

Study Information				LRTP Goals					
ID	Project Name	Project Purpose and Outcome	Notes	S	SP/M	CM/M	TE	CA/SC	EV
ACTIVE TRANSPORTATION				Key: 5 = most relevant, 1 = least relevant					
A-1	Shared-Use Path Guidebook	<p>Purpose: The purpose of the Shared-Use Path Guidebook project will be to provide municipalities and advocates with recommendations for bringing a shared-use path concept to reality. The UPWP project will entail interviewing municipal staff and advocates who have successfully brought shared-use paths to their communities, helping to inform future path-planning efforts using these effective experiences. A comprehensive study about the pros and cons and best practices for shared bus/bike lanes including guidelines on when they are feasible or not. Impacts on safety and comfort for bicyclists. Impacts on travel speed and reliability for buses, including bus driver's input. How to have a complete street for bikes and buses when space is limited? Guidance on how to prioritize space when all modes cannot fit on a street (autos, bikes, buses, and loading needs)?</p> <p>Anticipated Outcome: This study would result in a guidebook for municipalities to consult when considering a shared-use path project.</p> <p>Estimated Budget: \$60,000</p>		5	1	4	3	3	1
A-2	Impact of New Active Transportation Facilities in the Boston Region	<p>Purpose: The goal of this project is to analyze in a before-and-after style (where possible) the impacts of new bicycle and pedestrian infrastructure constructed largely as a result of the COVID-19 pandemic (as documented at this link: https://trailmap.mapc.org/). Variables to be considered could include speed data; accessibility to key destinations; economic impacts (potentially drawing from the recently released MassDOT research project on the economic impact of shared-use paths); and safety data before and after new facilities.</p> <p>Anticipated Outcome: A memo or study reporting cost/benefit analyses of capital projects intended to improve safety for pedestrians and bicyclists.</p> <p>Estimated Budget: \$40,000–\$60,000</p>		5	1	4	2	3	1
A-3	Update Bicyclist/Pedestrian Count Database	<p>Purpose: The Bicyclist/Pedestrian Count Database the MPO maintains (https://www.ctps.org/appsloc/bike_ped5/bike_ped_query.html) has not had new counts added since 2019. As we are asked to include pedestrian and cyclist counts during project initiation and scoping, and as traffic counts are encouraged to be no older than two years, it would be helpful for the district and member municipalities if the MPO resumed this counting program. In addition, the previously counted locations are largely centered on portions of the inner core and along the Minuteman Greenway. Some extra attention to developing and restarting a robust program may be necessary to ensure that a broad range of geographies and future project locations are included.</p> <p>Anticipated Outcomes: The anticipated outcome of this project would be an updated database of bicycle and pedestrian counts with a more expanded geography.</p> <p>Estimated Budget: \$80,000</p>		4	1	2	1	4	1

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ROADWAY AND MULTIMODAL MOBILITY									
M-1	Multi-Municipality Parking Study	<p>Purpose: MAPC and CTPS propose collaborating on a research study to assess regional parking demand and utilization at commercial/mixed-use developments, with a particular focus on lab/life science facilities. As more lab facilities are proposed throughout the Greater Boston region, developers are suggesting that high amounts of parking are needed on-site, which is sparking concern from municipalities about the potential impacts on local and regional transportation systems. MAPC's Perfect Fit Parking research, which assessed regional parking demand and utilization at multifamily housing developments, can provide a potential model to help determine the appropriate amount of parking at lab facilities and to avoid overbuilding.</p> <p>Anticipated Outcome: A database organizing parking rates, policies, permit programs of municipal and lab parking spaces in the Boston region, as well as a model determining appropriate amount of parking needed at lab facilities given the surrounding community.</p> <p>Estimated Budget: \$125,000</p>		1	1	3	3	3	5
TRANSIT									
T-1	Flexibly Fixed Route Bus Service	<p>Purpose: This study would identify the costs and benefits to allowing on-demand stops (in between existing stops) on low ridership bus routes and/or during off-peak service to increase safety and convenience for riders. Conducted in collaboration with RTAs, this study would aim to additionally map RTA service areas and identify gaps in service.</p> <p>Anticipated Outcomes: Maps of RTA service routes</p> <p>Estimated Budget: \$40,000–60,000</p>		2	2	4	4	2	2
T-2	Transit Modernization Program	<p>Purpose: This study would dedicate staff time to develop materials and direction for the Transit Modernization Program that begins in FFY 2025. Beginning early would assist CATA, MWRTA, and the MBTA in identifying eligible needs and coordinating efforts with municipalities before the funding program solicits applications.</p> <p>Anticipated Outcomes: Guidelines and materials to assist transportation agencies in coordinating with municipalities during the application process for the Transit Modernization Program</p> <p>Estimated Budget: \$75,000</p>		2	4	4	3	2	2

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T-3	Opportunities for Bus Rapid Transit (BRT) in the Boston Region	<p>Purpose: This study addresses four of the six MPO's goals with Transportation Equity as the primary focus and Clean Air/Clean Communities, Capacity Management/Mobility, and Economic Vitality as secondary objectives. BRT addresses transportation equity by focusing on improving the frequency, speed, reliability, and quality of bus transit service that is disproportionately used by low-income and minority riders. These bus service enhancements provide disadvantaged populations with greater accessibility to jobs and services and improve overall quality of life by allowing people to spend more time at origins and destinations and less time waiting for service. It can also extend the reach of rapid rail transit services by feeding end of line stations and providing line-to-line transfers outside downtown. BRT addresses the remaining goals: Clean Air/Clean Communities by inducing a mode shift away from private automobiles, Capacity Management/Mobility by increasing capacity of bus routes with greater frequency and longer vehicles, and Economic Vitality by promoting more sustainable transit-oriented development at nearby stations.</p> <p>In 2015 ITDP conducted a BRT analysis Better Rapid Transit for Greater Boston that identified five potential corridors for BRT in the Boston region and provided time-savings estimates. This study will build on the ITDP study by measuring the accessibility benefits of BRT along these and five additional corridors. MPO staff will leverage innovative transit analysis tools such as Conveyal to estimate the number of additional jobs, services, and destinations BRT could provide to EJ communities throughout the Boston Region.</p> <p>Anticipated Outcomes: A memo outlining potential new corridors for BRT and potential benefits and impacts of such an expansion on EJ communities and economic development.</p> <p>Estimated Budget: \$80,000</p>		1	5	4	3	4	4

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T-4	Funding Free Fares: Possibilities of Eliminating Fares with Value Capture	<p>Purpose: There is growing interest around the country and the Commonwealth for eliminating fares on transit service. In recent years transit providers around Massachusetts including Boston, Worcester, Brockton, and Lawrence have piloted or are currently piloting fare elimination projects. Eliminating fares has the potential to improve transportation equity, reduce barriers to ridership, and eliminate the expense of operating a fare collection system. However, while eliminating fares has many potential benefits, what remains less clear is how transit providers could pay for it.</p> <p>This study would estimate the feasibility of replacing fare revenue with value capture tools. In 2017, MAPC published Expanding the Use of Value Capture for Transportation and TOD in Massachusetts, which provides an overview of the value capture tools currently employed and available in the Commonwealth. This analysis will expand on the MAPC study by estimating the revenue potential of value capture tools to replace the loss of fare revenue. MPO Staff will estimate the revenue potential of value capture tools through the implementation of property assessments and sales taxes at varying distances near MBTA transit services. Staff will create a memo that describes the feasibility of available value capture options to replace fare revenue. The memo will provide details on the amount and geographic extent of property assessments and sale taxes necessary to fully fund the MBTA transit system. Staff will also investigate the possibility of replacing fares with value capture along specific transit routes, modes, and stations.</p> <p>There are many potential benefits of relying on value capture to fund a fare free transit system. It is well established in the literature that high-quality transit services can have a positive effect on nearby property values and retail revenue. Value capture tools “capture” a portion of this value with property assessments and sales taxes to nearby properties and businesses to fund the operating and capital costs of the transit service. Funding transit with value capture also allows the transit provider to take advantage of positive feedback loops. Eliminating fares induces higher transit ridership, which leads to greater retail sales at transit accessible businesses. Similarly, the improvements in accessibility offered by transit services lead to an uplift of nearby property value. These increases to property value and sales revenue lead to more funds to operate, improve, and expand the transit network. Greater funds allow the transit service provider to improve the accessibility benefits of the transit network with greater frequency, reliability, and coverage, which result in more revenue.</p>		2	2	5	5	5	4
		<p>Anticipated Outcome: A dataset documenting survey responses and a memorandum or web page presenting analysis. Data will be made available to agency partners and municipalities throughout the region.</p> <p>Estimated Budget: \$60,000</p>							

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TRANSIT EQUITY									
TE-1	Analyzing the Environmental Justice Impacts of Congestion Pricing	<p>Purpose: The transportation burden on EJ communities is one of the major reasons that MPOs were created. In the 20th century in particular, transportation innovations were deliberately created and implemented with a purpose to burden different population groups. Congestion pricing is a new proposal that is occurring in several places in the world. While there are surely benefits to congestion pricing, this is something that has not been previously imposed in the Boston Region. Therefore, it is ideal to present due diligence that these traffic mitigation strategies do not adversely impact disadvantaged population groups.</p> <p>This study will analyze the benefits and burdens that congestion pricing strategies will have on EJ populations, which would include minorities and low-income populations. This study can also analyze the impact of congestion pricing with other vulnerable populations, such as seniors, disabled individuals, and carless households. Potential adverse impacts to congestion pricing include the increase of congestion in or leading to EJ communities, the disproportional increase of transportation costs to EJ populations relative to population, and the reduction of transportation options in EJ communities. This study will look at different impacts of different methods of congestion pricing, including but not limited to cordon pricing, HOT lanes, tolling, and parking pricing. This study will also look at potential strategies to alleviate potential burdens, including variable pricing based on the income of the people using the transportation facility.</p> <p>Anticipated Outcomes: Memo or paper outlining benefits and concerns of congestion pricing strategies as they relate to EJ communities.</p> <p>Estimated Budget: \$60,000–\$80,000</p>		2	2	5	5	5	3
TE-2	Equity Analysis of Demand-Response Transit in the Boston Region	<p>Purpose: In line with the recent federal emphasis area to "target demand-response service towards communities with higher concentrations of older adults and those with poor access to essential services," assess the existing conditions of demand-response transit in the region and evaluate whether it is meeting the needs of these traditionally underrepresented communities</p> <p>Anticipated Outcomes: Memo outlining where service to essential services is limited, along with maps of said corridors.</p> <p>Estimated Budget: \$20,000</p>		1	1	3	5	3	2
TE-3	Assessing Mobility Options at Affordable Housing Developments	<p>Purpose: This project would conduct a site-specific assessment of mobility services for residents at a sample of affordable housing communities within the region. The task would evaluate mobility options for low-income residents from the perspective of accessing economic opportunities, medical facilities, schools, parks, grocery stores and other daily needs. This could fall under Transportation Equity Program as an "on-the-ground" counterpart to higher-level analyses from Conveyal and the travel demand model.</p> <p>Anticipated Outcomes: Guidebook or similar manual for transit providers to take to housing authorities and develop more equitable transit options to and from affordable housing communities</p> <p>Estimated Budget: \$100,00–\$150,000</p>		2	1	2	5	4	4

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TE-4	Chelsea Freight Electrification Survey	<p>Purpose: The City of Chelsea has consistently demonstrated high levels of air pollution from transportation and associated health risks. Consequently, the City, through the N. Suffolk Office of Resilience and Sustainability (Revere, Winthrop, Chelsea), is seeking to develop an actionable plan to advance the electrification of freight in key industry sectors, informed by a thorough analysis of freight patterns, technologies, economics, and policy impediments. The proposed project area encompasses a concentration of vital light industrial and industrial uses north of Boston, enveloping Chelsea, Everett, and Revere. The project area can be modified to right size the project, based upon the forecasted level of effort, availability of resources, and stakeholder feedback.</p> <p>Anticipated Outcomes: Mapping freight patterns, memo outlining the advancement of freight electrification and effects such a move would have on the area's economy, as well as potential policy implications.</p> <p>Budget: \$60,000–\$80,000</p>		2	4	4	5	5	3

Notes:

* = Relationship to Goals and Objectives depends on the individual project(s) selected

12 Total study concepts

LRTP Goal Area Acronyms:

S = Safety. SP/M = System Preservation and Modernization. CM/M = Capacity Management and Mobility. TE = Transportation Equity. CA/SC = Clean Air/Sustainable Communities. EV = Economic Vitality.

Abbreviations:

BRT = Bus Rapid Transit. CATA = Cape Ann Transportation Authority. CTPS = Central Transportation Planning Staff. EJ = Environmental Justice. FFY = federal fiscal year. ITDP = Institute for Transportation and Development Policy. ITE = Institute of Transportation Engineers. LRTP = Long-Range Transportation Plan. MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority. MPO = Metropolitan Planning Organization. MWRTA = MetroWest Transportation Authority. RTA = regional transportation authority. TOD = transit-oriented development. UPWP = Unified Planning Work Program.