MPO Meeting Minutes Draft Memorandum for the Record Boston Region Metropolitan Planning Organization Meeting

May 5, 2022, Meeting

10:00 AM-12:00 PM, Zoom Video Conferencing Platform

David Mohler, Chair, representing Jamey Tesler, Secretary of Transportation and Chief Executive Officer of the Massachusetts Department of Transportation (MassDOT)

Decisions

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

• Approve the minutes of the meeting of March 31, 2022

Meeting Agenda

1. Introductions

See the attendance list beginning on page 10.

2. Chair's Report-David Mohler, MassDOT

There were none.

3. Executive Director's Report—Tegin Teich, Executive Director, Central Transportation Planning Staff

T. Teich announced the public comment period for the Federal Fiscal Year (FFY) 2023-2027 Transportation Improvement Program (TIP), which began on May 2 and will close on May 23 at 5:00 PM. Matt Genova, the TIP manager, is hosting virtual open houses on May 10 at 12:30 PM and May 18 at 5:30 PM to receive feedback from stakeholders and the public.

T. Teich announced the upcoming meeting of the Transit Working Group, which is scheduled for May 31 at 1:00 PM. The meeting will feature Town of Lexington and 128 Business Council staff discussing transit mapping and regionalization followed by the MassDOT Rail and Transit Division staff discussing innovative, grant-funded projects conducted by regional transportation authorities.

T. Teich called for participation in a survey requested by the Massachusetts Association of Regional Planning Agencies and Transportation Managers Group. The survey, which has been sent out to municipalities in the Boston region and is due May 13, seeks to

gather information on municipal interests and questions about the discretionary funding programs in the Bipartisan Infrastructure Law.

T. Teich stated that in the next MPO meeting, which is scheduled for May 26, the board will vote for the endorsement of the FFY 2023-27 TIP.

4. Public Comments

There were none.

5. Committee Chairs' Reports

Brian Kane (MBTA Advisory Board) stated that the MPO's Administration and Finance Committee had a high-level discussion about the MPO's operations plan. He welcomed MPO staff to participate in future meetings.

6. Regional Transportation Advisory Council Report—Lenard Diggins, Chair, Regional Transportation Advisory Council

L. Diggins announced the discussion of the Unified Planning Work Program in the upcoming Advisory Council meeting.

7. Action Item: Approval of March 31, 2021, MPO Meeting Minutes— Matt Archer and Jonathan Church, MPO Staff

Vote

A motion to approve the minutes of the meeting of March 31, 2021, was made by the MBTA Advisory Board (Brian Kane) and seconded by the At-Large Town (Town of Arlington) (Daniel Amstutz). The motion carried.

8. Trip Generation Rate Research Study – Drashti Joshi, MPO Staff

Documents posted to the MPO meeting calendar

1. Trip Generation Rate Research

D. Joshi presented findings from the Trip Generation Rate Research study. The goal of the study was to learn best practices on trip generation and analyze trip generation data from completed development projects in Massachusetts. In doing so, the study can inform the MPO of ways to enhance the travel demand model for the MPO's next Long Range Transportation Plan and development impact evaluation methods at local and state levels.

Trip generation refers to the total number of trips generated by a particular development or a land use, measured in terms of gross floor area, employment, or dwelling units. One of the most widely used references for trip generation is the Trip Generation Manual and Handbook by the Institute of Transportation Engineers (ITE), which is based on trip generation data from 1980 and 2017. The ITE's trip generation can be limiting by nature because it is based on vehicle trips and does not consider person trips. In urban settings where person trips prevail in the presence of transit, ITE's estimates might not be accurate. The Massachusetts Environmental Policy Act (MEPA) employs ITE's method to evaluate traffic impact of proposed development projects that exceed certain traffic and environmental thresholds.

The study team also tapped into other sources to learn about other trip generation methods. The Environmental Protection Agency and National Cooperative Highway Research Program have published work on trip generation for mixed-use developments. Household travel survey data, which is typically used as an input for travel demand forecasting models, help to improve regionwide trip generation. A Virginia Department of Transportation survey revealed that California and Texas are actively developing their own trip generation rates.

D. Joshi presented an analysis of projected and observed traffic counts generated for nine completed development projects in the Boston region. The development projects chosen for the study represent a diversity of project size, type, and settings. Projected traffic data for these projects is pulled from traffic impact assessments for MEPA review, while corresponding observed traffic data is drawn from monitoring reports submitted to MassDOT. D. Joshi stated that while projected traffic counts are generally greater than observed traffic counts, the difference is even greater for smaller projects. She explained that the reason for such an overestimation may be attributed to the underlying assumption in the ITE's method that development projects are 100 percent completed and occupied.

D. Joshi explained other highlights from the review of development projects relating to these findings: the high variability of trip generation rates for retail developments; the impact of transit accessibility and project setting on traffic estimations; the correlation between parking constraint and projected traffic counts; the correlation between level of details in household characteristics and forecasting; and the different types of mixed-use developments leading to a wide range of accuracy in results.

D. Joshi stated that transit accessibility and density will be applied to the development of a new travel demand model, TDM 23, as shown on the map of the Boston region where transportation analysis zones were characterized according to six area types. She also stated that the new TDM will employ ten employment categories in trip generation and use inputs from the Metropolitan Area Planning Council's (MAPC) Urban Sim model. The resulting TDM will be more consistent with the MAPC's forecasting work and also be more sensitive to the contributing factors that determine trip generation.

Discussion

Brad Rawson (Inner Core Committee) (City of Somerville) commented that this research will guide municipal staff when reviewing private redevelopment and public infrastructure plans as they devote a lot of time scrutinizing development applications to try to respond to the high demand in the real estate market. He stated that municipal governments prioritize development reviews to ensure that proper mitigation is in place to prevent communities from being subject to the downsides of new developments and that investments are directed at meeting community priorities.

D. Amstutz asked how development details from the transportation monitoring report are considered in trip generation. D. Joshi stated that trip generation rates for these developments are generated by first estimating the number of trips for each land use and combining them. The transportation monitoring report employs traffic counters that calculate vehicle trips going in and out of the development site. D. Mohler added that in estimating trip generation for mixed-use developments, internal capture is also taken into consideration to reduce double counting.

David Koses (At-Large City) (City of Newton) asked whether the transportation monitoring report provides an explanation for cases in which projects have predicted trips that are lower than observed trips due to the projects being incomplete at the time of estimation. D. Joshi explained that all the projects that are published in monitoring reports are completed projects. She added that all the traffic counts from the table are directly from the report, and no new adjustments are made to the traffic counts.

B. Rawson asked whether the MPO has explored emerging best practices on trip generation that factors in variables other than vehicle trips to capture person trips that are typically not accounted for in post-project evaluation. D. Joshi stated that, besides bicycle and pedestrian models, some states and MPOs designed trip generation spreadsheets that were designed based on local inputs. Marty Milkovits (MPO staff) added that the research has informed MPO staff of the nature of sensitivities that will be factored into the TDM 23. A base model for the TDM 23 will be built for staff to work on based on these attributes. This model will expand and enhance staff's tools and provide useful insights.

B. Rawson asked how the research will be applied to other plans and MPO products. M. Milkovits stated that new insights from the research would help staff to better understand relationships between contributing factors and trip generation at varying

levels of scope. M. Milkovits pointed out that understanding such relationships will lead to a more accurate approximation of vehicle trips as a component of person trips.

B. Kane stated that the research has the potential of having significant benefit for cities and towns in the inner core communities and edge communities on the Boston border. For example, municipalities could require developers to utilize CTPS data for impact assessments of large developments and, in doing so, rely less on third parties and their work on trip generation.

Eric Bourassa (MAPC) stated that the research brings awareness of high transit use and the number of mixed-use developments in in the region and serves well as a foundation for designing trip generation methods that are sensitive to local contexts. The research is in line with two Unified Planning Work Program studies that examine the correlation of parking to lab space and to car usage and availability. He stated that altogether these studies help to understand the role of developments in trip generation and ways to plan for development impacts in a more nuanced, thoughtful manner.

D. Mohler asked about how much of the overestimation in trip generation is caused by occupancy rates. M. Milkovits responded that since trip generation rates assume 100 percent occupancy, projected traffic counts will be biased against developments with less than full occupancy. He added that since not all of the projects have occupancy information available, the extent to which occupancy affects trip estimation is unknown.

D. Mohler raised two comments about the assumptions from the study. Firstly, having person trips accounted for in estimating trip generation might address the problem of overestimation if the current trip generation methods focus on vehicle trips and underestimate transit trips. Secondly, if estimates are always significantly greater than the observed count, it might be challenging to legitimatize the need for mitigation.
M. Milkovits responded that, due to the sample being small, staff would rather treat study findings as some indications than push hard for conclusions. Also, depending on the size of developments, a higher percentage of error would not necessarily translate to a greater difference in real trips.

D. Mohler expressed a concern that overestimating impacts might distract stakeholders from prescribing appropriate levels of mitigation. D. Joshi explained that while ITE provides a broad range of trip generation rates for retail developments and is accountable for overestimation, it seems that ITE has also worked on improving the quality of forecasts in the most recent publications.

E. Bourassa explained that a focus group with top consultants revealed the tendency to overestimate trips between 25 to 40 percent despite adjustments and the tendency is

more pronounced in suburban sites. He stated that focusing on mitigating vehicle trips, such as additional turn lanes at intersections, might affect pedestrians and bicyclists. He also stated that correcting overestimation is important to avoid pushback from residential communities that are opposed to developments near their housing.

D. Koses stated that trends in observed data might be different in the aftermath of the COVID-19 pandemic. M. Milkovits responded that the research is prompting a question about the pandemic's impact on long-term changes in travel behavior. D. Joshi stated that all of the observations shown in the presentation were made before the pandemic.

D. Amstutz agreed with E. Bourassa that the assumption of developments creating more automobile trips lead to mitigations at the expense of pedestrian and bicycling safety. He explained that it is difficult to encapsulate multitudes of factors that influence people's travel behavior and mode choice in a single number. Ben Dowling (MPO staff) explained that more research is required to develop more individualized approaches to trip generation.

L. Diggins asked whether trip estimates are reported with margins of error. D. Mohler responded that, despite the presumption that estimates are not always accurate, estimates from the monitoring report are treated as best estimates.

B. Rawson commented that development mitigations could meaningfully contribute to achieving public sector goals and help reduce local tax burdens that all municipalities are faced with. Considering the role of private investment in supporting public programs, it is important that municipalities right-size their understanding of development impacts and mitigations and ensure that private dollars are spent effectively.

Jim Fitzgerald (City of Boston) (Boston Planning & Development Agency) explained that the City of Boston calculates trip generation for different modes by splitting ITE's trip generation rates by mode shares that the city generated for each neighborhood. Part of what motivated the City to take this approach relates to ambitious mode share goals that the City outlined in Go Boston 2030, the City's comprehensive transportation plan. City staff are now revisiting these goals to analyze future build conditions, from which they are going to plan for and customize mitigations targeting increased walking, transit, and bicycle use. Compared to the past when the City's priority was alleviating car traffic, the current approach to mitigation through improvements in the transit network and pedestrian and bicycle infrastructure is transformative.

Matt Moran (City of Boston) (Boston Transportation Department) stated that the study supports the vision for a sustainable multimodal infrastructure and drives municipalities away from roadway investments.

B. Kane stated that CTPS's work is a valuable resource for a lot of municipalities in the Boston region, particularly in communities near Boston that are experiencing rapid growth but do not have funding to perform development impact assessments.

Melisa Tintocalis (North Suburban Planning Council) (Town of Burlington) asked how the study could help suburban communities. M. Milkovits explained that staff are thinking about how to improve their travel demand model and provide general guidance for member municipalities. A purpose-built tool that draws features from both a travel demand model and ITE would benefit the MPO and complement other tools that the MPO has available.

9. MBTA Bus Priority and Reliability Toolkit—Eric Burkman, MBTA, and Theresa Carr, Nelson\Nygaard

E. Burkman and T. Carr presented an update on the development of the MBTA bus priority and reliability toolkit, a guide for municipalities within the MBTA's service area to help cities design and implement bus priority facilities in cooperation with the MBTA. To start off the presentation, E. Burkman gave a background of the project. Because the MBTA-owned services operate on locally owned streets, the MBTA must work with municipalities to deliver MBTA projects. This project is one example of the MBTA's efforts to promote collaboration with municipal partners. The toolkit, once complete, will offer municipalities consistent and clear guidance that promotes a standard look and feel across the region's streetscape and fosters a common knowledge among everyone using the streets and traveling through different communities.

E. Burkman explained that the MBTA's Transit Priority Group, which came out of CTPS's Prioritization of Dedicated Bus Lanes study in 2016, is leading the project. This group is focused on completing projects to improve travel time and reliability of services. Building on the MAPC's Get It Rolling workbook on bus improvements, recent bus lane design efforts, and input from municipalities and other jurisdictions, the toolkit serves as a one-stop shop that provides essential details on how to implement transit amenities tailored to local contexts.

T. Carr explained about the toolkit components. The topics are grouped in three categories: priority along bus lanes; priority at the signals and signs; and priority at the bus stops. For each topic, the toolkit defines best practices, typical treatments that have been implemented in the Boston region, benefits and challenges, strategies, and implementation guidelines targeting both technical and non-technical audiences. These are condensed in the 24 treatment sheets, or what T. Carr described as the heart of the

matter: one- or two-page long spreads that break down in illustrations and narratives to encapsulate all the components. The toolkit is also designed to reach a broad audience. It illustrates the importance and benefits of transit priority investments in the introductory chapters, and calls out complicated, nuanced concepts supplemented with graphics that resemble a typical setting in the Boston region.

E. Burkman stated that the MBTA is currently preparing and reviewing the content of the toolkit and engaging its stakeholders simultaneously. The toolkit will be finalized and released to the public in the upcoming fall. Some of the content from the MBTA's bus stop guidelines is going to be integrated into the toolkit, and the MBTA would also welcome suggestions that may not apply to the MBTA system but would be of interest to the audience. E. Burkman expressed his interest in hearing thoughts from the communities about additional details and specific issues that they would like to see in the toolkit.

Discussion

B. Kane suggested that the MBTA consider addressing strategies on enforcement. He also stated that upcoming legislation will allow the MBTA to do automatic enforcement of bus lane scofflaws by camera.

L. Diggins stated that elements of transit facilities, such as signal boxes, could inspire partnerships with artists, and that bus priority promotes equity and sustainability. He asked whether the toolkit will discuss maintenance. E. Burkman stated that since the toolkit is focused on design, enforcement and maintenance will be addressed in the toolkit in a way that informs the design.

B. Rawson suggested that the MBTA not limit best practices that are being captured in the toolkit to those in urban communities or along high-frequency bus corridors; he suggested that the toolkit be applicable to other types of settings and services. He stated that emerging technologies are becoming more compatible between traditional emergency vehicle preemption and bus preemption. Somerville's fire department is working with the MBTA to ensure that the City would require the technology that recognizes ambulances, fire apparatus, and MBTA buses. B. Rawson also recapitulated opportunities for designing on-street bus infrastructure on state roads and asked E. Burkman what was discussed among the MBTA, Department of Conservation and Recreation, and MassDOT about treatments on state highways. E. Burkman responded that the MBTA has not started direct engagement with state agencies and municipalities but is aware that municipalities and state agencies have different implementation processes. M. Tintocalis commented that infill and bus priority projects could go hand in hand as suburban communities plan ahead.

10. Members Items

B. Kane suggested that the MPO consider moving the current virtual meeting format to a webinar format to allow presenters to mute and unmute themselves.

11. Adjourn

A motion to adjourn was made by the MBTA Advisory Board (B. Kane) and seconded by the At-Large Town (Town of Arlington) (D. Amstutz). The motion carried.

Attendance

Members	Representatives and Alternates
At-Large City (City of Everett)	
At-Large City (City of Newton)	David Koses
At-Large Town (Town of Arlington)	Daniel Amstutz
At-Large Town (Town of Brookline)	Heather Hamilton
City of Boston (Boston Planning & Development Agency)	Jim Fitzgerald
City of Boston (Boston Transportation Department)	Matt Moran
Federal Highway Administration	Ken Miller
Federal Transit Administration	
Inner Core Committee (City of Somerville)	Brad Rawson
Massachusetts Department of Transportation	David Mohler
MassDOT Highway Division	John Romano
	Marie Rose
Massachusetts Bay Transportation Authority (MBTA)	
Massachusetts Port Authority	
MBTA Advisory Board	Brian Kane
Metropolitan Area Planning Council	Eric Bourassa
MetroWest Regional Collaborative (City of Framingham)	
Minuteman Advisory Group on Interlocal Coordination (Town of Acton)	
North Shore Task Force (City of Beverly)	Darlene Wynne
North Suburban Planning Council (Town of Burlington)	Melisa Tintocalis
Regional Transportation Advisory Council	Lenard Diggins
South Shore Coalition (Town of Rockland)	
SouthWest Advisory Planning Committee (Town of Medway)	Peter Pelletier
Three Rivers Interlocal Council (Town of Norwood/Neponset Valley Chamber of Commerce)	Tom O'Rourke

Other Attendees	Affiliation
Colette Aufranc	
Joe Blankenship	Boston Transportation Department
Erik Burkman	MBTA
Theresa Carr	
Paul Cobuzzi	
Michael Garrity	MassDOT
Joy Glynn	MetroWest Regional Transit Authority
John Gonzalez	DHK
Michelle Ho	MassDOT District 5
Doug Johnson	MassDOT
Todd Kirrane	Town of Brookline
Derek Krevat	MassDOT Office of Transportation Planning
Owen MacDonald	Town of Weymouth
Derek Shooster	MassDOT Office of Transportation Planning
Tyler Terrasi	MetroWest Regional Transit Authority
Frank Tramontozzi	
Andrew Wang	MassDOT

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MPO Staff/Central Transportation Planning Staff

Tegin Teich, Executive Director Matt Archer Leila Azizi Jonathan Church Annette Demchur Ben Dowling Sabiheh Faghih Hiral Gandhi Matt Genova Betsy Harvey Zihao Jin Sandy Johnston Stella Jordan Drashti Joshi Heyne Kim Rose McCarron Anne McGahan Marty Milkovits Rebecca Morgan Srilekha Murthy Gina Perille Sean Rourke Michelle Scott

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