

**CITY OF CAMBRIDGE
TRANSIT ADVISORY COMMITTEE
MEETING NOTES**

Date, Time & Place: June 3, 2015, 5:30-7:30 PM
Cambridge Citywide Senior Center

Attendance

Committee Members

Kelley Brown, Charles Fineman, Robert Fitzgerald, Jim Gascoigne, Susan Pacheco, Simon Shapiro, Saul Tannenbaum, Ritesh Warade

City of Cambridge

Tegin Bennett and Cleo Stoughton (Community Development Department), Adam Shulman (Traffic, Parking and Transportation)

15 members of the public were present. Philip Groth (MBTA) and Pete Sutton (MassDOT) were present.

Committee Introductions and Announcements

- Jim Gascoigne provided a correction to the summary of Steve Kaiser's comments during the May meeting. Notes were approved by the Committee with this correction.
- There was a discussion about whether or not to hold Committee meetings in July and August. For various reasons, it was agreed that the Committee would not meet in July but would meet in August as scheduled.
- Tegin Bennett thanked the Committee for comments on the draft Transit Strategic Plan, which will now be finalized and released.
- Tegin Bennett noted that interviews of new applicants had been completed and the City Manager would approve new Committee members in the coming months.

Regular Updates

At each Committee meeting, the City will provide short updates on a number of ongoing projects. The City was asked to add updates about the Green Line Extension (GLX).

- M2 shuttle: as described in the May 2015 meeting notes, the City is working to make tickets to the M2 shuttle available in City Hall and potentially other locations.
- Real-time transit information: the City is gathering feedback about the three existing TransitScreens through surveys and other input. In general, survey respondents agree that they contain good information and that they should be placed in more locations. Visibility has been an issue, and the City is working to improve conditions and/or move the screens to better locations. The City is also exploring the possibility of installing smaller real-time information signs powered by solar at City-owned bus stops.
- [Kendall Square Mobility Task Force](#): Pete Sutton (MassDOT) gave an overview of the project and first meeting (see May 2015 meeting notes). The second meeting will be on June 23, 2015 from 4-6 PM at the Cambridge Innovation Center, One Broadway, in Cambridge.
- Pete Sutton also noted that comments on the preliminary [MassDOT Project Selection Advisory Council](#) recommendations are due June 5. Tegin Bennett noted that the City was providing comments on the recommendations.
- Transit priority: Tegin Bennett noted that the City continues to explore transit priority options at a few intersections and will provide the Committee with an update at a future meeting.
- MBTA Service Delivery Policy and Service Standard Update: the Central Transportation Planning Staff of the Boston Region Metropolitan Planning Organization is engaging stakeholders in a process of updating the policy and standards, and the City will provide an update when one is available.
- MBTA Program for Mass Transportation (PMT): the PMT process will begin soon, and the City will provide an update when one is available. .

Other Committee Updates

- Jim Gascoigne raised the need for a conversation among City departments and other interested parties about how to better communicate transportation-related impacts due to construction. He noted that, in general, the City has done a good job of alerting his organization, the Charles River Transportation Management Association, to possible impacts, though there have been lapses in communication occasionally. He would like to ensure that transit (as well as non-motorized transportation modes) is prioritized during construction. Saul Tannenbaum raised the question of how to report construction impacts as they occur.
- Simon Shapiro asked why there is not a bus shelter on Massachusetts Avenue at Exeter Park. It was suggested he email Bill Deignan for more information.

Initial Public Comment

- James Williamson asked Tegin Bennett to repeat the update about the M2 shuttle and noted that he would like to see tickets made more readily available and fareboxes that accept Charlie Cards on buses, among other improvements. He also asked for a statement on the diversity of the new Committee members and noted he would like to see a survey of Committee members' use of transit. He asked the Committee to take up the issue of the relocation of the Route 1 bus stop in Harvard Square. Tegin Bennett provided the M2 shuttle update and noted that diversity in terms of income, age, neighborhood representation, and ethnicity is an important consideration in the selection of new members.

Red Line Capacity Discussion

Tegin Bennett described some graphs developed for the K2C2 Study and recently updated that provide some information on average train loads in the peak hour. She was unable to show the graphs due to a mechanical failure, but she described the graphs as showing the train loads by taking the total station entries and dividing them over the number of trains per hour, showing excess capacity over the peak hours. These graphs assume even train spacing and even loading and do not reflect real conditions where trains are bunched (arriving at uneven intervals) and passengers do not spread themselves out throughout the cars. Also, an average taken over an hour still does not represent the maximum loading during the peak 15 minutes. A finer scale data is needed to better understand the challenges faced by riders.

Philip Groth (MBTA) provided background information on Red Line capacity and constraints, such as the “block system”, which maintains a minimum distance between trains based on static blocks; bunching; and mechanical failures. The Committee asked questions and engaged in a discussion about these challenges and what they mean for Cambridge. The discussion touched on:

- A number of different kinds of constraints on capacity, including:
 - Constraints within the system that are fixed (e.g., curves in the tracks require that trains move slowly)
 - Constraints that are currently fixed but could possibly be altered. For example:
 - The Red Line currently uses a block system to maintain safe train spacing, in which the line is divided into blocks and only one train at a time is allowed in each block. In a communications-based train control (CBTC) system, blocks are defined by the current locations of trains, which results in a more dynamic system with the possibility of shorter headways. MBTA staff are currently exploring the possibility of implementing CBTC but acknowledge that there may be fewer benefits in moving from the current automated block system to a CBTC system. Philip Groth noted that the most significant benefits were usually realized in moving from a fully manual system to a CBTC system. A full analysis of the costs and benefits of implementing CBTC could be recommended as part of the PMT process. Independent of this, some of the signals in the system are scheduled to be replaced.
 - Existing Red Line cars have three doors, but the newer cars (the last of which are scheduled to arrive by 2023 and will make up about 41% of the entire fleet) will have four doors that are wider, shortening dwell times at stations. In addition, half of the cars will be outfitted for passengers only (without the extra space for an operator), resulting in a 2-2½% increase in capacity; the new cars will be less likely to break down; and the new cars will be able to accelerate faster.

- Park Street and Downtown Crossing, in particular, require more staff to ensure that boarding and alighting occurs safely and that doors can close.
 - Constraints that are unpredictable (e.g., mechanical problems or medical emergencies)
 - Constraints that are behavioral (e.g., crowds unevenly spread along the platform, users bringing large items onto the train during rush hour)
- Differences between the MBTA and other transit systems
- Philip Groth explained that the Red Line is operating at close to the theoretical minimum capacity, with some buffer to allow for unpredictable problems described above.

Committee member questions and comments included the following:

- What percentage of capacity challenges are due to fixed constraints like the track geometry versus constraints that could be changed?
- How much would improvements at Park Street and Downtown Crossing solve the capacity issues?
- During World War II, headways were 90 seconds, compared to the current 4.5 minutes.
- What is the theoretical minimum capacity?
- How old exactly are the current signals, and can signal systems could be a future agenda item?
- Committee members highlighted the importance of communication with the public

MBTA, MassDOT, and City staff encouraged the Committee and members of the public to participate in the PMT process (which will begin soon and last 18 to 24 months), highlight the need for a better transit system, and advocate for these and other improvements. Saul Tannenbaum noted that the MBTA and MassDOT need to set focused, limited priorities and then identify funding, rather than trying to fit projects into a specific budget.

Tegin Bennett, the Committee, and Philip Groth also discussed setting up a tour of the Operations Control Center for Committee members in the near future.

Final Public Comment

- Susan Ringler noted the importance of considering climate change and improving the transit system, in part to help reach MassDOT's mode shift goals. She suggested a sub-committee form to focus on the Red Line's signal system and in general is glad that the Committee is discussing its advocacy role. She noted that providing real-time car-by-car loading data to riders would help distribute riders more evenly along the train. Philip Groth added that the new Red Line trains will be equipped with automatic passenger counters.
- Sarah Wetmore asked whether the MBTA distinguishes between delays due to car versus signal breakdowns, and Philip Groth said that there are staff members who work on these types of questions. She asked which kinds of metrics MBTA service planners use to schedule headways, and he responded that recovery time is built in to schedules to aid in schedule adherence. She asked whether outreach is done to allow and encourage employees to commute outside the peak travel periods to reduce congestion. Although not much outreach is done currently, Jim Gascoigne noted that it may be beneficial to provide more information about crowding to riders so that they can make informed decisions about when to travel.
- Steve Kaiser cited findings from a Cambridge Redevelopment Authority report about Kendall Square which found that ridership is below capacity but doesn't take into account various factors, many of which were discussed in this meeting.
- Ken Terrell described the cab signaling system used in the 1970s.
- James Williamson called attention to the report *Hub and Spoke*, which found that Central and Kendall stations are over capacity during rush hour—discrepancies between reports need to be reconciled. He also noted that Fred Salvucci at MIT is knowledgeable about CBTC systems and could be invited to discuss with the Committee. Buying cars equipped for CBTC now may save money in the long run if the system were converted to a CBTC system.

Adjourned at 7:30pm