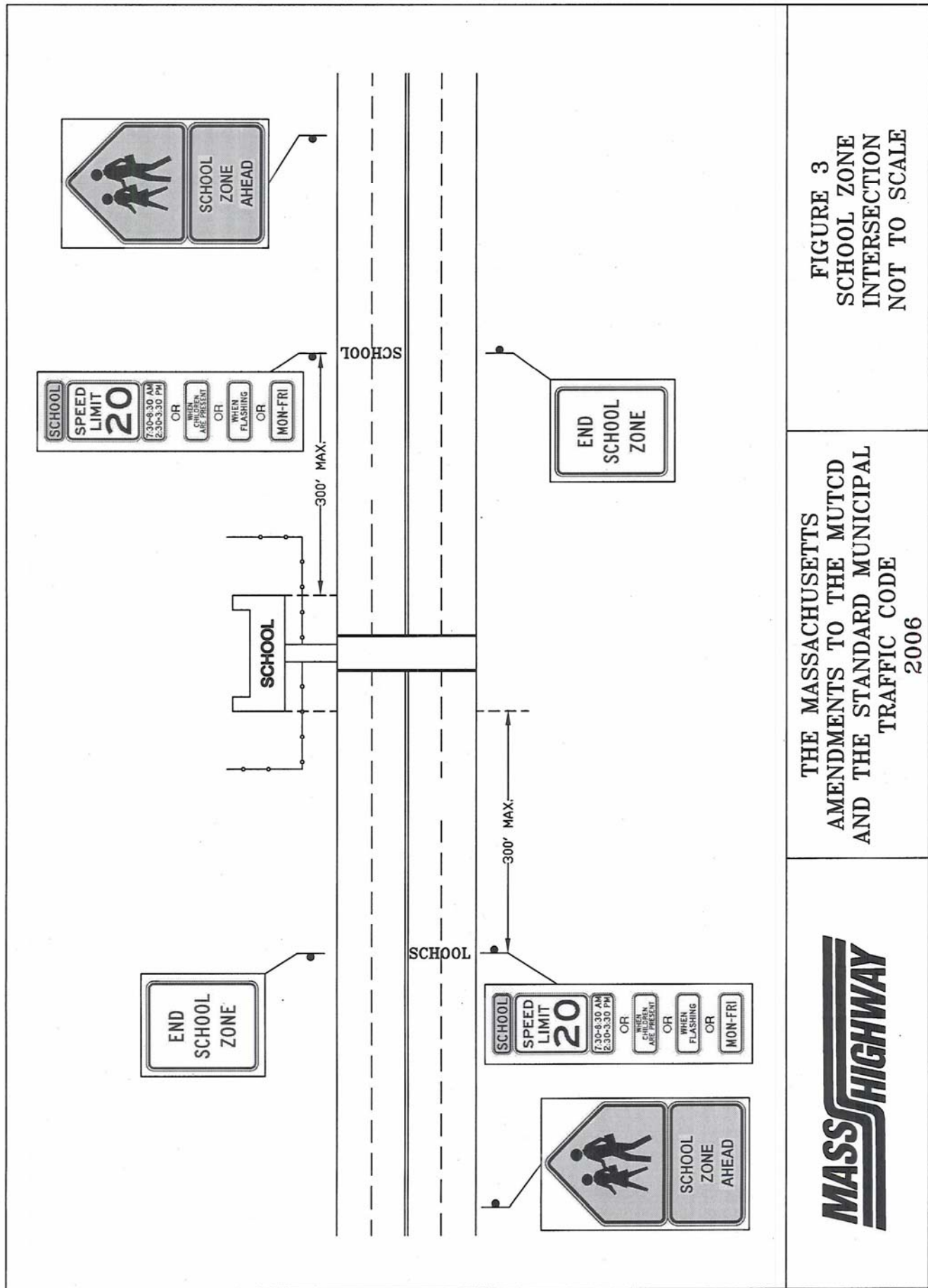


FIGURE 3  
SCHOOL ZONE  
INTERSECTION  
NOT TO SCALE

THE MASSACHUSETTS  
AMENDMENTS TO THE MUTCD  
AND THE STANDARD MUNICIPAL  
TRAFFIC CODE  
2006



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# Speed Limits & Speed Limit Setting

## Did You Know?

According to NHTSA approximately 86% of 2003 speed-related fatalities occurred on non-interstate roadways

## Background

The [National Highway Traffic Safety Administration \(NHTSA\)](#) defines speeding as “travelling in excess of the posted speed limit” or “driving too fast for conditions.” Nationally, speed-related crashes account for 30 percent of all fatal crashes, resulting in over 13,000 fatalities annually and a societal cost exceeding \$40 billion. The numbers in Massachusetts are similar where 33 percent of the 442 fatalities in 2005 were speed-related. In Massachusetts, 58 percent of speed-related fatalities occurred on roadways with a posted speed limit of 35 mph or less, and 80 percent of speed-related fatalities occurred on a roadway with a posted speed limit of 45 mph or less. From an engineering standpoint *properly posted* speed limits represent the front lines of speed management. This fact sheet provides basic information regarding speed limits and guidance on proper speed limit setting and sign posting.

## Speed Laws in Massachusetts

Within the [Massachusetts General Laws \(MGL\)](#) there are two sections that deal specifically with speed limits.

[MGL Chapter 90, Section 18](#) allows for the posting of numerical limits on the typical speed limit sign. This law also indicates that this limit must be based on engineering study and needs approval via a Special Speed Regulation approved by the Registry of Motor Vehicles and MassHighway. Please note that all regulatory speed limit signs not posted under this procedure are in violation of the law and are not legally enforceable.\*



Typical Speed Limit Sign (R2-1)

[MGL Chapter 90, Section 17](#) applies to unposted roadways and specifically states that *it shall be prima facie evidence of a rate of speed greater than is reasonable and proper as aforesaid (1) if a motor vehicle is operated on a divided highway outside a thickly settled or business district at a rate of speed exceeding fifty miles per hour for a distance of a quarter of a mile, or (2) on any other way outside a thickly settled or business district at a rate of speed exceeding forty miles per hour for a distance of a quarter of a mile, or (3) inside a thickly settled or business district at a rate of speed exceeding thirty miles per hour for a distance of one-eighth of a mile, or (4) within a school zone which may be established by a city or town as provided in section two of chapter eighty-five at a rate of speed exceeding twenty miles per hour.*

\* Please note there are special speed law provisions in the MGL for the [Massachusetts Turnpike](#) and [Department of Conservation and Recreation \(DCR\)](#) [formerly the Metropolitan District Commission (MDC)] Roads.



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Federal Highway  
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University of Massachusetts  
Transportation Center

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MassHighway  
Traffic Engineering  
(617) 973-8484

Last Revised:  
January 2008

# Speed Limits & Speed Limit Setting

## Setting Speed Limits

Municipalities should contact MassHighway to request speed limit posting on state-owned roadways. It is the responsibility of the municipality to follow the procedures for locally-owned roadways, which require approval by both MassHighway and the Registry of Motor Vehicles (RMV). When considering the establishment of speed limits there are two primary sources it is imperative you review which will provide specific guidance on speed zoning: (1) [Procedures for Speed Zoning on State and Municipal Roads](#), and (2) The Manual on Uniform Traffic Control Devices ([MUTCD Section 2B.13](#)). The establishment of a speed limit is *required* to be based upon engineering study, and any resulting posting must be in increments of 5 mph. One major basis for the setting of speed limits is that most motorists are able to select a reasonable and safe speed. Using the 85<sup>th</sup> %ile speed as a baseline, the proposed speed limit may be adjusted based upon additional factors, including, road characteristics (e.g., shoulder condition, grade, alignment, and sight distance), the pace speed, roadside development and environment, parking practices and pedestrian activity, and reported crash experience.

**Please Note**  
Research has shown that only changing a posted speed limit does not result in significant changes to the roadway speeds. In fact, this holds true for both increases and decreases to the posted limit.

## Engineering Study

An engineering study from the municipality must contain both the collected data and analysis of this data. Data collection includes:

1. Preliminary study of conditions;
2. Speed calculations of curves (MassHighway responsibility);
3. Speed observations;
4. Studies of crash distributions; and
5. Trial runs over the location.

Speed observations are determined from a spot speed study and are representative of the motorists "opinion" regarding the speed limit. Speeds from 100 free flow vehicles (drivers choosing their own speed, i.e., not in queue) should be captured in each direction. Data analysis includes:

1. Safe speed range;
2. Selecting speed limits/lengths of zone;
3. Advisory speeds; and
4. Rechecks with trial runs.

## What is the 85<sup>th</sup> %ile Speed?

This is the speed at which or below 85% of the vehicles are travelling. Speeds are typically assumed to be normally distributed which results in a probability distribution as shown below. Knowing this distribution allows for the targeting of egregious violators. Additionally, studies have shown that as vehicle speeds deviate from the mean the risk of a crash increases; using the 85<sup>th</sup> %ile method lessens variation of speeds within a traffic stream.



For more information contact:  
MassHighway  
Traffic Engineering  
(617) 973-8484

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January 2008

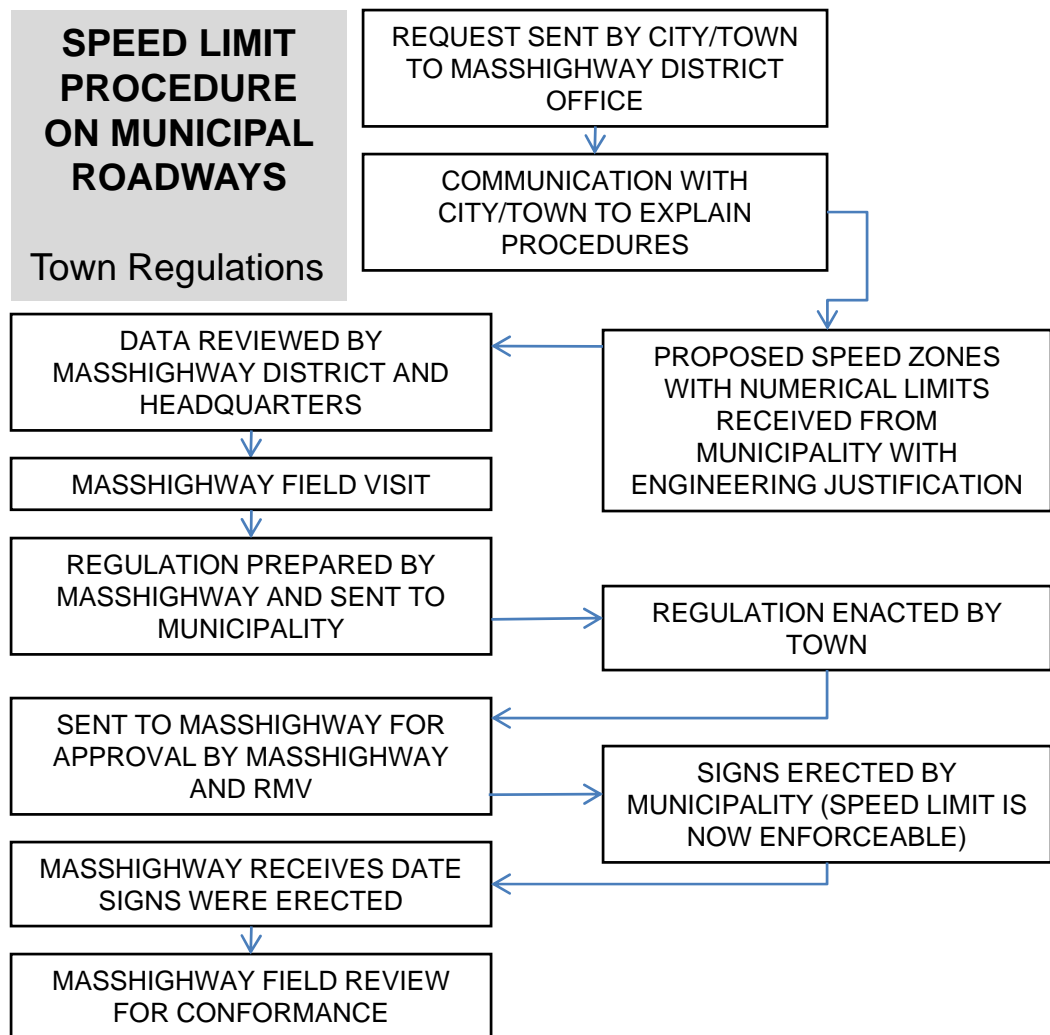
# Speed Limits & Speed Limit Setting

## Important Reminder!

Advisory speed signage should be used when engineering judgment indicates the need to advise road users of a recommended speed for a given condition (e.g., an exit, a ramp or a curve). Please note that advisory speed limits are not enforceable. Additional information on advisory speed limits is available in the MUTCD Sections [2C. 36 & 2C. 46](#).

## SPEED LIMIT PROCEDURE ON MUNICIPAL ROADWAYS

### Town Regulations



## Resources

### Massachusetts Traffic Safety Toolbox Series

This series of fact sheets provides information on safety improvements that can be implemented at the local level. Information on problem areas, possible countermeasures, and implementation considerations is included in each fact sheet which can be found at [www.mass.gov/mhd/safetytoolbox/](http://www.mass.gov/mhd/safetytoolbox/)

### Procedures for Speed Zoning on State and Municipal Roads

These procedures provide specifications for speed zoning in Massachusetts and can be found at <http://www.mhd.state.ma.us/downloads/manuals/speedZoning.pdf>

### The Manual on Uniform Traffic Control Devices (MUTCD)

Published by the FHWA, the MUTCD defines the standards used by transportation professionals nationwide to install and maintain traffic control devices on all streets and highways. The most recent version (2003) can be found at <http://mutcd.fhwa.dot.gov/>



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