

Memorandum for the Record

Boston Region Metropolitan Planning Organization Meeting

October 20, 2016 Meeting

10:05 AM – 11:45 AM, State Transportation Building, Conference Rooms 2&3, 10 Park Plaza, Boston, MA

David Mohler and Stephen Woelfel, Chairs, 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 the work program for the *Access Advisory Committee Support: Federal Fiscal Year (FFY) 2017*

Meeting Agenda

1. Public Comments

There were none.

2. Chair's Report—David Mohler, MassDOT

D. Mohler noted that the Federal Highway Administration (FHWA) is hosting a forum at the Volpe Center in Cambridge today on the topic of MPO empowerment.

3. Committee Chairs' Reports

There were none.

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

The Advisory Council has re-elected Tegin Bennett as chair and elected Mike Gowing as vice chair.

5. Executive Director's Report—Robin Mannion, MPO Deputy Executive Director

R. Mannion reported that Elizabeth Moore, Director of Policy and Planning at Central Transportation Planning Staff (CTPS), is attending the MPO empowerment forum at the Volpe Center today.

**6. Work Program for Access Advisory Committee Support: FFY 2017—
*Lourenço Dantas, Manager of Certification Activities, MPO Staff***

L. Dantas presented the work program for the *Access Advisory Committee Support: FFY 2017*. The AACT provides advice and recommendations to the MBTA on 1) improving accessible transportation services for persons with disabilities and the elderly, and 2) compliance with the Americans with Disabilities Act. The AACT also votes on the selection of vendors for the MBTA's paratransit service, THE RIDE. CTPS provides support to AACT, including coordination, logistics, communications, agenda-setting, and meeting set up.

Vote

A motion to approve the work program for the *Access Advisory Committee Support: FFY 2017* was made by the Metropolitan Area Planning Council (MAPC) (Eric Bourassa), and seconded by the At-Large Town of Lexington (Richard Canale). The motion carried.

7. Work Plans for FFY 2017 Certification Activities—*Lourenço Dantas, Manager of Certification Activities, MPO Staff*

L. Dantas presented six work plans that the MPO's Certification Activities group will be conducting in FFY 2017. The work plans are for the following programs: Transportation Improvement Program (TIP); Unified Planning Work Program (UPWP); 3C Planning and MPO Support; Air Quality Conformity and Support Activities; Boston Region MPO Title VI Reporting; and Transportation Equity/Environmental Justice Support. As these are ongoing programs, he highlighted new activities and tasks that have changed from previous years.

The TIP work plan includes the development of the FFYs 2018-22 TIP document and amendments to the current TIP. New activities will focus on illustrating the geographic distribution of TIP funds, exploring how to address project cost changes, and showing how TIP projects help the MPO to make progress toward its performance goals.

The UPWP work plan involves developing the FFY 2018 UPWP and monitoring FFY 2017 activities from the current UPWP. Staff will be enhancing management and reporting of UPWP work in FFY 2017 and working on a database for tracking the implementation of UPWP study recommendations.

The 3C Planning and MPO Support work plan includes the support work for the MPO, its committees, and the Regional Transportation Advisory Council, as well as the MPO's public participation process. In FFY 2017, the public participation work will include enhancements to communication tools, including the MPO's email list-serve, website,

social media, and newsletter. New public engagement activities include the Office Hours events for one-on-one interactions with MPO staff.

The Air Quality Conformity and Support Activities work plan includes a new task for the exploration and incorporation of climate change initiatives into MPO activities.

The Boston Region MPO Title VI Reporting and Transportation Equity/Environmental Justice Support work plans include new tasks for enhancing outreach efforts, forming an internal working group to implement best practices, and updating the MPO's disparate impact policy.

A work plan for the Long-Range Transportation Plan (LRTP) is forthcoming.

Discussion

T. Bennett suggested having a conversation in the coming year about accommodating other suggestions from MPO members for improvements in the work plans. L. Dantas then discussed staff's plans to address members' comments. Staff, for example, plans to prepare an "engagement page" on the MPO's website to improve the access and availability of documents.

8. Construction Cost Estimates: Current Practice and Proposed Improvements—*David Anderson, MassDOT Highway Division*

D. Anderson provided an overview of work underway at the MassDOT Highway Division to update procedures for estimating construction costs. He briefed the MPO on the current state of the practice and the ways MassDOT is seeking to improve the process.

D. Anderson noted that the MassDOT Highway Division uses an in-house application, the Construction Project Estimator application, to provide the designer of record with the best information for preparing a project cost estimate. This application includes the Weighted Bid Price module, which organizes bid information in a way that is useful to designers, such as by geographic location and material quantities. The Highway Division encourages the designer to consider the unique aspects of a project that may influence cost, such as location (urban or rural), third-party issues, and site access, for example.

On certain projects – such as those estimated to cost more than \$15 million, complex projects estimated to cost more than \$6 million, or those that involve accelerated construction techniques – the Highway Division requests bottom-up estimates. These are more detailed estimates that consider labor and equipment costs, and that provide computations and information in narrative form. Bottom-up estimates may be prepared at the 75 percent, 100 percent, and PS&E design stages. They are done for lump sum

items. (The Highway Division has unit price based contracts that include some lump sum items, such as bridges.)

Independent estimates are prepared by independent consulting engineering firms in some cases, such as for projects that cost more than \$15 million.

The Highway Division has been tracking the difference between the office estimates and low bids. Guidance from the FHWA suggests that 50 percent of bids should be within 10 percent of the office estimate. In recent years, the Highway Division's performance has generally been below that target, but the trend is improving.

D. Anderson concluded his presentation by stating that the Highway Division is working with the American Council of Engineering Companies to identify ways to improve project cost estimates. Means for improving estimates include applying design contingencies that are high at the beginning of a project and lessen as the project design advances; using consistent inflation factors; considering design risk; developing rules-of-thumb for estimating utility relocation costs and traffic police/flagger costs; and using best practices for establishing estimates.

Discussion

Members raised questions about the Highway Division's bid schedule, factors that drive up project costs, the impact of design requirements on project costs, contingencies, and reimbursements to utility companies.

Jay Monty, At-Large City of Everett, asked the Highway Division to share its findings with the MPO as it identifies factors that drive up project costs after bid.

Tom Bent, Inner Core Committee (City of Somerville), asked whether the Highway Division is finding that design documents are becoming more conceptual, or if detailed design requirements are driving up costs. D. Anderson explained that the Highway Division's design requirements are more stringent than those of some other state DOTs. Some other DOTs require less specificity in designs, but will place larger contingencies in the project cost estimates. The Highway Division has heard suggestions about scaling back design requirements in order to streamline and expedite the project delivery process.

In response to a question from Dennis Giombetti, MetroWest Regional Collaborative (Town of Framingham), about the confidence level of cost estimates, D. Anderson discussed the outcome of implementing contingencies on a programmatic basis. During the implementation of projects funded through the American Recovery and Reinvestment Act (ARRA), the Highway Division found that the collective contingency

amount was more than required; while individual projects may have used more or less of the ten percent contingency assigned to them, programmatically there was a surplus.

D. Giombetti inquired about how the Highway Division handles extra work orders.

D. Anderson explained that the Highway Division has many tools to limit extra work orders. If a work order results from a design error, the Highway Division's policy is to seek reimbursement from the designer of record for the costs the Highway Division will bear.

Steve Olanoff, Three Rivers Interlocal Council, inquired about utility relocation costs.

D. Anderson explained that for roadway and bridge projects requiring utility relocation, the Highway Division and utility companies enter into an agreement regarding the relocation costs. The Highway Division will reimburse the utility company 50 percent of relocation costs if the company adheres to an agreed upon schedule. The FHWA, which participates in funding these costs, review the relocation cost estimates prepared by the utility companies.

9. Automated Fare Collection 2.0—*Matthew Ciborowski, MBTA*

M. Ciborowski gave a presentation on the new automated fare collection (AFC) system that the MBTA is planning to implement.

He remarked that the current fare collection system is outdated as it was designed in 1998-2000, before the proliferation of the use of modern web-connected devices. Rather than overhaul the existing system, the MBTA has decided to invest in the next generation of fare equipment.

The new AFC system will be an account-based system that offers customers the ability to pay fares using electronic devices (i.e., smart phones, contactless credit cards). Customers also will be able to purchase fare cards at fare vending machines, retail locations, and social service agencies. They will be able to add value to passes at fare vending machines, retail locations, online, or via an app.

No cash transactions will occur on transit vehicles. Removing cash transactions from the system is expected to reduce transit vehicle travel times by allowing passengers to board at all doors of a transit vehicle, and by reducing vehicle dwell times. Buses will be expected to operate ten percent faster. The MBTA also expects to save costs from no longer having to maintain and collect cash from fare boxes. On board vehicles, inspectors will occasionally check customers' fare media to see if they paid their fares.

The MBTA is aiming to ensure equal access to the system for everyone by the following means: expanding ways people can pay for fares; expanding the payment network with

retail partners (to approximately 1,500 locations); installing new fare vending machines; offering online auto-reload options; offering overdraft protection (allowing a passenger to take a trip on a negative account balance); and providing a “best value” fares system.

The system will be built on open standards that allow for integration with other systems, such as those of transportation management associations and transportation network companies.

M. Ciborowski concluded the presentation noting that the MBTA has begun the process of advertising for a vendor to implement the new system. A Request for Qualifications was issued in July 2016 and the MBTA is currently reviewing submissions. A Request for Proposals will be issued and a contract awarded to a vendor in the winter or spring of 2017. The system is expected to be implemented in two years.

Discussion

D. Mohler inquired about how the fare system would operate on the commuter rail, where fares are charged based on travel zones. M. Ciborowski explained that fare media readers would be installed on commuter rail platforms. Passengers would tap their fare media upon entering and exiting a train.

J. Monty inquired about enforcement of fare payment. M. Ciborowski discussed possible means for conducting inspections. As the system is account-based (with payment and customer information in “the cloud”), inspectors (either on-board, in-station, or at exit locations) could examine passengers’ fare media with inspection devices to confirm payment. Some transit systems use undercover inspectors on vehicles. The MBTA’s inspection regime will be designed over the next two years.

J. Gillooly asked how the system would work for a person with only an occasional need to use the system (i.e. someone who does not have fare media, but has an unexpected need to use the system). M. Ciborowski noted that the first-time, occasional user of the system presents a challenge, and that the MBTA will be working on this issue over the next couple of years.

Richard Reed, Minuteman Advisory Group on Interlocal Coordination (Town of Bedford), asked if customers would be charged the maximum fare for trips on which they forget to tap out upon exiting the system. M. Ciborowski indicated that the MBTA has not developed a policy on that subject yet. He discussed options, such as charging penalties, or allowing passengers to designate a home station as their final exit point.

D. Mohler asked if customers would be able to use cash at fare vending machines. M. Ciborowski replied that all machines in retail locations would accept cash.

D. Mohler raised questions about customer identification in the system, such as by the use of a credit card. M. Ciborowski then discussed how registered fare media would allow the MBTA to have information about where customers travel (from tapping in and out of the system). That information could be used to provide information alerts tailored to each customer.

E. Bourassa encouraged the MBTA to reach out to low-income people and groups representing them and conduct research, through focus groups, to understand their concerns. He remarked that there are perceptions that there are high numbers of people who are “unbanked” and would only be able to use cash to access the system; however, he pointed to research (conducted for the Hubway system) that found that cost, rather than lack of credit, is the main inhibitor. M. Ciborowski assured him that the MBTA has already had discussions with various groups, including the plaintiffs of the agreement between the MBTA and the Boston Center for Independent Living. He asked MPO members to let him know of any groups or entities that would benefit from having a conversation with the MBTA now or in the future.

E. Bourassa noted that the travel-time savings that would be achieved by having passengers board buses through all doors is an equity issue that outweighs the inconvenience a new fare system may present.

S. Olanoff asked why it will take as long as two years to implement an off-the-shelf system. D. Mohler and M. Ciborowski discussed the level of effort involved in this public-private partnership. Equipment will have to be installed in all MBTA stations and vehicles while the current fare collection system remains in operation. E. Bourassa added that, in addition, time will be required to educate the public.

Richard Canale, At-Large Town of Lexington, asked about how employer subsidized fare cards would be incorporated in the system. M. Ciborowski indicated that users would see no difference.

T. Bent raised the issue of privacy concerns. He noted that the system will be beneficial in terms of planning (as there will be data on where passengers enter and exit the system). However, he remarked that privacy concerns arose when all-electronic highway tolling was going into effect, and he asked whether the MBTA expects similar concerns to surface in regard to the new fare system. M. Ciborowski noted that the MBTA has the opportunity to design the AFC system to support privacy matters. He noted, for example, that for planning purposes data from the system could be aggregated to remove personal identifiers. The MBTA staff have been talking with

outside experts and having internal discussions, and will develop a recommendation for public review soon.

D. Giombetti asked how the system would be managed on the commuter rail where there are no entry or exit gates, and no way to ensure passengers would interact with the readers. M. Ciborowski stated that in controlled-access stations, readers would be placed at exits. At open stations, readers would be placed at locations where there would be flows of passengers. He also noted that there would be still be conductors on the commuter rail who would ask passengers to validate their fares.

10. State Implementation Plan Update—*Bryan Pounds, MassDOT*

B. Pounds gave an update on the progress of the Blue Hill Avenue Station on the Fairmount commuter rail line. A public meeting, held on October 5, provided the public with an update on the 100-percent design plans. The project will be advertised in November. Construction will begin in spring 2017 and is expected to take two years.

D. Mohler reported that the MassDOT Board of Directors approved an agreement with the City of Cambridge regarding the city's \$25 million contribution to the Green Line Extension project. The funds are in escrow pending an agreement with the City of Somerville regarding that city's contribution.

11. Members Items

J. Gillooly distributed a flyer announcing a public meeting about the *Reconstruction of Rutherford Avenue (Boston)* project on October 26. The meeting will focus on the portion of the project in Sullivan Square.

D. Giombetti reported that at the recent Southborough town meeting, residents approved the necessary right-of-way takings for the *Reconstruction of Main Street (Route 30) (Southborough)* project.

12. Adjourn

A motion to adjourn was made by the MassDOT Highway Division (John Romano), and seconded by the City of Boston (J. Gillooly). 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 Lexington)	Richard Canale
City of Boston (Boston Transportation Department)	Jim Gillooly
	Tom Kadzis
Inner Core Committee (City of Somerville)	Tom Bent
Massachusetts Department of Transportation	David Mohler
	David Anderson
Massachusetts Port Authority	Laura Gilmore
	O'Connor
MassDOT Highway Division	John Romano
MBTA	Eric Waaramaa
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
Three Rivers Interlocal Council (Town of Norwood/Neponset Valley Chamber of Commerce)	Steve Olanoff

Other Attendees	Affiliation
Matthew Ciborowski	MBTA
Rafael Mares	Conservation Law Foundation
Bryan Pounds	MassDOT Office of Transportation Planning
Ellen Spring	Office of State Representative Denise Garlick

MPO Staff/Central Transportation Planning Staff

Robin Mannion, Deputy Executive Director

Elizabeth Moore, Director of Policy and Planning

Lourenço Dantas, Manager, MPO Certification

Activities Group

Maureen Kelly

Alexandra Kleyman

Anne McGahan

Jennifer Rowe
