

Draft CTPS FFY 2014 UPWP Universe of Proposed New Projects, by Project Type

(This document is a draft in development.)

Sort Key	Project Name	Project Description	Focus Areas*														Comments		
			Link Land Use and Transportation	Work with Limited Financial Resources	Use a Management and Operations Approach	Protect Air Quality and Environment	Preserve and Maintain the Transportation System	Increase Transit and Healthy-Transportation Mode Share	Encourage Sustainable Communities and Livability	Advance Mobility, Access, and Congestion Reduction	Improve System Reliability	Increase Transportation Safety and Security	Support Economic Vitality	Consider Transportation Equity and Accessibility	Support METROFUTURE Goals	Support Goals of PMT, youMove/weMove, GreenDOT, and MA Mode Shift		Enhance Technical Capacity, Knowledge, and Insights	Support Performance-Based Planning
ROADWAY NETWORK PERFORMANCE PROJECTS																			
1	Traffic Signal Retiming Program	<p>Traffic signal retiming is one of the most cost-effective ways to improve traffic movement through an intersection. Comprehensive signal retiming programs have documented benefits of 7-13% reduction in overall travel time, 15-37% reduction in delay and a 6-9% fuel savings.</p> <p>As part of an ongoing program in the UPWP, the signal retiming program can minimize congestion, fuel consumption and emissions. Signal timing should be reviewed throughout the region to evaluate its effectiveness and to make necessary changes. Phases can be implemented in order to achieve the most efficiency over time. The current CMP Committee effort can be used as a pilot study.</p>		✓	✓	✓	✓									✓	✓	Project costs are currently estimated to fall within the \$30,000 to \$75,000 range, though the project scope may be scalable.	
2	Congestion Costs for the Boston Region	<p>This proposed study would examine the extent of congestion in the Boston region and how it can be valued economically using commercial electronic traffic data and value-of-time measures.</p>		✓							✓	✓					✓	✓	Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.
3	Congestion-Generating Location Analysis	<p>The proposed study would analyze whether there are specific locations in the Boston region that generate particularly congestion-inducing traffic using commercial electronic traffic data and regional travel model data. Outputs could support MPO efforts to prioritize investment dollars.</p>	✓	✓		✓					✓	✓		✓			✓	✓	Ongoing discussion is occurring regarding a university-based project with related focus. Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.
4	Roadway Network Reliability Evaluation	<p>The proposed study would evaluate the reliability of travel times and speeds on roadways in the Boston region using commercial electronic traffic data and other information. Outputs could be used to make more effective comparisons between roadway and transit travel times and speeds.</p>			✓		✓						✓			✓	✓	✓	This project could be coordinated with the MPO's Mobility Management Process. Project costs are currently estimated to be \$75,000 or greater, though the project scope may be scalable.

Focus Areas Key: ✓ Major Consideration ✓ Minor Consideration

* Focus areas are based on MPO visions and policies, national transportation goals and planning factors, federal guidance and other regional priorities. The MPO vision topics are: mobility; safety and security, transportation equity; system preservation, modernization, and efficiency; livability; environment; and climate change.

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ROADWAY NETWORK PERFORMANCE PROJECTS																		
5	Priority Corridors for Long-Range Transportation Plan (LRTP) Needs Assessment	This project would constitute an additional phase of the Priority Corridors for Long-Range Transportation Plan (LRTP) Needs Assessment project, which was included in the FFY 2013 UPWP. This project would recommend conceptual improvements for a selected number of corridors or corridor segments that the Congestion Management Process (CMP) and the Long-Range Transportation Plan identified in the needs assessment process.	✓	✓		✓	✓	✓			✓	✓	✓	✓	✓	✓	Project costs are currently estimated to be \$75,000 or greater, though the project scope may be scalable.	
6	Addressing Safety, Mobility, and Access on Subregional Priority Arterial Roadways	This project would constitute an additional phase of Addressing Safety, Mobility, and Access on Subregional Priority Arterial Roadways, which was included in the FFY 2013 UPWP. This project would identify priority arterial bottleneck locations in the MPO region, with an emphasis on issues identified by subregional groups, and would develop recommendations for low-cost improvements. Staff will consider numerous strategies, including examining and evaluating traffic signals, bus stop locations, and access management, among others.	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	Project costs are currently estimated to be \$75,000 or greater, though the project scope may be scalable.	
7	TIP Project Impacts Before-After Evaluation	<p>This project would continue a pilot study begun in FFY 2012. Its purpose is to identify the effectiveness of TIP projects. Measuring project effectiveness is important in order to know whether the employed strategies work well and are therefore suitable for application in similar situations.</p> <p>To this end, staff will select TIP projects that are programmed for construction during a specified time period. It is likely that only traffic management and operations projects will be selected, as the construction period of projects in this category is shorter than for other projects, such as the construction of freeway interchanges. The "before" data will be collected in the early spring of the selected year, before specified projects begin. The "after" data will be collected upon project completion, which may be later than the identified year.</p> <p>The type of "before" and "after" data that staff will collect depends on the nature of the project. For traffic management and operations it is likely that traffic flow, speed, delay, and safety information will be collected. If budget allows, level-of-service and air quality information will also be calculated for the "before" and "after" conditions. Staff will compare the two sets of data and draw conclusions.</p>		✓										✓	✓	✓	✓	Project costs are currently estimated to be \$30,000 or less.

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ROADWAY NETWORK PERFORMANCE PROJECTS																				
8	Comprehensive Transportation Study for the Back Bay, the Fenway, and the Longwood Medical Area	<p>There are several transportation project improvement efforts ongoing or proposed in an area that encompasses Back Bay, Fenway, and the Longwood Medical Area. Concerns have been expressed by elected officials and others about how all of these projects will interact and whether, as a whole, they will adequately serve the future transportation needs of this area.</p> <p>The proposed study, therefore, would comprehensively examine whether the major existing and proposed transportation facilities that support the Back Bay, the Fenway, and the Longwood Medical Area will be able to accommodate transportation demand from anticipated growth. Project concepts proposed for this area include the addition of Turnpike ramps in the Back Bay and Longwood Medical Area, expansion of Green Line capacity, extension of the Silver Line, repair or elimination of the Bowker Overpass, and repair or downsizing of Storrow Drive in certain areas.</p> <p>Elements of the proposed study would include an assessment of expected development and projections of future traffic growth within the area, along with identification of relevant regionwide traffic growth trends that affect the area. The study would then compare future traffic growth to existing capacity and planned capacity enhancements to identify areas of significant congestion or other transportation deficiencies, and provide an inventory of possible solutions for these areas. It would also identify any major existing routes that are currently and likely to remain below capacity.</p>	✓																	<p>This study may duplicate portions of several other ongoing MassDOT study efforts in this area and is probably premature at this point. In order to perform this study appropriately, those other efforts should be allowed to advance to the point where preferred solutions can be identified and then analyzed collectively in the manner suggested by this proposal. Project costs are currently estimated to be \$75,000 or greater.</p>

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SAFETY AND SECURITY PROJECTS																			
9	Traffic Safety Countermeasures	<p>CTPS staff would help prepare a document that identifies safety topics and relevant countermeasures to address many important safety concerns. The FHWA has a recommendation for nine such countermeasures, which include 1) enhanced delineation and friction for horizontal curves, 2) pedestrian hybrid beacon, 3) backplates with reflective borders; 4) longitudinal rumble strips and stripes on two-lane roads, 5) corridor ccess management, 6) medians and ped crossing islands in urban and suburban areas, 7) "Road Diet" roadway configuration, 8) roundabouts, and 9) safety edge.</p> <p>This empirical research study will point to these or other countermeasures to adopt and promote in Massachusetts. The study will review policies and other material that MassDOT already has for reference. The final product will be a memorandum documenting the analytical procedure that led to the selection of the MA safety countermeasures, a description of each countermeasure, safety facts, and MassDOT contact information for help.</p>			✓						✓	✓	✓			✓		Project costs are currently estimated to fall within the \$30,000 to \$75,000 range. This project may be a possible candidate for MassDOT SPR funding.	
10	Crash Reduction Factors Analysis	<p>Safety countermeasures are design elements that address various types of roadway crashes at intersections and on roadway segments. Each crash type may have several countermeasures associated with it, and each countermeasure associates with a crash reduction factor. Staff will select TIP projects that applied various countermeasures and compare before-and-after data to calculate crash reduction factors from each countermeasure. An adequate sample size of TIP projects that employ the same countermeasure will be selected for a valid estimate. Interested parties may include Massachusetts area MPOs, MassDOT, municipalities, and consultants.</p>									✓	✓			✓	✓	✓	✓	Project costs are currently estimated to fall within the \$30,000 to \$75,000 range. This project may be a possible candidate for MassDOT SPR funding.

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SAFETY AND SECURITY PROJECTS																		
11	Reduced Speed School Zone Study	<p>One of the most pressing issues facing parents, educators and transportation officials is safety of children traveling to and from school. This study will investigate the effectiveness of 1) reduced-speed school zones at marked midblock pedestrian and bicycle crossings and 2) pedestrian and bicycle crossings at signalized and unsignalized intersections within school zones. MPO staff will investigate related factors, such as grade levels of students, school crossing guards, traffic characteristics (including the presence of school buses versus parents dropping off students), and others. This will include mapping and analysis of school zone proximity to high-crash locations.</p> <p>The first set of study tasks will include development of a task force, a literature review on reduced-speed zones, mapping of high crash locations, surveys of school and transportation professionals, and the selection of school zones for study. The study will then evaluate the safety of pedestrian and bicycle crossings in school zones, examine the relationships between roadway and traffic characteristics and regulations, and recommend operations, policy, and other improvements. Other conclusions might be reached regarding giving funding priority to intersection improvements in certain locations.</p>		✓	✓											✓	✓	This project includes a related idea submitted by the MAGIC subregion. Project costs are currently estimated to be \$75,000 or greater.
12	Impacts of Coastal Storms, Tidal Surges, and Climate Change on MassDOT Highway and Transit Tunnels	<p>This project is suggested in light of the tunnel flooding experienced in New York during Hurricane Sandy and continuing accumulation of evidence regarding climate change and its effects on sea-level rise and storm frequency and intensity. It would include:</p> <ol style="list-style-type: none"> Examining existing data on the vulnerability to flooding and other storm-related impacts of highway and transit tunnels in the MPO region. Identifying and generating any additional data needed to assess current and future vulnerability, including vulnerability to the effects of sea-level rise and changes in storm and precipitation intensity projected for the next 50 years, at least. <p>This study would assess specific tunnels and consider both direct effects (e.g., storm surge water entering tunnel systems) and indirect effects (e.g., loss of power).</p>						✓								✓	✓	This study may be a candidate for FHWA Climate Change Vulnerability Assessment Pilots program funding. Project costs are currently estimated to be \$75,000 or greater, though the project scope may be scalable. Step 3 of the initial request for the proposed study, "Evaluating options to reduce flooding and other vulnerabilities of existing tunnels," has been removed.

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SAFETY AND SECURITY PROJECTS																		
13	Roadway Network Inventory for Emergency Needs: Phase II	<p>This proposed study would expand on the MPO's Roadway Network Inventory for Emergency Needs pilot study. The pilot, which is in the FFY 2013 UPWP, will gather data on traffic signal equipment from Boston and adjacent communities and create a GIS data layer of that information for use in the MPO's All-Hazards Planning application. It will also update an existing data layer in the application that depicts the location and condition of bridges.</p> <p>In addition to the development of GIS layers, the pilot will take inventory of the location and characteristics of signals on evacuation routes to document whether the existing signals have emergency management features, such as the ability to be controlled from a traffic management or operations center or emergency vehicle pre-emption. The condition of bridges on the evacuation routes will be documented as well.</p> <p>The study proposed for the FFY 2014 UPWP would expand upon the pilot to gather and map signal data from additional communities within the Route 128 area. Products of the study will include updated GIS data layers for signals and bridges, as well as updates to other data layers in the web application as new information becomes available.</p>			✓		✓			✓	✓	✓			✓	✓	✓	Project costs are currently estimated to be \$30,000 or less.

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NONMOTORIZED TRANSPORTATION PROJECTS																			
14	Trip Purposes and Impacts of Bicycle and Pedestrian Paths	<p>The proposed study would examine the trip purposes for which travelers use different types of bicycle and pedestrian paths. In particular, this study would analyze which types of paths serve the highest number of commuting trips, and would evaluate the validity of the assumption that off-road, shared-use paths are primarily for noncommuting trips. Where appropriate, this study may evaluate impacts created by accessing paths, including emission impacts generated when motor vehicles are used to access trails.</p> <p>This study would require data collection. An element of this study would be the development and employment of a smartphone application for collecting study-supporting and other data on bicycle and pedestrian trips in the Boston region. This element may include a literature review, work on creating the prototype smartphone application, and then the collection, review, and analysis of data from the application. Upon completion of this project, this smartphone application may be available for long-term and regionwide use. The data collected from this application could be made publicly available on the MPO's website for use by external agencies and to support future bicycle and pedestrian facility research.</p>			✓	✓			✓						✓	✓	✓	✓	Proposed project may potentially be coordinated with MassDOT statewide bicycle and pedestrian plan development. Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.
NONMOTORIZED TRANSPORTATION PROJECTS																			
15	Pedestrian Signal Phasing Study	<p>The selection of pedestrian signal phasing involves many complicated factors and is challenging to traffic engineers. Exclusive pedestrian phasing is favored for its safety considerations for pedestrians, though at heavy pedestrian crossing locations, concurrent phasing can sometimes be more effective for both traffic and pedestrian flow while providing a similar level of safety for pedestrians. Municipalities in the Boston Region MPO area have become increasingly interested in converting some of their intersection signals from an exclusive pedestrian phasing to a concurrent pedestrian phasing, but they have not been able to find useful references or guidelines. This study will review the existing practices and available guidelines for the two types of pedestrian signal operation, perform case studies in the MPO region (including analysis of crash data), compare both operations, and summarize the findings for the MPO's reference.</p>		✓	✓			✓	✓	✓				✓	✓	✓		Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.	

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NONMOTORIZED TRANSPORTATION PROJECTS																			
16	Bicycle/ Pedestrian Level of Service Analysis	<p>In this proposed study, CTPS staff would develop bicycle/pedestrian level-of-service criteria that are customizable to the Boston region, using already-available data or by acquiring additional data. This study would create an interactive tool available on the Boston Region MPO website that could analyze the bicycle/pedestrian facilities in the region based on the criteria. The interactive tool could also provide users, including Boston region municipalities, with the option of inputting additional data from municipal or other surveys.</p> <p>Data that would support these level-of-service criteria and the tool could include the number of travel lanes, the number of curb cuts per mile, the presence of lighting, of bicycle parking, or of pedestrian signals, or other items. Possible measures derived from data could include municipal mode split, motor vehicle volumes, adjacent vehicle speeds, speed limits, and bicycle and pedestrian volumes.</p> <p>The users of this interactive tool would benefit from having a standardized rating of the quality of a specific bicycle facility. For example, this information helps transportation planners and government officials make decisions for bicycle and pedestrian programs and projects, including prioritizing projects and allocating funding. Outputs from this tool may have the potential to be incorporated into the TIP selection process. They may also help to justify bicycle and pedestrian facilities as an integral component of the region's transportation network.</p>				✓		✓	✓	✓					✓	✓	✓	✓	Proposed project may potentially be coordinated with MPO Mobility Management or bicycle and pedestrian programs or MassDOT statewide bicycle and pedestrian plan development.
17	Bicycle and Pedestrian Crash Analysis	<p>This proposed study would analyze the key causes of bicycle and pedestrian crashes in the Boston region using crash data, to improve recommendations for reducing crash incidence.</p>			✓		✓	✓	✓		✓			✓	✓	✓	✓	Proposed project may potentially be coordinated with MPO bicycle and pedestrian programs or MassDOT statewide bicycle and pedestrian plan development. Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.	

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NONMOTORIZED TRANSPORTATION PROJECTS																			
18	The Effect of Hubway Bike Sharing on MBTA Trips	The Hubway released a wealth of data about trips made using their service. Many of these trips certainly overlap with trips that could have been made on the MBTA system. Hubway trips will be examined to determine the situations in which a person might choose to use the Hubway system rather than the MBTA. Are Hubway users who are making transit-parallel trips choosing to do so because of cost or a lack of capacity on transit vehicles? Because of incompatible departure times or unfavorable headways? This project could either 1) try to solely use available data to complete the work or 2) use available data coupled with in-person surveys. The surveys would try to determine what Hubway users would do if the Hubway were not present. Other topics of study could include the relationship between commuter rail train arrivals and usage and travel patterns of Hubway users that are not currently served by MBTA service.		✓		✓		✓	✓	✓				✓	✓	✓			
TRANSPORTATION EQUITY AND ACCESSIBILITY PROJECTS																			
19	Household Survey-Based Comparisons between Income and Racial Groups	The 2011 Massachusetts Household Travel Survey obtained travel information from households on a statewide basis. Every member in selected households prepared a diary for a specific day and reported all trips, methods of travel, and the type of activity at each location visited from the beginning to the end of that day. The survey method was designed to have representative results by income and race. In keeping with the MPO's Transportation Equity vision of conducting analyses of low-income and minority populations, this proposed study would analyze household survey data (including variables such as trip length, number of trips, types of trips, and modes used) for low-income and minority households and compare them with data from nonminority and higher-income households to determine what the differences are. These data will be analyzed in conjunction with the LRTP Needs Assessment issues to identify specific recommendations for needed improvements.												✓	✓	✓	✓	✓	This project could be incorporated into the ongoing MPO Transportation Equity program. Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.
20	Environmental Justice Households Location Analysis	This proposed study would identify the locations of households that meet environmental justice criteria and may fall outside of known clusters, using Massachusetts Household Travel Survey and other data.							✓	✓				✓		✓		This project could be incorporated into the ongoing MPO Transportation Equity program. Project costs are currently estimated to be \$30,000 or less.	

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TRANSPORTATION EQUITY AND ACCESSIBILITY PROJECTS																				
21	Environmental Justice Analysis Methodology Review	This study would analyze the way that CTPS conducts its environmental justice (EJ) analyses. Data to support this study could include Massachusetts Household Travel Survey data, MBTA Systemwide Passenger Survey data, regional travel model data, and other data. The study would consider four elements: methodology (including techniques to assign EJ designations to individual travel modes and submodes, service area, thresholds, and metrics for analysis. This project could include a Title VI-oriented component that addresses guidelines for conducting a benefits-and-burdens analysis. These guidelines could include 1) factors to consider in defining the project impact area, 2) methods for determining benefits and burdens, 3) methods for evaluating whether minority or low-income populations are burdened by the project, and 4) definition of a threshold for "disproportionally high."													✓	✓	✓	✓	✓	This project could be incorporated into ongoing MPO transportation equity programs. Project costs are currently estimated to fall within the \$30,000 to \$75,000 range, though the project scope may be scalable.
LAND USE, ENVIRONMENT AND ECONOMY PROJECTS																				
22	Comparing Auto Usage and Land Use Characteristics	This proposed study would evaluate differences in auto trips between dense or mixed-use communities and other areas to evaluate the assumption that increasing density or the mix of land uses reduces vehicular travel. This study would use Massachusetts Household Transportation Survey data and other land use data.	✓													✓	✓	✓	✓	Project costs are currently estimated to be \$30,000 or less.
23	Transportation Investments for Economic Development	This proposed study would examine which transportation investments may yield the greatest economic development benefits using transportation economic impact analysis tools and other economic data.	✓	✓			✓								✓	✓	✓	✓	✓	Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.

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LAND USE, ENVIRONMENT AND ECONOMY PROJECTS																		
24	Travel Options for Zero-Auto Households	The proposed study would identify the location of zero-auto households in the Boston region and analyze their travel options using Massachusetts Household Travel Survey and Registry of Motor Vehicles data. Outputs would support guidance to the MPO on where and how to make investments in transit and nonmotorized transportation.						✓		✓				✓	✓	✓	✓	Project costs are currently estimated to be \$30,000 or less.
25	GHG Reduction Strategy Cost-Effectiveness Analysis	The proposed study would examine which are the most cost-effective greenhouse gas (GHG) reduction strategies for the transportation sector using EPA Motor Vehicle Emission Simulator (MOVES), regional travel model, and other data.		✓		✓			✓							✓	✓	This project could be conducted in conjunction with the TEAMS Technical Assistance program. Project costs are currently estimated to fall within the \$30,000 to \$75,000 range, though the project scope may be scalable.
26	Boston Transportation Fact Book and Neighborhood Profiles: 21st Century	This project, which would be completed in conjunction with City of Boston staff, would compile an almanac of related facts, figures, tables, and graphs pertaining to Boston traffic and transportation. The almanac would provide transportation information at the regional and Boston neighborhood level. The previous iteration of the Boston Transportation Fact Book and Neighborhood Profiles was completed in 2002.	✓						✓								✓	This previous iteration of this project was funded with SPR funds. Project costs to the MPO are currently estimated to be \$75,000 or greater. The total funding for the project would include City of Boston funds.

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TRANSIT PROJECTS																		
27	Determinants of Walking to Transit	This proposed study would examine the determinants of walking to transit using Massachusetts Household Transportation Survey data and other collected field data. Outputs may provide guidance to the MPO on what infrastructure improvements to prioritize.	✓			✓		✓	✓	✓				✓	✓	✓	✓	Project costs are currently estimated to be \$30,000 or less.
28	Actions to Increase Transit Ridership: Cost-Effectiveness Analysis	This proposed study would analyze the most cost-effective systemic actions for increasing transit ridership, using regional travel model data. Outputs from this study would support the MPO in focusing resources for achieving mode-share goals.		✓		✓		✓	✓					✓	✓	✓	✓	This project may relate to MBTA Service Standards. Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.
29	Analysis of Subregional and Other Factors on MBTA Ridership	This study would review existing transit mode utilization in the Boston area's subregions and analyze what factors influenced travelers' decisions to utilize transit by subregion while considering different characteristics of each subregion, such as population density, total travel demand, transit coverage and operations, land use practices, and population demographics. This proposed study would include a regression analysis to assess the correlation and potential causation of certain factors (the price of gasoline, the unemployment rate, and transit reliability, among others), on transit ridership overall as well as on various demographic, geographic, and fare-payment categories of riders. This analysis would be supported by MBTA ridership data gathered through automated fare collection (AFC). Outcomes of this overall study could be used to support the development of performance measures.	✓	✓	✓	✓		✓	✓	✓				✓	✓	✓	✓	Project costs are currently estimated to be \$75,000 or greater, though the project scope may be scalable.

Draft CTPS FFY 2014 UPWP Universe of Proposed New Projects, by Project Type

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			Link Land Use and Transportation	Work with Limited Financial Resources	Use a Management and Operations Approach	Protect Air Quality and Environment	Preserve and Maintain the Transportation System	Increase Transit and Healthy-Transportation Mode Share	Encourage Sustainable Communities and Livability	Advance Mobility, Access, and Congestion Reduction	Improve System Reliability	Increase Transportation Safety and Security	Support Economic Vitality	Consider Transportation Equity and Accessibility	Support METROFUTURE Goals	Support Goals of PMT, youMove/welMove, GreenDOT, and MA Mode Shift	
TRANSIT PROJECTS																	
30	Development of a Methodology to Evaluate Potential Limited-Stop Service on Transit Routes (incl. Key Route Corridors)	The MBTA regularly receives requests from elected officials and the public for limited-stop service in many of the Key Route bus corridors. However, dividing existing vehicles on a route between limited-stop and local service would fail to provide an adequate level of service on either. This project would evaluate criteria and costs for establishing additional limited-stop bus services based on existing and future ridership demand, operating strategies, and equipment needs. This methodology could ultimately be used in RTAs beyond the MBTA. This project then would analyze which Key Route corridors would be most likely to support both local and limited-stop service, as well as estimate the resources needed to provide both types of service. The results of the analysis could be used to justify additional operating funds at some point in the future. If additional MBTA operating resources become available, the results of this study would be used to prioritize the implementation of limited-stop service on Key Routes.		✓	✓	✓				✓	✓		✓	✓	✓	✓	Project costs are currently estimated to fall within the \$30,000 to \$75,000 range, though the project scope may be scalable.
31	Enhancing Transit to Better Serve Our Aging Population	This study would focus on identifying ways to make the existing transit system more user-friendly for elderly individuals, aiming both to improve mobility and to reduce the number of people using THE RIDE paratransit service. The study would look at physical factors (such as stop locations, amenities that make waiting for a vehicle acceptable, and information and related technologies that can make services easier to use), institutional factors (such as coordinating services with other providers), and social-psychological factors (such as training and information for both service operators and users, employee awareness training, buddy travel programs, and individualized assistance). It would draw upon research conducted on the special mobility needs and concerns of elderly people.				✓			✓		✓		✓	✓	✓	✓	This proposed project should be coordinated with MassDOT and MBTA plans and activities regarding THE RIDE and other transit options for elderly individuals. Project costs are currently estimated to be \$30,000 or less.

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TRANSIT PROJECTS																	
32	Transit Connections to and within Cambridge and Somerville	A study could evaluate how to improve transit connections within Cambridge and Somerville and between these cities and other parts of the Boston region. Connections of concern include those between Kendall Square and North Point, Kendall Square and Sullivan Square, and Kendall Square and the Longwood Medical Area, and also some existing connections, such as the EZRide Shuttle that serves Cambridgeport, MIT's Northwest Campus, Kendall Square, Lechmere, and North Station, that are at capacity.	✓			✓		✓		✓	✓			✓	✓	✓	Work proposed in this project would need to be closely coordinated with MassDOT and MBTA plans and activities related to transit within and to Cambridge and Somerville. Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.
33	MAGIC Area Study for Transit Service Integration	The Minuteman Advisory Group on Interlocal Coordination's (MAGIC) priorities include analyses that look at innovative ways to integrate existing transit services (school buses, Council on Aging vans, locally funded shuttles, private business shuttles, etc.) into a more coherent and coordinated public transportation system.		✓	✓			✓		✓			✓	✓	✓	✓	This proposed project should be coordinated or considered with respect to other past, current, or future MAGIC-area transit service projects. Project costs are currently estimated to fall within the \$30,000 to \$75,000 range.

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TRANSIT PROJECTS																	
34	MBTA Fare-Box Non-Interaction	<p>As the MBTA faces growing deficits and rising fares, it is important that as many fares as possible are collected, to both close the financial gap, and to ensure equity among riders. The MBTA's Automated Fare Collection (AFC) system has been instrumental in reducing fare evasion, but non-interaction still exists. This could be through active means, such as forcing open fare-gates, or "tailgating" fellow passengers through the gates; or passive means, such as when trains become too crowded for conductors to collect all fares.</p> <p>This review would start the process of developing a comprehensive review of how much fare-box non-interaction (both active and passive) occurs in the MBTA system, and thus how much revenue is lost to the MBTA. In this proposed project, staff would first conduct a peer and literature review to get an understanding of how this issue is approached at other transit agencies around the country and world. The second task would be to design a procedure for data collection, based on the knowledge gained in task 1. Data collection would include representative samples from multiple mode and entrance types, such as rapid-transit manned entrances, rapid-transit unmanned entrances, surface trolley, bus and commuter rail. Samples may also be taken from different weather events and times of day. The methodology would also want to be repeatable to enable tracking over time, as well as cost efficient. Implementation of the recommended data collection effort would be included in a follow-up project the following year – this effort would be only for design of the data collection methodology.</p>		✓			✓									✓	This project may be a possible candidate for MassDOT 5303 funding.

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MAPC PROJECT CONCEPTS																		
35	Identifying Mode Shift Opportunity Areas	This proposed project would use available data to understand what geographies within the region have the most potential for mode shifting single occupant vehicle trips to transit, walk, bike, car-pool modes.	✓			✓			✓					✓		✓		This project concept may be similar to the proposed project titled "Congestion-Generation Location Analysis"
36	Continuation of Transit Oriented Development (TOD) Opportunities & Impediments Planning	This proposed project would continue community planning around MBTA station areas to understand the potential for TOD and what might be impeding growth in certain areas (outdated zoning, lack of bike/ped connectivity, community concerns against development) and offer solutions.	✓					✓	✓					✓		✓		This project is related to work included under MAPC's "Corridor/Subarea Planning Studies and Land Use Reviews" project in the FFY 2013 UPWP.
37	Land Use Baselines for BRT Development	MassDOT is working with the Institute for Transportation and Development Policy (ITDP) to identify major bus corridors in Greater Boston that have the potential to be upgraded to high quality bus rapid transit (dedicated lanes, pre-pay, consolidated stops etc). After MassDOT/MBTA and ITDP identify the top corridors, MAPC would perform a land use baseline analysis to document the existing housing units, households, population, jobs, square footage of development, types of jobs etc. This data could then be used in the future to determine if the BRT upgrade supported additional growth in the corridor. Silver Line to Chelsea would probably be the best example.	✓		✓			✓	✓					✓	✓	✓		
38	Projected Development and Trip Generation within Rtes 99, 28, 16 in Everett, Boston, Somerville, and Cambridge	This proposed project would quantify the amount of development projected to occur on the edge of Somerville, Cambridge, Everett and Boston (Inner Belt, North Point, Assembly Row, Sullivan Sq, South Broadway in Everett) to understand this projected development growth from a regional perspective, and would try to estimate the trips that will be generated and modes used (with hopefully a lot captured by GLX, Orange Line, MBTA bus, walk, bike).		✓										✓		✓		

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MAPC PROJECT CONCEPTS																		
39	Continuation of Subregional Priority Development and Priority Preservation Studies	This proposed project would continue to conduct Priority Preservation Area and Priority Development Area planning in the region.	✓		✓				✓		✓				✓	✓	✓	This project is related to work included under MAPC's "Corridor/Subarea Planning Studies and Land Use Reviews" project in the FFY 2013 UPWP.
40	Continuation of Sullivan Square Land Use Visioning	Through this proposed project, MAPC would continue to support the City of Boston's land use visioning process around Sullivan Square Station on the Orange Line.	✓						✓	✓	✓				✓	✓		This project is related to work included under MAPC's "Corridor/Subarea Planning Studies and Land Use Reviews" project in the FFY 2013 UPWP.
41	TDM Best Practices and Municipal By-laws	This proposed project would involve researching municipal by-laws in Massachusetts that pertain to transportation demand management (TDM) requirements associated with new development projects obtaining building permits. It would develop a model by-law for municipalities based on this research and best practices, and work with select suburban communities to adopt a TDM model by-law.	✓		✓						✓	✓		✓	✓	✓		
42	Value Capture Financing Research and Market Analysis	This proposed project would build capacity at MAPC to support municipalities interested in advancing infrastructure projects through the use of value capture strategies such as District Improvement Financing, by performing market research.	✓											✓		✓		