

Pioneer Valley Region Congestion Management System

prepared for the pionner valley metropolitan planning organization

Update on Status of Current CMS Projects

Moving Recommended CMS Strategies to the Next Step



FINAL REPORT

April, 2005

This document was prepared under contract with the Executive Office of Transportation, with the cooperation of the Federal Highway Administration and the Federal Transit Administration.

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CONGESTION MANAGEMENT SYSTEM**
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I. INTRODUCTION

The Pioneer Valley Congestion Management System (CMS) is an on-going, systematic process designed to improve transportation in the region by providing up to date information on the location, severity and extent of congested corridors and intersections. Originally a requirement of the Federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the regional CMS is intended to provide the following functions.

- Monitor and evaluate the performance of transportation systems in the region.
- Identify regional transportation problems and issues.
- Evaluate the different alternatives to provide congestion relief.
- Implement cost-effective solutions to reduce congestion.
- Assess the effectiveness of implemented actions on reducing congestion.

In the state of Massachusetts, the CMS is a cooperative effort between the Massachusetts Highway Department (MassHighway), the Executive Office of Transportation (EOT) and the Metropolitan Planning Organization. These statewide and regional agencies have jointly determined the facilities to be included in the CMS and the performance measures to be used. MassHighway provides funding, coordination, and oversight, while each region is responsible for performance monitoring, problem identification, and strategy development and evaluation.

This is the latest version of the report Moving Recommended CMS Strategies to the Next Step completed by the Pioneer Valley Metropolitan Planning Organization (PVMPO). This version builds upon all previous versions, and includes recent feedback resulting from ongoing public participation through the Pioneer Valley Joint Transportation Committee and discussions with representatives from each community where problem locations have been verified. The report presents a status of the CMS activities in the PVMPO region and provides the next course of action in developing and moving forward recommended strategies toward implementation. This includes: the status of the data collection, congestion verification analysis, location specific summaries, summary of needs, sequence of strategy development and prioritization, project initiation and implementation, and region-wide needs and improvement strategies. Findings of this report will be used to assist in the prioritization of projects as part of PVMPO's Transportation Improvement Program (TIP) and the selection of areas which require further study to define congestion relief strategies.

II. REGIONAL NEEDS ASSESSMENT

The Pioneer Valley Regional Model was used as a screening tool to identify roadway congestion problems. A list of corridors was compiled and ranked by volume to capacity ratio (v/c) for both the 1990 and 2020 models. Since problems that existed in the base year were the same problems in the future and only intensified, both lists were condensed into one with an additional field identifying short or long term problems. Initially, these congestion problems were categorized as “most severe” (v/c >1), “severe” (0.9 < v/c < 1), and “problem areas” (0.8 < v/c < 0.9).

After the model screening, the transportation staff reviewed the identified problem areas to see if the model was reflecting our experience in the region. Corridors that did not appear to reflect actual travel conditions were removed from the list. Based on personal travel experience and previous traffic studies, additional congested locations were added that were not identified by the model. Travel time runs were conducted at all these locations for two hour periods in both the AM and PM peak periods. Each location was extended and segmented by various landmarks where travel times were recorded. This information was then entered into a travel time database developed by the PVPC to verify and analyze congestion problems.

Two measures are used to verify congestion in the Pioneer Valley Metropolitan Planning Organization region: delay and the congestion ratio. Delay is defined as the difference between the second worst and second best travel time for a particular segment in seconds per mile.

$$\text{Delay} = \frac{(\text{Second Worst Travel Time})}{(\text{Length of Roadway})} - \frac{(\text{Second Best Travel Time})}{(\text{Length of Roadway})}$$

The congestion ratio is defined as the second worst travel time divided by the second best travel time for that section.

$$\text{Congestion Ratio} = \frac{(\text{Second Worst Travel Time})}{(\text{Second Best Travel Time})}$$

The best and worst travel times were not used since these could be extreme cases and may not reflect typical travel conditions. There were two analyses conducted, one by corridor and the other by segment. The analysis by corridor consisted of comparing a series of combined segments, which comprised the problem location. Analysis by segment consisted of comparing each segment of each study corridor. Results from the corridor analysis verified the locations experiencing traffic congestion. Results from the segment analysis also verified congestion problems in more isolated detail. The top locations with the largest delay and congestion ratio by segment and corridor were compiled and summarized. A final list of 29 locations with verified congestion problems was then compiled and is presented in Table 1. Table 2 ranks the problem corridors alphabetically by priority. A list of the problem intersections ranked by priority is shown in Table 3. Both location and priority in Figure 1 identify each of the top 29 problem areas.

Table 1
Pioneer Valley Region Congestion Management System
Problem Locations Identified

LABEL	COMMUNITY	LOCATION	LIMITS	PAGE
1	Agawam	Route 147 and Route 159	Rowley Street to Federal Street	29
2	Agawam	Route 75	Mill Street to Route 159 and Route 147	29
3	Agawam	Route 57	Poplar Street to Route 187	31
4	Agawam/Springfield	Route 5 (South End Bridge)	South End Bridge Including Access Ramps	37
7	Chicopee	Memorial Dr/Broadway St	East Street to Main Street	11
8	Easthampton	Route 10 and Route 141	Route 10/Lyman Ave. to Route 141/Chapel Street	13
9	East Longmeadow	Route 83	Harkness Avenue to Dearborn Street	14
10	East Longmeadow	Downtown Rotary	Seven Leg Rotary	38
11	Hadley/Northampton	Rte. 9 (Calvin Coolidge Bridge)	Bay Road to Damon Road	15
12	Hadley	Bay Rd	Middle Street to Route 9	12
13	Holyoke	L. Westfield Road and Homestead Ave.	Whiting Farms Road to Upland Road	23
14	Longmeadow	Route 5	Forest Glen Road to William Street	32
15	Ludlow	Center Street	Cherry Street to Mass Turnpike Entrance	24
16	Ludlow/Springfield	Route 21	East Street to North Branch Parkway	33
17	Northampton	Damon Road and Bridge Road	Industrial Drive to King Street	16
18	Northampton	Route 10	Old South Street to Main Street	27
19	Northampton	Route 9	Hawley Street/Market Street to Prospect Street	25
20	Springfield	Magazine Street and Armory Street	Worthington Street to Armory Street/I-291 Rotary	26
21	Springfield	Main Street and Locust Street	Carew Street to Fremont Street	27
22	Springfield	Route 20A (Page Boulevard)	East Street to Oakdale Street	34
23	Springfield	Route 20	Rte. 20/Plainfield Street/Avacado Street	39
24	Springfield	Sumner Avenue	Forest Park Avenue to White Street	35
25	Springfield	Roosevelt Avenue	Wilbraham Road to Crest Street	36
26	West Springfield	Route 5	Ashley Avenue to Morgan Road	28
27	West Springfield	Route 20	Kings Highway to the Route 5 Rotary	18
28	Westfield	Mechanic Street and Meadow Street	Route 20 to Route 10/202	19
29	Westfield	Route 10/202	Main Street to Sunset Drive	20
30	Westfield	Washington Street and Franklin Street	Court Street to Elm Street	21
31	Westfield	Route 20	E. Mountain Road to Westfield Shops Entrance	22

Source: PVPC

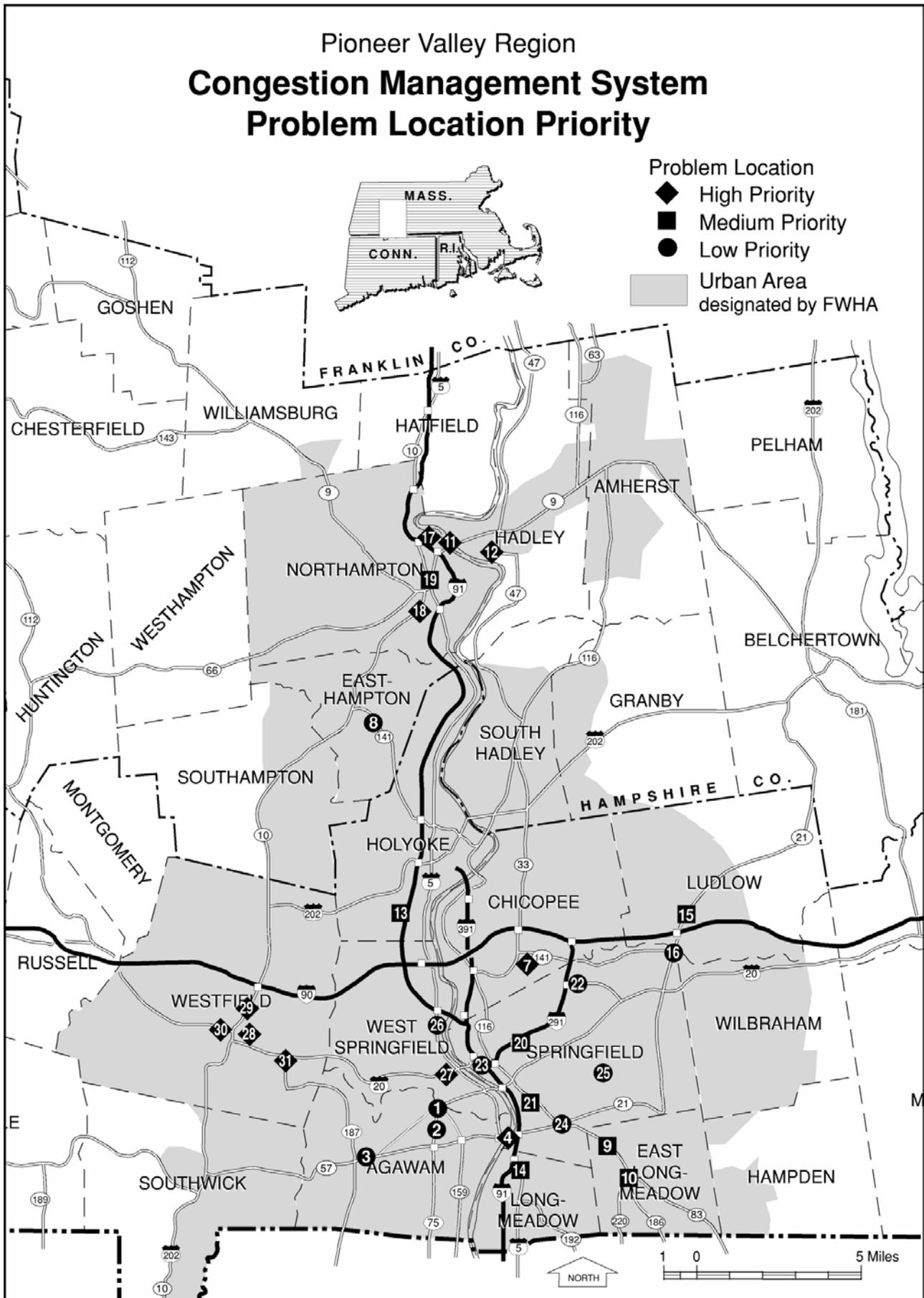
**Table 2
Congested Corridors
(Ranked by Priority)**

LABEL	COMMUNITY	LOCATION	LIMITS	PRIORITY
7	Chicopee	Memorial Dr/Broadway Street	East Street to Main Street	High
11	Hadley/Northampton	Route. 9 (Calvin Coolidge Bridge)	Bay Road to Damon Road	High
12	Hadley	Bay Rd	Middle Street to Route 9	High
17	Northampton	Damon Road and Bridge Road	Industrial Drive to King Street	High
18	Northampton	Route 10	Old South Street to Main Street	High
27	West Springfield	Route 20	Kings Highway to the Route 5 Rotary	High
28	Westfield	Mechanic Street and Meadow Street	Route 20 to Route 10/202	High
29	Westfield	Route 10/202	Main Street to Sunset Drive	High
30	Westfield	Washington Street and Franklin Street	Court Street to Elm Street	High
31	Westfield	Route 20	E. Mountain Rd to Westfield Shops Entrance	High
9	East Longmeadow	Route 83	Harkness Avenue to Dearborn Street	Medium
13	Holyoke	L. Westfield Road and Homestead Ave.	Whiting Farms Road to Upland Road	Medium
14	Longmeadow	Route 5	Forest Glen Road to William Street	Medium
15	Ludlow	Center Street	Cherry Street to Mass Turnpike Entrance	Medium
19	Northampton	Route 9	Hawley Street/Market Street to Prospect Street	Medium
20	Springfield	Magazine Street and Armory Street	Worthington Street to Armory Street/I-291 Rotary	Medium
21	Springfield	Main Street and Locust Street	Carew Street to Belmont Street	Medium
26	West Springfield	Route 5	Ashley Avenue to Morgan Road	Low
1	Agawam	Route 147 and Route 159	Rowley Street to Federal Street	Low
2	Agawam	Route 75	Mill Street to Route 159 and Route 147	Low
3	Agawam	Route 57	Poplar Street to Route 187	Low
8	Easthampton	Route 10 and Route 141	Route 10/Lyman Ave. to Route 141/Chapel Street	Low
16	Ludlow/Springfield	Route 21	East Street to North Branch Parkway	Low
22	Springfield	Route 20A (Page Boulevard)	East Street to Oakdale Street	Low
24	Springfield	Sumner Avenue	Forest Park Avenue to White Street	Low
25	Springfield	Roosevelt Avenue	Wilbraham Road to Crest Street	Low

**Table 3
Congested Intersections and Isolated Areas
(Ranked by Priority)**

LABEL	COMMUNITY	LOCATION	LIMITS	PRIORITY
4	Agawam/Springfield	Route 5 (South End Bridge)	South End Bridge Including Access Ramps	High
10	East Longmeadow	Downtown Rotary	Seven Leg Rotary	Medium
23	Springfield	Route 20	Rte. 20/Plainfield Street/Avacado Street	Low

Figure 1



Prepared by the Pioneer Valley Planning Commission, March 2005.

III. TRAVEL TIME RUNS

The following section summarizes the new travel line data collected by the PVPC since the completion of the 2001 Update to the Regional Congestion Management System. A series of travel time contours were developed for the Pioneer Valley Region based on the location of centers of employment in the region. A total of six employment centers were selected because of their significance and to achieve geographic diversity. Many employment centers were not selected due to their close proximity to a site that was already mapped. Travel contours are broken down into 15, 30, and 45 minute intervals. This information is shown in Figure 2.

Travel time information was also collected along the major interstate route to a central study area location as part of the Merrick/Memorial neighborhood plan. This information was used to assist in identifying existing limitations and deficiencies encountered by freight traffic associated with the study area.

Terminus points in each direction were selected based on their geographic location as well as the areas to which they provide access. Exit 40 on I-91 in Connecticut provides access to Bradley International Airport. Massachusetts Turnpike Exit 1 in West Stockbridge is less than 5 miles from the New York State Line and I-91 Exit 1 in Brattleboro, Vermont provides access to a number of major roadways. Massachusetts Turnpike Exit 10 in Auburn was selected as the eastern Terminus due to the location of another CSX rail facility in the City of Worcester.

Travel time data was collected during both the morning and afternoon peak hours; however, the afternoon Travel Time data were found to be slightly longer and were therefore used for this analysis. Information on Travel Times for the northbound and southbound directions is presented in Table 4 while information for the eastbound and westbound directions is presented in Table 5. Travel Times for inbound and outbound trips were not found to vary significantly. Under typical traffic conditions all of the outlying locations can be reached in under on hour.

Figure 2 - Peak Hour Travel Time Contours

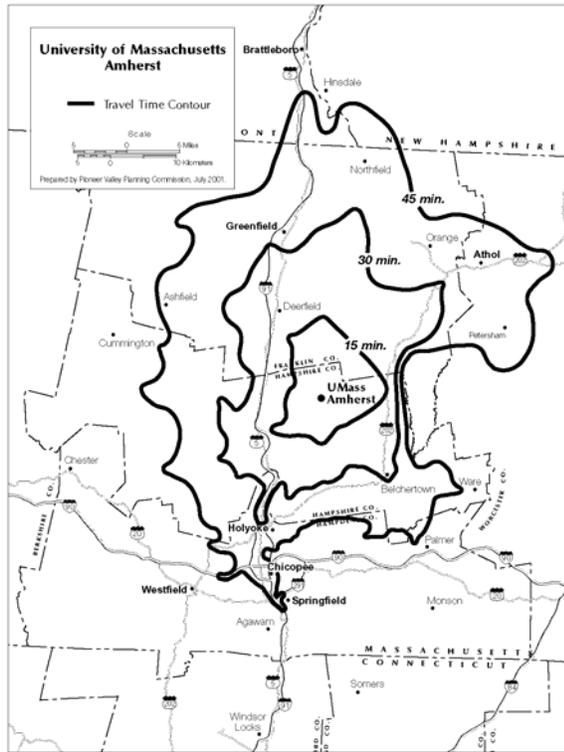
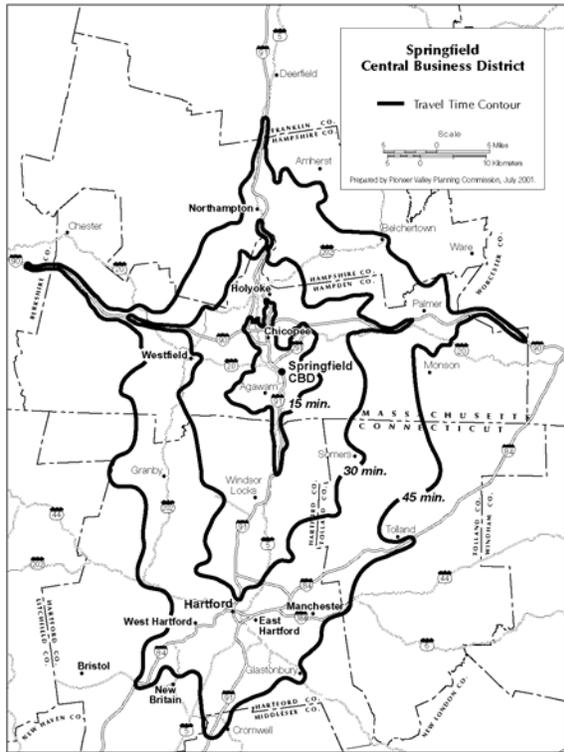
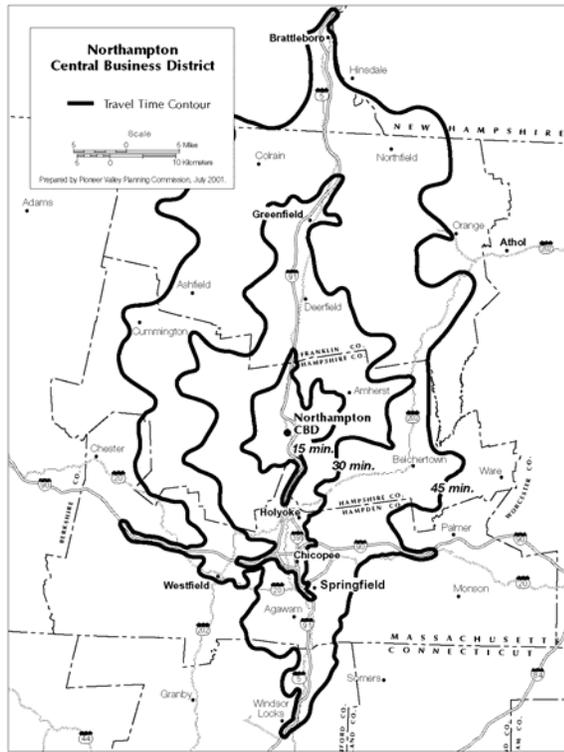
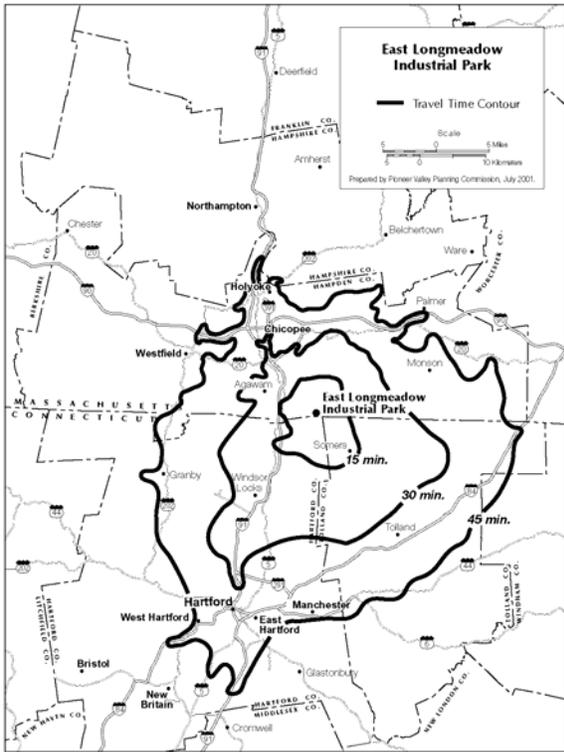


Figure 2 continued- Peak Hour Travel Time Contours cont.

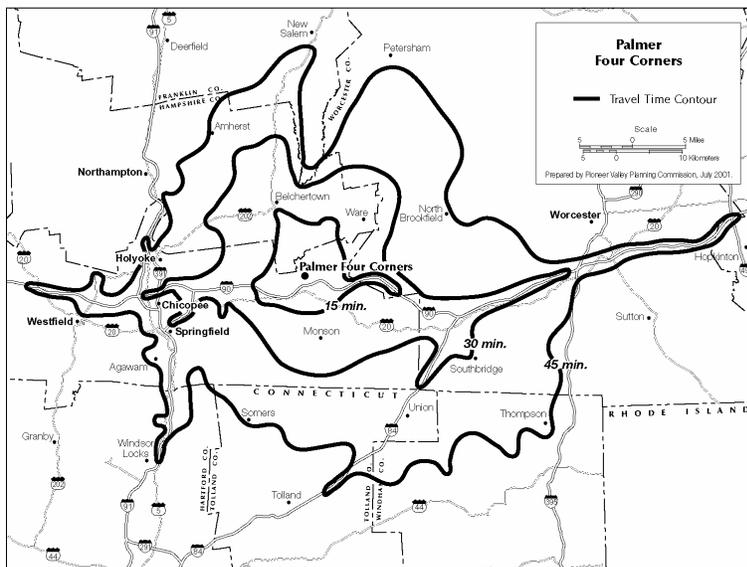
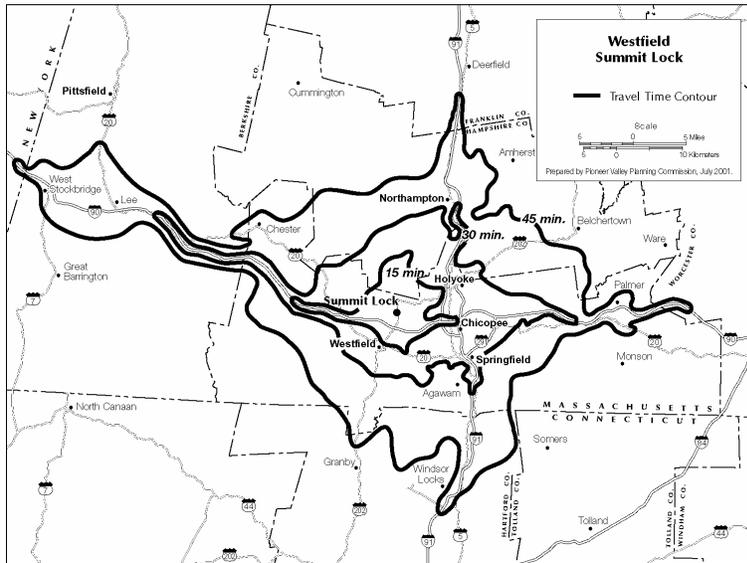


Table 4 – Northbound and Southbound Travel Time Data

Northbound	Elapsed Time*
North End Bridge Rotary	0:02:15
I-91 Exit 9 (Rte. 20 - North End Bridge)	0:04:17
I-91 Exit 10 (Birnie Avenue)	0:04:56
I-91 Exit 12 (I-391 - Chicopee)	0:05:59
I-91 Exit 13A (Rte. 5 - West Springfield)	0:06:34
I-91 Exit 14 (Massachusetts Turnpike)	0:08:57
I-91 Exit 15 (Holyoke - Ingleside)	0:09:36
I-91 Exit 16 (Holyoke - Route 202)	0:11:05
I-91 Exit 17A (Holyoke - Route 141)	0:12:15
I-91 Exit 18 (Northampton - Route 5)	0:18:25
I-91 Exit 19 (Northampton - Route 9)	0:20:13
I-91 Exit 21 (Hatfield/Northampton)	0:22:19
I-91 Exit 22 (North Hatfield)	0:24:41
I-91 Exit 24 (Deerfield/Whately)	0:31:48
I-91 Exit 26 (Greenfield)	0:42:16
I-91 Exit 27 (Greenfield)	0:44:38
I-91 Exit 28 (Bernardston)	0:48:45
Vermont State Line	0:52:55
I-91 VT Exit 1 (US Rte. 5)	0:59:51

Southbound	Elapsed Time*
Memorial Bridge Rotary	0:05:06
I-91 Exit 3 (Rte. 5/57 - South End Bridge)	0:07:38
I-91 Exit 2 (Longhill Street)	0:08:00
I-91 Exit 1 (Longmeadow Rte. 5)	0:08:38
I-91 CT Exit 48 (US Rte. 5)	0:11:54
I-91 CT Exit 47 (CT Rte. 190)	0:13:59
I-91 CT Exit 46 (US Rte. 5)	0:16:17
I-91 CT Exit 40 (CT Rte. 20)**	0:24:30

*In hours, minutes and seconds

**Exit for Bradley International Airport

Table 5 – Eastbound and Westbound Travel Time Data

Eastbound	Elapsed Time*
I-291 Exit 2 (Dwight/Chestnut Streets)	0:04:40
I-291 Exit 3 (Armory Street)	0:05:24
I-291 Exit 4 (St. James Avenue)	0:06:38
I-291 Exit 5 (Page Boulevard)	0:08:21
I-291 Exit 6 Shawinigan Drive)	0:09:44
I-90 Exit 6 (Chicopee/Springfield)	0:11:46
I-90 Exit 7 (Ludlow)	0:15:02
I-90 Exit 8 (Palmer)	0:21:55
I-90 Exit 9 (Sturbridge)	0:36:02
I-90 Exit 10 (Auburn/Worcester)	0:46:42

Westbound	Elapsed Time*
I-90 Exit 4 (Holyoke/West Springfield)	0:12:47
I-90 Exit 3 (Westfield)	0:17:14
I-90 Exit 2 (Lee)	0:44:28
I-90 Exit 1 (West Stockbridge)	0:52:07

*In hours, minutes and seconds

IV. LOCATION SPECIFIC SUMMARIES

This section describes existing information known about each of the verified problem locations including initial strategies and the next step to investigate improvement alternatives. Each location summary is divided into eight sections described below.

Community - The community or communities, in which the congestion problem is located.

Problem Location - A description of the area (Roadway(s), Park-n-Ride Lot, Rotary, Bridge, etc.) and limits of the congestion problem identified.

Problem Description - A summary of the type and potential causes of the traffic congestion experienced during the data collection process. Included are basic geometrics of the location and any related information affecting the study area such as land uses and major highways.

Current Activities - Active community projects or projects programmed in the most recent Pioneer Valley Transportation Improvement Program that are part of or near the problem location. Also included is any construction activity part of or near the problem location that is currently in progress. Please note that projects associated with these locations do not necessarily alleviate the congestion problem. Many projects are in conceptual or initial stages of design and may be open to changes to incorporate congestion relief strategies.

Potential Improvement Alternatives/Strategies - Conceptual congestion relief strategies to be pursued as developed by the PVPC staff. These are based on community comments, local knowledge and observations made during data collection. Please note these strategies are preliminary and are subject to change once discussed with the appropriate community and/or highway department district office.

PVMPO Recommendation - PVPC staff recommendation to either study the location in further detail or monitor the effect of a project to be implemented.

Jurisdiction - The jurisdictional responsibility (state, local or joint) for the problem location and any facilities directly impacting the study area.

Next Course of Action - Activities currently planned to move improvement project toward initiation or to monitor impacts of an existing construction project.

Party Responsible For Next Action - The agency, community or organization responsible for initiating the next course of action.

Priority - The ranking of the problem location, based on the severity of the traffic congestion experienced. Each location has a rank of low, medium or high priority. A "High" priority indicates that planned improvement projects are crucial to alleviate existing severe congestion. For areas with no planned improvement projects, a "High" priority indicates that the community has shown strong interest in working with the PVMPO to study and implement congestion relief alternatives. An area of "Medium" priority means that proposed improvements should be implemented within a 5-year time frame. In congested areas with few planned improvements, a "Medium" priority indicates that the impacted community showed a modest interest in working with the PVMPO to study and implement congestion relief alternatives. "Low" priority designates long term strategies to be implemented in a 5-10 year time frame.

A. SUMMARY OF CONGESTED CORRIDORS

COMMUNITY - Chicopee

PROBLEM LOCATION – The intersection of Memorial Drive and Broadway from the intersection of Memorial Drive with Montgomery Street to the intersection of Broadway, East Main and Main Street, which are the two intersections immediately north and south of the Deady Memorial Bridge, including the Bridge itself.

PROBLEM DESCRIPTION - The main congestion along this corridor occurred in the vicinity of the Deady Memorial Bridge. In the southbound direction the merging of Memorial Drive and Montgomery Street and the close proximity of the Grattan Street intersection, creates a severe bottleneck at the entrance of the bridge. The synchronization of the traffic lights here is rendered useless during peak congestion periods. In fact, drivers often find themselves stuck in the center of the intersections due to the severe congestion and the short distances between traffic signals immediately preceding the bridge.

Traveling northbound on Broadway presents a similar congestion problem as vehicles approach the Deady Memorial Bridge. East Street, Main/East Main Street and Church Street, all either merge or intersect Broadway immediately preceding the entrance onto the bridge. The traffic flow is further complicated by several exclusive turn lanes, which can frustrate drivers not familiar with this area. During peak traffic periods, vehicles are regularly backed up into the center of these intersections, thereby preventing other vehicles from entering the intersection when they have a green traffic signal.

CURRENT ACTIVITIES – A transportation study was completed in December of 2002 by the Bureau of Transportation Planning and Development which is now referred to as the Office of Transportation Planning. The Deady Memorial Bridge is currently under construction to provide a new five lane bridge. This project is expected to be completed in 2005.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – Continue advancing recommendations of the Deady Bridge Study. Signal coordination on the north side of Deady Bridge between Grattan and Montgomery Streets and Memorial Dr./Montgomery Street signal.

PVMPO RECOMMENDATION – Advance the Grattan Street reconstruction project. Design the intersection improvements, including signal timing, phasing, and approach lane improvements as recommended in the Deady Bridge study. Incorporate closed loop/ITS elements into the design. Monitor affects of Deady bridge project once complete

JURISDICTION – Memorial Drive and Deady Memorial Bridge: the state of Massachusetts; City of Chicopee for the remainder of the identified roadways/intersections.

NEXT COURSE OF ACTION – Monitor the effect of the Grattan Street and Deady Bridge improvements, advance the Broadway and Memorial Drive Intersection project as a design project for future implementation as a PVMPO TIP project.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO - monitor, City – design, MassHighway – coordinate design with State Highway jurisdiction areas.

PRIORITY - High

COMMUNITY - Hadley

PROBLEM LOCATION - Bay Road from the intersection of Middle Street to Route 9.

PROBLEM DESCRIPTION - The main congestion along this corridor occurred along the westbound stretch of Bay Road running from West Street to Russell Street (Route 9). A majority of this congestion can be attributed to the traffic on Russell Street (Route 9). During peak hours, a high volume of vehicles make use of Bay Road in an attempt to avoid congestion on Route 9. There is currently a traffic signal at the intersection of Bay Road and Russell Street that controls the traffic going onto Russell Street.

CURRENT ACTIVITIES – The Route 9 Calvin Coolidge Bridge reconstruction project is completed. The Route 9 roadway widening project has been advertised and is expected to begin in 2005. The project will widen Route 9 to provide 4 continuous travel lanes, two for each direction.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – Improvements to the Route 9 corridor should help reduce congestion in this area. Widening of Route 9 will begin in the final phase of construction. Intelligent Transportation System (ITS) technology and a traffic information system have been implemented in an effort to reduce congestion during construction and will remain in place after reconstruction of the bridge is complete.

| **PVMPO RECOMMENDATION** – Advance the Route 9 roadway widening projects.

JURISDICTION - The Town of Hadley has jurisdiction for Bay Road.

NEXT COURSE OF ACTION – Monitor the effects of the Route 9 improvement projects.

| **PARTY RESPONSIBLE FOR NEXT STEP** - PVMPO

PRIORITY - High

COMMUNITY - Easthampton

PROBLEM LOCATION - Route 10 and Route 141 from the intersection of Route 10 with Lyman Avenue to the intersection of Route 141 with Chapel Street.

PROBLEM DESCRIPTION - There are four areas of heavy congestion along the Route 10 (Northampton Street) and Route 141 corridor. The two main congested areas occur at the southbound approach to Route 141 and the southbound approach to Williston Street. The poor operation of existing traffic signals and a high volume of vehicles most likely cause the congestion at both locations. The other congested area occurred along the northbound approach to Route 10 from Route 141. This congestion was also caused by the high volume of vehicle traffic in the exclusive right-turn lane. The existing traffic signal is confusing and many vehicles were observed to stop during a green arrow phase. A similar situation also occurs along the northbound approach of Route 141 to Williston Street. Existing parking and narrow lane widths both contribute to congestion along Route 141 between Chapel Street and Adams Street.

CURRENT ACTIVITIES – The Traffic and Parking Study performed by the PVPC in this area is complete. New traffic signals have been installed at the intersection of Union and Cottage Street. New traffic signals will be installed at the intersection of Main Street and Union Street in the near future. The City of Easthampton has implemented modest parking changes in this area.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - The potential improvements for this area are expected to be taken from the recommendations of the Traffic and Parking Study. Continue to monitor Congestion in this area after traffic signal improvements are completed.

PVMPO RECOMMENDATION -The preferred recommendations of Traffic and Parking Study should be implemented by the City of Easthampton. Continue to monitor this area after traffic signal improvements are completed in this location for other potential improvements.

JURISDICTION -The City of Easthampton has jurisdiction for Route 10 and Route 141.

NEXT COURSE OF ACTION –Monitor area after traffic signal installation is complete.

PARTY RESPONSIBLE FOR NEXT STEP- PVMPO and City of Easthampton.

PRIORITY - Low

COMMUNITY - East Longmeadow

PROBLEM LOCATION - Route 83 from Harkness Avenue to Dearborn Street.

PROBLEM DESCRIPTION - Route 83 provides access between downtown Springfield to East Longmeadow and northern Connecticut. This section of Route 83 is approximately 0.5 miles in length and has a series of four traffic signals, two of which provide access to retail shopping plazas. The close proximity of these intersections and lack of channelization at the intersection approaches create confusion for vehicles traveling through this section of Route 83 and into the shopping plazas. It is very easy for a motorist to be delayed in a traffic queue at one of these intersections due to left turning vehicles opposed by through movements.

CURRENT ACTIVITIES – Traffic signals improvements have been approved for the intersection between Harkness Avenue and Westwood Street. The project is expected to start in 2005. This project will be funded by the Town of East Longmeadow.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – Monitor affects of recent intersection improvements. Start implementing long term recommendations from the Rotary Traffic Study.

PVMPO RECOMMENDATION - The preferred long-term recommendation from the recently completed traffic study for the rotary includes installation of three coordinated traffic signals at this location. The Town is currently implementing the signals. Monitor affects of improvements for other potential Congestion Management techniques.

JURISDICTION - The Town of East Longmeadow has jurisdictional responsibility for Route 83 within the study area.

NEXT COURSE OF ACTION - Continue to monitor this area as part of the Congestion Management System.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO and the Town of East Longmeadow.

PRIORITY – Medium

COMMUNITY - Hadley and Northampton

PROBLEM LOCATION -Route 9 (Russell Road) from Bay Road to Damon Road.

PROBLEM DESCRIPTION - Severe congestion occurs at two locations along this segment of Route 9 affecting the flow of traffic on the Calvin Coolidge Bridge. There are two eastbound travel lanes that merge to one lane just east of the bridge. At its intersection with Bay Road, Route 9 provides an exclusive right turn lane and a shared left turn/through lane. Left turns are permitted into the Long Radio parking lot. The roadway experiences substantial congestion in the eastbound direction from Bay Road back to the bridge, primarily during the AM peak hours. Westbound, Route 9 has one lane from West Street to the bridge with an exclusive left turn lane at Bay Road. Route 9 widens to two lanes westbound immediately after the bridge and provides an exclusive right turn lane at Damon Road and two through lanes. The westbound approach of Route 9 at its intersection with Bay Road experiences the worst delay along the corridor. Queues extend as far east as West Street and can go as far as Middle Street in Hadley Center. Moderate to heavy delays occur on the northbound approach of Bay Road to Route 9.

The second location of severe congestion is the intersection of Route 9 and Damon Road in Northampton. The southbound direction on Damon Road experiences delays for over a mile, despite recent improvements to the intersection. Damon Road's southbound approach was expanded in 1996 from one exclusive left and one exclusive right turn lane to two exclusive left turn lanes and one exclusive right turn lane. Severe delays occur on the westbound approach of Route 9 at Damon Road. The queues formed, especially during the PM peak, extend beyond the bridge to the Bay Road intersection, which worsens the congestion at that intersection. Moderate congestion also occurs on the I-91 off ramp and the westbound Route 9 approach at the Route 9/Damon Road intersection.

CURRENT ACTIVITIES - The Route 9 widening project has been advertised and is expected to start in 2005. This project includes widening Route 9 to four travel lanes from West Street to the Calvin Coolidge Bridge. The rehabilitation of the Calvin Coolidge Bridge (BR# H-01-012) was completed in 2004 and consisted of widening the bridge from three to four travel lanes. Mass Highway contracted with a private consulting firm to perform an Intelligent Transportation System (ITS) study to assist in traffic management during the Calvin Coolidge Bridge reconstruction project. This study has been implemented and will remain in place. The University of Massachusetts–Amherst campus has recently taken on the role as an information service provider for the area. The Connecticut River Crossing Study was completed by a private consultant in February of 2004. A major recommendation of the study was the reconfiguration of I-91 Exit 19 to minimize congestion at the intersection of Route 9 with Damon Road and allow access to I-91 Northbound from Damon Road which could reduce delay at the intersection of King Street and Damon Road.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – The EOT commissioned Connecticut River Crossing Transportation Study should be implemented. This study includes improvements to the intersection of Route 9 and exit 19 off of I-91. This section is outside the “problem location” limits. Either extend the Hadley project limit or add a new problem location.

This area should be monitored as part of the Congestion Management System. Any ITS strategies installed in this area are expected to remain in place after construction is completed.

PVMPO RECOMMENDATION - The Massachusetts Highway Department should continue to move forward with the TIP projects as identified above. Adopt recommendations of the Connecticut River Crossing Transportation Study into the Regional Transportation Plan.

JURISDICTION - The state of Massachusetts has jurisdictional responsibility over this portion of Route 9 and the Calvin Coolidge Bridge.

NEXT COURSE OF ACTION - Monitor the effects of the Route 9 widening, Calvin Coolidge Bridge and ITS projects.

PARTY RESPONSIBLE FOR NEXT STEP - Massachusetts Highway Department and PVMPO.

PRIORITY - High

COMMUNITY - Northampton

PROBLEM LOCATION - Damon Road from Industrial Drive to King Street.

PROBLEM DESCRIPTION - There are two locations of severe traffic congestion along this corridor. One location is the Damon Road, King Street, North King Street and Bridge Road intersection. Large volumes of traffic from downtown Northampton, I-91 and western portions of Northampton converge at this intersection creating large traffic queues and delays in all directions. The second location is the Damon Road southbound approach to Route 9. This approach attracts vehicles traveling to the I-91 southbound access ramps and the Town of Hadley via the Calvin Coolidge Bridge. The Calvin Coolidge Bridge is the only means for motorized vehicle access between Hadley and Northampton and attracts large volumes of traffic. Traffic queues along the southbound direction of Damon Road can extend from the Route 9 approach to the vicinity of the King Street intersection.

CURRENT ACTIVITIES - Reconstruction of Damon Road from Route 9 to King Street is programmed in the Pioneer Valley Transportation Improvement Program. The extension of the Norwottuck Rail Trail into downtown Northampton has been programmed in the TIP, and Park and Ride lots at Sheldon Field and at Damon in Northampton have been completed. The design contract for the reconstruction of Damon Road has been awarded. The PVPC provided input for this project using the regional transportation model. There is also a project underway to make geometric improvements to the intersection of Industrial Drive and Damon Road. This will involve installing exclusive left and right turning lanes on the Industrial Drive approach to Damon Road to better accommodate large turning vehicles.

The Connecticut River Crossing Transportation study has been completed. One purpose of this study was to determine if a second Connecticut River crossing (somewhere between Holyoke and Sunderland) was feasible. The King Street/ Damon Road re-design includes additional turning lanes and roadway widening at the King Street/ Damon Road intersection. Pedestrian signals will not be used at this location. The ramps on Interstate 91(northbound) at Exit 19 have been widened as a part of the Coolidge Bridge project, providing a dedicated through lane to Damon Road at Bridge Street.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - The Damon Road study is complete and a preliminary design has been developed. The recommendations of this study should be advanced to improve congestion in this area. Work on this project will not commence until all work on the Calvin Coolidge Bridge/Route 9 reconstruction project is complete. The EOT commissioned Connecticut River Crossing Transportation Study should be implemented. This includes improvements to intersection of Route 9 and Exit 19 off of I-91, and the installation of a traffic signal at the intersection of Route 9 and the I-91 southbound onramp.

PVMPO RECOMMENDATION - Advance the recommendations of the Damon Road study and adopt the Connecticut River Crossing Study recommendations into the RTP.

JURISDICTION - The state of Massachusetts has jurisdictional responsibility for I-91 and the City of Northampton has jurisdictional responsibility for other roads in the study area.

NEXT COURSE OF ACTION – Monitor the Damon Road area after the completion of the Calvin Coolidge Bridge reconstruction project. Complete the design of the Damon Road project.

PARTY RESPONSIBLE FOR NEXT STEP - City of Northampton and PVMPO.

PRIORITY - High

COMMUNITY - Northampton

PROBLEM LOCATION - Route 10 from Old South Street to Main Street.

PROBLEM DESCRIPTION - The Route 10 (New South Street) northbound approach to Route 9 (Main Street) is the main problem along this roadway segment. This approach consists of a right turn only lane and a shared through/left turn lane where severe congestion occurs. A large volume of traffic queues at this approach and blocks vehicles traveling southbound on Route 10 and turning east onto Old South Street.

CURRENT ACTIVITIES - The City of Northampton funded traffic signal improvements at this location.

POTENTIAL IMPROVEMENT ALTERNATIVES - Congestion monitoring of this area after completion of the proposed traffic signal improvements will determine if additional work is needed.

PVMPO RECOMMENDATION - Monitor the effects of the upgraded signal improvements.

JURISDICTION - The City of Northampton has jurisdictional responsibility for Route 10 and Old South Street in the study area.

NEXT COURSE OF ACTION - Monitor the effects of the signalization project of Route 10 with Old South Street.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO and the City of Northampton.

PRIORITY - High

COMMUNITY - West Springfield

PROBLEM LOCATION - Route 20 from Kings Highway to the Rotary at Route 20 and Route 5.

PROBLEM DESCRIPTION - There are three locations of congestion along this corridor. The portion of Route 20 from the intersection of Westfield Street and Elm Street to the rotary at Route 5 and Route 20 is the most severe. The eastbound direction is more of a problem than the westbound. There is a series of two signalized intersections along a 0.1-mile long segment of Route 20 connecting Park Avenue (westbound) and Park Avenue (eastbound). These two signals are not always coordinated, causing vehicles to queue and fill the roadway between the two intersections and beyond. When this happens traffic is not only impacted on Route 20 eastbound but Park Street westbound is also hindered. The westbound direction of Park Street can also queue into the Route 20 at Park Street intersection, obstructing vehicles traveling eastbound on Route 20. Another problem location is along Route 20 eastbound at the Route 5 and Route 20 rotary. The signalized intersection of Route 20 at Main Street is just west of the entrance to this rotary. During the morning commute this rotary can fill with vehicles due to traffic on the North End Bridge heading into Springfield. When this happens, vehicles queue from the rotary entrance along Route 20 (eastbound) through its intersection with Main Street and beyond. The third problem location is along Route 20 from its intersection with Chestnut Street to Kings Highway. The reason for delays here is that Route 20 narrows from four to two lanes with some on-street parking allowed. Vehicles merging as the road narrows have been observed to slow the progression of traffic.

CURRENT ACTIVITIES – The Pioneer Valley Planning Commission completed a Corridor Study for Route 20 in 1998. The Town of West Springfield has improved the traffic signals at the intersection of Park Avenue with Union Street and Elm Street. The intersection of Route 20 with Chestnut Street and Second Street was improved through the Transportation improvement Plan (TIP). The Town of West Springfield recently re-stripped the pavement on Route 20 to better define travel lanes.

Phase I of the Merrick Memorial Neighborhood Plan has been completed. One of the major aspects in the redevelopment of the Merrick neighborhood is the transportation needs of this section of West Springfield. This includes improvements to Main Street and Union Street, which will help mitigate traffic congestion on Route 20, as well as the rest of the Merrick neighborhood. The Plan also recommends improving truck access to the area by increasing the vertical clearance at an existing railroad underpass on Union Street. This could remove some traffic from the congested area and improve traffic flow.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – The City of West Springfield should implement the recommendations of the Merrick Memorial Neighborhood Plan.

PVMPO RECOMMENDATION – Advance the recommendations of the Merrick Memorial Neighborhood Plan.

JURISDICTION - The Town of West Springfield has jurisdictional responsibility for Route 20 east of the intersection with Kings Highway to the Route 5 rotary. The state of Massachusetts has jurisdictional responsibility for Route 20 west of Kings Highway and the Route 20 and Route 5 rotary.

NEXT COURSE OF ACTION – Advance transportation improvement recommendations from previous studies.

PARTY RESPONSIBLE FOR NEXT STEP – West Springfield, Mass Highway, and PVMPO

PRIORITY - High

COMMUNITY - Westfield

PROBLEM LOCATION - Mechanic Street and Meadow Street from Route 20 to Route 10/202.

PROBLEM DESCRIPTION - Mechanic Street serves as a connection from Route 20 to Route 10/202 via Meadow Street. The City's largest church and associated parochial school are located here and create traffic during both weekday and weekend periods. Mechanic Street is a narrow roadway with on-street parking allowed which impacts the flow of traffic. Bartlett Street, which connects to Route 10/202 and intersects Mechanic Street, is also a problem since both roads are very narrow. Another problem location along this corridor is the intersection of Mechanic Street and Meadow Street. Northbound traffic on Meadow Street typically queues from its intersection with Route 10/202 beyond the Mechanic Street intersection. This blocks traffic on Mechanic Street trying to access Meadow Street northbound to Route 10/202.

CURRENT ACTIVITIES - Reconstruction of the existing Routes 10 and 202 bridge over the Westfield River is programmed in the Pioneer Valley Transportation Improvement Program. This includes construction of a twin bridge with one way traffic flow on each bridge. The City of Westfield has identified this location as a problem and is considering improvement strategies. Temporary signals have recently been installed along Route 20 at the intersection of Main Street with Route 20, Meadow Street and Free Street. The City of Westfield will be studying this location to determine placement of permanent signals. A new roadway alignment provides an exclusive left turn lane for the newly constructed Stop and Shop in downtown Westfield.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - The City of Westfield would like to study traffic calming measures along Mechanic Street and Washington Street to determine if cut-through traffic can be diverted from this area.

PVMPO RECOMMENDATION – Traffic calming measures should be implemented on a trial basis for this area.

JURISDICTION - The City of Westfield has jurisdictional responsibility for Mechanic Street and Meadow Street. The state of Massachusetts has jurisdictional responsibility for the Route 10/202 bridge.

NEXT COURSE OF ACTION – The effects of any improvements to this area should be monitored.

PARTY RESPONSIBLE FOR NEXT STEP - PVMPO

PRIORITY - High

COMMUNITY - Westfield

PROBLEM LOCATION - Route 10/202 from Route 20 (Main Street) to Sunset Drive.

PROBLEM DESCRIPTION - There are two locations of severe traffic congestion along this corridor. One is the segment of Route 10/202 between Franklin Street and Pochassic Street. Route 10/202 varies from one to two lanes in each direction. The three way signalized intersection of Route 10/202 and Franklin Street (Route 20) is a very busy location. There are traffic queues on each approach due to large volumes of traffic which effect side street access. Route 10/202 from this intersection east to the Westfield River Bridge is the downtown area in Westfield. There are on-street parking and local businesses along both sides of the roadway. Traffic can queue and fill this 0.5 mile long roadway in both directions. Drivers typically had to wait through two cycles of the traffic signal at the Meadow Street eastbound approach to gain access to the Route 10/202 bridge during data collection. The intersection of Route 10/202 with Pochassic Street is another problem intersection. This is a four way signalized intersection just east of the Route 10/202 bridge. There was a large volume of traffic observed on this street accessing Route 10/202 during data collection. The second problem location is along the northbound approach of Routes 10/202 at the intersection with the Massachusetts Turnpike Pike Interchange #3. This two-lane roadway widens at the approach from two travel lanes to three. The northbound approach being the most severe has two through lanes and one exclusive left turn lane for access to the Massachusetts Turnpike. Vehicles traveling to the Massachusetts Turnpike would fill the left turn storage lane and spill over into the two-lane portion of Routes 10/202 blocking through traffic. The northbound Route 10/202 now has a right turn jug handle to make the left turn.

CURRENT ACTIVITIES – Reconstruction of Route 10/202 from Notre Dame Avenue to the Massachusetts Turnpike Interchange #3 is complete. This project included roadway widening and improvements to the intersection with the Massachusetts Turnpike Interchange #3. Reconstruction of the existing Route 10/202 bridge over the Westfield River is programmed in the Pioneer Valley Transportation Improvement Program. This includes construction of a twin bridge with one way traffic flow on each bridge, to be advertised and constructed by MassHighway.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – Continue to advance plans for the reconstruction of the Route 10/202 Bridge.

PVMPO RECOMMENDATION – None

JURISDICTION - The City of Westfield has jurisdictional responsibility for Route 10/202 west of the Conrail bridge south of Arch Road with the exception of the Route 10/202 bridge. The state of Massachusetts has jurisdictional responsibility for Route 10/202 north of the Conrail Bridge south of Arch Road.

NEXT COURSE OF ACTION - Monitor the effects of bridge once completed.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO

PRIORITY - High

COMMUNITY - Westfield

PROBLEM LOCATION -Washington Street and Franklin Street from Court Street to Elm Street.

PROBLEM DESCRIPTION - There are three signalized intersections along this corridor that are problem locations. Court Street at Washington Street is a three way signalized intersection with the one lane approach of Washington Street at Court Street being the most severe. Difficulty accessing Court Street causes vehicles to queue beyond adjacent intersections blocking side street traffic. The three way signalized intersection of Washington Street and Franklin Street has a similar problem. The left turn movements from the one lane approach of Washington Street create delays for heavy right turn movements. Traffic queues also interfere with side street traffic along Washington Street. The third problem location is the eastbound approach of Franklin Street (Route 20) at its intersection with Route 10/202. Problems with this approach are due to the heavy volume of traffic accessing Route 10/202.

CURRENT ACTIVITIES - Reconstruction of the existing Route 10/202 bridge over the Westfield River is programmed in the Pioneer Valley Transportation Improvement Program, construction should start in 2005. This will include construction of a twin bridge with one way traffic flow on each bridge. The PVMPO completed the Route 20 Corridor Study in 1998.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – Modify signal timing at the Washington Street/Court Street intersection and Washington Street/Franklin Street intersection. The addition of a left turn lane at the intersection of Court Street and Washington Street would help mitigate traffic congestion on Washington Street, improvements to existing pavement markings on Elm Street should be made.

PVMPO RECOMMENDATION –Monitor effects of the Route 10/202 Bridge construction project once completed.

JURISDICTION - The City of Westfield has jurisdictional responsibility for Washington Street and Franklin Street in this area.

NEXT COURSE OF ACTION - Monitor the effects of the Route 10/202 bridge reconstruction project once completed.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO

PRIORITY - High

COMMUNITY - Westfield

PROBLEM LOCATION - Route 20 from East Mountain Road to Westfield Shops Main Entrance.

PROBLEM DESCRIPTION - The severe traffic congestion along this corridor occurs between two signalized intersections approximately 0.2 miles apart. The roadway section between them has two narrow travel lanes in each direction, with one bridge (BR# W-25-004) and one viaduct. The intersection of Route 20 with Route 187 and the old Caldor Plaza access drive is a four-way signalized intersection. The Route 20 westbound approach to Route 187 has one lane primarily used for through and right turns and one lane for through and left turns onto Route 187. The left turn movement onto Route 187 has a short protected phase. Once unprotected, this movement is difficult to make due to the high volume of through traffic on Route 20 in the eastbound direction. This causes traffic to queue over the bridge and viaduct into the next signalized intersection (Union Street) which interferes with its operation. The intersection of Route 20 with Union Street is the second intersection on this stretch of roadway. This is a three way signalized intersection with the eastbound approach of Route 20 being the most severe problem. This is a two-lane approach with one lane primarily used for through and one for left turn movements onto Union Street. Left turn movements are difficult to perform during their permitted green phase. This causes traffic to queue along the viaduct and bridge into the Route 187 intersection, and interfering with its operation.

CURRENT ACTIVITIES – The Route 20 Bridge project is well under way and is expected to be completed in 2005. Mass Highway also has plans to install a closed-loop signal system along Route 20 in this area.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – None

PVMPO RECOMMENDATION –Monitor the area after the construction projects are completed.

JURISDICTION -The state of Massachusetts has jurisdictional responsibility for this portion of Route 20. The City of Westfield has jurisdictional responsibility for Union Street and Route 187.

NEXT COURSE OF ACTION – Monitor the area after the construction projects are completed.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO

PRIORITY - High

COMMUNITY - Holyoke

PROBLEM LOCATION - Homestead Avenue and Lower Westfield Road from Westfield Road to Whiting Farms Road

PROBLEM DESCRIPTION - The traffic congestion in this area is caused by two four-way signalized intersections approximately 0.4 miles apart in addition to the Interstate 91 interchange #15 between the two. One location is the intersection of Lower Westfield Road, Whitney Avenue and Homestead Avenue. The Homestead Avenue southbound approach has one travel lane that widens at the approach providing an exclusive left turn lane and shared through/right turn lane. The problem with this approach is that left turning vehicles are opposed by through and right turning vehicles from Whitney Avenue for a portion of the signal phase. This causes vehicles to overfill the left turn storage lane and block through moving vehicles. The second location is the four-way intersection of Lower Westfield Road, Whiting Farms Road and Holyoke Street. Holyoke Street is a primary access road to the Holyoke Mall for vehicles from Interstate 91 and northeastern portions of Holyoke. High volumes of traffic attracted to this location create congestion especially along Lower Westfield Road and Holyoke Street. A traffic signal located at the Interstate 91 southbound off/on ramps also creates delays along Lower Westfield Road due to its close proximity to the other two intersections.

CURRENT ACTIVITIES - Work under this project involves the reconstruction of the intersection of Homestead Avenue and Westfield Road and traffic signal upgrade at Cherry Street and Hillside Avenue. Minor widening within the city layout will be performed along with curb improvements and the installation of new pavement markings.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – None

PVMPO RECOMMENDATION - Monitor the effects of the intersection improvements once complete.

JURISDICTION - The state of Massachusetts has jurisdictional responsibility for Lower Westfield Road between the Interstate 91 interchange ramps. The City of Holyoke has jurisdictional responsibility for other roads in the study area.

NEXT COURSE OF ACTION - Review the traffic signal equipment and coordination between the I-91 ramp signals and the Holyoke Street intersection for proper functioning.

PARTY RESPONSIBLE FOR NEXT STEP – MassHighway

PRIORITY -Medium

COMMUNITIES - Ludlow

PROBLEM LOCATION - Center Street from Cherry Street to Mass Turnpike Entrance

PROBLEM DESCRIPTION - The segment of Center Street from Cherry Street to Mass Turnpike Entrance experiences severe back up during AM and PM peak hours. The northbound approach of Center Street at Cherry Street has an exclusive left-turn lane, a through lane, and a shared through/right turn lane. However, immediately north of the intersection, the left through lane becomes an exclusive left-turn lane. No prior warning sign is given and a lot of vehicles are forced to merge into the right lane, occasionally resulting in congestion which then backs-up into the Cherry Street intersection.

The intersection of Center Street with the Mass Turnpike Entrance is a four-way signalized intersection, which provides access to and from the eastbound and westbound directions of the Massachusetts Turnpike (I-90). The Center Street approach has an exclusive right turn lane on the northbound direction and an exclusive left turn lane on the southbound direction to the I-90 entrance. The northbound approach of Center Street has one exclusive right-turn lane and one shared through/left turn lane. It is extremely difficult for vehicles to make a left-turn because of the heavy southbound through volume. The exclusive right-turn bay is too short; as a result traffic attempting to turn right is often blocked by through traffic.

CURRENT ACTIVITIES – Intersection improvements at the intersections of Route 21 and Chapin Street and Route 21 and the Mass Turnpike Exit 7 were advertised in 2004 as a TIP project, and are expected to start construction in 2005. PVMPO has also included a study of Fuller Street as part of the 2005 UPWP, this project could have an impact on Center Street traffic.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – Traffic signal timing adjustments at the intersection of Cherry and Center Street.

PVMPO RECOMMENDATION – Work with the Town of Ludlow to advance the recommendations of the traffic studies.

JURISDICTION - The Town of Ludlow has jurisdictional responsibility for Center Street within the study area.

NEXT COURSE OF ACTION – Traffic signal timing adjustments at the intersection of Cherry Street and Center Street.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO and the Town of Ludlow.

PRIORITY - Medium

COMMUNITY - Northampton

PROBLEM LOCATION - Route 9 from the Hawley Street and Market Street intersection to Prospect Street and the Florence area from Chestnut Street to North Maple Street.

PROBLEM DESCRIPTION - This is the downtown area in the City of Northampton with heavy pedestrian traffic. There are three major intersecting roadways along this stretch of Route 9 that include Route 10, Route 66 and Route 5. These three intersections are the three most congested locations along this corridor. The large volume of traffic carried by these routes, heavy pedestrian traffic crossing Route 9 and on street parking creates a severely congested area with slow movement of vehicles due to stop and go traffic. Traffic in the Florence area is slowed between the signalized intersections of Chestnut Street and North Maple Street. This was due to the close proximity of the two signalized intersections, on street parking and pedestrian crossings. This area operated similar to the downtown area but travel delay was much less severe.

CURRENT ACTIVITIES - The intersection of Bridge Street with Route 9 is currently programmed on the Transportation Improvement Program for intersection improvements. Northampton is in the process of designing a modern roundabout at the intersection of North Main street (Route 9), Bridge Road and the entrance to Look Memorial Park in Florence. The project is expected to be at the 25% stage the first week of December 2004. The project is expected to increase traffic flow substantially, which should have a positive effect on the congested area.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - Reconfigure and re-time the traffic signals along this section of Route 9.

PVMPO RECOMMENDATION – Requires further study, monitor effects of the roundabout once complete.

JURISDICTION - The City of Northampton has jurisdictional responsibility for Route 9, King Street and Pleasant Street in the study area.

NEXT COURSE OF ACTION - Monitor the effects of the proposed improvements for this area.

PARTY RESPONSIBLE FOR NEXT STEP - PVMPO and the City of Northampton.

PRIORITY - Medium

COMMUNITY - Springfield

PROBLEM LOCATION - Magazine Street and Armory Street from Worthington Street to the Armory Street rotary including Interstate - 291 on and off ramps.

PROBLEM DESCRIPTION - The congestion along this corridor is primarily due to the intersection of Armory Street and Genessee Street. This intersection has three approaches and is controlled by a traffic signal. The northbound and southbound approaches of Armory Street are the most severe. This is due to a high volume of traffic and the existing signal timing. Just north of the intersection is an Interstate 291 (I-291) interchange providing access to and from the eastbound and westbound directions of I-291. This intersection is just north of the Springfield Armory Museum and in close proximity to Springfield College and the American International College. The narrow width of the existing bridges and older traffic signal equipment also contribute to congestion in this area.

CURRENT ACTIVITIES - The existing Armory Street Bridge over I-291 currently appears as part of the Pioneer Valley Transportation Improvement Program.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - Widen the bridges throughout this area and upgrade the traffic signals at the intersections and rotary. These signals and the rotary are under City jurisdiction.

PVMPO RECOMMENDATION - Continue to monitor congestion in this area.

JURISDICTION - The state of Massachusetts has jurisdictional responsibility for the I-291 ramps and the Armory Street rotary. The City of Springfield has jurisdictional responsibility for Magazine Street and Armory Street south of Chandler Street.

NEXT COURSE OF ACTION – Continue to advance the proposed improvements to the Armory Street Bridge. No widening is proposed.

PARTY RESPONSIBLE FOR NEXT STEP – MassHighway, and the City of Springfield

PRIORITY - Medium

COMMUNITY - Springfield

PROBLEM LOCATION - Main Street and Locust Street from Carew Street to Belmont Street.

PROBLEM DESCRIPTION - This area is located just south of the downtown area in the City of Springfield referred to as “The South End”. There are two primary causes of congestion in this area. One is the series of four traffic signals within a 0.5 mile segment along Main Street between State Street and Gardner Street that lack proper coordination. This causes a large amount of stop and go traffic and results in excessive travel delay. There are “SLOW CONGESTED AREA” signs posted along this segment of roadway. The second location is the intersection of Locust Street, Mill Street, Fort Pleasant Avenue and Belmont Avenue. This is a six way intersection controlled by two coordinated traffic control signals. It operates as two intersections with approximately a 100-foot space between the two. The configuration of the intersection is confusing to drivers since there are six intersecting streets and two traffic controls. Drivers have problems determining how to navigate through this area causing slow movement of vehicles and congestion.

CURRENT ACTIVITIES – The I-91 ramp reversal project is expected to be completed in the fall of 2005. The project is expected to have a dramatic effect on traffic flow in the downtown area. Modifications to the existing signals along Main Street could possibly be included as part of the mitigation for the I-91 project.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - The four traffic signals on Main Street between State Street and Gardner Street should be coordinated. This will improve the movement of vehicles along Main Street reducing unnecessary delays due to stop and go traffic at these intersections. The six-way intersection of Locust Street, Mill Street, Fort Pleasant Avenue and Belmont Avenue should be redesigned and reconstructed. Approaches should be better aligned with pavement markings indicating movements allowed for each approach lane. Optimization and relocation of the traffic controls should be done to improve efficiency of the intersection and reduce driver confusion. Any proposed changes in this area would require new traffic control equipment.

PVMPO RECOMMENDATION - Further study is required.

JURISDICTION - The City of Springfield has jurisdictional responsibility for all roads identified in the study area.

NEXT COURSE OF ACTION – Monitor effects of the I-91 ramp reversal projects, on local traffic.

PARTY RESPONSIBLE FOR NEXT STEP - PVMPO

PRIORITY - Medium

COMMUNITY - West Springfield

PROBLEM LOCATION -Route 5 (Riverdale Street) from Ashley Avenue to Morgan Road.

PROBLEM DESCRIPTION - This portion of Route 5 (Riverdale Road) has significant retail land uses, especially on the east side of the roadway. Route 5 southbound widens at its approach to its intersection with Daggett Drive to provide an additional two left turning lanes for a one-way entrance into the Riverdale Shops and for U - turns onto Route 5 northbound. Once these two left turn storage lanes fill, vehicles spill over onto Route 5 and block through moving traffic. Reasons for the large traffic queues at the Route 5 and Daggett Drive intersection are the large volume of traffic along Route 5 southbound and traffic congestion within the parking lots of the shopping areas spilling over into Route 5. Another problem location is the four-way signalized intersection of Morgan Road at Route 5 and Riverdale Shops. Route 5 northbound is a five lane approach with two exclusive left turn lanes; two through lanes and an exclusive right turn lane. Route 5 southbound is a four lane approach with an exclusive left turn, exclusive right turn and two through lanes. Morgan Road eastbound is a three lane approach with an exclusive left turn lane, shared through/left turn lane and a shared through/right turn lane. All approaches are severely congested with the exception of the Route 5 southbound approach. This intersection serves as the main entrance/exit to the Riverdale Shops for traffic from the south and east. Traffic from the north typically uses the Daggett Drive entrance. Therefore the southbound approach at the Morgan Road intersection is less severe of a problem. A traffic signal at the bottom of the I-91 exit 13B ramp onto Route 5 southbound has also been installed to ease the traffic congestion. A new traffic signal at the Showcase Cinema entrance on Route 5 also contributes to congestion when the signal is activated by cars exiting the cinema parking lot. This light is in close proximity to the Route 5 and Morgan Road signal and Route 5 and Elm Street signal. When green time is provided for cinema traffic, traffic queues back through both intersections on Route 5.

CURRENT ACTIVITIES – The Massachusetts Highway Department District 2 Office has requested the PVPC to collect turning movement counts at the intersection of Route 5 with I-91 Exit 13B. A Roadway rehabilitation project for Route 5 is currently under design by Mass Highway.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - The possibility exists for future changes along this corridor including enhanced signal coordination and improvements to the internal circulation at the Riverdale Shops. The operation of the existing coordinated closed-loop signal system intersections at Elm Street, Cinema Drive, and Morgan Street should be reviewed for possible adjustments. The intersections of Dagget Drive, Exit 13B and Ashley Avenue should/will be reviewed for coordinated, closed-loop operations in the Route 5 rehabilitation project.

PVMPO RECOMMENDATION - PVPC will continue to monitor the effects of the signal improvements along Route 5.

JURISDICTION - The state of Massachusetts has jurisdictional responsibility for Route 5 (Riverdale Road) and Interstate 91 Interchange 13.

NEXT COURSE OF ACTION - Continue to monitor the effects of traffic signal improvements along Route 5; incorporate potential signal improvements into the Route 5 project.

PARTY RESPONSIBLE FOR NEXT STEP - PVMPO

PRIORITY - Low

COMMUNITY - Agawam

PROBLEM LOCATION - Route 147 (Springfield Street) and Route 159 (Main Street) from Rowley Street to Federal Street; Route 75(Suffield Street) from Mill Street to the Route 159(Main Street), Route 147(Springfield Street) and the Route 75 intersection.

PROBLEM DESCRIPTION - There are two problem locations identified along this corridor. One area is the two signalized intersections of Route 147 with North Street and Route 147 with Maple Street which are approximately 500 feet apart. Route 147 serves as a connector road to Route 57 (Springfield Street) for travelers from the Springfield and West Springfield area heading toward the Feeding Hills center in Agawam and the Community of Southwick. North Street serves as a connector to Route 187 for people traveling to and from western portions of Agawam and the City of Westfield. Traffic converges at this location creating large traffic queues along the eastbound approaches of North Street and Route 147. The second problem location is the roadway between the signalized intersections of the Route 147 bridge (BR# A-5-002), Route 147, Route 159 and Route 75 (Suffield Street) and the intersection of Route 147, Walnut Street at the Walnut Street Extension. These intersections are in close proximity with retail land uses along both sides of Route 147. Vehicles entering and exiting these retail areas obstruct traffic flow and cause traffic to queue at both of these intersections. The worst approaches to the intersection of Route 147 and Route 75 at Route 159 are eastbound from Route 147 (Agawam) and southbound from the Route 147 bridge. The Route 147 bridge northbound approach has a shared through/left turn approach and a channelized right turn lane. Left turning vehicles onto Route 159 are opposed by through traffic from Route 75 causing vehicles to queue over the Route 147 bridge into West Springfield. The Route 147 eastbound approach to this intersection has an exclusive left turn lane and shared through/right turn lane. The left turn movement onto the Route 147 bridge is a protected movement for only a portion of the signal phase and otherwise is opposed by traffic from Route 159. This causes vehicles to queue back into the Route 147 intersection with Walnut Street and the Walnut Street extension. The Route 75 southbound and Route 159 westbound approaches to Route 147 are also problems but not as severe.

CURRENT ACTIVITIES - Reconstruction and widening of Route 75 in Agawam is complete. The reconstruction of Route 147 in West Springfield and the improvement of the intersection of Route 75 (Suffield Street) with South Street and Shoemaker Lane are also complete. PVPC recently completed a traffic study for the intersections of Spring Street and Walnut Street and Springfield Street at Main Street and Suffield Street. A reconstruction project for Main Street is currently under design by the City. This project includes improvements for both intersections with the Route 147 Bridge. A study recently completed for Agawam by C&C Consulting and Engineers, gave three Alternative options for the intersections of Walnut Street and Springfield Street, Springfield Street at Suffield and Main Street, and Memorial Avenue at River Street. Agawam has selected to use alternative one which will actuate all the existing traffic signal. Alternative one will leave the signals uncoordinated, but will adjust timing and phasing at each intersection accordingly for optimum performance.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - Widening of the Route 147 bridge between Agawam and West Springfield, would greatly reduce congestion at both ends of the bridge. Currently there are significant queues for vehicles crossing the bridge into Agawam because there is one lane for both through traffic and left turns for the Westbound approach. Signal optimization and coordination is recommended at the intersections of Route 147 and Route 159 at Route 75 (Agawam), Route 147 at Walnut Street (Agawam) and Route 147 at River Street (West Springfield). This will improve and control traffic flow across the Route 147 bridge and through the section of Route 147 between Walnut Street and the Route 147 bridge. Widen Route 147 between Route 75 and Walnut Street to increase the storage capacity for left turning vehicles. Improving the signal timing and coordination at the Route 147 at Maple Street and Route 147 at North Street intersections could improve the movement of vehicles through these two intersections. Possibly redesign the two intersections of North Street with Route 147 and the intersection of Route 147 at Maple Street into one intersection.

PVMPO RECOMMENDATION - Monitor the effects of current activities and implement recommendations of PVMPO study.

JURISDICTION -The Community of Agawam has jurisdictional responsibility for Route 147 (except for BR# A-5-002), Route 75, Walnut Street, Walnut Street Extension, North Street and Maple Street in the vicinity of the study area. The state of Massachusetts has jurisdiction of the Route 147 bridge and Route 159 in the vicinity of the study area.

NEXT COURSE OF ACTION - Monitor and re-study the effects of the existing projects under development, for future programming in the Pioneer Valley Transportation Improvement Program.

PARTY RESPONSIBLE FOR NEXT STEP - PVMPO

PRIORITY - Low

COMMUNITY – Agawam

PROBLEM LOCATION - Springfield Street from Mill Street to Route 187 (North and South Westfield Streets)

PROBLEM DESCRIPTION - The problem identified along this corridor is that traffic queues during the morning and afternoon peak hours at the four-way signalized intersection of Route 57, Route 187, and Springfield Street. Route 187 is on a north/south alignment with a two lane approach in each direction consisting of an exclusive left turn lane and shared through/right turn lane. Route 57 is on an east/west alignment with a two lane Eastbound approach consisting of an exclusive left turn lane and shared through/right turn lane. Springfield Street is on an east/west alignment with a two lane westbound approach consisting of an exclusive left turning lane, and a shared through/right turn lane. The southern portion of Route 187 (South Westfield Street) connects to the relocated Route 57 and northern Connecticut. The northern portion of Route 187 (North Westfield Street) connects to Route 20 in the City of Westfield. Route 57 provides a link between communities west of Agawam to the Springfield area. Springfield Street is not only heavily commercialized Street, it is also one of the main routes into West Springfield. Therefore a large volume of traffic converges at this intersection during the morning and afternoon commute period. The Agawam Junior High School and retail development just east of this intersection further contribute to the congestion along on Springfield Street with a signalized intersection less than 0.2 miles east of Route 187 at the Stop and Shop supermarket entrance.

CURRENT ACTIVITIES – Design of the reconstruction of Route 187 from the Westfield City Line to Feeding Hills center (Route 187 at Route 57 intersection) is under development by the City. The Route 57/187 intersection is not within the project limits. However, MassHighway submitted a project request for potential intersection improvements pending the review of accident and operations data at this location. PVPC is currently conducting a safety study at this intersection.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - Advance the recommendations of the safety study for Feeding Hills Center.

PVMPO RECOMMENDATION – Reconstruct Route 187, add turning lanes, shoulders, and improve traffic signals.

JURISDICTION - The Community of Agawam has jurisdictional responsibility for this portion of Route 57 and Route 187.

NEXT COURSE OF ACTION -Monitor the impacts once the Route 187 project is completed.

PARTY RESPONSIBLE FOR NEXT STEP - PVMPO

PRIORITY - Medium

COMMUNITY - Longmeadow

PROBLEM LOCATION - Route 5 from Forest Glen Road to William Street.

PROBLEM DESCRIPTION - The signalized intersections of Route 5 with Forest Glen Road and Western Drive, Route 5 at Converse Street, and Route 5 at Bliss Road all currently experience congestion as a result of the heavy volumes of vehicles turning left from Route 5 southbound. These roadways provide east/west access to the communities of East Longmeadow and Springfield, as well as I-91.

CURRENT ACTIVITIES – PVPC has completed a Traffic Signal Study for this area.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – Study the effects of changes to the existing traffic signal timing and phasing in this area. Implement the short and long term recommendation from the Route 5 Traffic Signal Study. Short term recommendations are improved pavement markings, a safety study for the intersection of Laurel Street and Bliss Street to see why there have been so many angled crashes, and the enhancement of pedestrian crossings. Long term recommendations are the improvement of the existing traffic signal control equipment throughout the study area, adding a lane through the Converse Street intersection to increase capacity and decrease congestion, and employ a registered engineer to further study and implement these recommendations.

PVMPO RECOMMENDATION – Advance the recommendations from the Pioneer Valley Planning Commissions study.

JURISDICTION - The Town of Longmeadow has jurisdiction over Route 5 in its entirety.

NEXT COURSE OF ACTION – Advance the Route 5 traffic study.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO and the Town of Longmeadow.

PRIORITY - Medium

COMMUNITIES - Springfield and Ludlow

PROBLEM LOCATION - Route 21(Parker Street) from North Branch Parkway in Springfield to East Street in Ludlow.

PROBLEM DESCRIPTION - There are three problem locations along this corridor. The Boston Road at Parker Street four-way signalized intersection has traffic delays due to high vehicle volumes at all approaches with the PM peak period being the most severe. Another problem location in the vicinity of this intersection is about 0.5 miles north of the Boston Road at the Parker Street intersection with Oak Street. The narrowing of Parker Street under a railroad bridge in conjunction with poor pavement surface condition causes vehicles to significantly reduce speed in both directions. Northbound vehicles traveling on Parker Street are obstructed by vehicles turning left (westbound) onto Oak Street. Since Oak Street is an unsignalized intersection, this is a difficult movement to make. The third location of congestion is the Route 21 bridge over the Chicopee River. This bridge has one lane in each direction widening to two at the approaches on each end of the bridge. This bridge has a short span (approximately .1 miles) and a traffic control signal at both ends. Large vehicles consume most of the travel space on the bridge and cause vehicles to queue over the bridge and impact the intersections at both ends.

CURRENT ACTIVITIES - The reconstruction of Parker Street from Boston Road to Main Street has been advertised for construction by the Massachusetts Highway Department. This will include resurfacing and widening Parker Street from Boston Road to Main Street. Traffic control signals will be installed at the intersections of Parker Street with Oak and Verge Streets. This will also include replacing the Conrail Bridge over Parker Street. Rehabilitation of Bridge (L-16-008) over the Chicopee River connecting Springfield and Ludlow is underway. The reconstruction of Shawinigan Drive in Chicopee and Ludlow is completed and could provide an alternate route for the Route 21 Bridge traffic.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - Future alternatives and strategies will be identified if the proposed improvements do not effectively reduce congestion in this area. In the long term, intersection improvements at either end of the Chicopee River Bridge could be considered in association with a future bridge replacement project.

PVMPO RECOMMENDATION - Monitor the effects of all current activities as part of the congestion management system.

JURISDICTION -The City of Springfield has jurisdictional responsibility for Parker Street and the state of Massachusetts has jurisdictional responsibility for the Route 21 Bridge connecting Springfield and Ludlow.

NEXT COURSE OF ACTION - Monitor the effects of the improvements identified in the current activity section.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO

PRIORITY - Low

COMMUNITY - Springfield

PROBLEM LOCATION - Route 20A (Page Boulevard) from East Street to Oakdale Street.

PROBLEM DESCRIPTION - The traffic congestion along this roadway is primarily due to the four-way signalized intersection of Route 20A, Robbins Road and Cadwell Drive. Page Boulevard provides access to and from Interstate 291 west of the intersection. The Route 20A eastbound and westbound approaches to this intersection are the most severe. Route 20A eastbound has three approach lanes that include an exclusive left turn lane, exclusive through lane and a through/right turn lane. The Cadwell Street approach has an exclusive right turn lane and a shared through/left turn lanes. The Robbins Road northbound approach has a shared through/left turn lane and an exclusive right turn lane providing access to the Memorial Industrial Park. Traffic can queue back onto Interstate 291 eastbound via the eastbound Indian Orchard off ramp during peak hours. Vehicles from the Interstate 291 eastbound off ramp also have difficulty merging onto Page Boulevard since they have a short distance to maneuver into the appropriate lane at the Robbins Road intersection. Page Boulevard east of this intersection has two travel lanes in each direction. These lanes are narrow and tend to slow the flow of traffic if there are large vehicles using the roadway.

CURRENT ACTIVITIES - There is a proposal for the addition of a new traffic signal at the intersection of the I-291 southbound off-ramp with Page Boulevard, and intersection improvements at Page Boulevard and Roosevelt Avenue, as part of the Springfield Memorial Industrial Park II development. This could also include the implementation of a coordinated signal system with the signal system at the intersection of Page Boulevard and Roosevelt Avenue. The intersection improvements to Page Boulevard and Robbins Drive were recently completed. The City of Springfield is resurfacing all of Route 20A in this area this year.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - None

PVMPO RECOMMENDATION - Pursue the City of Springfield intersection improvements in association with the Memorial Industrial Drive II development.

JURISDICTION - The state of Massachusetts has jurisdictional responsibility for the access ramps to and from Interstate 291. The City of Springfield has jurisdictional responsibility for Route 20A.

NEXT COURSE OF ACTION - Monitor the effects of the proposed redesign of the Page Boulevard/Robbins Road/Cadwell Drive intersection.

PARTY RESPONSIBLE FOR NEXT STEP - PVMPO and the City of Springfield.

PRIORITY - Low

COMMUNITY - Springfield

PROBLEM LOCATION - Sumner Avenue from Forest Park Avenue to White Street.

PROBLEM DESCRIPTION - Sumner Avenue is on an east/west alignment scattered with retail and residential land uses and serves as a connector for eastern parts of Springfield, Wilbraham, Interstate 91, Route 5 and the south end bridge connecting points west of the Connecticut River. The most severe congestion along this roadway occurs at the intersection of Sumner Avenue, Route 83 (Belmont Avenue), Dickinson Street, Commonwealth Ave, and Lenox Street. Route 83 (Belmont Avenue) is on a north/south alignment connecting downtown Springfield, East Longmeadow and northern Connecticut. These two roadways attract large volumes of traffic especially during the AM and PM peak hours and cross at their intersection with Lenox Street, Dickinson Street and Draper Street which is known as the “X”. This causes large traffic queues and excessive delay to vehicles that have to navigate through this intersection. Sumner Avenue has two travel lanes in each direction with on-street parking in various locations. The on-street parking causes a weaving situation that contributes to congestion. A second location of less severe congestion is the four way signalized intersection of Sumner Avenue, Beechwood Avenue and Fort Pleasant Avenue. Delays here are due to the large volume of traffic and close proximity to the signalized intersections of Sumner Avenue at Longhill Street and Sumner Avenue at Forest Park Avenue. These three intersections are approximately 0.3 miles apart from each other and therefore cause a significant amount of stop and go traffic.

CURRENT ACTIVITIES- The City of Springfield in conjunction with the Pioneer Valley Transit Authority (PVTA) was approved for Transportation Demand Management (TDM) funds to establish express transit service along the Green 01 bus route which serves Sumner Avenue. The City of Springfield and PVTA are currently formalizing an agreement to start implementation of the TDM project. The signal controllers and opticom equipment have been ordered and the express service is expected to start in the fall of 2005.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES – Monitor effects of express transit and related traffic signal improvements.

PVMPO RECOMMENDATION – Monitor effects of express transit and related traffic signal improvements.

JURISDICTION - The City of Springfield has jurisdictional responsibility for Sumner Avenue and intersecting streets within the study area.

NEXT COURSE OF ACTION – Monitor effects of express transit and related traffic signal improvements.

PARTY RESPONSIBLE FOR NEXT STEP - PVMPO

PRIORITY - Low

COMMUNITY - Springfield

PROBLEM LOCATION - Roosevelt Avenue from Wilbraham Road to Crest Street.

PROBLEM DESCRIPTION - The most congested area along this corridor occurred at the intersection of Roosevelt Avenue with Wilbraham Road. This signalized intersection provides an exclusive right turn lane on both the northbound and southbound approaches of Roosevelt Avenue which operate under “STOP” sign control. The high traffic volumes on Wilbraham Road make it difficult for the right turning vehicles to merge into the roadway. Left turning vehicles from the westbound approach of Wilbraham Road also experience delays due to the lack of exclusive left turn phasing at this intersection. Left turning vehicles currently make this movement prior to the signal using the same lane as the northbound right turns. This causes vehicles wishing to turn left to queue and block the through moving vehicles on this approach.

CURRENT ACTIVITIES - The rehabilitation of the bridge over Watershops Pond has been completed. The timing sequence of signals at Wilbraham Road and Roosevelt Avenue have been altered and tested.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - Improvements to the signal timing at the intersection of Wilbraham Road with Roosevelt Avenue could reduce congestion.

PVMPO RECOMMENDATION – Monitor traffic flow at the intersection of Wilbraham Road and Roosevelt Avenue. to gauge effectiveness of new signal timing. Monitor effect of General Edwards Bridge on traffic now that it is completed.

JURISDICTION - The City of Springfield has jurisdictional responsibility for Roosevelt Avenue within the study area.

NEXT COURSE OF ACTION - Monitor the effects of the current activities in this area.

PARTY RESPONSIBLE FOR NEXT STEP - PVMPO

PRIORITY - Low

B. Summary of Congested Intersections and Isolated Areas

COMMUNITIES - Agawam and Springfield

PROBLEM LOCATION - South End Bridge including Entrance and Exit Ramps.

PROBLEM DESCRIPTION - The South End Bridge (BR# A-5-001) connects the Community of Agawam with southern Springfield providing two travel lanes in each direction. The westbound direction in Agawam provides access to and from Route 57, eastern Agawam and Route 5 north. The eastbound direction in Springfield provides access to and from Interstate 91, southern Springfield and Route 5 south. The congestion typically occurs during the PM commute period in the westbound direction. This is due to a large volume of traffic accessing Route 57 for locations west such as Agawam and Southwick. Vehicles typically extend along the Route 57 off ramp over the South End Bridge onto exit ramps from Interstate 91 and downtown Springfield. Therefore, one travel lane is continually blocked along the bridge in the westbound direction and traffic bottlenecks at the westbound entrance to the bridge due to merging vehicles. The westbound off ramp to Route 57 leads into a rotary that provides access to and from Route 5 and Route 57 which also becomes congested due to the large influx of vehicles.

CURRENT ACTIVITIES - Rehabilitation of the South End Bridge is identified in the Pioneer Valley Transportation Improvement Program, however, no additional capacity is proposed at this time.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - A study for this area commissioned by MassHighway recommends construction of a new bridge located south of the existing bridge and removal of the Route 5/57 rotary and existing bridge. The new bridge is proposed to have two travel lanes in each direction with a ramp system providing connections to I-91, Route 5 and Route 57. Improvements would also be made to I-91 northbound to correct an existing lane reduction from three to two lanes. Under the proposed improvement alternative, three northbound travel lanes would be maintained on I-91. Another option recommended is the construction of a new slip ramp off of the bridge to create direct access from the bridge to Route 57 westbound.

PVMPO RECOMMENDATION – Advance the slip ramp project and advance plans to perform a traffic study for the Springfield side of the bridge.

JURISDICTION - The state of Massachusetts has jurisdictional responsibility for the South End Bridge and all access ramps.

NEXT COURSE OF ACTION - Continue to monitor this area as part of the congestion management system. Also, continue dialogue between the Massachusetts Highway Department, the City of Springfield, and the City of Agawam to discuss possible improvement alternatives that could be tied into the reconstruction of this bridge.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO

PRIORITY - High

COMMUNITY - East Longmeadow

PROBLEM LOCATION - East Longmeadow rotary at Route 186 (Prospect Street), Route 83 (Somers Road), Route 83 (North Main Street), Route 220 (Shaker Road), Pleasant Street, Maple Street and Elm Street.

PROBLEM DESCRIPTION - This is a seven leg rotary in the downtown area of East Longmeadow. Route 83 (North Main Street) provides the primary connection between the center of East Longmeadow to downtown Springfield. Maple Street provides a connection to the town of Longmeadow and Routes 220, 186 and 83 (Somers Street) connect to portions of northern Connecticut. There are significant traffic backups along many of these streets feeding the rotary especially in the east and west directions. Based on visual observations the Pleasant Street and Maple Street approaches were the most severe. Pedestrian crosswalks at the approaches and an unusual geometry create stop and go traffic. This causes confusion and difficulties in navigation of the rotary and establishment of right of way. Therefore, vehicles queue along these side streets and cause congestion problems along these roadways.

CURRENT ACTIVITIES - The East Longmeadow Rotary Study is complete. Pavers were recently installed for lane markers in the rotary. Other minor geometric and signing improvements have been implemented as result of this.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - Three preferred alternatives were identified as part of the East Longmeadow Rotary Study. The first alternative can be implemented immediately and consists of changes to better define travel ways and discourage illegal moves through the rotary. A second alternative consist of short-term recommendations to build on the immediate action improvements and modify the rotary to clarify the right-of-way rule and increase the safety and efficiency of the rotary through additional signs, pavement markings, and modifications to existing islands. The long-term recommended plan for the rotary consists of the modification of the rotary to a triangular shape and the installation of three coordinated traffic signals, one at each corner. This improvement clearly defines the right-of-way and improves, vehicular, pedestrian and bicycle movements through the area.

PVMPO RECOMMENDATION - The preferred alternative developed through the study should be advanced through the Pioneer Valley Transportation Improvement Program.

JURISDICTION - The Town of East Longmeadow has jurisdictional responsibility for the following roadways comprising the rotary: Route 186 (Prospect Street); Route 83 (Somers Road); Route 83 (North Main Street); Route 220 (Shaker Road); Pleasant Street; Maple Street and Route 83 (Elm Street).

NEXT COURSE OF ACTION - Continue to monitor this area as part of the Congestion Management System. Assist the Town of East Longmeadow in implementing the proposed improvements.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO and Town of East Longmeadow.

PRIORITY - medium

COMMUNITY - Springfield

PROBLEM LOCATION - Intersection of Plainfield Street, Avacodo Street and Route 20.

PROBLEM DESCRIPTION - The signalized intersection of Plainfield Street, Avacodo Street and Route 20 becomes very congested typically during the AM and PM commute hours. The eastbound and westbound directions of Route 20 are the most severe. During the AM commute period the eastbound direction is most severe and the westbound direction is most severe during the PM period. The Route 20 approaches are on a slight incline and have severe rutting in the pavement. This poor pavement creates a very bumpy ride and slows the movement of traffic through the intersection. During the morning commute traffic queues along Route 20 eastbound over the Connecticut River Bridge into the West Springfield Route 20 and Route 5 rotary. The evening commute period has traffic queuing along Route 20 westbound past the Interstate 91 entrance and exit ramps. This creates difficulty for traffic merging onto Route 20 westbound and accessing Interstate 91 northbound. The northbound Avacodo Street and southbound Plainfield Street approaches didn't appear to have any congestion problems. This intersection is located at crossroads of major commuter routes including Route 20, Interstate 91 (northbound & southbound) and Interstate 291 eastbound. The Route 20 approaches both have an exclusive left turn lane, exclusive through lane, and a shared through right turn lane. The Plainfield Street and Avacodo Street approaches both have a shared through/left/right turn lane.

CURRENT ACTIVITIES - The City of Springfield recently installed video detection equipment and a new signal phasing plan.

POTENTIAL IMPROVEMENT ALTERNATIVES/STRATEGIES - The City of Springfield has suggested that this area would be an ideal candidate for concrete pavement. The construction of "pull-in" bus stops could also reduce congestion in this area.

PVMPO RECOMMENDATION - Continue to monitor this intersection.

JURISDICTION - The City of Springfield has jurisdictional responsibility for the roadways in the vicinity of the intersection. The state of Massachusetts has jurisdictional responsibility for the Route 20 bridge over the Connecticut River and the Route 5 at Route 20 rotary.

NEXT COURSE OF ACTION - Monitor this area as part of the Congestion Management System.

PARTY RESPONSIBLE FOR NEXT STEP – PVMPO

PRIORITY - Low

C. SUMMARY OF PARK AND RIDE LOTS

There are a total of seven existing Park and Ride lots in PVMPO's region. The Massachusetts Turnpike Authority (MassPike) opened park and Ride lots in Ludlow (exit 7) and Palmer (exit 8). There are two park and ride lots located in Springfield one at the Five-Town Plaza which operates in conjunction with PVTA bus routes and another located at 10 Center Street (under I-291). The City of Northampton recently constructed a park and ride lot at Sheldon Field, abutting Route 9. Informal park and ride lots also exist at the Norwottuck Rail Trail Lot off Damon Road in Northampton and at the Big Y Plaza in Amherst. A summary of the existing Park and Ride lots is presented in Table 6.

PVPC was notified in February of 2005 that the McDonalds parking lot would no longer be used as a Park and Ride lot. According to MassPike, McDonalds did not seek a renewal of their lease that allowed the Park and Ride lot to exist on their property. This is a major problem because the Palmer lot had been operating near maximum capacity based on the occupancy data collected by the PVPC. It is important to identify a new location for a Park and Ride lot in Palmer, in order to prevent further congestion on Route 32 and at Mass Turnpike Exit 8.

Data collection for Park and Ride lots consists of identifying the number of spaces occupied at the time of the inventory. Inventories were conducted on Tuesdays, Wednesdays, and Thursdays after 9:00 AM and prior to 3:00 PM. The purpose of this data collection is to monitor usage and project future trends. Usage greater than 85% can indicate the lot may need expansion and usage less than 30% can indicate the location may need to be reassessed. During the next few months more extensive data collection for Park and Ride lots will be conducted.

Additional Park and Ride lots were initially proposed by the Massachusetts Turnpike Authority at Interchange 3 (Westfield), Interchange 4 (West Springfield) and Interchange 6 (Springfield). To date, no park and ride facilities exist in these areas. The Pioneer Valley Planning Commission will contact the Massachusetts Turnpike Authority to update their status. Park-and-ride lots are also planned for the University of Massachusetts – Amherst campus.

**Table 6
Park and Ride Lot Locations and Use**

Community	Location	Spaces Available	Occupancy				Parking Cost
			4-Jul	3-Feb	2-Oct	2-Feb	
Chicopee	Route 33 at Fairfield Mall	N/A	N/A	N/A	N/A	N/A	N/A
Ludlow-MA Turnpike- Exit 7	Route 21 (Center St.) Rear of McDonalds	42	27	15	14	27	No
Palmer - MA Turnpike Exit 8	Route 32 (Thorndike St.) Rear of McDonalds	33	32	23	25	32	No
Springfield	Five Town Plaza Allen and Colley St.	89	0	30	3	0	No
Springfield	10 Centre St. Under I-291	502	60	67	57	N/A	\$.50 per hr / or permit
Northampton	Sheldon Fields (Route 9)	23	3	4	4	N/A	No
Northampton	Damon Rd. (Norwottuck Bike Trail Lot)	30	8	3	7	8	No
Amherst	Big Y Parking Lot	N/A	N/A	N/A	N/A	N/A	No

There is currently no designated park and ride area at the Five Town Plaza in Springfield. As a result vehicles park throughout the parking lot and it is difficult to distinguish between them and patrons of the plaza.

V. SUMMARY OF NEEDS

The Location Specific Summary sections identified the current activities associated with all verified CMS problem locations. Most activities consist of projects programmed in the current Pioneer Valley Transportation Improvement Program. Not all of these projects are geared toward congestion relief and therefore will not alleviate the existing congestion problem. Therefore, the CMS locations were separated into two groups. The first group consists of CMS locations that have projects planned which could alleviate the existing congestion problem and are presented in Table 7. These locations will remain on the CMS list and be monitored for the project's impacts before and after implementation. The second group consists of all locations that currently have no specific congestion mitigation project planned and are presented in Table 8. These locations will require additional study so improvement alternatives can be developed and projects initiated. The location of all congested areas is shown on the "Congestion Management System Problem Location Needs Assessment" map on the next page.

**Table 7
Needs Potentially Satisfied**

LABEL	COMMUNITY	LOCATION	ASSOCIATED IMPROVEMENT PROJECT
1	Agawam	Route 147 and Route 159	Main Street reconstruction project.
2	Agawam	Route 75	Reconstruction and Widening of Route 75
3	Agawam	Route 57	Next phase of Route 57 in Southwick
4	Agawam/Springfield	Route 5	Reconstruction of the South End Bridge
7	Chicopee	Memorial Dr/Broadway St	Deady Bridge improvements
8	Easthampton	Route 141	Intersection Improvements at Two Locations, study by PVPC
9	East Longmeadow	Route 83	Rotary Improvements, study by PVPC.
10	East Longmeadow	Downtown Rotary	Rotary Improvements, study by PVPC.
11	Hadley/Northampton	Rte. 9 (Calvin Coolidge Bridge)	Widening of Route 9 and the Calvin Coolidge Bridge
12	Hadley	Bay Road	Widening of Route 9 and the Calvin Coolidge Bridge
13	Holyoke	L. Westfield Rd and Homestead Avenue.	Traffic Mitigation for Holyoke Mall Expansion.
14	Longmeadow	Route 5	PVPC Route 5 Signal Study.
15	Ludlow	Center Street	Intersection improvements at to locations
16	Ludlow/Springfield	Route 21	Reconstruction of Route 21 & Route 21 Bridge
17	Northampton	Damon Road	Damon Road Project
18	Northampton	Route 10	Intersection Improvements.
21	Springfield	Main Street and Locust Street	I-91 Ramp Reversal Project
22	Springfield	Route 20A (Page Boulevard)	Intersection Improvements
23	Springfield	Route 20	Rte. 20/Plainfield Street/Avacado Street Intersection improvements
24	Springfield	Sumner Avenue	Intersection Improvements
26	West Springfield	Route 5	Route 5 Reconstruction
27	West Springfield	Route 20	PVPC Route 20 Corridor Study
28	Westfield	Mechanic Street and Meadow Street	PVPC Route 20 Corridor Study
29	Westfield	Route 10/202	Reconstruction of Route 10/202 & Westfield River Bridge
30	Westfield	Washington Street and Franklin Street	PVPC Route 20 Corridor Study
31	Westfield	Route 20	Route 20 Bridge Improvements

Source: PVPC

**Table 8
Existing Unmet Needs**

LABEL	COMMUNITY	LOCATION	LIMITS
19	Northampton	Route 9	Hawley Street/Market Street to Prospect Street
20	Springfield	Magazine Street and Armory Street	Worthington Street to Armory Street/I-291 Rotary
25	Springfield	Roosevelt Avenue	Roosevelt Av./Wilbraham Road Intersection

Source: PVPC

Figure 3

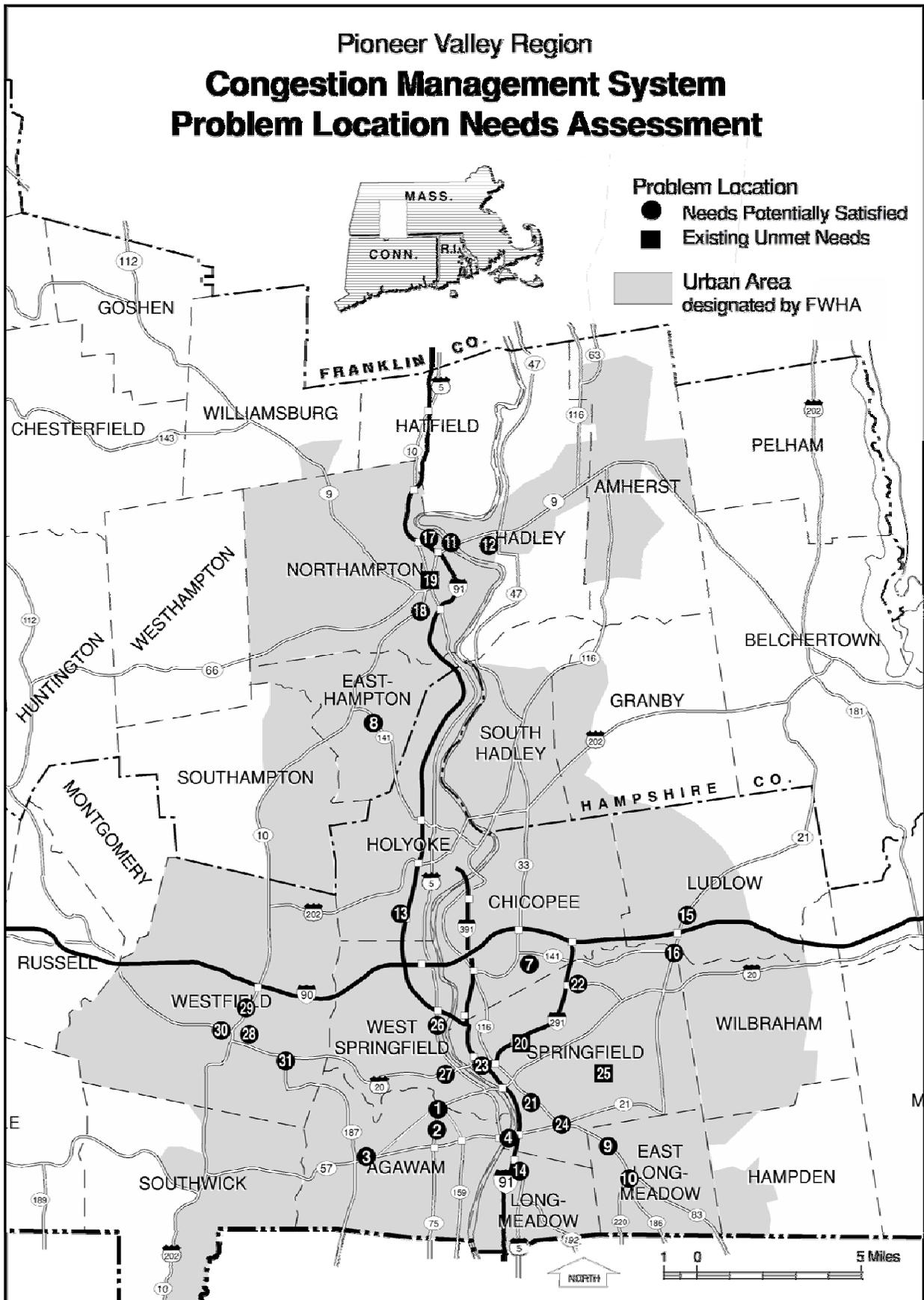


Table 9 is a summary of the CMS locations verified and the jurisdictional responsibility of the location and related roads.

**Table 9
Problem Locations Identified
Jurisdiction Summary**

COMMUNITY	LOCATION	JURISDICTION		
		LOCAL	STATE	JOINT
Agawam	Route 147 and Route 159			X
Agawam	Route 75			X
Agawam	Route 57	X		
Agawam/Springfield	Route 5		X	
Chicopee	Memorial Dr/Broadway St			X
Easthampton	Route 10 and Route 141	X		
East Longmeadow	Route 83	X		
East Longmeadow	Downtown Rotary	X		
Hadley	Bay Rd	X		
Hadley/Northampton	Rte. 9 (Calvin Coolidge Bridge)		X	
Holyoke	L. Westfield Road & Homestead Ave.			X
Longmeadow	Route 5	X		
Ludlow	Center Street			X
Ludlow/Springfield	Route 21			X
Northampton	Damon Road			X
Northampton	Route 10	X		
Northampton	Route 9	X		
Springfield	Magazine Street and Armory Street			X
Springfield	Main Street and Locust Street	X		
Springfield	Route 20A (Page Boulevard)			X
Springfield	Route 20			X
Springfield	Sumner Avenue	X		
Springfield	Roosevelt Avenue	X		
West Springfield	Route 5			X
West Springfield	Route 20			X
Westfield	Mechanic Street and Meadow Street			X
Westfield	Route 10/202			X
Westfield	Washington Street and Franklin Street	X		
Westfield	Route 20			X

Source: PVPC

Improvement strategies will be developed in conjunction with the appropriate parties depending on the jurisdictional responsibility. For example, for CMS locations under local jurisdiction, the appropriate community members (i.e. DPW director, Community Engineer, Community Planner) will be involved with final strategy development and project initiation. CMS locations under state jurisdiction will require consultation with the appropriate Massachusetts Highway Department District Office to develop appropriate strategies. If the location is under joint jurisdiction of the state and community, then both parties will be brought together to study the problem location.

VI. SEQUENCE OF STRATEGY DEVELOPMENT AND PRIORITIZATION

Developing improvement strategies will be a joint effort among the PVMPO, the affected community(s), and any other appropriate organizations where applicable. Initial strategies will be developed by the PVPC staff and presented to the affected community(s) for discussion. These initial strategies will then be redefined following the consultation meetings with the communities. Once these initial strategies have been refined and gained community support, site specific data collection will begin to test the various alternatives. In the case of Massachusetts Highway Department jurisdiction locations, an initial list of problem locations will be sent to the applicable district office. If there are no projects currently planned to alleviate these congested locations, PVPC will conduct analysis on initial strategies developed in consultation with the highway department. This will be sent to the applicable district office for review and comment. Prioritization of projects will be based on support, participation and commitment from the respective communities or highway department district office.

Community support will be based on prior participation in the CMS development process and commitment gained from initial consultation meetings. Local participation in the CMS process is done through the Pioneer Valley Joint Transportation Committee (JTC). The JTC was also asked to review the initial list of locations and propose additional locations.

Communities are requested to prioritize their locations as they see appropriate. Once this is accomplished all locations will be examined for the complexity of the project. PVPC staff will conduct a study at locations at which congestion relief strategies are not currently proposed or which require additional information to support the advancement of congestion relief strategies. Appropriate findings from the CMS process will be incorporated in the RTP. PVPC will assist the community(s) in applying for funds to implement projects resulting from the CMS process. Since the Transportation Improvement Program (TIP) is used as a management tool to monitor progress of the RTP, it will be the primary means to acquire funds for implementing CMS projects.

Project selection for the Transportation Improvement Program (TIP) is based on a set of Evaluation Criteria, developed by the Executive Office of Transportation (EOT). The PVPC jointly rates candidate projects with representatives from EOT and Mass Highway. This evaluation assists in the development of the TIP. In addition the Pioneer Valley Joint Transportation Committee (JTC) has developed a series of guidelines that identify which TIP projects may be eligible for funding based on its design status. The Pioneer Valley Metropolitan Planning Organization (MPO) makes the final determination on which projects to include in the TIP.

VII. PROJECT INITIATION AND IMPLEMENTATION

As previously mentioned, projects resulting from the CMS process will be included in the RTP and proceed through the TIP process for implementation. In order to accomplish this the following draft series of actions will act as a guide for each project.

- The PVPC transportation staff will meet with the impacted community(s) to present initial congestion relief strategies. This meeting will be established through the community's Joint Transportation Committee member and include appropriate persons (i.e. DPW directors, planning department members etc.). If possible, a representative from the Massachusetts Highway Department will be present. This meeting will further educate the CMS process and development of initial improvement strategies.
- Results from this meeting will be summarized including initial improvement strategies.
(Product: initial congestion relief strategies).
- The PVPC staff will conduct or arrange the necessary data collection and analysis for the recommended strategies.
- The PVPC staff will summarize findings and make recommendations to the community(s).
(Product: letter report summarizing analysis, findings and recommendations).
- Recommendations will be presented to the community through a local public meeting or select board meeting. This will allow the public an opportunity to provide any input to the project and present any concerns so they may be addressed as soon as possible.
- Following this meeting a community endorsed conceptual project will be established.
(Product: conceptual congestion relief project).
- The community will be given the most current Project Information Form (PIF) for completion and submittal to the PVPC to include the project in the TIP database. The PIF contains information necessary to program the project in the TIP and makes project proponents aware of various issues (i.e. permits, land acquisition public hearings, etc.). The community will also be given a sample transportation evaluation criteria (TEC) form for revision and tailoring to the subject project. The community will be asked to refrain from scoring the project. These forms must be completed and endorsed by the community's chief elected official to be eligible for inclusion in the TIP. The guidebook will help community officials navigate through the TIP process. Both MassHighway and PVPC will assist the community in completing the TEC form, as necessary.
- ***(Product: completed project information form).***
- Community submits a letter signed by the chief elected official to the appropriate Massachusetts Highway Department (Mass Highway) District Office defining the proposed project, including a problem description, the proposed solution and level of community support. This letter should mention the project resulted from the Pioneer Valley CMS. With this letter a copy of the following should be included: completed PIF submitted to the PVPC, the completed, unscored TEC justification, any analysis done related to the project and any other applicable material.
- Mass Highway in conjunction with the community should develop and finalize a project scope.
- Mass Highway in conjunction with the community determines the funding source for the project design (i.e. Chapter 90 or state funds).
- Mass Highway submits the project proposal to the Project Review Committee for review and approval.
- Once approved by the Project Review Committee the design process is initiated.
- Mass Highway and Community update PVPC on current project status.
- A project is evaluated jointly by EOT, Mass Highway and PVPC using the most recent evaluation criteria.
- Project is programmed into TIP based on project ranking and PVMPO project milestones criteria.
- Pioneer Valley MPO endorses the project in the annual element of the TIP.
- The project is then advertised and implemented.

A. Regional CMS Activity Summary

This section presents a summary of all previous and current activities conducted by the PVPC to assist in the implementation of congestion relief strategies throughout the region. To date, a wide range of services from data collection to corridor planning studies have been conducted as part of the congestion management system. Initially, activities were focused on the development and maintenance of PVPC's "Travel Time Study Database". This database summarizes all travel time data collected as part of the CMS and is included in Appendix A of this document. When utilized in conjunction with prioritization program also developed by PVPC staff, congested areas can be identified and prioritized by various measures and conditions. A summary of all CMS related activities conducted by the PVPC to date are presented in Table 10.

Table 10
Regional CMS Activity Summary

Community	Location	Status
Agawam	Route 147 and Route 159 - Rowley Street to Federal Street	Intersection improvements proposed by the Town, Main Street project under design
Agawam	Route 75 - Mill Street to Route 159 and Route 147	Intersection improvements proposed by the Town
Agawam	Route 57 - Poplar Street to Route 187	Route 57 Phase II Extension under design
Agawam/Springfield	Route 5 (South End Bridge)	Improvement alternatives under study by Mass Highway
Chicopee	Prospect Street - Route 116 to Buckley Boulevard	Intersection improvements under design
Chicopee	Memorial Dr/Broadway St. - In vicinity of Deady Bridge	Deady Bridge Study complete - improvements under construction
Easthampton	Route 10 and Route 141 - Lyman Avenue to Chapel Street	Traffic and Parking Study completed by PVPC, one signal complete. Second under design
East Longmeadow	Route 83 - Harkenss Avenue to Dearborn Street	Bridge Demolished, signals updated
East Longmeadow	Downtown Rotary	East Longmeadow Rotary study complete
Hadley/Northampton	Route 9 (Calvin Coolidge Bridge) - Bay Road To Damon Road	Bridge reconstruction complete. Roadway widening to begin
Holyoke	Lower Westfield Road and Homestead Avenue - Whiting Farms Road to Upland Road	Traffic signal improvements awaiting construction
Longmeadow	Route 5 - Forest Glen Road to William Street	Area currently under study by PVPC
Ludlow	Center Street - Cherry Street to Mass Turnpike Entrance	Intersection improvements to be constructed
Ludlow/Springfield	Route 21 - East Street to North Branch Parkway	Parker Street improvement projects advertised for construction
Northampton	Damon Road and Bridge Road - Industrial Drive to King Street	Damon Road designed. River crossing study complete
Northampton	Route 10 - Old South Street to Main Street	City has upgraded the existing traffic signals at the Route 9/10/66 intersection
Northampton	Route 9 - Hawley Street/Market Street to Prospect Street	City has upgraded the existing traffic signals at the Route 9/10/66 intersection
Springfield	Magazine Street and Armory Street - Worthington Street to Armory Street/I-291 Rotary	Armory Street bridge improvement project in TIP database
Springfield	Main Street and Locust Street - Carew Street to Fremont Street	I-91 ramp reversal under construction
Springfield	Route 20A (Page Boulevard) - East Street to Oakdale Street	Page Boulevard/Robbins Road/Cadwell Drive intersection improvements
Springfield	Route 20 - Route 20/Plainfield Street/Avacado Street	City has upgraded the existing traffic signals
Springfield	Sumner Avenue - Forest Park Avenue to White Street	Sumner Avenue Express Bus Service and signal improvement project
Springfield	Bay Street	PVPC study ongoing
Springfield	Allen Street At Cooley Street	Outer Belt Transportation Study completed by PVPC
West Springfield	Route 5 - Ashley Avenue to Morgan Road	Mass Highway has plans for future traffic signal coordination
West Springfield	Route 20 - Kings Highway to the Route 5 Rotary	Route 20 Corridor Study complete. Merrick Memorial Neighborhood Plan Phase I Draft Report
Westfield	Mechanic Street and Meadow Street - Route 20 to Route 10/202	Route 10/202 Bridge Project scheduled for FY2005
Westfield	Roue 10/202 - Main Street to Sunset Drive	Route 10/202 Bridge Project scheduled for FY2005
Westfield	Washington Street and Franklin Street - Court Street to Elm Street	Route 10/202 Bridge Project scheduled for FY2005
Westfield	Route 20 - E. Mountain Road to Westfield Shops Entrance	Route 20 bridge improvements underway - plans for future signal coordination
Wilbraham	Stony Hill Road - Springfield Street to River Road	Intersection improvement project complete

Source: PVPC

VIII. 2025 regional model

The PVPC regional transportation model was used to forecast congested locations in the Pioneer Valley Region for the year 2025. This was done by comparing the 2000 and the 2025 highway network to identify areas with a significant increase in their volume to capacity ratio. PVPC was most interested in the locations that did not appear as part of the existing Congestion Management System. Table 11 shows locations that have been identified by the regional model to have a significant increase in the volume to capacity ratio. The locations shown in Table 11 are intended for informational purposes, the PVPC is not performing any congestion management studies at these locations. The Regional Model is a useful tool to help communities prevent or at least prepare for future congestion. The PVPC will continue to monitor the following locations and contact communities to advance transportation studies as appropriate.

Table 11
2025 Projected Congestion Locations

City/Town	Projected Congestion Location By Street
Agawam	North West Street
Agawam	Route 187
Agawam	Main Street, Route 159 Between Route 57 and Route 147
Amherst	North East Street
Belchertown	From Center of Town to Palmer
Easthampton	Parsons Street South of Ferry Street
Hadley/South Hadley	Route 47
Holyoke	Holyoke Street
Longmeadow	Interstate 91 Near Route 5 Exit
Ludlow	Chapin Street
Northampton	Route 5 from Holyoke to Northampton
Northampton	North Elm Street
Northampton	Woodlawn Avenue
Palmer/Wilbraham	Boston Road, Route 20
Southwick	Route 10 and Route 202
Ware	Route 9 through Center of Town
Westfield	North Road

Source: PVPC

Table 12
Requested Changes to the Draft Congestion Management System Report

Requested Change	Pg #	Requested By
Revised problem location, incorrect street name locations for Springfield Street in Agawam	31	The Town of Agawam
Add Potential Improvement Alternative / Strategies for Route 147 Bridge, with Main and Suffield Street in Agawam	29	The Town of Agawam
Add Traffic signal study, Alternative 1 under Current activity for intersection of Memorial Ave and River Street, Main and Suffield Street, and Route 147 and Walnut Street in Agawam	29	The Town of Agawam
Add signal improvements on Route 83 to current activities in East Longmeadow	14	The Town of East Longmeadow
Updated Current activity write up for Route 83 in East Longmeadow	14	MassHighway District 2
Replace PVPC with PVMPO throughout the report	All	MassHighway District 2
Changed Current activity write up for Memorial Drive and Broadway in Chicopee	11	MassHighway District 2
Edited Potential Improvements for Route 9 in Hadley/Northampton	15	MassHighway District 2
Updated Current activity write up for Route 10/202 in Westfield	20	MassHighway District 2
Corrected location description and updated current activities for Homestead Ave in Holyoke	23	MassHighway District 2
Made updates to current activities for Center Street in Ludlow	24	MassHighway District 2
Made updates to current activities for Route 147 Bridge from West Springfield to Agawam	29	MassHighway District 2
Updated Current Activities for Springfield Street in Agawam	31	MassHighway District 2/PVPC
Updated Potential improvements for Springfield Street in Agawam	31	PVPC
Increased Priority rating from Low to Medium for the Springfield Street study	31	PVPC
Made changes to Current Activities for Parker Street in Springfield	33	MassHighway District 2
Updated Problem Description, Current Activities, Potential Improvements, and Jurisdiction at Route 20A in Springfield	34	MassHighway District 2
Updated Park and Ride section of CMS to add info about the closing of the Palmer lot	40	PVPC
Include locus maps for congested corridors in future versions of the CMS Report		MassHighway District 2
Evaluate Western Avenue from Bates Road to Court Street in Westfield for inclusion in the next CMS Report		The City of Westfield
Evaluate Southampton Road from Holyoke Street to North Road in Westfield for inclusion in the next CMS Report		The City of Westfield
Evaluate Route 141 at Interstate 91 in Holyoke for inclusion in the Next CMS Report		The City of Holyoke
Evaluate Interstate 91 exits 14 and 17 for inclusion in the Next CMS Report		The City of Holyoke