

Memorandum for the Record

Boston Region Metropolitan Planning Organization Meeting

April 3, 2014 Meeting

10:00 AM – 12:50 PM, State Transportation Building, Conference Rooms 2&3, 10 Park Plaza, Boston

Clinton Bench, Chair, representing Richard Davey, Secretary and Chief Executive Officer, Massachusetts Department of Transportation (MassDOT)

Decisions

The Boston Region Metropolitan Planning Organization agreed to the following:

- Approve Amendment Two to the federal fiscal years (FFYs) 2014-17 Transportation Improvement Program (TIP)
- Approve the minutes of the meeting of March 20 as amended

Meeting Agenda

1. Public Comments

Rafael Mares, Conservation Law Foundation, commended the MPO staff for considering the greenhouse gas impacts of projects that are being evaluated for inclusion in the TIP.

Kristin Guichard, Town of Acton, thanked the MPO and the MPO staff for their support for the *Bruce Freeman Rail Trail* and *Assabet Rail Trail* projects. She provided an update on the status of the two projects. The 100% design plans for the *Bruce Freeman Rail Trail, Phase 2A* project have been submitted to MassDOT. The Town of Acton has brought on a new engineering company, UPI, which is working on developing the 75% design plans for the *Assabet Rail Trail* project. The town is using local funds to advance the project while awaiting the passage of the state's transportation bond bill.

David Daltorio, Town of Hopkinton, gave an update on Hopkinton's *Downtown Revitalization* project, which will improve the intersections of Routes 85 and 135. The 25% design plans are being submitted to MassDOT, and a design public hearing will be held in a couple of months. The town will be using its own funds to advance the project to the 100% design phase over the next year. D. Daltorio asked the MPO to continue to consider funding smaller projects.

2. Chair's Report—*Clinton Bench, MassDOT*

C. Bench reported on the work of the Project Selection Advisory Council, which was formed as an outcome of state legislation to refine criteria used to prioritize transportation projects. The Council has adopted a set of goals and objectives, and risk factors to consider when developing performance measures that will be proposed for use in a formula for selecting projects for MassDOT's Capital Investment Plan (CIP). The Council affirmed that it will take a multi-modal prospective as it develops criteria for project selection, and not limit the scope of its work to highway projects. The Council will have two more working meetings, and then public hearings will be held in May. C. Bench asked staff to distribute a notice announcing the next meetings of the Council when the dates are available.

He also discussed Governor Deval Patrick's recent trade mission to Mexico. The Governor and MassDOT Secretary Richard Davey visited the Metrobús bus rapid transit (BRT) system in Mexico City and are now interested in exploring how similar BRT strategies could be employed in Massachusetts. The Barr and Rockefeller Foundations are organizing a BRT study group in the Boston Region and are expected to make recommendations regarding a possible BRT corridor to MassDOT later this year.

Discussion

David Koses, At-Large City of Newton, inquired about the membership of the Council and how their project selection process would interface with the MPO's process. C. Bench reported that the members include the following: Secretary Davey (Chair), David Mohler, and Frank DePaola of MassDOT; Linda Dunleavy representing regional planning agencies; Jim Lovejoy representing the Massachusetts Municipal Association; John Pourbaix; Steve Silveira; and former Secretary of Transportation Jeffrey Mullan. While the Council did not make any statements about how their selection process would interface with the MPOs' processes, by virtue of members who have been active with the MPOs, the MPOs' selection process will be among the factors informing the Council's decisions. The Council is expected to comment in the future about how their formula should interact with the MPOs' processes.

3. Committee Chairs' Reports—*Sreelatha Allam, MassDOT*

The Unified Planning Work Program (UPWP) Committee will meet today following the MPO meeting. On the agenda is a discussion of the draft FFY 2015 budgets for the Central Transportation Planning Staff (CTPS) and the Metropolitan Area Planning Council (MAPC).

4. Regional Transportation Advisory Council Report—*David Montgomery, Chair, Regional Transportation Advisory Council*

D. Montgomery reported that Council members have been discussing the development of subcommittees and how the Advisory Council can better advise the MPO.

He also noted that the next meeting of the Advisory Council will be on April 9 at 3:00 PM. Scott Peterson, MPO staff, will give an update on the development of the MPO's Long-Range Transportation Plan (LRTP) and the use of demographic data in the MPO's travel demand model. Meghna Hari, MAPC, will give a presentation on the development of demographic data used for the LRTP. The Advisory Council's TIP and UPWP Committee will meet prior to the general meeting at 1:00 PM. This will be the first meeting of this committee.

D. Montgomery also reminded members that a survey has been distributed to them.

5. Executive Director's Report—*Karl Quackenbush, Executive Director, Central Transportation Planning Staff*

K. Quackenbush reminded members that he is available to meet with them individually to give them an overview of the MPO and discuss any concerns.

C. Bench then asked members if they had any more thoughts about a topic raised at the meeting of March 20 when members discussed possible adjustments to the topics covered during MPO meeting discussions. He noted that, at the March 20 meeting, some members expressed interest in spending more time in discussion of policy directives, especially as regards the LRTP, and less time on the presentation of UPWP work programs. He noted that members would still be interested in hearing about the products of work programs, especially if those studies have implications for the TIP or give an indication of the effectiveness of past MPO decisions. Members did not make any more comments on this subject.

6. Amendment Two to the FFYs 2014-17 Transportation Improvement Program—*Sean Pfalzer, MPO Staff*

C. Bench introduced this agenda item by giving an overview of the TIP, which is a four-year programming document that lists projects that are regionally significant and that will be funded with federal dollars. The TIP is based on the federal fiscal year, which begins in October. The FFYs 2014-17 TIP is the document that is currently active (not to be confused with the FFYs 2015-18 TIP which is under development and will be addressed in Agenda Item #8).

S. Pfalzer then gave an overview of Amendment Two to the FFYs 2014-17 TIP. The draft amendment was released for a 30-day public review period in February; the review period closed on April 1. The MPO received no comments from the public.

The amendment would program grant funds for the purchase of a ferry for the Winthrop Inner Harbor ferry service, and earmarked funds for the construction of the Medford Clippership Linear Park and Bikeway in Medford. It would also program funds for the MetroWest Regional Transit Authority's paratransit service and the rehabilitation of the authority's new Intermodal Transit Center in Framingham.

A motion to approve Amendment Two to the FFYs 2014-17 TIP was made by the MBTA Advisory Board (Paul Regan), and seconded by MAPC (Eric Bourassa). The motion carried.

7. MPO Meeting Minutes—*Maureen Kelly, MPO Staff*

A motion to approve the minutes of the meeting of March 20, with a correction recommended by the Three Rivers Interlocal Council (Town of Norwood) (Steve Olanoff), was made by the MassDOT Highway Division (John Romano), and seconded by the North Suburban Planning Council (City of Woburn) (Tina Cassidy). The motion carried. The following members abstained: Inner Core Committee (City of Somerville) (Tom Bent) and the MBTA Advisory Board (Paul Regan).

8. First Tier List of Highway Projects and Development of FFYs 2015-18 Transportation Improvement Program—*Sean Pfalzer, MPO Staff*

S. Pfalzer gave a PowerPoint presentation and discussed the development of the FFYs 2015-18 TIP and the challenges staff faced in preparing a staff recommendation for the programming projects over the next four years. The information he reported is also available in the memorandum titled, "FFYs 2015-18 Transportation Improvement Program Highway Target Funding."

Background

The process to develop this TIP began in November 2013 when staff conducted outreach to municipalities in the region and began developing a list of projects for consideration by the MPO. Staff evaluated proposed projects in February and showed the results to the MPO in March. Some evaluation scores were then updated based on new information about certain projects made available by municipalities. Also in March, MassDOT provided funding targets to the MPO. Staff used those targets to prepare a First Tier list of projects – which are projects that scored well in the evaluation process and could be made ready in the timeframe of the TIP – and began developing a staff recommendation for the TIP. It was a challenge to develop a fiscally constrained

recommendation, however, because of increased to project costs and schedule changes, and current and ongoing funding commitments.

Available Funding

The Federal Highway Administration (FHWA) will provide approximately \$600 million per year to the Commonwealth for transportation projects. Of that amount, about \$77 million will be applied as repayments for MassDOT's Accelerated Bridge Program. The remaining \$523 million is available to the Commonwealth's MPOs; these federal dollars would be matched by \$120 million of state funds. These funds will be applied to the following funding categories within the Highway Program: Bridge Program, Statewide Items, Major Infrastructure, and Regional Targets. MPOs have discretion to program the portion of funds designated for the Regional Targets category.

The Regional Target funding available to the Boston Region MPO over the four years of the TIP is \$68 million in FFY 2015 and \$75 million each in FFYs 2016 through 2018. These funds must be sub-allocated to meet targets for funding programs within the Regional Target Program. The sub-categories include the Congestion Mitigation and Air Quality Improvement Program (CMAQ), for projects that demonstrate air quality benefits; Highway Safety Improvement Program (HSIP), for projects that aim to reduce highway injuries and fatalities; and Transportation Alternatives Program (TAP), for projects that implement bicycle and pedestrian facilities. The targets for CMAQ and HSIP in this TIP cycle are slightly reduced from the previous TIP cycle, and the target for TAP is increased.

Project Cost Increases

In developing the staff recommendation, staff first addressed project cost increases for six projects programmed in the currently active FFYs 2014-17 TIP. Figures were provided showing the cost increases, the percent of the increases, and the funding shortfalls. The projects are as follows:

- *Beverly – Reconstruction and Signal Improvements on Rantoul Street/Route 1A*
- *Hanover – Reconstruction of Route 53*
- *Salem – Reconstruction on Canal Street*
- *Weymouth and Abington – Reconstruction of Route 18*
- *Needham and Wellesley – Route 128 Add-a-Lane*
- *Medway – Reconstruction of Main Street/ Route 109*

The combined funding shortfall for these projects totals \$36 million.

Project Schedule Changes

Next, staff addressed changes to projects' schedules in the FFY 2014-17 TIP. The *Salem – Reconstruction on Canal Street* project was programmed in FFY 2014, but may not be ready for advertising this year due to right-of-way issues. The MassDOT Highway Division recommended that the *Brookline – Intersection and Signal Improvements at Route 8 and Village Square* and the *Marlborough – Reconstruction of Route 85* projects be reprogrammed in future years as the design schedule is not consistent with programming in FFY 2015. MassDOT also recommended that the *Bedford, Billerica, and Burlington – Middlesex Turnpike Improvements (Phase 3)* be reprogrammed from FFY 2016 to FFY 2017 because significant bridge work still needs to be completed.

Current and Ongoing Commitments

Then staff accounted for the MPO's ongoing commitment to the *Green Line Extension, Phase 2* project. The MPO programmed \$8.1 million in FFY 2016 and \$29.9 million in FFY 2017. Future commitments are \$44.2 million in FFY 2018 with the remaining \$107.9 million in outer years.

TIP Programming: Overview of Issues Faced

Members were provided with a spreadsheet showing current and proposed project funding across FFY 2014 to FFY 2018.

For the FFY 2014 element, staff proposed to move the *Salem – Reconstruction on Canal Street* project from the FFY 2014 element to the FFY 2015 element because of its right-of-way issues and because of several cost increases to projects in the FFY 2014 element. The balance of funds remaining in FFY 2014 was added to the *Needham and Wellesley – Route 128 Add-a-Lane* project. Staff also recommended changing the funding category for the *Arlington – Bikeway Connection at Intersection of Routes 3 and 60* from CMAQ to HSIP to meet the target for that category.

For the FFY 2015 element, staff recommended moving the *Brookline – Intersection and Signal Improvements at Route 8 and Village Square* and the *Marlborough – Reconstruction of Route 85* projects from the FFY 2015 element to the FFY 2016 element. Also, the cash flows for the *Weymouth and Abington – Reconstruction of Route 18* project were reduced because the project will be advertised later in FFY 2015. The *Medway – Reconstruction of Main Street/Route 109* was moved forward into the FFY 2015 element because there was available funding; the 75% design plans have been submitted for this project.

In the FFY 2016 element, the cash flows for the *Route 18* project increased. Also, the *Middlesex Turnpike* project was moved from the FFY 2016 element to the FFY 2018 element because of the project's design schedule. Staff then recommended increasing funding for the *Route 128 Add-a-Lane* project in that year and moving up the *Southborough – Reconstruction of Main Street (Route 30)* project into the FFY 2016 element.

In FFY 2017, the cash flows for the *Route 18* project increased. Because of other commitments in FFY 2017, there was not enough funding to accommodate the *Middlesex Turnpike* project in that year. There is still a nearly \$2.4 million shortfall in FFY 2016.

In FFY 2018, to address the cost increase for the *Route 128 Add-a-Lane* project, \$12 million was programmed for that project. Also, \$44.2 million was programmed for the *Green Line Extension, Phase 2* project. The *Middlesex Turnpike* was also programmed in this year. These actions leave a \$4.7 million shortfall in FFY 2017.

As proposed, there is an overall \$7.1 million shortfall in this TIP.

Implementation of the LRTP

Five projects in this TIP are projects that are programmed in the Long-Range Transportation Plan (LRTP):

- *Needham and Wellesley – Route 128 Add-a-Lane*
- *Weymouth and Abington – Reconstruction of Route 18*
- *Green Line Extension, Phase 2*
- *Woburn – Reconstruction of Montvale Avenue*
- *Bedford, Billerica, and Burlington – Middlesex Turnpike Improvements (Phase 3)*

A chart and graph were shown to illustrate the portion of TIP funding anticipated to be applied to these LRTP projects over the course of the TIP. In FFY 2018 the MPO has overcommitted to LRTP projects with over 100% of that year's funding being applied to the *Route 128 Add-a-Lane*, *Middlesex Turnpike*, and *Green Line Extension, Phase 2* projects.

Staff has some concerns about the schedule for the *Green Line Extension, Phase 2* project. The project is in the early planning stages and design has not yet begun. The project cost could increase in future years as the project design is developed.

First Tier List of Projects

Staff developed a First Tier list of projects that scored well in the project evaluations and that could be made ready for implementation in the timeframe of the FFY 2015-18 TIP. These projects are proposed as the primary source from which the MPO can draw when selecting projects for programming, when funding is available.

The First Tier projects are as follows:

- *Boston – Reconstruction of Causeway Street*
- *Lexington – Reconstruction on Massachusetts Avenue, from Marrett Road to Pleasant Street*
- *Natick – Reconstruction of Route 27 (North Main Street), from North Avenue to the Wayland Town Line*
- *Hopkinton – Signal and Intersection Improvements on Route 135*
- *Natick – Bridge Replacement, Route 27 over Route 9 and Interchange Improvements*
- *Everett – Reconstruction of Ferry Street*
- *Boston – Improvements on Boylston Street, from Intersection of Brookline Avenue and Park Drive to Ipswich Street*
- *Walpole – Reconstruction on Route 1A (Main Street), from the Norwood Town Line to Route 27*
- *Hingham – Reconstruction and Related Work on Derby Street from Pond Park Road to Cushing Street*
- *Newton – Reconstruction and Signal Improvements on Walnut Street, from Homer Street to Route 9*

Discussion

Joe Cosgrove, MBTA, asked if the *Causeway Street* project is being funded with a federal TIGER grant. S. Pfalzer replied that improvements to Causeway Street are occurring through the TIGER grant for the *Connect Historic Boston* project. Tom Kadzis, City of Boston, added that the city expects the TIGER grant to fund most of the improvements to Causeway Street. While the Causeway Street project should not be removed from the Universe of TIP projects, the city does not expect to advance the TIP project in FFY 2018. The project could be removed from this First Tier list.

Dennis Giombetti, MetroWest Regional Collaborative (Town of Framingham), asked whether staff consulted with municipalities regarding the readiness of their projects. S. Pfalzer replied that all municipalities were notified. Staff had in-depth discussions with some municipalities and discussions with the MassDOT Highway Division about project readiness. In some cases, staff's proposed changes were supported by both the

municipalities and MassDOT. In cases where there was a difference of opinion, staff accepted MassDOT's position.

D. Giombetti expressed concern that few projects can be funded in the outer years of the TIP (FFYs 2017 and 2018) and that large portions of the region will not be getting resources.

Roy Sorensen, Minuteman Advisory Group on Interlocal Coordination (Town of Bedford), expressed concern on behalf of the towns of Bedford, Burlington, and Billerica about the proposed delay in funding the *Middlesex Turnpike* project to FFY 2018 or beyond. He distributed a letter to members that discusses the communities' concerns and requested that the MPO discuss this issue further in upcoming meetings. Noting MassDOT's concern about the design for a bridge on the Turnpike, he pointed out that the design is for a culvert and retaining wall. The towns' consultant reports that the project will be ready for advertisement in FFY 2016, he said. He then discussed the importance of the corridor for the region, and the investments that have been made in the corridor to generate economic vitality. He also noted that Phase 2 of the project is expected to be completed this year.

David Koses, At-Large City of Newton, asked if the Towns of Brookline and Marlborough agree with the one year delay in programming of their projects. He also asked if there a readiness issue with those projects. S. Pfalzer replied that the MassDOT Highway Division has concerns about the readiness of the projects for advertisement in FFY 2015. MassDOT and FHWA would like projects that are programmed in the first year of the TIP to have already had a design public hearing. Neither of the projects have had a hearing yet. D. Koses then suggested that representatives of the Towns of Brookline and Marlborough be invited to discuss these concerns at the next MPO meeting, before the MPO votes on the TIP.

D. Montgomery noted that some of the projects on the First Tier list cost more than \$10 million, but are not programmed in the LRTP. (Projects costing over \$10 million or that add capacity to the transportation system must be programmed in the LRTP.) C. Bench confirmed that the MPO could not endorse a TIP that programs those high-cost projects, if they are not already programmed in the LRTP.

E. Bourassa also pointed out that the MPO is limited when programming LRTP projects in the TIP because the time band in which the project is programmed in the LRTP must correspond with the timeframe in which the project is programmed in the TIP. For example, the *Newton and Needham – Reconstruction of Highland Avenue, Needham Street and Charles River Bridge* project received a high score in the TIP evaluation

process, but is not eligible for programming in the FFY 2015-18 TIP because it is programmed in the FFYs 2021-25 time band of the LRTP. He suggested that members be aware of this inconsistency. C. Bench asked staff to consider this issue as the TIP development process continues.

J. Romano and D. Giombetti noted that, because of the funding shortfall, none of the First Tier projects can be programmed in the TIP unless members first chose to remove a project from the working draft of the TIP.

Tom O'Rourke, Three Rivers Interlocal Council (Town of Norwood), noted a discrepancy on the design status of the *Route 1A* project in Walpole. He also noted that some projects that are now over \$10 million may have cost less when originally programmed on the TIP.

C. Bench suggested that FHWA consider changing the \$10 million cost requirement for LRTP programming.

Richard Canale, At-Large Town of Lexington, asked that staff post the materials distributed today and the PowerPoint presentation on the MPO's website.

R. Canale asked if there are recommendations for addressing the funding shortfall. C. Bench then asked staff to work with the MBTA staff to explore possibilities for value engineering the *Green Line Extension, Phase 2* cost estimate to see if the cost can be adjusted for FFY 2018.

For the benefit of members who have recently joined the MPO, Dennis Crowley, South West Advisory Planning Committee (Town of Medway), asked for a recap of the MPO's past commitments to the *Green Line Extension, Phase 2* project. J. Cosgrove noted that the MPO approved \$200 million for the Phase 2 project in the LRTP and that the project funding timeline would extend from FFY 2016 until 2021. (The first phase of the project will extend the Green Line to Union Square and Medford Hillside. MassDOT is applying for federal New Starts funding for this portion of the project. The portion that the MPO has committed to fund would extend the line to Route 16 in Medford.)

D. Crowley asked if projections were available for *Green Line Extension, Phase 2* spending in FFY 2019 through 2021, and how much funding would be available for other MPO projects in those years. C. Bench noted that projections for preliminary planning cash flows are available. J. Cosgrove noted that those projections will likely change as the project design begins and more details become available. The balance beyond FFY 2018 is \$107.9 million, so the projections for FFYs 2019 through 2021 is approximately \$36 million per year.

J. Romano asked if funding for any other projects, besides the *Green Line Extension, Phase 2*, are expected to extend beyond FFY 2018. S. Pfalzer confirmed that no other projects would roll over.

T. O'Rourke asked if federal New Starts funding would reduce the MPO's cost of the *Green Line Extension, Phase 2* project. C. Bench clarified that New Starts funding will be for the Phase 1 only.

Noting that the working draft of the TIP shows a deficit in FFYs 2017 and 2018, Lourenço Dantas, Massachusetts Port Authority, raised a question about what guidance members could provide to staff today. C. Bench suggested that staff could gather better information on cash flows for the *Green Line Extension, Phase 2* and other projects over the next few weeks. L. Dantas suggested ending debate today, until those refined figures are available. C. Bench noted that it is important for the MPO to debate this issue since FFY 2016 will be the first year that the *Green Line Extension, Phase 2* will be programmed and that the project will have a substantial impact on the TIP. He voiced MassDOT's support for the *Green Line Extension, Phase 2* project.

R. Canale suggested that staff review the minutes of the meeting where the MPO voted to approve funding for the *Green Line Extension, Phase 2* and prepare a summary characterizing the conversation.

R. Sorensen asked when the MPO will vote on the TIP. S. Pfalzer stated that the vote to release the draft TIP for public review is scheduled for May 15.

J. Romano reiterated that the working draft of the TIP does not include any new projects. If members want to add a new project, they must remove a project that is already programmed.

D. Koses noted that, as projected, about half of the TIP funding available each year from FFYs 2019 to 2021 would be directed to the *Green Line Extension, Phase 2* project. He expressed concern that cost overruns on the project could consume the remaining funds in those years.

E. Bourassa asked for a clarification of the TIP development schedule. P. Wolfe reported that the MPO is scheduled to vote to release the TIP for public review on May 15. The MPO can further discuss the TIP at the meetings of April 17 and May 1.

T. Bent reminded the members of the importance of remaining consistent when making programming decisions that affect municipal and state planning. He remarked upon the MPO's decision to fund the *Concord and Lincoln – Crosby's Corner* project, which also

consumed considerable TIP funds. He noted the large number of people who advocated before the MPO for the *Green Line Extension* project, as well as the support the project received from state legislators and the Mayors of Somerville, Medford, and Arlington. He urged that the MPO adhere to the decisions that they make, and to not get in the position of pulling projects of any size out of the TIP.

C. Bench asked the MBTA to submit its transit program for the TIP, and for staff to engage the other regional transit authorities (RTAs) in the region for their information.

9. Exploring the 2011 Massachusetts Travel Survey: Focus on Journeys to Work Report—*Bill Kuttner, MPO Staff*

K. Quackenbush introduced the presentation on the *Focus on Journeys to Work* study, which used data from the Massachusetts Household Travel Survey. The survey, which was conducted in 2010 and 2011, was designed to elicit information about the characteristics of a representative sample of households and their travel behavior. The last time such a survey was completed in the Commonwealth was in 1991, when the Boston Region MPO conducted a survey for this region. In 2001, the MPO staff began advocating for a new survey. The current survey was jointly funded by MassDOT and the Boston Region MPO and guided by a steering committee comprised of representatives of MassDOT, MAPC, CTPS, and regional planning agencies.

The primary purpose for conducting a household travel survey is to obtain information that is used to build travel models. CTPS completely rebuilt its travel models with the new information from this survey. The new models will be used in the development of the new LRTP. All modes of travel were captured in the survey, with special attention paid to obtaining information about the lesser-used modes.

The *Focus on Journeys to Work* study is the first study that has used the database of information generated from the survey. Staff also intends to recommend another project to mine this data in for the FFY 2015 UPWP.

B. Kuttner then gave a PowerPoint presentation on the *Focus on Journeys to Work* study. The approach of the study was to examine data on groups of trips taken by survey respondents. A “trip” is defined as travel between two different activities. A “trip chain” is a group of consecutive trips (for example, from home to work to an errand to home). Defined trip chains can serve as the basis for comparing data from the 1991 and 2011 surveys.

This study focused on the journey to work trip chains. These trips represent one-third of household travel miles and are concentrated during peak periods. The 2011 survey data revealed the following mode shares for journeys to work:

- Single Occupant Vehicle (SOV) – 62%
- HOV – 14%
- Walk Access to Transit – 11%
- Drive Access to Transit – 6%
- Walk – 4%
- Bike – 2%

Staff further analyzed the data for each of each of these commuting sectors. For the analysis of the SOV mode, staff divided the MPO model region into eight sectors – seven radial sectors and one central sector. Commuting patterns were divided into six categories. Those categories with the percentage of people who use those commuting patterns were as follows:

- Adjacent Sector (person works in a sector adjacent to the sector they live in) – 28%
- Intra-Radial (person lives and works in the same radial sector) – 25%
- Distant Sector (long distance commuter who drives across sectors) – 21%
- Radial Commute (person lives in a radial sector and works in the central sector) – 17%
- Reverse Commute (person lives in the central sector and works in the radial sector) – 7%
- Central Sector (person lives and work in the central sector) – less than 3%

A comparison of the old and new survey show that the average SOV journey to work increased from 8.7 to 9.8 miles between 1991 and 2011.

The analysis of the HOV mode revealed that most HOV passengers are household members and 16% of those passengers are going to work. On average, 41% of the distance traveled by HOV users is without a passenger. The percent of travel distance without a passenger has risen significantly since 1991.

Of people who drive to access transit, they are accessing the following modes:

- Commuter rail alone – 35%
- Commuter rail plus another form of transit – 20%
- Rapid transit – 35%
- Bus – 7%

- Ferry – 3%

Commuter rail is the transit service accessed most by people who drive to transit. More commuter rail users walk to their workplaces than use an additional transit service. People living in the region who drive to access transit have commutes averaging 17.9 miles. These commute distances are on average 2.3 miles longer than they were in 1991.

Of people who walk to access transit, they are accessing the following modes:

- Rapid transit – 63%
- Bus – 22%
- Commuter rail – 15%

Rapid transit is the service most accessed by people who walk to transit. On average, one-tenth of the travel distance is made on foot. The average walk to transit journey increased from 4.9 to 5.8 miles between 1991 and 2011. An emphasis on transit-oriented development may account for some of the increased distance of these commutes.

Walking was seen to be an important connecting mode, though only 4.2% of people walk to work.

Staff has identified several ideas for further study using the survey data:

- Analyze journeys from work to home and patterns of shopping and running errands
- Look at home-based and work-based trip tours
- Identify time of day and travel duration patterns of journeys to work

Discussion

In response to a comment from L. Dantas, B. Kuttner noted that journey to work trips (trip chains that begin and end at a primary residence) represent one-third of miles traveled and one-fourth of all trips. L. Dantas then asked about the portion of trips during peak travel times that are journey to work trips. B. Kuttner indicated that staff can explore that question in future analysis of the data.

D. Montgomery noted that trip duration is a key factor that people use to make decisions about their travel, and trip duration is a more useful piece of information than miles traveled.

D. Montgomery then inquired if the data could reveal travel patterns by municipality. B. Kuttner replied that staff could do that analysis on a case by case basis. He noted that an advantage of this survey was that it captured non-motorized modes of travel. In this analysis, bicycle trips were grouped by community type (based on the types developed by MAPC). K. Quackenbush added that the survey was not constructed to get statistically reliable samples at the municipal level. More examination of the data would be required to determine the degree to which the data could be broken down.

E. Bourassa asked about the change in reverse commuting patterns since 1991. B. Kuttner noted that the issue is addressed in the report.

R. Canale asked how the study captured the travel patterns of people who work at home and have no commute, and whether there has been a change in the number of people who work at home since 1991. B. Kuttner noted that the travel of people who work at home has been accounted for in this survey. The 1991 survey did not ask questions about working from home, however.

R. Canale asked how much of journey to work trips during peak travel times included school drop-offs as part of the trip chain. B. Kuttner noted that some calculations on this subject are available in the report.

R. Canale commended staff for providing this material and asked how people could get further access to the data. B. Kuttner noted that there is no user friendly tool for accessing this information at this time.

Owen MacDonald, Town of Weymouth, inquired about how bicycle to transit trips were classified in the study. B. Kuttner reported that there were a small number of those trips recorded and they were classified along with the walk to transit trips.

D. Crowley asked about the size of the survey sample, and the funding for the survey and this project. K. Quackenbush stated that 15,000 households were sampled (10,000 in the Boston Region MPO model area). The survey was funded with \$2.4 million of MassDOT funds and \$600,000 of the MPO's 3C funds, for a total of \$3 million. The budget for the study being reported on today was approximately \$66,000.

10. A Preferential Lane on Interstate 93 North: A Conceptual Plan—*Bill Kuttner, MPO Staff*

B. Kuttner gave a PowerPoint presentation on the technical memorandum titled, "A Preferential Lane on Interstate 93 North: A Conceptual Plan." This study completes the second phase of the Regional HOV Study.

The first phase of this study evaluated all freeways in eastern Massachusetts to determine locations that would be suitable for a preferential lane. (The agency that operates a preferential lane determines eligibility for use. Preferential lanes can be HOV lanes, HOT lanes, car pool lanes, toll lanes, for example.) Several sections of Interstate 93 were identified for further study.

The second phase of the study examined the potential for a reversible preferential lane on Interstate 93 north to Route 133. The construction of a preferential lane on this highway, however, is constrained by regulations adopted in the 1990s that prohibit adding pavement on parts of Interstate 93. Therefore, a center lane cannot be added without regulatory relief from this restriction. The addition of a preferential lane that would take away a lane from the opposite side of the highway would adversely affect reverse commute traffic and is not recommended.

The MPO's travel demand model was used to estimate the potential benefits of adding a 28 foot preferential lane on Interstate 93. The horizon year of 2035 was used for forecasting. The results of the analysis showed that users of the preferential lane would save 12.1 minutes in the morning peak travel period, and 10 minutes in the evening peak period. The general-purpose lanes would also see a time saving of four minutes.

The demographic data used in the MPO's models assumes that there will be some population growth in the region. If the preferential lane was employed on Interstate 93, staff believes that it would accommodate the anticipated future traffic from the population growth that is assumed, and maintain the existing level of service on general-purpose lanes, while providing a benefit for the users of the preferential lane. Given that major new highways will not be built in this region, preferential lanes are a technique that can be used to accommodate increases of traffic.

Implementing a preferential lane would involve a number of construction issues, including the need to reconstruct bridges and other features that Interstate 93 crosses above or below, land takings, and environmental impacts.

Next steps for advancing a project to install a preferential lane on Interstate 93 would be to coordinate with other MassDOT planning efforts for this facility, undertake a full alternatives analysis, refine the system design, and identify environmental impacts and mitigation strategies.

Discussion

C. Bench asked for clarification about the benefits for users of the preferential lane versus the general-purpose lane. B. Kuttner noted that all users would see time-saving

benefits, but that users of the preferential lane would see greater time savings, which would be an incentive to meet the requirements for using the preferential lane.

Rafael Mares, Conservation Law Foundation, asked if staff compared the idea of five lanes in one direction and three in the other, in contrast to the nine lane alternative. B. Kuttner then described the approach was used in the first phase of this study. Staff ruled out the potential for a preferential lane when such an option would result in an unacceptable level of congestion and if it made the reverse commute worse than the inbound commute. B. Kuttner noted that the reverse commute peaks at a different time than the inbound commute; zipper lanes set up for several hours can then impact the commute in the opposite direction.

R. Mares asked about the assumptions staff used regarding incentivizing people to use the preferential lane. Scott Peterson, MPO staff, noted that some mode shifting would be expected because of the travel-time savings. There is a potential for people to shift to transit, for example, and take buses that can use the preferential lanes. It is unlikely that there would be a major shift from SOV travel to HOV travel, however, based on information from the household travel survey about these modes.

11. Members Items

J. Cosgrove reported that the MassDOT Board of Directors approved the MBTA's Capital Investment Program (CIP). A five percent fare hike is assumed in the CIP. The MBTA will be holding a series of about 10 public meetings about the fare increase this spring. The MassDOT Board of Directors will vote on the fare increase at their May meeting. The new fares will go into effect on July 1.

J. Romano announced that work is continuing on the Prudential Tunnel requiring lane closures on Interstate 90.

12. Adjourn

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

Attendance

Members

Representatives and Alternates

At-Large City (City of Everett)	James Errickson
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
Federal Highway Administration	Leah Sirmin
Inner Core Committee (City of Somerville)	Tom Bent
Massachusetts Department of Transportation	Clinton Bench
	David Anderson
MassDOT Highway Division	John Romano
Massachusetts Bay Transportation Authority (MBTA)	Joe Cosgrove
Massachusetts Port Authority	Lourenço Dantas
MBTA Advisory Board	Paul Regan
Metropolitan Area Planning Council	Eric Bourassa
MetroWest Regional Collaborative (Town of Framingham)	Dennis Giombetti
Minuteman Advisory Group on Interlocal Coordination (Town of Bedford)	Roy Sorensen
North Shore Task Force (City of Beverly)	Aaron Clausen
North Suburban Planning Council (City of Woburn)	Tina Cassidy
Regional Transportation Advisory Council	David Montgomery
	Christine Stickney
South Shore Coalition (Town of Braintree)	
South West Advisory Planning Committee (Town of Medway)	Dennis Crowley
Three Rivers Interlocal Council (Town of Norwood)	Tom O'Rourke

Other Attendees	Affiliation
Sreelatha Allam	MassDOT Office of Transportation Planning
David Daltorio	Town of Hopkinton
Joseph Domelowitz	Town of Winthrop
Kristen Guichard	Town of Acton
Eric Halvorsen	MAPC
Owen MacDonald	Town of Weymouth
Rafael Mares	Conservation Law Foundation
Ron Morgan	MBTA
Steve Olanoff	Three Rivers Interlocal Council (Town of Norwood)
Joe Onorato	MassDOT Highway District 4
Tony Sousa	City of Everett
Joe Viola	Town of Brookline

MPO Staff/Central Transportation Planning Staff

Karl Quackenbush, Executive Director
Maureen Kelly
Bill Kuttner
Robin Mannion, Deputy Executive Director
Elizabeth Moore
Anne McGahan
Scott Peterson
Sean Pfalzer
Michelle Scott
Pam Wolfe
