

# REGIONAL TRANSPORTATION ADVISORY COUNCIL



## Regional Transportation Advisory Council

June 8, 2016, Meeting

3:00 PM, Boston Public Library, Commonwealth Salon, 700 Boylston Street, Boston, MA

### Meeting Summary

#### Introductions

T. Bennett, Chair (Cambridge) called the meeting to order at 3:00 PM. Members and guests attending the meeting introduced themselves. (For attendance list, see page 6)

#### Chair's Report - T. Bennett, Chair

T. Bennett thanked Vice Chair M. Sanborn for attending the recent MPO meetings covering the TIP, the UPWP and discussion on the Green Line Extension TIP Amendment. Many of the MPO meetings over the last month were about updates to the TIP. Ali Kleyman will be changing positions on MPO staff from UPWP Manager to TIP Manager.

#### Minutes - May 11, 2016

A motion to approve the minutes of the May 11 meeting as amended was made and seconded. The minutes were approved.

#### Innovative Technologies at the MBTA -David Block-Schachter, Chief Technology Officer, MBTA

David Block-Schachter described his recent professional involvement with transit technology in the private sector and at the MBTA. His former role at the MBTA as Director of Research and Analysis was to realize how the agency could best use data to improve operations. He joined the "pop-up" commuter bus service, Bridj, Inc., as Chief Scientist and Chief Technology Officer. At Bridj, his aim was to improve mass

transit generally, and look at the mass transit issues in Boston as the primary focus.

He is interested in the many different ways informal transit systems can be enhanced, including through the introduction of companies like UBER and Lyft. D. Block-Schachter is now back at the MBTA as the Chief Technology Officer where he coordinates technology the MBTA uses in all environments from fare collection systems to the website and the data platform that integrates with popular user apps. Computer-aided-dispatch and augmented vehicle location are more consumer-facing and they impact both real-time information and services provided to users. As innovation is introduced, D. Block-Schachter explained that replacing older “legacy” systems with new technology has led to a cascading of technology that is not always well-integrated which can lead to certain inefficiencies.

D. Block-Schachter explained that ways of bringing the fare collection system up to current standards and practices are being researched. Needed changes to promote success of the system will include a new fare collection system to replace the Charlie Card System which was developed in 2003 and introduced in 2006. The Charlie Card stores the card value and is accessed during a transaction between the card reader and the card. There is no collection of ridership-type data such as time of day or distance information which makes it extremely difficult to identify specific service patterns and demands. This restriction makes it difficult to launch innovation and changes such as integrating service with other carriers or sponsoring changes that would improve service efficiencies.

Restrictive fare collection through the current system prevents adaptation to new innovations in transportation options like integrated bus rides with private carriers throughout the region. Fare box conversion to a fully functioning public-private transit system would be very expensive. A transit access pass with a different type of card reader system allowing for inter-operability among carriers would greatly expand system-wide access.

Innovative applications will make it easier to track and change pricing and program offerings for riders. Improvements in card reading will also make boarding and fare-paying more efficient for the transit system. Commuter rail fares could also be collected in a far more efficient manner. Bus and transit cash fare-taking also unduly adds to trip times. Cash-on-board will be replaced by a fare system that reduces bus and trolley boarding times. An improved retail sales network for fare cards, smart phone based payment apps and online card value-uploading will enhance and improve system accessibility. The end result will be to improve service by eliminating the time-consuming on-board cash transactions.

Another large area of activity for D. Block-Schachter is the incremental updating of the MBTA website. About one in ten of the MBTA riders use the website on a daily basis. In addition, many apps are being run for specific data requests like arrival and departure times. These and other features will continue to be improved.

## Discussion

In response to a member's question on automated fare collection cards, D. Block-Schachter explained that the retail fare card network has grown tenfold which reduces the demand for fare collecting machines at the point of entry. He was asked if the fare card structure would change further to allow for chip-based cards much like the EZ Pass. (J. McQueen) D. Block-Schachter explained that in the future, open-gate architecture and use of the "cloud" will facilitate use of system generated user cards, smartphone applications, and credit cards for fare collection.

In response to a member's question, D. Block-Schachter explained that all busses are equipped with a GPS system as are the Green Line cars. There is a supplemental vehicle-tracking system being used on the Green Line for the underground sections. There are many apps that make use of location data; accessing data from these app users might be helpful for planning purposes by tapping into key system-user demographic and travel characteristics. (M. Gowing)

M. Gowing stated that tap-on-tap-off fare collection offers a data rich environment in collecting travel characteristics and would also be helpful in informing fare structure, based on time-of-day considerations. D. Block-Schachter stated that the tap-on-tap-off fare collection method is not adopted now but it is being reviewed as one possible fare collection alternative.

D. Block-Schachter stated that system innovations from national and international models are being reviewed. The goal is to use a system that is not highly customized and is as much 'off-the-shelf' as possible. (B. Steinberg)

In response to a member's question, D. Block-Schachter stated that major efforts will be made to ensure data security, especially in areas where data is shared for research and planning purposes. Data regarding mobility patterns will continue to be safeguarded. (C. Porter)

T. Bennett asked how a new system might be implemented in a timely manner. D. Block-Schachter explained that contracting for the fare collection system vendor would stipulate system performance measures incorporating metrics that are directly tied to the design, build, operate and maintenance of the system.

T. Bennett asked which are the key technological innovations in the system given the demands for maintenance. D. Block-Schachter encouraged viewing the system as a whole with various systems influencing each other. A key variable underway involves writing software using modern software building practices which goes far in maintaining environment of innovation. In addition, offering customers choices in determining their optimal pass using a more flexible fare collection system will help meet the needs of riders.

In response to a question on how fare evasion will be addressed. D. Block-Schachter stated that standard fare enforcement practices employed industry-wide include checking for valid passes and issuing fines when evasion is determined. The current fare evasion rates are under two percent on subways; the Green Line fare evasion rate of about ten percent is hard to verify due to back-door boarding, particularly on inbound trips. This fare evasion estimate, about ten percent, approximates the Commuter Rail rate. (S. Zadakis)

## Report and Discussion - Comment Letter to the MPO - C. Porter, Committee Chair

L. Dantas reviewed the progress of the FFY2017-21 TIP over the last month. He noted that the MPO met on June 2 to discuss Highway Target Funds spending with discussion to continue next week, June 16. Staff is reviewing the impact the new TIP will have on the LRTP and any possible alterations to the LRTP that might be needed so that the documents are in agreement.

On June 16, the 3C documents are scheduled to be released for the public review phase of the approval process with final endorsement tentatively scheduled for the end of July. There may be a need to extend final endorsement if further transportation modelling programs must be run to deal with equity and air quality analyses. L. Dantas explained that Amendment 4 to the current TIP, reallocating funds for the Green Line Extension, is scheduled to be voted on at the next MPO meeting. Amendment 5 addresses various statewide costs adjustments which must be addressed in the TIP.

The UPWP is proceeding with fewer deviations than the TIP. This document is being prepared for a thirty day public review period pending MPO approval. Public review is scheduled to end on July 28.

TIP/UPWP Committee Chair, C. Porter, stated that there were no comments received on the Draft TIP Comment Letter and recommended that he proceed to finalize the letter to send to the MPO.

C. Porter indicated that the current version of the comment letter contains a reference to “capping” the MPO commitment to cost over-runs. M. Sanborn explained that the prevalence of cost-overruns suggests a need for better project cost estimation, avoiding overruns and to have a consistent policy for municipally involved projects. He asked if the Advisory Council be part of the discussion that addresses cost-overrun mitigation. T. Bennett added that the Advisory Council be updated on conversations held by the MPO on cost-overruns affecting the TIP.

A motion to allow C. Porter to finalize the comment letter on behalf of the Advisory Council to be presented at the next MPO meeting was made and seconded. The motion passed.

D. Fargen explained that a comment letter in support of the Needham-Newton Highland Avenue Project was received at the MPO meeting and forwarded to the MPO Chair.

M. Sanborn reported on the debate at the June 2 MPO meeting over a few of the larger scale projects and how much the cost overruns for these projects will change when some of the projects in towns with smaller projects will be constructed. Staff is trying to figure out a way to better balance scheduling of the projects.

## **Old Business, New Business, and Member Announcements**

On July 13, there will be a field trip in lieu of the regular meeting. The group will meet at the Commuter Rail Maintenance Facility in Somerville. The topic for the August 10 meeting will be on the impact of autonomous vehicles on planning and transit systems.

An MAPC/MIT meeting on autonomous vehicles will be held at MIT on Monday, June 13.

M. Gowing announced that Crosstown Connect TMA signed an agreement to allow for cross-RTA transportation without regard to border constraints.

## **Adjournment**

A motion to adjourn was made and seconded. The meeting adjourned at 4:20 PM.

## Attendance

### Municipalities (Voting)

Acton  
Brookline  
Cambridge  
Millis  
Needham  
Westwood  
Weymouth

Mike Gowing  
Dan Martin  
Tegin Bennett  
Ed Chisholm  
Rhain Hoyland  
Trevor Laubenstein  
Owen MacDonald

### Citizen Groups

AACT  
Association for Public Transportation  
Massachusetts Bus Association  
MassBike  
National Corridors Initiative  
Riverside Neighborhood Association  
WalkBoston

Mary Ann Murray  
Barry M. Steinberg  
Mark Sanborn  
Chris Porter  
John Businger  
Marilyn Wellons  
John McQueen

### Municipalities (Non-Voting)

Boston

Tom Kadzis; Josh  
Weiland

### Guests

Mary Dennison  
Scott Zadakis

Boston Resident  
Crosstown Connect

### Staff

Lourenço Dantas  
David Fargen

Ali Kleyman  
Jen Rowe