

Draft Memorandum for the Record

Boston Region Metropolitan Planning Organization Meeting

January 21, 2016 Meeting

10:05 AM – 12:00 PM, State Transportation Building, Conference Rooms 2&3, 10 Park Plaza, Boston, MA

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

Decisions

The Boston Region Metropolitan Planning Organization (MPO) agreed to the following:

- approve Amendment Two of the federal fiscal years (FFYs) 2016-20 Transportation Improvement Program (TIP)
- approve the minutes of the MPO meeting of January 7, 2016
- adopt a new project evaluation scoring system for use in the development of the FFYs 2017 – 21 TIP

Meeting Agenda

1. Public Comments

There were none.

2. Chair's Report—*David Mohler, MassDOT*

There was none.

3. Committee Chairs' Reports

There were none.

4. Regional Transportation Advisory Council Report—*Tegin Bennett, Advisory Council Chair*

The Advisory Council hosted a panel discussion about the Boston Region MPO's 3C planning process at their January 13 meeting. The panelists were Karl Quackenbush, Executive Director of Central Transportation Planning Staff (CTPS); Lourenço Dantas, CTPS; and Bryan Pounds, MassDOT. T. Bennett thanked the panelists for their participation and remarked on the Council's goals for participating in the MPO's certification process.

5. Executive Director's Report—Karl Quackenbush, Executive Director, CTPS

K. Quackenbush announced that Alicia Wilson, MPO staff, will be retiring in February. The MPO members and staff applauded her in thanks for her years of service and accomplishments at CTPS.

6. Draft FFYs 2016-20 Transportation Improvement Program, Amendment Two—Sean Pfalzer, MPO Staff

Members addressed Draft Amendment Two of the FFYs 2016-20 TIP, which the MPO released in December for a 30-day public review period. The public review period closed on January 19, 2016. No public comments were received.

Prior to the vote on this amendment, S. Pfalzer gave an overview of changes included in the draft amendment. The changes include updates regarding projects funded through statewide bridge, interstate maintenance, stormwater retrofit, and safety programs. Also, several projects would be removed from the TIP to reflect work completed in previous years, or changes in project scopes. S. Pfalzer also proposed several changes to reflect updates since the draft amendment was released for public review. The specific changes to draft Amendment Two are detailed below.

There are cost changes to the following projects:

- *Bridge Rehabilitation: Massachusetts Avenue (Route 2A) over Commonwealth Avenue (bridge number B-16-237) (Boston)*
- *Intersection and Signal Improvements at Two locations: Route 53 (Washington Street) at Mutton Lane and Pleasant Street (Weymouth)*
- *Resurfacing and Related Work on Interstate 93 Southbound (Randolph, Quincy, Braintree)*
- *Interstate Maintenance Resurfacing and Related Work on Interstate 95 (Reading, Wakefield)*
- *Bridge Replacement: Route 107 over the Saugus River (Belden G. Bly Bridge) (L-18-016, S-05-008) (Lynn, Saugus)*
- *Interstate Maintenance and Related Work on Interstate 93 (Quincy, Milton, Boston)*
- *Interstate Maintenance and Related Work on Interstate 495 (Foxborough, Plainville, Wrentham, Franklin)*

The following projects are new additions to the TIP:

- *Stormwater Improvements along Route 20 (Marlborough, Sudbury)*
- *Preservation of Three Bridges: B-16-165, R-01-005, and R-01-007 (Boston, Randolph)*
- *Pavement Preservation on Route 2 (Lexington, Belmont, Arlington, Cambridge)*

The following projects would be removed from the TIP:

- *Bridge Replacement: Route 2 over Interstate 95 (L-10-009) (Lexington)*
- *Stormwater Improvements along Route 3A/Route 28 (Brockton)*
- *Interstate Maintenance and Related Work on Interstate 495 (Foxborough, Plainville, Wrentham)*
- *Bridge Deck Replacement: Hopkins Street over Interstate 95 (W-01-021) (Wakefield)*
- *Bridge Rehabilitation: Massachusetts Avenue (Route 2A) over Commonwealth Avenue (B-16-237) (Boston)*
- *Resurfacing and Related Work on Route 20 (Marlborough)*
- *Stormwater Improvements along Interstate 93 (Milton)*

A motion to approve Amendment Two of the FFYs 2016-20 TIP, as presented, 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.

7. MPO Meeting Minutes—Maureen Kelly, MPO Staff

A motion to approve the minutes of the meeting of January 7, 2016 was made by the MAPC (E. Bourassa), and seconded by the Inner Core Committee (City of Somerville) (T. Bent). The motion carried. The At-Large City of Everett (Jay Monty) and North Suburban Planning Council (City of Woburn) (Tina Cassidy) abstained.

8. Transportation Improvement Program Project Evaluation Criteria—Sean Pfalzer, MPO Staff

Members continued their discussion from the meeting of January 7 about the update to the scoring system and evaluation criteria for TIP projects. S. Pfalzer presented the results of an evaluation of a sample set of projects, which the MPO requested at that meeting.

Staff re-evaluated 18 projects (that have already gone through the TIP process and that have been advertised) using the proposed new scoring system and evaluation criteria. The results from this evaluation were compared to the original scores and rankings that

the projects received when they were first evaluated under the existing scoring system. The results of the analysis showed that of the 18 projects, two had no change in ranking, ten had minor changes (two points difference), and six had major changes (over three points difference). (A memorandum and spreadsheet were distributed detailing the results.)

Staff observed the following trends while conducting the re-evaluation:

- Safety is a prominent factor under the proposed new scoring system, reflecting that safety is a top goal of the MPO. Rankings tended to improve for projects that improve safety at Highway Safety Improvement Program (HSIP) crash clusters.
- New shared-use paths and rail-trail projects did not score well under the System Preservation or Clean Air / Clean Community goal categories.
- Refined scoring for the Clean Air / Clean Communities goal category resulted in a greater differentiation between projects.
- Transportation Equity has broad eligibility and comprehensiveness when the new proposed criteria are in use. The new scoring system expands transportation equity considerations beyond low-income and minority populations to also include limited-English proficiency populations, the elderly, zero-vehicle households, and persons with disabilities.
- The new scoring system did not appear to have a bias toward particular community types.

The results indicated that, although the new scoring criteria produced some changes in rankings, the new evaluation criteria are consistent with the MPO's goals and objectives. Staff recommended that the MPO adopt the new criteria for use in upcoming TIP development cycles.

Discussion

Tom Holder, South West Advisory Planning Committee (Town of Medway), expressed concern that, under the new scoring system, projects in developing and maturing suburbs would not be able to qualify for TIP funding in the future.

Dennis Giombetti, MetroWest Regional Collaborative (Town of Framingham), also commented that he has heard concerns from MetroWest communities that the criteria – particularly for the Safety and Economic Vitality categories – skews the evaluation results in the favor of certain geographic areas or community types. He suggested that staff look to see if there is a correlation between particular evaluation categories and community types.

K. Quackenbush noted, however, that the sample evaluation showed that the fluctuations in project rankings were similar across all community types, and that the results did not reveal a markedly different outcome from a geographic perspective.

E. Bourassa added that the scoring system does award more points to projects in particular community types because the goals set by the MPO support aims such as improving safety and supporting transit and dense land uses. However, the scoring system is not the only way that staff and the MPO select projects. He noted that staff screens the project pool with an eye toward geographic equity to ensure that resources are distributed fairly across the region over time.

Ken Miller, Federal Highway Administration (FHWA), remarked that the scoring system appears biased toward larger projects. He suggested adding another evaluation to the process to measure cost-effectiveness of projects.

Others expressed a difference of opinion about the notion that the scoring system is biased toward larger projects. E. Bourassa noted that the MPO tends to fund smaller projects, while balancing requests from the state to support larger projects. S. Pfalzer stated that while larger projects may have an advantage in the evaluation process because they address locations with high numbers of crashes (and therefore earn Safety points), those advantages are balanced by other evaluation criteria, such as those that account for crash rates. K. Quackenbush observed that intersection projects actually fared the best in the sample evaluation.

T. Bennett observed that shared-use paths and bicycle trail projects fell in rank in the sample evaluation. She asked if the new scoring system captures the value of those projects that may have a significant impact by filling a gap in the bicycle network. S. Pfalzer explained that while bicycle trail projects would not be able to score as well in certain categories, such as System Preservation, the MPO has made a commitment to devote a particular percentage of funding to bicycle and pedestrian projects through the investment programs in the Long-Range Transportation Plan (LRTP).

T. Bennett asked whether the new scoring system has a bias toward supporting on-street bicycle facilities as opposed to separated bicycle facilities. S. Pfalzer replied that the highest number of funding requests that the MPO receives are for Complete Streets projects: therefore, the criteria are geared toward evaluating arterial and intersection projects. So, Complete Streets projects that incorporate on-street bicycle facilities may be eligible for more possible points than separated bicycle facility projects.

Rafael Mares, Conservation Law Foundation, suggested reconsidering the scoring for shared-use paths and bicycle trail projects. He noted that it is unfair to penalize these

projects under the System Preservation category (which awards points for improving existing assets) because path and trail projects have been a neglected part of the transportation system.

A motion to adopt the new project evaluation scoring system for use in the development of the FFYs 2017 – 21 TIP was made by the Inner Core Committee (City of Somerville) (T. Bent), and seconded by the MAPC (E. Bourassa). The motion carried. The South West Advisory Planning Committee (Town of Medway) (T. Holder) voted against the motion.

9. GHG Reduction Strategy Cost-Effectiveness Analysis— *Anne McGahan, MPO Staff*

A. McGahan introduced the *Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis* report and provided an overview. This report builds on two previous climate change reports produced by the MPO. Since January 2015, the MPO has been required under state law to report to MassDOT the greenhouse gas (GHG) emissions associated with projects in the LRTP and TIP.

The *Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis* report identifies 24 strategies from a literature review for reducing GHG emissions and highlights 14 promising strategies for the Boston Region MPO to consider either through funding, studying, outreach, or advocacy. These promising strategies are summarized below. Staff ranked each of the strategies based on their potential for GHG reduction and cost-effectiveness.

1) Strategies for Creating a More Efficient Transportation System: expansion of rail and bus rapid transit; teleworking; increased transit level of service; workplace transportation demand management; pedestrian improvements; individualized marketing; bicycle improvements; rail freight infrastructure; car sharing; ridesharing; carbon tax and cap-and-trade; pay-as-you drive insurance; compressed work weeks; vehicle-miles-travelled fee; congestion pricing; use of alternative construction materials; and transit fare reductions

2) Strategies for Promoting Fuel Efficiency and Cleaner Vehicles: driver education and eco-driving; truck idling reduction; information on vehicle purchase; and reduced speed limits

3) Strategies for Coordinating Transportation and Land Use Decisions: parking management; and compact development

Also, staff evaluated past MPO investments for their GHG reduction benefits. Staff looked at projects in the following investment categories: Complete Streets; Intersection Improvements; Bicycle and Pedestrian Multi-Use Paths; and Shuttle Services. (Major Infrastructure projects were not included because the method used to analyze their GHG reduction benefits was not comparable to methods used to analyze projects in the other categories.) The results of the analysis showed that Intersection Improvement projects produce the greatest GHG reductions at the lowest cost, however, induced demand was not considered in the analysis. (Induced demand could result in lower reductions in the long-term.)

The report provides a list of the operating shuttle services, launched with MPO support, that are the most cost-effective in terms of reducing GHG emissions. The report also contains information provided by MassDOT on the cost-effectiveness of statewide and MPO investment programs.

Going forward, there are several ongoing initiatives that will support the MPO's decision-making as regards to reducing GHG emissions in this region: the MPO's *First-Mile and Last-Mile Transit Connections Study*; *Focus40*, an update to the MBTA's Program for Mass Transportation; MassDOT's Capital Investment Plan; and MassDOT's work to identify and develop new tools to assess, track and reduce GHG emissions from projects.

Discussion

T. Bennett raised the issue of whether induced demand was taken into account in the consideration of the benefits of bicycle trail projects. She also noted that it would be helpful to have information regarding the effectiveness of different types of bicycle facilities in terms of expanding the market of users of those facilities.

A. McGahan noted that staff will be proposing to study induced demand in a UPWP study. K. Quackenbush remarked on the different ways of defining "induced demand"; the term may refer to new trip generation or existing trips that are shifted as a result of a change in the transportation network.

R. Mares stressed that when studying induced demand produced by new bicycle trails projects, consideration should be given to the impact of particular improvements on the network; i.e. a small change in the network could have a large impact if the improvement is part of a larger network or creates a connection in the network.

R. Mares asked about the fee assumptions associated with the pay-as-you-drive insurance and vehicle-miles-travelled fee strategies. Katrina Crocker, MPO staff, noted that the fee assumptions are included in the appendix of the report.

E. Bourassa questioned one of the results of the analysis of the various strategies that shows teleworking to be less cost-effective than other strategies. K. Crocker explained that, in the literature reviewed for this study, teleworking was assumed to include the costs of investing in telecommunications and computer equipment for employees that enables them to work from home, and may include the costs of teleworking centers. With further study at the local level, different variations of teleworking could be considered.

Steve Olanoff, Three Rivers Interlocal Council (Town of Norwood), pointed out that when considering cost-effectiveness of strategies, it is important to identify who bears the cost – i.e. whether the costs are being transferred from the public to the private sector – and how the costs are calculated. K. Crocker explained that the costs shown in the report are the costs for the implementing agencies.

Members raised some questions about the analysis of the GHG reduction benefits of shuttle services that the MPO supported. It was noted that while these services are shown to be cost-effective in terms of their GHG reduction benefits, those emission reductions are relatively small.

D. Mohler inquired as to whether induced demand was considered when modeling the impacts of these shuttle services. That is to say, did staff assume that for every passenger that takes a shuttle trip, there was one less auto trip? Or, for services that may be seasonal or serve the tourist market, did staff consider that the shuttle may have provided trips that otherwise would not have been taken?

K. Quackenbush and A. McGahan replied that this analysis followed the set of procedures used by MassDOT's Congestion Mitigation and Air Quality (CMAQ) Eligibility Committee to estimate emission reductions. Those procedures are described in Chapter 5 of the report. K. Quackenbush confirmed that some simplified assumptions were used in the analysis. A. McGahan added that MassDOT is working on new ways to analyze the air quality benefits of projects.

R. Mares inquired about the federal requirements regarding modeling shuttle services. A. McGahan explained that the shuttle projects in the analysis received federal CMAQ funding, so modeling must be conducted to show that they produce air quality benefits. Shuttle services and projects seeking CMAQ funding are reviewed by the state's CMAQ Eligibility Committee to determine eligibility, which is based on assumptions and data about their emission reduction potential.

K. Miller suggested that, in addition to modeling, staff survey riders of new shuttle services to better determine what the passengers were doing before the service started

(i.e. making the trip by auto or not making the trip at all). Such data could provide better estimates of the services' air quality benefits. A. McGahan suggested that staff could propose a UPWP study to examine the "before-and-after" impacts of shuttle services.

In conclusion, D. Mohler summarized that while there is federal oversight regarding the modeling process for CMAQ projects, it is not prescriptive. So, the MPO does have the leeway to adjust its modeling process, subject to federal oversight.

R. Mares suggested a study topic idea focused around ensuring confidence in the modeling results for air quality improvement projects.

10. Improving Truck Travel in the Everett-Chelsea Industrial Area— *Bill Kuttner, MPO Staff*

K. Quackenbush introduced the study for *Improving Truck Travel in the Everett-Chelsea Industrial Area*. This study is the first topical study conducted as part of the MPO's ongoing Freight Program, whose essential characteristics he reviewed.

B. Kuttner then gave an overview of the study. The study focused on the industrial area in Everett and Chelsea, roughly bounded by Routes 99, 16, and 1 and the Mystic River. The goals of the study were to develop freight data that can be used in state and local planning efforts, and to identify roadway system modifications that could be beneficial for both industrial and non-industrial activities.

In the project area, Beacham Street is a heavily traveled truck corridor that is in need of full-depth reconstruction. Also, Carter Street serves as a truck route from Route 1. Trucks travelling between Route 1 and the industrial areas are forced to use Spruce Street – which is evolving as an urban boulevard – in order to access the industrial areas.

Staff conducted counts and turning movements of trucks and light-vehicles on a network of roadways within the project area. For the purposes of the data collection, trucks were defined as having six wheels or more and they were divided into eight types. Light-vehicles have four wheels.

Staff identified the following options for improving the roadway network for trucks and for reducing truck traffic in residential areas:

- build an extension of Carter Street over the commuter rail line so that trucks can bypass Spruce Street to access the industrial area

- construct a ramp connector from Beech Street to Route 1 northbound; this improvement coupled with the Carter Street Extension would allow trucks leaving the industrial area to avoid using the Spruce Street on-ramp to Route 1
- add a second left-turn lane on Second Street at Route 16

If the proposed improvements were implemented, staff estimates that the Carter Street Extension would divert more than 500 trucks per day from their current routes on Boston and Spruce Streets.

Discussion

Jay Monty, At-Large City of Everett, thanked staff for studying this challenging area. He noted that the City of Everett has considered improvements to the Beacham Street corridor to be a top priority for many years. In discussing options for funding improvements to this area, K. Miller pointed out that the new federal surface transportation legislation, the FAST Act, establishes a new funding category for freight projects.

Tom Kadzis, City of Boston, inquired about the status of the design of the Beacham Street corridor. J. Monty reported that 95% design plans were completed and the project is in the MPO's Universe of TIP Projects. Applications for MassWorks grant to fund the project were unsuccessful. He suggested that there may be a need to consider a more multimodal vision for this corridor to make the project more likely to receive funding.

11. State Implementation Plan Update—*Bryan Pounds, MassDOT Staff*

B. Pounds reported that MassDOT has prepared responses to the public comments received during the public review period for the annual status report on the State Implementation Plan (SIP). MassDOT staff will be submitting those comments to the Massachusetts Department of Environmental Protection by January 29. MassDOT's next update on the SIP to the MPO will be on February 18.

12. Members Items

E. Bourassa announced that MassDOT, MAPC, and the MPO staff applied to and were selected to take part in a year-long training academy offered by FHWA and Transportation for America. The program teaches best practices for performance management of transportation investments. It includes webinars, one of which will be hosted by the MPO in Boston in October.

13. Adjourn

A motion to adjourn was made by the At-Large Town of Arlington (Laura Wiener), and seconded by the MetroWest Regional Collaborative (Town of Framingham) (D. Giombetti). 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)	Jim Gillooly
	Tom Kadzis
Federal Highway Administration	Ken Miller
Inner Core Committee (City of Somerville)	Tom Bent
Massachusetts Department of Transportation	David Mohler
	Marie Rose
MassDOT Highway Division	John Romano
MBTA	Thom Dugan
MBTA Advisory Board	Micha Gensler
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)	Tina Cassidy
Regional Transportation Advisory Council	Tegin Bennett
South Shore Coalition (Town of Braintree)	Melissa Santucci
	Rozzi
South West Advisory Planning Committee (Town of Medway)	Tom Holder
Three Rivers Interlocal Council (Town of Norwood/Neponset Valley Chamber of Commerce)	Tom O'Rourke

Other Attendees	Affiliation
Christopher Blacker	Boston resident
Ed Carr	MetroWest Regional Transit Authority
Rafael Mares	Conservation Law Foundation
Steve Olanoff	Three Rivers Interlocal Council (Town of Norwood)

Bryan Pounds	MassDOT Office of Transportation Planning
Ellie Spring	Office of State Representative Denise Garlick
Alex Train	City of Chelsea

MPO Staff/Central Transportation Planning Staff

Karl Quackenbush, Executive Director
Robin Mannion, Deputy Executive Director
Elizabeth Moore, Director of Policy and Planning
Scott Peterson, Director of Technical Services

Katrina Crocker
Lourenço Dantas
David Fargen
Maureen Kelly
Bill Kuttner
Anne McGahan
Sean Pfalzer
Jennifer Rowe
Alicia Wilson
