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

Congestion Management Process

2009 Annual Report

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Abington
Avon
Bridgewater
Brockton
East Bridgewater
Easton
Halifax
Hanson
Kingston
Pembroke
Plymouth
Plympton
Stoughton
West Bridgewater
Whitman

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MassDOT Contract
0052455

December, 2009
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Eric Arbeene	Planner
Lila Burgess	Ombudsman Program Director
Caleb Cornock	Transportation Intern
Jed Cornock	Transportation Planner
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Raymond Guarino	Transportation Planner
Patrick Hamilton	AAA Administrator
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Charles Kilmer	Transportation Program Manager
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Anne Nicholas	Ombudsman Program Assistant
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OCPC TRANSPORTATION STAFF

Charles Kilmer	Transportation Program Manager
Eric Arbeene	Planner
Caleb Cornock	Transportation Intern
Jed Cornock	Transportation Planner
Raymond Guarino	Transportation Planner
Francis Harrison	Transportation Intern
Susan McGrath	GIS Coordinator
William McNulty	Transportation Planner
Karen Winger	Transportation Planner

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This Annual Report was prepared by the following members of the Old Colony Planning Council staff under the supervision of Pat Ciaramella, Executive Director, and Charles Kilmer, Transportation Program Manager.

REPORT PREPARATION

Jed Cornock, Transportation Planner
jcornock@ocpcrpa.org

CONTRIBUTING STAFF

Ray Guarino, Transportation Planner
rguarino@ocpcrpa.org

William McNulty, Transportation Planner
wmcnulty@ocpcrpa.org

Karen Winger, Transportation Planner
kwinger@ocpcrpa.org

Bruce Hughes, Economic Development Specialist/Community Planner
bhughes@ocpcrpa.org

Eric Arbeene, Planner
earbeene@ocpcrpa.org

Caleb Cornock, Transportation Intern

MAPS AND GRAPHICS

Susan McGrath, GIS Coordinator
smcgrath@ocpcrpa.org

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1.0 EXECUTIVE SUMMARY

The Old Colony Congestion Management Process (CMP) 2009 Annual Report provides the definition and purpose of the CMP; outlines and provides more detail on the "8-Step" process; identifies the CMP facilities; summarizes the associated data collection activities; provides the results of the data collected during the 2009 calendar year; and includes conclusions and recommendations for roadway and transit facilities within the Old Colony region.

The 2009 Old Colony Congestion Management Process (CMP) included the following:

- 188 Automatic Traffic Recorder (ATR) Counts
- 166 Manual Intersection Turning Movement Counts (TMC)
- Two (2) State Numbered Routes Corridor Studies
- MBTA Commuter Rail Station Parking Lot Utilization Counts
- Park & Ride Parking Lot Utilization Counts

Generally, 2009 demonstrated a decrease in congestion in some facilities while noting increases in other facilities. The economic collapse experienced in late 2008 and throughout 2009 created a severe loss in statewide employment. In many cases this resulted in a decrease in the number of people using the roadways and transit facilities in the Old Colony Region. Nevertheless, facilities in the Old Colony Region that are at or above capacity still exist and therefore require action in order to reduce congestion. The results of the 2009 Old Colony Congestion Management Process (CMP) activities are described further in the remainder of this report.

2.0 INTRODUCTION

The Safe Accountable Flexible Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU), the most recent authorization of the nation's surface transportation program, made several changes to metropolitan and statewide transportation planning provisions. Among the most significant changes was the updated requirement for a "Congestion Management Process" (CMP) in Transportation Management Areas (TMAs – urban areas over 200,000 in population). It is intended to be a substantive change in perspective and practice to address congestion management through a process that provides for effective management and operations; enhanced linkage to the planning and environmental review process; based on cooperatively developed travel demand reduction and operational management strategies as well as capacity increases.

2.1 Congestion Management Process (CMP) Definition and Purpose

2.1.1 Definition

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) define a Congestion Management Process (CMP) in their *Interim Guidebook on the Congestion Management Process in Metropolitan Transportation Planning* as, "a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods

to levels that meet state and local needs." The CMP is intended to be an integral part of the metropolitan planning process, rather than a stand alone process or system.

The CMP comprises a number of different elements that add up to a coherent, objectives driven, performance based approach to solving congestion problems. The Final Rule on Statewide and Metropolitan Transportation Planning states that the CMP shall include the following:

1. Methods to monitor and evaluate the performance of the multimodal transportation system, identify the causes of recurring and nonrecurring congestion, identify and evaluate alternative strategies, provide information supporting the implementation of actions, and evaluate the effectiveness of implemented actions;

2. Definition of congestion management objectives and appropriate performance measures to assess the extent of congestion and support the evaluation of the effectiveness of congestion reduction and mobility enhancement strategies for the movement of people and goods. Since levels of acceptable system performance may vary among local communities, performance measures should be tailored to the specific needs of the area and established cooperatively by the state(s), affected MPO(s), and local officials in consultation with the operators of major modes of transportation in the covering area;

3. Establishment of a coordinated program for data collection and system performance monitoring to define the extent and duration of congestion, to contribute in determining the causes of congestion, and evaluate the efficiency and effectiveness of implemented actions. To the extent possible, this data collection program should be coordinated with existing data sources (including archived operational/ITS data) and coordinated with operations managers in the metropolitan area;

4. Identification and evaluation of the anticipated performance and expected benefits of appropriate congestion management strategies that will contribute to the more efficient use and improved safety of existing and future transportation systems based on the established performance measures. The following categories of strategies, or combinations of strategies, are some examples of what should be appropriately considered for each area:

    a. Demand management measures, including growth management and congestion pricing;
    b. Traffic operational improvements;
    c. Public transportation improvements;
    d. ITS technologies as related to the regional ITS architecture; and
    e. Where necessary, additional system capacity.

5. Identification of an implementation schedule, implementation responsibilities, and possible funding sources for each strategy (or combination of strategies) proposed for implementation; and,

6. Implementation of a process for periodic assessment of the effectiveness of implemented strategies, in terms of the area's established performance measures. The results of this evaluation shall be provided to decision makers and the public to provide guidance on selection of effective strategies for future implementation.

2.1.2 Purpose

The purpose of the Congestion Management Process (CMP) is to identify congested locations; determine the causes of congestion; develop alternative strategies to mitigate congestion; evaluate the potential of different mitigation strategies; propose alternative strategies that best address the causes and impacts of congestion; and track and evaluate the impact of previously implemented congestion management strategies.

3.0 OLD COLONY CONGESTION MANAGEMENT PROCESS (CMP)

The Old Colony Congestion Management Process follows the "8-Step" process described by the Federal Highway Administration and Federal Transit Administration in the *Guidebook on the Congestion Management Process in Metropolitan Transportation Planning*.

3.1 Step 1 – Develop Congestion Management Objectives

The objectives adopted by OCPC to fulfill the CMP requirements were developed under the direction of the Old Colony Metropolitan Planning Organization (MPO) and Old Colony Joint Transportation Committee (JTC).

The following specific goals have been established in the 2007 Old Colony Regional Transportation Plan which support the CMP process:

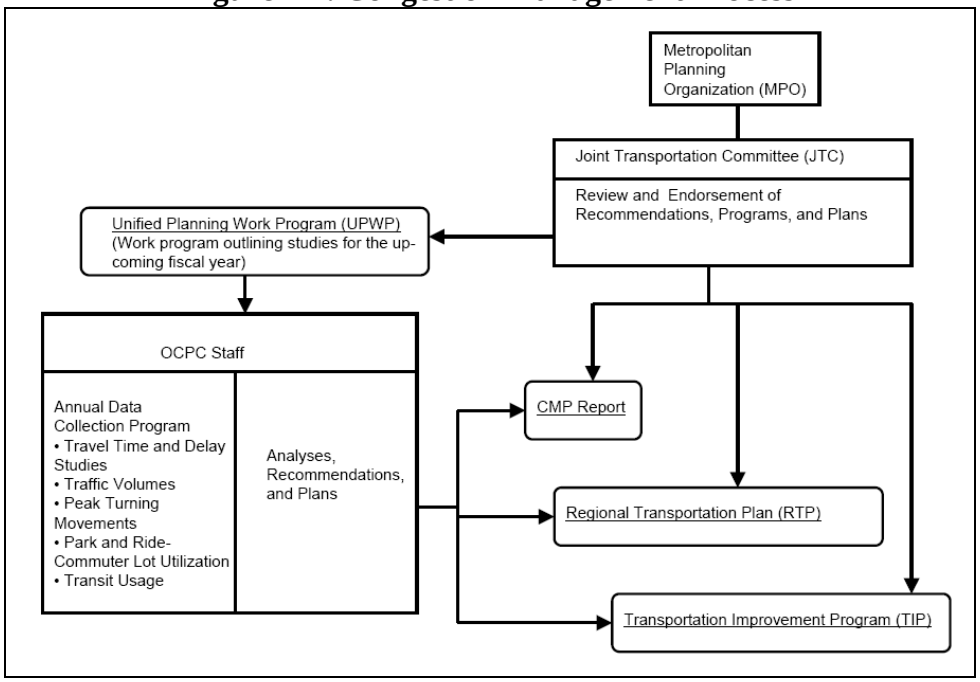
- The plan shall consider transportation system management and investment strategies designed to make the most efficient use of existing transportation facilities.
- The plan shall provide for the development of a series of measures to gauge the effectiveness of transportation system management actions.
- The plan shall encourage employers to develop trip reduction plans in order to provide employees with options to shift from single-occupant vehicles to carpools, vanpools, and other modes of transportation.
- The plan shall work with transit providers to maintain existing levels-of-service while also supporting expansion of service to meet projected needs.
- The plan shall work with the MBTA, communities, property owners, and developers to promote the construction of transit-oriented development adjacent to commuter rail stations.
- The plan shall encourage and promote bicycling and walking as viable modes of transportation and shall work to remove barriers to developing and maintaining bicycle and pedestrian systems.

In addition, the following specific goals have been developed to promote and maintain the CMP:

- Establish performance measures that reveal the root causes of congestion.
- Continue the ongoing data collection program and analyses that are appropriate for the measurement of the system performance.
- Establish databases and compile data that fulfill the analysis needs.
- Provide periodic reports on the CMP to the MPO and JTC for their review of the program.
- Develop recommendations to reduce congestion based on the direction of the MPO and JTC to provide for direct community input.

Figure 1-1 illustrates the integration of the Congestion Management Process within the overall planning process. This process allows for monitoring transportation systems for congestion, reviewing and endorsing plans by local communities that make up the MPO and the JTC, and revising monitoring of strategies and overall plans by the JTC to account for a dynamic management system.

Figure 1-1: Congestion Management Process



3.2 Step 2 – Define Area of Application

The Old Colony Planning Council region encompasses 15 communities in Southeastern Massachusetts including: Abington, Avon, Bridgewater, Brockton, East Bridgewater, Easton, Halifax, Hanson, Kingston, Pembroke, Plymouth, Plympton, Stoughton, West Bridgewater, and Whitman. FHWA and FTA have designated the region as a Transportation Management Area (TMA, urbanized areas with a population of more than 200,000). In addition, the region is included in a "serious" ozone non-attainment area for eastern Massachusetts, in regards to air quality. The federal planning regulations require that the planning process for a TMA in non-

attainment areas include the development of a CMP that provides for efficient management of new and existing transportation facilities through the use of travel demand reduction and operational management strategies.

3.3 Step 3 – System Definition

All roadways within the OCPC region, including principal arterials, collectors, and local roadways (including all major intersections) are part of the OCPC CMP. In addition, all transit facilities are included, such as; MBTA Commuter Rail Lines; Park & Ride Facilities; and the Brockton Area Transit Authority (BAT).

3.4 Step 4 – Develop and Use Performance Measures

OCPC has developed a number of CMP performance measures through the Old Colony Metropolitan Planning Organization (MPO) and Joint Transportation Committee (JTC), which illustrate a congested facility:

- Roadway V/C Ratio ≥ .80
- Intersection Level of Service "D" or Below
- MBTA Commuter Rail Station Parking Lot Utilization ≥ 85%
- Park & Ride Parking Lot Utilization ≥ 85%
- Transit Facilities Utilization ≥ 85%

3.5 Step 5 – Develop a Performance Monitoring Plan

OCPC has developed a data collection and system performance monitoring program, which includes the following items:

- Automatic Traffic Recorder (ATR) Counts
- Manual Intersection Turning Movement Counts (TMC)
- Roadway Travel Time Studies
- State Numbered Routes Corridor Studies
- MBTA Commuter Rail Station Parking Lot Utilization Counts
- MBTA Commuter Rail Station Parking Lot Origin/Destination Studies
- Park & Ride Parking Lot Utilization Counts
- Park & Ride Parking Lot Origin/Destination Studies
- MBTA Commuter Rail Station Boarding & Alighting Studies

3.6 Step 6 – Identify and Evaluate Strategies

OCPC has identified and studied a number of problem areas through the Unified Planning Work Program and the development of the Regional Transportation Plan (RTP), under the direction of the Old Colony Metropolitan Planning Organization (MPO) and the Old Colony Joint Transportation Committee (JTC).

3.7 Step 7 – Implementation and Management

The CMP data collected is an important factor in developing the Transportation Improvement Program (TIP). The projects included in the TIP address highway, bridge, and transit needs, and therefore, accurate utilization data is needed to describe the need for the project.

3.8 Step 8 – Monitor Strategy Effectiveness

OCPC continues to monitor the effectiveness of the CMP by implementing annual traffic monitoring programs at various facilities that have been reconstructed to provide safer and more efficient traffic conditions. In addition, OCPC regularly reviews environmental notification forms and impact statements in order to ensure that developers address traffic congestion related to development, as well as instituting traffic monitoring programs to evaluate the effectiveness of CMP strategies. OCPC provides the results of the monitoring programs to the MPO and JTC and for their consideration and analysis.

4.0 OLD COLONY CMP FACILITIES

4.1 Roadway Facilities

The OCPC region contains over 1,800 centerline miles of road that provide motorists with the ability to travel throughout the region. The major roadway system in Southeastern Massachusetts and the regional highway network in the OCPC region are shown in the 2008 Old Colony Traffic Volumes Report OCPC Regional Highways Map located in the Appendix.

4.1.1 Data Collection Program

The data collection effort is focused on traffic volumes, speeds, and classifications, along with travel time and delay studies to monitor congestion within the highway system. The data collection procedures and techniques are based on industry standards published by the Institute of Transportation Engineers (ITE) in their publication, *Manual of Traffic Engineering Studies*.

Automatic Traffic Recorder (ATR) Count Program

OCPC conducts approximately 150-200 Automatic Traffic Recorder (ATR) counts throughout the calendar year as part of the Annual Traffic Counting Program. These counts are conducted for a variety of tasks, which include, but are not limited to the following: Local Highway Technical Assistance Studies; Corridor Studies; MassHighway Traffic Data Collection Program; and the Congestion Management Process. The majority of the ATR counts conducted during the calendar year include traffic volume, speed, and vehicle classification data. Statistics such as Annual Average Daily Traffic (AADT), 85th Percentile Speed, and Percent of Heavy Vehicles provide an enhanced description of traffic conditions for the roadways within the Old Colony Region and are helpful in identifying and analyzing roadway congestion.

Travel Time Studies

OCPC also conducts Travel Time Surveys on state numbered routes throughout the region in order to determine peak period trip travel times and to measure levels of congestion. The 'floating car" technique is used for travel delay data collection, whereby a technician travels the route going with traffic, records the stop time at intersections (or other locations), and records the time he/she passes through the intersection. In accordance with the ITE, these studies are conducted on Tuesdays, Wednesdays, and Thursdays during peak period commute times (7-9 AM & 4-6 PM).

4.1.2 Data Collection Results

Automatic Traffic Recorder (ATR) Count Program

In 2009, OCPC staff collected a total of one hundred and eighty eight (188) Automatic Traffic Recorder (ATR) counts throughout the OCPC region. These counts were conducted for the Route 58 and Route 139 Corridor Studies; numerous Local Highway Technical Assistance (LTA) Studies; the MassHighway Traffic Count Program; and the OCPC Congestion Management Process. The aforementioned data collection program yields several products that OCPC shares with its member communities, federal and state agencies, various stakeholders, and other interested parties on a regular basis. For example, the *Annual Traffic Volumes Report* presents the most recent traffic information available from a variety of sources: Old Colony Planning Council; Massachusetts Highway Department; and from various consulting and engineering firms. Additionally, the *Old Colony Traffic Volumes Report* contains; historic and current MassHighway Weekday Seasonal Adjustment Factors; a band width traffic volume map; the projected annual percentage growth rate for the state numbered roadways; volume to capacity ratios; 85^{th} percentile speeds; percentages of heavy vehicles; and, the methodology necessary to project future traffic volumes on these roads. Average Annual Daily Traffic and Volume to Capacity Ratios on major highways in the OCPC region are shown on the 2008 Old Colony Traffic Volumes Report AADT on State Numbered Routes and 2007 Old Colony Regional Transportation Plan Traffic Congestion Maps located in the Appendix.

Travel Time Studies

OCPC staff will be conducting Travel Time Studies in 2010 in order to provide the 2011 Regional Transportation Plan with the most recent information. The results of the travel time studies will be included in the 2010 OCPC CMP Annual Report.

4.2 Intersections

The Congestion Management Process (CMP) is designed to identify key intersections that demonstrate congestion, excessive delays, and circulation problems. The CMP identifies these congested facilities through studies completed by OCPC and other agencies and organizations, and through the ongoing monitoring of facilities. Standard operating procedures have been adopted for data collection that allows the monitoring of intersections within the region specifically targeted due to congestion.

4.2.1 Data Collection Program

OCPC conducts approximately 100-150 manual intersection Turning Movement Counts (TMCs) throughout the calendar year as part of the Annual Traffic Counting Program. These counts are conducted for a variety of tasks, which include, but are not limited to the following: Local Technical Assistance Studies; Corridor Studies; and the Congestion Management Process. The TMCs conducted by OCPC are typically done during the morning (7-9 AM) and afternoon (4-6 PM) peak traffic periods and include data such as: total intersection traffic; peak period traffic; peak hour factors, and percentages of heavy vehicles based on FHWA Scheme F vehicle classification.

4.2.2 Data Collection Results

In 2009, OCPC staff conducted a total of one hundred and sixty six (166) manual intersection Turning Movement Counts (TMCs) throughout the OCPC region. These counts were conducted for the Route 58 and Route 139 Corridor Studies; numerous Local Highway Technical Assistance (LTA) Studies; and the OCPC Congestion Management Process. The TMC counts conducted provide OCPC staff with the ability to perform Level-of-Service (LOS) analyses. Level-of-service analysis is a qualitative and quantitative measure based on the analysis techniques published in the *Highway Capacity Manual* by the Transportation Research Board. Level-of-service is a general measure that summarizes the overall operation of an intersection or transportation facility. It is based upon the operational conditions of a facility including lane use, traffic control, and lane width, and takes into account such factors as operating speeds, traffic interruptions, and freedom to maneuver. Level-of-service represents a range of operating conditions and is summarized with letter grades from "A" to "F", with "A" being the most desirable. Table 2-1 displays the results of several LOS analyses performed for intersections included in the Route 28 Corridor Study (2006); the Easton State Numbered Routes Study (2007); the Route 3A Corridor Study (2007); the Route 27 Corridor Study (2008), and the Route 18 Corridor Study (2009) which demonstrated a LOS of "D" or below in either the AM or PM peak hours. In addition, intersections listed in Table 2-1 are grouped into the following four categories: projects that are in the Project Initiation or Needs Form Stage are listed in *italics*; projects that are Under Design are listed in **bold**; projects that are Under Construction are listed in ***bold & italics***; and projects that have no action are listed in normal text.

Table 2-1: OCPC Region Intersections with LOS "D" or Below

Community	Intersection	Traffic Control	Peak Hour LOS	
			AM	PM
Abington	Bedford Street (Route 18) & Randolph Street/North Avenue (Route 139)	Signal	C	E
Abington	Bedford Street (Route 18) & Shaw Avenue	Stop Sign	F	F
Abington	Bedford Street (Route 18) & Washington Street/Elm Street	Stop Sign	F	F
Abington	Bedford Street (Route 18) & Washington Street/Trucchis	Stop Sign	F	F
Abington	Washington Street (Route 18) & Summer Street	Stop Sign	F	F
Abington	Washington Street (Route 18) & Washington Street	Stop Sign	F	E
Avon	East Main Street (Route 28) & East/West Spring Streets	Stop Sign	F	F
Avon	East Main Street (Route 28) & Harrison Boulevard	Signal	D	F
Avon	Memorial Drive (Route 28) & East Main Street	Stop Sign	E	D

Table 2-1: OCPC Region Intersections with LOS "D" or Below (Continued)

Community	Intersection	Traffic Control	Peak Hour LOS	
			AM	PM
Bridgewater	Bedford Street (Route 18) & Worcester Street	Stop Sign	C	F
Bridgewater	Bedford Street (Route 18/28) & Central Square/School Street	Yield	E	F
Bridgewater	Bedford Street (Route 18/28) & Cottage Street	Stop Sign	C	D
Bridgewater	Bedford Street (Route 18/28) & Flagg Street	Stop Sign	D	F
Bridgewater	Bedford Street (Route 18/28) & Grove Street	Stop Sign	D	F
Bridgewater	Bedford Street (Route 18/28) & Maple Avenue	Stop Sign	D	D
Bridgewater	Broad Street (Route 18) & Campus Plaza	Stop Sign	E	F
Bridgewater	Broad Street (Route 18) & Dunkin Donuts	Stop Sign	F	E
Bridgewater	**Broad Street (Route 18) & High Street**	**Stop Sign**	**F**	**F**
Bridgewater	Broad Street (Route 18) & Main Street (Route 28)/Summer Street (Route 104)	Signal	D	E
Bridgewater	Broad Street (Route 18) & McDonalds	Stop Sign	C	D
Bridgewater	Broad Street (Route 18) & Stetson Street	Stop Sign	F	F
Bridgewater	South Street (Route 104) & Central Square/Church Street	Yield	D	E
Brockton	Alger Street (Route 14) & Crescent Street (Route 27)	Signal	D	B
Brockton	Crescent Street (Route 27) & Lyman Street	Signal	C	F
Brockton	Crescent Street (Route 27) & Plymouth Street	Stop Sign	F	F
Brockton	*Crescent Street (Route 27) & Quincy Street/Massasoit Community College*	*Signal*	*F*	*F*
Brockton	**Main Street (Route 28) & Plain Street/Keith Avenue**	**Signal**	**B**	**D**
Brockton	Main Street (Route 28) & Sargents Way	Signal	C	D
Brockton	Montello Street (Route 28) & Centre Street (Route 123)	Signal	C	D
Brockton	Montello Street (Route 28) & East Nilsson Street	Stop Sign	C	F
Brockton	**Montello Street (Route 28) & Plain Street**	**Stop Sign**	**F**	**F**
Brockton	North Montello Street (Route 28) & East Battles Street	Stop Sign	F	F
Brockton	North Montello Street (Route 28) & Field Street/Livingston Road	Stop Sign	F	F
Brockton	North Montello Street (Route 28) & Howard Street (Route 37)/Albion Street	Signal	D	D
Brockton	North Montello Street (Route 28) & Wilmington Street	Stop Sign	D	F
Brockton	North Pearl Street (Route 27) & Reynolds Memorial Highway (Route 27)	Signal	C	D
Brockton	**Pleasant Street (Route 27) & Ash Street**	**Stop Sign**	**F**	**F**
Brockton	**Pleasant Street (Route 27) & Belmont Avenue/Augusta Avenue**	**Stop Sign**	**F**	**F**
Brockton	**Pleasant Street (Route 27) & Prospect Street**	**Stop Sign**	**F**	**F**
Brockton	**Pleasant Street (Route 27) & Spring Street**	**Stop Sign**	**C**	**F**
Brockton	***Pleasant Street (Route 27) & West Street***	***Signal***	***E***	***F***
Brockton	***Reynolds Memorial Highway (Route 27) & Pleasant Street (Route 27)***	***Signal***	***C***	***E***
Brockton	Reynolds Memorial Highway (Route 27) & Westgate Drive/Christys Drive	Signal	C	D
Brockton	**Belmont Street (Route 123) & Linwood Street/Loraine Avenue**	**Stop Sign**	**F**	**F**
East Bridgewater	Bedford Street (Route 18) & Central Street/Spring Street/Maple Avenue	Signal	F	F
East Bridgewater	Bedford Street (Route 18) & Highland Street/Harvard Street	Signal	B	E
East Bridgewater	Bedford Street (Route 18) & Union Street	Stop Sign	F	F
East Bridgewater	Bedford Street (Route 18) & Water Street	Stop Sign	C	F
East Bridgewater	Bedford Street (Route 18) & West Street (Route 106)/East Street	Signal	B	D
Easton	Belmont Street (Route 123) & Bristol Drive	Stop Sign	D	E
Easton	**Depot Street (Route 123) & Bay Road**	**Stop Sign**	**C**	**F**
Easton	Depot Street (Route 123) & Center Street	Stop Sign	F	F
Easton	Depot Street (Route 123) & Central Street	Stop Sign	F	F

Table 2-1: OCPC Region Intersections with LOS "D" or Below (Continued)

Community	Intersection	Traffic Control	Peak Hour LOS	
			AM	PM
Easton	Depot Street (Route 123) & Cross Street	Stop Sign	D	E
Easton	Depot Street (Route 123) & Purchase Street	Stop Sign	F	F
Easton	**Foundry Street (Route 106) & Depot Street (Route 123)/Bay Road**	**Signal**	**E**	**F**
Easton	Foundry Street (Route 106) & Poquanticut Avenue	Stop Sign	E	D
Easton	*Foundry Street (Route 106) & Prospect Street*	*Stop Sign*	*C*	*D*
Easton	Foundry Street (Route 123) & Highland Street	Stop Sign	E	F
Easton	Foundry Street (Route 123) & Old Foundry Street	Stop Sign	D	F
Easton	Turnpike Street & West Street/Purchase Street	Stop Sign	D	D
Easton	*Washington Street (Route 138) & Elm Street*	*Stop Sign*	*F*	*F*
Easton	Washington Street (Route 138) & Plymouth Drive	Stop Sign	E	F
Easton	Washington Street (Route 138) & Purchase Street	Stop Sign	C	F
Easton	Washington Street (Route 138) & Turnpike Street	Stop Sign	E	F
Easton	*Washington Street (Route 138) & Union Street*	*Stop Sign*	*F*	*F*
Kingston	Main Street (Route 3A) & Crescent Street	Stop Sign	C	D
Kingston	Main Street (Route 3A) & Crescent Street/Foundry Lane	Stop Sign	C	D
Kingston	Main Street (Route 3A) & Howlands Lane	Stop Sign	C	F
Kingston	Main Street (Route 3A) & Landing Road	Stop Sign	F	F
Kingston	Main Street (Route 3A) & Pilgrim Highway (Route 3) NB Ramps	Stop Sign	F	F
Kingston	Main Street (Route 3A) & Pilgrim Highway (Route 3) SB Ramps	Signal	F	F
Kingston	Main Street (Route 3A) & Spring Street	Stop Sign	C	E
Kingston	Summer Street (Route 3A) & Cranberry Crossing	Stop Sign	F	F
Kingston	Summer Street (Route 3A) & Main Street (Route 106)/Linden Street	Stop Sign	D	E
Plymouth	Main Street Extension (Route 3A) & Sandwich Street	Stop Sign	C	D
Plymouth	Sandwich Street (Route 3A) & Lincoln Street	Stop Sign	F	F
Plymouth	*Sandwich Street (Route 3A) & South Street*	*Stop Sign*	*F*	*F*
Plymouth	Sandwich Street (Route 3A) & Water Street	Stop Sign	B	F
Plymouth	State Road (Route 3A) & Hedges Pond Road	Stop Sign	B	E
Plymouth	State Road (Route 3A) & Herring Pond Road	Stop Sign	F	F
Plymouth	**State Road (Route 3A) & Manomet Point Road**	**Stop Sign**	**N/A**	**F**
Plymouth	State Road (Route 3A) & PowerHouse Road/Elliot Road	Blinker	C	D
Stoughton	Canton Street (Route 27) & Central Street/Tosca Drive	Stop Sign	F	F
Stoughton	Canton Street (Route 27) & School Street/Summer Street	Stop Sign	F	F
Stoughton	Central Street (Route 27) & Island Street	Stop Sign	F	F
Stoughton	Central Street (Route 27) & West Street	Stop Sign	F	F
Stoughton	Park Street (Route 27) & Ash Street	Stop Sign	D	F
Stoughton	Park Street (Route 27) & Prospect Street	Stop Sign	E	F
Stoughton	Park Street (Route 27) & South Street	Stop Sign	F	F
Stoughton	Park Street (Route 27) & Sumner Street	Stop Sign	F	F
Stoughton	Park Street (Route 27) & Turnpike Street	Stop Sign	F	F
Stoughton	Stoughton Center (Northern End)	Signal	B	F
Stoughton	Stoughton Center (Southern End)	Signal	E	E
West Bridgewater	North Main Street (Route 28) & Copeland Street	Stop Sign	B	D
West Bridgewater	*North Main Street (Route 28) & Howard Street*	*Stop Sign*	*F*	*D*
West Bridgewater	*North Main Street (Route 28) & Matfield Street*	*Stop Sign*	*F*	*F*

Table 2-1: OCPC Region Intersections with LOS "D" or Below (Continued)

Community	Intersection	Traffic Control	Peak Hour LOS	
			AM	PM
West Bridgewater	**North/South Main Streets (Route 28) & East/West Center Streets (Route 106)**	**Signal**	**D**	**F**
Whitman	Auburn Street (Route 14) & Bedford Street (Route 18)	Signal	C	D
Whitman	Bedford Street (Route 18) & Warren Avenue	Stop Sign	D	E
Whitman	South Avenue (Route 27) & Broad Street	Stop Sign	B	D
Whitman	South Avenue (Route 27) & Commercial Street	Stop Sign	C	E
Whitman	South Avenue (Route 27) & Franklin Street (Route 27)/Pleasant Street	Stop Sign	C	F
Whitman	South Avenue (Route 27) & Park Avenue	Stop Sign	C	F
Whitman	South Avenue (Route 27) & Raynor Avenue	Stop Sign	D	F
Whitman	Temple Street (Route 27) & Beulah Street	Stop Sign	C	D
Whitman	Temple Street (Route 27) & High Street	Signal	C	F
Whitman	Temple Street (Route 27) & West Street	Stop Sign	C	F
Whitman	Temple Street (Route 27) at Washington Street	Stop Sign	F	F

OCPC is currently developing Phase 2 of the Route 58 Corridor Study in the towns of Abington, Whitman, Hanson, Halifax, and Plympton and Phase 2 of the Route 139 Corridor Study in the towns of Stoughton, Abington, and Pembroke. In addition, OCPC staff is conducting a Major Bottleneck Study, which will identify three (3) major bottlenecks for limited access highways, arterials, and town centers in the OCPC region. These corridor studies and the bottleneck study include traffic data collection (ATR & TMC) and analyses for the respective areas and the results will be added to the next CMP annual report.

4.3 Transit Facilities

The CMP transit facilities within the OCPC region include the MBTA Old Colony Commuter Rail Service; Park & Ride commuter lots on the AmVets Memorial Highway (Route 24) and Pilgrim Highway (Route 3) limited access highway corridors; and fixed-route bus service provided by the Brockton Area Transit Authority (BAT).

MBTA Old Colony Commuter Rail

The MBTA Old Colony Commuter Rail line, which had been inactive since 1959, was restored to the OCPC region in 1997. The current Old Colony Commuter Rail service consists of two (2) major lines, the Kingston/Plymouth Line and the Middleborough/Lakeville Line. In addition, the Stoughton Branch of the Providence/Stoughton Line is included in the OCPC CMP.

Kingston/Plymouth Line

The Kingston/Plymouth Line provides service between the City of Boston and the communities of Kingston and Plymouth and has stops at the following stations *(stations that are counted as part of the OCPC CMP are listed in italics)*:

- South Station
- JFK/UMASS
- Braintree
- *South Weymouth*
- *Abington*
- *Whitman*
- *Hanson*
- *Halifax*
- *Kingston*
- *Plymouth*

Middleboro/Lakeville Line

The Middleborough/Lakeville Line provides service between the City of Boston and the communities of Middleborough and Lakeville and has stops at the following stations *(stations that are counted as part of the OCPC CMP are listed in italics)*:

- South Station
- JFK/UMASS
- Quincy Center
- Braintree
- *Holbrook/Randolph*
- *Montello*
- *Brockton*
- *Campello*
- *Bridgewater*
- *Middleborough/Lakeville*

Providence/Stoughton Line

The Providence/Stoughton Line provides service between the cities of Boston and Providence and has stops at the following stations *(stations that are counted as part of the OCPC CMP are listed in italics)*:

- South Station
- Back Bay
- Ruggles
- Hyde Park
- Route 128
- *Canton Junction*
- *Canton Center*
- *Stoughton*
- Sharon
- Mansfield
- Attleboro
- South Attleboro
- Providence

Park & Ride Facilities

Route 24 Corridor

In the OCPC region, there are two (2) Park & Ride Facilities located on the Route 24 Corridor, which include the following:

- West Bridgewater – Route 24, Exit 16 (Route 106)
- Bridgewater – Route 24, Exit 15 (Route 104)

Route 3 Corridor

There are four (4) Park & Ride Facilities located on the Route 3 Corridor in the OCPC region; however, in order to provide data for the entire corridor, the Sagamore Lot and the Rockland Lot are included for a total of six (6) facilities. The entire list of Park & Ride facilities include:

- Rockland – Route 3, Exit 14 (Route 228)
- Pembroke – Route 3, Exit 12 (Route 139)
- Kingston – Route 3, Exit 10 (Route 3A & 53)
- Plymouth – Route 3, Exit 7 (Route 44)
- Plymouth – Route 3, Exit 5 (Long Pond Road)
- Bourne – Route 3, Exit 1B (Route 6)

Brockton Area Transit Authority (BAT)

BAT provides local transit service in Abington, Avon, Bridgewater, Brockton, Easton, East Bridgewater, Stoughton, West Bridgewater, and Whitman. BAT also provides service to the MBTA Ashmont Station in Dorchester, which is BAT's most utilized route. There are currently fourteen regularly scheduled routes on the fixed route system. The fixed routes served by BAT consist of the following:

Table 2-2: BAT Fixed Route Service

Route Number	Area/Description
1	Montello via North Main Street
2	South Plaza/Campello via Main Street
3	VA Hospital via Belmont
4	Westgate Mall via Pleasant
4A	Westgate Mall via North Warren
5	Brockton Hospital via Centre
6	Massasoit via Crescent
8	Southfield via Warren and Plain Street
9	Pearl via West Elm and Torrey Street
10	Lisa and Howard via North Quincy Street
11	Cary Hill and the Village
12	Ashmont
14	Stoughton
MM	Mini-Maller

4.3.1 Data Collection Program

As part of a comprehensive, system-wide process, the CMP includes a focus on vehicles per parking space at the peak parking time for commuter rail and park & ride lots, and transit passengers per seat (at the peak load point) for commuter rail and bus.

MBTA Old Colony Commuter Rail

The OCPC annual data collection routine includes three annual visits to the MBTA Old Colony Commuter Rail lots to count the number of parked vehicles and determine the availability of peak parking. This data collection effort takes place in April, July, and October of each year, during the mid-week period, and between the hours of 10:00 AM and 2:00 PM. In 2009, OCPC extended the data collection program area to include the Canton Junction and Canton Center Stations on the Providence/Stoughton Line. This was done to provide a complete assessment of parking lot utilization for the entire Stoughton Branch of the Providence/Stoughton Line.

In addition to the annual CMP data collection effort, OCPC also conducts License Plate Origin Studies and Boarding & Alighting Studies at the MBTA Old Colony Commuter Rail Line station parking lots on a triennial basis. Theses studies supplement the CMP by providing more detailed information on trips to and from the station parking lots as well as train passengers per seat or level of service information.

Park & Ride Facilities

The OCPC annual data collection routine includes three annual visits to Park & Ride facilities along the AmVets Memorial Highway (Route 24) and Pilgrim Highway (Route 3) Corridors to count the number of parked vehicles and to determine the availability of peak parking. This data collection effort takes place in concert with the aforementioned MBTA Old Colony Commuter Rail counts in April, July, and October of each year, during the mid-week period, and between the hours of 10:00 AM and 2:00 PM.

In addition to the annual CMP data collection effort, OCPC also conducts License Plate Origin Studies at all of the Park & Ride facilities on a triennial basis. This study supplements the CMP by providing more detailed information on trips to and from the station parking lots.

Brockton Area Transit Authority (BAT)

OCPC uses the data from the Brockton Area Transit Authority (BAT) Farebox Route Revenue Reports to generate average daily ridership. Most recently, OCPC developed the FY 2009 Ridership Analysis for BAT and made comparisons of the daily, Saturday, and Sunday route performance in monthly ridership, passengers per trip, and passengers per mile for the four areas of the system; Brockton, Ashmont, Stoughton, and Bridgewater State College. In addition, OCPC calculated the ridership performance for the Paratransit system.

4.3.2 Data Collection Results

MBTA Old Colony Commuter Rail Utilization

In April, July, and October 2009, OCPC staff counted the number of parked vehicles at all MBTA Old Colony Commuter Rail Station parking lots within the OCPC CMP area in order to determine peak utilization. Table 2-3 illustrates the results of said data collection program. In addition, the 1999-2009 OCPC CMP MBTA Old Colony Commuter Rail Utilization Table is included in the Appendix.

Table 2-3: MBTA Old Colony Commuter Rail Station 2009 Parking Lot Utilization

Location	Total Spaces	April Vehicles Parked	July Vehicles Parked	October Vehicles Parked	April Total Utilization	July Total Utilization	October Total Utilization
Providence/Stoughton Line							
Canton Junction	764	N/A	N/A	595	N/A	N/A	77.88%
Canton Center	215	N/A	N/A	166	N/A	N/A	77.21%
Stoughton	333	237	251	219	71.17%	75.38%	65.77%
Middleborough/Lakeville Line							
Holbrook/Randolph	369	229	195	326	62.06%	52.85%	88.35%
Montello (Brockton)	347	131	123	244	37.75%	35.45%	70.32%
Downtown (Brockton)	267	176	201	144	65.92%	75.28%	53.93%
Campello (Brockton)	535	178	143	266	33.27%	26.73%	49.72%
Bridgewater	504	294	216	429	58.33%	42.86%	85.12%
Middleborough/Lakeville	769	528	486	721	68.66%	63.20%	93.76%
Kingston/Plymouth Line							
South Weymouth	543	399	310	418	73.48%	57.09%	76.98%
Abington	405	287	241	404	70.86%	59.51%	99.75%
Whitman	208	115	177	185	55.29%	85.10%	88.94%
Hanson	482	332	209	385	68.88%	43.36%	79.88%
Halifax	402	272	225	326	67.66%	55.97%	81.09%
Kingston	1,039	814	455	738	78.34%	43.79%	71.03%
Plymouth	96	1	3	3	1.04%	3.13%	3.13%
Total Providence/Stoughton Line	***1,312***	***237***	***251***	***980***	***71.17%***	***75.38%***	***74.70%***
Total Middleborough/Lakeville Line	***2,791***	***1,536***	***1,364***	***2,130***	***55.03%***	***48.87%***	***76.32%***
Total Kingston/Plymouth Line	***3,175***	***2,220***	***1,620***	***2,459***	***69.92%***	***51.02%***	***77.45%***
Total All Stations	***7,278***	***3,993***	***3,235***	***5,569***	***63.39%***	***51.36%***	***76.52%***

The ITE publication, *Transportation Planning Handbook*, describes the effective supply of a lot as the level of occupancy for optimum operating efficiency. The ITE handbook states that a parking facility can be perceived as full at a level that is less than its actual capacity (number of spaces), which is at a range of 85 to 95 percent. The use of 85 percent as the threshold for capacity allows for unusual peaks in activity and loss of spaces due to snow cover and/or other special circumstances. Parking lots which demonstrated an 85 percent or more utilization rate are highlighted in gray in Table 2-3.

The performance measures used in determining the congestion levels for the commuter rail lots include the concept of comparing volume to capacity. The number of parked vehicles compared to the available spaces has been used to determine the percentage of parked vehicles to available spaces. The highest average utilization for all stations in 2009 occurred in October and was approximately 76 percent. Overall, 2009 utilization rates dropped (10-20%) from those recorded in 2008; however, rates rebounded to near historic levels (65%) in October 2009. The drop in April and July utilization could have been due to the collapse of the economy, the increase in parking rates, or the increase in carpooling and drop-offs.

In addition, 1998-2008 MBTA Commuter Rail Inbound Ridership is included in the Appendix. This information is used to identify the Level of Service on the particular train set and to explain where the largest numbers of commuters are boarding.

Park & Ride Facilities Utilization

In April, July, and October 2009, OCPC staff counted the number of parked vehicles at all Park & Ride parking lots in the OCPC region in order to determine peak utilization. Table 2-4 illustrates the results of said data collection program. In addition, the 1999-2009 OCPC CMP Park & Ride Utilization Table is included in the Appendix.

Table 2-4: Old Colony Park & Ride 2009 Parking Lot Utilization

Location	Total Spaces	April Vehicles Parked	July Vehicles Parked	October Vehicles Parked	April Total Utilization	July Total Utilization	October Total Utilization
Route 24 Corridor							
West Bridgewater - Route 24 @ Route 106	140	146	151	143	104.3%	107.9%	102.1%
Bridgewater - Route 24 @ Route 104	60	29	53	60	48.3%	88.3%	100.0%
Route 3 Corridor							
Rockland - Route 3 @ Route 228	440	349	255	292	79.3%	58.0%	66.4%
Pembroke - Route 3 @ Route 139	62	15	9	11	24.2%	14.5%	17.7%
Kingston - Route 3 @ Route 3A & 53	80	67	44	71	83.8%	55.0%	88.8%
Plymouth - Route 3 @ Route 44	520	16	18	21	3.1%	3.5%	4.0%
Plymouth - Route 3 @ Long Pond Road	200	169	143	184	84.5%	71.5%	92.0%
Bourne - Route 3 @ Route 6 (Sagamore)	377	330	273	285	87.5%	72.4%	75.6%
Total Route 24 Corridor	***200***	***175***	***204***	***203***	***87.5%***	***102.0%***	***101.5%***
Total Route 3 Corridor	***1,679***	***946***	***742***	***864***	***56.3%***	***44.2%***	***51.5%***
Total All Lots	***1,879***	***1,121***	***946***	***1,067***	***59.7%***	***50.3%***	***56.8%***

Overall, the Route 24 Corridor Park & Ride Lots averaged between 85-100% utilization during 2009 while the Route 3 Corridor Lots averaged between 44-56% utilization. The West Bridgewater Park & Ride facility has historically seen a high utilization rate due in to the fact that Bloom Bus provides commuter service from this location to Downtown Boston. MassDOT, with CMAQ funding through the Old Colony Transportation Improvement Program (TIP), is currently expanding that facility to provide 40 more spaces, improved drainage, sidewalks, as well as bicycle and bus shelters to accommodate the commuter demand. In comparison, the Route 3 Corridor Park & Ride Lots utilization rate is lower because the Plymouth Route 3 @

Route 44 Park & Ride facility is not serviced by a commuter bus provider and therefore, is mainly used as a standard parking lot. Parking lots which demonstrated an 85 percent or more utilization rate are highlighted in gray in Table 2-4.

Commuter Origins Studies

In October 2007, OCPC staff completed data collection for the MBTA Old Colony Commuter Rail and Old Colony Park & Ride Lots Commuter Origins Studies. The purpose of these studies was to analyze the utilization rates of each parking lot; decipher trip movements of commuters who travel to those parking lots; and to determine the different trends that exist at each station location. To that end, OCPC staff recorded vehicle license plate numbers parked at the specified locations, entered them into a database, and then forwarded the data to the Central Transportation Planning Staff (CTPS). In order to obtain trip origins, CTPS matched the license plate numbers registered in Massachusetts against the Massachusetts Registry of Motor Vehicles database and determined registration addresses. Finally, OCPC geocoded the results using GIS, which then illustrated a spatial distribution of commuters. The results of the studies are shown on the following maps: 2007 Kingston/Plymouth Line License Plate Origins Map, 2007 Middleboro/Lakeville Line License Plate Origins Map; 2007 Stoughton Station License Plate Origins Map; 2007 Route 24 Corridor Park & Ride License Plate Origins Map; and the 2007 Route 3 Corridor Park & Ride License Plate Origins Map, located in the Appendix. In 2010, OCPC will be conducting Commuter Origins Studies for the MBTA Old Colony Commuter Rail Lines and Old Colony Park & Ride Lots. The results of said studies will be published in the 2010 OCPC CMP Annual Report.

Boarding & Alighting Study

In October & November 2005, OCPC staff completed data collection for the MBTA Old Colony Commuter Rail Boarding & Alighting Study. Passengers entering and exiting trains on both lines of the Old Colony Commuter Rail Service and at the Stoughton Station were counted during the morning and afternoon peak trains. The results of said study are shown on the 2005 Boarding & Alighting Study MBTA Ridership: Morning and Evening Peak Period Inbound Trains Maps located in the Appendix.

According to the ITE's *Highway Capacity Manual*, passenger loads at transit stops reflect the comfort level of the on board transit trip. *The Highway Capacity Manual* measures passenger loads for commuter rail in terms of passengers per available seats, which is then described in terms of levels of service (LOS) from A to F, with LOS "A" being the most desirable. The comparison of peak passenger loads per available seats, along with the designated level of service (LOS) is used to determine congestion levels for transit facilities in this report.

Brockton Area Transit Authority (BAT)

The trends in ridership for the fixed route service, based upon the OCPC *Ridership Analysis Report* prepared for the Brockton Area Transit, show an increase from 9,813 per average weekday in FY 2008 to 10,363 in FY 2009. The core service area experienced an overall increase in passenger demand partially due to the increase in fuel prices. Table 2-4 shows the trends in ridership based on average daily ridership between FY 2005 and FY 2009.

Table 2-4: Brockton Area Transit (BAT) Average Daily Ridership

FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
9,847	9,990	9,819	9,813	10,363

A number of important factors influence transit ridership such as cyclical downturns in the economy, which have short-term impacts on travel demand and ridership. In addition, suburbanization of the communities surrounding Brockton, in both residential and job-related uses, impact fixed-route demand.

The smart growth redevelopment and re-use of vacant buildings and properties in Downtown Brockton has a potential overall impact in increasing bus ridership, enhancing overall livability, and assisting in the reduction of carbon emissions. Land uses in the downtown, and along important highway corridors such as Route 28, are currently in transition. The current rehabilitation of old factory buildings into residential units in the downtown and other re-development efforts will impact employment.

5.0 CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The single-occupancy vehicle remains the preferred mode for commuters in the OCPC region. The number of commuters traveling to work by auto (not car-pooling) grew by 10,560 from 1990 to 2000, based on the US Census. Commuting via auto provides the flexibility for making a direct connection to work, which is essential as work destinations become more dispersed and as individuals seek work at longer distances from the home. Auto use allows the motorist flexibility in making multi-purpose trips for work, shopping, day care, and other purposes.

The popularity of the MBTA Old Colony Commuter Rail shows that the utilization of transit can help to ameliorate increases in overall traffic due to the dynamics of a changing economy. The next step in the evolution of transit utilization is to affect land use in a way that allows for higher concentrations of employment and residences so that transit can be used to its full potential. Improvements to both roadway and transit facilities should be fully integrated and work in concert to achieve maximum flexibility regarding mode choice. Roadway improvements should include improvements in operational efficiency to enhance existing capacity as well as creating additional capacity. Operational efficiency strategies include signal coordination, intersection redesign, intelligent transportation system strategies, and access management.

OCPC continues to encourage the following programs in order to reduce congestion and carbon emissions and enhance livability within the region:

- Access Management

  Access Management is defined as the planning of the design, location, and operation of driveways, median openings, interchanges, and street connections. Although some access management techniques include limiting the number of curb cuts, adding medians, and reducing turning movements, studies show that well planned access management design and modifications do not negatively impact businesses. Access Management applications result in reduced blocking of driveways by queues, better access between neighborhoods and businesses, and safer overall driving conditions.

- Intelligent Transportation Systems (ITS)

  Intelligent Transportation Systems (ITS) are applications of advanced technology in the field of transportation, with the goals of increasing operational efficiency and capacity, improving safety, reducing environmental costs, and enhancing personal mobility. Intelligent Transportation Systems are currently used in a wide variety of applications, such as: incident management and emergency response; electronic toll collection on highways; fare collection on transit systems; traffic signal control; and congestion management. Specifically, ITS increases safety, security, comfort, and convenience for transit passengers; improves transit efficiency and thus helps to reduce operating costs; assists transit operation managers and vehicle operators by automating many of their labor-intensive duties; and promotes an intermodal transportation system that helps motorists transition between their own passenger vehicles and the transit system.

- Transportation Demand Management (TDM)

  Transportation Demand Management (TDM) techniques serve to reduce the number of single occupancy vehicle trips. Typical examples of TDM techniques include, but are not limited to; ridesharing/carpooling; shuttle services; telecommuting options; flexible work schedules; and bicycle and pedestrian accommodations. These techniques help reduce the amount of vehicle trips on the highway network and therefore reduce congestion. OCPC will continue to support enactment of TDM measures throughout the region and in development projects undergoing MEPA review.

- Transit Oriented Developments (TOD)

  Transit Oriented Development is a strategy to reduce single occupancy vehicle demand that targets specific traveler mode choices. TODs can contribute significantly to the reduction in the demand that single occupancy vehicles create on the highway system, enhance livability, and reduce carbon emissions. A variety of urban form and design strategies can enhance opportunities for the use of public transit, ridesharing, bicycling, and walking. TODs can focus a mix of land uses, such as employment, housing, restaurants, services (banking, day care, etc.), and retail, in well-designed, pedestrian-friendly developments near transit connections. These developments can significantly reduce the demand for vehicle travel and reduce trip distances.

5.2 Recommendations

The recommendations included in the Old Colony 2009 Congestion Management Annual Report come from a variety of tasks undertaken by OCPC, which include, but are not limited to the following: the Congestion Management Process; Local Highway Technical Assistance Studies; Corridor Studies; the Highway Data Surveillance Program; and other relevant programs which are included in the Unified Planning Work Program (UPWP). These tasks provide the CMP with important data which help describe congestion throughout the OCPC region.

In addition, results from the 2009 CMP Annual Report will be important during the development of the Major Bottleneck Identification Study and other Local Highway Technical Assitance Studies being undertaken by OCPC in 2010.

The congestion for several highway interchanges and commuter rail stations are noted anecdotally. Such locations that should be examined include, but are not limited to:

<u>Roadway Facilities</u>

- Pilgrim Highway (Route 3) & Samoset Street, Exit 6B
  Southbound traffic attempting to exit Pilgrim Highway (Route 3) and travel eastbound on Samoset Street is routinely backed up onto the highway during the afternoon peak period because of a bottleneck at the end of the exit ramp. This bottleneck is caused by a stop control at the end of the exit ramp as well as a signal approximately 300 feet east which controls the access and egress to a large shopping plaza.

- AmVets Memorial Highway (Route 24) & Belmont Street (Route 123), Exit 17
  Northbound traffic attempting to exit AmVets Memorial Highway (Route 24) and travel eastbound on Belmont Street (Route 123) during the morning peak period can back up on the highway because of the traffic signal at the intersection of Belmont Street (Route 123) & Manley Street (approximately 400 feet to the east). This bottleneck and the volume of traffic attempting to traverse the facility create a severe congestion and safety problem.

- AmVets Memorial Highway (Route 24) & West Center Street (Route 106), Exit 16
  Northbound and southbound traffic attempting to exit AmVets Memorial Highway (Route 24) and travel eastbound on West Center Street (Route 106) during the morning and afternoon peak periods can back up on both roadways because of a lane drop on the east side of the interchange. In addition, land uses on either side of West Center Street (Route 106) create numerous turning movements, which increase the congestion at this location.

- Pilgrim Highway (Route 3) & Long Pond Road, Exit 16
  Southbound traffic attempting to exit Pilgrim Highway (Route 3) and travel southbound on Long Pond Road during the weekend peak periods experience a backup due to a traffic signal and yield at the end of the ramp. Heavy volumes of

Long Pond Road southbound traffic prevent the exiting traffic from merging with traffic. In addition, a traffic signal at the Home Depot Plaza (approximately 500 feet south of the exit ramp signal) increases congestion at this junction point.

Transit Facilities

- South Weymouth MBTA Old Colony Commuter Rail Station
  According to the parking lot utilization table (Appendix), this commuter rail station is continually at or above capacity. As such, continual monitoring and capacity enhancements should be considered for this facility.

- Abington MBTA Old Colony Commuter Rail Station
  According to the parking lot utilization table (Appendix), this commuter rail station is continually at or above capacity. As such, continual monitoring and capacity enhancements should be considered for this facility.

- Whitman MBTA Old Colony Commuter Rail Station
  According to the parking lot utilization table (Appendix), this commuter rail station is continually at or above capacity. As such, continual monitoring and capacity enhancements should be considered for this facility.

- Stoughton MBTA Old Colony Commuter Rail Station
  According to the parking lot utilization table (Appendix), this commuter rail station is continually at or above capacity. As such, continual monitoring and capacity enhancements should be considered for this facility.

- AmVets Memorial Highway (Route 24) & Pleasant Street (Route 104) Park & Ride Facility
  According to the parking lot utilization table (Appendix), this park & ride facility has become increasingly popular with commuters. The proximity to AmVets Memorial Highway (Route 24) allows for easy access; however, the lack of transit services makes this facility less popular. As such, continual monitoring and future transit service should be considered for this facility.

- Pilgrim Highway (Route 3) & Long Pond Road Park & Ride Facility
  According to the parking lot utilization table (Appendix), this park & ride facility has become increasingly popular with commuters. The proximity to Pilgrim Highway (Route 3) and the transit service provided at this facility provide commuters with a higher degree of accessibility and convenience. As such, continual monitoring and future capacity enhancements should be considered for this facility.

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OLD COLONY PLANNING COUNCIL CONGESTION MANAGEMENT PROCESS
1998-2008 MBTA COMMUTER RAIL INBOUND RIDERSHIP

Line & Station	9/24/1998 Inbound	2/11/1999 Inbound	10/7/1999 Inbound	2/10/2000 Inbound	6/8/2000 Inbound	9/28/2000 Inbound	2/8/2001 Inbound	6/7/2001 Inbound	10/4/2001 Inbound	2/7/2002 Inbound	6/6/2002 Inbound	2/27/2003 Inbound	11/13/2003 Inbound	2/12/2004 Inbound	5/13/2004 Inbound	11/18/2004 Inbound	5/12/2005 Inbound	12/7/2006 Inbound	6/26/2008 Inbound
Providence/Stoughton Line																			
Canton Junction	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Canton Center	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	973	N/A	N/A
Stoughton	1,098	1,098	645	1,282	980	1,146	1,110	873	805	841	N/A	N/A	N/A	N/A	N/A	N/A	1,236	N/A	N/A
Middleborough/Lakeville Line																			
Holbrook/Randolph	489	380	458	565	491	606	415	506	759	586	575	572	747	729	689	591	565	686	601
Montello	423	441	541	567	583	609	513	580	710	724	835	732	787	811	710	705	641	714	688
Brockton	575	426	603	631	644	693	614	820	922	907	957	871	873	1,035	901	795	793	845	821
Campello	460	464	545	556	529	699	500	549	554	642	793	675	744	656	525	629	621	724	655
Bridgewater	693	650	797	964	1,002	919	772	816	945	959	984	916	1,148	1,161	818	883	947	1,038	1,098
Middleborough	683	701	772	719	939	826	801	978	982	1,003	1,048	955	1,230	1,079	817	1,005	901	1,143	1,073
Kingston/Plymouth Line																			
South Weymouth	510	542	427	570	720	614	728	469	706	625	832	521	665	653	519	538	673	794	849
Abington	585	457	449	477	520	663	444	607	722	594	655	560	756	599	701	569	600	813	884
Whitman	564	453	426	474	681	721	542	652	803	487	669	570	736	646	593	636	487	705	609
Hanson	458	490	599	516	665	628	474	554	695	568	661	558	721	734	669	629	624	653	612
Halifax	541	525	563	539	754	738	533	682	736	632	649	563	804	691	656	644	611	639	642
Kingston	864	809	868	828	957	1,211	890	827	999	1,558	1,036	794	1,278	964	737	1,060	1,097	1,173	1,228
Plymouth	72	74	69	48	38	49	42	45	79	77	77	58	124	69	304	88	65	69	62
Total Providence/Stoughton Line	***1,098***	***1,098***	***645***	***1,282***	***980***	***1,146***	***1,110***	***873***	***805***	***841***	***0***	***0***	***0***	***0***	***0***	***0***	***2,209***	***0***	***0***
Total Middleborough/Lakeville Line	***3,323***	***3,062***	***3,716***	***4,002***	***4,188***	***4,352***	***3,615***	***4,249***	***4,872***	***4,821***	***5,192***	***4,721***	***5,529***	***5,471***	***4,460***	***4,608***	***4,468***	***5,150***	***4,936***
Total Kingston/Plymouth Line	***3,594***	***3,350***	***3,401***	***3,452***	***4,335***	***4,624***	***3,653***	***3,836***	***4,740***	***4,541***	***4,579***	***3,624***	***5,084***	***4,356***	***4,179***	***4,164***	***4,157***	***4,846***	***4,886***

Sources: Massachusetts Department of Transportation (MassDOT) Transit Division & Central Transportation Planning Staff (CTPS)

OLD COLONY PLANNING COUNCIL CONGESTION MANAGEMENT PROCESS
1999-2009 MBTA COMMUTER RAIL PARKING LOT UTILIZATION

Location	Total Spaces	♿ Spaces	Vehicles Parked																					
			Jun-99	Jun-00	Apr-01	Jun-01	May-02	May-04	Jul-04	Apr-05	Jul-05	Oct-05	Apr-06	Jul-06	Oct-06	Apr-07	Jul-07	Oct-07	Apr-08	Jul-08	Oct-08	Apr-09	Jul-09	Oct-09
Providence/Stoughton Line																								
Canton Junction	**764**	**11**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	595
Canton Center	**215**	**4**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	166
Stoughton	**333**	**10**	513	401	N/A	433	367	350	320	368	377	405	375	443	462	405	361	324	340	389	370	237	251	219
Middleborough/Lakeville Line																								
Holbrook/Randolph	**369**	**14**	327	349	340	340	327	287	279	291	269	343	297	292	345	301	260	296	307	283	326	229	195	205
Montello (Brockton)	**347**	**12**	255	299	331	319	254	234	191	216	202	250	225	212	247	239	223	230	242	225	244	131	123	128
Downtown (Brockton)	**267**	**6**	102	130	141	162	151	104	94	135	148	134	166	155	169	144	121	144	141	128	144	176	201	161
Campello (Brockton)	**535**	**11**	224	280	322	310	287	228	204	245	216	236	243	215	229	242	219	232	242	242	266	178	143	293
Bridgewater	**504**	**10**	385	487	471	491	456	430	343	351	315	383	440	354	458	439	333	436	380	348	429	294	216	326
Middleborough/Lakeville	**769**	**14**	619	736	754	719	739	595	632	665	583	664	629	788	694	673	640	645	630	689	721	528	486	710
Kingston/Plymouth Line																								
South Weymouth	**543**	**9**	517	476	561	535	511	458	422	531	496	550	546	518	564	524	500	532	435	411	418	399	310	290
Abington	**405**	**9**	367	397	423	400	390	361	371	384	364	402	356	372	418	395	366	385	396	344	404	287	241	242
Whitman	**208**	**7**	192	186	179	183	191	177	188	193	168	224	195	190	199	198	186	198	185	181	185	115	177	125
Hanson	**482**	**8**	380	320	426	421	368	363	354	372	313	385	385	368	387	361	343	369	358	322	385	332	209	296
Halifax	**402**	**10**	274	284	397	370	348	301	313	337	275	310	311	318	350	330	301	343	339	291	326	272	225	237
Kingston	**1,039**	**25**	827	856	936	912	835	660	686	746	729	776	787	787	764	769	670	611	720	836	738	814	455	405
Plymouth	**96**	**4**	5	4	8	4	8	6	0	1	12	0	0	2	6	3	3	3	1	4	3	1	3	1
Total Providence/Stoughton Line	***1,312***	***25***	***513***	***401***	***N/A***	***433***	***367***	***350***	***320***	***368***	***377***	***405***	***375***	***443***	***462***	***405***	***361***	***324***	***340***	***389***	***370***	***237***	***251***	***980***
Total Middleborough/Lakeville Line	***2,791***	***67***	***1,912***	***2,281***	***2,359***	***2,341***	***2,214***	***1,878***	***1,743***	***1,903***	***1,733***	***2,010***	***2,000***	***2,016***	***2,142***	***2,038***	***1,796***	***1,983***	***1,942***	***1,915***	***2,130***	***1,536***	***1,364***	***1,823***
Total Kingston/Plymouth Line	***3,175***	***72***	***2,562***	***2,523***	***2,930***	***2,825***	***2,651***	***2,326***	***2,334***	***2,564***	***2,357***	***2,647***	***2,580***	***2,555***	***2,688***	***2,580***	***2,369***	***2,441***	***2,434***	***2,389***	***2,459***	***2,220***	***1,620***	***1,596***
Total All Stations	***7,278***	***164***	***4,987***	***5,205***	***5,289***	***5,599***	***5,232***	***4,554***	***4,397***	***4,835***	***4,467***	***5,062***	***4,955***	***5,014***	***5,292***	***5,023***	***4,526***	***4,748***	***4,716***	***4,693***	***4,959***	***3,993***	***3,235***	***4,399***

Location	Total Spaces	♿ Spaces	Utilization Rate																					
			Jun-99	Jun-00	Apr-01	Jun-01	May-02	May-04	Jul-04	Apr-05	Jul-05	Oct-05	Apr-06	Jul-06	Oct-06	Apr-07	Jul-07	Oct-07	Apr-08	Jul-08	Oct-08	Apr-09	Jul-09	Oct-09
Providence/Stoughton Line																								
Canton Junction	**764**	**11**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	77.9%
Canton Center	**215**	**4**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	77.2%
Stoughton	**333**	**10**	154.1%	120.4%	N/A	130.0%	110.2%	105.1%	96.1%	110.5%	113.2%	121.6%	112.6%	133.0%	138.7%	121.6%	108.4%	97.3%	102.1%	116.8%	111.1%	71.2%	75.4%	65.8%
Middleborough/Lakeville Line																								
Holbrook/Randolph	**369**	**14**	88.6%	94.6%	92.1%	92.1%	88.6%	77.8%	75.6%	78.9%	72.9%	93.0%	80.5%	79.1%	93.5%	81.6%	70.5%	80.2%	83.2%	76.7%	88.3%	62.1%	52.8%	55.6%
Montello (Brockton)	**347**	**12**	73.5%	86.2%	95.4%	91.9%	73.2%	67.4%	55.0%	62.2%	58.2%	72.0%	64.8%	61.1%	71.2%	68.9%	64.3%	66.3%	69.7%	64.8%	70.3%	37.8%	35.4%	36.9%
Downtown (Brockton)	**267**	**6**	38.2%	48.7%	52.8%	60.7%	56.6%	39.0%	35.2%	50.6%	55.4%	50.2%	62.2%	58.1%	63.3%	53.9%	45.3%	53.9%	52.8%	47.9%	53.9%	65.9%	75.3%	60.3%
Campello (Brockton)	**535**	**11**	41.9%	52.3%	60.2%	57.9%	53.6%	42.6%	38.1%	45.8%	40.4%	44.1%	45.4%	40.2%	42.8%	45.2%	40.9%	43.4%	45.2%	45.2%	49.7%	33.3%	26.7%	54.8%
Bridgewater	**504**	**10**	76.4%	96.6%	93.5%	97.4%	90.5%	85.3%	68.1%	69.6%	62.5%	76.0%	87.3%	70.2%	90.9%	87.1%	66.1%	86.5%	75.4%	69.0%	85.1%	58.3%	42.9%	64.7%
Middleborough/Lakeville	**769**	**14**	80.5%	95.7%	98.0%	93.5%	96.1%	77.4%	82.2%	86.5%	75.8%	86.3%	81.8%	102.5%	90.2%	87.5%	83.2%	83.9%	81.9%	89.6%	93.8%	68.7%	63.2%	92.3%
Kingston/Plymouth Line																								
South Weymouth	**543**	**9**	95.2%	87.7%	103.3%	98.5%	94.1%	84.3%	77.7%	97.8%	91.3%	101.3%	100.6%	95.4%	103.9%	96.5%	92.1%	98.0%	80.1%	75.7%	77.0%	73.5%	57.1%	53.4%
Abington	**405**	**9**	90.6%	98.0%	104.4%	98.8%	96.3%	89.1%	91.6%	94.8%	89.9%	99.3%	87.9%	91.9%	103.2%	97.5%	90.4%	95.1%	97.8%	84.9%	99.8%	70.9%	59.5%	59.8%
Whitman	**208**	**7**	92.3%	89.4%	86.1%	88.0%	91.8%	85.1%	90.4%	92.8%	80.8%	107.7%	93.8%	91.3%	95.7%	95.2%	89.4%	95.2%	88.9%	87.0%	88.9%	55.3%	85.1%	60.1%
Hanson	**482**	**8**	78.8%	66.4%	88.4%	87.3%	76.3%	75.3%	73.4%	77.2%	64.9%	79.9%	79.9%	76.3%	80.3%	74.9%	71.2%	76.6%	74.3%	66.8%	79.9%	68.9%	43.4%	61.4%
Halifax	**402**	**10**	68.2%	70.6%	98.8%	92.0%	86.6%	74.9%	77.9%	83.8%	68.4%	77.1%	77.4%	79.1%	87.1%	82.1%	74.9%	85.3%	84.3%	72.4%	81.1%	67.7%	56.0%	59.0%
Kingston	**1,039**	**25**	79.6%	82.4%	90.1%	87.8%	80.4%	63.5%	66.0%	71.8%	70.2%	74.7%	75.7%	75.7%	73.5%	74.0%	64.5%	58.8%	69.3%	80.5%	71.0%	78.3%	43.8%	39.0%
Plymouth	**96**	**4**	5.2%	4.2%	8.3%	4.2%	8.3%	6.3%	0.0%	1.0%	12.5%	0.0%	0.0%	2.1%	6.3%	3.1%	3.1%	3.1%	1.0%	4.2%	3.1%	1.0%	3.1%	1.0%
Total Providence/Stoughton Line	***1,312***	***25***	67.2%	52.6%	***N/A***	56.7%	48.1%	45.9%	41.9%	48.2%	49.4%	53.1%	49.1%	58.1%	60.6%	53.1%	47.3%	42.5%	44.6%	51.0%	48.5%	31.1%	32.9%	***74.7%***
Total Middleborough/Lakeville Line	***2,791***	***67***	***68.5%***	***81.7%***	***84.5%***	***83.9%***	***79.3%***	***67.3%***	***62.5%***	***68.2%***	***62.1%***	***72.0%***	***71.7%***	***72.2%***	***76.7%***	***73.0%***	***64.3%***	***71.0%***	***69.6%***	***68.6%***	***76.3%***	***55.0%***	***48.9%***	***65.3%***
Total Kingston/Plymouth Line	***3,175***	***72***	***80.7%***	***79.5%***	***92.3%***	***89.0%***	***83.5%***	***73.3%***	***73.5%***	***80.8%***	***74.2%***	***83.4%***	***81.3%***	***80.5%***	***84.7%***	***81.3%***	***74.6%***	***76.9%***	***76.7%***	***75.2%***	***77.4%***	***69.9%***	***51.0%***	***50.3%***
Total All Stations	***7,278***	***164***	***68.5%***	***71.5%***	***72.7%***	***76.9%***	***71.9%***	***62.6%***	***60.4%***	***66.4%***	***61.4%***	***69.6%***	***68.1%***	***68.9%***	***72.7%***	***69.0%***	***62.2%***	***65.2%***	***64.8%***	***64.5%***	***68.1%***	***54.9%***	***44.4%***	***60.4%***

Sources: Old Colony Planning Council (OCPC) & Massachusetts Department of Transportation (MassDOT) Transit Division

OLD COLONY PLANNING COUNCIL CONGESTION MANAGEMENT PROCESS

1999-2009 PARK & RIDE PARKING LOT UTILIZATION

Location	Total Spaces	Spaces	Jun-99	Jun-01	May-04	Jul-04	Apr-05	Jul-05	Nov-05	Apr-06	Jul-06	Oct-06	Apr-07	Jul-07	Oct-07	Apr-08	Jul-08	Oct-08	Apr-09	Jul-09	Oct-09
Route 24 Corridor																					
West Bridgewater - Route 24 @ Route 106	**140**	**0**	105	133	125	123	147	150	146	148	178	157	161	164	155	153	166	148	146	151	143
Bridgewater - Route 24 @ Route 104	**60**	**0**	19	36	47	44	42	48	41	50	39	46	37	49	49	58	51	50	29	53	60
Route 3 Corridor																					
Rockland - Route 3 @ Route 228	**440**	**9**	254	253	283	268	333	262	277	351	278	310	375	313	337	307	271	341	349	255	292
Pembroke - Route 3 @ Route 139	**62**	**0**	7	8	N/A	N/A	0	0	0	3	6	5	6	4	6	3	3	6	15	9	11
Kingston - Route 3 @ Route 3A & 53	**80**	**0**	48	37	88	45	50	76	73	81	50	71	109	42	81	53	96	59	67	44	71
Plymouth - Route 3 @ Route 44 & Commerce Way	**520**	**6**	N/A	N/A	1	1	7	3	0	9	9	13	15	27	16	22	30	21	16	18	21
Plymouth - Route 3 @ Long Pond Road	**200**	**8**	16	N/A	105	99	142	147	138	142	113	122	151	132	146	150	138	160	169	143	184
Bourne - Route 3 @ Route 6 (Sagamore)	**377**	**8**	283	389	N/A	270	N/A	276	266	339	N/A	329	N/A	300	N/A	N/A	307	325	330	273	285
Total Route 24 Corridor	***200***	***0***	***124***	***169***	***172***	***167***	***189***	***198***	***187***	***198***	***217***	***203***	***198***	***213***	***204***	***211***	***217***	***198***	***175***	***204***	***203***
Total Route 3 Corridor	***1,679***	***31***	***608***	***687***	***477***	***683***	***532***	***764***	***754***	***925***	***456***	***850***	***656***	***818***	***586***	***535***	***845***	***912***	***946***	***742***	***864***
Total All Lots	***1,879***	***31***	***732***	***856***	***649***	***850***	***721***	***962***	***941***	***1,123***	***673***	***1,053***	***854***	***1,031***	***790***	***746***	***1,062***	***1,110***	***1,121***	***946***	***1,067***

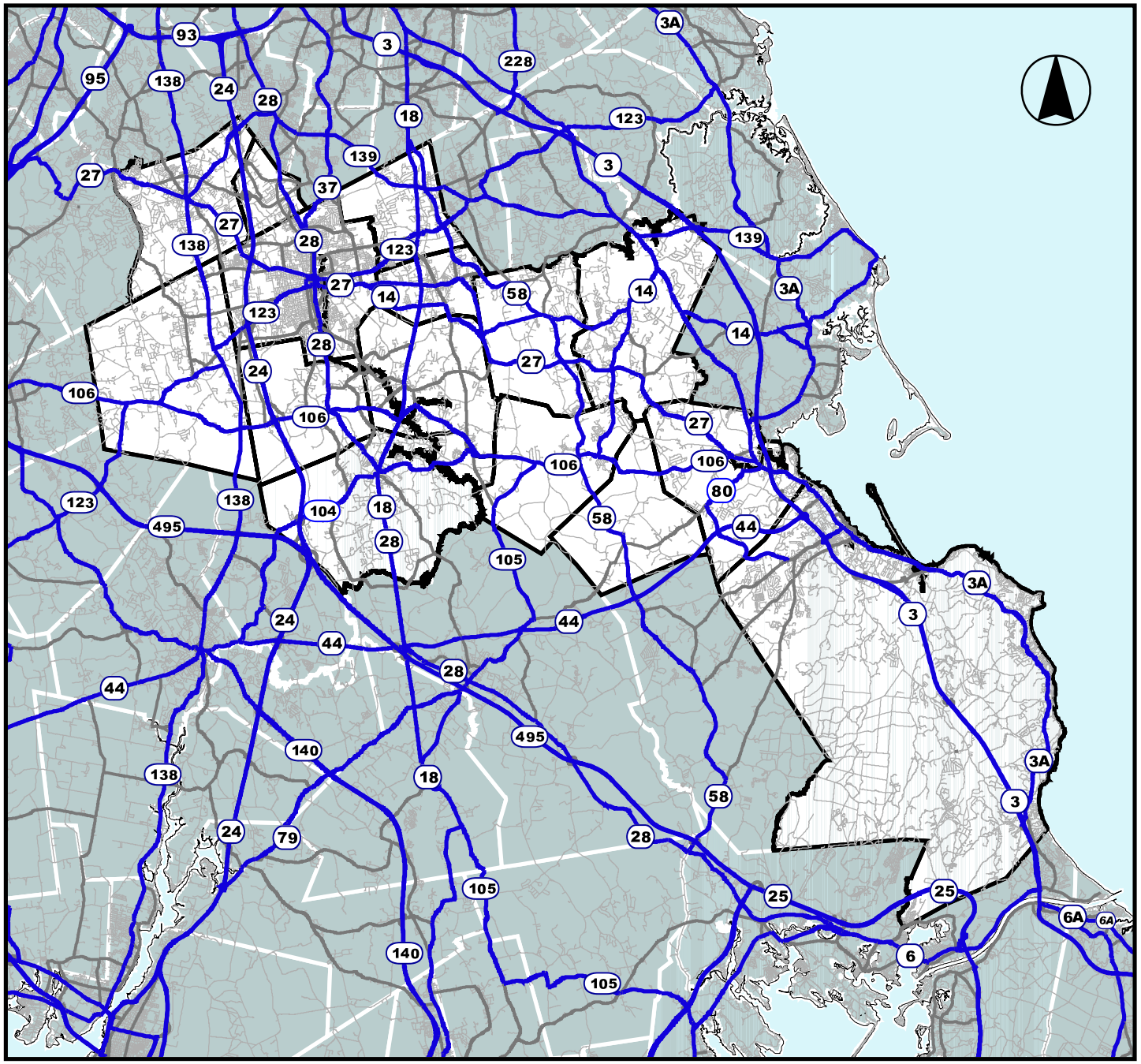
Location	Total Spaces	Spaces	Jun-99	Jun-01	May-04	Jul-04	Apr-05	Jul-05	Oct-05	Apr-06	Jul-06	Oct-06	Apr-07	Jul-07	Oct-07	Apr-08	Jul-08	Oct-08	Apr-09	Jul-09	Oct-09
Route 24 Corridor																					
West Bridgewater - Route 24 @ Route 106	**140**	**0**	75.0%	95.0%	89.3%	87.9%	105.0%	107.1%	104.3%	105.7%	127.1%	112.1%	115.0%	117.1%	110.7%	109.3%	118.6%	105.7%	104.3%	107.9%	102.1%
Bridgewater - Route 24 @ Route 104	**60**	**0**	31.7%	60.0%	78.3%	73.3%	70.0%	80.0%	68.3%	83.3%	65.0%	76.7%	61.7%	81.7%	81.7%	96.7%	85.0%	83.3%	48.3%	88.3%	100.0%
Route 3 Corridor																					
Rockland - Route 3 @ Route 228	**440**	**9**	57.7%	57.5%	64.3%	60.9%	75.7%	59.5%	63.0%	79.8%	63.2%	70.5%	85.2%	71.1%	76.6%	69.8%	61.6%	77.5%	79.3%	58.0%	66.4%
Pembroke - Route 3 @ Route 139	**62**	**0**	11.3%	12.9%	N/A	N/A	0.0%	0.0%	0.0%	4.8%	9.7%	8.1%	9.7%	6.5%	9.7%	4.8%	4.8%	9.7%	24.2%	14.5%	17.7%
Kingston - Route 3 @ Route 3A & 53	**80**	**0**	60.0%	46.3%	110.0%	56.3%	62.5%	95.0%	91.3%	101.3%	62.5%	88.8%	136.3%	52.5%	101.3%	66.3%	120.0%	73.8%	83.8%	55.0%	88.8%
Plymouth - Route 3 @ Route 44 & Commerce Way	**520**	**6**	N/A	N/A	0.2%	0.2%	1.3%	0.6%	0.0%	1.7%	1.7%	2.5%	2.9%	5.2%	3.1%	4.2%	5.8%	4.0%	3.1%	3.5%	4.0%
Plymouth - Route 3 @ Long Pond Road	**200**	**8**	8.0%	N/A	52.5%	49.5%	71.0%	73.5%	69.0%	71.0%	56.5%	61.0%	75.5%	66.0%	73.0%	75.0%	69.0%	80.0%	84.5%	71.5%	92.0%
Bourne - Route 3 @ Route 6 (Sagamore)	**377**	**8**	75.1%	103.2%	N/A	71.6%	N/A	73.2%	70.6%	89.9%	N/A	87.3%	N/A	79.6%	N/A	N/A	81.4%	86.2%	N/A	72.4%	75.6%
Total Route 24 Corridor	***200***	***0***	***62.0%***	***84.5%***	***86.0%***	***83.5%***	***94.5%***	***99.0%***	***93.5%***	***99.0%***	***108.5%***	***101.5%***	***99.0%***	***106.5%***	***102.0%***	***105.5%***	***108.5%***	***99.0%***	***87.5%***	***102.0%***	***101.5%***
Total Route 3 Corridor	***1,679***	***31***	***36.2%***	***40.9%***	***28.4%***	***40.7%***	***31.7%***	***45.5%***	***44.9%***	***55.1%***	***27.2%***	***50.6%***	***39.1%***	***48.7%***	***34.9%***	***31.9%***	***50.3%***	***54.3%***	***56.3%***	***44.2%***	***51.5%***
Total All Lots	***1,879***	***31***	***39.0%***	***45.6%***	***34.5%***	***45.2%***	***38.4%***	***51.2%***	***50.1%***	***59.8%***	***35.8%***	***56.0%***	***45.4%***	***54.9%***	***42.0%***	***39.7%***	***56.5%***	***59.1%***	***59.7%***	***50.3%***	***56.8%***

Note: Data was collected at the Bourne Lot in August 1998, May 2001, and August 2005

Sources: Old Colony Planning Council (OCPC), Cape Cod Commission (CCC), Massachusetts Department of Transportation (MassDOT) Transit Division

OCPC Regional Highways

Figure 1.2



5 0 5 Miles

- State Numbered Routes
- Major Routes
- Local Roadways
- OCPC Region
- Surrounding Communities
- Tidal Rivers, Inlets, and Bays

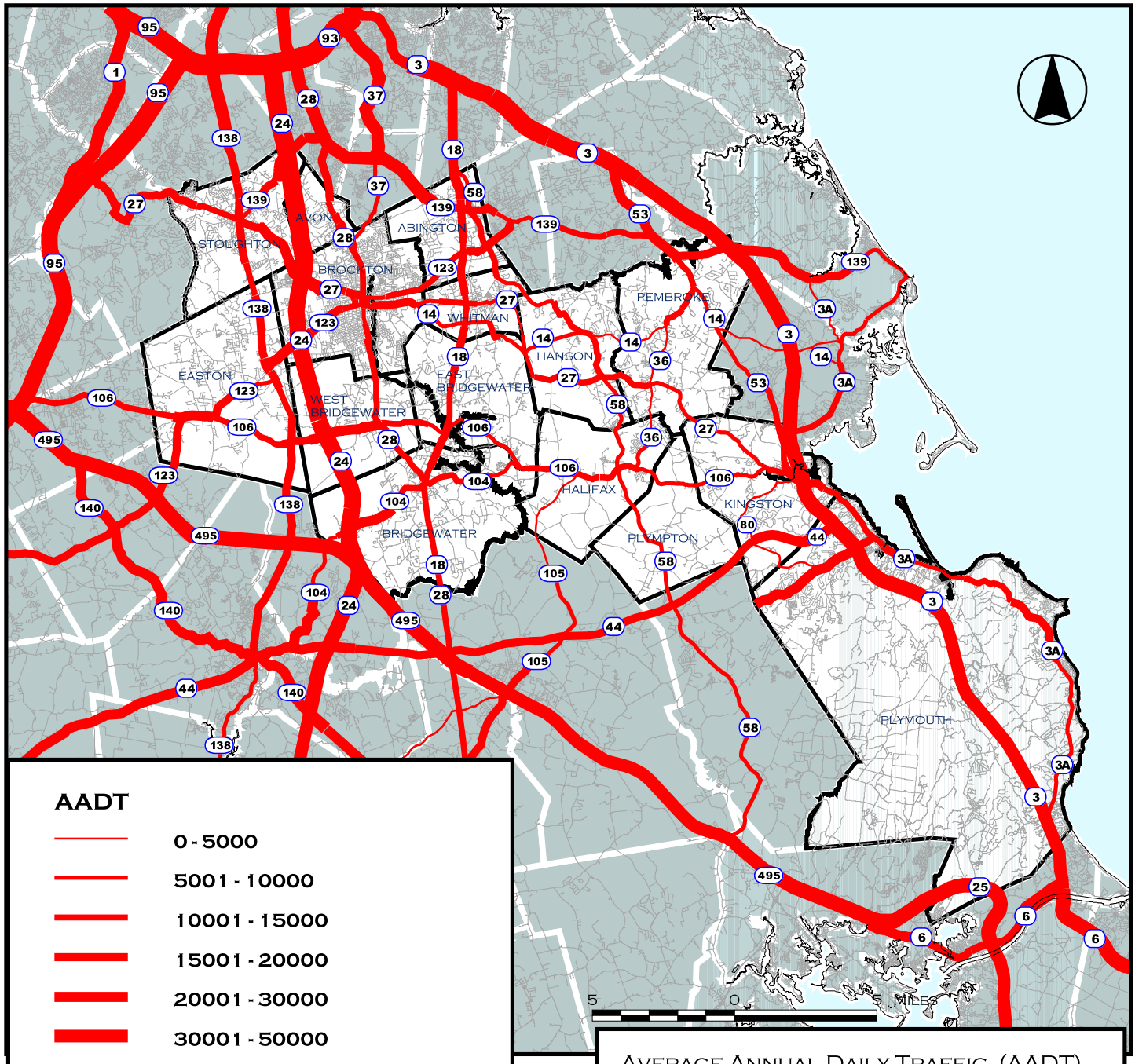
Old Colony Planning Council
70 School Street
Brockton, MA 02301

GIS Sources:
MassGIS, EOTPW, OCPC

May, 2008

AADT on State Numbered Routes

Figure 1.3



AADT

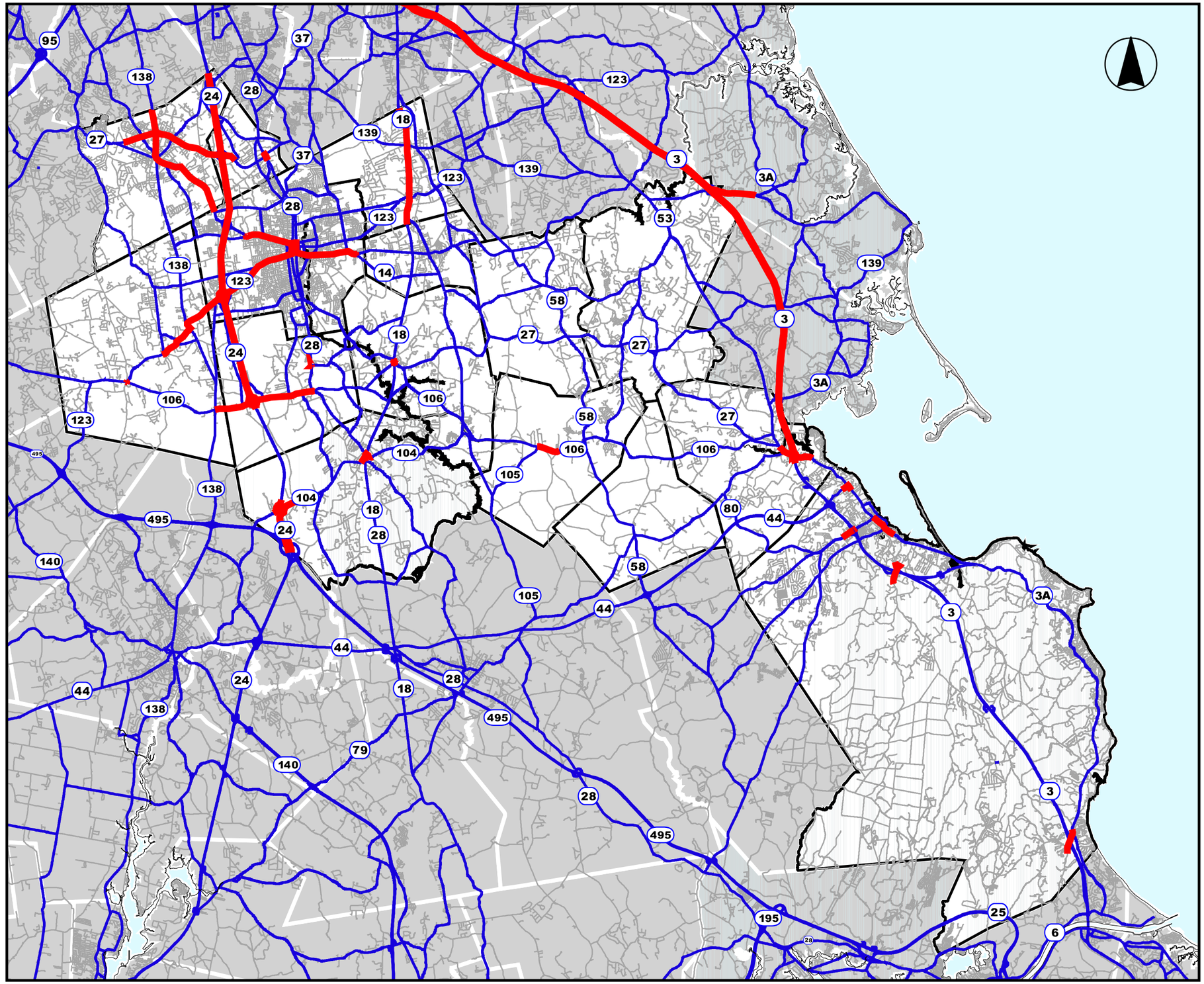
- 0 - 5000
- 5001 - 10000
- 10001 - 15000
- 15001 - 20000
- 20001 - 30000
- 30001 - 50000
- 50001 - 75000
- 75001 - 100000
- 100001 - 150000
- 150001 - 200000
- OCPC Region
- Surrounding Communities
- Tidal Rivers, Inlets, and Bays

Average Annual Daily Traffic (AADT) Volume is the average of counts taken every month for a twelve month period or counts that are seasonally adjusted using factors.

Old Colony Planning Council
70 School Street
Brockton, MA 02301

GIS Sources:
MassGIS, EOTPW, OCPC
May, 2008

TRAFFIC CONGESTION OF VC >/= 0.80 IN THE REGION



TRAFFIC CONGESTION VC >/= 0.80
MAJOR ROUTES
LOCAL ROADWAYS
OCPC REGION
SURROUNDING COMMUNITIES
TIDAL RIVERS, INLETS, AND BAYS

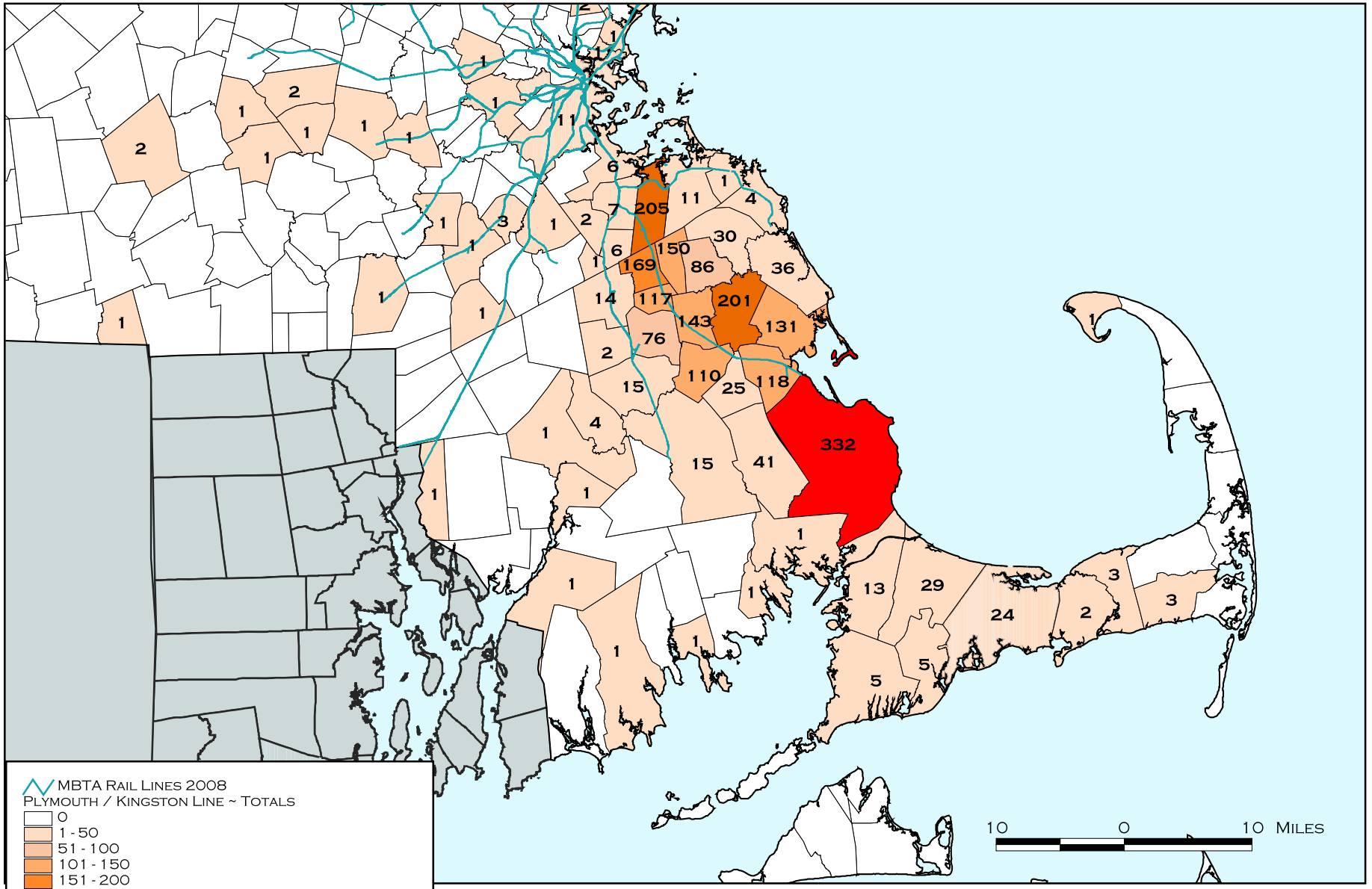
1 0 1 2 3 4 5 Miles

OLD COLONY PLANNING COUNCIL
70 SCHOOL STREET
BROCKTON, MA 02301

GIS DATA SOURCES:
MASSGIS, EOT

JANUARY 2007

Plymouth/Kingston Line Origins ~ Community Totals



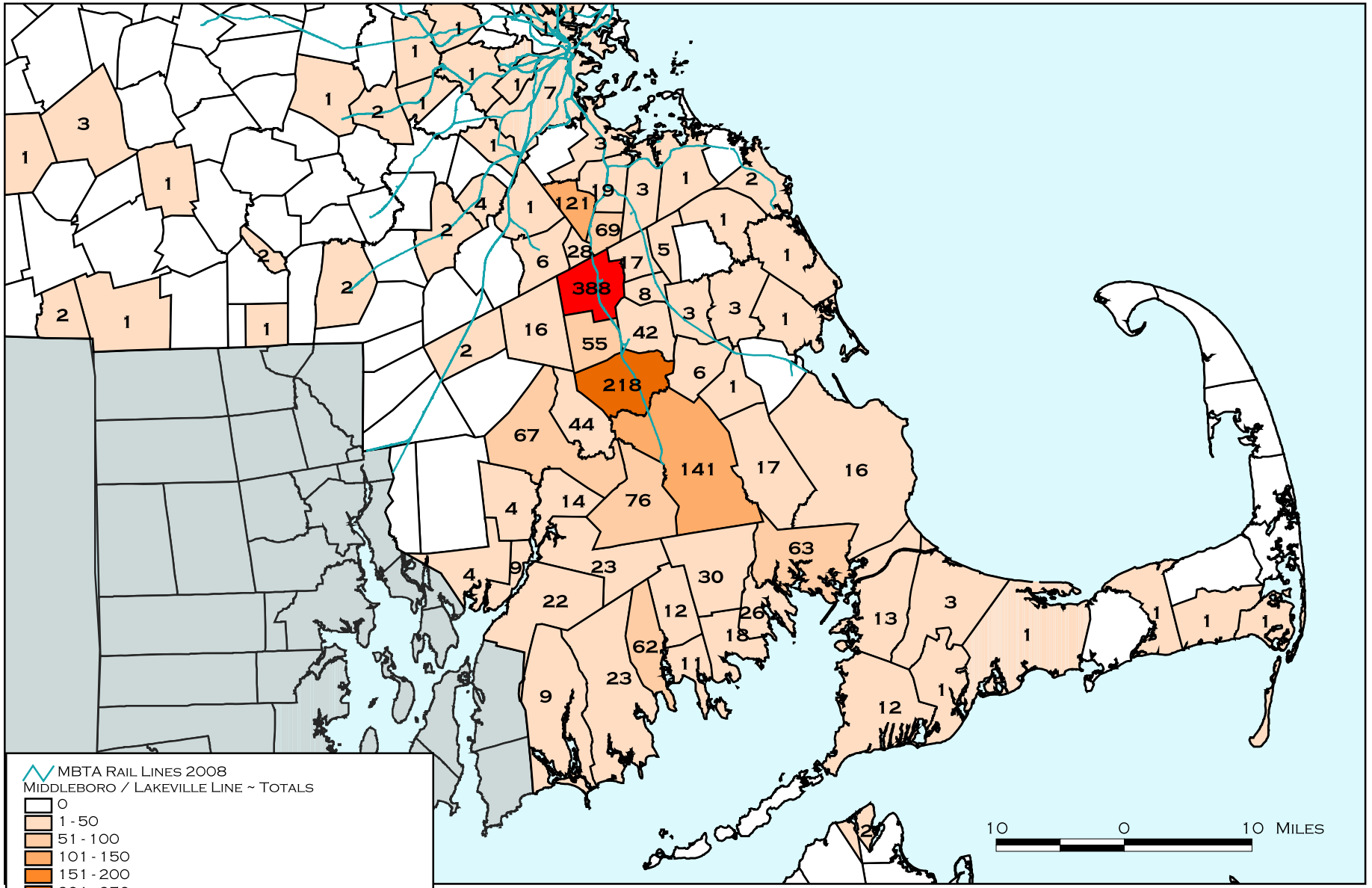
Old Colony Planning Council
70 School Street
Brockton, MA 02301

GIS Sources:
MassGIS, MA Registry of Motor Vehicles,
Old Colony Planning Council

Counts taken during October 2007.

June, 2008

Middleboro / Lakeville Line Origins ~ Community Totals

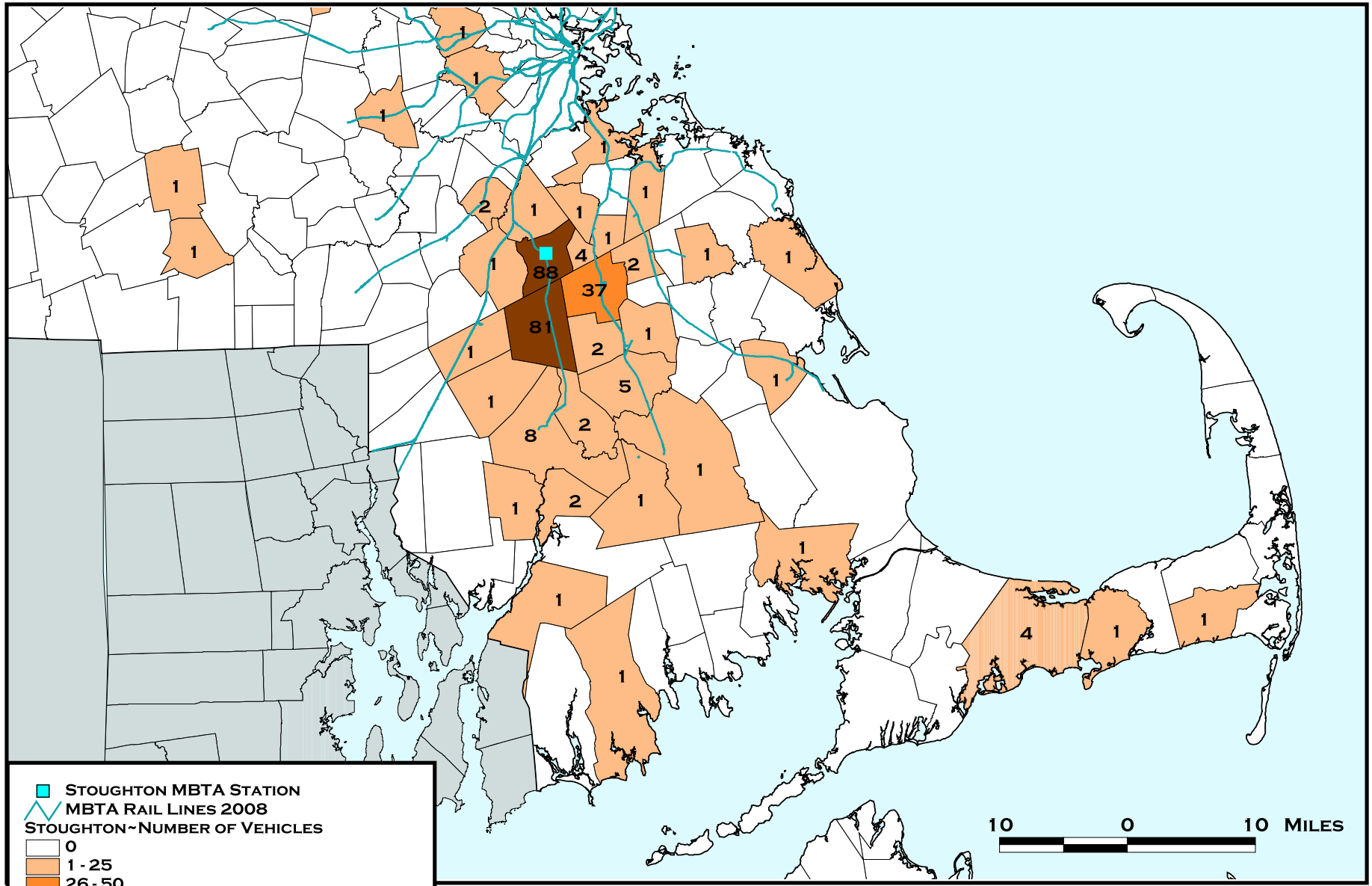


Old Colony Planning Council
70 School Street
Brockton, MA 02301

GIS Sources:
MassGIS, MA Registry of Motor Vehicles,
Old Colony Planning Council
Counts Taken During October 2007

June, 2008

Stoughton MBTA Station



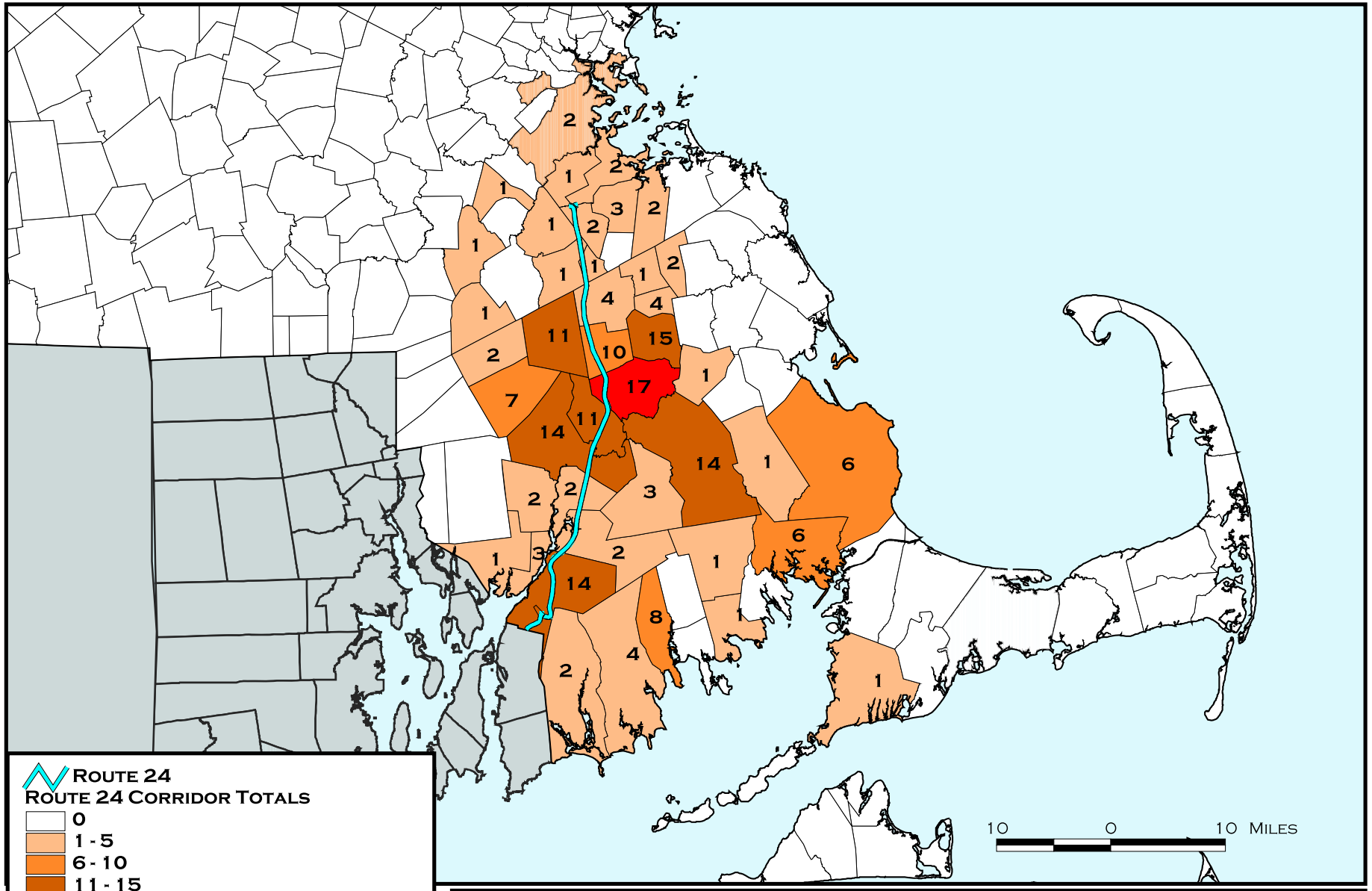
Stoughton MBTA Station
MBTA Rail Lines 2008
Stoughton~Number of Vehicles
0
1 - 25
26 - 50
51 - 75
76 - 88
Cities and Towns
New England States
Tidal Rivers, Inlets, and Bays

Old Colony Planning Council
70 School Street
Brockton, MA 02301

GIS Sources:
MassGIS, MA Registry of Motor Vehicles,
Old Colony Planning Council

June, 2008

Route 24 Park & Ride Origins ~ Community Totals



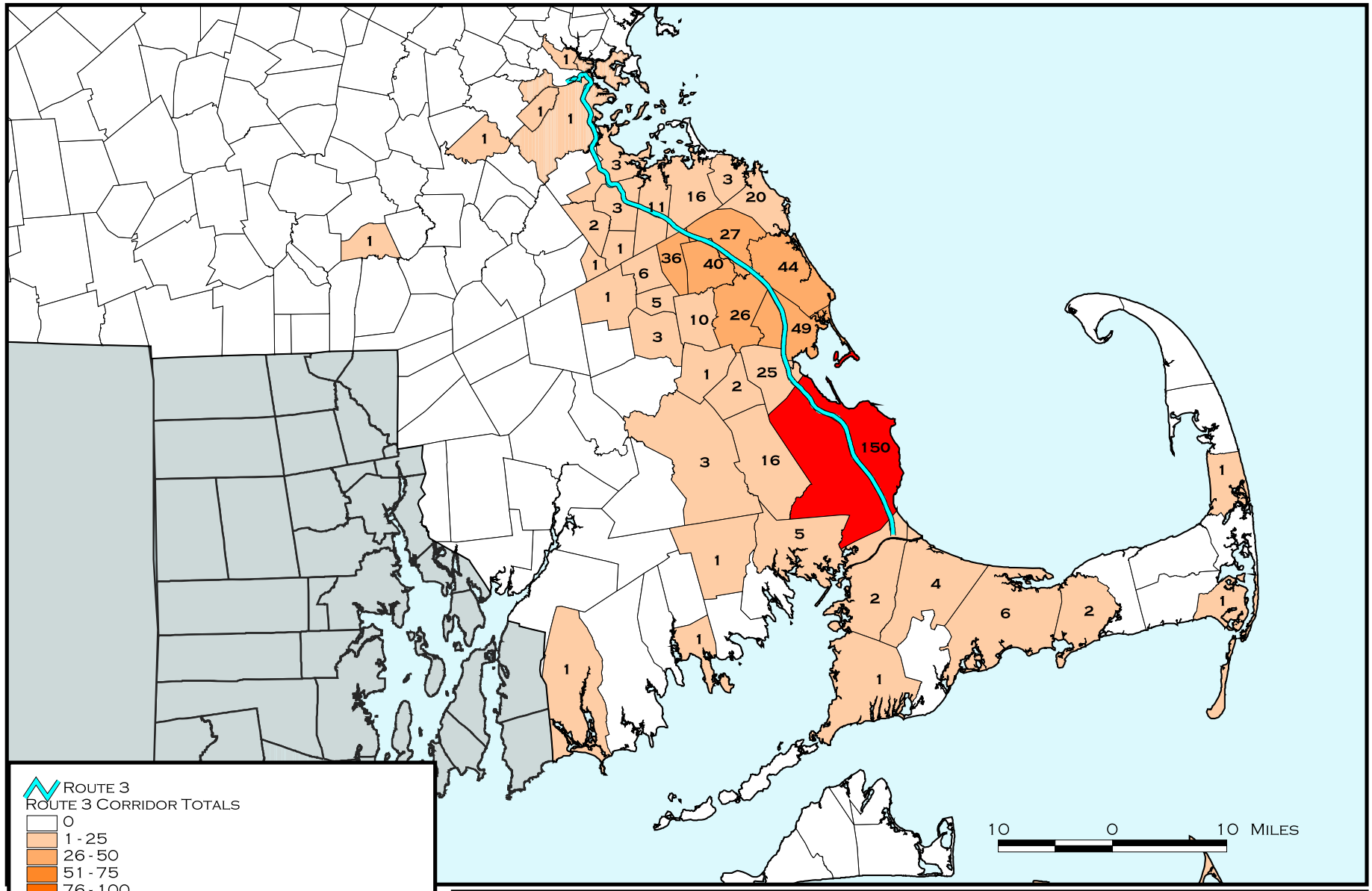
Route 24
Route 24 Corridor Totals
0
1 - 5
6 - 10
11 - 15
16 - 17
Cities and Towns
New England States
Tidal Rivers, Inlets, and Bays

Old Colony Planning Council
70 School Street
Brockton, MA 02301

GIS Sources:
MassGIS, MA Registry of Motor Vehicles,
Old Colony Planning Council
Counts Taken During October 2007

June, 2008

Route 3 Corridor Park & Ride Origins ~ Community Totals



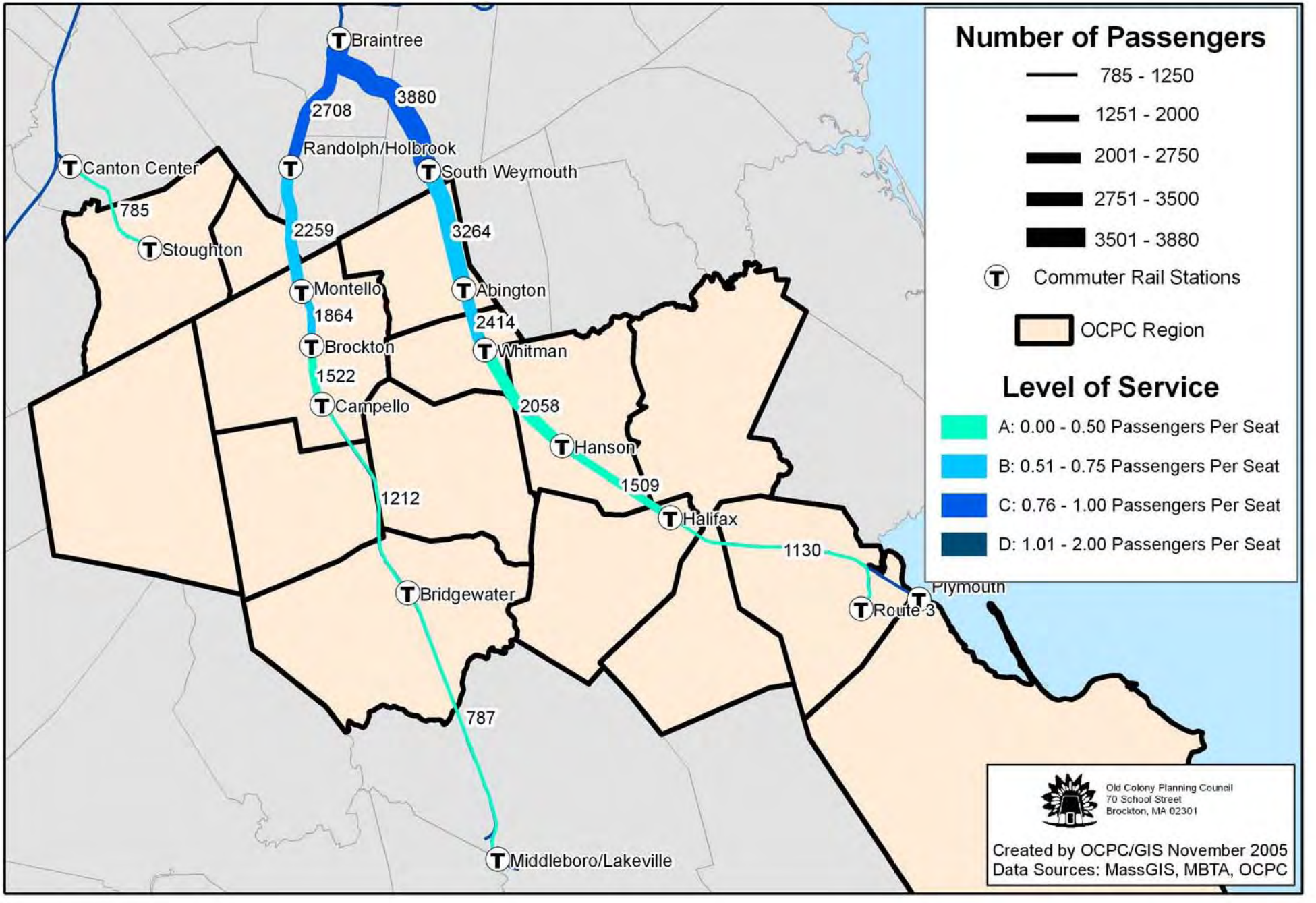
Route 3
Route 3 Corridor Totals
0
1 - 25
26 - 50
51 - 75
76 - 100
101 - 125
126 - 150
Cities and Towns
New England States
Tidal Rivers, Inlets, and Bays

Old Colony Planning Council
70 School Street
Brockton, MA 02301

GIS Sources:
MassGIS, MA Registry of Motor Vehicles,
Old Colony Planning Council
Counts taken during October 2007

June, 2008

MBTA Ridership: Morning Peak Period - All Inbound Trains



MBTA Ridership: Evening Peak Period - All Outbound Trains