Draft Memorandum for the Record Boston Region Metropolitan Planning Organization Meeting

March 5, 2015 Meeting

10:10 AM – 12:40 PM, Watertown Free Public Library, 123 Main Street, Watertown, MA

David Mohler, Chair, representing Stephanie Pollack, Secretary and Chief Executive Officer, Massachusetts Department of Transportation (MassDOT)

Decisions

The Boston Region Metropolitan Planning Organization agreed to the following:

- approve the work program for *Title VI Service Equity Analysis: Methodology Development*
- return the draft work program for Safety Analysis of Intersections near MAGIC Schools to the Unified Planning Work Program (UPWP) Committee for revision
- approve the minutes of the meeting of January 22

Meeting Agenda

1. Public Comments

A delegation representing the City of Woburn advocated for funding for the *New Boston Street Bridge Reconstruction* project in Woburn. The bridge has been closed since 1978.

Mayor Scott Galvin stated that the City of Woburn expects to request TIP funding for the project for 2018. The project is currently at the 25% design phase. He also spoke about the benefits of the project in terms of economic development potential for the city and the region, and for alleviating traffic.

Representative Jay Kaufman also discussed the regional nature of the project, which would restore a connection between Woburn and Wilmington, and provide a quicker route to the Anderson Regional Transportation Center (ARTC) for commuters traveling from nearby Interstates 93 and 95, and 495 to the north. He noted that the city designated an overlay district in that area in the past. Representative Kaufman also referenced the large number of aldermen, city employees, and legislators who have worked over the years to advance this project.

Senator Kenneth Donnelly spoke further about the economic development benefits of the project and what it would do to improve access to jobs for low income workers in the

region. He emphasized the need to provide access to transportation and employment centers in the Route 128 area, including the biotechnology and high technology companies on the 128 corridor. He noted that the money that is generated in this corridor produces the state aid that helps every other community in the Commonwealth.

Alderman Mike Raymond, who has been involved in the development of the project for a decade, stated that the bridge design includes an exit to the ARTC and a bikeway and walkway. He noted that the bridge will be an important part of development of this area and reduce travel time to the industrial and business areas by 15 to 20 minutes.

In response to a member's question, Jay Corey, Engineer for the City of Woburn, explained that the lands adjacent to the project area are owned by multiple property owners.

Representative Kaufman also voiced support for another project vying for TIP funding, the *Reconstruction on Massachusetts Avenue* project in Lexington.

David Knowlton, Engineer for the City of Salem, provided an update on the *Reconstruction of Canal Street* project in Salem, which includes a shared-use path. The city has resolved wetland permitting issues and has acquired almost all of the necessary right-of-way, including right-of-way from Salem State University. At the recommendation of its bicycle path committee, the city has added more access points to the shared-use path. The 75% designs are complete and the estimated advertising date is early June. He thanked the members for their support for adding the shared-use path to the project. In response to a member's question, he noted that the shared-use path portion of the project will be funded with Congestion Mitigation and Air Quality (CMAQ) program funds.

2. Chair's Report-David Mohler, MassDOT

There was none.

3. Committee Chairs' Reports

Sreelatha Allam, MassDOT, reported that the UPWP Committee met last month to discuss the draft Universe of Projects for the federal fiscal year (FFY) 2016 UPWP. That document is available on the MPO's website. The committee will meet next on March 19.

Lourenço Dantas, Massachusetts Port Authority, reported that the Congestion Management Committee may also be meeting on March 19. More details will be forthcoming.

4. Regional Transportation Advisory Council Report—Mike Gowing, Chair, Advisory Council

M. Gowing reported that the Advisory Council met in February. The Council will be hosting a Bus Carriers' Forum on March 11.

5. Executive Director's Report—Karl Quackenbush, Executive Director, Central Transportation Planning Staff (CTPS)

There was none.

6. Welcome from Host Municipality—Steve Magoon, Director of Community Development and Planning, and Assistant Town Manager, Town of Watertown

S. Magoon welcomed the MPO members to the Town of Watertown. He expressed appreciation for the MPO's support of past transportation projects in Watertown that were funded through the TIP process. He then gave an update on the housing and economic development activities underway in Watertown, which include the construction of approximately 1,200 new residential units on the Pleasant Street and Arsenal Street corridors, as well as office and commercial developments.

He then discussed the transportation needs associated with the new developments and the town's transportation priorities. He stated that Watertown is heavily reliant on MBTA bus service for public transportation, and that the town is pursuing creative partnerships to expand bus service. The town, where the Perkins School for the Blind is located, is particularly attuned to the need for enhancing ADA accommodations. Traffic calming measures have been incorporated in projects to make safer pedestrian crossings. In addition to pedestrian improvements, the town is also working to improve bicycle accommodations.

The town is currently designing a roadway project for a nearly two-mile stretch of Mt. Auburn Street, from Watertown Square to the Cambridge line. The project would reduce the four lane roadway to two lanes, add bicycle lanes, and provide pedestrian and ADA accommodations. The project design will be presented to the public in April. The town expects to submit the project for TIP funding in the near future.

7. Work Programs-Karl Quackenbush, Executive Director, CTPS

K. Quackenbush presented two work programs and members discussed them.

Title VI Service Equity Analysis: Methodology Development

The work program for *Title VI Service Equity Analysis: Methodology Development* involves reviewing the current state of the practice for Title VI service equity analyses and developing improved methods for conducting these analyses.

The MBTA is required to conduct a service equity analysis prior to implementing a major service change to determine if the change would produce disparate impacts on minority populations or disproportionate burdens on low-income populations. The Federal Transit Administration provides guidance regarding these analyses, however, the guidance is vague and inconsistent, and the analyses used to date have not addressed the magnitude of impact upon the populations of concern. Through this work program, staff will derive methods for determining magnitude of impact and improving the approach to conducting these analyses.

Discussion

Janice Ramsay, MBTA, inquired about the impetus for this work program. K. Quackenbush replied that the impetus came from the MPO staff and agency staff who work on Title VI related issues and who have an interest in developing a more meaningful way to measure service change impacts.

Motion

A motion to approve the work program for *Title VI Service Equity Analysis: Methodology Development* was made by the Metropolitan Area Planning Council (MAPC) (Eric Bourassa), and seconded by the Inner Core Committee (City of Somerville) (Tom Bent). The motion carried.

Safety Analysis of Intersections near MAGIC Schools

The work program for *Safety Analysis of Intersections near MAGIC Schools* is a GIS mapping project that would map the location of schools in the Minuteman Advisory Group on Interlocal Coordination (MAGIC) subregion along with locations of signalized intersections within two miles of the schools, and locations where crashes have occurred.

The impetus for this project came from the MPO staff's interactions with the MAGIC subregional group. This group expressed concern about the amount of traffic around schools and the safety problems it presents. Whereas many children are driven to school by their parents, there is an interest in finding ways to shift more of this traffic to bicycling and walking. The results of this work program will inform the public debate about this issue and ways to improve safety.

Discussion

Laura Wiener, At- Large Town of Arlington, encouraged staff to prepare a tool kit or recommendations that could help other school systems improve safety and alleviate traffic. K. Quackenbush remarked on the limits of the scope of this work program, but noted that a possible next step – as was discussed by the UPWP Committee – might involve researching children's routes to school compared with the location of intersections where crashes occur. He also noted the constraints due to the project budget.

L. Wiener asked about the number of schools that would be mapped for this project. Mark Abbott, Manager of Traffic Analysis and Design, MPO Staff, replied that there are about 85 public and private K-12 schools in the MAGIC subregion.

D. Mohler raised questions about the staff time and costs required for the mapping tasks. He also expressed concern that the final product would not include enough analysis to be particularly useful outside of the MAGIC subregion. He suggested that consideration be given to whether the budget should be increased to produce a more widely useful product. K. Quackenbush explained that the time allotted for GIS tasks is reasonable considering the need to update data coverages and create the two-mile buffer zones around the school locations. Regarding the utility of the products, he noted that he expects the project documentation to help viewers interpret the maps.

M. Gowing noted that the project idea was developed in the context of Safe Routes to School and Complete Streets. He expressed support for the idea of a tool that could be used to help address safety problems in other school systems.

Richard Reed, MAGIC (Town of Bedford), stated that the two-mile radius for the crash analysis is too large given the size of the towns; he suggested using a smaller radius. He also suggested that it would be more useful to provide the study results to municipal traffic managers, who are responsible for addressing traffic issues, rather than to school systems.

E. Bourassa recommended that staff explore using MAPC's Safe Routes to School "My School Commute" survey data. He suggested that the data may shed light on locations where students live within the school walk zone, but do not walk to school, and help to determine potential interventions that could improve safety.

Based on the members' comments, K. Quackenbush suggested returning to the UPWP Committee to revise the work program.

David Koses, At-Large City of Newton, suggested that the revised work program could examine municipal policies for busing and snow removal with a focus on reducing traffic near schools.

Richard Canale, At-Large Town of Lexington, expressed support for the work program as presented. He remarked that many parents have the perception that walking to school is dangerous and that communities do not have good access to crash data. He stated that this data is a real need for communities and that the work program represents a good starting point.

L. Dantas suggested that the MPO consider incorporating safety around schools as a factor in the TIP project evaluation criteria.

Tom Kadzis, City of Boston, recommended renaming the work program, if it gets revised, to better reflect the work effort of tabulating crash locations around schools.

Motions

A motion to approve the work program for *Safety Analysis of Intersections near MAGIC Schools* was made by the At-Large Town of Lexington (R. Canale), and seconded by the Minuteman Advisory Group on Interlocal Coordination (Town of Bedford) (R. Reed). The motion failed.

The following members voted in favor of the motion: At-Large Town of Lexington (R. Canale); MAGIC (Town of Bedford) (R. Reed); City of Boston (T. Kadzis); and the Regional Transportation Advisory Council (M. Gowing).

The following members voted against the motion: MBTA (J. Ramsay); At-Large Town of Arlington (L. Wiener); South Shore Coalition (Town of Braintree) (Melissa Santucci Rozzi); At-Large City of Newton (D. Koses); City of Boston (Boston Redevelopment Authority) (Lara Mérida); Inner Core Committee (City of Somerville) (T. Bent); MassDOT Highway Division (John Romano); MAPC (E. Bourassa); MassDOT (D. Mohler); MassDOT (S. Allam); At-Large City of Everett (Jay Monty); North Suburban Planning Council (City of Woburn) (Tina Cassidy); Massachusetts Port Authority (L. Dantas); Three Rivers Interlocal Council (Town of Norwood/Neponset Valley Chamber) (Tom O'Rourke); South West Advisory Planning Committee (Town of Medway) (Dennis Crowley); and MetroWest Regional Collaborative (Town of Framingham) (Dennis Giombetti).

A motion to return the work program for *Safety Analysis of Intersections near MAGIC Schools* to the UPWP Committee for revision (to discuss recasting the work and/or revising the budget) was made by MAPC (E. Bourassa), and seconded by the Three

Rivers Interlocal Council (Town of Norwood/Neponset Valley Chamber) (T. O'Rourke). The motion carried.

8. MPO Meeting Minutes-Maureen Kelly, MPO Staff

A motion to approve the minutes of the meeting of January 22 was made by MAPC

(E. Bourassa), and seconded by the Inner Core Committee (City of Somerville)

(T. Bent). The motion carried. The MassDOT Highway Division (J. Romano) abstained.

9. Transportation Improvement Program - Update on Project Evaluation Results—Sean Pfalzer, MPO Staff

S. Pfalzer provided an update on the evaluation process for highway projects being considered for the FFYs 2016-19 Transportation Improvement Program (TIP). A spreadsheet showing the evaluation results was provided to members.

In February, staff presented the Universe of Projects for the new TIP, which includes approximately160 projects. Of those projects, approximately 50 have functional design reports, which make them eligible for the TIP evaluation process. MPO and MAPC staff evaluated those projects in February based on the MPO's project evaluation criteria. Most of the projects were evaluated in previous TIP cycles, but there were four new projects to evaluate this year:

- Reconstruction of Route 126 in Ashland
- Rehabilitation of Beacham Street in Everett
- Resurfacing and Intersection Improvements on Route 16 in Milford
- Cochituate Rail Trail, Phase 2, in Natick

S. Pfalzer gave an overview of the evaluation scoring system, which covers six policy categories. The evaluation criteria address how well a project meets the MPO's goals.

The evaluation results will be posted on the MPO's website. Staff will be accepting feedback from members, municipal TIP contacts, and the public over the next two weeks. Municipal TIP contacts have been notified.

The evaluation results will inform the staff recommendation for the FFYs 2016-19 TIP and the development of the First Tier List of TIP projects. The First Tier List will include projects that scored highly in the evaluation process and that can be made ready for advertising in the timeframe of the TIP. When developing the staff recommendation for the TIP, staff will take into account the projects' status on the Long-Range Transportation Plan, geographic equity, and fiscal constraint, in addition to the evaluation results.

Discussion

D. Mohler raised questions about the scoring under the policy category of Environment and Climate Change. He asked how highway projects are able to earn the maximum number of points for improving air quality and reducing carbon dioxide. S. Pfalzer explained that projects that reduce traffic delay can score points in those categories. The calculations are made through an off-model spreadsheet analysis. A project will score points relative to the amount of carbon dioxide emissions that it will reduce.

Also referring to the Environment and Climate Change category, D. Mohler asked about the scoring for projects that reduce vehicle miles travelled (VMT) and vehicle hours travelled (VHT). He asked how a project would be scored if it would improve traffic flow, so that VHT were reduced. E. Bourassa noted that the spreadsheet analysis yields information on delay; the regional travel model would have to be used to determine VHT change. S. Pfalzer added that points are awarded in this category based on whether the project provides new transit access or bicycle and pedestrian access.

E. Bourassa suggested that staff think about a future UPWP study that could refine the air quality analysis.

E. Bourassa inquired as to why the *Reconstruction of Causeway Street* project in Boston is no longer among the list of TIP projects. T. Kadzis explained that the project no longer requires TIP funding because it will be funded by a federal TIGER (Transportation Investment Generating Economic Recovery) grant award for the *Connect Historic Boston* project.

E. Bourassa asked if mitigation funds from the casino development in Everett are paying for the *Rehabilitation of Beacham Street* project. J. Monty replied that the mitigation funds are paying for the intersection of Broadway and Beacham Street.

D. Giombetti returned to the discussion to the Environment and Climate Change category of the evaluation criteria. He noted that two of the evaluation measures – for air quality improvement and carbon dioxide reduction – are closely correlated. He expressed concern that a disproportionate weight is given to projects that score highly in these categories because they are getting double the amount of points.

E. Bourassa then noted that the MPO will be re-evaluating the TIP evaluation criteria later this year.

L. Dantas raised a question about an evaluation criterion in the System Preservation, Modernization and Efficiency category that awards points to projects that improve substandard signal equipment condition. He inquired as to whether a project that is adding signals where there are none would earn points in this category. S. Pfalzer noted that such a project could earn points under another criterion for improving traffic signal operations. T. O'Rourke noted that the *Intersection Improvements at Route 1A* project in Norwood will add new signals and that the project did receive high scores under both criteria.

M. Gowing asked if a project could receive a negative score under the category for improving air quality. He also remarked on the seeming incongruity that a highway project can receive a higher score under this category than a bicycle trail project.S. Pfalzer explained that negative scores are not given; rather a project that degrades air quality would get a score of zero. Highway projects may get higher scores than trail projects because the air quality analysis captures the reduction in emissions that projects would effect.

D. Crowley raised the issue about communities that are spending local dollars to design projects and that may – if they are not highly rated in the evaluations – have to wait many years before receiving TIP funding. D. Mohler addressed this concern by pointing out that communities have the option of challenging their TIP evaluation scores. He noted that the TIP evaluation process is one input to the MPO's decision-making process, but does not supplant the MPO's decision-making. T. Kadzis added that project proponents have the opportunity to advocate about the benefits of their project before the MPO. J. Romano also noted that geographic equity is another factor beyond the evaluation scores that the MPO considers when selecting projects for TIP funding.

Members then heard from a member of the public. Arthur Strang, Cambridge resident, noted that intersection projects can receive points for reducing emissions, but those air quality benefits will be transitory, whereas the air quality benefits of transit projects will be permanent. He suggested that the MPO take this into account in the evaluations.

10.Long-Range Transportation Plan— Karl Quackenbush, Executive Director, CTPS; Scott Peterson, Director of Technical Services, MPO Staff; and Eric Bourassa, Transportation Director, MAPC

MPO and MAPC staff discussed aspects of the development of the Long-Range Transportation Plan (LRTP).

Needs Assessment Chapters

S. Peterson addressed questions about the draft Chapters 2 (Land Use in the Boston Region MPO) and Chapter 3 (Travel Patterns in the Boston Region MPO) of the LRTP Needs Assessment. These draft chapters were distributed to members in February.

S. Peterson noted that Chapter 3 includes model results of trip flows between various sectors; land use assumptions provided by MAPC were included in the modeling. The Seaport area of Boston has been included in the Boston Business District for the purposes of modeling because of the amount of development occurring there.

Today, staff also distributed draft Chapter 1 (Introduction), Chapter 4 (Regionwide Needs Assessment), and Appendix A (Policies Guiding the MPO) for MPO members to review. There will be a question and answer time for these draft chapters at the MPO meeting on March 19.

Discussion

D. Mohler asked whether the land use assumptions included the casino development in Everett. S. Peterson replied that the casino development was not included, but staff expects to incorporate new information that has been released into the final preferred LRTP. E. Bourassa added that the casino is not expected to generate significant traffic at peak travel times. S. Peterson noted that in the environmental document for the development, the casino proponent estimates that most trips to and from the casino will occur off-peak, on the weekend. Staff is conducting research to determine if the estimated trip patterns are consistent with those at other casinos.

J. Ramsay suggested that staff look at travel patterns to the casino during the weekday considering that many people travel to casinos mid-week. S. Peterson noted that staff is digesting information that is being released about the casino development which will have an impact on the trip generation estimates. This information includes the number of jobs and hotel rooms, and means of accessing the casino (by bus or car, for example). Staff will have a better representation of weekday trip estimates in a couple of months.

D. Crowley pointed out that a listing on page 35 of Chapter 4 incorrectly identified Route 9 in Framingham as Route 3. Staff will make that correction.

Report on MAPC Winter Council Meeting

K. Quackenbush and E. Bourassa gave an overview of the MAPC Winter Council Meeting in February, which was attended by approximately 120 people. The event featured an interactive program about prioritizing MPO discretionary funding for the LRTP.

During a tabletop activity, participants were asked to prioritize the estimated \$2 billion of MPO discretionary funding according to various investment categories and to reach consensus with others at their table. The investment categories were as follows: Intersection Improvements; Complete Streets; Bicycle Network and Pedestrian

Connections; Major Infrastructure; Community Transportation and Parking; and Flex to Transit.

The results of the activity revealed that participants had an interest in investing less in the Major Infrastructure program and more in the programs for Flex to Transit, Community Transportation and Parking, and Bicycle Network and Pedestrian Connections, as compared to past MPO spending patterns.

Members were provided with a summary of the event and charts that described the results of the tabletop activity.

Discussion

J. Monty remarked that some participants saw an overlap between the Complete Streets and Intersection Improvement programs.

Referencing a pie chart on the summary handout, M. Gowing noted that the distribution of spending that participants preferred differs greatly from the actual past distribution of MPO funds.

D. Mohler asked which projects are represented in the Major Infrastructure program category in the chart showing past MPO spending. S. Pfalzer stated that it is made up of projects included in the LRTP.

In response to a question from D. Crowley, E. Bourassa noted that about 68 percent of the meeting attendees were from the Inner Core subregion. The Maturing Suburbs were well represented, but the Regional Urban Centers were under-represented. These results came from key pad polling at the meeting.

11. TIP Before and After Study—Andrew Nagle, MPO Staff

A. Nagle presented the results of the *TIP Project Impacts Before-After Evaluation* study. This project was in the FFYs 2014 UPWP.

The objective of the study was to evaluate the effect of safety and operation improvements of completed TIP projects. Staff analyzed four projects, which include 11 intersections, that were completed in 2009 and 2010. (These four projects were selected from among 13 TIP-funded projects. Staff excluded bridge, highway-only, and resurfacing projects.) The four projects were as follows:

- Pleasant Street (Route 60) in Belmont
- Route 138 in Canton

- King Street at Interstate 495 (Union Street/Upper Union Street/Constitution Boulevard) in Franklin
- Washington Street (Route 53) at Old Washington Street and Pond Street in Hanover

The analysis compared data from the projects' functional design reports (before data) to data collected in the field after the projects were implemented (after data). Staff analyzed safety data (including crash rates, number of crashes, and crash type), traffic operations (for delay and level of service), and traffic volumes.

The safety analysis, which involved creating collision diagrams for each intersection, revealed that the implementation of the projects had the following effect:

- crash rates decreased on average by 0.4 crashes per million entering vehicles
- the frequency of crashes decreased
- angle collisions decreased after implementing left-turn phasing improvements
- personal injury crashes decreased at nine of the 11 intersections
- on Route 53 in Hanover, there was a decrease in rear end crashes and an increase in angle crashes associated with the two-way left-turn lane

The results of the traffic operations analysis showed that the projects made significant improvements to traffic operations. Delays decreased on average by 74.6 seconds per vehicle in the AM peak hours, and by 85.0 seconds in the PM peak hours. Notable mitigation strategies included providing an advanced left-turn phase, a right-turn overlap phase with non-conflicting left turns, and traffic signal coordination and interconnectivity.

The analysis of traffic volumes showed a slight increase in volumes during the peak travel hours (2 percent in the AM and 6 percent in the PM), and a decrease in volumes for some movements. The actual change in volumes was much lower than the change predicted prior to the project implementation. Volumes were predicted to increase on average by 19 percent in the AM peak hours and by 16 percent in the PM peak hours.

The following conclusions were made from the study:

- crash reduction for the study areas follow trends similar to national crash modification factors
- optimal signal timings and phasing are critical for safe and efficient traffic operations
- there was minimal pedestrian and bicycle data in the projects' functional design reports, but there were considerable efforts to accommodate and improve pedestrian and bicycle travel through these projects

Other suggested safety improvements to consider for future projects include the following:

- updating signing and striping
- improving traffic signal visibility
- providing accessible crosswalks and sidewalks
- updating signals to provide actuated signal control

Discussion

T. Kadzis inquired about the discrepancy in the projected and observed traffic volumes. A. Nagle noted that the functional design reports made over-projections of the volumes; in some cases the over-projections could be attributed to planned development that did not occur in the area.

L. Wiener asked if the signal timing improvements from these projects were all upgrades to existing signals or if new signals were installed. A. Nagle explained that there were significant signal modifications for phasing and timing and the addition of new poles. New signals were installed at two intersections along King Street in Franklin. The signals at the Belmont intersections were modified.

In response to a question from Steve Olanoff, Three Rivers Interlocal Council (Town of Norwood/Neponset Valley Chamber), A. Nagle noted that dynamic "no right turn on red" signs were installed at intersections in Belmont. There were no data available on pedestrian crashes at those locations, but these signs have been shown nationally to have pedestrian safety benefits.

12. Central Artery Backcasting Study—Scott Peterson, Director of Technical Services, MPO Staff

S. Peterson presented the results of the *Central Artery Backcasting* study, which examined, in retrospect, the effect on air quality, vehicle miles traveled (VMT), and mode shift resulting from the construction of the *Central Artery/Tunnel* project and associated mitigation projects. The impetus for the study was the 2013 transportation refinance legislation that directed MassDOT to examine the project and mitigation projects against those performance measures.

At the request of MassDOT, CTPS used the MPO's travel demand model to conduct the analysis. Data from the project's original final environmental impact report (FEIR) was used as a benchmark. The FEIR, prepared in 1982, used a forecast year of 2010.

The *Central Artery/Tunnel* project was completed in 2007. Completed mitigation projects include the HOV and zipper lanes on the Southeast Expressway, commuter rail

line extensions, the Silver Line, and other transit service additions. Mitigation projects that are not yet complete include the Green Line Extension and the construction of Blue Hill Avenue Station on the Fairmount commuter rail line.

The study examined four scenarios for the study area covered in the FEIR and a wider area in eastern Massachusetts:

- The existing conditions as of 2012
- Conditions as if the Central Artery/Tunnel project was not constructed
- Conditions as if the Central Artery/Tunnel project and mitigation projects were not constructed
- Conditions as if the *Central Artery/Tunnel* project was constructed but mitigation projects were not constructed

The study results were as follows:

- The mitigation projects alone reduced 400,000 miles of VMT, providing a significant reduction in emissions (VMT serves as a proxy for air quality)
- The *Central Artery/Tunnel* project alone increased VMT by 91,000 miles for eastern Massachusetts; air quality improved slightly, however, because vehicle speeds increased
- There was a net increase of VMT in the urban core area and a reduction in VMT beyond the core area; this is due to more vehicles traveling through Boston and new transit options that reduced vehicle usage, and because the tunnel provided opportunities for shorter trip lengths through Boston (previously many motorists would avoid driving on the elevated structure on the artery)
- The net effect of the *Central Artery/Tunnel* and mitigation projects was a VMT reduction of 292,000 miles
- There was a 0.2 percent increase in the transit mode share as a result of all the projects

The original FEIR had under-estimated population growth and over-estimated employment growth compared to the actual growth in 2010. The FEIR did, however, predict a net increase in VMT, which is close to the estimated VMT analyzed by CTPS.

In conclusion, the Central Artery/Tunnel project and associated mitigation projects reduced congestion. While VMT increased in the core study area, it decreased overall in eastern Massachusetts. The mitigation projects were significant factors in reducing VMT and emissions of pollutants.

13.Members Items

There were none.

14.Adjourn

A motion to adjourn was made by the MAPC (E. Bourassa), and seconded by the MassDOT Highway Division (J. Romano). The motion carried.

Attendance

Members	Representatives and Alternates
At-Large City (City of Everett)	Jay Monty
At-Large City (City of Newton)	David Koses
At-Large Town (Town of Arlington)	Laura Wiener
At-Large Town (Town of Lexington)	Richard Canale
City of Boston (Boston Redevelopment Authority)	Lara Mérida
City of Boston (Boston Transportation Department)	Tom Kadzis
Inner Core Committee (City of Somerville)	Tom Bent
Massachusetts Department of Transportation	David Mohler
	Sreelatha Allam
MassDOT Highway Division	John Romano
Massachusetts Bay Transportation Authority (MBTA)	Janice Ramsay
Massachusetts Port Authority	Lourenço Dantas
Metropolitan Area Planning Council	Eric Bourassa
MetroWest Regional Collaborative (Town of Framingham)	Dennis Giombetti
Minuteman Advisory Group on Interlocal Coordination (Town of Bedford)	Richard Reed
North Suburban Planning Council (City of Woburn)	Mayor Scott Galvin Tina Cassidy
Regional Transportation Advisory Council	Mike Gowing
South Shore Coalition (Town of Braintree)	Melissa Santucci Rozzi
South West Advisory Planning Committee (Town of Medway)	Dennis Crowley
Three Rivers Interlocal Council (Town of Norwood/NVCC)	Tom O'Rourke
	Steve Olanoff

Other Attendees	Affiliation
Don Cooke	Vanasse Hangen Brustlin, Inc.
Jay Corey	City of Woburn, Engineer
Kenneth Donnelly	State Senator
Kristina Johnson	Howard-Stein/Hudson
Jay Kaufman	State Representative
David Knowlton	City of Salem
Steve Magoon	Town of Watertown
Mike Raymond	City of Woburn, Alderman
Nick Rubino	AECOM
Matt Simpson	
Arthur Strang	Cambridge resident
Brandon Wilcox	Federal Highway Administration

MPO Staff/Central Transportation Planning Staff

Karl Quackenbush, Executive Director Robin Mannion, Deputy Executive Director Maureen Kelly Elizabeth Moore Andrew Nagle Scott Peterson Sean Pfalzer Natalie Raffol Pam Wolfe