TRANSPORTATION IMPROVEMENT PROGRAM

FFYs 2024–28

BOSTON REGION MPO
METROPOLITAN PLANNING ORGANIZATION

FEDERAL FISCAL YEARS 2024-28

Boston Region MPO

Prepared by
The Central Transportation Planning Staff:
Staff to the Boston Region Metropolitan Planning Organization

Directed by the Boston Region Metropolitan Planning Organization,
which is composed of the

Massachusetts Department of Transportation
Metropolitan Area Planning Council
Massachusetts Bay Transportation Authority
MBTA Advisory Board
Massachusetts Port Authority
Regional Transportation Advisory Council
City of Boston
City of Beverly
City of Everett
City of Framingham
City of Newton
City of Somerville
Town of Arlington
Town of Acton
Town of Brookline
Town of Burlington
Town of Hull
Town of Medway
Town of Norwood
Federal Highway Administration (nonvoting)
Federal Transit Administration (nonvoting)

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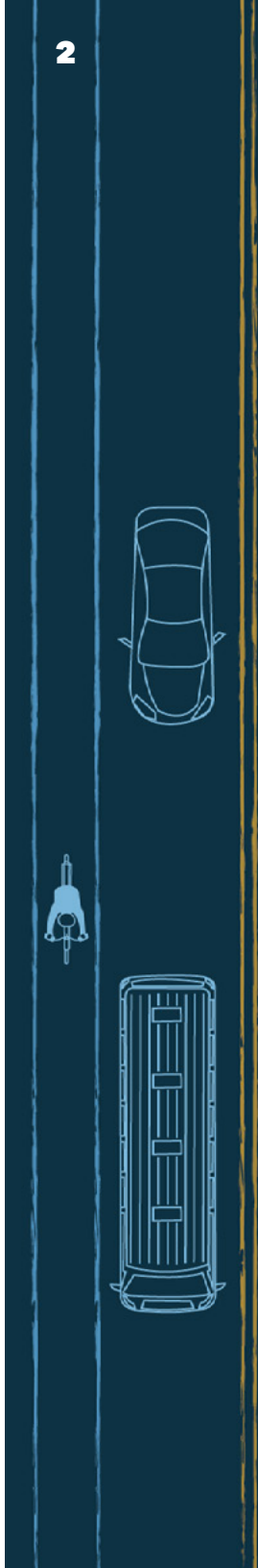

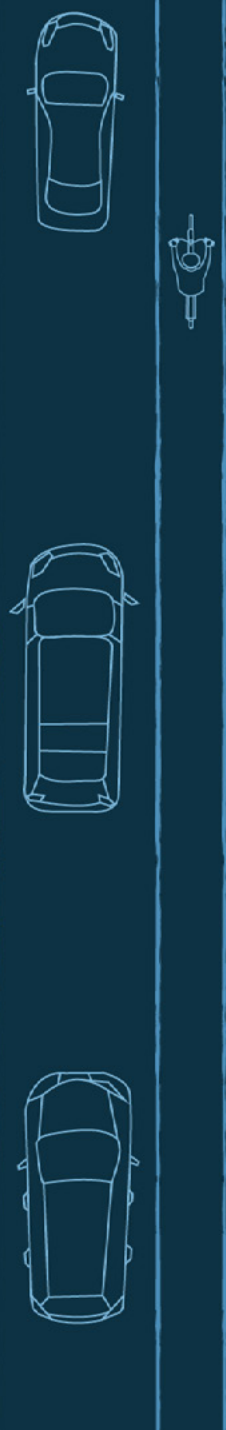

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Boston Region
MPO Endorsed June 1st 2023

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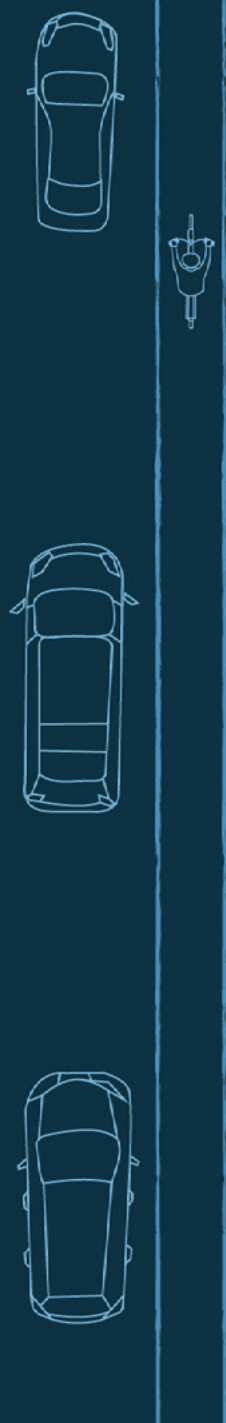
BOSTON REGION METROPOLITAN PLANNING ORGANIZATION MUNICIPALITIES



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Boston, MA 02116

civilrights@ctps.org
By telephone:
857.702.3700 (voice)

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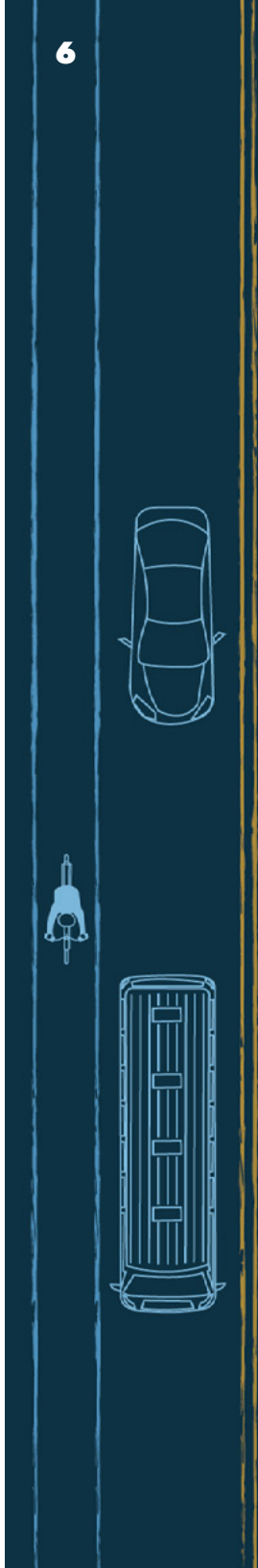


Certification of the Boston Region MPO Transportation Planning Process

The Boston Region Metropolitan Planning Organization certifies that its conduct of the metropolitan transportation planning process complies with all applicable requirements, which are listed below, and that this process includes activities to support the development and implementation of the Regional Long-Range Transportation Plan and Air Quality Conformity Determination, the Transportation Improvement Program and Air Quality Conformity Determination, and the Unified Planning Work Program.

1. 23 USC 134, 49 USC 5303, and this subpart.
2. Sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 USC 7504, 7506 (c) and (d) and 40 CFR part 93 and for applicable State Implementation Plan projects.
3. Title VI of the Civil Rights Act of 1964, as amended (42 USC 2000d-1) and 49 CFR Part 21.
4. 49 USC 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity.
5. Section 1101 (b) of the Fast Act (Pub. L. 114-357) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in U.S. DOT-funded projects.
6. 23 CFR part 230, regarding implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts.
7. The provisions of the US DOT and of the Americans with Disabilities Act of 1990 (42 USC 12101 et seq.) and 49 CFR Parts 27, 37, and 38.
8. The Older Americans Act, as amended (42 USC 6101), prohibiting discrimination on the basis of age in programs or activities receiving federal financial assistance.
9. Section 324 of Title 23 USC regarding the prohibition of discrimination based on gender.
10. Section 504 of the Rehabilitation Act of 1973 (29 USC 794) and 49 CFR Part 27 regarding discrimination against individuals with disabilities.
11. Anti-lobbying restrictions found in 49 CFR Part 20. No appropriated funds may be expended by a recipient to influence or attempt to influence an officer or employee of any agency, or a member of Congress, in connection with the awarding of any federal contract.

June 1, 2023

for

Gina Fiandaca, Secretary and Chief Executive Officer
Massachusetts Department of Transportation
Chair, Boston Region MPO

310 CMR 60.05: Global Warming Solutions Act Requirements for Transportation

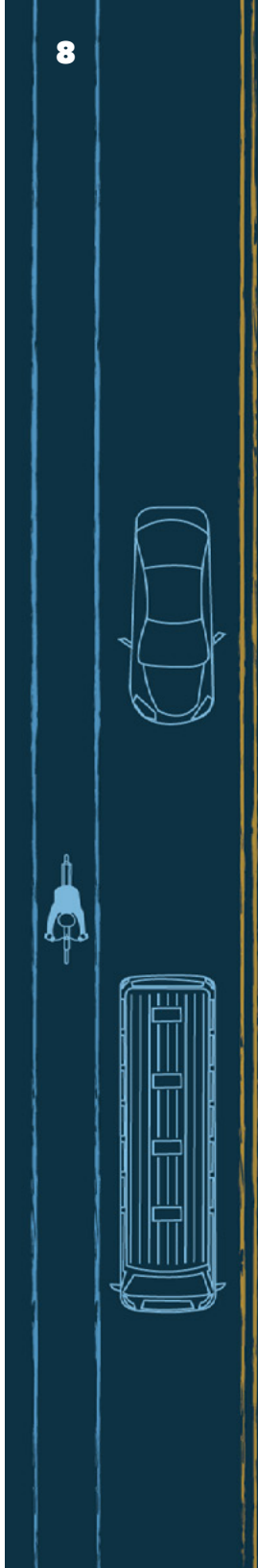
This will certify that the Transportation Improvement Program and Air Quality Conformity Determination for the Boston Region MPO Long Range Transportation Plan is in compliance with all applicable requirements in the State Regulation 310 CMR 60.05: Global Warming Solutions Act Requirements for Transportation. The regulation requires the MPO to:

1. 310 CMR 60.05(5)(a)1.: Evaluate and report the aggregate transportation GHG emissions impacts of RTPs and TIPs;
2. 310 CMR 60.05(5)(a)2.: In consultation with MassDOT, develop and utilize procedures to prioritize and select projects in RTPs and TIPs based on factors that include aggregate transportation GHG emissions impacts;
3. 310 CMR 60.05(5)(a)3.: Quantify net transportation GHG emissions impacts resulting from the projects in RTPs and TIPs and certify in a statement included with RTPs and TIPs pursuant to 23 CFR Part 450 that the MPO has made efforts to minimize aggregate transportation GHG emissions impacts;
4. 310 CMR 60.05(5)(a)4.: Determine in consultation with the RPA that the appropriate planning assumptions used for transportation GHG emissions modeling are consistent with local land use policies, or that local authorities have made documented and credible commitments to establishing such consistency;
5. 310 CMR 60.05(8)(a)2.a.: Develop RTPs and TIPs;
6. 310 CMR 60.05(8)(a)2.b.: Ensure that RPAs are using appropriate planning assumptions;
7. 310 CMR 60.05(8)(a)2.c.: Perform regional aggregate transportation GHG emissions impact analysis of RTPs and TIPs;
8. 310 CMR 60.05(8)(a)2.d.: Calculate aggregate transportation GHG emissions impacts for RTPs and TIPs;
9. 310 CMR 60.05(8)(a)2.e.: Develop public consultation procedures for aggregate transportation GHG emissions impact reporting and related GWSA requirements consistent with current and approved regional public participation plans;
10. 310 CMR 60.05(8)(c): Prior to making final endorsements on the RTPs, TIPs, STIPs, and projects included in these plans, MassDOT and the MPOs shall include the aggregate transportation GHG emission impact assessment in RTPs, TIPs, and STIPs and provide an opportunity for public review and comment on the RTPs, TIPs, and STIPs; and
11. 310 CMR 60.05(8)(a)1.c.: After a final GHG assessment has been made by MassDOT and the MPOs, MassDOT and the MPOs shall submit MPO-endorsed RTPs, TIPs, STIPs or projects within 30 days of endorsement to the Department for review of the GHG assessment.

for

Gina Fiandaca, Secretary and CEO
Massachusetts Department of Transportation (MassDOT);
Chair, Boston Region Metropolitan Planning Organization (BRMPO)

June 1, 2023
Date



Abbreviations	Definition
3C	continuous, comprehensive, cooperative [metropolitan transportation planning process]
AAB	Massachusetts Architectural Access Board
AADT	average annual daily traffic
ABP	Accelerated Bridge Program [MassDOT program]
AC	advance construction
ACS	American Community Survey [US Census Bureau data]
ADA	Americans with Disabilities Act of 1990
AFC	automated fare collection
ALI	Activity Line Item
ARPA	American Rescue Plan Act
BIL	Bipartisan Infrastructure Law
BFP	Bridge Formula Program [federal funding program]
BR	Bridge [highway investment program]
BRT	bus rapid transit
CA/T	Central Artery/Tunnel [project also known as “the Big Dig”]
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CARES Act	Coronavirus Aid, Relief, and Economic Security Act
CATA	Cape Ann Transportation Authority
CECP	Massachusetts Clean Energy and Climate Plan
CFR	Code of Federal Regulations
CIP	Capital Investment Plan [MassDOT]
CMAQ	Congestion Mitigation and Air Quality [federal funding program]
CMR	Code of Massachusetts Regulations

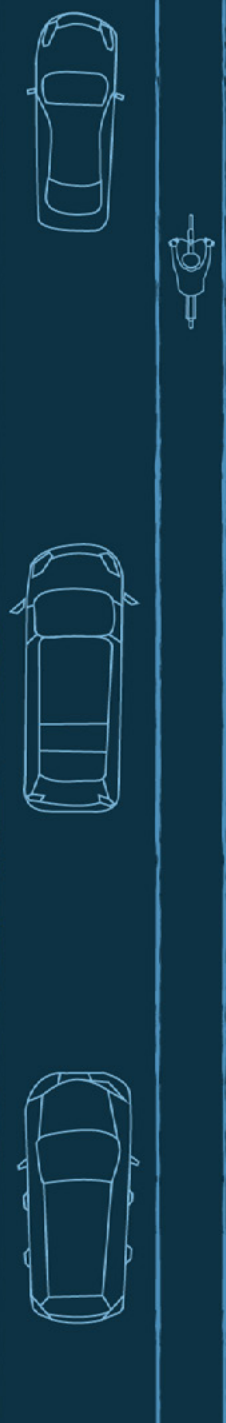
Abbreviations	Definition
CMP	Congestion Management Process
CNG	compressed natural gas
CO	carbon monoxide
CO2	carbon dioxide
CPT-HST	Coordinated Public Transit–Human Services Transportation Plan
CRRSAA	Coronavirus Response and Relief Supplemental Appropriations Act
CTPS	Central Transportation Planning Staff
CY	calendar year
DCR	Department of Conservation and Recreation
DEP	Department of Environmental Protection [Massachusetts]
DOD	United States Department of Defense
DOT	department of transportation
DVR	digital video recorder
EB	eastbound
EDTTT	excessive delay threshold travel time
EJ	environmental justice
EO	executive order
EOEEA	Massachusetts Executive Office of Energy and Environmental Affairs
EOHED	Massachusetts Executive Office of Housing and Economic Development
EPA	United States Environmental Protection Agency
EPDO	equivalent property damage only [a traffic-related index]
EV	electric vehicle
FARS	Fatality Analysis and Reporting System [FHWA]
FAST Act	Fixing America's Surface Transportation Act

Abbreviations	Definition
FEMA	Federal Emergency Management Agency
FFY	federal fiscal year
FHWA	Federal Highway Administration
FMCB	MBTA Fiscal and Management Control Board
FMLA	Federal Land Management Agency
FR	Federal Register
FTA	Federal Transit Administration
GANS	grant anticipation notes [municipal bond financing]
GHG	greenhouse gas
GWSA	Global Warming Solutions Act of 2008 [Massachusetts]
HIP	Highway Infrastructure Program [federal funding program]
HOV	high-occupancy vehicle
HSIP	Highway Safety Improvement Program [federal funding program]
I	Interstate
ICC	Inner Core Committee [MAPC municipal subregion]
IRI	International Roughness Index
ITS	intelligent transportation systems
LED	light-emitting diode
LEP	limited English proficiency
LF	local funds
LOTTR	level of travel time ratio
LRTP	Long-Range Transportation Plan [MPO certification document]
MAGIC	Minuteman Advisory Group on Interlocal Coordination [MAPC municipal subregion]
MAP-21	Moving Ahead for Progress in the 21st Century Act

Abbreviations	Definition
MAPC	Metropolitan Area Planning Council
MARPA	Massachusetts Association of Regional Planning Agencies
MART	Montachusett Regional Transit Authority
MassDOT	Massachusetts Department of Transportation
Massport	Massachusetts Port Authority
MBTA	Massachusetts Bay Transportation Authority
MCRT	Mass Central Rail Trail
MOVES	Motor Vehicle Emissions Simulator [EPA air quality model]
MPO	metropolitan planning organization
MOU	memorandum of understanding
MWRC	MetroWest Regional Collaborative [MAPC municipal subregion]
MWRTA	MetroWest Regional Transit Authority
NAAQS	National Ambient Air Quality Standards
NB	northbound
NBI	National Bridge Inventory
NEVI	National Electric Vehicle Infrastructure Program [federal funding program]
NFA	Non-federal aid
NGBP	Next Generation Bridge Program [MassDOT program]
NH DOT	New Hampshire Department of Transportation
NHFP	National Highway Freight Program [federal funding program]
NHPP	National Highway Performance Program [federal funding program]
NHS	National Highway System
NHTSA	National Highway Traffic Safety Administration
NMCOG	Northern Middlesex Council of Governments

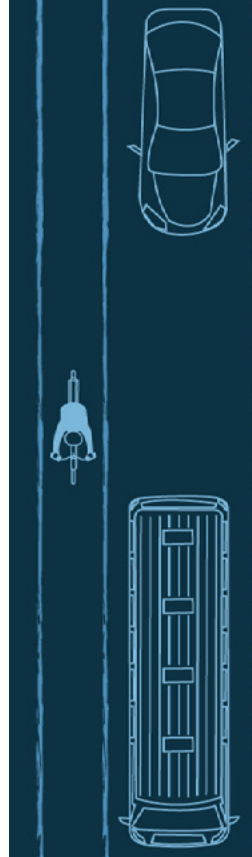
Abbreviations	Definition
NOx	nitrogen oxides
NPMRDS	National Performance Measure Research Data Set [FHWA]
NSPC	North Suburban Planning Council [MAPC municipal subregion]
NSTF	North Shore Task Force [MAPC municipal subregion]
NTD	National Transit Database
OF	other federal funding
O&M	operations and management
PBPP	performance-based planning and programming
PEN	penalty funding
PHED	peak hours of excessive delay
PL	metropolitan planning funds [FHWA] or public law funds
PM	particulate matter
PNF	project need form [MassDOT]
ppm	parts per million
PRC	Project Review Committee [MassDOT]
PSAC	Project Selection Advisory Council [MassDOT]
PSI	Pavement Serviceability Index
PTASP	Public Transportation Agency Safety Plan
RITIS	Regional Integrated Transportation Information System
RRIF	Railroad Rehabilitation and Improvement Financing
RTA	regional transit authority
RTAC	Regional Transportation Advisory Council [of the Boston Region MPO]
RTACAP	Regional transit authority capital funds
SB	southbound

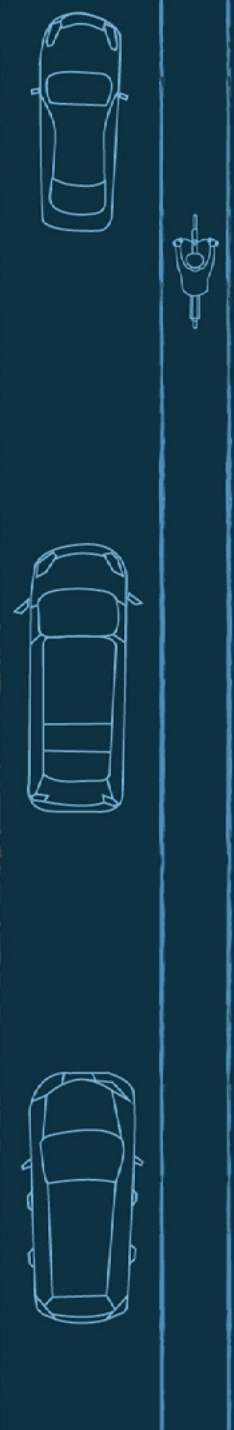
Abbreviations	Definition
SFY	state fiscal year
SHSP	Strategic Highway Safety Plan
SIP	State Implementation Plan
SMS	safety management systems
SOV	single-occupant vehicle
SPR	Statewide Planning and Research
SRTS	Safe Routes to School [federal program]
SSC	South Shore Coalition [MAPC municipal subregion]
STRAHNET	Strategic Highway Network
STBG	Surface Transportation Block Grant Program [federal funding program]
STIP	State Transportation Improvement Program
SWAP	South West Advisory Planning Committee [MAPC municipal subregion]
TAM	Transit Asset Management Plan
TAMP	Transportation Asset Management Plan
TAP	Transportation Alternatives Program [federal funding program]
TAZ	transportation analysis zone
TBD	to be determined
TCM	transportation control measure
TE	transportation equity
TERM	Transit Economic Requirements Model [FTA]
TFPC	Total Federal Participating Cost
TIFIA	Transportation Infrastructure and Innovation Act
TIP	Transportation Improvement Program [MPO certification document]
TMA	transportation management association

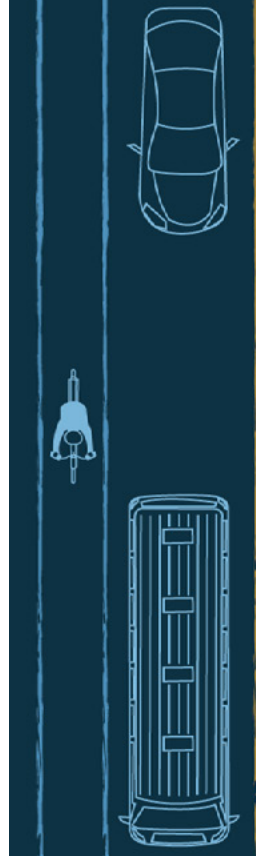


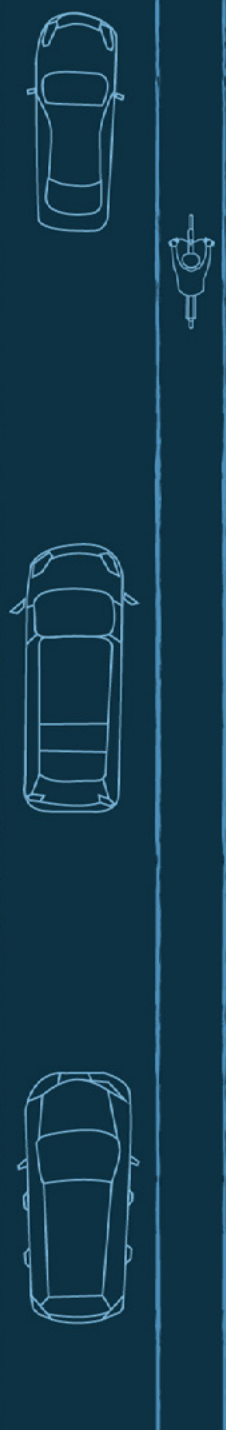
Abbreviations	Definition
TRIC	Three Rivers Interlocal Council [MAPC municipal subregion]
TSP	transit signal priority
TTTR	Truck Travel Time Reliability Index
ULB	useful life benchmark
UPWP	Unified Planning Work Program [MPO certification document]
USC	United States Code
USDOT	United States Department of Transportation
UZA	urbanized area
WB	westbound
VPI	virtual public involvement
VMT	vehicle-miles traveled
VOCs	volatile organic compounds
VRM	vehicle revenue-miles
VUS	Vulnerable User Safety [federal funding program]

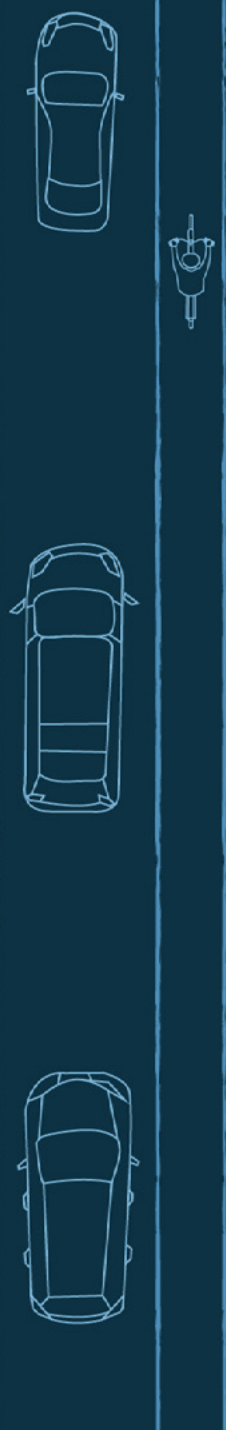
CONTENTS





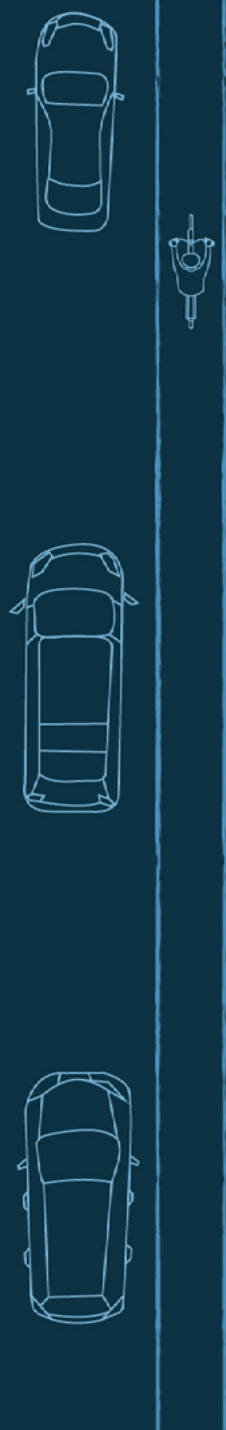


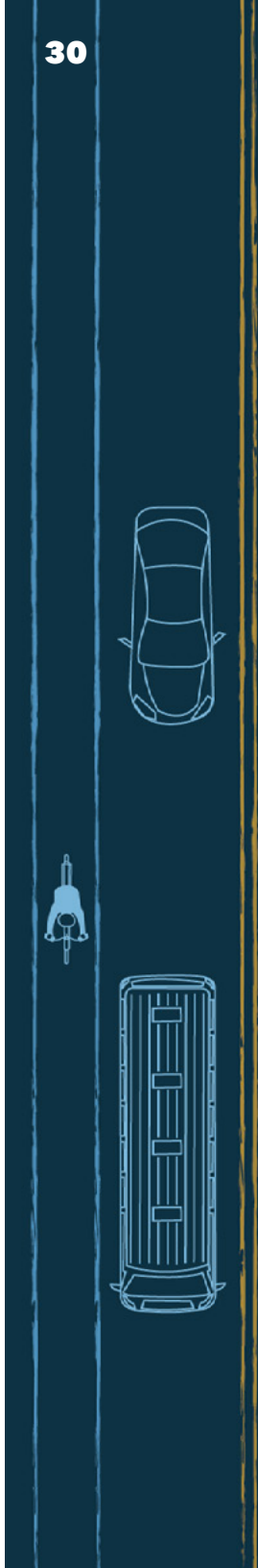


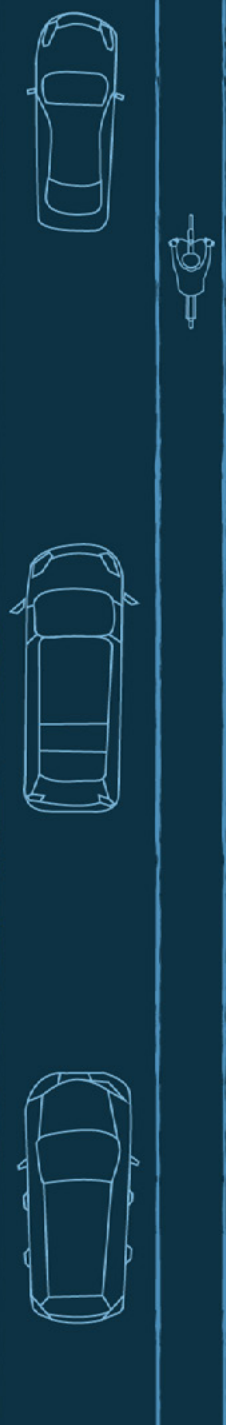


TABLES

FIGURES







EXECUTIVE SUMMARY

INTRODUCTION

The Boston Region Metropolitan Planning Organization's (MPO) five-year capital investment plan, the Federal Fiscal Years (FFYs) 2024–28 Transportation Improvement Program (TIP), is the near-term investment program for the region's transportation system. Guided by the Boston Region MPO's vision, goals, and objectives, the TIP prioritizes investments that preserve the current transportation system in a state of good repair, provide safe transportation for all modes, enhance livability, promote equity and sustainability, and improve mobility throughout the region. These investments fund arterial roadway and intersection improvements, maintenance and expansion of the public transit system, bicycle path construction, infrastructure improvements for pedestrians, and major highway reconstruction.

The Boston Region MPO is guided by a 22-member board with representatives of state agencies, regional organizations, and municipalities. Its jurisdiction extends roughly from Boston north to Ipswich, south to Marshfield, and west to municipalities along Interstate 495. Each year, the MPO conducts a process to decide how to spend federal transportation funds for capital projects. The Central Transportation Planning Staff (CTPS), which is the staff to the MPO, manages the TIP development process.

MPO staff coordinates the evaluation of project funding requests, proposes programming of current and new projects based on anticipated funding levels, supports the MPO board in developing a draft TIP document, and facilitates a public review of the draft before the MPO board endorses the final document.

FFYs 2024–28 TIP INVESTMENTS

The complete TIP program is available in Chapter 3 of this document and online at bostonmpo.org/tip. The TIP tables provide details of how funding is allocated to each programmed project and capital investment program. These tables are organized by federal fiscal year and are grouped by highway and transit programs.

HIGHWAY PROGRAM

The Highway Program of the TIP funds the priority transportation projects advanced by the Massachusetts Department of Transportation (MassDOT) and the cities and towns within the Boston region. The program is devoted primarily to preserving and modernizing the existing roadway network by reconstructing arterial roadways, resurfacing highways, and replacing bridges. The program is also devoted to investing in the bicycle and pedestrian network and improving safety for all roadway users.

In Massachusetts, Federal-Aid Highway Program funding is apportioned by MassDOT, which allocates funding to Grant Anticipation Notes (GANs) payments, various statewide programs, and Regional Targets for the state's MPOs. In the FFYs 2024–28 TIP, roadway, bridge, and bicycle and pedestrian programs account for nearly $2.4 billion in funding to the Boston region. The Regional Target funding provided to the MPOs may be programmed for projects at the discretion of each MPO, whereas MassDOT has discretion to propose its recommended projects for statewide programs, such as those related to bridge repairs and interstate highway maintenance.

TRANSIT PROGRAM

The Transit Program of the TIP provides funding for projects and programs that address the capital needs prioritized by the three transit authorities in the region: the Massachusetts Bay Transportation Authority (MBTA), the Cape Ann Transportation Authority (CATA), and the MetroWest Regional Transit Authority (MWRTA). The Transit Program is predominantly dedicated to achieving and maintaining a state of good repair for all assets throughout the transit system.

The FFYs 2024–28 TIP includes $4.05 billion in transit investments by the transit authorities that will support state of good repair, modernize transit systems, and increase access to transit. Additionally, beginning in FFY 2025, the MPO will allocate $6.5 million of its annual Regional Target funds to its new Transit Modernization investment program. This program aims to build on the investments made through the Transit Program by using a portion of Highway Program funding to fulfill unmet transit project needs in the region. The MPO has already begun to fund discrete projects through this program prior to FFY 2025 based on a surplus of available funding in FFY 2024, as detailed below.

REGIONAL TARGET PROGRAM DETAILS

During FFYs 2024–28, the Boston Region MPO plans to fund 58 projects with its Regional Target funding. In total, 21 new projects were added to the MPO's Regional Target Program during this TIP cycle. Details on these projects are available in Table ES-1.

TABLE ES-1

New Regional Target Projects Funded in the FFYs 2024–28 TIP

Project Name	Municipality (Proponent)	MPO Investment Program	FFYs of Funding	Regional Target Dollars Programmed in FFYs 2024–28
Malden—Spot Pond Brook Greenway	Malden	Bicycle Network and Pedestrian Connections	2027	$4,858,127
Natick—Cochituate Rail Trail Extension, from MBTA station to Mechanic Street	Natick	Bicycle Network and Pedestrian Connections	2028	$7,760,451
Westwood–Norwood—Reconstruction of Canton Street to University Drive, including rehabilitation of N-25-032=W-31-018	Westwood	Complete Streets	2027	$22,094,875
Boston—Bridge Preservation, B-16-066 (38D), Cambridge Street over MBTA	Boston	Complete Streets	2026	$16,632,000
Wakefield—Comprehensive Downtown Main Street Reconstruction	Wakefield	Complete Streets	2028	$16,581,200
MWRTA CatchConnect Microtransit Service Expansion Phase II	MWRTA	Community Connections	2024–26	$380,477
Lynn—Broad Street Corridor Transit Signal Priority	Lynn	Community Connections	2024	$297,800
Medford Bicycle Parking–Tier 1	Medford	Community Connections	2024	$29,600
Medford Bluebikes Expansion	Medford	Community Connections	2024	$118,643
Canton Public Schools Bike Program	Canton	Community Connections	2024	$22,500
Canton Center Bicycle Racks	Canton	Community Connections	2024	$10,000
Boston Electric Bluebikes Adoption	Boston	Community Connections	2024	$1,020,000
Cambridge Electric Bluebikes Adoption	Cambridge	Community Connections	2024	$352,575
Acton Parking Management System	Acton	Community Connections	2024	$15,000

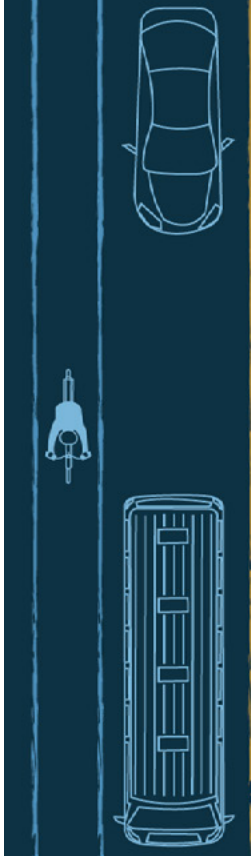
Project Name	Municipality (Proponent)	MPO Investment Program	FFYs of Funding	Regional Target Dollars Programmed in FFYs 2024–28
Bikeshare State of Good Repair Set-Aside	CTPS	Community Connections	2025–28	$6,000,000
Everett—Targeted Multi-Modal and Safety Improvements on Route 16	MassDOT	Intersection Improvements	2027	$5,246,920
Chelsea—Targeted Safety Improvements and Related Work on Broadway, from Williams Street to City Hall Avenue	MassDOT	Intersection Improvements	2025	$12,872,911
Jackson Square Station Accessibility Improvements	MBTA	Transit Modernization	2024–25	$26,250,000
Rail Transformation Early Action Items—Reading Station and Wilbur Interlocking	MBTA	Transit Modernization	2024	$14,000,000
Columbus Ave Bus Lane Phase II	MBTA	Transit Modernization	2024	$11,750,000
Project Design Support Pilot	CTPS	Project Design Support Pilot	2025	$4,000,000
Total	**N/A**	**N/A**	**N/A**	**$150,293,079**

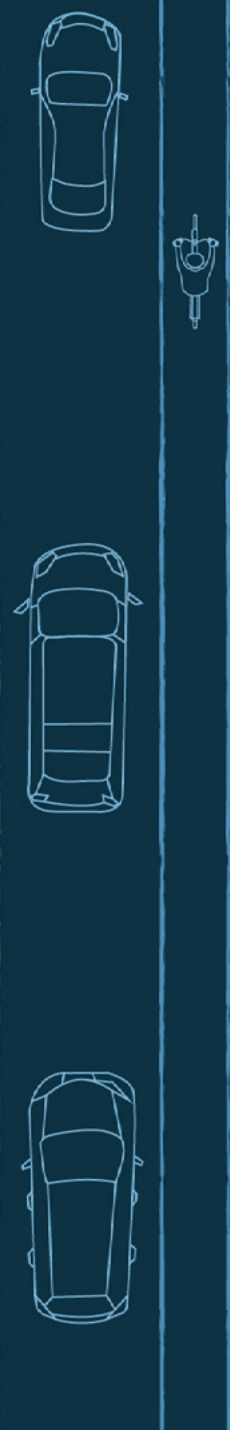
Note: Funding amounts in this table include both federal and non-federal funds, including matching funds.

CTPS = Central Transportation Planning Organization. FFY = federal fiscal year. MPO = metropolitan planning organization. MWRTA = MetroWest Regional Transit Authority. N/A = not applicable. TIP =Transportation Improvement Program.

Source: Boston Region MPO.

Signed into law on November 15, 2021, the Bipartisan Infrastructure Law (BIL) is the five-year federal funding authorization for transportation projects and programs, replacing the Fixing America's Surface Transportation (FAST) Act as the primary governing legislation for the TIP process. The BIL increased the amount of Regional Target funding available to the Boston Region MPO for the development of the FFYs 2024–28 TIP by approximately 20 percent from the funding levels in TIPs under the FAST Act, the last of which was the FFYs 2022–26 TIP.





The majority of the funding available for allocation by the MPO during the FFYs 2024–28 TIP cycle was in the fifth and final year of the TIP, FFY 2028. However, changes in project readiness for some projects created funding surpluses in the early years of the TIP, FFYs 2024 and 2025, and in FFY 2027. These surpluses were driven by programming delays for several projects already funded by the MPO. This dynamic led to a funding surplus in excess of $66.5 million in FFYs 2024 and 2025 and total funding availability of $202 million across all years of the TIP.

The MPO did not have any currently funded Regional Target projects that could be accelerated to make use of these funds, so the MPO worked with MassDOT and the MBTA to identify projects that could be funded in these fiscal years. Jointly, MassDOT and the MBTA brought more than a dozen projects to the MPO for consideration, from which the MPO selected four projects for funding in FFYs 2024 and 2025:

- Columbus Avenue Bus Lanes Phase II
- Rail Transformation Early Action Items—Reading Station and Wilbur Interlocking
- Jackson Square Station Accessibility Improvements
- Chelsea—Targeted Safety Improvements and Related Work on Broadway, from Williams Street to City Hall Avenue

The MPO also selected a MassDOT project for funding in FFY 2027:

- Everett—Targeted Multi-Modal and Safety Improvements on Route 16

These projects were not formally evaluated using the MPO's project selection criteria prior to the MPO making draft funding decisions, as MPO staff did not have sufficient time to score the projects prior to the deadline for MPO decision-making. Despite not being scored, the projects generally align well with many of the MPO's goals, including enhancing bicycle and pedestrian safety and access, and expanding the accessibility of and maintaining a state of good repair for the region's transit system and critical roadways. Scoring information will be included for these projects when available.

Several other key decisions were made by the MPO in the drafting of the FFYs 2024–28 Regional Target Program, including the following:

- The MPO introduced a Bikeshare Support Set-Aside line item to fund capital repair and improvement projects for Bikeshare initiatives in the region starting in FFY 2025. The project is funded at $1 million per year in FFYs 2025 and 2026 and $2 million per year in FFYs 2027 and 2028.
- In FFY 2025 the MPO allocated $4 million to fund a pilot initiative that would provide MPO funding support for communities to design projects and offer additional resources to communities earlier in a project's lifecycle.
- The programmed amount of Project 607981, Somerville—McGrath Boulevard Construction, in FFY 2027 was increased by $15 million to accelerate the project's timeline.
- The $6.4 million contribution by the MPO to the MBTA's Forest Hills Station Improvement Project in FFY 2024 was removed due to the lack of funding availability from other contributors.

Figure ES-1 shows how the Regional Target funding for FFYs 2024–28 is distributed across the MPO's investment programs. As the chart shows, the Boston Region MPO's Regional Target Program is devoted primarily to enhancing mobility and safety for all travel modes through significant investments in Complete Streets projects. A large portion of the MPO's funding also supports the modernization of key regional roadways and transit infrastructure through investments in Major Infrastructure and Transit Modernization projects. The MPO also elected to leave approximately $31.9 million unprogrammed, preferring to retain these funds for use in future TIP cycles in support of a more flexible overall program in the coming fiscal years.

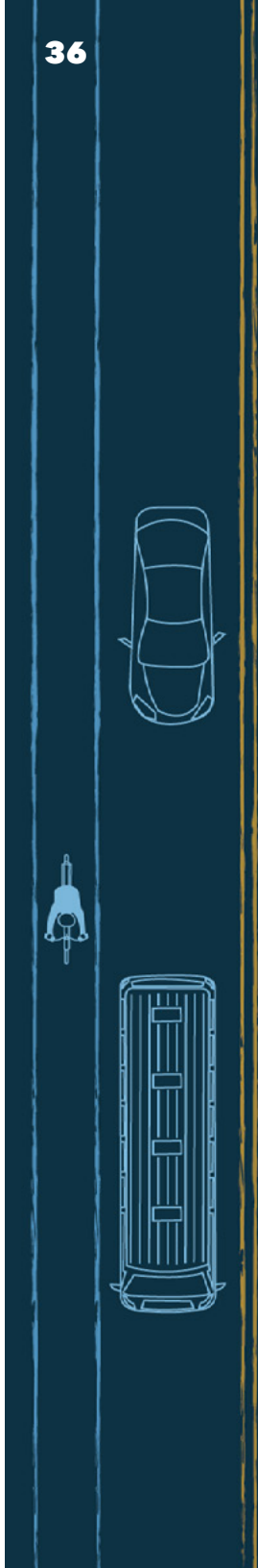
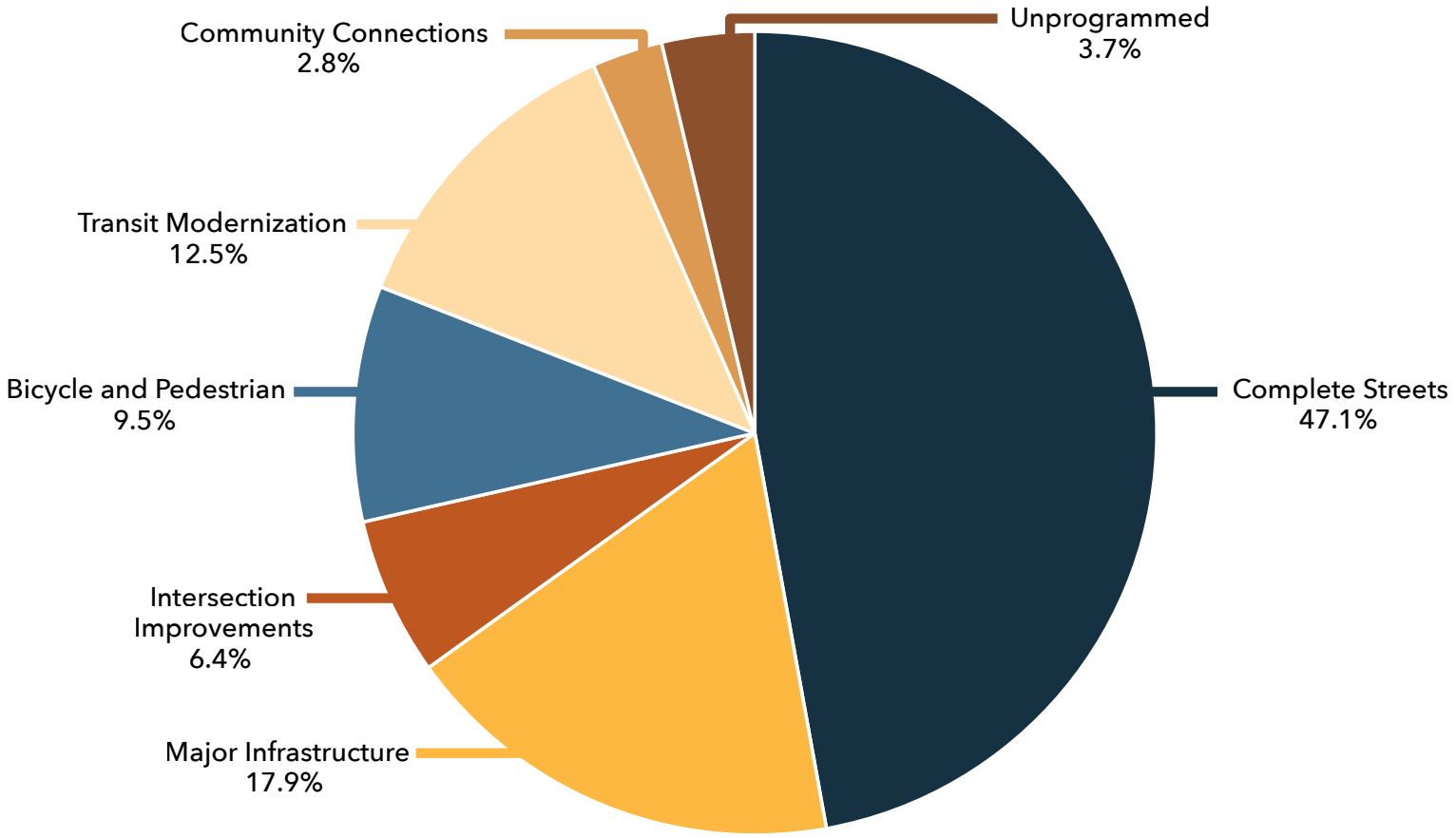


FIGURE ES-1

FFYs 2024–28 TIP Regional Target Funding by MPO Investment Program



FFY = federal fiscal year. MPO = metropolitan planning organization. TIP = Transportation Improvement Program.

Source: Boston Region MPO.

In addition to the distribution of funding across the MPO's investment programs listed above, Table ES-2 further details the number of projects and the allocation of funds across each program in the FFYs 2024–28 TIP. As noted in Figure ES-1, the MPO has programmed more than 95 percent of its available funding over five years. More details about every project funded through the MPO's Regional Target Program are available in Chapter 3.

TABLE ES-2

FFYs 2024–28 Boston Region MPO Regional Target Investment Summary

MPO Investment Program	Number of Projects	Regional Target Dollars Programmed
Bicycle Network and Pedestrian Connections	6	$66,140,116
Community Connections (allocated to projects)*	17	$11,529,796
Community Connections (not yet allocated to projects)	N/A	$8,334,827
Complete Streets**	22	$328,884,130
Intersection Improvements	5	$44,424,588
Major Infrastructure—Roadway	3	$125,094,890
Transit Modernization (allocated to projects)	4	$65,600,000
Transit Modernization (not yet allocated to projects)	N/A	$21,500,000
Unprogrammed	N/A	$26,036,440
Total	**57**	**$697,544,788**

Note: Funding amounts in this table include both federal and non-federal funds, including matching funds.

** This includes $6 million in Bikeshare Support funding starting in FFY 2025.*

***The $4 million Project Design Support Pilot in FFY 2025 is accounted for under this program.*

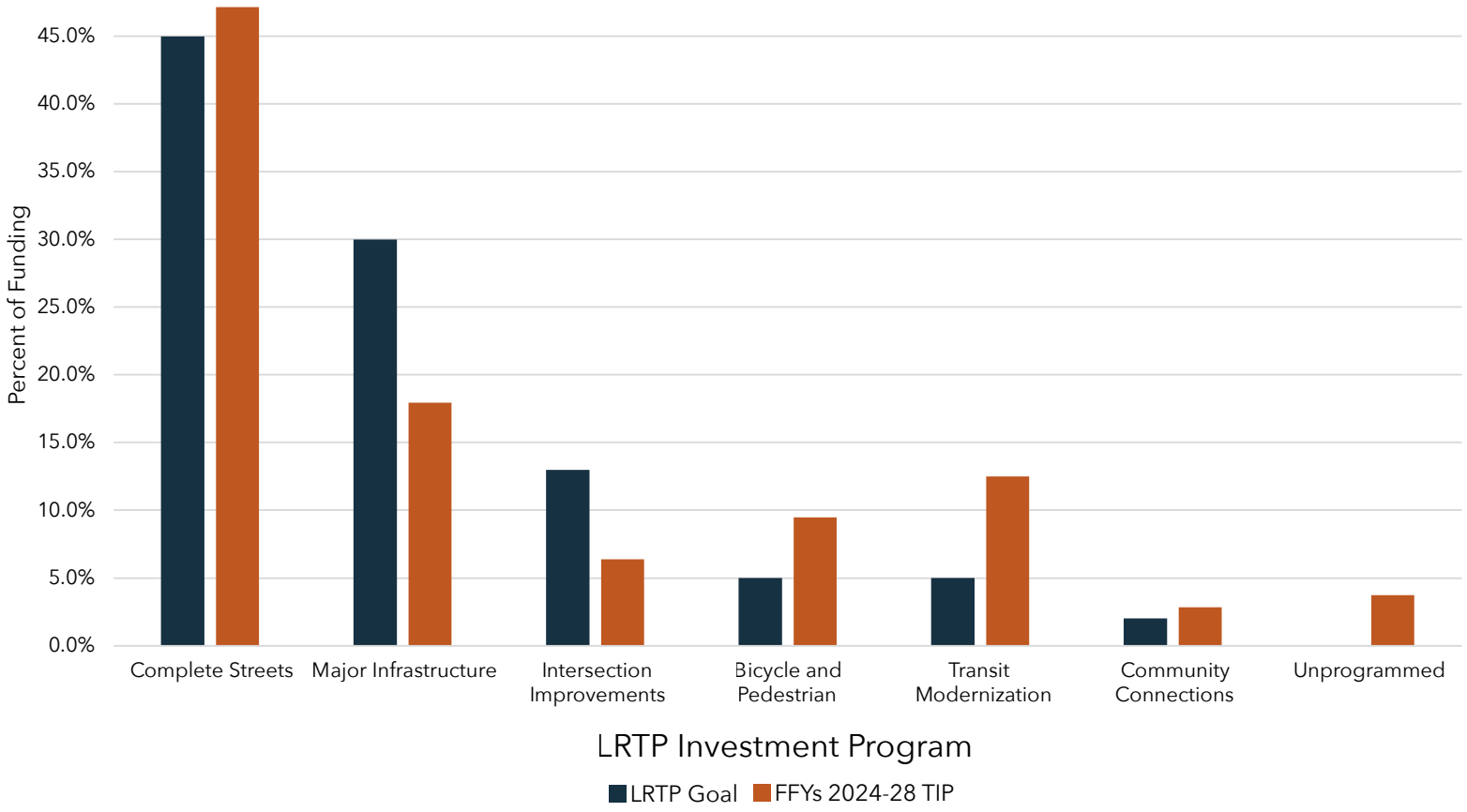
FFY = federal fiscal year. MPO = metropolitan planning organization. N/A = not applicable.

Source: Boston Region MPO.

When making decisions about which projects to fund, the MPO considers how the allocation of funds to each investment program compares to the funding goals outlined in the MPO's current Long-Range Transportation Plan (LRTP), Destination 2040. The funding goals for investment programs set forth in the LRTP reflect the types of projects the MPO seeks to fund to help it achieve its goals and objectives for the region, from enhancing safety for all users to promoting mobility and accessibility across the region. More information on the MPO's goals and objectives is available in Chapter 1, and a comparison between LRTP investment program goals and program funding levels in the FFYs 2024–28 TIP is shown in Figure ES-2.

FIGURE ES-2

FFYs 2024–28 TIP: Regional Target Funding Levels Relative to LRTP Investment Program Goals



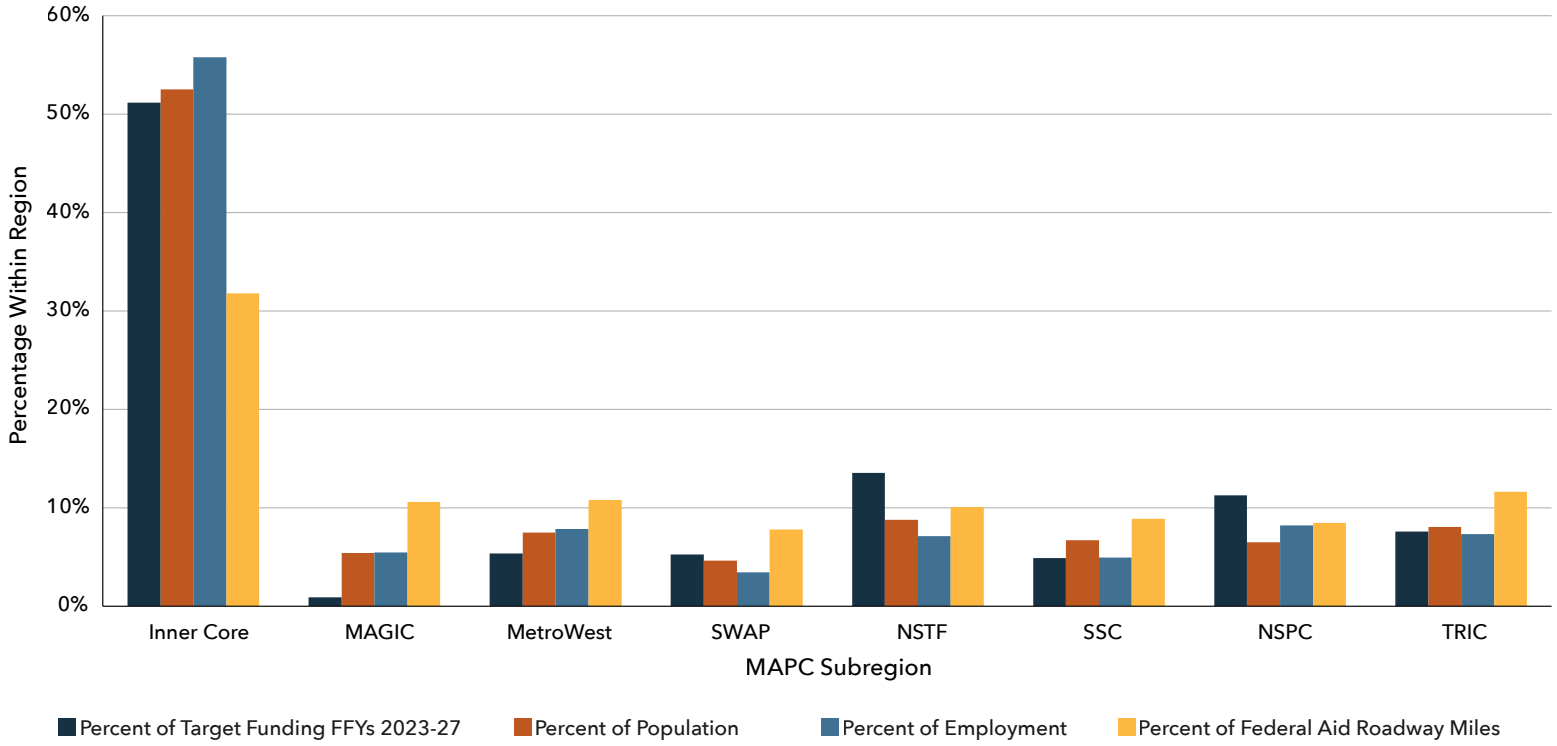
FFY = federal fiscal year. LRTP = Long-Range Transportation Plan. TIP = Transportation Improvement Program.

Source: Boston Region MPO.

The investments made in the FFYs 2024–28 TIP will be implemented in 38 cities and towns throughout the Boston region, ranging from dense inner core communities to developing suburbs further from the urban center. Figure ES-3 illustrates the distribution of Regional Target funding among the eight subregions within the Boston Region MPO's jurisdiction, as defined by the Metropolitan Area Planning Council (MAPC). This figure also shows how the distribution of funds compares to key metrics for measuring the need for funding by subregion, including the percent of regional population, employment, and Federal-Aid roadway miles within each subregion.

FIGURE ES-3

FFYs 2024–28 TIP: Regional Target Funding Levels Relative to Key Indicators



Note: Unprogrammed funds and funds held for the MPO's Transit Modernization and Community Connections Programs are not included in this figure.

FFY = federal fiscal year. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MAPC = Metropolitan Area Planning Council. MetroWest = MetroWest Regional Collaborative. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. SSC = South Shore Coalition. SWAP = South West Advisory Committee. TIP = Transportation Improvement Program. TRIC = Three Rivers Interlocal Council.

Source: Boston Region MPO.

Additional information on the geographic distribution of Regional Target funding across the region, including a breakdown of funding by municipality, is included in Appendix D.

FINANCING THE FFYS 2024–28 TIP

HIGHWAY PROGRAM

The TIP Highway Program was developed with the assumption that federal funding for the state would range between $709 million and $865 million annually over the next five years. These amounts include the funds that would be set aside initially by MassDOT as payments for the Accelerated Bridge Program and exclude required matching funds. The funding levels for the FFYs 2024–28 TIP's Highway Program represent an increase of approximately two percent over those in the FFYs 2023–27 TIP.

The process of deciding how to use this federal funding in the Boston region follows several steps. First, MassDOT reserves funding for GANs debt service payments for the Accelerated Bridge Program; annual GANs payments range between $89 million and $134 million annually over the first three years of this TIP. GANs payments for the Accelerated Bridge Program are expected to conclude in FFY 2026.

The remaining Federal-Aid Highway Program funds are budgeted to support state and regional (i.e., MPO) priorities. In the FFYs 2024–28 TIP, $1.07 billion to $1.15 billion annually was available for programming statewide, including both federal dollars and the local match. MassDOT customarily provides the local match (which can also be provided by other entities); thus, projects are typically funded with 80 percent federal dollars and 20 percent state dollars, depending on the funding program. Costs for project design are borne by the proponent of the project.

Next, MassDOT allocates funding across the following funding categories:

- Reliability Investments: These programs include the Bridge Program—comprising inspections, systematic maintenance, and National Highway System (NHS) and non-NHS improvements—the Pavement Program, the Roadway Improvements Program, and the Safety Improvements Program.
- Modernization Investments: These programs include the Americans with Disabilities Act (ADA) Retrofit Program, the Intersection Improvement Program, the Intelligent Transportation Systems (ITS) Program, and the Roadway Reconstruction Program.
- Expansion Investments: These programs include the Bicycle and Pedestrian Program and transit network expansions.

Finally, once these needs have been satisfied, MassDOT allocates the remaining funding among the state's 13 MPOs for programming. This discretionary funding for MPOs is suballocated by formula to determine the Regional Target amounts. The Boston Region MPO receives the largest portion of MPO funding in the state, with approximately 43 percent of Massachusetts' Regional Target funds allocated to the region. MassDOT develops these targets in consultation with the Massachusetts Association of Regional Planning Agencies (MARPA). This TIP was programmed with the assumption that the Boston Region MPO will have between $129 million and $158 million annually for Regional Target amounts, which consist of federal funding and state funding for the local match.

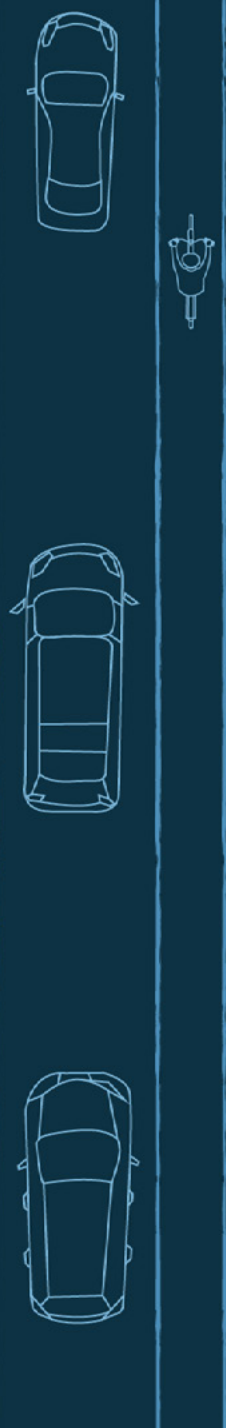
Each MPO may decide how to prioritize its Regional Target funding. Given that the Regional Target funding is a subset of the Highway Program, the MPO typically programs the majority of funding for roadway projects; however, the MPO has flexed portions of its highway funding to the Transit Program for transit expansion projects and through its Transit Modernization and Community Connections Programs. The TIP Highway Program details the projects that will receive Regional Target funding from the Boston Region MPO and statewide infrastructure projects within the Boston region. Details on these investments are outlined in Chapter 3.

TRANSIT PROGRAM

The Federal Transit Administration (FTA) allocates the funds programmed in the TIP Transit Program according to formula. The three regional transit authorities in the Boston Region MPO area that are recipients of these funds are the MBTA, CATA, and MWRTA. The MBTA, with its extensive transit program and infrastructure, is the recipient of the preponderance of the region's federal transit funds.

As the current federal transportation legislation, the BIL allocates funding to transit projects through the following formula programs:

- Section 5307 (Urbanized Area Formula Grants): Provides grants to urbanized areas to support public transportation based on levels of transit service, population, and other factors
- Section 5337 (Fixed Guideway/Bus): Seeks to maintain public transportation systems in a state of good repair through replacement and rehabilitation capital projects
- Section 5309 (Fixed Guideway Capital Investment Grants): Provides grants for new and expanded rail, bus rapid transit, and ferry systems that reflect local priorities to improve transportation options in key corridors
- Section 5339 (Bus and Bus Facilities): Provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities
- Section 5310 (Enhanced Mobility of Seniors and Individuals with Disabilities): Provides funding to support transportation to meet the special needs of older adults and persons with disabilities



THE TIP DEVELOPMENT PROCESS

OVERVIEW

When determining which projects to fund through the Regional Target funding process, MPO members collaborate with municipalities, state agencies, members of the public, advocacy groups, and other stakeholders. The MPO board uses evaluation criteria in its project selection process to help identify and prioritize projects that advance progress on the MPO's six goal areas:

- Safety
- System Preservation and Modernization
- Capacity Management and Mobility
- Clean Air/Sustainable Communities
- Transportation Equity
- Economic Vitality

Additionally, the MPO has established investment programs, which are designed to direct Regional Target funding towards MPO priority areas over the next 20 years, to help meet these goals. The investment programs are as follows:

- Intersection Improvements
- Complete Streets
- Major Infrastructure
- Bicycle Network and Pedestrian Connections
- Community Connections
- Transit Modernization

Projects that the MPO selects to receive Regional Target funding through the TIP development process are included in one of the six investment programs listed above. More information on the MPO's investment programs is available in Chapter 2.

The MPO incorporates performance-based planning and programming (PBPP) practices into its TIP development and other processes. These practices are designed to help direct MPO funds towards achieving specific outcomes for the transportation system. MPO investments directly relate to the PBPP framework and further the MPO's goals and performance targets. With the development of the FFYs 2024-28 TIP, the MPO leveraged funding availability across all fiscal years to program new projects to address transit system reliability, traffic safety for all users, NHS bridge condition, and other priorities. The MPO will continue to closely link its performance targets, investment decisions, and monitoring and evaluation activities. More information on PBPP is available in Chapter 4 and Appendix A (Table A-2).

OUTREACH AND DATA COLLECTION

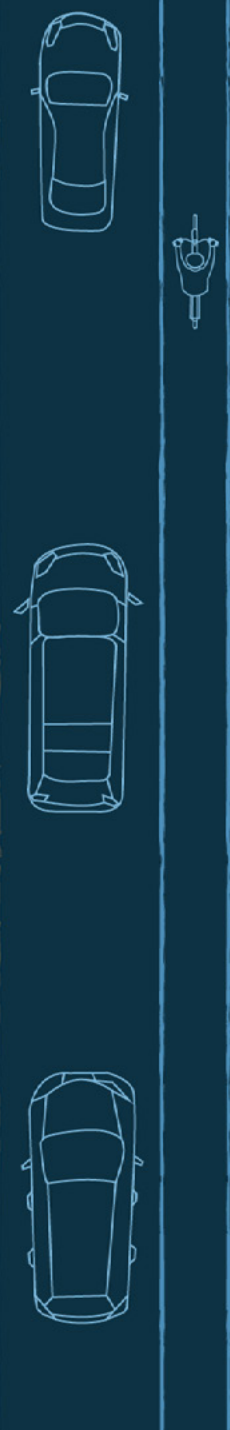
The outreach process begins early in the federal fiscal year. Cities and towns designate TIP contacts and begin developing a list of priority projects to be considered for federal funding, and the MPO staff asks the staff of cities and towns in the region to identify their priority projects. MPO staff compiles the project funding requests into a Universe of Projects, which is a list of all Bicycle Network and Pedestrian Connections, Complete Streets, Intersection Improvements, and Major Infrastructure projects identified as potential candidates to receive funding through the TIP.

Certain types of projects are not listed in the Universe at this time. Projects that would be candidates for funding from the MPO's Community Connections Program are not included because all projects that apply for this program's discrete application process are considered for funding. Also, Transit Modernization projects are not listed because the project intake process for this program is being developed. During the development of the FFYs 2024-28 TIP, the MPO engaged transit stakeholders to provide projects to utilize funding availability in FFYs 2024 and 2025, an exception to the process but a key step towards formalizing an intake strategy for the next FFYs 2025–29 TIP.

The Universe includes projects at varying levels of readiness, from those with significant engineering and design work complete to those still early in the conceptual or planning stage. MPO staff collects data on each project in the Universe so that the projects may be evaluated.

PROJECT EVALUATION

MPO staff evaluates projects based on how well they address the MPO's goals. For MPO staff to conduct a complete project evaluation, Bicycle Network and Pedestrian Connections, Complete Streets, Intersection Improvements, and Major Infrastructure projects must have a functional design report or the project plans must include the level of detail defined in a functional design report, a threshold typically reached when a project nears the 25 percent design stage. To complete an evaluation for projects under consideration through the MPO's Community Connections Program, project proponents must submit a completed application to MPO staff.



In response to significant cost increases in recent TIP cycles for projects already programmed for funding, the MPO board created a committee in the wake of the FFYs 2022–26 TIP cycle to further explore the causes of project cost increases and devise MPO policy changes to support more reliable project delivery. The TIP Project Cost Ad Hoc Committee began its work in June 2021 and advanced a set of policy recommendations to the full MPO board in September 2021. These changes were formally adopted by the MPO on November 4, 2021, and were in effect for the development of the FFYs 2024–28 TIP.

Among other changes, the MPO elected to codify its policy of requiring that project proponents submit 25 percent designs and obtain an updated cost estimate for their projects prior to being programmed in the TIP. While this new policy was formally in effect for the FFYs 2024–28 TIP cycle, the MPO desired to keep this threshold flexible in its first year of implementation, given that the policy was not adopted until after the start of TIP development.

The evaluation results for all projects are presented to the MPO board members for their consideration for programming in the TIP. Draft scores are shared directly with project proponents, at which point proponents are encouraged to review the scores and provide feedback so that MPO staff may make any warranted adjustments to arrive at accurate final results. Once proponents review their scores, final scoring results are posted on the MPO's website where MPO members, municipal officials, and members of the public may review them.

TIP READINESS DAY

An important step toward TIP programming takes place midway through the TIP development cycle at a meeting—referred to as TIP Readiness Day—that both MassDOT and MPO staff attend. At this meeting, MassDOT project managers provide updates about cost and schedule changes related to currently programmed projects. These cost and schedule changes must be taken into account as MPO staff helps the MPO board consider updates to the already programmed years of the TIP, as well as the addition of new projects in the outermost year of the TIP.

Among the other new policies advanced by the TIP Project Cost Ad Hoc Committee, the MPO board adopted a policy requiring proponents of projects that experienced a cost increase of 25 percent or more (for projects costing less than $10 million) or $2.5 million or more (for projects costing more than $10 million) to present to the MPO board on the reasons for these cost increases. The MPO would then compare these projects—at the new costs—to other projects and consider this cost-effectiveness evaluation when deciding whether or not to fund the projects at the higher costs. These cost changes are most often revealed through conversations between MassDOT staff and MPO staff during TIP Readiness Day, making this new policy especially relevant at this stage of TIP development.

STAFF RECOMMENDATION AND DRAFT TIP

Using the evaluation results and information about project readiness (i.e., the extent to which a project is fully designed and ready for construction), MPO staff prepares a recommendation or a series of programming scenarios for how to program the Regional Target funding in the TIP. Other considerations, such as whether a project was included in the LRTP, addresses an identified transportation need, or promotes distribution of transportation investments across the region, are also incorporated into these programming scenarios. The staff recommendation is always financially constrained—meaning, subject to available funding. There was approximately $698 million of Regional Target funding available to the Boston Region MPO for FFYs 2024–28. In this TIP cycle, the MPO board members discussed several scenarios for the Regional Target Program for highway projects and selected a preferred program in March 2023.

In addition to prioritizing the Regional Target funding, the MPO board reviews and endorses the statewide highway program that MassDOT recommends for programming. The board also reviews and endorses programming of funds for the MBTA's, CATA's, and MWRTA's transit capital programs.

APPROVING THE TIP

After selecting a preferred programming scenario, usually in late March, the MPO board votes to release the draft TIP for a 21-day public review period. The comment period typically begins in late April or early May, and during this time the MPO invites members of the public, municipal officials, and other stakeholders in the Boston region to review the proposed program and submit feedback. During the public review period, MPO staff hosts public meetings to discuss the draft TIP document and elicit additional comments.

After the public review period ends, the MPO board reviews all municipal and public comments and may change elements of the document or its programming. The MPO board then endorses the TIP and submits it to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) for approval. MassDOT incorporates the MPO-endorsed TIP into the State Transportation Improvement Program (STIP). The FHWA, FTA, and United States Environmental Protection Agency review the STIP for certification by September 30, the close of the federal fiscal year.

UPDATES TO THE TIP

Even after the TIP has been finalized, administrative modifications, amendments, and adjustments often must be introduced because of changes in project schedules, project costs, funding sources, or available revenues. This may necessitate reprogramming a project in a different funding year or programming additional funds for a project.

Notices of administrative modifications and amendments are posted on the MPO's website. If an amendment is necessary, the MPO notifies affected municipalities, stakeholders, and members of the public via email. The MPO typically holds a 21-day public review period before taking final action on an amendment. In extraordinary circumstances, the MPO may vote to shorten the public comment period to a minimum of 15 days. Administrative modifications and adjustments are minor and usually do not warrant a public review period.

STAY INVOLVED WITH THE TIP

Public engagement is an important aspect of the transportation planning process. Please visit bostonmpo.org for more information about the MPO, to view the entire TIP, and to submit your comments. You also may wish to sign up for email news updates and notices by visiting bostonmpo.org/subscribe and submitting your contact information. To request a copy of the TIP in accessible formats, please contact the MPO staff by any of the following means:

Mail: Boston Region MPO c/o CTPS MPO Activities Group, 10 Park Plaza, Suite 2150, Boston, MA 02116-3968

Telephone: 857.702.3700 (voice)

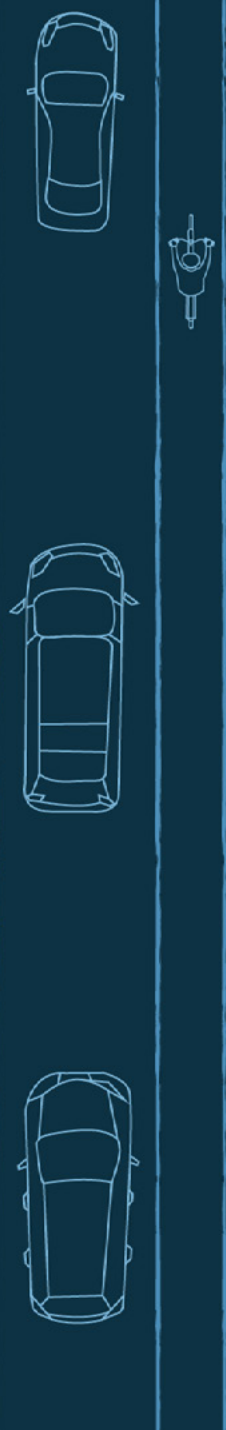
For people with hearing or speaking difficulties, connect through the state MassRelay service:

- Relay Using TTY or Hearing Carry-over: 800.439.2370
- Relay Using Voice Carry-over: 866.887.6619
- Relay Using Text to Speech: 866.645.9870

Email: publicinfo@ctps.org

The Executive Summary of the FFYs 2024–28 TIP is also available as a translation:

- 執行總結 (PDF)
- 执行总结 (PDF)
- Rezime Egzekitif (PDF)
- Resumen Ejecutivo (PDF)
- Resumo Executivo (PDF)



CHAPTER 1

3C TRANSPORTATION PLANNING AND THE BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Decisions about how to allocate transportation funds in a metropolitan area are guided by information and ideas gathered from a broad group of people, including elected officials, municipal planners and engineers, transportation advocates, and interested residents. Metropolitan planning organizations (MPO) are the bodies responsible for providing a forum for this decision-making process. Each metropolitan area in the United States with a population of 50,000 or more, also known as an urbanized area, is required by federal legislation to establish an MPO, which decides how to spend federal transportation funds for capital projects and planning studies for the area.

THE TRANSPORTATION PLANNING PROCESS

The federal government regulates the funding, planning, and operation of the surface transportation system through the federal transportation program, which was enacted into law through Titles 23 and 49 of the United States Code. Section 134 of Title 23 of the Federal Aid Highway Act, as amended, and Section 5303 of Title 49 of the Federal Transit Act, as amended, require that urbanized areas conduct a transportation planning process, resulting in plans and programs consistent with the planning objectives of the metropolitan area, in order to be eligible for federal funds.

The most recent reauthorization of the federal surface transportation law is the Bipartisan Infrastructure Law (BIL), which has succeeded the Fixing America's Surface Transportation (FAST) Act. The BIL sets policies related to metropolitan transportation planning, and requires that all MPOs carry out a continuing, comprehensive, and cooperative (3C) transportation planning process.

3C TRANSPORTATION PLANNING

- The Boston Region MPO is responsible for carrying out the 3C planning process in the Boston region. The MPO has established the following objectives for the process:
- Identify transportation problems and develop possible solutions
- Ensure that decision-making balances short- and long-range considerations and adequately reflects the range of possible future scenarios, options, and consequences
- Represent both regional and local considerations, and both transportation and non-transportation objectives and impacts, in the analysis of project issues
- Assist implementing agencies in effecting timely policy and project decisions with adequate consideration of environmental, social, fiscal, and economic impacts, and with adequate opportunity for participation by other agencies, local governments, and the public
- Help implementing agencies prioritize transportation activities in a manner consistent with the region's needs and resources
- Comply with the requirements of the BIL, the Americans with Disabilities Act of 1990, the Clean Air Act of 1990, the Civil Rights Act of 1964, Executive Order 12898 (regarding environmental justice), Executive Order 13166 (regarding outreach to populations with limited English-language proficiency), and Executive Order 13330 (regarding the coordination of human-services transportation)

More information about the federal, state, and regional guidance governing the transportation planning process, and about the regulatory framework in which the MPO operates can be found in Appendix E.

THE BOSTON REGION MPO

The Boston Region MPO's planning area extends across 97 cities and towns from Boston north to Ipswich, south to Marshfield, and west to Interstate 495.

Figure 1-1 shows the map of the Boston Region MPO's member municipalities.

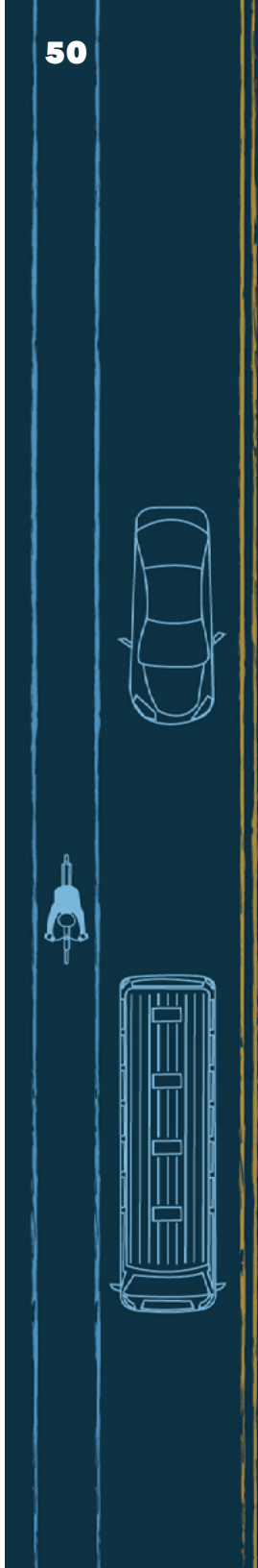
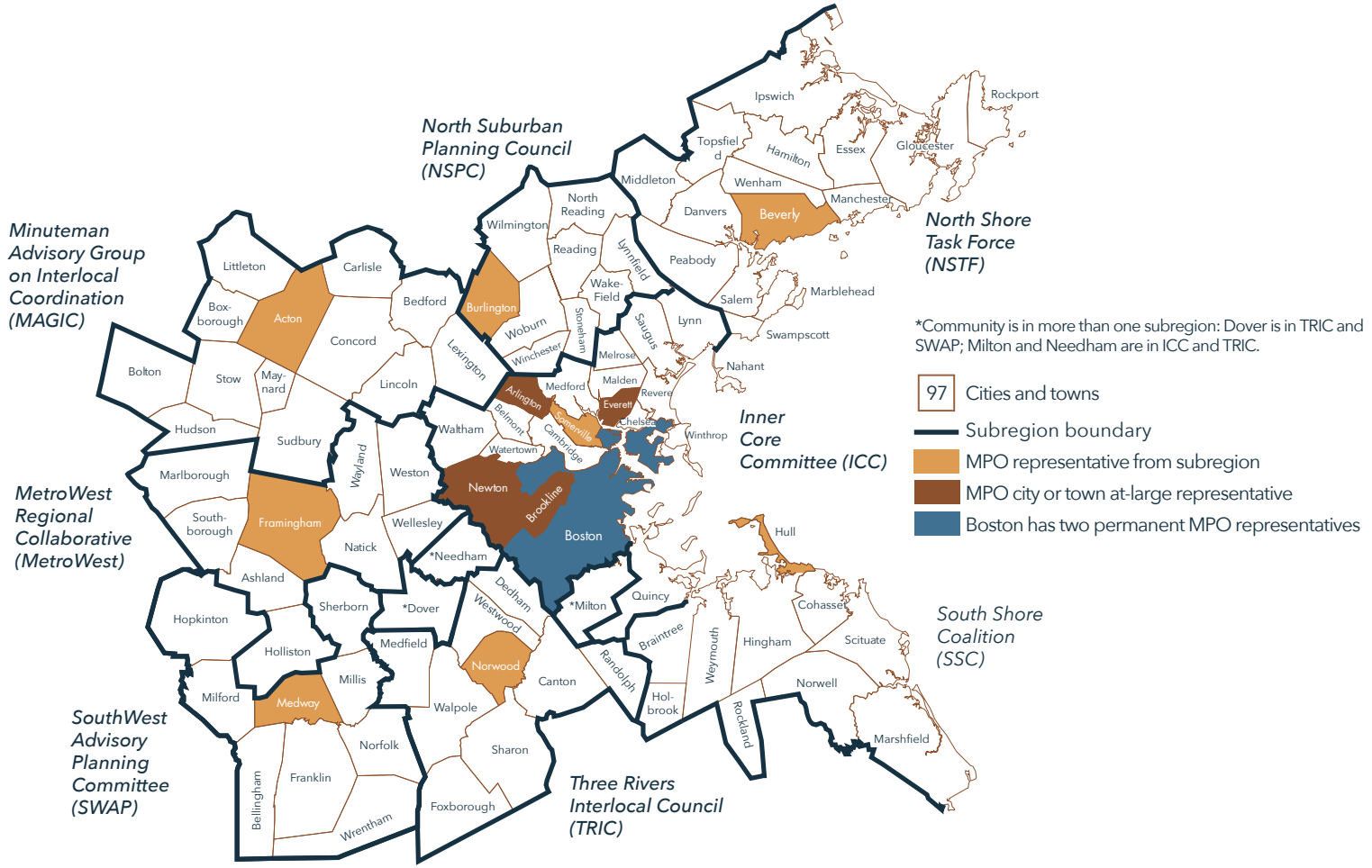


FIGURE 1-1

Municipalities in the Boston Region

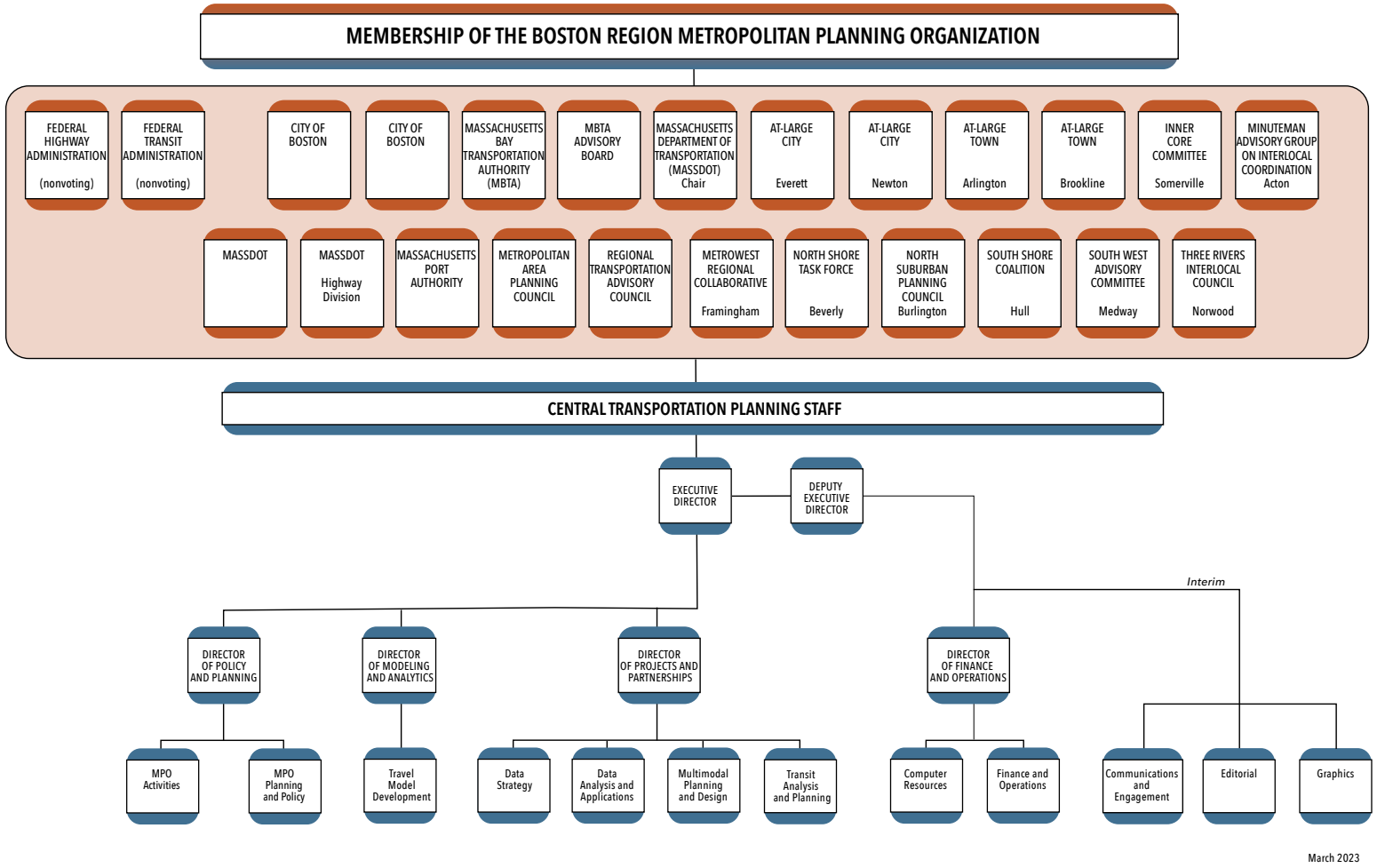


The MPO's board comprises 22 voting members. Several state agencies, regional organizations, and the City of Boston are permanent voting members, while 12 municipalities are elected as voting members for three-year terms. Eight municipal members represent each of the eight subregions of the Boston region, and there are four at-large municipal seats. The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) participate on the MPO board as advisory (nonvoting) members. More details about the MPO's permanent members can be found in Appendix F.

Figure 1-2 shows MPO membership and the organization of the Central Transportation Planning Staff, which serves as staff to the MPO.

FIGURE 1-2

Boston Region MPO Organizational Chart



March 2023

MPO CENTRAL VISION STATEMENT

The following paragraph is the MPO's central vision statement, as adopted in Destination 2040, the MPO's current Long-Range Transportation Plan (LRTP), which was adopted in August 2019.

The Boston Region MPO envisions a modern, well-maintained transportation system that supports a sustainable, healthy, livable, and economically vibrant region. To achieve this vision, the transportation system must be safe and resilient; incorporate emerging technologies; and provide equitable access, excellent mobility, and varied transportation options.

This vision statement takes into consideration the significant public input received during the drafting of the Needs Assessment for Destination 2040. This statement also reflects the MPO's desire to emphasize the maintenance and resilience of the transportation system while supporting the MPO's six core goals: Safety, System Preservation and Modernization, Capacity Management and Mobility, Clean Air and Sustainable Communities, Transportation Equity, and Economic Vitality. More information on the MPO's vision, goals, and objectives for the transportation system is available in Figure 1-3.

The Boston Region MPO is in the process of developing Destination 2050, its next LRTP, which is expected to be completed in the summer of 2023. The updated vision, goals, and objectives created as part of Destination 2050 will not only guide the recommendations included in that plan, but also the development of future MPO Transportation Improvement Programs (TIP) and LRTPs. It was also considered when developing this UPWP. The following paragraph is the MPO's vision statement as approved in February 2023.

The Boston Region Metropolitan Planning Organization envisions an equitable, pollution-free, and modern regional transportation system that gets people to their destinations safely, easily, and reliably, and that supports an inclusive, resilient, healthy, and economically vibrant Boston region.

CERTIFICATION DOCUMENTS

As part of its 3C process, the Boston Region MPO annually produces the TIP and the Unified Planning Work Program (UPWP). These documents, along with the quadrennial LRTP, are referred to as certification documents and are required for the federal government to certify the MPO's planning process. This federal certification is a prerequisite for the MPO to receive federal transportation funds. In addition to the requirement to produce the LRTP, TIP, and UPWP, the MPO must establish and conduct an inclusive public participation process, and maintain transportation models and data resources to support air quality conformity determinations and long- and short-range planning work and initiatives.

The following is a summary of each of the certification documents.

- The LRTP guides decision-making on investments that will be made in the Boston region's transportation system over the next two decades. It defines an overarching vision of the future of transportation in the region, establishes goals and objectives that will lead to achieving that vision, and allocates projected revenue to transportation projects and programs consistent with established goals and objectives. The Boston Region MPO produces an LRTP every four years. Destination 2040, the current LRTP, was endorsed by the MPO board in August 2019 and went into effect on October 1, 2019. Figure 1-3 shows the MPO's goals and objectives as adopted by the MPO board in Destination 2040. As previously mentioned, the MPO is developing its next LRTP, Destination 2050. The new plan is expected to be endorsed by the MPO in summer 2023 and to go into effect October 1, 2023.
- The TIP is a multiyear, multimodal program of transportation improvements that is consistent with the LRTP. It describes and prioritizes transportation projects that are expected to be implemented during a five-year period. The types of transportation projects funded include major highway reconstruction and maintenance, arterial and intersection improvements, public transit expansion and maintenance, bicycle paths and facilities, improvements for pedestrians, and first- and last-mile connections to transit or other key destinations. The TIP contains a financial plan that shows the revenue sources, current or proposed, for each project. The TIP serves as the implementation arm of the MPO's LRTP, and the Boston Region MPO updates the TIP annually. An MPO-endorsed TIP is incorporated into the State Transportation Improvement Program (STIP) for submission to the FHWA, FTA, United States Environmental Protection Agency, and the Massachusetts Department of Environmental Protection for approval. The Capital Investment Plan is a Massachusetts Department of Transportation (MassDOT) document that reflects all capital expenditures over a five year period, and includes STIP, and, by extension, TIP investments.
- The UPWP contains information about transportation planning studies that will be conducted by MPO staff during the course of a federal fiscal year, which runs from October 1 through September 30. The UPWP describes all of the supportive planning activities undertaken by the MPO staff, including data resources

management, preparation of the federally required certification documents, and ongoing regional transportation planning assistance. The UPWP, produced annually, is often a means to study transportation projects and alternatives before advancing to further design, construction, and possible future programming through the TIP. The studies and work products programmed for funding through the UPWP are integrally related to other planning initiatives conducted by the Boston Region MPO, MassDOT, the Massachusetts Bay Transportation Authority, the Massachusetts Port Authority, the Metropolitan Area Planning Council, and municipalities in the Boston region.

FIGURE 1-3

LRTP Goals and Objectives

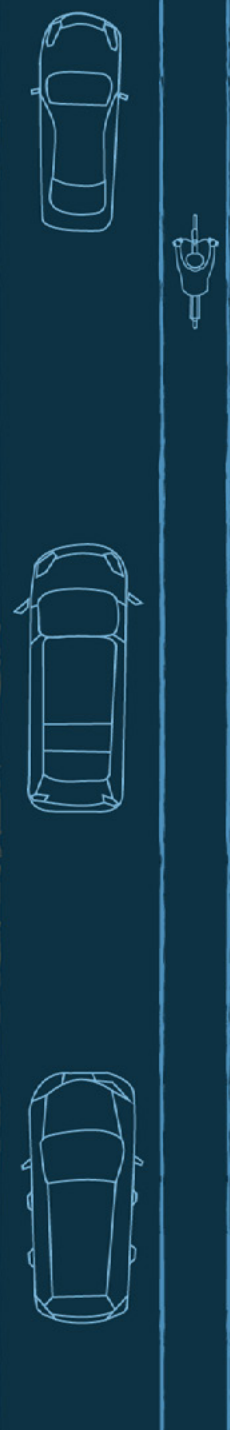
VISION STATEMENT

The Boston Region Metropolitan Planning Organization envisions an equitable, pollution-free, and modern regional transportation system that gets people to their destinations safely, easily, and reliably, and that supports an inclusive, resilient, healthy, and economically vibrant Boston region.

GOALS	OBJECTIVES
EQUITY	
Facilitate an inclusive and transparent transportation-planning process and make investments that eliminate transportation-related disparities borne by people in disadvantaged communities.	• Facilitate an inclusive and transparent engagement process with a focus on involving people in disadvantaged communities.* • Ensure that people have meaningful opportunities to share needs and priorities in a way that influences MPO decisions. • Eliminate harmful environmental, health, and safety effects of the transportation system on people in disadvantaged communities. • Invest in high-quality transportation options in disadvantaged communities to fully meet residents' transportation needs.

*** Disadvantaged communities are those in which a significant portion of the population identifies as an MPO equity population—people who identify as minority, have limited English proficiency, are 75 years old or older or 17 years old or younger, or have a disability—or has low income.**

SAFETY	
Achieve zero transportation-related fatalities and serious injuries and improve safety for all users of the transportation system.	• Eliminate fatalities, injuries, and safety incidents experienced by people who walk, bike, roll, use assistive mobility devices, travel by car, or take transit. • Prioritize investments that improve safety for the most vulnerable roadway users: people who walk, bike, roll, or use assistive mobility devices. • Prioritize investments that eliminate disparities in safety outcomes for people in disadvantaged communities.



GOALS	OBJECTIVES
MOBILITY AND RELIABILITY	
Support easy and reliable movement of people and freight.	• Enable people and goods to travel reliably on the region's transit and roadway networks. • Prioritize investments that address disparities in transit reliability and frequency for people in disadvantaged communities. • Reduce delay on the region's roadway network, emphasizing solutions that reduce single-occupancy-vehicle trips, such as travel demand management. • Prioritize investments that reduce delay on the region's transit network. • Support reliable, safe travel by keeping roadways, bridges, transit assets, and other infrastructure in a state of good repair, and prioritize these investments in disadvantaged communities. • Modernize transit systems and roadway facilities, including by incorporating new technology that supports the MPO's goals, such as electric-vehicle technologies.
ACCESS AND CONNECTIVITY	
Provide transportation options and improve access to key destinations to support economic vitality and high quality of life.	• Improve multimodal access to jobs, affordable housing, essential services, education, logistics sites, open space, and other key destinations. • Prioritizing transportation investments that support the region's and the Commonwealth's goals for housing production, land use, and economic growth. • Increase people's access to transit, biking, walking, and other non-single-occupancy-vehicle transportation options to expand their travel choices and opportunities. • Prioritize investments that improve access to high quality, frequent transportation options that enable people in disadvantaged communities to easily get where they want to go. • Close gaps in walking, biking, and transit networks and support interorganizational coordination for seamless travel. • Remove barriers to make it easy for people of all abilities to use the transportation system, regardless of whether they walk, bike, roll, use assistive mobility devices, or take transit.

GOALS	OBJECTIVES
RESILIENCY	
Provide transportation that supports sustainable environments and enables people to respond and adapt to climate change and other changing conditions.	• Prioritize investments to make the region's roadway and transit infrastructure more resilient and responsive to current and future climate hazards, particularly within areas vulnerable to increased heat and precipitation, extreme storms, winter weather, and sea level rise. • Prioritize resiliency investments in disadvantaged communities and in areas that bear disproportionate climate and environmental burdens. • Prioritize investments in transportation resiliency that improve emergency access and protect evacuation routes. • Prioritize investments that include nature-based strategies such as low-impact design, pavement reduction, and landscape buffers to reduce runoff and negative impacts to water resources, open space, and environmentally sensitive areas.
CLEAN AIR AND HEALTHY COMMUNITIES	
Provide transportation free of greenhouse gas emissions and air pollutants and that supports good health.	• Reduce transportation-related greenhouse gases, other air pollutants, and growth in vehicle-miles traveled by encouraging people and goods to move by non-single-occupancy-vehicle modes. • Support transit vehicle electrification and use of electric vehicles throughout the transportation system to reduce greenhouse gases and other air pollutants. • Prioritize investments that address air pollution and environmental burdens experienced by disadvantaged and vulnerable communities. • Support public health through investments in transit and active transportation options and by improving access to outdoor space and healthcare.

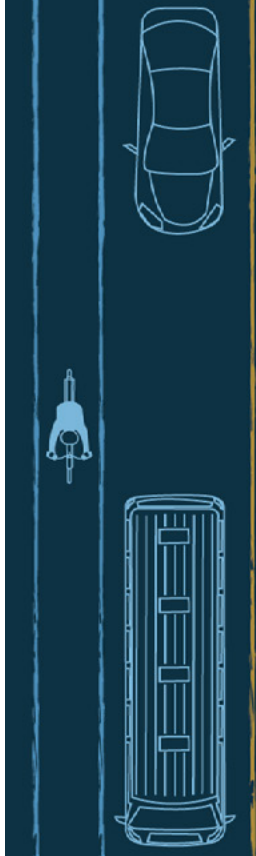
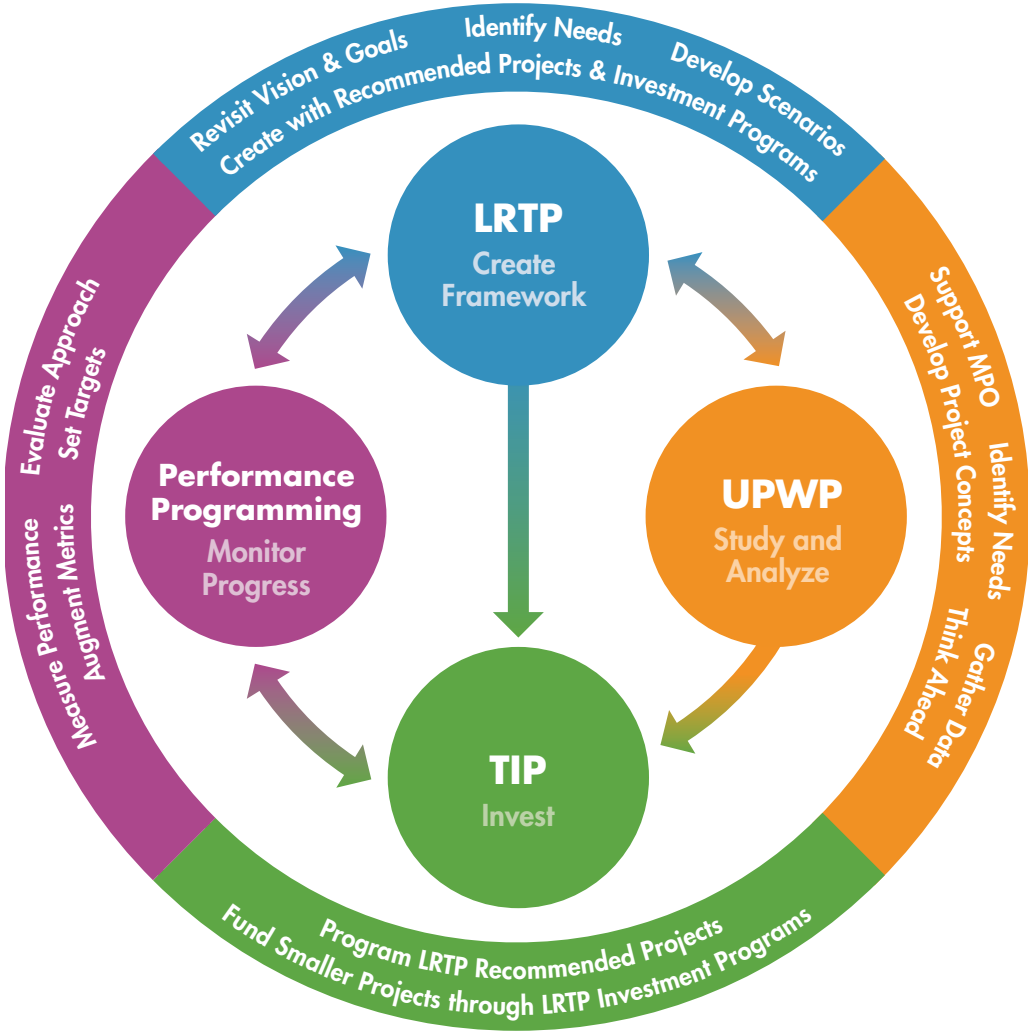
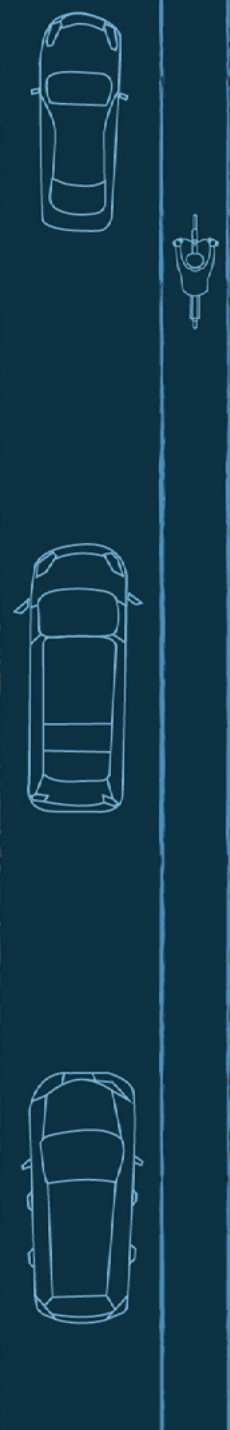


Figure 1-4 depicts the relationship between the three certification documents and the MPO's performance-based planning and programming process, which is a means to monitor progress towards the MPO's goals and to evaluate the MPO's approach to achieving those goals.

FIGURE 1-4

Relationship between the LRTP, TIP, UPWP, and Performance-Based Planning Process





CHAPTER 2

THE TIP PROCESS

INTRODUCTION TO THE TIP PROCESS

Transportation improvements are part of the solution to many critical regional, state, national, and even global problems, such as traffic congestion, air pollution, fatalities and injuries on roadways, climate change, and environmental injustice. Therefore, one of the most important decisions a metropolitan planning organization (MPO) faces is deciding how to allocate limited funds for transportation projects and programs. Because there is not nearly enough funding available for all of the necessary and worthy projects that would address these problems, an MPO's investment choices must be guided by policies that help identify the most viable and effective solutions.

The Boston Region MPO is guided by the policies in its Long-Range Transportation Plan (LRTP) and the MPO develops a Transportation Improvement Program (TIP) to prioritize the expenditure of federal funds on transportation projects. The MPO staff manages the development of both plans.

During the annual development process for the TIP, the MPO staff supports the MPO board by evaluating project funding requests from municipalities and state transportation agencies. The staff propose a range of alternative scenarios for the programming of new and ongoing projects, based on anticipated yearly funding levels, and work with the board to create a draft TIP document. The staff also facilitates a public involvement process that affords the public an opportunity to comment on proposed projects and review the draft TIP before the MPO board endorses the final document.

FUNDING THE TIP

FEDERAL FUNDING FRAMEWORK

The first step in allocating federal transportation funds is the passage by the United States Congress of a multi-year act that establishes a maximum level of federal transportation funding per federal fiscal year (FFY). The establishment of this level of funding is referred to as an authorization. The most recent authorization act, the Bipartisan Infrastructure Law (BIL), was signed into law on November 15, 2021. The BIL governed the development of the FFYs 2024–28 TIP, including by establishing new formula funding levels, creating new and reauthorizing existing discretionary grant programs, and setting policy priorities. (More information on the impacts of the BIL on the development of the FFYs 2024–28 TIP is available throughout this report, with specific guidance on new BIL Planning Emphasis Areas available in Appendix E.)

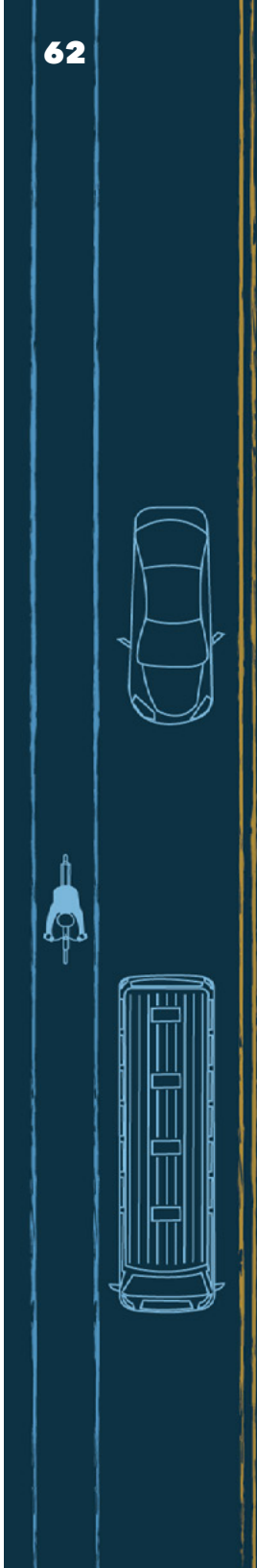
After the authorization level has been established, the United States Department of Transportation annually allocates funding among the states according to various federal formulas. This allocation is referred to as an apportionment. The annual apportionment rarely represents the actual amount of federal funds that are ultimately committed to a state because of federally imposed limitations on spending in a given fiscal year, referred to as the obligation authority. In Massachusetts, TIPs are developed based on the estimated obligation authority.

FEDERAL HIGHWAY PROGRAM

The TIP Highway Program was developed with the assumption that federal funding for the state would range between $709 million and $865 million annually over the next five years. These amounts include the funds that would be set aside initially by MassDOT as payments for the Accelerated Bridge Program and exclude required matching funds. The funding levels for the FFYs 2024–28 TIP's Highway Program represent an increase of approximately two percent over those in the FFYs 2023–27 TIP.

The process of deciding how to use this federal funding in the Boston region follows several steps. First, MassDOT reserves funding for GANs debt service payments for the Accelerated Bridge Program; annual GANs payments range between $89 million and $134 million annually over the first three years of this TIP. GANs payments for the Accelerated Bridge Program are expected to conclude in FFY 2026.

The remaining Federal-Aid Highway Program funds are budgeted to support state and regional (i.e., MPO) priorities. In the FFYs 2024–28 TIP, $1.07 billion to $1.15 billion annually was available for programming statewide, including both federal dollars and the local match. MassDOT customarily provides the local match (which can also be provided by other entities); thus, projects are typically funded with 80 percent federal dollars and 20 percent state dollars, depending on the funding program. Costs for project design are borne by the proponent of the project.



Regional Targets

The Regional Targets are discretionary funds for MPOs, sub-allocated by formula to each metropolitan planning region. The Boston Region MPO receives about 43 percent of the total funds available statewide for Regional Targets. MassDOT developed the target formula for determining this distribution of funds in consultation with the Massachusetts Association of Regional Planning Agencies (MARPA).

Each MPO in the state can decide how to prioritize its Regional Target funding. Given that the Regional Target funding originates from the Federal-Aid Highway Program, the Boston Region MPO board typically programs the majority of its target funding on roadway projects; however, the MPO board has flexed portions of its TIP Highway Program funding to the TIP's Transit Program, most notably when the MPO board provided funding in support of the Green Line Extension transit expansion project.

Additionally, this FFYs 2024–28 TIP includes an annual allotment of funding to the MPO's Transit Modernization Program beginning in FFY 2025. This represents the MPO's first formalized effort to flex Federal-Aid Highway funds to transit projects on a yearly basis, an affirmation of the regional goals to support multimodal transportation options in a meaningful way. More information on the MPO's investment strategy is discussed later in this chapter.

During the next five years, the Boston Region MPO's total Regional Target funding will be approximately $697 million, an average of $139.4 million per year. As with the overall increase in funding for the Highway Program from the BIL, the MPO's Regional Target funds increased nearly nine percent per year in the FFYs 2024–28 TIP relative to the levels planned for in the development of the FFYs 2023–27 TIP. The increase in funding was driven by elevated target funding in FFY 2027 and 2028 resulting from the absence of GANs payments. Funding levels in FFYs 2024 through 2026 remain unchanged from the previous TIP. To decide how to spend its Regional Target funding, the MPO engages its 97 cities and towns in an annual TIP development process.

Federal Highway Administration Programs

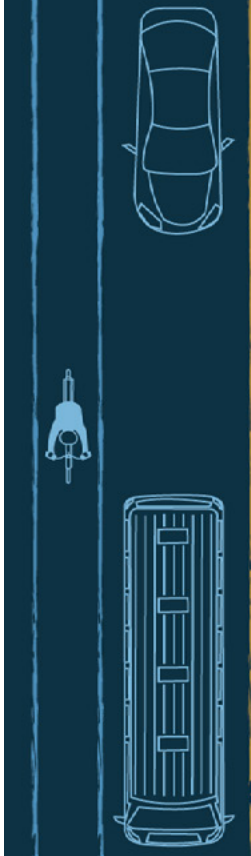
The Federal-Aid Highway Program dollars discussed in this chapter are delivered through several Federal Highway Administration (FHWA) funding programs, each of which has unique requirements. Table 2-1 lists the programs in the BIL that fund projects in the FFYs 2024–28 TIP.

TABLE 2-1

Federal Highway Administration Programs Applicable to the FFYs 2024–28 Transportation Improvement Program

BIL Program	Eligible Uses
Bridge Formula Program (BFP)	Efforts to replace, rehabilitate, preserve, protect, and construct highway bridges
Congestion Mitigation and Air Quality Improvement (CMAQ)	A wide range of projects to reduce congestion and improve air quality in nonattainment and maintenance areas for ozone, carbon monoxide, and particulate matter
Highway Safety Improvement Program (HSIP)	Implementation of infrastructure-related highway safety improvements
Metropolitan Planning	Facilities that contribute to an intermodal transportation system, including intercity bus, pedestrian, and bicycle facilities
National Electric Vehicle Infrastructure (NEVI) Program	Projects that support the strategic deployment of electric vehicle (EV) charging infrastructure and establish an interconnected EV network to facilitate data collection, access, and reliability
National Highway Freight Program (NHFP)	Projects that improve the efficient movement of freight on the National Highway Freight Network
National Highway Performance Program (NHPP)	Improvements to interstate routes, major urban and rural arterials, connectors to major intermodal facilities, and the national defense network; replacement or rehabilitation of any public bridge; and resurfacing, restoring, and rehabilitating routes on the Interstate Highway System
Surface Transportation Block Grant Program (STBGP)	A broad range of surface transportation capital needs, including roads; transit, sea, and airport access; and vanpool, bicycle, and pedestrian facilities
Transportation Alternatives Program (TAP)	A set-aside from the STBGP that funds the construction of infrastructure-related projects (for example, sidewalk, crossing, and on-road bicycle facility improvements)

Source: Federal Highway Administration.



FEDERAL TRANSIT PROGRAM

Federal aid for public transit authorities is allocated by formula to urbanized areas (UZAs). MassDOT is the recipient of this federal aid in the Boston MA-NH-RI UZA. In UZAs with populations greater than 200,000, such as the Boston MA-NH-RI UZA, the distribution formula factors in passenger-miles traveled, population density, and other factors associated with each transit provider. The three regional transit authorities (RTAs) in the Boston Region MPO area are the Massachusetts Bay Transportation Authority (MBTA), MetroWest Regional Transit Authority (MWRTA), and Cape Ann Transportation Authority (CATA). The MBTA, with its extensive transit program and infrastructure, is the recipient of the preponderance of federal transit funds in the region.

The Federal Transit Administration (FTA) distributes funding to transit agencies through several different programs. As previously noted, the MPO also flexes some of its FHWA funding to FTA to support transit investments. Table 2-2 shows FTA programs in the BIL that support transit investments in the FFYs 2024–28 TIP.

TABLE 2-2

Federal Transit Administration Programs Applicable to the FFYs 2024–28 Transportation Improvement Program

BIL Program	Eligible Uses
Urbanized Area Formula Grants (Section 5307)	Transit capital and operating assistance in urbanized areas
Fixed Guideway/Bus (Section 5337)	Replacement, rehabilitation, and other state-of-good-repair capital projects
Bus and Bus Facilities (Section 5339)	Capital projects to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities
Enhanced Mobility of Seniors and Individuals with Disabilities (Section 5310)	Capital expenses that support transportation to meet the special needs of older adults and persons with disabilities
Fixed-Guideway Capital Investment Grants (Section 5309)	Grants for new and expanded rail, bus rapid transit, and ferry systems that reflect local priorities to improve transportation options in key corridors

Source: Federal Transit Administration.

INVESTMENT FRAMEWORKS

MPO INVESTMENT FRAMEWORK

As mentioned previously, each MPO in the state can decide how to prioritize the Regional Target funding it receives through the processes established by FHWA and MassDOT. The Boston Region MPO's LRTP defines the investment framework that informs the specific investment decisions made in the TIP by establishing

- the MPO's transportation vision, goals, and objectives, which shape the MPO's project evaluation criteria;
- MPO investment programs; and
- other guidelines that help the MPO determine how to allocate funding across its investment programs.

MPO Goals and Objectives

The MPO's goals and objectives provide the foundation for the evaluation criteria the MPO board uses when selecting transportation projects to be funded with Regional Target dollars. MPO staff compares candidate projects' characteristics to these criteria to evaluate whether individual projects can help the MPO advance its various goals. The criteria used to select projects for this TIP are based on the MPO's goals and objectives, adopted as part of Destination 2040, which is the LRTP the MPO endorsed in August 2019. These goals and objectives are listed in Chapter 1.

MPO Investment Programs

In Destination 2040 and the prior LRTP, Charting Progress to 2040, the MPO strengthened the link between its spending and improvements to transportation performance by revising its investment programs to include a broader range of prospective projects. These investment programs focus on specific types of projects that the MPO expects will help achieve its goals and objectives for the transportation system. The MPO created these programs to give municipalities the confidence that if they design these types of projects the MPO will be willing to fund them through the TIP:

- Complete Streets
- Intersection Improvements
- Bicycle Network and Pedestrian Connections
- Major Infrastructure (including highway funds flexed to major transit infrastructure)
- Community Connections
- Transit Modernization

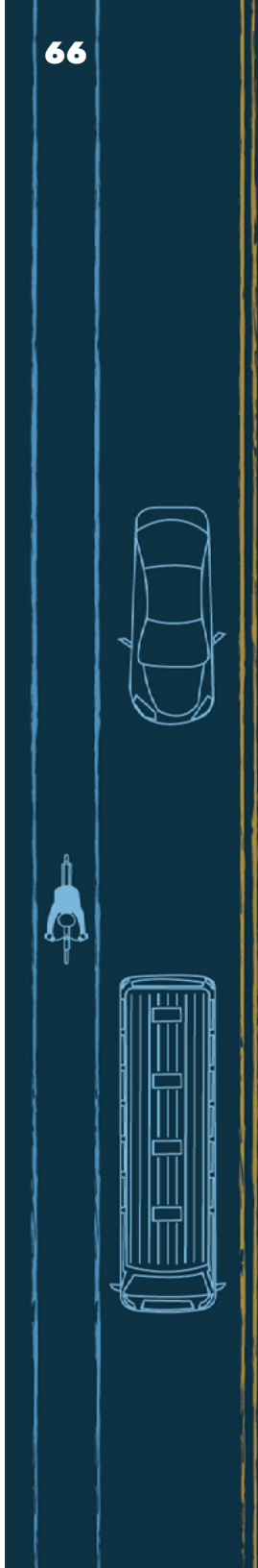


FIGURE 2-1

Destination 2040 Investment Programs

Intersection Improvements

Funds projects to modernize intersection geometry and signalization to improve safety and mobility. Improvements may include:

- Modernizing existing signals, adding signals or implementing transit signal priority
- Adding turning lanes
- Shortening crossing distances for pedestrians
- Adding or improving sidewalks, ramps or curb cuts
- Adding or improving bicycle lanes

Complete Streets

Funds projects that modernize roadways to improve safety and mobility for all users. Improvements may include:

- Providing continuous sidewalks or shared-use paths
- Providing continuous bicycle lanes, cycle tracks or other bicycle facilities
- Updating signals at intersections along a corridor
- Improving other corridor infrastructure, such as bridges, pavement and roadway geometry
- Adding dedicated bus lanes and other associated roadway, signal and stop improvements
- Implementing climate resiliency improvements, including stormwater management measures

Transit Modernization Program

Funds projects that modernize transit infrastructure and promote the enhanced ridership, accessibility or resiliency of transit services. Improvements may include:

- Enhancing customer amenities or increasing capacity at transit stations
- Enhancing the accessibility of transit stations, including installing high-level platforms or replacing or installing elevators
- Investing in climate resiliency to support the future security of transit infrastructure
- Making state-of-good-repair improvements to transit assets, including to tracks, signals and power systems
- Modernizing transit fleets through the purchase of vehicles
- Upgrading or expanding parking at transit stations
- Upgrading bus maintenance facilities

Community Connections Program

Funds a variety of project types, including first- and last-mile solutions and other small, nontraditional transportation projects to enhance mobility and improve air quality. Improvements may include:

- Closing gaps in the transit network through first- and last-mile solutions and needs not covered by existing fixed-route transit or paratransit services, including shuttle operations, partnerships with transportation network companies, or transit enhancements
- Coordinating transit service or small capital improvements with existing or future fixed-route service
- Adopting innovative parking management strategies or constructing additional parking for automobiles or bicycles
- Making minor bicycle and pedestrian infrastructure improvements near transit stations
- Promoting education and wayfinding, including travel instruction, training on new technologies, signage, and pilot or demonstration projects

Major Infrastructure Program

Funds projects that enhance major arterials for all users and modernize or expand transit systems to increase capacity. Projects in this program cost more than $20 million and/or add capacity to the transportation system. Improvements may include

- Expanding or modernizing transit infrastructure, including extending rail lines or making large-scale facility or station improvements
- Implementing large-scale Complete Streets projects
- Reconstructing bridges or other critical infrastructure

Bicycle Network and Pedestrian Connections

Funds projects to expand bicycle and pedestrian networks to improve safe access to transit, schools, employment centers, and shopping destinations.
Improvements may include:

- Constructing new, off-road bicycle or shared-use paths
- Improving bicycle and pedestrian crossings
- Building new sidewalks
- Providing traffic calming improvements or other Complete Street upgrades
- Enhancing signage, lighting, or signals for bicycles and pedestrians

KEY: MPO GOALS	Safety	System Preservation and Modernization	Capacity Management and Mobility	Clean Air/Sustainable Communities	Transportation Equity	Economic Vitality

The MPO has taken a clear stance that investing in transit is central to improving the region's broader transportation system. Created in Destination 2040, the Transit Modernization Program represents a significant shift in the MPO's investment strategy, as funding will be allocated to transit projects on an annual basis beginning in FFY 2025. In prior years, the MPO only funded transit projects on a one-off basis when funding was requested for specific projects in the region.

By creating the programming infrastructure to flex Regional Target highway funds to transit projects annually, the Boston Region MPO has established itself as a leader among MPOs nationally by crafting an investment strategy that is truly multimodal. During the development of Destination 2050, the next LRTP to be released in 2023, staff proposed a broadening of the Transit Modernization Program into a Transit Transformation Program starting in FFY 2029, in response to feedback from stakeholders at the MBTA and RTAs.[1]

The MPO funded multiple Transit Modernization projects in FFY 2024 and FFY 2025 to make use of funding surpluses. The MPO has also continued to reserve funding in the amount of $6.5 million in each fiscal year beginning in FFY 2025 for future allocation. The MPO will continue to work with municipalities and transit providers in the region to identify transit needs and determine the most effective use of this funding as this program commences with the FFYs 2025–2029 TIP. As with the Transit Modernization program, the MPO will continue to work with municipalities to develop and fund projects through the Complete Streets investment program. In Destination 2040, the MPO added dedicated bus lanes and climate resiliency measures to the types of projects supported by this program.

The MPO decided to increase the funding allocated to the Community Connections Program from $2 million to $2.5 million annually beginning in FFY 2023, as the MPO's overall Regional Target funding increased with the passage of the Bipartisan Infrastructure Law in November 2021. In this FFYs 2024–28 TIP, the MPO built on the success of the first three rounds of the Community Connections Program, funding nine additional projects on top of the 25 projects funded in the previous three TIP cycles. A tenth line item for a Bikeshare Support Set-Aside was also added, which set aside $1 million in funding for Bikeshare in FFYs 2025 and 2026 and $2 million in FFYs 2026 and 2027. Funding for the Community Connections Program continues to be reserved in FFYs 2025–28 for allocation in future TIP cycles.

More information on the projects selected for funding in each of the MPO's investment programs can be found in Chapter 3.

Other Funding Guidelines

When creating investment program guidelines for Destination 2040, the MPO elected to decrease the amount of funding allocated to large-scale projects that would be included in its Major Infrastructure Program in order to focus a larger percentage of funding on lower cost, operations-and-maintenance projects. Such a funding mix will help the MPO address its goals and provide more opportunities for the MPO to distribute federal transportation dollars to projects throughout the region, as opposed to concentrating it on a few large-scale projects.

1 The Community Connections Program was formerly referred to as the Community Transportation/Parking/Clean Air and Mobility Program when it was originally created in the MPO's 2015 LRTP, Charting Progress to 2040.

Early in the development of the FFYs 2022–26 TIP, the MPO reassessed its definition of Major Infrastructure projects, adopting a new definition through sequential votes on August 20, 2020, and October 1, 2020. This revised definition carried through to the development of the FFYs 2023–27 TIP and persists in the FFYs 2024-28 TIP. The MPO previously defined Major Infrastructure projects as those that cost more than $20 million or that add capacity to the transportation network. The MPO's revised definition classifies Major Infrastructure projects as follows:

- Roadway projects:
  - Capital projects that improve facilities that are important to regional travel
  - interstate highways
  - principal arterial freeways and expressways
  - all sections of roadways classified as principal arterial "other" that have fully or partially controlled access
  - Projects that cost $50 million or more
- Transit projects:
  - Capital projects that add new connections to or extend the rail or fixed guideway transit network
  - Projects that cost $50 million or more

Under the MPO's prior Major Infrastructure definition, the relatively low-cost threshold caused several large-scale Complete Streets projects to be classified as Major Infrastructure projects although they were local in nature. The changes outlined above are intended to focus the Major Infrastructure investment program on those projects that are of significant scale or that are truly important for the broader region. This allows the MPO to better compare projects when conducting project evaluations. Because the MPO considers the five-year distribution of TIP funds across its investment programs relative to the goals set forth in the LRTP (as shown in Figure 2-2), properly categorizing projects is a critical component of the MPO's decision-making process. Funding allocation goals like these are some of the LRTP-based guidelines the MPO employs to ensure limited Regional Target funding is programmed in ways that best achieve the MPO's goals for transportation in the region. As the MPO continues the development of its next LRTP, Destination 2050, it will assess the efficacy of each of its six investment programs to ensure these programs are structured to best support progress on the MPO's goals and objectives for the region.

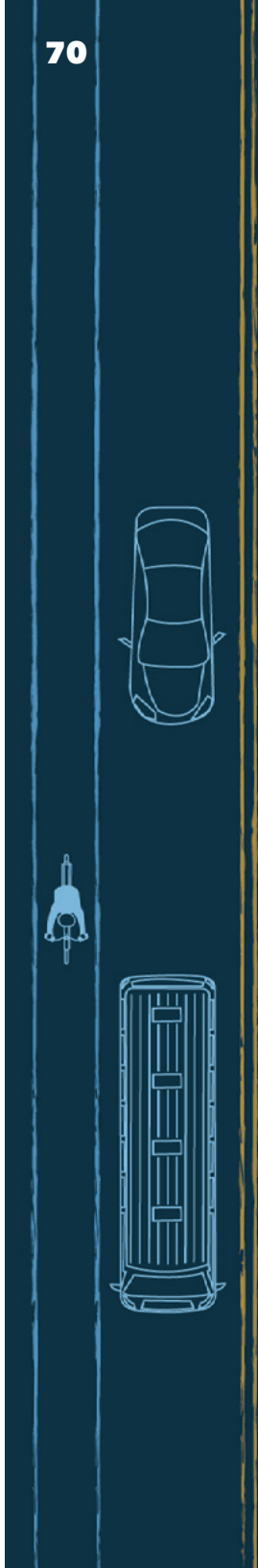
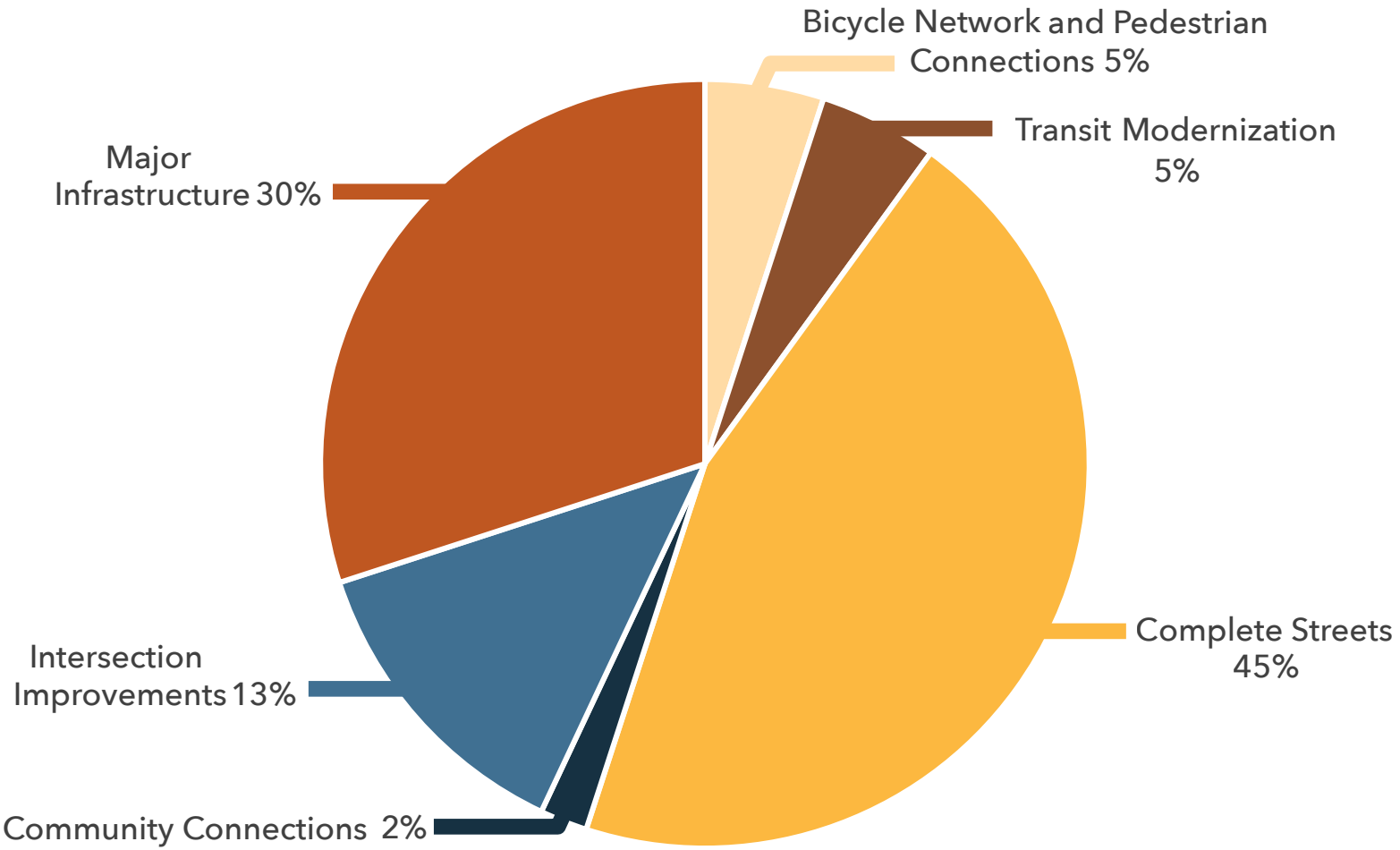


FIGURE 2-2

Destination 2040 Funding Goals by MPO Investment Program



Source: Boston Region MPO.

The MPO requires that project proponents submit 25 percent designs and obtain an updated cost estimate for their project prior to being programmed in the TIP. This standard was set by the MPO as part of a multi-pronged effort to reduce the prevalence of cost increases for projects that have already been selected for funding in the TIP.

MASSDOT AND TRANSIT AGENCY INVESTMENT FRAMEWORKS

MassDOT and the MBTA each update their rolling five-year Capital Investment Plans (CIP) on an annual basis. MassDOT's CIP identifies priority roadway, bridge, and statewide infrastructure projects for the five MassDOT divisions and includes funding for specific transit projects such as the South Coast Rail. The MBTA's CIP outlines the agency's five-year investment strategy for transit projects in its service area. Both CIP processes use a similar framework that prioritizes funding according to statewide strategic goals for the transportation system. Reliability is the top priority for MassDOT and the MBTA, followed by modernization and then expansion. Both agencies have created investment programs for their respective CIPs that relate to these strategic goals and allocate funding to these programs in ways that emphasize their priority. These goals and investment programs are as follows:

- **Reliability:** These investments are oriented toward maintaining and improving the overall condition and reliability of the transportation system. They include capital maintenance projects, state-of-good-repair projects, and other asset management and system preservation projects. The MassDOT Highway Division programs in this area include the Bridge Program—including inspections, systematic maintenance, and National Highway System (NHS) and non-NHS improvements—the Pavement Program, the Roadway Improvements Program, and the Safety Improvements Program. MBTA reliability programs include its Revenue Vehicles Program; Track, Signals, and Power Program; Bridge and Tunnel Program; Stations Program; Facilities Program; and Systems Upgrade/Other investments.
- **Modernization:** These investments enhance the transportation system to make it safer and more accessible and to accommodate growth. These projects address compliance with federal mandates or other statutory requirements for safety and/or accessibility improvements; exceed state-of-good-repair thresholds to substantially modernize existing assets; and provide expanded capacity to accommodate current or anticipated demand on transportation systems. The MassDOT Highway Division programs in this area include the Americans with Disabilities Act (ADA) Retrofit Program, the Intersection Improvement Program, the Intelligent Transportation System (ITS) Program, and the Roadway Reconstruction Program. MBTA programs in this area include the Red and Orange Line Improvements Program, the Commuter Rail Safety and Resiliency Program, the Accessibility Program, the Risk Management and Mitigation Program, the Automated Fare Collection (AFC) Program, the Rail Transformation Program, and the Customer Experience and Technology Improvements Program.
- **Expansion:** These investments provide more diverse transportation options for communities throughout the Commonwealth. They expand highway, transit, and rail networks and/or services, or they expand bicycle and pedestrian networks to provide more transportation options and address health and sustainability objectives. The MassDOT Highway Division programs in this area include the Bicycle and Pedestrian Program and the Capacity Program. The MBTA's major expansion program is for the Red-Blue Connector extension of the Blue Line from Bowdoin Station to Charles/MGH Station.

DEVELOPING THE TIP

PROJECT SELECTION PROCESS

Overview

The MPO applies its investment framework when developing the TIP. The MPO board's process for selecting projects to receive Regional Target funding relies on evaluation criteria to help identify and prioritize projects that advance the MPO's goals. The criteria are based on the MPO's goals and objectives outlined in the LRTP. All projects are required to show consistency with the LRTP and other statewide and regional plans. Other considerations include the readiness of a project for construction and municipal support for the project. Background information about the TIP project evaluation process is presented in Appendix A.

In the wake of the adoption of Destination 2040 in August 2019, the MPO began the process of revising the TIP evaluation criteria to enhance alignment with the MPO's updated goals, objectives, and investment programs. These new criteria were adopted by the MPO on October 1, 2020, and were employed during the project selection process for the FFYs 2022–26 , 2023–27, and 2024-28 TIPs. The final criteria were the result of a 15-month process that engaged nearly 1,100 members of the public through surveys and focus groups. This process also prioritized the inclusion of significant direct input from MPO members, which was gathered from more than a dozen presentations, discussions, and focus groups. The outcomes of this process are discussed further in the Project Evaluation section on the following pages.

Because of the limitations on in-person gatherings caused by the COVID-19 pandemic, a vast majority of the surveys, focus groups, and presentations discussed above were conducted virtually, with participation options both online and over the telephone. These virtual engagement opportunities allowed MPO staff to pursue new ways of building relationships with members of the public and other key stakeholders in the region. Given the increase in access to the TIP criteria revision process afforded by these virtual events, MPO staff intend to develop a hybrid outreach model that would support both in-person and virtual engagement.

In addition to the process outlined above, which focused on developing new criteria for five of the MPO's investment programs (Bicycle Network and Pedestrian Connections, Complete Streets, Intersection Improvements, Major Infrastructure, and Transit Modernization), the MPO also adjusted the project selection criteria used to evaluate and fund projects through the Community Connections Program in the FFYs 2022–26 and 2023–27 TIPs. These revisions were made based on the lessons learned by MPO staff through the pilot round of this program, which took place during the FFYs 2021–25 TIP cycle. MPO staff made no further revisions in the development of the FFYs 2024-28 TIP. More information on these criteria is available in the Project Evaluation section of this chapter, as well as in Appendix A.

Outreach and Data Collection (October–November)

The TIP development process begins early in the federal fiscal year when cities and towns in the region designate staff as TIP contacts and begin developing a list of priority projects to be considered for federal funding. Each fall, the MPO staff asks these TIP contacts to identify their city or town's priority projects and then MPO staff elicits input from interested parties and members of the general public.

These discussions on municipalities' priority projects mark the start of a robust dialogue between MPO staff and project proponents that continues through the duration of the TIP cycle. As noted above, these conversations have been taking place virtually because of the COVID-19 pandemic. In November of 2022, MPO staff held two virtual workshops for municipalities in the region to develop an understanding of the TIP process. MPO staff provided additional one-on-one virtual office hours throughout the fall for proponents to ask more detailed questions about advancing specific projects for funding, with several office hour sessions booked for this purpose during the early stages of developing the FFYs 2024–28 TIP.

Once project proponents have decided to pursue federal funding, they must begin the formal project initiation process. All new Bicycle Network and Pedestrian Connections, Complete Streets, Intersection Improvements, and Major Infrastructure projects must be initiated with the MassDOT Highway Division before they can be considered for programming in the TIP. MassDOT details this process on its project initiation webpage, mass.gov/info-details/massdot-highway-initiating-a-project. To be considered for programming, proponents of Community Connections projects must submit an application for funding directly to MPO staff, as these projects do not need to be initiated by MassDOT.

The MPO staff compiles project funding requests for projects into a Universe of Projects list, which consists of all identified projects being advanced for possible funding in the Bicycle Network and Pedestrian Connections, Complete Streets, Intersection Improvements, and Major Infrastructure investment programs. The Universe includes projects that are at advanced stages of project design, those that are undergoing preliminary engineering and design, and projects still in the conceptual planning stage. Those projects that are active municipal priorities and that are feasibly ready to be programmed in the current TIP cycle continue forward into the MPO's project evaluation process. Projects that are not ready for programming remain in the Universe for consideration in future TIP cycles. A project Universe is not developed for Community Connections projects, as all eligible projects within this program will be considered for funding during the TIP cycle in which project proponents apply.

Project Evaluation (December-February)

The MPO staff uses its project evaluation criteria to logically and transparently evaluate and select projects for programming in the TIP that advance the MPO's vision for transportation in the region. This process favors projects that support the following goals:

- Transportation by all modes will be safe
- Maintain and modernize the transportation system and plan for its resiliency
- Use existing facility capacity more efficiently and increase transportation options
- Ensure that all people receive comparable benefits from, and are not disproportionately burdened by, MPO investments, regardless of race, color, national origin, age, income, ability, or sex
- Create an environmentally friendly transportation system
- Ensure our transportation network provides a strong foundation for economic vitality

As noted previously, the MPO undertook a process of revising the TIP evaluation criteria prior to the launch of the FFYs 2022–26 TIP to enhance the alignment between the TIP project selection process and the MPO's updated goals, objectives, and investment programs outlined in Destination 2040. In terms of the overall structure of the criteria, this process resulted in the following outcomes:

- The creation of criteria for the MPO's Transit Modernization Program, as well as for scoring transit expansion projects through the MPO's Major Infrastructure Program
- Revisions to the existing criteria for the MPO's Bicycle Network and Pedestrian Connections, Complete Streets, Intersection Improvements, and Major Infrastructure (Roadway) investment programs, allowing for each program to have a distinct set of criteria that better evaluates the specific aspects of each type of project
- The transition to an overall scoring scale of 100 points (from 134 points under the former scoring system)
- The reconfiguration of the way in which Transportation Equity is scored, from simply being a measure of equity populations in a project area to additionally considering how the most vulnerable people who use the transportation system would benefit from the investments made by a project

In addition to these broader structural changes, a number of updates were made to individual criteria to better accomplish the MPO's goals in the LRTP:

- The percentage of the overall score allocated to Transportation Equity was more than doubled, from nine percent to 20 percent.
- The multimodal nature of the criteria was enhanced through more fully measuring investments in transit-supporting infrastructure, such as dedicated bus lanes and transit-signal-priority equipment.
- The ways in which the MPO considers resiliency in project selection was broadened by expanding the types of resiliency investments awarded points.
- A new criterion was added that considers the intersection of equity and health through the measurement of the expected emissions impacts of a project in areas with high concentrations of certain air pollutants.

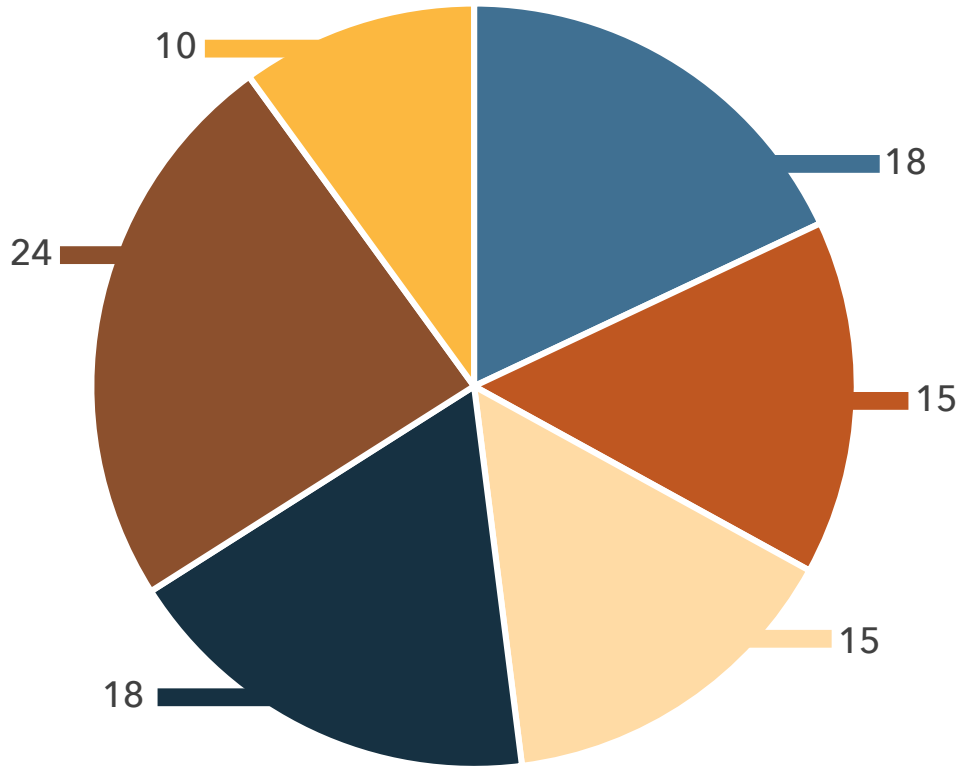
Several other changes were made to the project evaluation criteria, which are detailed in Appendix A. The point distributions by MPO investment program and LRTP goal area are also available in Figure 2-4. Projects scored using both sets of criteria are programmed in each of these four investment programs in the FFYs 2024–28 TIP, so both sets of criteria are referenced throughout this document.

Though many of the adjustments listed above were in development prior to the onset of the COVID-19 pandemic, the emerging lessons from this event reinforced the importance of emphasizing criteria that award points to projects that invest in walking, bicycling, and transit infrastructure. Also, the need for new criteria that more directly address existing disparities in health and transportation access for minorities and low-income households has been put into stark relief throughout the pandemic. While the MPO did not elect to rescore any currently programmed projects with these new criteria, the revised criteria will be employed in coming TIP cycles to support the funding of transportation projects that address the issues highlighted by the COVID-19 pandemic.

Prior to the FFYs 2022–26 TIP cycle, the MPO also undertook a parallel process to update its evaluation criteria for the smaller-scale, first- and last-mile projects considered for funding through the Community Connections Program. These adjustments were based on the lessons learned from the pilot round of this program during the FFYs 2021–25 TIP cycle. In these revisions, MPO staff created a more focused set of criteria that better aligned with the types of projects pursuing funding through this program. Revisions to the Community Connections criteria addressed the discrepancies between capital and operating projects, as the pilot criteria more heavily favored operating projects. These adjustments resulted in more balanced scores that better reflected the goals of the program when implemented for the FFYs 2022–26 TIP cycle. More information on the scoring areas for these criteria is available in Figure 2-3, and all criteria are available in Appendix A. Projects scored using both sets of criteria are programmed in the Community Connections Program in the FFYs 2024–28 TIP, so both sets of criteria are referenced throughout this document.

FIGURE 2-3

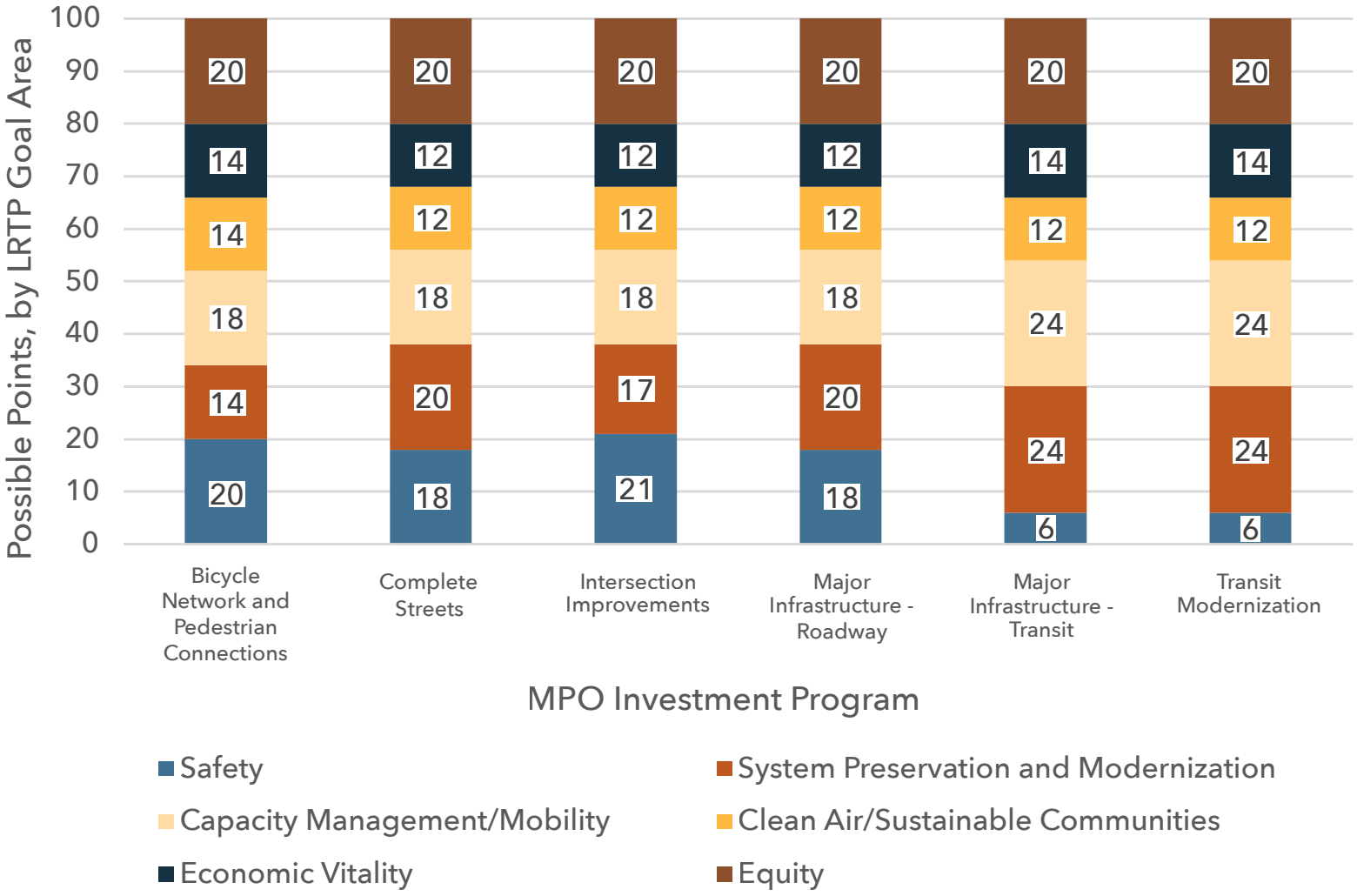
TIP Project Evaluation Criteria: Point Distribution for Community Connections Projects



Source: Boston Region MPO

FIGURE 2-4

TIP Project Evaluation Criteria: Point Distributions by Project Type (All Other Investment Programs)



Source: Boston Region MPO.

In order for the MPO staff to conduct a complete project evaluation, each project proponent must provide enough information so that staff can meaningfully apply the evaluation criteria. Bicycle Network and Pedestrian Connections, Complete Streets, Intersection Improvements, and Major Infrastructure projects must have submitted 25 percent design plans to MassDOT, or its plans must include the level of detail defined in a functional design report. (See MassDOT's Project Development and Design Guide for information about the contents of a functional design report. This guide is available at mass.gov/lists/design-guides-and-manuals.) For Community Connections projects, proponents must submit a complete application to the MPO, including required supporting documentation such as budget sheets, letters of support from partner entities, and work estimates.

After MPO staff have completed an initial round of project scoring, draft scores are distributed to project proponents for their review. The MPO's goal is to fairly and accurately assess all projects, making this review a critical component of the TIP process. Proponents are encouraged to submit feedback to MPO staff on their scores if they feel any criteria have been applied inaccurately. Proponents are also encouraged to submit additional supporting documentation on their projects if doing so would help clarify or correct any elements of the draft scoring. MPO staff take all proponent feedback into consideration and make any warranted adjustments to project scores before considering the evaluation process final and preparing the scores for presentation to the MPO.

For more details about the criteria used to score projects and project evaluation results for projects considered for programming in this TIP, see Appendix A.

TIP Readiness Day (February)

On TIP Readiness Day, MPO staff meets with members of the MassDOT Highway Division and Office of Transportation Planning to review cost and schedule changes related to currently programmed projects, which are undergoing design review, permitting, and right-of-way acquisition. The MPO board then considers these updated project construction costs and changes to the expected dates for construction advertisement when making decisions about changes to TIP programming. These changes have an impact on the ability of the MPO to program its target funds for new projects in the five-year TIP.

Between the development of the FFYs 2021–25 TIP and the FFYs 2022–26 TIP, more than half of the projects programmed by the MPO experienced cost increases, many of which represented significant increases in percentage terms or in absolute cost. These changes placed severe limitations on the MPO's ability to consider new projects for funding during the FFYs 2022–26 TIP cycle. As a partner to MassDOT's Highway Division and Office of Transportation Planning, the MPO recognizes its role in supporting the on-time and on-budget delivery of projects by proponents. For this reason, the MPO board created a committee in the wake of the FFYs 2022–26 TIP cycle to further explore the causes of project cost increases and devise MPO policy changes to support more reliable project delivery by all parties.

The TIP Project Cost Ad Hoc Committee began its work in June 2021 and advanced a set of policy recommendations to the full MPO board in September 2021. These changes were formally adopted by the MPO on November 4, 2021, and went into effect for the development of the FFYs 2023–27 TIP. In addition to the requirement that project proponents submit 25 percent design plans and obtain an updated cost estimate for their project prior to obtaining funding in the TIP, the committee's work resulted in several other policy changes. Most notably, the MPO board adopted a policy that proponents of any projects that experienced a cost increase of 25 percent or greater (for projects less than $10 million in cost) or of greater than $2.5 million (for projects more than $10 million in cost) would be required to present to the MPO board on the reasons for these cost increases. The MPO would then compare this project—at its new cost—to other projects based on a cost-effectiveness evaluation before making a decision on whether or not to fund the project at its higher cost. These cost changes are most often revealed through conversations between MassDOT staff and MPO staff during TIP Readiness Day, making this policy especially relevant at this stage of TIP development.

More information on the work of the TIP Project Cost Ad Hoc Committee is available in Chapter 3.

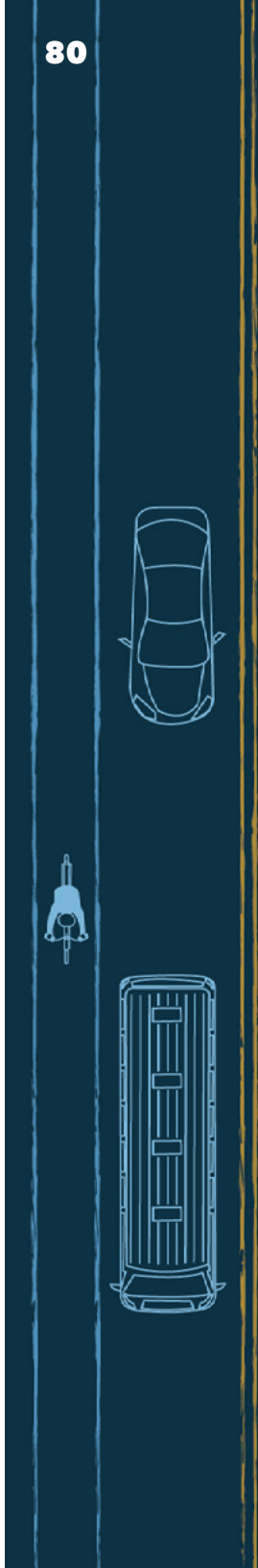
Staff Recommendation and Project Selection (March-April)

Using the evaluation scores and information gathered about project readiness (when a project likely would be fully designed and ready for advertisement) and cost, staff prepares possible TIP project programming scenarios for the MPO's consideration. When developing these scenarios, MPO staff also considers whether a project was programmed in the LRTP, LRTP-based guidelines for allocating funds to different programs or project types, the distribution of investments across the region, and availability of sufficient funding. The MPO staff gather feedback from board members, project proponents, and the public to inform a final staff recommendation, which is then presented to the MPO for approval before it is included in the draft TIP for public review.

Given the significant increase in Regional Target funding in the FFYs 2024-28 TIP resulting from the passage of the BIL, the MPO selected 21 projects for funding during this TIP cycle, including the following:

- 10 Community Connections projects
- 4 Complete Streets projects
- 3 Transit Modernization projects
- 2 Bicycle Network and Pedestrian Connections projects
- 2 Intersection Improvement projects

In total, the MPO allocated more than $150 million in this TIP cycle to projects not previously funded in the Regional Target program. More information on the projects funded in the FFYs 2024–28 TIP is available in Chapter 3.



SELECTION PROCESS FOR PROJECTS PRIORITIZED BY THE STATE AND TRANSIT AGENCIES

As discussed above, the selection of transit, bridge, and statewide infrastructure projects for programming in the TIP draws primarily from the CIPs produced by MassDOT and the MBTA. These agencies evaluate projects for inclusion in CIP programs using criteria established by the independent Project Selection Advisory Council (PSAC). The following criteria from the PSAC process guide project evaluation:

- System Preservation: Projects should contribute to a state of good repair on the system and align with asset management goals.
- Mobility: Projects should provide efficient and effective modal options for all users.
- Cost Effectiveness: Projects should result in benefits commensurate with costs and should be aimed at maximizing the return on the public's investment.
- Economic Impact: Projects should support strategic economic growth in the Commonwealth.
- Safety: Projects should contribute to the safety and security of people and goods in transit.
- Social Equity: Projects should equitably distribute the social, economic, and health benefits of investments among all communities.
- Environmental and Health Effects: Projects should advance state goals of improving air quality and reducing greenhouse gas emissions and pollution.
- Policy Support: Projects should get credit if they support local or regional policies or plans, or state policies not addressed through the other criteria.

Projects that receive the highest priority are those that meet each agency's goals for maintaining and improving the overall condition and reliability of the system; modernizing the system to make it safer and more accessible and to accommodate growth; and expanding and diversifying transportation options for communities. These project-prioritization processes may also reflect other planning initiatives, such as Focus40, the MBTA's 25-year investment plan, or MassDOT's modal plans. More information on regulatory and planning guidance governing TIP project prioritization is available in Appendix E. Once project prioritization is complete, programming decisions are made based on these evaluations and information regarding project readiness, program sizing, and existing asset management plans.

As discussed previously, the transit element of the TIP also includes the Federal-Aid Programs of the other two RTAs in the region, CATA and MWRTA. Once selection processes are complete for all four agencies, these agencies submit their lists of bridge and roadway projects, bicycle and pedestrian improvements, statewide infrastructure items, and transit capital projects to the MPO for review.

APPROVING THE TIP

APPROVAL OF THE DRAFT TIP FOR PUBLIC REVIEW

The MPO board considers the project evaluation results and staff recommendation when prioritizing projects for Regional Target funding. The board also considers public comments, the regional importance of projects, and other factors. In addition to prioritizing the Regional Target funding, the MPO board reviews MassDOT's proposed statewide highway programming and the proposed capital programs for the MBTA, CATA, and MWRTA before voting to release a draft TIP for public review.

The MPO board votes to release the draft document for public review and invites members of the public, municipal and elected officials, and other stakeholders in the Boston region to review the proposed TIP. The MPO staff hosts outreach events during the public review period to elicit comments on the draft document. (See Appendix C for a full list of public comments submitted on the draft TIP.)

APPROVAL OF THE DRAFT TIP

After the public review period ends, the MPO staff and board review all public comments, and the board may change the programming or the document as appropriate before endorsing the TIP. MassDOT staff incorporates the MPO-endorsed TIP into the State Transportation Improvement Program (STIP) and submits it to the FHWA and FTA for approval. The FHWA, FTA, and US Environmental Protection Agency review the STIP and certify it by September 30, the end of the federal fiscal year.

UPDATING THE TIP

The TIP is a dynamic program that may be amended and adjusted throughout the year. Administrative modifications and amendments are often introduced because of changes in project status (advertisement readiness), project cost, project design scope, or available revenue. An amendment is a revision that requires public review and a demonstration of fiscal constraint.

Consistent with federal guidelines, the Boston Region MPO must release an amendment if there is (1) a change in project cost of $500,000 or more for projects valued at $5 million or less, or (2) a change of 10 percent or more of the project cost for projects valued greater than $5 million. TIP amendments are also released if there is a proposal to add or remove a project from the TIP or if the programming year of a project is changed. Cost changes that are less than the above threshold amounts may be considered in the form of administrative modifications or adjustments, which must still undergo MPO board action for approval. Administrative modifications or adjustments are also undertaken in the event that a project's funding source changes. Although a public review period is not required for administrative modifications or adjustments, one may be offered at the MPO board's discretion.

Regardless of the nature of an amendment, all proposed TIP amendments are presented in a public setting at an MPO meeting, and details are posted on the MPO's website, bostonmpo.org. Public notices are distributed through the MPO's email contact list, which members of the public may join by signing up on the MPO's website. Municipal staff who are TIP contacts at the affected municipalities and the public are notified of pending amendments at the start of an amendment's public review period.

A history of TIP Amendments can be found at https://www.ctps.org/tip.

PUBLIC NOTICE

Notices of draft TIP amendments include a summary of the amendment's contents, dates of the public review period, contact information for submitting a comment to the MPO, and the date, time, and location that the MPO will vote on that amendment. Municipal representatives and members of the public are invited to submit written or oral testimony at the MPO meetings at which amendments are discussed or voted upon.

The MPO typically holds a 21-day public review period before taking final action on an amendment. In extraordinary circumstances, the MPO may vote to shorten the public review period to a minimum of 15 days. These circumstances are detailed in the MPO's Public Engagement Plan.

The MPO's website is the best place to find current information about the TIP. All changes to the draft TIP and changes to the endorsed TIP, such as amendments and modifications that have been approved by the MPO, are available on the TIP webpage, bostonmpo.org/tip.

Comments or questions about the draft TIP materials may be submitted directly to the MPO staff via the website, email, or US mail, or voiced at MPO meetings and other public MPO events.

CHAPTER 3

HIGHWAY AND TRANSIT PROGRAMMING

The Transportation Improvement Program (TIP) tables included in this chapter present a listing of all the projects and programs funded with federal highway and transit aid in the Boston region during federal fiscal years (FFYs) 2024–28. These funding tables are also included as part of the State Transportation Improvement Program (STIP).

Table 3-1 presents a summary of the Boston Region Metropolitan Planning Organization's (MPO) share of Regional Target funds from the Federal-Aid Highway Program. The allocation of these funds is constrained by projections of available federal aid. As shown in Table 3-1, the MPO has programmed much of the available discretionary funds within the limits of projected funding for highway funding programs. As such, the FFYs 2024–28 TIP Regional Target Program complies with financial constraint requirements.

TABLE 3-1

Boston Region MPO Regional Target Program Funding Summary

	FFY 2024	FFY 2025	FFY 2026	FFY 2027	FFY 2028	Total
Regional Target Obligation Authority	$130,647,095	$128,427,689	$125,285,687	$155,132,142	$158,052,175	$697,544,788
Regional Target Funds Programmed	$126,991,048	$125,975,489	$124,667,241	$144,006,044	$149,868,526	$671,508,348
Regional Target Funds Unprogrammed	$3,656,047	$2,452,200	$618,446	$11,126,098	$8,183,649	$26,036,440

Source: Boston Region MPO.

As discussed in Chapter 2, the signing of the Bipartisan Infrastructure Law (BIL), on November 15, 2021, increased the amount of Regional Target funding available to the Boston Region MPO for the development of the FFYs 2024–28 TIP by approximately nine percent from the funding levels in the FFYs 2023–27 TIP. The projects selected by the MPO for funding for the first time in the FFYs 2024–28 TIP are listed in Table 3-2.

During the development of the FFYs 2024–28 TIP, the MPO had significant amounts of funding available to program for each fiscal year. This surplus was driven by programming delays for nine projects.

Projects already programmed in the TIP to receive Regional Target funds could not be accelerated, so the MPO worked with the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Bay Transportation Authority (MBTA) to identify other projects that could be funded in these fiscal years. Jointly, MassDOT and the MBTA presented more than a dozen projects to the MPO for consideration, from which the MPO selected five projects for funding in FFYs 2024 and 2025:

- Columbus Avenue Bus Lanes Phase 2
- Rail Transformation Early Action Items—Reading Station and Wilbur Interlocking
- Jackson Square Station Accessibility Improvements
- Chelsea—Targeted Safety Improvements and Related Work on Broadway, from Williams Street to City Hall Avenue

The MPO also selected one MassDOT project for funding in FFY 2027:

- Everett—Targeted Multi-Modal and Safety Improvements on Route 16

The MPO staff has not yet evaluated these projects using the MPO's project selection criteria because of time constraints associated with the MPO board's deadlines for making decisions about project funding. However, these projects generally align well with many of the MPO's goals, including enhancing bicycle and pedestrian safety and access, and expanding the accessibility of and maintaining a state of good repair for the region's transit system and critical roadways. Scoring information for these projects will be included in the TIP when it is available.

TABLE 3-2

New Regional Target Projects Funded in the FFYs 2024–28 TIP

Project Name	Municipality (Proponent)	MPO Investment Program	FFYs of Funding	Regional Target Dollars Programmed in FFYs 2024–28
Malden–Spot Pond Brook Greenway	Malden	Bicycle Network and Pedestrian Connections	2027	$4,858,127
Natick–Cochituate Rail Trail Extension, from MBTA Station to Mechanic Street	Natick	Bicycle Network and Pedestrian Connections	2028	$7,760,451
Westwood–Norwood–Reconstruction of Canton Street to University Drive, including Rehabilitation of N-25-032=W-31-018	Westwood	Complete Streets	2028	$22,094,875
Boston–Bridge Preservation, B-16-066 (38D), Cambridge Street over MBTA	Boston	Complete Streets	2026	$16,632,000
Wakefield–Comprehensive Downtown Main Street Reconstruction	Wakefield	Complete Streets	2028	$16,581,200
MWRTA CatchConnect Microtransit Service Expansion Phase 2	MWRTA	Community Connections	2024–26	$380,477
Lynn–Broad Street Corridor Transit Signal Priority	Lynn	Community Connections	2024	$297,800
Medford Bicycle Parking–Tier 1	Medford	Community Connections	2024	$29,600
Medford Bluebikes Expansion	Medford	Community Connections	2024	$118,643
Canton Public Schools Bike Program	Canton	Community Connections	2024	$22,500
Canton Center Bicycle Racks	Canton	Community Connections	2024	$10,000

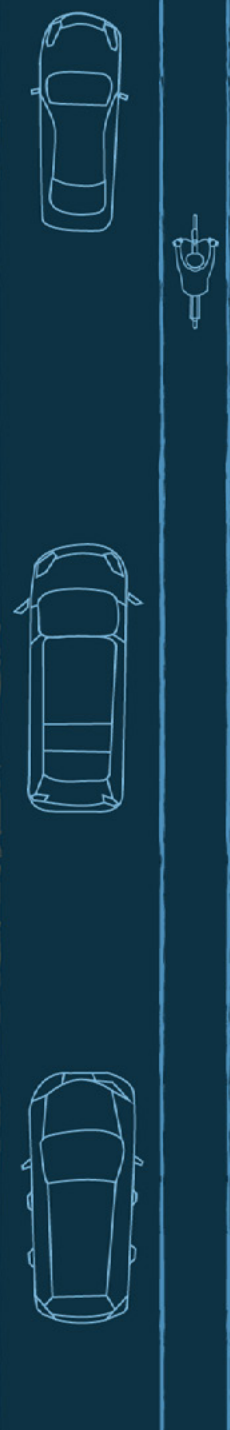
Project Name	Municipality (Proponent)	MPO Investment Program	FFYs of Funding	Regional Target Dollars Programmed in FFYs 2024–28
Boston Electric Bluebikes Adoption	Boston	Community Connections	2024	$1,020,000
Cambridge Electric Bluebikes Adoption	Cambridge	Community Connections	2024	$352,575
Acton Parking Management System	Acton	Community Connections	2024	$15,000
Everett–Targeted Multi-Modal and Safety Improvements on Route 16	MassDOT	Intersection Improvements	2027	$5,246,920
Chelsea–Targeted Safety Improvements and Related Work on Broadway, from Williams Street to City Hall Avenue	MassDOT	Intersection Improvements	2025	$6,315,013
Jackson Square Station Accessibility Improvements	MBTA	Transit Modernization	2024–25	$26,250,000
Rail Transformation Early Action Items–Reading Station and Wilbur Interlocking	MBTA	Transit Modernization	2024	$14,000,000
Columbus Avenue Bus Lanes Phase 2	MBTA	Transit Modernization	2024	$11,750,000
Bikeshare State of Good Repair Set-Aside	CTPS	Community Connections	2025–28	$6,000,000
Project Design Support Pilot	CTPS	Project Design Support Pilot	2025	$4,000,000
Total	**N/A**	**N/A**	**N/A**	**$150,293,079**

Note: Funding amounts in this table include both federal and non-federal funds, including matching funds.

Funding in this table represents the first year of funding, with additional funding anticipated to be allocated to these projects by the Boston Region MPO in future fiscal years.

CTPS = Central Transportation Planning Staff. FFY = federal fiscal year. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority. MWRTA = MetroWest Regional Transit Authority. N/A = not applicable. TIP = Transportation Improvement Program.

Source: Boston Region MPO.



In addition to the project selection, several other key decisions were made by the MPO in the drafting of the FFYs 2024–28 Regional Target Program:

- The MPO introduced a Bikeshare Support Set-Aside line item to fund capital repair and improvement projects for bikeshare initiatives in the region starting in FFY 2025. This line item is funded at $1 million per year for FFYs 2025 and 2026 and $2 million per year for FFYs 2027 and 2028.
- The MPO has allocated $4 million of Regional Target funding for a pilot initiative in FFY 2025 to support municipalities that are designing projects. The aim is to provide support earlier in a project's lifecycle and increase the number of projects in the funding pipeline.
- The programmed amount of Project 607981, Somerville–McGrath Boulevard Construction, was increased by $15 million in FFY 2027. The overall budget for the project remains the same and has been rebalanced for accelerated construction.
- The $6.4 million contribution by the MPO to the MBTA's Forest Hills Station Improvement Project in FFY 2024 was removed due to the lack of funding availability from other contributors.

Additional details of the specific projects programmed with Regional Target funding are shown in Section 1A of each annual element of the TIP tables (Table 3-7). The other sections in Table 3-7 (Sections 1B, 2A, 2B, 2C, and 3B) list the following:

- Projects funded with earmarks or discretionary grant funds
- State-prioritized bridge repairs and rehabilitation, pavement maintenance, safety improvements, retrofits for accessibility (as required by the Americans with Disabilities Act), intersection improvements, roadway reconstruction, and bicycle and pedestrian projects

Tables 3-8, 3-9, 3-10, and 3-11 list the federally funded transit projects and programs in the Boston region that the MBTA, MetroWest Regional Transit Authority (MWRTA), and Cape Ann Transportation Authority (CATA) plan to undertake.

Detailed descriptions of projects funded through both the Regional Target and statewide portions of the Highway Program follow the tables. The descriptions note the evaluation scores (for MPO-funded projects), project proponents, and funding details. The pages are organized alphabetically by the municipality in which each project is located.

INVESTMENT SUMMARY

This section summarizes the investments made by the Boston Region MPO, MassDOT, MBTA, CATA, and MWRTA that are documented in the FFYs 2024–28 TIP. Table 3-3 shows the Boston Region MPO's investments of Regional Target funding—including both the number of projects and the dollar amount—by investment program. These investments are aimed at making progress towards the MPO's goals for the region, including enhancing safety for all users, preserving and modernizing the transportation system, promoting mobility and reducing congestion, supporting clean air and sustainability, ensuring all have equitable access to the transportation system, and fostering economic vitality in the region through investments in transportation.

The MPO's Regional Target Program increased in size by approximately $52 million between the FFYs 2023–27 TIP and the FFYs 2024–28 TIP to a total program size of more than $697 million.

TABLE 3-3

FFYs 2024–28 Boston Region MPO Regional Target Investment Summary

MPO Investment Program	Number of Projects	Regional Target Dollars Programmed
Bicycle Network and Pedestrian Connections	6	$66,140,116
Community Connections (allocated to projects)*	17	$11,529,796
Community Connections (not yet allocated to projects)	N/A	$8,334,827
Complete Streets**	22	$328,884,131
Intersection Improvements	5	$44,424,588
Major Infrastructure—Roadway	3	$125,094,890
Transit Modernization (allocated to projects)	4	$65,600,000
Transit Modernization (not yet allocated to projects)	N/A	$21,500,000
Unprogrammed	N/A	$26,036,440
Total	**57**	**$697,544,788**

Note: Funding amounts in this table include both federal and non-federal funds, including matching funds.

** This figure includes $6 million in BikeShare Support funding starting in FFY 2025.*

***The $4 million Project Design Support Pilot in FFY 2025 is accounted for under this program*

FFY = federal fiscal year. MPO = metropolitan planning organization. N/A = not applicable.

Source: Boston Region MPO.

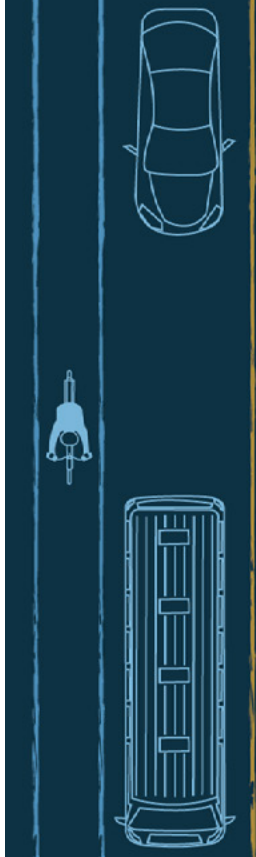


Table 3-4 shows MassDOT's FFYs 2024–28 TIP investments—including both the number of projects or programs and the dollar amount—organized by MassDOT program. MassDOT's investments are distributed across a variety of programs and will support bridge and pavement improvements, roadway improvements and reconstruction, new bicycle and pedestrian infrastructure, and safety improvements. More details on these investments are available on the project description pages in the second section of this chapter.

As detailed above for the MPO's Regional Target Program, the BIL significantly increased the funding available to MassDOT for programming projects in the statewide Highway Program. Most notably, the BIL's Bridge Formula Program allowed MassDOT to increase the funding allocated to federal-aid bridge projects. Furthermore, FFY 2026 represents the conclusion of grant anticipation notes (GANS) payments for MassDOT's Accelerated Bridge Program (ABP). As this program winds down, the passage of the 2021 Massachusetts Transportation Bond Bill and the new federal funding available through the BIL has allowed for the creation of MassDOT's Next Generation Bridge Program (NGBP).

Like the ABP, the NGBP leverages state bonding capacity to accelerate the rehabilitation and replacement of critical or structurally deficient bridges across Massachusetts. In the FFYs 2024–28 TIP, 15 bridge projects are funded by MassDOT through the NGBP using state bond bill funds. These projects are shown in the TIP as debt payments on these bonds, which will use future federal formula funding.

Continued funding from the BIL supports increased investment across MassDOT's other programs in the FFYs 2024–28 TIP, including the Bicycle and Pedestrian Program, the Intersection Improvements Program, the Interstate and Non-Interstate Pavement Programs, the Roadway Reconstruction Program, and the Safety Improvements Program. MassDOT's Highway Program has increased by more than $1.1 billion between the FFYs 2023–27 TIP and the FFYs 2024–28 TIP to a total program size of more than $3.1 billion over five years.

TABLE 3-4

FFYs 2024–28 MassDOT Highway Program Investment Summary

MassDOT Program	Number of Projects	MassDOT Dollars Programmed
Bicycle and Pedestrian	8	$46,668,222
Federal-Aid Bridge Program	27	$544,133,685
Next Generation Bridge Program	15	$553,337,190
Earmarks or Discretionary Grants*	4	$94,623,709
Intersection Improvements	10	$33,530,370
Interstate Pavement	5	$98,117,990
Non-Interstate Pavement	6	$98,281,156
Roadway Reconstruction	12	$233,829,517
Safety Improvements	8	$49,121,035
Safe Routes to School	10	$13,258,486
Non-Federal Aid (NFA)	1	$80,040,000
Total	**111**	**$1,587,058,890**

Note: Funding amounts in this table include both federal and non-federal funds, including matching funds.

** Three projects receiving earmark funding are also receiving funding through other sources: Project 607977—Interstates 90/495 Interchange Reconstruction—is funded through MassDOT's Roadway Reconstruction and NFA Programs; Project 605313—Natick Bridge Replacement over Route 9 and Interchange Improvements—is funded through MassDOT's Bridge On-System NHS NB Program; and Project 608436—Ashland Rehabilitation and Rail Crossing Improvements on Cherry Street—is funded through MassDOT's Railroad Crossings Program. Each project is counted in the tally for each funding category but is only counted once in the total number of projects funded.*

Source: Boston Region MPO.

Table 3-5 shows the MBTA's programs and associated FFYs 2024–28 TIP funding amounts. Additional details on the MBTA's programs and projects are in Tables 3-8 and 3-9. The MBTA's capital program is substantially similar between FFYs 2023–27 TIP and the FFYs 2024–28 TIP, increasing from a total program size of $3.93 billion to $3.99 billion. Investments made through these programs allow the MBTA to continue to maintain and modernize its infrastructure in support of the agency's role as the largest transit provider in the Commonwealth of Massachusetts.

The MBTA caters to a wide range of needs, serving the Boston region with commuter rail, light rail, subway, fixed-route bus, and paratransit services. The MBTA prioritizes projects that keep the existing transit system in a state of

good repair, including the purchase of new rolling stock, accessibility and resiliency improvements to stations, the rehabilitation of bridges and tunnels, and the replacement of tracks and signals to support system-wide reliability. Limited system expansion projects are also undertaken through the MBTA's federal capital program. Further information on how the MBTA's investments support system safety and condition is available in Chapter 4.

TABLE 3-5

FFYs 2024–28 MBTA Transit Program Investment Summary

Federal Transit Administration Program	MBTA Program	MBTA Dollars Programmed
Section 5307: Urbanized Area Formula Grants	Bridge and Tunnel Program	$131,173,545
Section 5307: Urbanized Area Formula Grants	Revenue Vehicle Program	$599,990,395
Section 5307: Urbanized Area Formula Grants	Signals/Systems Upgrade Program	$288,413,826
Section 5307: Urbanized Area Formula Grants	Stations and Facilities Program	$229,532,339
Section 5337: Fixed Guideway/Bus Funds	Bridge and Tunnel Program	$480,612,299
Section 5337: Fixed Guideway/Bus Funds	Revenue Vehicle Program	$202,087,490
Section 5337: Fixed Guideway/Bus Funds	Signals/Systems Upgrade Program	$169,438,086
Section 5337: Fixed Guideway/Bus Funds	Stations and Facilities Program	$640,577,274
Section 5339: Bus and Bus Facilities Funds	Bus Program	$39,560,430
Other Federal Funds	Positive Train Control*	$469,150,000
Other Federal Funds	RRIF/TIFIA Financing Program†	$737,500,000
Total	**N/A**	**$3,988,035,684**

Note: Federal Transit Administration formula funds (Sections 5307, 5337 and 5339) are based on estimated apportionments for FFYs 2024–28. These apportionments include additional funding to be made available through the Bipartisan Infrastructure Law, based on current estimates. TIP programs and projects are based on a preliminary draft Capital Investment Plan (CIP) as of April 2022. Adjustments will be made to federal projects and budgets as the CIP process is finalized. Funding amounts in this table include both federal and non-federal funds, including matching funds.

** Positive Train Control investments are funded with RRIF funds.*

† RRIF/TIFIA financing program funding is an initial estimate and will be refined as projects are identified and loans are finalized with the Build America Bureau.

FFY = federal fiscal year. N/A = not applicable. RRIF = Railroad Rehabilitation and Improvement Financing. TIFIA = Transportation Infrastructure Finance and Innovation Act. TIP = Transportation Improvement Program.

Sources: MBTA and the Boston Region MPO.

Table 3-6 summarizes CATA and MWRTA investments included in the FFYs 2024–28 TIP, and more information is available on each agency's investments in Tables 3-10 and 3-11. Though the MBTA provides commuter rail service to the Cape Ann communities of Rockport and Gloucester, CATA provides additional paratransit and fixed-route bus services to these communities and to Danvers, Peabody, Ipswich, Essex, and Beverly. CATA's federal capital program supports its role in providing critical transportation alternatives to residents and visitors of the area, including through the replacement of buses, the modernization of facilities, and the maintenance of assets.

MWRTA similarly complements MBTA commuter rail service, operating fixed-route bus, on-demand microtransit, and commuter shuttle services to a number of communities in the MetroWest subregion. MWRTA's federal capital program supports this mission by funding vehicle replacements, station and facility maintenance and improvements, and operating assistance for paratransit services, among other efforts. Other projects funded in MWRTA's 2024–28 TIP include the electrification of the agency's paratransit fleet and investments in technology to support travel training and customer service efforts.

Overall, the program size for CATA is substantially similar in the FFYs 2024–28 TIP to its figures in the FFYs 2023–27 TIP, while the program size for MWRTA increased by a greater amount. These agencies collectively received an approximately $9.7 million increase in funding levels in this TIP for a total program size of more than $65.3 million.

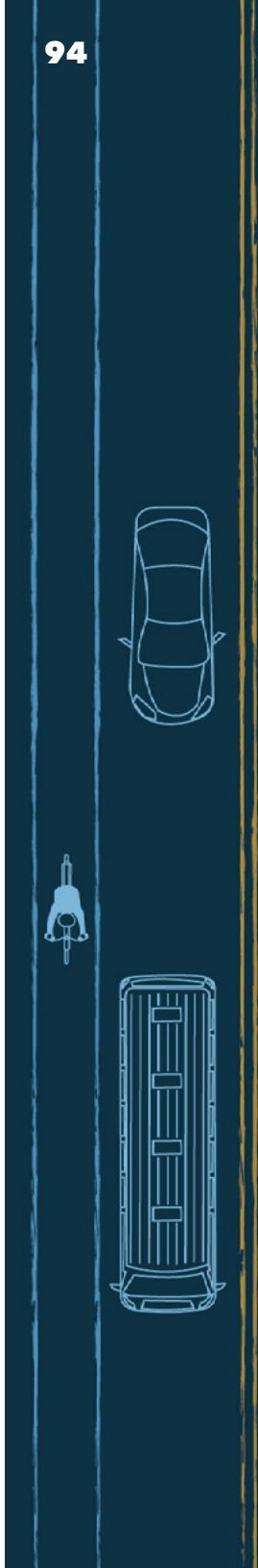


TABLE 3-6

FFYs 2024–28 CATA and MWRTA Transit Program Investment Summary

Regional Transit Authority	Federal Transit Administration Program	RTA Dollars Programmed
CATA	Section 5307: Urbanized Area Formula Funding	$1,895,000
CATA	State Transportation Bond Capital Assistance	$4,182,500
CATA	Municipal and Local Assessments	$356,250
MWRTA	Section 5307: Urbanized Area Formula Funding	$14,557,400
MWRTA	Section 5339: Bus and Bus Facilities	$3,221,344
MWRTA	State Transportation Bond Capital Assistance	$7,361,432
MWRTA	Other Federal	$28,784,470
MWRTA	Other Non-Federal	$5,000,000
Total	**N/A**	**$65,358,396**

Note: Funding amounts in this table include both federal and non-federal funds, including matching funds.

CATA = Cape Ann Transportation Authority. FFY = federal fiscal year. MWRTA = Metro West Regional Transit Authority. N/A = not applicable. RTA = regional transit administration

Sources: CATA, MWRTA, and the Boston Region MPO.

Tables 3-7 through 3-11 build on the summary tables listed above by detailing investments made through both the Highway and Transit Programs by project, program, and funding year.


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TABLE 3-7

FFYs 2024–28 TIP Highway Table

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Federal Fiscal Year 2024								**$556,410,733**	**$278,398,348**	**$278,012,385**	
Section 1A / Regionally Prioritized Projects								**$126,991,048**	**$102,342,838**	**$24,648,210**	
Bridge On-system NHS								$21,851,750	$17,481,400	$4,370,350	
2024	110980	Boston Region	Multiple	NEWTON- WESTON- BRIDGE REHABILITATION, N-12-010=W-29-005, COMMONWEALTH AVENUE (ROUTE 30) OVER THE CHARLES RIVER	6	NHPP-PEN	$21,851,750	$21,851,750	$17,481,400	$4,370,350	"NHPP = 21,851,750 Project proposed by MassDOT, not scored."
Roadway Reconstruction								$42,150,471	$34,470,377	$7,680,094	
2024	603739	Boston Region	Wrentham	WRENTHAM- CONSTRUCTION OF ROUTE I-495/ ROUTE 1A RAMPS	5	HSIP	$17,994,890	$4,500,000	$4,050,000	$450,000	TFPC: $20,117,638 (HSIP, STBG, TAP)
2024	603739	Boston Region	Wrentham	WRENTHAM- CONSTRUCTION OF ROUTE I-495/ ROUTE 1A RAMPS	5	STBG	$17,994,890	$12,494,890	$9,995,912	$2,498,978	TFPC: $20,117,638 (HSIP, STBG, TAP)
2024	603739	Boston Region	Wrentham	WRENTHAM- CONSTRUCTION OF ROUTE I-495/ ROUTE 1A RAMPS	5	TAP	$17,994,890	$1,000,000	$800,000	$200,000	TFPC: $20,117,638 (HSIP, STBG, TAP)
2024	607777	Boston Region	Watertown	WATERTOWN- REHABILITATION OF MOUNT AUBURN STREET (ROUTE 16)	6	CMAQ	$27,899,345	$1,000,000	$800,000	$200,000	TFPC: $27,899,345 (CMAQ, HSIP, STBG); 2-year AC schedule (2023-2024); MPO Evaluation Score = 75
2024	607777	Boston Region	Watertown	WATERTOWN- REHABILITATION OF MOUNT AUBURN STREET (ROUTE 16)	6	STBG	$27,899,345	$2,494,249	$1,995,399	$498,850	TFPC: $27,899,345 (CMAQ, HSIP, STBG); 2-year AC schedule (2023-2024); MPO Evaluation Score = 75
2024	608007	Boston Region	Multiple	COHASSET- SCITUATE- CORRIDOR IMPROVEMENTS AND RELATED WORK ON JUSTICE CUSHING HIGHWAY (ROUTE 3A), FROM BEECHWOOD STREET TO HENRY TURNER BAILEY ROAD	5	HSIP	$15,496,957	$3,000,000	$2,700,000	$300,000	TFPC: $15,496,957 (HSIP, STBG, TAP)
2024	608007	Boston Region	Multiple	COHASSET- SCITUATE- CORRIDOR IMPROVEMENTS AND RELATED WORK ON JUSTICE CUSHING HIGHWAY (ROUTE 3A), FROM BEECHWOOD STREET TO HENRY TURNER BAILEY ROAD	5	STBG	$15,496,957	$11,869,554	$9,495,643	$2,373,911	TFPC: $15,496,957 (HSIP, STBG, TAP)
2024	608007	Boston Region	Multiple	COHASSET- SCITUATE- CORRIDOR IMPROVEMENTS AND RELATED WORK ON JUSTICE CUSHING HIGHWAY (ROUTE 3A), FROM BEECHWOOD STREET TO HENRY TURNER BAILEY ROAD	5	TAP	$15,496,957	$627,403	$501,922	$125,481	TFPC: $15,496,957 (HSIP, STBG, TAP)
2024	609054	Boston Region	Littleton	LITTLETON- RECONSTRUCTION OF FOSTER STREET	3	CMAQ	$5,164,375	$1,500,000	$1,200,000	$300,000	Adj. TFPC: $5,164,375 (CMAQ, STBG, TAP)
2024	609054	Boston Region	Littleton	LITTLETON- RECONSTRUCTION OF FOSTER STREET	3	STBG	$5,164,375	$2,664,375	$2,131,500	$532,875	Adj. TFPC: $5,164,375 (CMAQ, STBG, TAP)
2024	609054	Boston Region	Littleton	LITTLETON- RECONSTRUCTION OF FOSTER STREET	3	TAP	$5,164,375	$1,000,000	$800,000	$200,000	Adj. TFPC: $5,164,375 (CMAQ, STBG, TAP)
Bicycle and Pedestrian								$7,556,704	$6,045,363	$1,511,341	
2024	609211	Boston Region	Peabody	PEABODY- INDEPENDENCE GREENWAY EXTENSION	4	CMAQ	$7,524,204	$3,524,204	$2,819,363	$704,841	Adj. TFPC: $7,524,204 (CMAQ, TAP)
2024	609211	Boston Region	Peabody	PEABODY- INDEPENDENCE GREENWAY EXTENSION	4	TAP	$7,524,204	$4,000,000	$3,200,000	$800,000	Adj. TFPC: $7,524,204 (CMAQ, TAP)
2024	S12805	Boston Region	Canton	CANTON PUBLIC SCHOOLS BIKE PROGRAM	6	CMAQ	$22,500	$22,500	$18,000	$4,500	Matching $5,625 in local funds against $22,500 in CMAQ.
2024	S12806	Boston Region	Canton	CANTON CENTER BICYCLE RACKS	6	CMAQ	$10,000	$10,000	$8,000	$2,000	Matching $2,500 in local funds to $10,000 in CMAQ.
Transit Grant Program								$2,549,479	$2,039,583	$509,896	
2024	S12114	Boston Region	Canton	ROYALL STREET SHUTTLE		CMAQ	$534,820	$148,542	$118,834	$29,708	Operations; CMAQ Total Cost = $534,820; MPO Evaluation Score = 51; Project funded over three fiscal years (2022-2024) through MPO's Community Connections Program.

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2024	S12124	Boston Region	Multiple	COMMUNITY CONNECTIONS PROGRAM		CMAQ	$8,334,827	$0	$0	$0	Planning, Design, or Construction; Set Aside for LRTP Community Connections Program
2024	S12694	Boston Region	Newton	NEWMO MICROTRANSIT SERVICE EXPANSION	6	CMAQ	$890,574	$268,246	$214,597	$53,649	Operations; CMAQ Total Cost = $890,574; MPO Evaluation Score = 87; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2024	S12697	Boston Region	Watertown	PLEASANT STREET SHUTTLE SERVICE EXPANSION	6	CMAQ	$1,002,198	$335,434	$268,347	$67,087	Operations; CMAQ Total Cost = $1,002,198; MPO Evaluation Score = 78; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2024	S12699	Boston Region	Stoneham	STONEHAM SHUTTLE SERVICE	4	CMAQ	$796,817	$261,439	$209,151	$52,288	Operations; CMAQ Total Cost = $796,817; MPO Evaluation Score = 72; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2024	S12803	Boston Region	Medford	MEDFORD - BICYCLE PARKING (TIER 1)	4	CMAQ	$29,600	$29,600	$23,680	$5,920	CMAQ = $29,600, matched $7,400 in local funds.
2024	S12804	Boston Region	Medford	MEDFORD - BLUEBIKES EXPANSION	4	CMAQ	$118,643	$118,643	$94,914	$23,729	Municipality is matching $118,643 in CMAQ with $29,661 in local funds.
2024	S12818	Boston Region	Acton	ACTON PARKING MANAGEMENT SYSTEM	3	CMAQ	$15,000	$15,000	$12,000	$3,000	$15,000 in CMAQ, $3,750 in local match. Project was initially programmed in FFY22 but did not obligate due to staffing constraints which have since been remedied.
2024	S12823	Boston Region	Boston	BOSTON - ELECTRIC BLUEBIKES ADOPTION	6	CMAQ	$1,020,000	$1,020,000	$816,000	$204,000	"Community Connections. Not subject to PRC. City providing matching funding. Match is $255,000 local for $1,020,000 CMAQ."
2024	S12824	Boston Region	Cambridge	CAMBRIDGE - ELECTRIC BLUEBIKES ADOPTION	6	CMAQ	$352,575	$352,575	$282,060	$70,515	City providing local match for effort. FFY24 Community Connections project for BRMPO. $88,144 in local match.
Flex to FTA								$52,882,644	$42,306,115	$10,576,529	
2024	S12700	Boston Region	Multiple	CATA ON DEMAND MICROTRANSIT SERVICE EXPANSION	4	CMAQ	$813,291	$265,065	$212,052	$53,013	Operations; CMAQ Total Cost = $813,291; MPO Evaluation Score = 61.75; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2024	S12701	Boston Region	Multiple	MWRTA CATCHCONNECT MICROTRANSIT SERVICE EXPANSION	3	CMAQ	$450,163	$149,425	$119,540	$29,885	Operations; CMAQ Total Cost = $450,163; MPO Evaluation Score = 59; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2024	S12703	Boston Region	Multiple	MONTACHUSETT RTA MICROTRANSIT SERVICE	3	CMAQ	$1,316,061	$430,354	$344,283	$86,071	Operations; CMAQ Total Cost = $1,316,061; MPO Evaluation Score = 57; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2024	S12705	Boston Region	Lynn	LYNN STATION IMPROVEMENTS PHASE II	4	STBG	$48,100,000	$13,600,000	$10,880,000	$2,720,000	Construction; STBG+CRP Total Cost = $48,100,000; Project not scored by MPO; Project funded over two fiscal years (2023-2024) through MPO's Transit Modernization Program. Flex to MBTA.
2024	S12802	Boston Region	Lynn	LYNN - BROAD STREET CORRIDOR TRANSIT SIGNAL PRIORITY	4	CMAQ	$297,800	$297,800	$238,240	$59,560	$217,000 in local match backing $297,800 in CMAQ.
2024	S12807	Boston Region	Multiple	MWRTA CATCHCONNECT MICROTRANSIT EXPANSION PHASE 2	3	CMAQ	$380,477	$140,000	$112,000	$28,000	The project is a shuttle pilot funded across Federal Fiscal Years 2024-2027. Proponent is matching with $195,000 in RTA Cap funds.

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2024	S12819	Boston Region	Boston	JACKSON SQUARE STATION ACCESSIBILITY IMPROVEMENTS	6	CMAQ	$26,250,000	$12,250,000	$9,800,000	$2,450,000	Project AC'd between 2024 and 2025 for Flex to FTA. $21M in CMAQ flex, match of $5.3M from MBTA (20%). Total construction cost $26.3M.
2024	S12821	Boston Region	Multiple	RAIL TRANSFORMATION - EARLY ACTION ITEMS - READING STATION AND WILBUR INTERLOCKING	4	CMAQ	$14,000,000	$14,000,000	$11,200,000	$2,800,000	Flex $11.2M in CMAQ to FTA. $2.8M in local match contributed by MBTA. Total cost is $14M.
2024	S12822	Boston Region	Boston	COLUMBUS AVENUE BUS LANES PHASE 2	6	CMAQ	$11,750,000	$11,750,000	$9,400,000	$2,350,000	Flex to FTA/CMAQ. Additional funds from MBTA City of Boston. MPO contribution matched 20% ($2.3M) by MBTA.
Section 1B / Earmark or Discretionary Grant Funded Projects								**$126,391,302**	**$112,872,525**	**$13,518,777**	
Bridge On-System NHS NB								$25,769,762	$20,615,810	$5,153,952	
2024	605313	Boston Region	Natick	NATICK- BRIDGE REPLACEMENT, N-03-020, ROUTE 27 (NORTH MAIN STREET) OVER ROUTE 9 (WORCESTER STREET) AND INTERCHANGE IMPROVEMENTS	3	HIP-BR	$75,677,350	$16,879,931	$13,503,945	$3,375,986	"Adj. TFPC: $75,677,350 (CRRSAA, HIP-BR) ***6/6/23 note: CRRSAA funding will be amended out in FFY 2024. Either HIP-BR or NHPP-PEN to be used on balance for project as STIP Action."
2024	606902	Boston Region	Boston	BOSTON- BRIDGE REPLACEMENT, B-16-181, WEST ROXBURY PARKWAY OVER MBTA	6	HIP-BR	$8,889,831	$8,889,831	$7,111,865	$1,777,966	Adj. TFPC: $8,889,831 (HIP-BR)
Earmark Discretionary								$84,714,980	$79,531,468	$5,183,512	
2024	605313	Boston Region	Natick	NATICK- BRIDGE REPLACEMENT, N-03-020, ROUTE 27 (NORTH MAIN STREET) OVER ROUTE 9 (WORCESTER STREET) AND INTERCHANGE IMPROVEMENTS	3	CRRSAA	$75,677,350	$58,797,419	$58,797,419	$0	"Adj. TFPC: $75,677,350 (CRRSAA, HIP-BR) ***6/6/23 note: CRRSAA funding will be amended out in FFY 2024. Either HIP-BR or NHPP-PEN to be used on balance for project as STIP Action."
2024	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	HIP-BR	$300,942,837	$25,917,561	$20,734,049	$5,183,512	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
Bridge On-system Non-NHS NB								$3,635,960	$2,908,768	$727,192	
2024	608522	Boston Region	Middleton	MIDDLETON- BRIDGE REPLACEMENT, M-20-003, ROUTE 62 (MAPLE STREET) OVER IPSWICH RIVER	4	HIP-BR	$3,635,960	$3,635,960	$2,908,768	$727,192	Adj. TFPC: $3,635,960 (HIP-BR)
Bridge Systematic Maintenance NB								$12,270,600	$9,816,480	$2,454,120	
2024	613196	Boston Region	Burlington	BURLINGTON- LYNNFIELD- WAKEFIELD- WOBURN- BRIDGE PRESERVATION OF 10 BRIDGES CARRYING I-95	4	HIP-BR	$3,999,600	$3,999,600	$3,199,680	$799,920	Adj. TFPC: $3,999,600 (HIP-BR)
2024	613209	Boston Region	Boston	BOSTON- BRIDGE PRESERVATION, B-16-236 (39M, 39P, 39U, 39W, 39Y), 5 BRIDGES CARRYING STATE ROUTE 1A (EAST BOSTON EXPRESSWAY NB/SB) AND RAMPS	6	HIP-BR	$6,525,000	$6,525,000	$5,220,000	$1,305,000	Adj. TFPC: $6,525,000 (HIP-BR)
2024	613211	Boston Region	Medford	MEDFORD- BRIDGE PRESERVATION OF 10 BRIDGES CARRYING I-93	4	HIP-BR	$1,746,000	$1,746,000	$1,396,800	$349,200	TFPC: $1,746,000 (HIP-BR)
Section 2A / State Prioritized Reliability Projects								**$129,160,689**	**$23,362,907**	**$105,797,782**	
Bridge On-system NHS								$90,404,329	$0	$90,404,329	
2024	606496	Boston Region	Boston	BOSTON- BRIDGE REHABILITATION, B-16-052, BOWKER OVERPASS OVER MASS PIKE, MBTA/CSX, & IPSWICH STREET AND RAMPS (BINS 4FD, 4FG, 4FE, 4FF & 4FJ)	6	NGBP	$90,404,329	$90,404,329	$0	$90,404,329	Adj. TFPC: $90,404,329 (NGBP - Nex Gen Bridge)
Bridge On-system Non-NHS								$12,538,835	$0	$12,538,835	
2024	606901	Boston Region	Boston	BOSTON- BRIDGE REPLACEMENT, B-16-109, RIVER STREET BRIDGE OVER MBTA/AMTRAK	6	NGBP	$12,538,835	$12,538,835	$0	$12,538,835	Adj. TFPC: $12,538,835 (NGBP - Next Gen Bridge Program)
Bridge Off-system								$2,328,651	$1,862,921	$465,730	
2024	609438	Boston Region	Canton	CANTON- BRIDGE REPLACEMENT, C-02-042, REVERE COURT OVER WEST BRANCH OF THE NEPONSET RIVER	6	STBG-BR-Off	$2,328,651	$2,328,651	$1,862,921	$465,730	Adj. TFPC: $2,328,651 (STBG - Off System Bridge)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Interstate Pavement								$23,888,874	$21,499,987	$2,388,887	
2024	612034	Boston Region	Woburn	WOBURN- INTERSTATE PAVEMENT PRESERVATION AND RELATED WORK ON I-95	4	NHPP-I	$7,849,699	$7,849,699	$7,064,729	$784,970	Adj. TFPC: $7,849,699 (NHPP - Interstate)
2024	612048	Boston Region	Waltham	WALTHAM- INTERSTATE MAINTENANCE AND RELATED WORK ON I-95	4	NHPP-I	$16,039,175	$16,039,175	$14,435,258	$1,603,918	Adj. TFPC: $16,039,175 (NHPP - Interstate)
Section 2B / State Prioritized Modernization Projects								**$44,244,530**	**$39,820,077**	**$4,424,453**	
Intersection Improvements								$16,564,904	$14,908,414	$1,656,490	
2024	607342	Boston Region	Milton	MILTON- INTERSECTION IMPROVEMENTS AT ROUTE 28 (RANDOLPH AVENUE) & CHICKATAWBUT ROAD	6	HSIP	$9,112,736	$9,112,736	$8,201,462	$911,274	Adj. TFPC: $9,112,736 (HSIP)
2024	608562	Boston Region	Somerville	SOMERVILLE- SIGNAL AND INTERSECTION IMPROVEMENT ON I-93 AT MYSTIC AVENUE AND MCGRATH HIGHWAY (TOP 200 CRASH LOCATION)	4	VUS	$7,452,168	$3,678,018	$3,310,216	$367,802	TFPC: $7,452,168 (HSIP + VUS)
2024	608562	Boston Region	Somerville	SOMERVILLE- SIGNAL AND INTERSECTION IMPROVEMENT ON I-93 AT MYSTIC AVENUE AND MCGRATH HIGHWAY (TOP 200 CRASH LOCATION)	4	HSIP	$7,452,168	$3,774,150	$3,396,735	$377,415	TFPC: $7,452,168 (HSIP + VUS)
Roadway Reconstruction								$27,679,626	$24,911,663	$2,767,963	
2024	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NHPP-I	$300,942,837	$16,000,000	$14,400,000	$1,600,000	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
2024	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NFP-I	$300,942,837	$11,679,626	$10,511,663	$1,167,963	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
Section 3B / Non-Federal Aid Funded								**$129,623,164**	**$0**	**$129,623,164**	
Bridge On-system NHS								$90,404,329	$0	$90,404,329	
2024	606496	Boston Region	Boston	BOSTON- BRIDGE REHABILITATION, B-16-052, BOWKER OVERPASS OVER MASS PIKE, MBTA/CSX, & IPSWICH STREET AND RAMPS (BINS 4FD, 4FG, 4FE, 4FF & 4FJ)	6	NGBP	$90,404,329	$90,404,329	$0	$90,404,329	Adj. TFPC: $90,404,329 (NGBP - Nex Gen Bridge)
Bridge On-system Non-NHS								$12,538,835	$0	$12,538,835	
2024	606901	Boston Region	Boston	BOSTON- BRIDGE REPLACEMENT, B-16-109, RIVER STREET BRIDGE OVER MBTA/AMTRAK	6	NGBP	$12,538,835	$12,538,835	$0	$12,538,835	
NFA								$26,680,000	$0	$26,680,000	
2024	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NFA	$300,942,837	$26,680,000	$0	$26,680,000	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
Federal Fiscal Year 2025								**$495,072,137**	**$209,847,964**	**$285,224,173**	
Section 1A / Regionally Prioritized Projects								**$125,975,489**	**$102,160,356**	**$23,815,134**	
Roadway Reconstruction								$78,662,949	$63,530,359	$15,132,590	
2025	605168	Boston Region	Hingham	HINGHAM- IMPROVEMENTS ON ROUTE 3A FROM OTIS STREET/COLE ROAD INCLUDING SUMMER STREET AND ROTARY; ROCKLAND STREET TO GEORGE WASHINGTON BOULEVARD.	5	STBG	$15,018,900	$13,518,900	$10,815,120	$2,703,780	Adj. TFPC: $15,018,900 (STBG, TAP)
2025	605168	Boston Region	Hingham	HINGHAM- IMPROVEMENTS ON ROUTE 3A FROM OTIS STREET/COLE ROAD INCLUDING SUMMER STREET AND ROTARY; ROCKLAND STREET TO GEORGE WASHINGTON BOULEVARD.	5	TAP	$15,018,900	$1,500,000	$1,200,000	$300,000	Adj. TFPC: $15,018,900 (STBG, TAP)
2025	606453	Boston Region	Boston	BOSTON- IMPROVEMENTS ON BOYLSTON STREET, FROM INTERSECTION OF BROOKLINE AVENUE & PARK DRIVE TO IPSWICH STREET	6	CMAQ	$8,665,052	$5,000,000	$4,000,000	$1,000,000	Adj. TFPC: $8,665,052 (STBG, TAP, CMAQ)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2025	606453	Boston Region	Boston	BOSTON- IMPROVEMENTS ON BOYLSTON STREET, FROM INTERSECTION OF BROOKLINE AVENUE & PARK DRIVE TO IPSWICH STREET	6	STBG	$8,665,052	$2,851,808	$2,281,446	$570,362	Adj. TFPC: $8,665,052 (STBG, TAP, CMAQ)
2025	606453	Boston Region	Boston	BOSTON- IMPROVEMENTS ON BOYLSTON STREET, FROM INTERSECTION OF BROOKLINE AVENUE & PARK DRIVE TO IPSWICH STREET	6	TAP	$8,665,052	$813,244	$650,595	$162,649	Adj. TFPC: $8,665,052 (STBG, TAP, CMAQ)
2025	608051	Boston Region	Wilmington	WILMINGTON- RECONSTRUCTION ON ROUTE 38 (MAIN STREET), FROM ROUTE 62 TO THE WOBURN C.L.	4	CMAQ	$23,731,429	$2,200,000	$1,760,000	$440,000	Adj. TFPC: $23,731,429 (CMAQ; HSIP; STBG)
2025	608051	Boston Region	Wilmington	WILMINGTON- RECONSTRUCTION ON ROUTE 38 (MAIN STREET), FROM ROUTE 62 TO THE WOBURN C.L.	4	HSIP	$23,731,429	$1,000,000	$900,000	$100,000	Adj. TFPC: $23,731,429 (CMAQ; HSIP; STBG)
2025	608051	Boston Region	Wilmington	WILMINGTON- RECONSTRUCTION ON ROUTE 38 (MAIN STREET), FROM ROUTE 62 TO THE WOBURN C.L.	4	STBG	$23,731,429	$20,531,429	$16,425,143	$4,106,286	Adj. TFPC: $23,731,429 (CMAQ; HSIP; STBG)
2025	609252	Boston Region	Lynn	LYNN- REHABILITATION OF ESSEX STREET	4	CMAQ	$19,698,640	$10,500,000	$8,400,000	$2,100,000	Adj. TFPC: $19,698,640 (CMAQ, HSIP, STBG)
2025	609252	Boston Region	Lynn	LYNN- REHABILITATION OF ESSEX STREET	4	HSIP	$19,698,640	$4,000,000	$3,600,000	$400,000	Adj. TFPC: $19,698,640 (CMAQ, HSIP, STBG)
2025	609252	Boston Region	Lynn	LYNN- REHABILITATION OF ESSEX STREET	4	STBG	$19,698,640	$5,198,640	$4,158,912	$1,039,728	Adj. TFPC: $19,698,640 (CMAQ, HSIP, STBG)
2025	609257	Boston Region	Everett	EVERETT- RECONSTRUCTION OF BEACHAM STREET	4	HSIP	$10,548,928	$1,000,000	$900,000	$100,000	Adj. TFPC: $10,548,928 (HSIP, STBG, TAP)
2025	609257	Boston Region	Everett	EVERETT- RECONSTRUCTION OF BEACHAM STREET	4	STBG	$10,548,928	$7,648,928	$6,119,142	$1,529,786	Adj. TFPC: $10,548,928 (HSIP, STBG, TAP)
2025	609257	Boston Region	Everett	EVERETT- RECONSTRUCTION OF BEACHAM STREET	4	TAP	$10,548,928	$1,900,000	$1,520,000	$380,000	Adj. TFPC: $10,548,928 (HSIP, STBG, TAP)
2025	S12820	Boston Region		BIKESHARE SUPPORT SET ASIDE		STBG	$6,000,000	$1,000,000	$800,000	$200,000	CTPS Funding Set-Aside. Line item will fund projects applied for to the MPO under BikeShare with 20% local match identified on submission.
Intersection Improvements								$1,978,080	$1,582,464	$395,616	
2025	608067	Boston Region	Woburn	WOBURN- INTERSECTION RECONSTRUCTION AT ROUTE 3 (CAMBRIDGE ROAD) & BEDFORD ROAD AND SOUTH BEDFORD STREET	4	CMAQ	$1,978,080	$1,978,080	$1,582,464	$395,616	Adj. TFPC: $1,978,080 (CMAQ)
Railroad Crossings								$742,315	$742,315	$0	
2025	608436	Boston Region		ASHLAND- REHABILITATION AND RAIL CROSSING IMPROVEMENTS ON CHERRY STREET	3	RRHE	$1,222,315	$742,315	$742,315	$0	Adj. TFPC: $1,222,315 (Railroads Crossing/ RRHE funding). Earmark of $599,897 (Demo ID MA 262).
Safety Improvements								$6,315,013	$5,683,512	$631,501	
2025	609532	Boston Region	Chelsea	CHELSEA- TARGETED SAFETY IMPROVEMENTS AND RELATED WORK ON BROADWAY, FROM WILLIAMS STREET TO CITY HALL AVENUE	6	HSIP	$6,315,013	$6,315,013	$5,683,512	$631,501	Adj. TFPC: $6,315,013 (HSIP)
Bicycle and Pedestrian								$15,777,132	$12,621,706	$3,155,426	
2025	610544	Boston Region	Peabody	PEABODY- MULTI-USE PATH CONSTRUCTION OF INDEPENDENCE GREENWAY AT I-95 AND ROUTE 1	4	CMAQ	$15,777,132	$5,500,000	$4,400,000	$1,100,000	Adj. TFPC: $15,777,132 (CMAQ, STBG, TAP)
2025	610544	Boston Region	Peabody	PEABODY- MULTI-USE PATH CONSTRUCTION OF INDEPENDENCE GREENWAY AT I-95 AND ROUTE 1	4	STBG	$15,777,132	$7,277,132	$5,821,706	$1,455,426	Adj. TFPC: $15,777,132 (CMAQ, STBG, TAP)
2025	610544	Boston Region	Peabody	PEABODY- MULTI-USE PATH CONSTRUCTION OF INDEPENDENCE GREENWAY AT I-95 AND ROUTE 1	4	TAP	$15,777,132	$3,000,000	$2,400,000	$600,000	Adj. TFPC: $15,777,132 (CMAQ, STBG, TAP)
Flex to FTA								$16,913,405	$13,530,724	$3,382,681	
2025	S12113	Boston Region		TRANSIT MODERNIZATION PROGRAM		CMAQ	$21,500,000	$2,000,000	$1,600,000	$400,000	Construction; Flex to FTA; Set aside for LRTP Transit Modernization Program between FFYs 2025 and 2028.
2025	S12700	Boston Region	Multiple	CATA ON DEMAND MICROTRANSIT SERVICE EXPANSION	4	CMAQ	$813,291	$214,776	$171,821	$42,955	Operations; CMAQ Total Cost = $813,291; MPO Evaluation Score = 61.75; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2025	S12701	Boston Region	Multiple	MWRTA CATCHCONNECT MICROTRANSIT SERVICE EXPANSION	3	CMAQ	$450,163	$159,488	$127,590	$31,898	Operations; CMAQ Total Cost = $450,163; MPO Evaluation Score = 59; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2025	S12703	Boston Region	Multiple	MONTACHUSETT RTA MICROTRANSIT SERVICE	3	CMAQ	$1,316,061	$406,641	$325,313	$81,328	Operations; CMAQ Total Cost = $1,316,061; MPO Evaluation Score = 57; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2025	S12807	Boston Region	Multiple	MWRTA CATCHCONNECT MICROTRANSIT EXPANSION PHASE 2	3	CMAQ	$380,477	$132,500	$106,000	$26,500	The project is a shuttle pilot funded across Federal Fiscal Years 2024-2027. Proponent is matching with $195,000 in RTA Cap funds.
2025	S12819	Boston Region	Boston	JACKSON SQUARE STATION ACCESSIBILITY IMPROVEMENTS	6	CMAQ	$26,250,000	$14,000,000	$11,200,000	$2,800,000	Project AC'd between 2024 and 2025 for Flex to FTA. $21M in CMAQ flex, match of $5.3M from MBTA (20%). Total construction cost $26.3M.
Transit Grant Program								$1,586,595	$1,269,276	$317,319	
2025	S12124	Boston Region	Multiple	COMMUNITY CONNECTIONS PROGRAM		CMAQ	$8,334,827	$942,804	$754,243	$188,561	Planning, Design, or Construction; Set Aside for LRTP Community Connections Program
2025	S12694	Boston Region	Newton	NEWMO MICROTRANSIT SERVICE EXPANSION	6	CMAQ	$890,574	$209,663	$167,730	$41,933	Operations; CMAQ Total Cost = $890,574; MPO Evaluation Score = 87; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2025	S12697	Boston Region	Watertown	PLEASANT STREET SHUTTLE SERVICE EXPANSION	6	CMAQ	$1,002,198	$228,939	$183,151	$45,788	Operations; CMAQ Total Cost = $1,002,198; MPO Evaluation Score = 78; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
2025	S12699	Boston Region	Stoneham	STONEHAM SHUTTLE SERVICE	4	CMAQ	$796,817	$205,189	$164,151	$41,038	Operations; CMAQ Total Cost = $796,817; MPO Evaluation Score = 72; Project funded over three fiscal years (2023-2025) through MPO's Community Connections Program.
Roadway Improvements								$4,000,000	$3,200,000	$800,000	
2025	S12825	Boston Region	Multiple	BOSTON MPO REGION - FFY2025 PROJECT DESIGN PILOT	Multiple	STBG	$4,000,000	$4,000,000	$3,200,000	$800,000	Administrative line item. Funding will support project design using $4M federal funds. Municipalities will provide at least a 20% match for design funding.
Section 1B / Earmark or Discretionary Grant Funded Projects								**$34,984,926**	**$28,083,941**	**$6,900,985**	
Earmark Discretionary								$30,480,000	$24,480,000	$6,000,000	
2025	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	HIP-BR	$300,942,837	$30,000,000	$24,000,000	$6,000,000	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
2025	608436	Boston Region		ASHLAND- REHABILITATION AND RAIL CROSSING IMPROVEMENTS ON CHERRY STREET	3	HPP-100	$1,222,315	$480,000	$480,000	$0	Adj. TFPC: $1,222,315 (Railroads Crossing/ RRHE funding). Earmark of $599,897 (Demo ID MA 262).
Bridge On-system Non-NHS NB								$4,504,926	$3,603,941	$900,985	
2025	608197	Boston Region	Boston	BOSTON- BRIDGE REHABILITATION, B-16-107, CANTERBURY STREET OVER AMTRAK RAILROAD	6	HIP-BR	$4,504,926	$4,504,926	$3,603,941	$900,985	Adj. TFPC: $4,504,926 (HIP-BR)
Section 2A / State Prioritized Reliability Projects								**$159,642,391**	**$43,187,022**	**$116,455,369**	
Bridge On-system NHS								$81,232,390	$23,120,374	$58,112,016	
2025	604564	Boston Region	Maynard	MAYNARD- BRIDGE REPLACEMENT, M-10-004, ROUTE 62 (MAIN STREET) OVER THE ASSABET RIVER	3	NGBP	$6,036,680	$6,036,680	$0	$6,036,680	Adj. TFPC: $6,036,680 (NGBP)
2025	607684	Boston Region	Braintree	BRAINTREE- BRIDGE REPLACEMENT, B-21-017, WASHINGTON STREET (ST 37) OVER MBTA/CSX RAILROAD	6	NGBP	$7,695,470	$7,695,470	$0	$7,695,470	Adj. TFPC: $7,695,470 (NGBP)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2025	608703	Boston Region	Wilmington	WILMINGTON- BRIDGE REPLACEMENT, W-38-029 (2KV), ST 129 LOWELL STREET OVER I 93	4	NHPP-PEN	$16,592,888	$16,592,888	$13,274,310	$3,318,578	Adj. TFPC: $16,592,888 (NHPP - Penalty)
2025	610776	Boston Region	Cambridge	CAMBRIDGE- SUPERSTRUCTURE REPLACEMENT, C-01-031, US ROUTE 3/ROUTE 16/ROUTE 2 OVER MBTA REDLINE	6	NHPP-PEN	$6,604,208	$6,604,208	$5,283,366	$1,320,842	Adj. TFPC: $6,604,208 (NHPP - Penalty)
2025	610782	Boston Region	Multiple	DANVERS- MIDDLETON- BRIDGE REPLACEMENT, D-03-009=M-20-005, ANDOVER STREET (SR 114) OVER IPSWICH RIVER	4	NHPP-PEN	$5,703,371	$5,703,371	$4,562,697	$1,140,674	Adj. TFPC: $5,703,371 (NHPP - Penalty)
2025	612028	Boston Region	Stoneham	STONEHAM- DECK REPLACEMENT & SUPERSTRUCTURE REPAIRS, S-27-006 (2L2), (ST 28) FELLSWAY WEST OVER I-93	4	NGBP	$3,120,000	$3,120,000	$0	$3,120,000	Adj. TFPC: $3,120,000 (Next Gen Bridge Program)
2025	612182	Boston Region	Newton	NEWTON- BRIDGE REPLACEMENT, N-12-040, BOYLSTON STREET OVER GREEN LINE D	6	NGBP	$15,206,778	$15,206,778	$0	$15,206,778	Adj. TFPC: $15,206,778 (Next Gen Bridge Program)
2025	612184	Boston Region	Revere	REVERE- BRIDGE REPLACEMENT, R-05-015, REVERE BEACH PARKWAY OVER BROADWAY	4	NGBP	$20,272,995	$20,272,995	$0	$20,272,995	Adj. TFPC: $20,272,955 (NGBP)
Non-Interstate Pavement								$21,696,726	$17,357,381	$4,339,345	
2025	608498	Boston Region	Multiple	QUINCY- WEYMOUTH- BRAINTREE- RESURFACING AND RELATED WORK ON ROUTE 53	6	NHPP	$6,635,050	$6,635,050	$5,308,040	$1,327,010	Adj. TFPC: $6,635,050 (NHPP)
2025	609399	Boston Region	Randolph	RANDOLPH- RESURFACING AND RELATED WORK ON ROUTE 28	6	NHPP	$7,194,377	$7,194,377	$5,755,502	$1,438,875	Adj. TFPC: $7,194,377 (NHPP)
2025	610722	Boston Region	Multiple	ACTON- BOXBOROUGH- LITTLETON- PAVEMENT PRESERVATION ROUTE 2	3	NHPP	$7,867,299	$7,867,299	$6,293,839	$1,573,460	Adj. TFPC: $7,867,299 (NHPP)
Bridge On-system Non-NHS								$53,326,690	$0	$53,326,690	
2025	608952	Boston Region	Chelsea	CHELSEA- BRIDGE SUPERSTRUCTURE REPLACMENT C-09-013, WASHINGTON AVENUE, CARTER STREET & COUNTY ROAD/ROUTE 1	6	NGBP	$20,438,134	$20,438,134	$0	$20,438,134	Adj. TFPC: $20,438,134 (NGBP)
2025	612173	Boston Region	Bellingham	BELLINGHAM- BRIDGE REPLACEMENT, B-06-022, MAPLE STREET OVER I-495	3	NGBP	$14,270,687	$14,270,687	$0	$14,270,687	Adj. TFPC: $14,270,687 (Next Gen Bridge Program)
2025	612178	Boston Region	Natick	NATICK- BRIDGE REPLACEMENT, N-03-010, SPEEN STREET OVER RR MBTA/CSX	3	NGBP	$6,722,582	$6,722,582	$0	$6,722,582	Adj. TFPC: $6,722,582 (Next Gen Bridge Program)
2025	612196	Boston Region	Braintree	BRAINTREE- BRIDGE REPLACEMENT, B-21-067, JW MAHER HIGHWAY OVER MONATIQUOT RIVER	6	NGBP	$11,895,287	$11,895,287	$0	$11,895,287	Adj. TFPC: $11,895,287 (NGBP)
Bridge Off-system								$3,386,585	$2,709,268	$677,317	
2025	609467	Boston Region	Multiple	HAMILTON- IPSWICH- SUPERSTRUCTURE REPLACEMENT, H-03-002=I-01-006, WINTHROP STREET OVER IPSWICH RIVER	4	STBG-BR-Off	$3,386,585	$3,386,585	$2,709,268	$677,317	Adj. TFPC: $3,386,585 (STBG Off System Bridge)
Section 2B / State Prioritized Modernization Projects								**$34,141,530**	**$30,025,295**	**$4,116,235**	
Roadway Reconstruction								$30,619,271	$27,207,488	$3,411,783	
2025	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NHPP-I	$300,942,837	$9,000,000	$8,100,000	$900,000	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
2025	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NFP-I	$300,942,837	$18,120,711	$16,308,640	$1,812,071	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
2025	609516	Boston Region	Burlington	BURLINGTON- IMPROVEMENTS AT I-95 (ROUTE 128)/ROUTE 3 INTERCHANGE	4	NHPP	$3,498,560	$3,498,560	$2,798,848	$699,712	Adj. TFPC: $3,498,560 (NHPP)
Safe Routes to School								$3,522,259	$2,817,807	$704,452	
2025	609531	Boston Region	Arlington	ARLINGTON- STRATTON SCHOOL IMPROVEMENTS (SRTS)	4	TAP	$1,302,209	$1,302,209	$1,041,767	$260,442	Adj. TFPC: $1,302,209 (TAP)
2025	611997	Boston Region	Newton	NEWTON- HORACE MANN ELEMENTARY SCHOOL IMPROVEMENTS (SRTS)	6	TAP	$861,238	$861,237	$688,990	$172,247	Adj. TFPC: $861,237 (TAP)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2025	612001	Boston Region	Medford	MEDFORD- MILTON FULLER ROBERTS ELEMENTARY SCHOOL (SRTS)	4	TAP	$1,020,484	$1,020,484	$816,387	$204,097	Adj. TFPC: $1,020,484 (TAP)
2025	612100	Boston Region	Revere	REVERE- IMPROVEMENTS AT BEACHMONT VETERANS ELEMENTARY (SRTS)	4	TAP	$338,329	$338,329	$270,663	$67,666	Adj. TFPC: $338,329 (TAP)
Section 2C / State Prioritized Expansion Projects								**$7,989,188**	**$6,391,350**	**$1,597,838**	
Bicycle and Pedestrian								$7,989,188	$6,391,350	$1,597,838	
2025	610680	Boston Region	Natick	NATICK- LAKE COCHITUATE PATH	3	CMAQ	$3,428,355	$3,428,355	$2,742,684	$685,671	Adj. TFPC: $3,428,355 (CMAQ)
2025	611982	Boston Region	Medford	MEDFORD- SHARED USE PATH CONNECTION AT THE ROUTE 28/WELLINGTON UNDERPASS	4	CMAQ	$4,560,833	$4,560,833	$3,648,666	$912,167	Adj. TFPC: $4,560,833 (CMAQ)
Section 3B / Non-Federal Aid Funded								**$132,338,613**	**$0**	**$132,338,613**	
Bridge On-system NHS								$52,331,923	$0	$52,331,923	
2025	604564	Boston Region	Maynard	MAYNARD- BRIDGE REPLACEMENT, M-10-004, ROUTE 62 (MAIN STREET) OVER THE ASSABET RIVER	3	NGBP	$6,036,680	$6,036,680	$0	$6,036,680	Adj. TFPC: $6,036,680 (NGBP)
2025	607684	Boston Region	Braintree	BRAINTREE- BRIDGE REPLACEMENT, B-21-017, WASHINGTON STREET (ST 37) OVER MBTA/CSX RAILROAD	6	NGBP	$7,695,470	$7,695,470	$0	$7,695,470	Adj. TFPC: $7,695,470 (NGBP)
2025	612028	Boston Region	Stoneham	STONEHAM- DECK REPLACEMENT & SUPERSTRUCTURE REPAIRS, S-27-006 (2L2), (ST 28) FELLSWAY WEST OVER I-93	4	NGBP	$3,120,000	$3,120,000	$0	$3,120,000	Adj. TFPC: $3,120,000 (Next Gen Bridge Program)
2025	612182	Boston Region	Newton	NEWTON- BRIDGE REPLACEMENT, N-12-040, BOYLSTON STREET OVER GREEN LINE D	6	NGBP	$15,206,778	$15,206,778	$0	$15,206,778	Adj. TFPC: $15,206,778 (Next Gen Bridge Program)
2025	612184	Boston Region	Revere	REVERE- BRIDGE REPLACEMENT, R-05-015, REVERE BEACH PARKWAY OVER BROADWAY	4	NGBP	$20,272,995	$20,272,995	$0	$20,272,995	Adj. TFPC: $20,272,955 (NGBP)
NFA								$26,680,000	$0	$26,680,000	
2025	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NFA	$300,942,837	$26,680,000	$0	$26,680,000	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
Bridge On-system Non-NHS								$53,326,690	$0	$53,326,690	
2025	608952	Boston Region	Chelsea	CHELSEA- BRIDGE SUPERSTRUCTURE REPLACMENT C-09-013, WASHINGTON AVENUE, CARTER STREET & COUNTY ROAD/ROUTE 1	6	NGBP	$20,438,134	$20,438,134	$0	$20,438,134	Adj. TFPC: $20,438,134 (NGBP)
2025	612173	Boston Region	Bellingham	BELLINGHAM- BRIDGE REPLACEMENT, B-06-022, MAPLE STREET OVER I-495	3	NGBP	$14,270,687	$14,270,687	$0	$14,270,687	Adj. TFPC: $14,270,687 (Next Gen Bridge Program)
2025	612178	Boston Region	Natick	NATICK- BRIDGE REPLACEMENT, N-03-010, SPEEN STREET OVER RR MBTA/CSX	3	NGBP	$6,722,582	$6,722,582	$0	$6,722,582	Adj. TFPC: $6,722,582 (Next Gen Bridge Program)
2025	612196	Boston Region	Braintree	BRAINTREE- BRIDGE REPLACEMENT, B-21-067, JW MAHER HIGHWAY OVER MONATIQUOT RIVER	6	NGBP	$11,895,287	$11,895,287	$0	$11,895,287	Adj. TFPC: $11,895,287 (NGBP)
Federal Fiscal Year 2026								**$505,966,124**	**$394,371,383**	**$111,594,741**	
Section 1A / Regionally Prioritized Projects								**$124,667,241**	**$100,565,496**	**$24,101,746**	
Roadway Reconstruction								$64,435,864	$52,098,691	$12,337,173	
2026	605743	Boston Region	Ipswich	IPSWICH- RESURFACING & RELATED WORK ON CENTRAL & SOUTH MAIN STREETS	4	STBG	$11,728,698	$4,971,338	$3,977,070	$994,268	Adj. TFPC: $5,702,076 (STBG, TAP)
2026	605743	Boston Region	Ipswich	IPSWICH- RESURFACING & RELATED WORK ON CENTRAL & SOUTH MAIN STREETS	4	TAP	$11,728,698	$730,738	$584,590	$146,148	Adj. TFPC: $5,702,076 (STBG, TAP)
2026	608045	Boston Region	Milford	MILFORD- REHABILITATION ON ROUTE 16, FROM ROUTE 109 TO BEAVER STREET	3	HSIP	$9,758,201	$1,500,000	$1,350,000	$150,000	Adj. TFPC:$9,758,201 (HSIP; STBG)
2026	608045	Boston Region	Milford	MILFORD- REHABILITATION ON ROUTE 16, FROM ROUTE 109 TO BEAVER STREET	3	STBG	$9,758,201	$8,258,201	$6,606,561	$1,651,640	Adj. TFPC:$9,758,201 (HSIP; STBG)
2026	608954	Boston Region	Weston	WESTON- RECONSTRUCTION ON ROUTE 30	6	STBG	$16,420,119	$11,420,119	$9,136,095	$2,284,024	Adj. TFPC: $16,420,119 (STBG, TAP)
2026	608954	Boston Region	Weston	WESTON- RECONSTRUCTION ON ROUTE 30	6	TAP	$16,420,119	$5,000,000	$4,000,000	$1,000,000	Adj. TFPC: $16,420,119 (STBG, TAP)
2026	609437	Boston Region	Multiple	SALEM- PEABODY- BOSTON STREET IMPROVEMENTS	4	STBG	$14,172,868	$14,172,868	$11,338,294	$2,834,574	Adj. TFPC: $14,172,868 (STBG)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2026	610662	Boston Region	Woburn	WOBURN- ROADWAY AND INTERSECTION IMPROVEMENTS AT WOBURN COMMON, ROUTE 38 (MAIN STREET), WINN STREET, PLEASANT STREET AND MONTVALE AVENUE	4	HSIP	$17,382,600	$4,000,000	$3,600,000	$400,000	Adj. TFPC: $17,382,600 (HSIP, STBG)
2026	610662	Boston Region	Woburn	WOBURN- ROADWAY AND INTERSECTION IMPROVEMENTS AT WOBURN COMMON, ROUTE 38 (MAIN STREET), WINN STREET, PLEASANT STREET AND MONTVALE AVENUE	4	STBG	$17,382,600	$13,382,600	$10,706,080	$2,676,520	Adj. TFPC: $17,382,600 (HSIP, STBG)
2026	S12820	Boston Region		BIKESHARE SUPPORT SET ASIDE		STBG	$6,000,000	$1,000,000	$800,000	$200,000	CTPS Funding Set-Aside. Line item will fund projects applied for to the MPO under BikeShare with 20% local match identified on submission.
Intersection Improvements								$13,311,175	$10,930,643	$2,380,532	
2026	605857	Boston Region	Norwood	NORWOOD- INTERSECTION IMPROVEMENTS @ ROUTE 1 & UNIVERSITY AVENUE/EVERETT STREET	5	HSIP	$28,699,272	$631,724	$568,552	$63,172	Adj. TFPC: $28,699,272 (CMAQ, HSIP, NHPP, STBG). Project ACd 2026 - 2027.
2026	605857	Boston Region	Norwood	NORWOOD- INTERSECTION IMPROVEMENTS @ ROUTE 1 & UNIVERSITY AVENUE/EVERETT STREET	5	NHPP	$28,699,272	$4,998,901	$3,999,121	$999,780	Adj. TFPC: $28,699,272 (CMAQ, HSIP, NHPP, STBG). Project ACd 2026 - 2027.
2026	605857	Boston Region	Norwood	NORWOOD- INTERSECTION IMPROVEMENTS @ ROUTE 1 & UNIVERSITY AVENUE/EVERETT STREET	5	STBG	$28,699,272	$5,495,247	$4,396,198	$1,099,049	Adj. TFPC: $28,699,272 (CMAQ, HSIP, NHPP, STBG). Project ACd 2026 - 2027.
2026	608940	Boston Region	Weston	WESTON- INTERSECTION IMPROVEMENTS BOSTON POST ROAD (ROUTE 20) AT WELLESLEY STREET	6	HSIP	$2,185,303	$2,185,303	$1,966,773	$218,530	HSIP funded in full.
Bicycle and Pedestrian								$21,288,202	$17,030,562	$4,257,640	
2026	609204	Boston Region	Belmont	BELMONT- COMMUNITY PATH, BELMONT COMPONENT OF THE MCRT (PHASE I)	4	CMAQ	$21,288,202	$7,288,202	$5,830,562	$1,457,640	Adj. TFPC: $21,288,202 (CMAQ, STBG, TAP)
2026	609204	Boston Region	Belmont	BELMONT- COMMUNITY PATH, BELMONT COMPONENT OF THE MCRT (PHASE I)	4	STBG	$21,288,202	$9,000,000	$7,200,000	$1,800,000	Adj. TFPC: $21,288,202 (CMAQ, STBG, TAP)
2026	609204	Boston Region	Belmont	BELMONT- COMMUNITY PATH, BELMONT COMPONENT OF THE MCRT (PHASE I)	4	TAP	$21,288,202	$5,000,000	$4,000,000	$1,000,000	Adj. TFPC: $21,288,202 (CMAQ, STBG, TAP)
Bicycle and Pedestrian								$1,400,000	$1,120,000	$280,000	
2026	612989	Boston Region	Boston	BOSTON- BRIDGE PRESERVATION, B-16-066 (38D), CAMBRIDGE STREET OVER MBTA	6	CMAQ	$16,632,000	$1,400,000	$1,120,000	$280,000	Adj. TFPC: $16,632,000 (NHPP, CMAQ)
Bridge On-system NHS								$15,232,000	$12,185,600	$3,046,400	
2026	612989	Boston Region	Boston	BOSTON- BRIDGE PRESERVATION, B-16-066 (38D), CAMBRIDGE STREET OVER MBTA	6	NHPP-PEN	$16,632,000	$15,232,000	$12,185,600	$3,046,400	Adj. TFPC: $16,632,000 (NHPP, CMAQ)
Flex to FTA								$6,607,977	$5,286,382	$1,321,595	
2026	S12113	Boston Region		TRANSIT MODERNIZATION PROGRAM		CMAQ	$21,500,000	$6,500,000	$5,200,000	$1,300,000	Construction; Flex to FTA; Set aside for LRTP Transit Modernization Program between FFYs 2025 and 2028.
2026	S12807	Boston Region	Multiple	MWRTA CATCHCONNECT MICROTRANSIT EXPANSION PHASE 2	3	CMAQ	$380,477	$107,977	$86,382	$21,595	The project is a shuttle pilot funded across Federal Fiscal Years 2024-2027. Proponent is matching with $195,000 in RTA Cap funds.
Transit Grant Program								$2,392,023	$1,913,618	$478,405	
2026	S12124	Boston Region	Multiple	COMMUNITY CONNECTIONS PROGRAM		CMAQ	$8,334,827	$2,392,023	$1,913,618	$478,405	Planning, Design, or Construction; Set Aside for LRTP Community Connections Program
Section 1B / Earmark or Discretionary Grant Funded Projects								**$206,088,967**	**$165,499,525**	**$40,589,442**	
Bridge On-system Non-NHS NB								$6,947,208	$5,557,766	$1,389,442	
2026	612075	Boston Region	Salem	SALEM- BRIDGE REPLACEMENT, S-01-024, JEFFERSON AVENUE OVER PARALLEL STREET	4	HIP-BR	$3,123,360	$3,123,360	$2,498,688	$624,672	Adj. TFPC: $3,123,360 (HIP-BR)
2026	612099	Boston Region		ASHLAND- BRIDGE REPLACEMENT, A-14-006, CORDAVILLE ROAD OVER SUDBURY RIVER	3	HIP-BR	$3,823,848	$3,823,848	$3,059,078	$764,770	Adj. TFPC: $3,823,848 (HIP-BR)
Bridge Off-system Local NB								$3,141,758	$3,141,758	$0	
2026	612076	Boston Region	Topsfield	TOPSFIELD- BRIDGE REPLACEMENT, T-06-013, PERKINS ROW OVER MILE BROOK	4	BROFF	$3,141,758	$3,141,758	$3,141,758	$0	Adj. TFPC: $3,141,758 (Off-System Bridge Formula)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
Bridge On-System NHS NB								$196,000,001	$156,800,001	$39,200,000	
2026	612496	Boston Region			4	HIP-BR	$196,000,001	$196,000,001	$156,800,001	$39,200,000	Adj. TFPC: $196,000,001 (HIP-BR)
Section 2A / State Prioritized Reliability Projects								**$72,552,107**	**$61,441,667**	**$11,110,441**	
Bridge On-system NHS								$17,824,268	$14,259,414	$3,564,854	
2026	605321	Boston Region	Norwood	NORWOOD- BRIDGE PRESERVATION, N-25-026, PROVIDENCE HIGHWAY (STATE ROUTE 1) OVER THE NEPONSET RIVER	5	NHPP-PEN	$3,460,268	$3,460,268	$2,768,214	$692,054	
2026	606449	Boston Region	Cambridge	CAMBRIDGE- BRIDGE REPLACEMENT, C-01-008, FIRST STREET BRIDGE & C-01-040, LAND BOULE-VARD/BROAD CANAL BRIDGE	6	NHPP-PEN	$14,364,000	$14,364,000	$11,491,200	$2,872,800	
Safety Improvements								$21,175,209	$18,725,548	$2,449,661	
2026	610675	Boston Region	Chelsea	CHELSEA- RECONSTRUCTION OF SPRUCE STREET, FROM EVERETT AVENUE TO WILLIAMS STREET	6	HSIP	$5,841,153	$5,841,153	$5,257,038	$584,115	Adj. TFPC: $5,841,153 (HSIP)
2026	611954	Boston Region	Boston	BOSTON- GUIDE AND TRAFFIC SIGN REPLACEMENT ON I-90/I-93 WITHIN CENTRAL ARTERY/TUNNEL SYSTEM	6	HSIP	$2,423,736	$2,423,736	$2,181,362	$242,374	Adj. TFPC: $2,423,736 (HSIP)
2026	611974	Boston Region	Medford	MEDFORD- INTERSECTION IMPROVEMENTS AT MAIN STREET/SOUTH STREET, MAIN STREET/MYS-TIC VALLEY PARKWAY RAMPS, AND MAIN STREET/ MYSTIC AVENUE	4	HSIP	$9,177,840	$4,588,920	$4,130,028	$458,892	Adj. TFPC: $9,177,840 (HSIP) - Intersection Improvements and Safety Improvements.
2026	612599	Boston Region	Lynn	LYNN- TARGETED SAFETY AND MULTIMODAL IM-PROVEMENTS (PLAYBOOK PRIORITY CORRIDORS)	4	HSIP	$8,321,400	$5,000,000	$4,500,000	$500,000	Adj. TFPC: $8,321,400 (HSIP + STBG)
2026	612599	Boston Region	Lynn	LYNN- TARGETED SAFETY AND MULTIMODAL IM-PROVEMENTS (PLAYBOOK PRIORITY CORRIDORS)	4	STBG	$8,321,400	$3,321,400	$2,657,120	$664,280	Adj. TFPC: $8,321,400 (HSIP + STBG)
Non-Interstate Pavement								$17,406,630	$13,925,304	$3,481,326	
2026	612049	Boston Region	Randolph	RANDOLPH- RESURFACING AND RELATED WORK ON ROUTE 24	6	NHPP	$9,128,700	$9,128,700	$7,302,960	$1,825,740	Adj. TFPC: $9,128,700 (NHPP)
2026	612050	Boston Region	Multiple	BRAINTREE- WEYMOUTH- RESURFACING AND RELATED WORK ON ROUTE 3	6	NHPP	$8,277,930	$8,277,930	$6,622,344	$1,655,586	Adj. TFPC: $8,277,930 (NHPP)
Interstate Pavement								$16,146,000	$14,531,400	$1,614,600	
2026	612051	Boston Region	Multiple	CANTON- MILTON- RANDOLPH- INTERSTATE MAINTENANCE AND RELATED WORK ON I-93	6	NHPP-I	$16,146,000	$16,146,000	$14,531,400	$1,614,600	Adj. TFPC: $16,146,000 (NHPP Interstate)
Section 2B / State Prioritized Modernization Projects								**$70,560,716**	**$62,531,022**	**$8,029,694**	
Roadway Reconstruction								$48,088,307	$43,279,476	$4,808,831	
2026	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NHPP-I	$300,942,837	$41,613,593	$37,452,234	$4,161,359	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
2026	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NFP-I	$300,942,837	$6,474,714	$5,827,243	$647,471	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
Intersection Improvements								$12,736,182	$11,462,564	$1,273,618	
2026	608564	Boston Region	Watertown	WATERTOWN- INTERSECTION IMPROVEMENTS AT ROUTE 16 AND GALEN STREET	6	HSIP	$3,449,261	$3,449,261	$3,104,335	$344,926	Adj. TFPC: $3,449,261 (HSIP)
2026	610665	Boston Region	Stoneham	STONEHAM- INTERSECTION IMPROVEMENTS AT ROUTE 28 (MAIN STREET), NORTH BORDER ROAD AND SOUTH STREET	4	HSIP	$4,698,001	$4,698,001	$4,228,201	$469,800	Adj. TFPC: $4,698,001 (HSIP)
2026	611974	Boston Region	Medford	MEDFORD- INTERSECTION IMPROVEMENTS AT MAIN STREET/SOUTH STREET, MAIN STREET/MYS-TIC VALLEY PARKWAY RAMPS, AND MAIN STREET/ MYSTIC AVENUE	4	HSIP	$9,177,840	$4,588,920	$4,130,028	$458,892	Adj. TFPC: $9,177,840 (HSIP) - Intersection Improvements and Safety Improvements.
Safe Routes to School								$9,736,227	$7,788,982	$1,947,245	
2026	610537	Boston Region	Boston	BOSTON- ELLIS ELEMENTARY TRAFFIC CALMING (SRTS)	6	TAP	$2,737,728	$2,737,728	$2,190,182	$547,546	Adj. TFPC: $2,737,728 (TAP)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2026	612804	Boston Region	Dedham	DEDHAM- IMPROVEMENTS AT AVERY ELEMENTARY (SRTS)	6	TAP	$1,626,334	$1,626,334	$1,301,067	$325,267	Adj. TFPC: $1,626,334 (TAP)
2026	612816	Boston Region	Brookline	BROOKLINE- IMPROVEMENTS AT WILLIAM H. LINCOLN SCHOOL (SRTS)	6	TAP	$886,526	$886,526	$709,221	$177,305	Adj. TFPC: $886,526 (TAP)
2026	612884	Boston Region	Chelsea	CHELSEA- IMPROVEMENTS AT MARY C. BURKE ELEMENTARY (SRTS)	6	TAP	$1,617,667	$1,617,667	$1,294,134	$323,533	Adj. TFPC: $1,617,667 (TAP)
2026	612889	Boston Region	Sharon	SHARON- COTTAGE STREET SCHOOL IMPROVE-MENTS (SRTS)	5	TAP	$1,497,906	$1,497,906	$1,198,325	$299,581	Adj. TFPC: $1,497,906 (TAP)
2026	612894	Boston Region	Framingham	FRAMINGHAM- IMPROVEMENTS AT HARMONY GROVE ELEMENTARY SCHOOL (SRTS)	3	TAP	$1,370,066	$1,370,066	$1,096,053	$274,013	Adj. TFPC: $1,370,066 (TAP)
Section 2C / State Prioritized Expansion Projects								**$5,417,093**	**$4,333,674**	**$1,083,419**	
Bicycle and Pedestrian								$5,417,093	$4,333,674	$1,083,419	
2026	612523	Boston Region	Revere	REVERE- STATE ROAD BEACHMONT CONNECTOR	4	CMAQ	$5,417,093	$5,417,093	$4,333,674	$1,083,419	Adj. TFPC: $5,417,093 (CMAQ)
Section 3B / Non-Federal Aid Funded								**$26,680,000**	**$0**	**$26,680,000**	
NFA								$26,680,000	$0	$26,680,000	
2026	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NFA	$300,942,837	$26,680,000	$0	$26,680,000	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
Federal Fiscal Year 2027								**$622,136,812**	**$282,978,807**	**$339,158,005**	
Section 1A / Regionally Prioritized Projects								**$144,006,044**	**$116,629,527**	**$27,376,517**	
Roadway Reconstruction								$94,327,597	$76,362,078	$17,965,519	
2027	605743	Boston Region	Ipswich	IPSWICH- RESURFACING & RELATED WORK ON CENTRAL & SOUTH MAIN STREETS	4	STBG	$11,728,698	$6,026,622	$4,821,298	$1,205,324	Adj. TFPC: $5,702,076 (STBG, TAP)
2027	606226	Boston Region	Boston	BOSTON- RECONSTRUCTION OF RUTHERFORD AVENUE, FROM CITY SQUARE TO SULLIVAN SQUARE	6	NHPP	$197,759,449	$8,600,000	$6,880,000	$1,720,000	Adj. TFPC: $197,759,449; programmed over 6 years (2027-2033); $25,000,000 in anticipated funding provided by City of Boston; MPO Evaluation Score = 59; TAP Proponent = Boston. Project anticipated to be phased beginning in FFY27. New project ID(s) will likely reflect different phases in the future.
2027	607981	Boston Region	Somerville	SOMERVILLE- MCGRATH BOULEVARD CONSTRUC-TION	4	STBG	$98,840,000	$20,000,000	$16,000,000	$4,000,000	"Adj. TFPC: $98,840,000 (STBG, TAP, NHPP); AC schedule anticipated over 4 years (2027-2030); Total funding in this TIP = $65,000,000; MPO Evaluation Score = 72.2."
2027	607981	Boston Region	Somerville	SOMERVILLE- MCGRATH BOULEVARD CONSTRUC-TION	4	TAP	$98,840,000	$2,000,000	$1,600,000	$400,000	"Adj. TFPC: $98,840,000 (STBG, TAP, NHPP); AC schedule anticipated over 4 years (2027-2030); Total funding in this TIP = $65,000,000; MPO Evaluation Score = 72.2."
2027	609246	Boston Region	Lynn	LYNN- REHABILITATION OF WESTERN AVENUE (ROUTE 107)	4	HSIP	$45,897,600	$3,000,000	$2,700,000	$300,000	"Construction; STBG+HSIP Total Cost = $45,897,600; AC schedule anticipated over 3 years (2027-2029); Total funding in this TIP = $35,000,000; MPO Evaluation Score = 74.9."
2027	609246	Boston Region	Lynn	LYNN- REHABILITATION OF WESTERN AVENUE (ROUTE 107)	4	STBG	$45,897,600	$12,000,000	$9,600,000	$2,400,000	"Construction; STBG+HSIP Total Cost = $45,897,600; AC schedule anticipated over 3 years (2027-2029); Total funding in this TIP = $35,000,000; MPO Evaluation Score = 74.9."

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2027	610932	Boston Region	Brookline	BROOKLINE- REHABILITATION OF WASHINGTON STREET	6	HSIP	$28,995,267	$5,000,000	$4,500,000	$500,000	Adj. TFPC: $28,995,267 (HSIP, STBG)
2027	610932	Boston Region	Brookline	BROOKLINE- REHABILITATION OF WASHINGTON STREET	6	STBG	$28,995,267	$23,995,267	$19,196,214	$4,799,053	Adj. TFPC: $28,995,267 (HSIP, STBG)
2027	611983	Boston Region	Chelsea	CHELSEA- PARK STREET & PEARL STREET RECON-STRUCTION	6	HSIP	$11,705,708	$1,000,000	$900,000	$100,000	Adj. TFPC: $11,705,708 (HSIP, STBG)
2027	611983	Boston Region	Chelsea	CHELSEA- PARK STREET & PEARL STREET RECON-STRUCTION	6	STBG	$11,705,708	$10,705,708	$8,564,566	$2,141,142	Adj. TFPC: $11,705,708 (HSIP, STBG)
2027	S12820	Boston Region		BIKESHARE SUPPORT SET ASIDE		STBG	$6,000,000	$2,000,000	$1,600,000	$400,000	CTPS Funding Set-Aside. Line item will fund projects applied for to the MPO under BikeShare with 20% local match identified on submission.
Intersection Improvements								$17,573,400	$14,058,720	$3,514,680	
2027	605857	Boston Region	Norwood	NORWOOD- INTERSECTION IMPROVEMENTS @ ROUTE 1 & UNIVERSITY AVENUE/EVERETT STREET	5	CMAQ	$28,699,272	$3,000,000	$2,400,000	$600,000	Adj. TFPC: $28,699,272 (CMAQ, HSIP, NHPP, STBG). Project ACd 2026 - 2027.
2027	605857	Boston Region	Norwood	NORWOOD- INTERSECTION IMPROVEMENTS @ ROUTE 1 & UNIVERSITY AVENUE/EVERETT STREET	5	NHPP	$28,699,272	$3,573,400	$2,858,720	$714,680	Adj. TFPC: $28,699,272 (CMAQ, HSIP, NHPP, STBG). Project ACd 2026 - 2027.
2027	605857	Boston Region	Norwood	NORWOOD- INTERSECTION IMPROVEMENTS @ ROUTE 1 & UNIVERSITY AVENUE/EVERETT STREET	5	STBG	$28,699,272	$11,000,000	$8,800,000	$2,200,000	Adj. TFPC: $28,699,272 (CMAQ, HSIP, NHPP, STBG). Project ACd 2026 - 2027.
Roadway Improvements								$13,000,000	$10,400,000	$2,600,000	
2027	607981	Boston Region	Somerville	SOMERVILLE- MCGRATH BOULEVARD CONSTRUC-TION	4	NHPP	$98,840,000	$13,000,000	$10,400,000	$2,600,000	"Adj. TFPC: $98,840,000 (STBG, TAP, NHPP); AC schedule anticipated over 4 years (2027-2030); Total funding in this TIP = $65,000,000; MPO Evaluation Score = 72.2."
Bicycle and Pedestrian								$4,858,127	$3,886,502	$971,625	
2027	613088	Boston Region	Malden	MALDEN- SPOT POND BROOK GREENWAY	4	CMAQ	$4,858,127	$3,000,000	$2,400,000	$600,000	Adj. TFPC: $4,858,127 (CMAQ, TAP)
2027	613088	Boston Region	Malden	MALDEN- SPOT POND BROOK GREENWAY	4	TAP	$4,858,127	$1,858,127	$1,486,502	$371,625	Adj. TFPC: $4,858,127 (CMAQ, TAP)
Safety Improvements								$5,246,920	$4,722,228	$524,692	
2027	613121	Boston Region	Everett	EVERETT- TARGETED MULTI-MODAL AND SAFETY IMPROVEMENTS ON ROUTE 16 (DESIGN ONLY)	4	HSIP	$5,246,920	$5,246,920	$4,722,228	$524,692	Funded by BRMPO in 2027 as part of FFY2024-28 TIP. Project was not scored. Funded in full by HSIP.
Flex to FTA								$6,500,000	$5,200,000	$1,300,000	
2027	S12113	Boston Region		TRANSIT MODERNIZATION PROGRAM		CMAQ	$21,500,000	$6,500,000	$5,200,000	$1,300,000	Construction; Flex to FTA; Set aside for LRTP Transit Modernization Program between FFYs 2025 and 2028.
Transit Grant Program								$2,500,000	$2,000,000	$500,000	
2027	S12124	Boston Region	Multiple	COMMUNITY CONNECTIONS PROGRAM		CMAQ	$8,334,827	$2,500,000	$2,000,000	$500,000	Planning, Design, or Construction; Set Aside for LRTP Community Connections Program
Section 2A / State Prioritized Reliability Projects								**$241,511,844**	**$82,877,514**	**$158,634,330**	
Bridge On-system Non-NHS								$138,719,952	$0	$138,719,952	
2027	605276	Boston Region	Multiple	BEVERLY- SALEM- DRAWBRIDGE REPLACEMENT/RE-HABILITATION OF B-11-005=S-01-013, KERNWOOD AVENUE OVER DANVERS RIVER	4	NGBP	$92,094,352	$92,094,352	$0	$92,094,352	Adj. TFPC: $92,094,352 (NGBP)
2027	607420	Boston Region	Natick	NATICK- SUPERSTRUCTURE REPLACEMENT, N-03-012, BODEN LANE OVER CSX/MBTA	3	NGBP	$7,985,600	$7,985,600	$0	$7,985,600	Adj. TFPC: $7,985,600 (NGBP)
2027	608514	Boston Region	Beverly	BEVERLY- BRIDGE REPLACEMENT, B-11-001, BRIDGE STREET OVER BASS RIVER (HALL-WHITAKER DRAWBRIDGE)	4	NGBP	$38,640,000	$38,640,000	$0	$38,640,000	Adj. TFPC: $38,640,000 (NGBP)
Bridge On-system NHS								$96,351,892	$77,081,514	$19,270,378	
2027	606728	Boston Region	Boston	BOSTON- BRIDGE REPLACEMENT B-16-365, STORROW DRIVE OVER BOWKER RAMPS	6	NHPP-PEN	$112,056,000	$10,477,205	$8,381,764	$2,095,441	$15,000,000 funded through Boston Region MPO's Regional Target in FFY27 using NHPP. Total Adj. TFPC: $112,056,000




Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2027	611987	Boston Region	Cambridge	CAMBRIDGE- BRIDGE REPLACEMENT, C-01-026, MEMORIAL DRIVE OVER BROOKLINE STREET	6	NHPP	$51,108,646	$51,108,646	$40,886,917	$10,221,729	Adj. TFPC: $51,108,646 (NHPP)
2027	612519	Boston Region	Boston	BOSTON- BRIDGE REPLACEMENT, B-16-165, BLUE HILL AVENUE OVER RAILROAD	6	NHPP-PEN	$34,766,041	$34,766,041	$27,812,833	$6,953,208	Adj. TFPC: $34,766,041 (NHPP - Penalty)
Non-Interstate Pavement								$0	$0	$0	
2027	609402	Boston Region	Multiple	FRAMINGHAM- NATICK- RESURFACING AND RELATED WORK ON ROUTE 9	3	NHPP	$48,665,364	$0	$0	$0	Adj. TFPC: $48,665,364 (NHPP)
Safety Improvements								$6,440,000	$5,796,000	$644,000	
2027	610650	Boston Region	Boston	BOSTON- SAFETY IMPROVEMENTS ON GALLIVAN BOULEVARD (ROUTE 203), FROM WASHINGTON STREET TO GRANITE AVENUE	6	HSIP	$6,440,000	$6,440,000	$5,796,000	$644,000	Adj. TFPC: $6,440,000 (HSIP)
Interstate Pavement								$0	$0	$0	
2027	612033	Boston Region	Lynnfield	LYNNFIELD- PEABODY- INTERSTATE MAINTENANCE AND RELATED WORK ON I-95	4	NHPP-I	$8,575,451	$0	$0	$0	
Section 2B / State Prioritized Modernization Projects								**$75,333,816**	**$65,419,642**	**$9,914,175**	
Roadway Reconstruction								$63,007,343	$54,763,028	$8,244,315	
2027	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NHPP-I	$300,942,837	$17,928,463	$16,135,617	$1,792,846	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
2027	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NFP-I	$300,942,837	$25,643,072	$23,078,765	$2,564,307	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
2027	612615	Boston Region	Multiple	CANTON- MILTON- ROADWAY RECONSTRUCTION ON ROUTE 138, FROM ROYALL STREET TO DOLLAR LANE	6	NHPP	$19,435,808	$19,435,808	$15,548,646	$3,887,162	Adj. TFPC: $19,435,808 (NHPP)
Intersection Improvements								$19,435,808	$15,548,646	$3,887,162	
2027	612613	Boston Region	Newton	NEWTON- INTERSECTION IMPROVEMENTS AT ROUTE 16 AND QUINOBEQUIN ROAD		TAP	$617,187	$7,954,352	$7,158,917	$795,435	Adj. TFPC: $4,872,000 (HSIP)
2027	612616	Boston Region	Milton	MILTON- INTERSECTION IMPROVEMENTS AT ROUTE 138 AND BRADLEE ROAD		TAP	$1,456,000	$4,872,000	$4,384,800	$487,200	Adj. TFPC: $3,082,352 (HSIP)
Safe Routes to School								$3,082,352	$2,774,117	$308,235	
2027	S12793	Boston Region		HOLLISTON-LINDEN STREET	4	CMAQ	$24,543,047	$4,372,121	$3,497,697	$874,424	
2027	S12795	Boston Region		NEWTON-PARKER	3	CMAQ	$4,061,413	$617,187	$493,750	$123,437	
2027	S12796	Boston Region		READING-OAKLAND RD / HILLSIDE RD / BIRCH MEADOW DRIVE-COOLIDGE MIDDLE SCHOOL	4	CMAQ	$7,903,743	$1,456,000	$1,164,800	$291,200	
Section 2C / State Prioritized Expansion Projects								**$2,298,934**	**$1,839,147**	**$459,787**	
Bicycle and Pedestrian								$22,565,156	$18,052,125	$4,513,031	
2027	607329	Boston Region	Multiple	WAKEFIELD- LYNNFIELD- RAIL TRAIL EXTENSION, FROM THE GALVIN MIDDLE SCHOOL TO LYNN-FIELD/PEABODY T.L.	4	CMAQ	$24,543,047	$22,565,156	$18,052,125	$4,513,031	Adj. TFPC: $24,543,047. ACd from 2027 - 2028
2027	610660	Boston Region	Multiple	SUDBURY- WAYLAND- MASS CENTRAL RAIL TRAIL (MCRT)	3	CMAQ	$4,061,413	$10,600,000	$8,480,000	$2,120,000	Adj. TFPC: $4,061,413 (CMAQ)
2027	612499	Boston Region	Medford	MEDFORD- SOUTH MEDFORD CONNECTOR BIKE PATH	4	CMAQ	$7,903,743	$4,061,413	$3,249,130	$812,283	Adj. TFPC: $7,903,743 (CMAQ)
Section 3B / Non-Federal Aid Funded								**$138,719,952**	**$0**	**$138,719,952**	
Bridge On-system Non-NHS								$138,719,952	$0	$138,719,952	
2027	605276	Boston Region	Multiple	BEVERLY- SALEM- DRAWBRIDGE REPLACEMENT/RE-HABILITATION OF B-11-005=S-01-013, KERNWOOD AVENUE OVER DANVERS RIVER	4	NGBP	$92,094,352	$92,094,352	$0	$92,094,352	Adj. TFPC: $92,094,352 (NGBP)

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2027	607420	Boston Region	Natick	NATICK- SUPERSTRUCTURE REPLACEMENT, N-03-012, BODEN LANE OVER CSX/MBTA	3	NGBP	$7,985,600	$7,985,600	$0	$7,985,600	Adj. TFPC: $7,985,600 (NGBP)
2027	608514	Boston Region	Beverly	BEVERLY- BRIDGE REPLACEMENT, B-11-001, BRIDGE STREET OVER BASS RIVER (HALL-WHITAKER DRAWBRIDGE)	4	NGBP	$38,640,000	$38,640,000	$0	$38,640,000	Adj. TFPC: $38,640,000 (NGBP)
Federal Fiscal Year 2028								**$500,800,259**	**$403,559,552**	**$97,240,707**	
Section 1A / Regionally Prioritized Projects								**$149,868,526**	**$120,394,821**	**$29,473,705**	
Roadway Reconstruction								$124,176,075	$99,840,860	$24,335,215	
2028	606226	Boston Region	Boston	BOSTON- RECONSTRUCTION OF RUTHERFORD AVENUE, FROM CITY SQUARE TO SULLIVAN SQUARE	6	NHPP	$197,759,449	$12,000,000	$9,600,000	$2,400,000	Adj. TFPC: $197,759,449; programmed over 6 years (2027-2033); $25,000,000 in anticipated funding provided by City of Boston; MPO Evaluation Score = 59; TAP Proponent = Boston. Project anticipated to be phased beginning in FFY27. New project ID(s) will likely reflect different phases in the future.
2028	606226	Boston Region	Boston	BOSTON- RECONSTRUCTION OF RUTHERFORD AVENUE, FROM CITY SQUARE TO SULLIVAN SQUARE	6	STBG	$197,759,449	$19,500,000	$15,600,000	$3,900,000	Adj. TFPC: $197,759,449; programmed over 6 years (2027-2033); $25,000,000 in anticipated funding provided by City of Boston; MPO Evaluation Score = 59; TAP Proponent = Boston. Project anticipated to be phased beginning in FFY27. New project ID(s) will likely reflect different phases in the future.
2028	606226	Boston Region	Boston	BOSTON- RECONSTRUCTION OF RUTHERFORD AVENUE, FROM CITY SQUARE TO SULLIVAN SQUARE	6	TAP	$197,759,449	$2,000,000	$1,600,000	$400,000	Adj. TFPC: $197,759,449; programmed over 6 years (2027-2033); $25,000,000 in anticipated funding provided by City of Boston; MPO Evaluation Score = 59; TAP Proponent = Boston. Project anticipated to be phased beginning in FFY27. New project ID(s) will likely reflect different phases in the future.
2028	607981	Boston Region	Somerville	SOMERVILLE- MCGRATH BOULEVARD CONSTRUC-TION	4	STBG	$98,840,000	$30,000,000	$24,000,000	$6,000,000	"Adj. TFPC: $98,840,000 (STBG, TAP, NHPP); AC schedule anticipated over 4 years (2027-2030); Total funding in this TIP = $65,000,000; MPO Evaluation Score = 72.2."
2028	609246	Boston Region	Lynn	LYNN- REHABILITATION OF WESTERN AVENUE (ROUTE 107)	4	HSIP	$45,897,600	$5,000,000	$4,500,000	$500,000	"Construction; STBG+HSIP Total Cost = $45,897,600; AC schedule anticipated over 3 years (2027-2029); Total funding in this TIP = $35,000,000; MPO Evaluation Score = 74.9."
2028	609246	Boston Region	Lynn	LYNN- REHABILITATION OF WESTERN AVENUE (ROUTE 107)	4	STBG	$45,897,600	$15,000,000	$12,000,000	$3,000,000	"Construction; STBG+HSIP Total Cost = $45,897,600; AC schedule anticipated over 3 years (2027-2029); Total funding in this TIP = $35,000,000; MPO Evaluation Score = 74.9."
2028	S12820	Boston Region		BIKESHARE SUPPORT SET ASIDE		STBG	$6,000,000	$2,000,000	$1,600,000	$400,000	CTPS Funding Set-Aside. Line item will fund projects applied for to the MPO under BikeShare with 20% local match identified on submission.

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2028	S12826	Boston Region	Multiple	WESTWOOD- NORWOOD- RECONSTRUCTION OF CANTON STREET TO UNIVERSITY DRIVE, INCLUDING REHAB OF N-25-032=W-31-018	6	CMAQ	$22,094,875	$4,000,000	$3,200,000	$800,000	"Reference Project ID 608158 from PINFO. May have been decomm'd due to change in scope to remove bridge. CMAQ = $4M, STBG = $18.09M"
2028	S12826	Boston Region	Multiple	WESTWOOD- NORWOOD- RECONSTRUCTION OF CANTON STREET TO UNIVERSITY DRIVE, INCLUDING REHAB OF N-25-032=W-31-018	6	STBG	$22,094,875	$18,094,875	$14,475,900	$3,618,975	"Reference Project ID 608158 from PINFO. May have been decomm'd due to change in scope to remove bridge. CMAQ = $4M, STBG = $18.09M"
2028	S12827	Boston Region	Wakefield	WAKEFIELD - MAIN STREET CORRIDOR IMPROVEMENT PROJECT	4	CMAQ	$16,581,200	$8,000,000	$6,400,000	$1,600,000	"REFER TO PROJECT 610545--this section is being broken out as a new project going to PRC in Spring 2023. Will revise with newly assigned Project ID in future. CMAQ = $8M, STBG = $7.08M, TAP = $1.5M"
2028	S12827	Boston Region	Wakefield	WAKEFIELD - MAIN STREET CORRIDOR IMPROVEMENT PROJECT	4	STBG	$16,581,200	$7,081,200	$5,664,960	$1,416,240	"REFER TO PROJECT 610545--this section is being broken out as a new project going to PRC in Spring 2023. Will revise with newly assigned Project ID in future. CMAQ = $8M, STBG = $7.08M, TAP = $1.5M"
2028	S12827	Boston Region	Wakefield	WAKEFIELD - MAIN STREET CORRIDOR IMPROVEMENT PROJECT	4	TAP	$16,581,200	$1,500,000	$1,200,000	$300,000	"REFER TO PROJECT 610545--this section is being broken out as a new project going to PRC in Spring 2023. Will revise with newly assigned Project ID in future. CMAQ = $8M, STBG = $7.08M, TAP = $1.5M"
Bicycle and Pedestrian								$16,692,451	$13,353,961	$3,338,490	
2028	610666	Boston Region	Swampscott	SWAMPSCOTT- RAIL TRAIL CONSTRUCTION	4	CMAQ	$8,932,000	$7,300,000	$5,840,000	$1,460,000	Adj. TFPC: $8,932,000 (CMAQ, TAP).
2028	610666	Boston Region	Swampscott	SWAMPSCOTT- RAIL TRAIL CONSTRUCTION	4	TAP	$8,932,000	$1,632,000	$1,305,600	$326,400	Adj. TFPC: $8,932,000 (CMAQ, TAP).
2028	610691	Boston Region	Natick	NATICK- COCHITUATE RAIL TRAIL EXTENSION, FROM MBTA STATION TO MECHANIC STREET	3	STBG	$7,760,451	$7,760,451	$6,208,361	$1,552,090	Adj. TFPC: $7,760,451 (STBG)
Flex to FTA								$6,500,000	$5,200,000	$1,300,000	
2028	S12113	Boston Region		TRANSIT MODERNIZATION PROGRAM		CMAQ	$21,500,000	$6,500,000	$5,200,000	$1,300,000	Construction; Flex to FTA; Set aside for LRTP Transit Modernization Program between FFYs 2025 and 2028.
Transit Grant Program								$2,500,000	$2,000,000	$500,000	
2028	S12124	Boston Region	Multiple	COMMUNITY CONNECTIONS PROGRAM		CMAQ	$8,334,827	$2,500,000	$2,000,000	$500,000	Planning, Design, or Construction; Set Aside for LRTP Community Connections Program
Section 1B / Earmark or Discretionary Grant Funded Projects								**$64,960,000**	**$51,968,000**	**$12,992,000**	
Bridge On-system Non-NHS NB								$64,960,000	$51,968,000	$12,992,000	
2028	608397	Boston Region	Gloucester	GLOUCESTER- BRIDGE RECONSTRUCTION, G-05-002, WESTERN AVENUE OVER BLYNMAN CANAL	4	HIP-BR	$64,960,000	$64,960,000	$51,968,000	$12,992,000	Adj. TFPC: $64,960,000 (HIP-BR)
Section 2A / State Prioritized Reliability Projects								**$234,431,079**	**$189,640,644**	**$44,790,435**	
Bridge On-system NHS								$152,275,425	$121,820,340	$30,455,085	
2028	606728	Boston Region	Boston	BOSTON- BRIDGE REPLACEMENT B-16-365, STORROW DRIVE OVER BOWKER RAMPS	6	NHPP-PEN	$112,056,000	$40,075,975	$32,060,780	$8,015,195	$15,000,000 funded through Boston Region MPO's Regional Target in FFY27 using NHPP. Total Adj. TFPC: $112,056,000

Year	MassDOT Project ID	MPO	Municipality	MassDOT Project Description	District	Funding Source	Adjusted TFPC	Total Programmed Funds	Federal Funds	Non-Federal Funds	Other Information
2028	608396	Boston Region	Multiple	LYNN- REVERE- BRIDGE RECONSTRUCTION, L-18-015=R-05-008, ROUTE 1A OVER SAUGUS RIVER	4	NHPP	$105,560,000	$54,185,724	$43,348,579	$10,837,145	Adj. TFPC: $105,560,000. ACd between 2028 - 2029
2028	613124	Boston Region	Boston	BOSTON- DECK/SUPERSTRUCTURE REPLACEMENT, B-16-054 (4T2), BEACON STREET OVER I-90 (STRUCTURE 50, MILE 132.2)	6	NHPP-PEN	$42,295,604	$42,295,604	$33,836,483	$8,459,121	Adj. TFPC: $42,295,604 (NHPP - Penalty)
2028	613125	Boston Region	Boston	BOSTON- DECK/SUPERSTRUCTURE REPLACEMENT OF BRIDGE B-16-051(4T5), MASS AVENUE OVER I-90 & MBTA (STRUCTURE 54, MILE 132.84)	6	NHPP-PEN	$15,718,122	$15,718,122	$12,574,498	$3,143,624	Adj. TFPC: $15,718,122 (NHPP - Penalty)
Safety Improvements								$16,183,809	$13,312,180	$2,871,629	
2028	607748	Boston Region	Acton	ACTON- INTERSECTION & SIGNAL IMPROVEMENTS ON SR 2 & SR 111 (MASSACHUSETTS AVENUE) AT PIPER ROAD & TAYLOR ROAD	3	HSIP	$4,382,329	$3,651,329	$3,286,196	$365,133	Adj. TFPC: $4,382,329 (HSIP)
2028	611969	Boston Region	Everett	EVERETT- INTERSECTION IMPROVEMENTS ON ROUTE 16	4	NHPP	$17,748,000	$12,532,480	$10,025,984	$2,506,496	Adj. TFPC: $17,748,000 (NHPP). Mix of roadway reconstruction and safety improvements.
Non-Interstate Pavement								$48,665,364	$38,932,291	$9,733,073	
2028	609402	Boston Region	Multiple	FRAMINGHAM- NATICK- RESURFACING AND RELATED WORK ON ROUTE 9	3	NHPP	$48,665,364	$48,665,364	$38,932,291	$9,733,073	Adj. TFPC: $48,665,364 (NHPP)
Interstate Pavement								$17,306,481	$15,575,833	$1,730,648	
2028	612033	Boston Region	Lynnfield	LYNNFIELD- PEABODY- INTERSTATE MAINTENANCE AND RELATED WORK ON I-95	4	NHPP-I	$8,575,451	$8,575,451	$7,717,906	$857,545	
2028	612094	Boston Region	Multiple	CANTON- DEDHAM- WESTWOOD- INTERSTATE MAINTENANCE AND RELATED WORK ON I-95	6	NHPP-I	$8,731,030	$8,731,030	$7,857,927	$873,103	Adj. TFPC: $8,731,030 (NHPP - Interstate)
Section 2B / State Prioritized Modernization Projects								**$34,191,557**	**$27,676,809**	**$6,514,748**	
Intersection Improvements								$2,458,573	$2,212,716	$245,857	
2028	607748	Boston Region	Acton	ACTON- INTERSECTION & SIGNAL IMPROVEMENTS ON SR 2 & SR 111 (MASSACHUSETTS AVENUE) AT PIPER ROAD & TAYLOR ROAD	3	HSIP	$4,382,329	$731,000	$657,900	$73,100	Adj. TFPC: $4,382,329 (HSIP)
2028	608052	Boston Region	Norwood	NORWOOD- INTERSECTION & SIGNAL IMPROVE-MENTS AT US 1 (PROVIDENCE HIGHWAY) & MORSE STREET	5	HSIP	$1,727,573	$1,727,573	$1,554,816	$172,757	Adj. TFPC: $1,727,573 (HSIP)
Roadway Reconstruction								$31,732,984	$25,464,094	$6,268,890	
2028	607977	Boston Region	Multiple	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	3	NHPP-I	$300,942,837	$777,064	$699,358	$77,706	Construction; HIP+NHPP+NFA+NFP+Other FA = $300,942,837; Project funded over six fiscal years (2022-2027); Funding in this TIP = $274,036,314.
2028	609527	Boston Region	Reading	READING- IMPROVEMENTS ON I-95	4	NHPP	$17,376,800	$17,376,800	$13,901,440	$3,475,360	Adj. TFPC: $17,376,800 (NHPP)
2028	610543	Boston Region	Multiple	REVERE- MALDEN- IMPROVEMENTS AT ROUTE 1 (NB) (PHASE 1)	4	NHPP	$8,363,600	$8,363,600	$6,690,880	$1,672,720	Adj. TFPC: $8,363,600 (NHPP)
2028	611969	Boston Region	Everett	EVERETT- INTERSECTION IMPROVEMENTS ON ROUTE 16	4	NHPP	$17,748,000	$5,215,520	$4,172,416	$1,043,104	Adj. TFPC: $17,748,000 (NHPP). Mix of roadway reconstruction and safety improvements.
Section 2C / State Prioritized Expansion Projects								**$17,349,097**	**$13,879,278**	**$3,469,819**	
Bicycle and Pedestrian								$17,349,097	$13,879,278	$3,469,819	
2028	607329	Boston Region	Multiple	WAKEFIELD- LYNNFIELD- RAIL TRAIL EXTENSION, FROM THE GALVIN MIDDLE SCHOOL TO LYNN-FIELD/PEABODY T.L.	4	CMAQ	$24,543,047	$13,943,047	$11,154,438	$2,788,609	Adj. TFPC: $24,543,047. ACd from 2027 - 2028
2028	612607	Boston Region	Danvers	DANVERS- RAIL TRAIL WEST EXTENSION (PHASE 3)	4	CMAQ	$3,406,050	$3,406,050	$2,724,840	$681,210	Adj. TFPC: $3,406,050 (CMAQ)

Source: Boston Region MPO and MassDOT.

TABLE 3-8

FFYs 2024-28 TIP Transit Table (MBTA Federal Capital Program)

Federal Funding Program	ALI*	2024	2025	2026	2027	2028	FFY24-28 Total (Federal)	FFY24-28 Total (Incl. Match)
5307		$193,628,164	$197,611,190	$202,682,910	$202,682,910	$202,682,910	$999,288,084	$1,249,110,105
Bridge & Tunnel Program	12.24.05	$0	$26,234,709	$26,234,709	$26,234,709	$26,234,709	$104,938,836	$131,173,545
Revenue Vehicle Program	12.12.00	$59,283,688	$101,373,367	$106,445,087	$106,445,087	$106,445,087	$479,992,316	$599,990,395
Signals/Systems Upgrade Program	12.63.01	$78,024,477	$38,176,646	$38,176,646	$38,176,646	$38,176,646	$230,731,061	$288,413,826
Stations and Facilities Program	12.34.00	$56,319,999	$31,826,468	$31,826,468	$31,826,468	$31,826,468	$183,625,871	$229,532,339
5337		$232,546,158	$236,571,519	$241,684,814	$241,684,814	$241,684,814	$1,194,172,119	$1,492,715,149
Bridge & Tunnel Program	12.24.05	$41,922,735	$85,641,776	$85,641,776	$85,641,776	$85,641,776	$384,489,839	$480,612,299
Revenue Vehicle Program	12.12.00	$39,200,000	$26,782,526	$31,895,822	$31,895,822	$31,895,822	$161,669,992	$202,087,490
Signals/Systems Upgrade Program	12.63.01	$32,306,280	$25,811,048	$25,811,047	$25,811,047	$25,811,047	$135,550,469	$169,438,086
Stations and Facilities Program	12.34.00	$119,117,143	$98,336,169	$98,336,169	$98,336,169	$98,336,169	$512,461,819	$640,577,274
5339		$6,135,804	$6,261,816	$6,416,908	$6,416,908	$6,416,908	$31,648,344	$39,560,430
Bus Program	11.14.00	$6,135,804	$6,261,816	$6,416,908	$6,416,908	$6,416,908	$31,648,344	$39,560,430
FFY24-28 FTA Formula Funding		**$432,310,126**	**$440,444,525**	**$450,784,632**	**$450,784,632**	**$450,784,632**	**$2,225,108,547**	**$2,781,385,684**
Other Federal		$147,500,000	$516,564,667	$450,784,632	$450,784,632	$147,500,000	$1,206,650,000	$1,206,650,000
RRIF Financing - PTC/ATC/Fiber	12.63.01	$0	$369,064,667	$100,085,333	$0	$0	$469,150,000	$469,150,000
RRIF/TIFIA Financing Program	12.24.05	$147,500,000	$147,500,000	$147,500,000	$147,500,000	$147,500,000	$737,500,000	$737,500,000
FFY24-28 Total Federal Funding			**$957,009,192**	**$698,369,965**	**$598,284,632**	**$598,284,632**	**$3,431,758,547**	**$3,988,035,684**

** The Activity Line Item*

Source: MBTA.

TABLE 3-9

FFYs 2024-28 TIP Transit Table (MBTA Federal Capital Program - Project List and Descriptions [80% Federal Share])

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
Federal Fiscal Year 2024						$740,987,658	$622,290,126	$118,697,532
Massachusetts Bay Transportation Authority						$740,987,658	$622,290,126	$118,697,532
2024	MBTA011468	Bus Program	Columbus Ave. Bus Lane Ph. II (CMAQ)	LF	$11,750,000	$2,350,000		$2,350,000
2024	MBTA011468	Bus Program	Columbus Ave. Bus Lane Ph. II (CMAQ)	OF	$11,750,000	$9,400,000	$9,400,000	
2024	MBTA011470	Stations and Facilities Program (MBTA)	Jackson Sq. Station Access Impr. (CMAQ)	LF	$13,750,000	$2,750,000		$2,750,000
2024	MBTA011470	Stations and Facilities Program (MBTA)	Jackson Sq. Station Access Impr. (CMAQ)	OF	$13,750,000	$11,000,000	$11,000,000	
2024	MBTA011472	Stations and Facilities Program (MBTA)	Rail Transformation - Early Action CMAQ)	LF	$14,000,000	$2,800,000		$2,800,000
2024	MBTA011472	Stations and Facilities Program (MBTA)	Rail Transformation - Early Action CMAQ)	OF	$14,000,000	$11,200,000	$11,200,000	
2024	MBTA015	Revenue Vehicle Program	5307 Revenue Vehicle Program	5307	$74,104,610	$59,283,688	$59,283,688	
2024	MBTA015	Revenue Vehicle Program	5307 Revenue Vehicle Program	LF	$74,104,610	$14,820,922		$14,820,922
2024	MBTA016	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	5307	$97,530,596	$78,024,477	$78,024,477	
2024	MBTA016	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	LF	$97,530,596	$19,506,119		$19,506,119
2024	MBTA017	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	5307	$70,399,999	$56,319,999	$56,319,999	
2024	MBTA017	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	LF	$70,399,999	$14,080,000		$14,080,000
2024	MBTA018	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	5337	$52,403,419	$41,922,735	$41,922,735	
2024	MBTA018	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	LF	$52,403,419	$10,480,684		$10,480,684
2024	MBTA019	Revenue Vehicle Program	5337 Revenue Vehicle Program	5337	$49,000,000	$39,200,000	$39,200,000	
2024	MBTA019	Revenue Vehicle Program	5337 Revenue Vehicle Program	LF	$49,000,000	$9,800,000		$9,800,000
2024	MBTA020	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	5337	$40,382,850	$32,306,280	$32,306,280	
2024	MBTA020	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	LF	$40,382,850	$8,076,570		$8,076,570

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
2024	MBTA021	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	5337	$114,790,805	$119,117,143	$119,117,143	
2024	MBTA021	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	LF	$114,790,805	$29,779,286		$29,779,286
2024	MBTA022	Bus Program	5339 Bus Program	5339	$7,669,755	$6,135,804	$6,135,804	
2024	MBTA022	Bus Program	5339 Bus Program	LF	$7,669,755	$1,533,951		$1,533,951
2024	MBTA024	RRIF/TIFIA Financing Program	RRIF/TIFIA Financing Program	OF	$147,500,000	$147,500,000	$147,500,000	
2024	MBTA025	Lynn Station Improvements	Lynn Station Improvements	LF	$13,600,000	$2,720,000		$2,720,000
2024	MBTA025	Lynn Station Improvements	Lynn Station Improvements	OF	$13,600,000	$10,880,000	$10,880,000	

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
Federal Fiscal Year 2025						$1,079,620,324	$967,009,192	$112,611,132
Massachusetts Bay Transportation Authority						$1,079,620,324	$967,009,192	$112,611,132
2025	MBTA011474	Signals/Systems Upgrade Program	Jackson Sq. Station Access Impr. (CMAQ)	LF	$12,500,000	$2,500,000		$2,500,000
2025	MBTA011474	Stations and Facilities Program (MBTA)	Jackson Sq. Station Access Impr. (CMAQ)	OF	$12,500,000	$10,000,000	$10,000,000	
2025	MBTA027	Bridge & Tunnel Program	5307 Bridge & Tunnel Program	5307	$32,793,386	$26,234,709	$26,234,709	
2025	MBTA027	Bridge & Tunnel Program	5307 Bridge & Tunnel Program	LF	$32,793,386	$6,558,677		$6,558,677
2025	MBTA028	Revenue Vehicle Program	5307 Revenue Vehicle Program	5307	$126,716,709	$101,373,367	$101,373,367	
2025	MBTA028	Revenue Vehicle Program	5307 Revenue Vehicle Program	LF	$126,716,709	$25,343,342		$25,343,342
2025	MBTA029	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	5307	$47,720,808	$38,176,646	$38,176,646	
2025	MBTA029	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	LF	$47,720,808	$9,544,162		$9,544,162
2025	MBTA030	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	5307	$39,783,085	$31,826,468	$31,826,468	
2025	MBTA030	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	LF	$39,783,085	$7,956,617		$7,956,617
2025	MBTA031	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	5337	$107,052,220	$85,641,776	$85,641,776	
2025	MBTA031	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	LF	$107,052,220	$21,410,444		$21,410,444

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
2025	MBTA032	Revenue Vehicle Program	5337 Revenue Vehicle Program	5337	$33,478,158	$26,782,526	$26,782,526	
2025	MBTA032	Revenue Vehicle Program	5337 Revenue Vehicle Program	LF	$33,478,158	$6,695,632		$6,695,632
2025	MBTA033	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	5337	$32,263,810	$25,811,048	$25,811,048	
2025	MBTA033	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	LF	$32,263,810	$6,452,762		$6,452,762
2025	MBTA034	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	5337	$122,920,211	$98,336,169	$98,336,169	
2025	MBTA034	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	LF	$122,920,211	$24,584,042		$24,584,042
2025	MBTA035	Bus Program	5339 Bus Program	5339	$7,827,270	$6,261,816	$6,261,816	
2025	MBTA035	Bus Program	5339 Bus Program	LF	$7,827,270	$1,565,454		$1,565,454
2025	MBTA036	RRIF Financing - PTC/ATC/Fiber	RRIF Financing - PTC/ATC/Fiber	OF	$369,064,667	$369,064,667	$369,064,667	
2025	MBTA037	RRIF/TIFIA Financing Program	RRIF/TIFIA Financing Program	OF	$147,500,000	$147,500,000	$147,500,000	

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
Federal Fiscal Year 2026						$811,066,124	$698,369,965	$112,696,159
Massachusetts Bay Transportation Authority						$811,066,124	$698,369,965	$112,696,159
2026	MBTA040	Bridge & Tunnel Program	5307 Bridge & Tunnel Program	5307	$32,793,386	$26,234,709	$26,234,709	
2026	MBTA040	Bridge & Tunnel Program	5307 Bridge & Tunnel Program	LF	$32,793,386	$6,558,677		$6,558,677
2026	MBTA041	Revenue Vehicle Program	5307 Revenue Vehicle Program	5307	$133,056,359	$106,445,087	$106,445,087	
2026	MBTA041	Revenue Vehicle Program	5307 Revenue Vehicle Program	LF	$133,056,359	$26,611,272		$26,611,272
2026	MBTA042	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	5307	$47,720,808	$38,176,646	$38,176,646	
2026	MBTA042	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	LF	$47,720,808	$9,544,162		$9,544,162
2026	MBTA043	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	5307	$39,783,085	$31,826,468	$31,826,468	
2026	MBTA043	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	LF	$39,783,085	$7,956,617		$7,956,617

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
2026	MBTA044	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	5337	$107,052,220	$85,641,776	$85,641,776	
2026	MBTA044	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	LF	$107,052,220	$21,410,444		$21,410,444
2026	MBTA045	Revenue Vehicle Program	5337 Revenue Vehicle Program	5337	$39,869,778	$31,895,822	$31,895,822	
2026	MBTA045	Revenue Vehicle Program	5337 Revenue Vehicle Program	LF	$39,869,778	$7,973,956		$7,973,956
2026	MBTA046	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	5337	$32,263,809	$25,811,047	$25,811,047	
2026	MBTA046	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	LF	$32,263,809	$6,452,762		$6,452,762
2026	MBTA047	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	5337	$122,920,211	$98,336,169	$98,336,169	
2026	MBTA047	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	LF	$122,920,211	$24,584,042		$24,584,042
2026	MBTA048	Bus Program	5339 Bus Program	5339	$8,021,135	$6,416,908	$6,416,908	
2026	MBTA048	Bus Program	5339 Bus Program	LF	$8,021,135	$1,604,227		$1,604,227
2026	MBTA049	RRIF Financing - PTC/ATC/Fiber	RRIF Financing - PTC/ATC/Fiber	OF	$100,085,333	$100,085,333	$100,085,333	
2026	MBTA050	RRIF/TIFIA Financing Program	RRIF/TIFIA Financing Program	OF	$147,500,000	$147,500,000	$147,500,000	

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
Federal Fiscal Year 2027						$710,980,791	$598,284,632	$112,696,159
Massachusetts Bay Transportation Authority						$710,980,791	$598,284,632	$112,696,159
2027	MBTA053	Bridge & Tunnel Program	5307 Bridge & Tunnel Program	5307	$32,793,386	$26,234,709	$26,234,709	
2027	MBTA053	Bridge & Tunnel Program	5307 Bridge & Tunnel Program	LF	$32,793,386	$6,558,677		$6,558,677
2027	MBTA054	Revenue Vehicle Program	5307 Revenue Vehicle Program	5307	$133,056,359	$106,445,087	$106,445,087	
2027	MBTA054	Revenue Vehicle Program	5307 Revenue Vehicle Program	LF	$133,056,359	$26,611,272		$26,611,272
2027	MBTA055	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	5307	$47,720,808	$38,176,646	$38,176,646	
2027	MBTA055	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	LF	$47,720,808	$9,544,162		$9,544,162
2027	MBTA056	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	5307	$39,783,085	$31,826,468	$31,826,468	

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
2027	MBTA056	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	LF	$39,783,085	$7,956,617		$7,956,617
2027	MBTA057	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	5337	$107,052,220	$85,641,776	$85,641,776	
2027	MBTA057	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	LF	$107,052,220	$21,410,444		$21,410,444
2027	MBTA058	Revenue Vehicle Program	5337 Revenue Vehicle Program	5337	$39,869,778	$31,895,822	$31,895,822	
2027	MBTA058	Revenue Vehicle Program	5337 Revenue Vehicle Program	LF	$39,869,778	$7,973,956		$7,973,956
2027	MBTA059	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	5337	$32,263,809	$25,811,047	$25,811,047	
2027	MBTA059	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	LF	$32,263,809	$6,452,762		$6,452,762
2027	MBTA060	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	5337	$122,920,211	$98,336,169	$98,336,169	
2027	MBTA060	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	LF	$122,920,211	$24,584,042		$24,584,042
2027	MBTA061	Bus Program	5339 Bus Program	5339	$8,021,135	$6,416,908	$6,416,908	
2027	MBTA061	Bus Program	5339 Bus Program	LF	$8,021,135	$1,604,227		$1,604,227
2027	MBTA063	RRIF/TIFIA Financing Program	RRIF/TIFIA Financing Program	OF	$147,500,000	$147,500,000	$147,500,000	

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
Federal Fiscal Year 2028						$710,980,791	$598,284,632	$112,696,159
Massachusetts Bay Transportation Authority						$710,980,791	$598,284,632	$112,696,159
2028	MBTA011475	Bridge & Tunnel Program	5307 Bridge & Tunnel Program	5307	$32,793,386	$26,234,709	$26,234,709	
2028	MBTA011475	Bridge & Tunnel Program	5307 Bridge & Tunnel Program	LF	$32,793,386	$6,558,677		$6,558,677
2028	MBTA011476	Revenue Vehicle Program	5307 Revenue Vehicle Program	5307	$133,056,359	$106,445,087	$106,445,087	
2028	MBTA011476	Revenue Vehicle Program	5307 Revenue Vehicle Program	LF	$133,056,359	$26,611,272		$26,611,272
2028	MBTA011478	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	5307	$47,720,808	$38,176,646	$38,176,646	
2028	MBTA011478	Signals/Systems Upgrade Program	5307 Signals/Systems Upgrade Program	LF	$47,720,808	$9,544,162		$9,544,162
2028	MBTA011481	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	5337	$107,052,220	$85,641,776	$85,641,776	

Year	MassDOT Project ID	Program	MassDOT Project Description	Funding Source	Total Project Cost	Total Programmed Funds	Federal Funds	Other Funds
2028	MBTA011481	Bridge & Tunnel Program	5337 Bridge & Tunnel Program	LF	$107,052,220	$21,410,444		$21,410,444
2028	MBTA011484	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	5307	$39,783,085	$31,826,468	$31,826,468	
2028	MBTA011484	Stations and Facilities Program (MBTA)	5307 Stations and Facilities Program	LF	$39,783,085	$7,956,617		$7,956,617
2028	MBTA011486	Revenue Vehicle Program	5337 Revenue Vehicle Program	5337	$39,869,778	$31,895,822	$31,895,822	
2028	MBTA011486	Revenue Vehicle Program	5337 Revenue Vehicle Program	LF	$39,869,778	$7,973,956		$7,973,956
2028	MBTA011487	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	5337	$32,263,809	$25,811,047	$25,811,047	
2028	MBTA011487	Signals/Systems Upgrade Program	5337 Signals/Systems Upgrade Program	LF	$32,263,809	$6,452,762		$6,452,762
2028	MBTA011488	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	5337	$122,920,211	$98,336,169	$98,336,169	
2028	MBTA011488	Stations and Facilities Program (MBTA)	5337 Stations and Facilities Program	LF	$122,920,211	$24,584,042		$24,584,042
2028	MBTA011489	Bus Program	5339 Bus Program	5339	$8,021,135	$6,416,908	$6,416,908	
2028	MBTA011489	Bus Program	5339 Bus Program	LF	$8,021,135	$1,604,227		$1,604,227
2028	MBTA011490	RRIF/TIFIA Financing Program	RRIF/TIFIA Financing Program	OF	$147,500,000	$147,500,000	$147,500,000	

TABLE 3-10

FFYs 2024–28 TIP Transit Table (MWRTA)

Project Number	RTA	Program	Project Name	Notes	FFY	Total Cost	Bond Cap | State | 100% State	Bond Cap | Match | Federal Transit Discretionary Grant	Federal | FTA | Section 5307	Federal | FTA | Section 5339 Statewide	Federal | FTA | Federal Transit Discretionary Grant	Operating | Additional State Assistance | State Contract Assistance	Federal | FHWA | Transportation Development Credits
FFY 2024													
RTD0011103	MWRTA	Operating	Operating Assistance Non-Fixed Route ADA Paratransit Service	Operating assistance for non-fixed route ADA paratransit service	2024	$2,000,000	$0	$0	$1,600,000	$0	$0	$400,000	$0
RTD0011104	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Acquisition of Bus Support Equipment/ Facilities	Acquire after-market vehicle accessories (i.e., passenger counters, DVR - vehicle recorders, annunciators)	2024	$200,000	$40,000	$0	$160,000	$0	$0	$0	$0
RTD0011105	MWRTA	Transit | RTA Facility and System Modernization	Technology Support/Capital Outreach	Mobility management; IT; Call center; Travel training enhancements/ improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2024	$300,000	$150,000	$0	$150,000	$0	$0	$0	$0
RTD0011106	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Blandin	MWRTA will utilize these funds to maintain a state-of-good-repair value of at least 3.5 for the operations and administration facility along with all amenities and support equipment located at 15 Blandin Ave, Framingham, MA."	2024	$500,000	$100,000	$0	$400,000	$0	$0	$0	$0

Project Number	RTA	Program	Project Name	Notes	FFY	Total Cost	Bond Cap | State | 100% State	Bond Cap | Match | Federal Transit Discretionary Grant	Federal | FTA | Section 5307	Federal | FTA | Section 5339 Statewide	Federal | FTA | Federal Transit Discretionary Grant	Operating | Additional State Assistance | State Contract Assistance	Federal | FHWA | Transportation Development Credits
RTD0011107	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Framingham Commuter Rail Station (FCRS)	Intermodal at the Framingham Commuter Rail Station (FCRS) enhancements/ improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2024	$5,000	$1,000	$0	$4,000	$0	$0	$0	$0
T00037	MWRTA	Transit | RTA Facility and Vehicle Maintenance	CNG Dispensers at the Compressed Natural Gas Fueling Facility	Upgrade the CNG (compressed natural gas) Dispensers at the MWRTA Fueling Facility.	2024	$200,000	$100,000	$0	$100,000	$0	$0	$0	$0
RTD0011114	MWRTA	Transit | RTA Vehicle Replacement	5339 Competitive Revenue Vehicle Replacement - Discretionary	Buy replacement vehicles; 11 D(b) - CNGs + 5 E2s - Gas	2024	$1,930,000	$0	$482,500	$0	$0	$1,447,500	$0	$0
RTD0011123	MWRTA	Transit | RTA Fleet Upgrades	5339 Competitive 2024 Electric Vehicle (EV) Infrastructure - Discretionary	Modernization fleet electrification - Vehicle migration - Purchase of 5 electric vehicles	2024	$300,000	$0	$40,000	$0	$0	$260,000	$0	$0
RTD0011130	MWRTA	Transit | RTA Facility and System Modernization	FCRS Intermodal Hub - Discretionary	Explore opportunities for Framingham Commuter Rail Station (FCRS) for the expansion of Intermodal transportation opportunities	2024	$30,000,000	$0	$0	$0	$0	$25,000,000	$0	$5,000,000
T00038	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Electronic Sign Board	Procurement of electronic sign boards	2024	$150,000	$0	$150,000	$0	$0	$0	$0	$0
FFY 2025													
RTD0011109	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Acquisition of Bus Support Equipment/ Facilities	Acquire after-market vehicle accessories (i.e., passenger counters, DVR - vehicle recorders, annunciators)	2025	$113,750	$22,750	$0	$91,000	$0	$0	$0	$0

Project Number	RTA	Program	Project Name	Notes	FFY	Total Cost	Bond Cap | State | 100% State	Bond Cap | Match | Federal Transit Discretionary Grant	Federal | FTA | Section 5307	Federal | FTA | Section 5339 Statewide	Federal | FTA | Federal Transit Discretionary Grant	Operating | Additional State Assistance | State Contract Assistance	Federal | FHWA | Transportation Development Credits
RTD0011110	MWRTA	Transit | RTA Facility and System Modernization	Technology Support/Capital Outreach	Mobility management; IT; Call center; Travel training enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds	2025	$200,000	$40,000	$0	$160,000	$0	$0	$0	$0
RTD0011111	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Blandin	MWRTA will utilize these funds to maintain a state-of-good-repair value of at least 3.5 for the operations and administration facility along with all amenities and support equipment located at 15 Blandin Ave, Framingham, MA	2025	$562,500	$112,500	$0	$450,000	$0	$0	$0	$0
RTD0011112	MWRTA	Operating	Operating Assistance Non-Fixed Route ADA Paratransit Service	Operating assistance for non-fixed route ADA paratransit service	2025	$2,000,000	$0	$128,300	$1,600,000	$0	$0	$400,000	$0
RTD0011115	MWRTA	Transit | RTA Vehicle Replacement	5339 Competitive Revenue Vehicle Replacement - Discretionary	Buy replacement vehicles; 3 D(b) - CNGs + 5 E2s - Gas	2025	$641,500	$0	$0	$0	$0	$513,200	$0	$0
RTD0011121	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Framingham Commuter Rail Station (FCRS)	Framingham intermodal enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2025	$5,000	$1,000	$0	$4,000	$0	$0	$0	$0

Project Number	RTA	Program	Project Name	Notes	FFY	Total Cost	Bond Cap | State | 100% State	Bond Cap | Match | Federal Transit Discretionary Grant	Federal | FTA | Section 5307	Federal | FTA | Section 5339 Statewide	Federal | FTA | Federal Transit Discretionary Grant	Operating | Additional State Assistance | State Contract Assistance	Federal | FHWA | Transportation Development Credits
RTD0011124	MWRTA	Transit | RTA Fleet Upgrades	5339 Competitive 2025 Electric Vehicle (EV) Additional Electrification Costs - Discretionary	Modernization fleet electrification - Vehicle migration - Purchase of 5 paratransit (Type A) electric vehicles. MWRTA is seeking an 8-year migration to fully electric vehicles. This request is supported in MWRTA's TAM to maintain useful life benchmarks of the agency's paratransit fleet and is in support of Gov. Baker's 2020 Transportation and Climate Initiative (TCI).	2025	$1,000,000	$0	$500,000	$500,000	$0	$0	$0	$0
RTD0011137	MWRTA	Transit | RTA Vehicle Replacement	Vehicle Replacement - Cutaways (8) #2 of 2	FY25 #1 of 2 5339 $250k + RTACAP $125k; FY25 #2 of 2 5307 $250k + RTACAP $125k for 3 D(b) w/CNG + 5 E2s - Gas	2025	$471,968	$94,394	$0	$0	$377,574	$0	$0	$0
RTD0011133	MWRTA	Transit | RTA Facility and System Modernization	AFC Transition - Mobile Fare Collection Equipment	Develop API to work with CharlieCard 2.0	2025	$100,000	$50,000	$0	$50,000	$0	$0	$0	$0
RTD0011134	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Public Restrooms at Blandin & Framingham Commuter Rail Station Hubs - Discretionary	Provide safe, clean, well-ventilated public restrooms at the Blandin Hub and FCRS (Framingham Commuter Rail Station) Intermodal Hub.	2025	$200,000	$0	$40,000	$0	$0	$160,000	$0	$0
FFY 2026													
RTD0011116	MWRTA	Operating	Operating Assistance Non-Fixed Route ADA Paratransit Service	Operating assistance for non-fixed route ADA paratransit service	2026	$2,000,000	$0	$0	$1,600,000	$0	$0	$400,000	$0
RTD0011117	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Blandin	MWRTA will utilize these funds to maintain a state-of-good-repair value of at least 3.5 for the operations and administration facility along with all amenities and support equipment located at 15 Blandin Ave, Framingham, MA	2026	$687,500	$137,500	$0	$550,000	$0	$0	$0	$0

Project Number	RTA	Program	Project Name	Notes	FFY	Total Cost	Bond Cap | State | 100% State	Bond Cap | Match | Federal Transit Discretionary Grant	Federal | FTA | Section 5307	Federal | FTA | Section 5339 Statewide	Federal | FTA | Federal Transit Discretionary Grant	Operating | Additional State Assistance | State Contract Assistance	Federal | FHWA | Transportation Development Credits
RTD0011118	MWRTA	Transit | RTA Facility and System Modernization	Technology Support/Capital Outreach	Mobility management; IT; Call center; Travel training enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2026	$200,000	$40,000	$0	$160,000	$0	$0	$0	$0
RTD0011119	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Acquisition of Bus Support Equipment/ Facilities	Acquire after-market vehicle accessories (i.e., passenger counters, DVR - vehicle recorders, annunciators)	2026	$113,750	$22,750	$0	$91,000	$0	$0	$0	$0
RTD0011120	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Framingham Commuter Rail Station (FCRS)	Intermodal at the Framingham Commuter Rail Station (FCRS) enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2026	$5,000	$1,000	$0	$4,000	$0	$0	$0	$0
RTD0011125	MWRTA	Transit | RTA Fleet Upgrades	2026 Electric Vehicle (EV) Additional Electrification Costs	Modernization fleet electrification - Vehicle migration - Purchase of 5 paratransit (Type A) electric vehicles. MWRTA is seeking an 8-year migration to fully electric vehicles. This request is supported in MWRTA's TAM to maintain useful life benchmarks of the agency's paratransit fleet and is in support of Gov. Baker's 2020 Transportation and Climate Initiative (TCI).	2026	$1,000,000	$500,000	$0	$0	$500,000	$0	$0	$0
RTD0011126	MWRTA	Transit | RTA Vehicle Replacement	5339 Competitive Revenue Vehicle Replacement - Discretionary	Buy replacement vehicles; 6 D(b) - CNGs + 2 E2s - Gas	2026	$573,436	$0	$114,688	$0	$0	$458,748	$0	$0
RTD0011138	MWRTA	Transit | RTA Vehicle Replacement	Vehicle Replacement - Cutaways (8) #2 of 2	FY26 #1 of 2 5339 $250k + RTACAP $125k; FY26 #2 of 2 5307 $250k + RTACAP $125k for 6 D(b) w/CNG + 2 E2s - Gas	2026	$573,436	$114,688	$0	$0	$458,748	$0	$0	$0
FFY 2027													

Project Number	RTA	Program	Project Name	Notes	FFY	Total Cost	Bond Cap | State | 100% State	Bond Cap | Match | Federal Transit Discretionary Grant	Federal | FTA | Section 5307	Federal | FTA | Section 5339 Statewide	Federal | FTA | Federal Transit Discretionary Grant	Operating | Additional State Assistance | State Contract Assistance	Federal | FHWA | Transportation Development Credits
RTD0011195	MWRTA	Operating	Operating Assistance Non-Fixed Route ADA Paratransit Service	Operating assistance for non-fixed route ADA paratransit service	2027	$2,000,000	$0	$0	$1,600,000	$0	$0	$400,000	$0
RTD0011196	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Blandin	MWRTA will utilize these funds to maintain a state-of-good-repair value of at least 3.5 for the operations and administration facility along with all amenities and support equipment located at 15 Blandin Ave, Framingham, MA	2027	$708,125	$141,625	$0	$566,500	$0	$0	$0	$0
RTD0011197	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Technology Support/ Capital Outreach	Mobility management; IT; Call center; Travel training enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2027	$200,000	$40,000	$0	$160,000	$0	$0	$0	$0
RTD0011198	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Acquisition of Bus Support Equipment/ Facilities	Acquire after-market vehicle accessories (i.e., passenger counters, DVR - vehicle recorders, annunciators)	2027	$450,000	$90,000	$0	$360,000	$0	$0	$0	$0
RTD0011199	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Framingham Commuter Rail Station (FCRS)	Intermodal at the Framingham Commuter Rail Station (FCRS) enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2027	$6,500	$1,300	$0	$5,200	$0	$0	$0	$0
RTD0011200	MWRTA	Transit | RTA Vehicle Replacement	5339 Competitive Revenue Vehicle Replacement - Discretionary	Buy replacement vehicles; 5 E2(a)s	2027	$590,639	$0	$118,128	$0	$0	$472,511	$0	$0

Project Number	RTA	Program	Project Name	Notes	FFY	Total Cost	Bond Cap | State | 100% State	Bond Cap | Match | Federal Transit Discretionary Grant	Federal | FTA | Section 5307	Federal | FTA | Section 5339 Statewide	Federal | FTA | Federal Transit Discretionary Grant	Operating | Additional State Assistance | State Contract Assistance	Federal | FHWA | Transportation Development Credits
RTD0011201	MWRTA	Transit | RTA Fleet Upgrades	2027 Electric Vehicle (EV) Additional Electrification Costs	Modernization fleet electrification - vehicle migration - purchase of paratransit (Type A) electric vehicles. MWRTA is seeking an 8-year migration to fully electric vehicles. This request is supported in MWRTA's TAM to maintain useful life benchmarks of the agency's paratransit fleet and is in support of Gov. Baker's 2020 Transportation and Climate Initiative (TCI).	2027	$900,000	$180,000	$114,688	$0	$720,000	$0	$0	$0
RTD0011202	MWRTA	Transit | RTA Vehicle Replacement	Vehicle Replacement - Cutaways #2 of 2	Vehicle replacement - cutaways #2 of 2	2027	$590,639	$118,128	$0	$0	$472,511	$0	$0	$0
FFY 2028													
RTD0011195	MWRTA	Operating	Operating Assistance Non-Fixed Route ADA Paratransit Service	Operating assistance for non-fixed route ADA paratransit service	2028	$2,000,000	$0	$0	$1,600,000	$0	$0	$400,000	$0
RTD0011196	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Blandin	MWRTA will utilize these funds to maintain a state-of-good-repair value of at least 3.5 for the operations and administration facility along with all amenities and support equipment located at 15 Blandin Ave, Framingham, MA."	2028	$708,125	$141,625	$0	$566,500	$0	$0	$0	$0
RTD0011197	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Technology Support/Capital Outreach	Mobility management; IT; Call center; Travel training enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2028	$200,000	$40,000	$0	$160,000	$0	$0	$0	$0

Project Number	RTA	Program	Project Name	Notes	FFY	Total Cost	Bond Cap | State | 100% State	Bond Cap | Match | Federal Transit Discretionary Grant	Federal | FTA | Section 5307	Federal | FTA | Section 5339 Statewide	Federal | FTA | Federal Transit Discretionary Grant	Operating | Additional State Assistance | State Contract Assistance	Federal | FHWA | Transportation Development Credits
RTD0011198	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Acquisition of Bus Support Equipment/ Facilities	Acquire after-market vehicle accessories (i.e., passenger counters, DVR - vehicle recorders, annunciators)	2028	$450,000	$90,000	$0	$360,000	$0	$0	$0	$0
RTD0011199	MWRTA	Transit | RTA Facility and Vehicle Maintenance	Terminal, Intermodal (Transit) - Framingham Commuter Rail Station (FCRS)	Intermodal at the Framingham Commuter Rail Station (FCRS) enhancements/improvements; MWRTA applies for competitive funding for this line item and will reduce the RTACAP request upon award of additional federal funds.	2028	$6,500	$1,300	$0	$5,200	$0	$0	$0	$0
RTD0011200	MWRTA	Transit | RTA Vehicle Replacement	5339 Competitive Revenue Vehicle Replacement - Discretionary	Buy replacement vehicles; 5 E2(a)s	2028	$590,639	$0	$118,128	$0	$0	$472,511	$0	$0
RTD0011201	MWRTA	Transit | RTA Fleet Upgrades	2027 Electric Vehicle (EV) Additional Electrification Costs	Modernization fleet electrification - vehicle migration - purchase of paratransit (Type A) electric vehicles. MWRTA is seeking an 8-year migration to fully electric vehicles. This request is supported in MWRTA's TAM to maintain useful life benchmarks of the agency's paratransit fleet and is in support of Gov. Baker's 2020 Transportation and Climate Initiative (TCI).	2028	$900,000	$180,000	$0	$0	$720,000	$0	$0	$0
RTD0011202	MWRTA	Transit | RTA Vehicle Replacement	Vehicle Replacement - Cutaways #2 of 2	Vehicle replacement - cutaways #2 of 2	2028	$590,639	$118,128	$0	$0	$472,511	$0	$0	$0

Source: MWRTA.

TABLE 3-11

FFYs 2024–28 TIP Transit Table (CATA)

Project Number	RTA	Program	Project Name	Notes	Federal Fiscal Year	Total Cost	Bond Cap | State | 100% State	Federal | FTA | Section 5307	Other | Municipal and Local | Transit
FFY 2024									**$71,250**
RTD0010579	CATA	Transit | RTA Facility and Vehicle Maintenance	Preventive Maintenance	Preventive maintenance	2024	$356,250	$0	$285,000	$0
RTD0010583	CATA	Transit | RTA Facility and Vehicle Maintenance	Buy Miscellaneous Small Capital Items	Misc. small capital items	2024	$15,000	$15,000	$0	$0
RTD0010584	CATA	Transit | RTA Facility and Vehicle Maintenance	Acquire Shop Equipment/Small Capital Items	Acquisition of shop equipment and miscellaneous capital items for vehicle maintenance facilities.	2024	$37,500	$7,500	$30,000	$0
RTD0010587	CATA	Transit | RTA Facility and Vehicle Maintenance	Repave Adminis-tration/Operations Facility Parking Lot	Repave parking lot at administration and operations facility. Lot was last paved in the early 2000s during building rehabilitation.	2024	$400,000	$80,000	$320,000	$0
T00073	CATA	Transit | RTA Facility and Vehicle Maintenance	Rehab/Renovation Administration & Operations Facility	This project is dedicated towards keeping its administration and operations facility in a state of good repair to offer safe and reliable transit services for its community.	2024	$50,000	$50,000	$0	$0
FFY 2025									
RTD0010579	CATA	Transit | RTA Facility and Vehicle Maintenance	Preventive Maintenance	Preventive maintenance	2025	$356,250	$0	$285,000	$71,250
RTD0010583	CATA	Transit | RTA Facility and Vehicle Maintenance	Buy Miscellaneous Small Capital Items	Misc. small capital items	2025	$50,000	$50,000	$0	$0
RTD0010584	CATA	Transit | RTA Facility and Vehicle Maintenance	Acquire Shop Equipment/Small Capital Items	Acquisition of shop equipment and miscellaneous capital items for vehicle maintenance facilities.	2025	$37,500	$7,500	$30,000	$0

Project Number	RTA	Program	Project Name	Notes	Federal Fiscal Year	Total Cost	Bond Cap | State | 100% State	Federal | FTA | Section 5307	Other | Municipal and Local | Transit
RTD0010591	CATA	Transit | RTA Facility and Vehicle Maintenance	Revenue Vehicle Replacement	Replacement of vehicles used on fixed route service that have reached the end of their useful life, 3 in 2025 and 4 in 2026. CATA has requested 100% RTACAP funding for this project as CATA receives a small and limited amount of 5307 funds, most of which are dedicated towards Preventive Maintenance leaving a very small amount of capital funds for all other projects. The replacement of these vehicles will allow CATA to maintain a state of good repair for transit vehicles and continue to provide safe and reliable transit services for the community.	2025	$1,800,000	$1,800,000	$0	$0
T00073	CATA	Transit | RTA Facility and Vehicle Maintenance	Rehab/Renovation Administration & Operations Facility	This project is dedicated towards keeping its administration and operations facility in a state of good repair to offer safe and reliable transit services for its community.	2025	$50,000	$50,000	$0	$0
FFY 2026									
RTD0010579	CATA	Transit | RTA Facility and Vehicle Maintenance	Preventive Maintenance	Preventive maintenance	2026	$356,250	$0	$285,000	$71,250
RTD0010583	CATA	Transit | RTA Facility and Vehicle Maintenance	Buy Miscellaneous Small Capital Items	Misc. small capital items	2026	$50,000	$50,000	$0	$0
RTD0010584	CATA	Transit | RTA Facility and Vehicle Maintenance	Acquire Shop Equipment/Small Capital Items	Acquisition of shop equipment and miscellaneous capital items for vehicle maintenance facilities.	2026	$37,500	$7,500	$30,000	$0
RTD0010591	CATA	Transit | RTA Facility and Vehicle Maintenance	Revenue Vehicle Replacement	Replacement of vehicles used on fixed route service that have reached the end of their useful life, 3 in 2025 and 4 in 2026. CATA has requested 100% RTACAP funding for this project as CATA receives a small and limited amount of 5307 funds, most of which are dedicated towards Preventive Maintenance leaving a very small amount of capital funds for all other projects. The replacement of these vehicles will allow CATA to maintain a state of good repair for transit vehicles and continue to provide safe and reliable transit services for the community.	2026	$1,800,000	$1,800,000	$0	$0
T00073	CATA	Transit | RTA Facility and Vehicle Maintenance	Rehab/Renovation Administration & Operations Facility	This project is dedicated towards keeping its administration and operations facility in a state of good repair to offer safe and reliable transit services for its community.	2026	$50,000	$50,000	$0	$0
FFY 2027									
RTD0010579	CATA	Transit | RTA Facility and Vehicle Maintenance	Preventive Maintenance	Preventive maintenance	2027	$356,250	$0	$285,000	$71,250

Project Number	RTA	Program	Project Name	Notes	Federal Fiscal Year	Total Cost	Bond Cap | State | 100% State	Federal | FTA | Section 5307	Other | Municipal and Local | Transit
RTD0010583	CATA	Transit | RTA Facility and Vehicle Maintenance	Buy Miscellaneous Small Capital Items	Misc. small capital items	2027	$50,000	$50,000	$0	$0
RTD0010584	CATA	Transit | RTA Facility and Vehicle Maintenance	Acquire Shop Equipment/Small Capital Items	Acquisition of shop equipment and miscellaneous capital items for vehicle maintenance facilities.	2027	$37,500	$7,500	$30,000	$0
T00073	CATA	Transit | RTA Facility and Vehicle Maintenance	Rehab/Renovation Administration & Operations Facility	This project is dedicated towards keeping its administration and operations facility in a state of good repair to offer safe and reliable transit services for its community.	2027	$50,000	$50,000	$0	$0
FFY 2028									
RTD0010579	CATA	Transit | RTA Facility and Vehicle Maintenance	Preventive Maintenance	Preventive maintenance	2028	$356,250	$0	$285,000	$71,250
RTD0010583	CATA	Transit | RTA Facility and Vehicle Maintenance	Buy Miscellaneous Small Capital Items	Misc. small capital items	2028	$50,000	$50,000	$0	$0
RTD0010584	CATA	Transit | RTA Facility and Vehicle Maintenance	Acquire Shop Equipment/Small Capital Items	Acquisition of shop equipment and miscellaneous capital items for vehicle maintenance facilities.	2028	$37,500	$7,500	$30,000	$0
T00073		Transit | RTA Facility and Vehicle Maintenance	Rehab/Renovation Administration & Operations Facility	This project is dedicated towards keeping its administration and operations facility in a state of good repair to offer safe and reliable transit services for its community.	2028	$50,000	$50,000	$0	$0

Source: CATA.

DETAILED PROJECT DESCRIPTIONS

FIELD DEFINITIONS

Proponent: This field lists the primary advocate for each project, who is responsible for seeing the project through to completion.

ID Number: This number references the project's identification number in MassDOT's project-tracking system.

Project Type: This field provides the type of project programmed. For those projects programmed with Regional Target funds (projects listed in Section 1A of the TIP tables), the projects are categorized according to the MPO's six investment programs (Bicycle and Pedestrian, Complete Streets, Intersection Improvements, Major Infrastructure, Community Connections, and Transit Modernization). For those projects programmed directly by MassDOT (projects listed in Sections 1B, 2A, 2B, 2C, and 3B), MassDOT's STIP Program categories are applied.

Cost: This figure is the total project cost as programmed in the TIP across all fiscal years, including years outside of FFYs 2024–28.

Funding Source: The funding source indicates whether a project is funded using the MPO's Regional Target funds or MassDOT's statewide highway funds.

Scoring Summary: This table shows the number of points awarded to the project across each of the MPO's project evaluation categories. MPO staff has not evaluated all projects in the TIP; staff only evaluates projects that are being considered for funding with the MPO's Regional Target funds. The field definitions for the tables are as follows for all projects scored in the MPO's Bicycle and Pedestrian, Complete Streets, Intersection Improvements, Major Infrastructure, and Transit Modernization investment programs:

- **Safety:** Safety
- **Sys Pres:** System Preservation and Modernization
- **CM/M:** Capacity Management and Mobility
- **CA/SC:** Clean Air/Sustainable Communities
- **TE:** Transportation Equity
- **EV:** Economic Vitality
- **Total:** This figure is the summation of the project's scores across the above six categories (100 possible points).

Projects within the MPO's Community Connections Program are scored using different categories, given the unique nature of this program. The field definitions for those tables are as follows:

- **Conn:** Connectivity
- **Coord:** Coordination
- **Plan:** Plan Implementation
- **TE:** Transportation Equity
- **MS/DP:** Mode Shift and Demand Projection
- **FS:** Fiscal Sustainability
- **Total:** This figure is the summation of the project's scores across the above six categories (100 possible points).

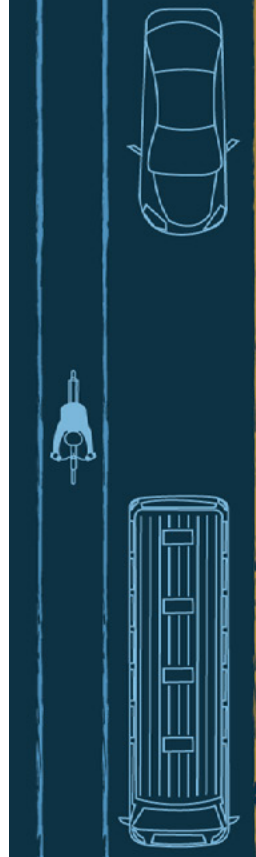
As mentioned in Chapter 2, the MPO adopted a revised set of project selection criteria in October 2020. These new criteria were used to score new projects under consideration for funding using the MPO's Regional Target funds for both the FFYs 2022–26, FFYs 2023–27, and FFYs 2024–28 TIP cycles. For this reason, the scoring criteria and point allocations vary based on when a project was evaluated for funding and programmed in the TIP. Point allocations are specified for each project, and some project pages feature additional information in this section to provide context for how projects were evaluated. Further details on all of the MPO's project selection criteria are available in Appendix A.

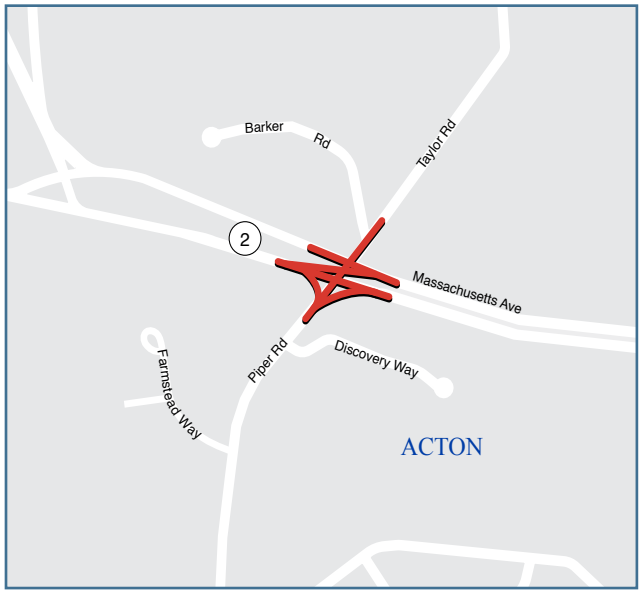
Project Description: The description of the project is based, in part, on the written description of the project on MassDOT's Project Information website. In some cases, these descriptions have been modified to clarify the details of the projects. Projects evaluated by the MPO tend to have more detailed descriptions, as more complete project documentation was provided to MPO staff for these projects.

Funding Summary: Funding tables are included for each project and show the following information:

- **Year:** This field provides the federal fiscal year(s) during which the project is programmed for funding.
- **Federal and Non-Federal Funds:** These fields show a breakdown of project funding from federal and non-federal sources. Typically, these fields will show an 80/20 split, with federal funds accounting for 80 percent of project funding and a 20 percent state match accounting for the remaining funds.
- **Total Funds Programmed:** This field shows the total funding programmed for the project in the FFYs 2024–28 TIP by the year of expenditure. Information regarding TIP projects changes periodically, so funding amounts for all projects are subject to adjustment throughout the fiscal year.

For more information on all projects, please visit MassDOT's Project Information website, https://hwy.massdot.state.ma.us/projectinfo/projectinfo.asp, the Boston Region MPO's website, www.bostonmpo.org, or contact Ethan Lapointe, TIP Manager, at elapointe@ctps.org.





ACTON: INTERSECTION AND SIGNAL IMPROVEMENTS ON ROUTES 2 AND 111 (MASSACHUSETTS AVENUE) AT PIPER ROAD AND TAYLOR ROAD

Proponent: MassDOT
ID Number: 607748
Project Type: Intersection Improvements
Cost: $4,382,329
Funding Source: Statewide Highway Funds

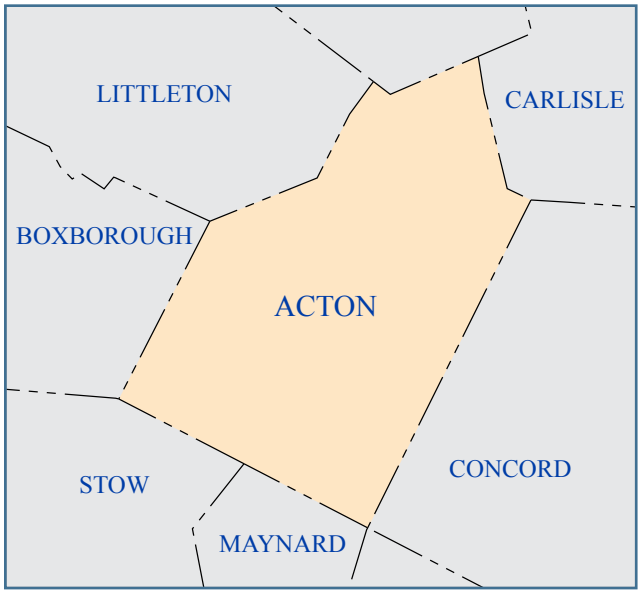
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

The project will make upgrades at the intersection to improve safety. The upgrades will include signs, pavement markings, and traffic signals as identified through a Road Safety Audit process in the Town of Acton.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$3,944,096	$3,944,096
Non-Federal Funds	–	–	–	–	$438,233	$438,233
Total Funds	–	–	–	–	$4,382,329	$4,382,329



ACTON: PARKING MANAGEMENT SYSTEM

Proponent: Acton
ID Number: S12818
Project Type: Community Connections
Cost: $15,000
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	9 out of 18	0 out of 15	6 out of 15	8 out of 18	6 out of 24	0 out of 10	29 out of 100

PROJECT DESCRIPTION

This project will implement digital parking management products to improve the efficiency of permitting and enforcement processes at five commuter parking lots surrounding the MBTA South Acton commuter rail station. These highly utilized lots provide nearly 500 parking spaces. The project will support the transition from a paper-based parking management system to a cloudbased one that will be more convenient for commuters and Acton's parking management team.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$12,000	–	–	–	–	$15,000
Non-Federal Funds	$3,000	–	–	–	–	$3,750
Total Funds	$15,000	–	–	–	–	$18,750

ACTON-BOXBOROUGH-LITTLETON:
PAVEMENT PRESERVATION ROUTE 2

Proponent: MassDOT
ID Number: 610722
Project Type: Complete Streets
Cost: $7,867,299
Funding Source: Statewide Highway Funds

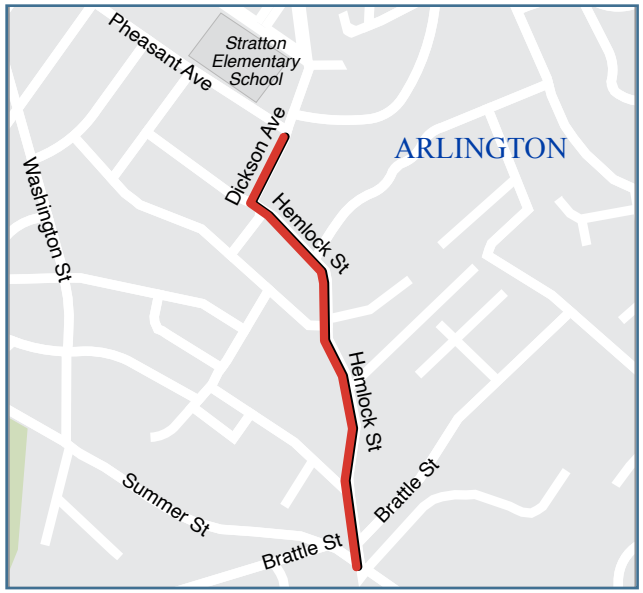
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project includes pavement preservation work on Route 2 in Acton, Boxborough, and Littleton.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$6,293,839	–	–	–	$6,293,839
Non-Federal Funds	–	$1,573,460	–	–	–	$1,573,460
Total Funds	–	$7,867,299	–	–	–	$7,867,299



ARLINGTON: STRATTON SCHOOL IMPROVEMENTS (SRTS)

Proponent: MassDOT
ID Number: 609531
Project Type: Safe Routes to School
Cost: $1,302,209
Funding Source: State Highway Funds

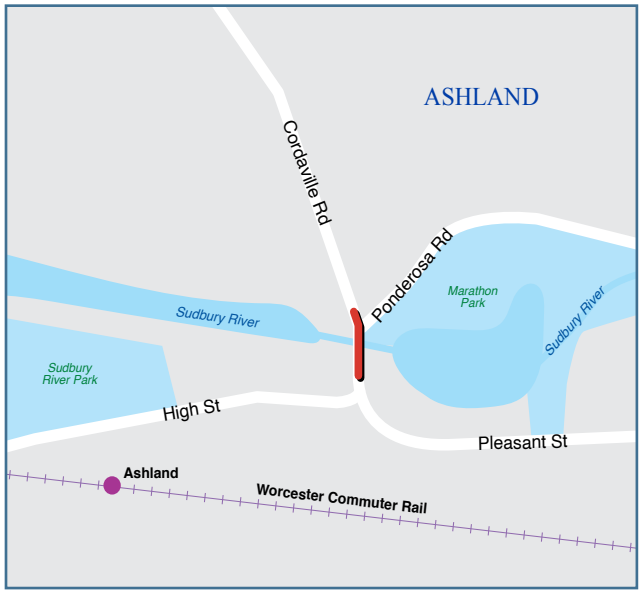
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make upgrades to promote safety along the roadways surrounding Stratton Elementary School in Arlington through the Safe Routes to School program.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$1,041,767	–	–	–	$1,041,767
Non-Federal Funds	–	$260,442	–	–	–	$260,442
Total Funds	–	$1,302,209	–	–	–	$1,302,209



ASHLAND: BRIDGE REPLACEMENT, A-14-006, CORDAVILLE ROAD OVER SUDBURY RIVER

Proponent: MassDOT
ID Number: 612099
Project Type: Bridge
Cost: $3,823,848
Funding Source: State Highway Funds

SCORING SUMMARY

No projects have yet been scored using the Transit Modernization criteria. Projects will be evaluated by the MPO in future TIP cycles for funding within this investment program.

PROJECT DESCRIPTION

This project will replace bridge A-14-006, which carries Cordaville Road over the Sudbury River in Ashland.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$3,059,078	–	–	$3,059,078
Non-Federal Funds	–	–	$764,770	–	–	$764,770
Total Funds	–	–	$3,823,848	–	–	$3,823,848

ASHLAND: REHABILITATION AND RAIL CROSSING IMPROVEMENTS ON CHERRY STREET

Proponent: Ashland
ID Number: 608436
Project Type: Intersection Improvements
Cost: $1,222,315
Funding Source: Regional Target & State Highway Funds

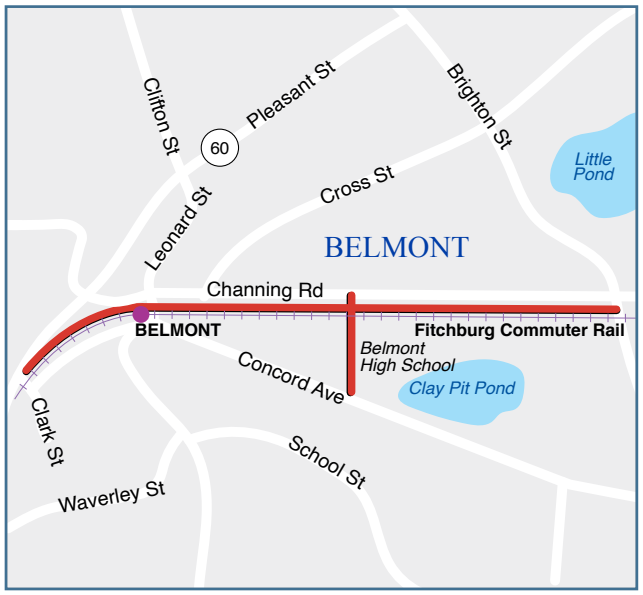
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	12 out of 30	10 out of 29	5 out of 29	2 out of 16	1 out of 12	8 out of 18	38 out of 134

PROJECT DESCRIPTION

The primary purpose of the project is to improve the safety features for the roadway corridors of Cherry Street and Main Street in order to establish a Federal Railroad Administration Quiet Zone surrounding the railroad crossings on those two roadways. This goal will primarily be accomplished through the installation of roadway medians and the enhancement of existing railroad crossing signals and gates. In addition, the project addresses a critical gap in the pedestrian sidewalk network through the construction of new sidewalks. The project's other goals include improving the existing roadway condition through pavement reconstruction and enhancing stormwater drainage in the project area. This project includes a $480,000 USDOT earmark.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$977,852	–	–	–	$977,852
Non-Federal Funds	–	$244,463	–	–	–	$244,463
Total Funds	–	$1,222,315	–	–	–	$1,222,315



BELMONT: COMMUNITY PATH, BELMONT COMPONENT OF THE MCRT (PHASE 1)

Proponent: Belmont
ID Number: 609204
Project Type: Bicycle and Pedestrian
Cost: $21,288,202
Funding Source: Regional Target Funds

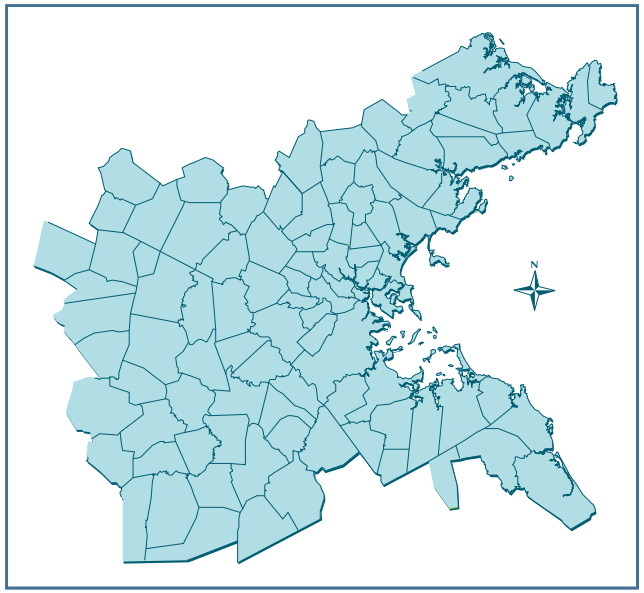
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	15 out of 20	8 out of 14	18 out of 18	7 out of 14	7.6 out of 20	9 out of 14	64.6 out of 100

PROJECT DESCRIPTION

This project will construct the Belmont Community Path between the existing Fitchburg Cutoff Path and Belmont Center, creating a direct off-street connection between the heart of Belmont, the Alewife MBTA station, and destinations beyond in Cambridge, Somerville, and Boston. The project proposes a 12-foot paved facility with two-foot grass shoulders and additional landscaping along the length of the path that will buffer the new facility from the adjacent railroad tracks and neighboring properties. The project includes an underpass beneath the commuter rail tracks at Channing Road and Alexander Avenue to provide a safe connection between the Winnbrook neighborhood that lies on the north side of the tracks with the bike lanes on Concord Avenue and the adjacent new school serving students in grades 7-12.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$17,030,562	–	–	$17,030,562
Non-Federal Funds	–	–	$4,257,640	–	–	$4,257,640
Total Funds	–	–	$21,288,202	–	–	$21,288,202



BIKESHARE STATE OF GOOD REPAIR SET-ASIDE

Proponent: CTPS
ID Number: S12820
Project Type: Community Connections
Cost: $7,500,000
Funding Source: Regional Target Funds

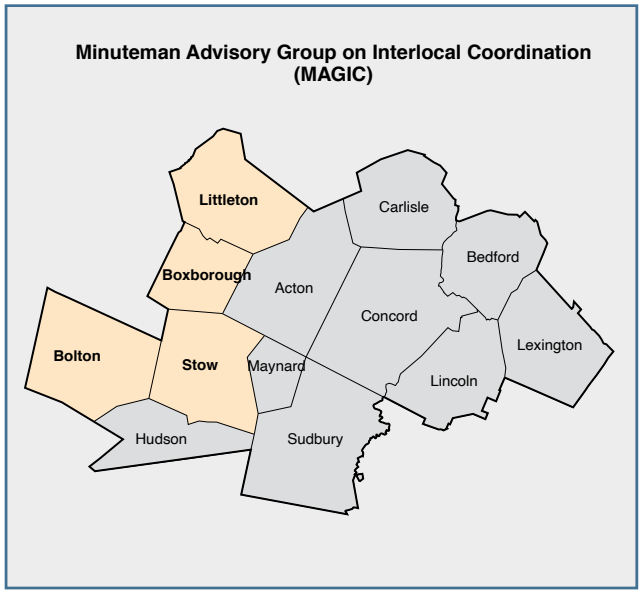
SCORING SUMMARY

This is an administrative line item and is not subject to TIP scoring criteria.

PROJECT DESCRIPTION

This line item sets aside funding to support Bikeshare investments within the Community Connections program. Example uses of this set-aside include bikeshare system expansion, as well as replacement and upgrades to existing stations.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$1,000,000	$1,000,000	$2,000,000	$2,000,000	$6,000,000
Non-Federal Funds	–	–	–	–	–	–
Total Funds	–	$1,000,000	$1,000,000	$2,000,000	$2,000,000	$6,000,000



BOLTON, BOXBOROUGH, LITTLETON, STOW: MONTACHUSETT RTA MICROTRANSIT SERVICE

Proponent: Montachusett RTA
ID Number: S12703
Project Type: Community Connections
Cost: $1,316,061
Funding Source: Regional Target Funds

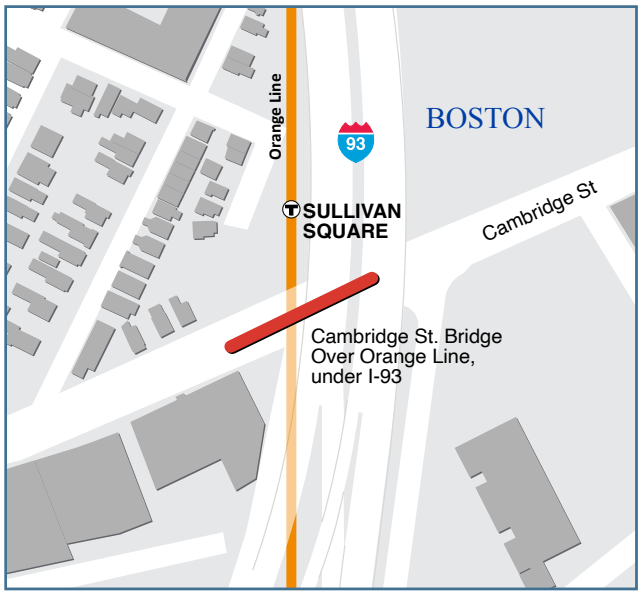
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	7 out of 18	15 out of 15	3 out of 15	6 out of 18	16 out of 24	10 out of 10	57 out of 100

PROJECT DESCRIPTION

This project will establish an on-demand microtransit service for the towns of Bolton, Boxborough, Littleton, and Stow, to be operated by the Montachusett Regional Transit Authority (MART). The primary goals of the project are to connect residents to employment centers and activity hubs in the region while providing a low-cost transportation alternative to single-occupancy vehicles. The service will utilize MART's existing vehicle fleet and will allow riders to book trips through a mobile app. This project was funded through the FFY2023 round of grants through the MPO's Community Connections Program, and was funded with $479,066 in that year.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$344,283	$325,313	–	–	–	$669,596
Non-Federal Funds	$86,071	$81,328	–	–	–	$167,399
Total Funds	$430,354	$406,641	–	–	–	$836,995



BOSTON: BRIDGE PRESERVATION, B-16-066 (38D), CAMBRIDGE STREET OVER MBTA

Proponent: Boston
ID Number: 612989
Project Type: Complete Streets
Cost: $16,632,000
Funding Source: Regional Target Funds

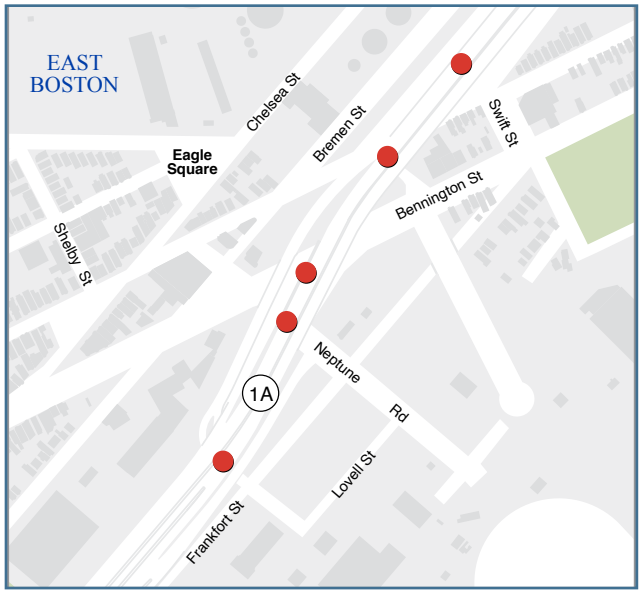
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	5 out of 30	15 out of 29	12.5 out of 29	4.5 out of 16	5.9 out of 12	10.25 out of 18	53.2 out of 134

PROJECT DESCRIPTION

The project replaces the deck of the Cambridge Street Bridge in Boston's Charlestown neighborhood, which is a key connector traversing both MBTA Orange Line and commuter rail and Amtrak rail service in addition to travel underneath Interstate 93. This state-of-good-repair investment improves multimodal accessibility with upgraded pedestrian and bicycle facilities in addition to a new westbound bus lane for improved bus connections between Sullivan Square, Charlestown, and Somerville.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$13,305,600	–	–	$13,305,600
Non-Federal Funds	–	–	$3,326,400	–	–	$3,326,400
Total Funds	–	–	$16,632,000	–	–	$16,632,000



BOSTON: BRIDGE PRESERVATION, B-16-236 (39M, 39P, 39U, 39W, 39Y), 5 BRIDGES CARRYING STATE ROUTE 1A (EAST BOSTON EXPRESSWAY NB/SB) AND RAMPS

Proponent: MassDOT
ID Number: 613209
Project Type: Bridge
Cost: $6,525,000
Funding Source: Statewide Highway Funds

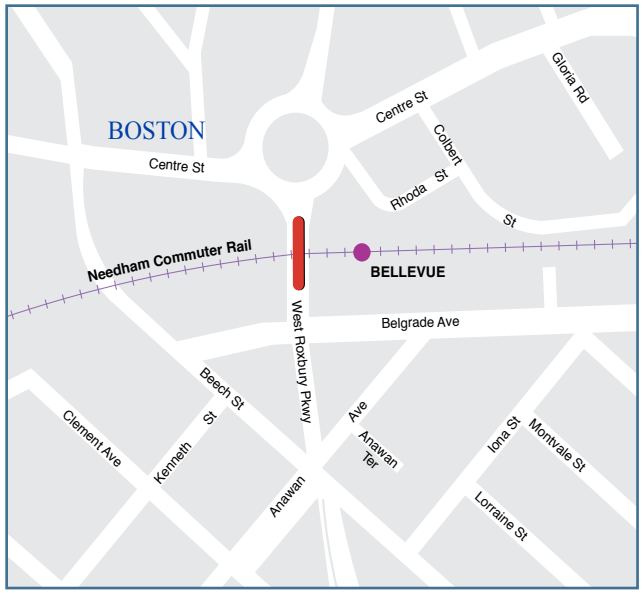
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

Bridge preservation of five structures in Boston carrying Route 1A (East Boston Expressway NB/SB) and ramps.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$1,305,000	–	–	–	–	$1,305,000
Non-Federal Funds	$5,220,000	–	–	–	–	$5,220,000
Total Funds	$6,525,000	–	–	–	–	$6,525,000



BOSTON: BRIDGE RECONSTRUCTION/ REHABILITATION, B-16-181, WEST ROXBURY PARKWAY OVER MBTA

Proponent: MassDOT
ID Number: 606902
Project Type: Bridge
Cost: $8,889,831
Funding Source: Statewide Highway Funds

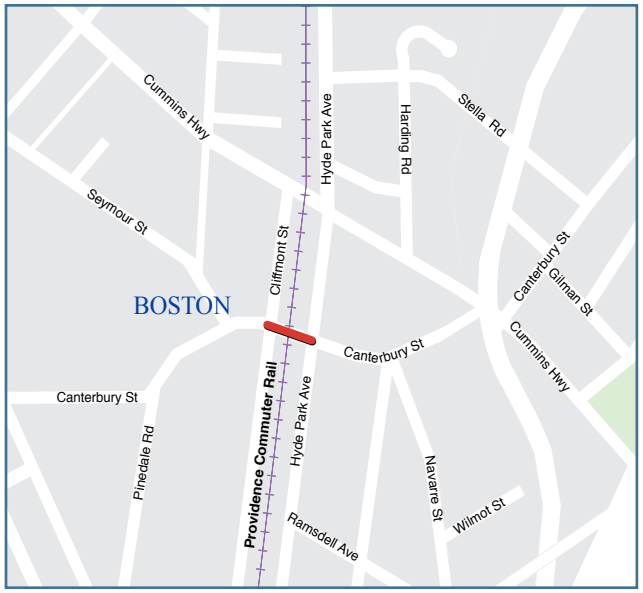
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will involve the reconstruction of bridge B-16-181, which carries West Roxbury Parkway over the MBTA Needham commuter rail line.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$7,111,865	–	–	–	–	$7,111,865
Non-Federal Funds	$1,777,966	–	–	–	–	$1,777,966
Total Funds	$8,889,831	–	–	–	–	$8,889,831



BOSTON: BRIDGE REHABILITATION, B-16-107, CANTERBURY STREET OVER AMTRAK RAILROAD

Proponent: MassDOT
ID Number: 608197
Project Type: Bridge
Cost: $4,504,926
Funding Source: Statewide Highway Funds

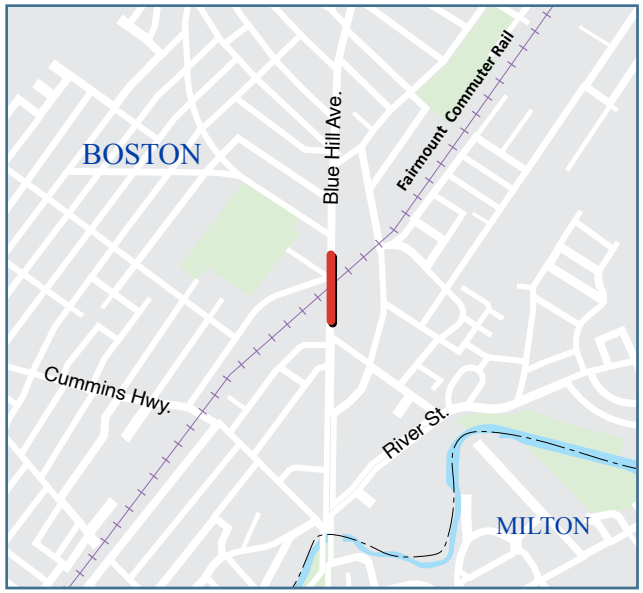
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will replace the superstructure of bridge B-16-107, which carries Canterbury Street over the Amtrak/MBTA tracks.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$3,603,941	–	–	–	$3,603,941
Non-Federal Funds	–	$900,985	–	–	–	$900,985
Total Funds	–	$4,504,926	–	–	–	$4,504,926



BOSTON: BRIDGE REPLACEMENT, B-16-165, BLUE HILL AVENUE OVER RAILROAD

Proponent: MassDOT
ID Number: 612519
Project Type: Bridge
Cost: $34,766,041
Funding Source: Statewide Highway Funds

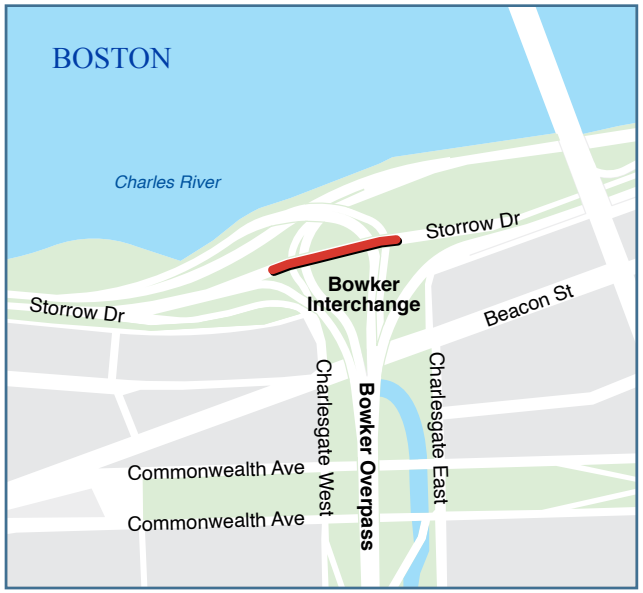
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will replace bridge B-16-165, which carries Blue Hill Avenue over the MBTA Fairmount and Franklin commuter rail lines in Boston.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$27,812,833	–	$27,812,833
Non-Federal Funds	–	–	–	$6,953,208	–	$6,953,208
Total Funds	–	–	–	$34,766,041	–	$34,766,041



BOSTON: BRIDGE REPLACEMENT B-16-365-STORROW DRIVE OVER BOWKER RAMPS

Proponent: MassDOT
ID Number: 606728
Project Type: Major Infrastructure
Cost: $112,056,000
Funding Source: Statewide Highway Funds

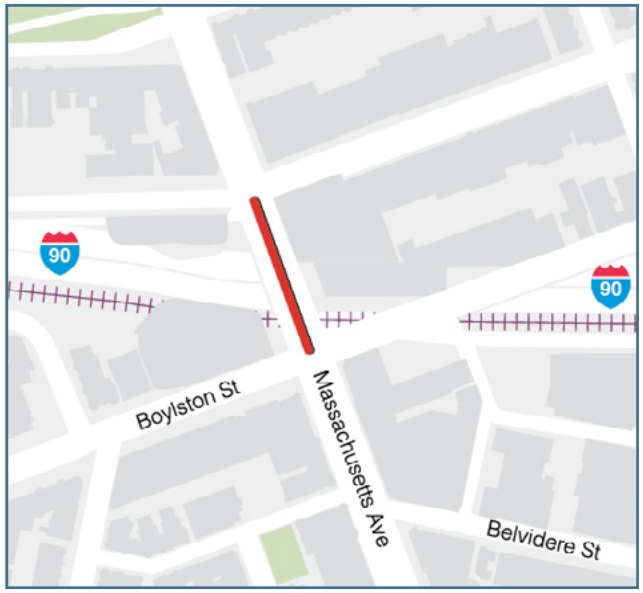
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will replace bridge B-16-365, which carries Storrow Drive over the Bowker Ramps and Muddy River in Boston. This bridge is currently listed as structurally deficient and has posted vehicle weight restrictions due to its poor condition.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$8,381,764	$32,060,780	$40,442,544
Non-Federal Funds	–	–	–	$2,095,441	$8,015,195	$10,110,636
Total Funds	–	–	–	$10,478,205	$40,075,975	$50,554,180



BOSTON: DECK/SUPERSTRUCTURE REPLACEMENT OF BRIDGE B-16-051(4T5), MASS AVENUE OVER I-90 & MBTA (STRUCTURE 54, MILE 132.84)

Proponent: MassDOT
ID Number: 613125
Project Type: Bridge
Cost: $15,718,122
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will perform deck and superstructure replacement of Bridge B-16-051(4T5), Massachusetts Avenue over Interstate 90 and MBTA commuter rail near Hynes Convention Center Station.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	-	-	-	-	$12,574,498	$12,574,498
Non-Federal Funds	-	-	-	-	$3,143,624`	$3,143,624`
Total Funds	–	–	–	–	$15,718,122	$15,718,122

BOSTON: ELECTRIC BLUEBIKES ADOPTION

Proponent: Boston
ID Number: S12823
Project Type: Community Connections
Cost: $1,020,000
Funding Source: Regional Target Funds

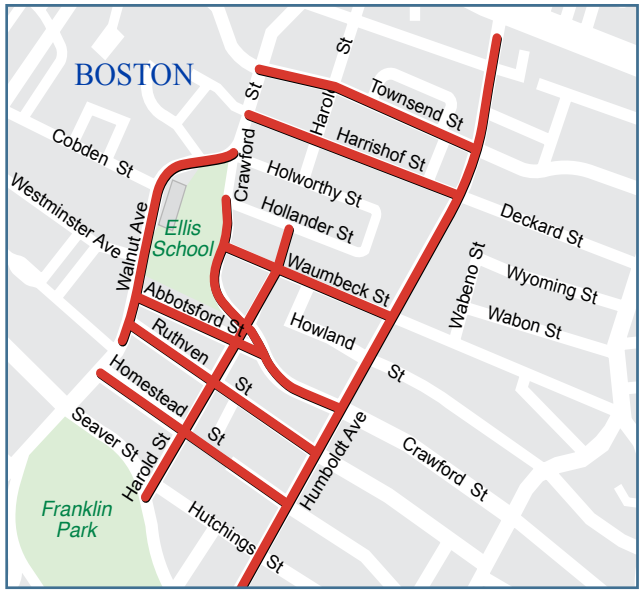
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	17 out of 18	15 out of 15	6 out of 15	9 out of 18	24 out of 24	10 out of 10	81 out of 100

PROJECT DESCRIPTION

Purchase of 272 electric bikes (e-bikes) and 136 spare batteries for the City of Boston's Bluebikes network

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$816,000	–	–	–	–	$816,000
Non-Federal Funds	$204,000	–	–	–	–	$204,000
Total Funds	$1,020,000	–	–	–	–	$1,020,000



BOSTON: ELLIS ELEMENTARY TRAFFIC CALMING (SRTS)

Proponent: MassDOT
ID Number: 610537
Project Type: Safe Routes to School
Cost: $2,737,728
Funding Source: Statewide Highway Funds

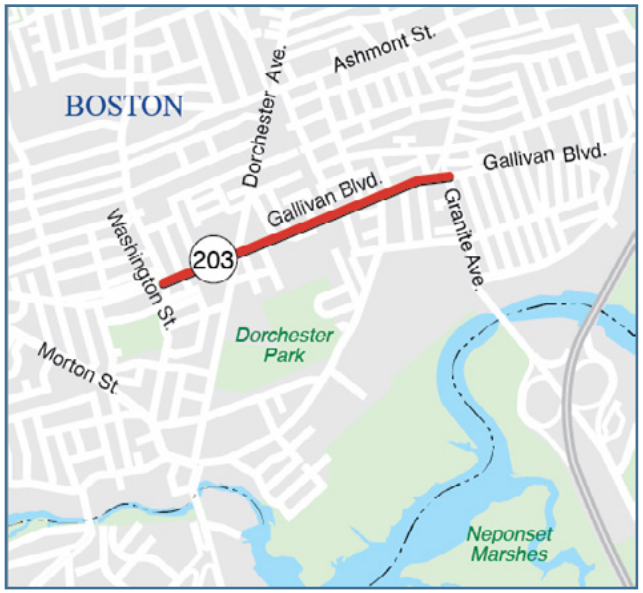
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make upgrades to promote safety along the roadways surrounding Ellis Elementary School in Boston through the Safe Routes to School program. The project proposes traffic-calming measures throughout the project area, including speed humps and curb extensions at several locations. Along Humboldt Avenue, the project proposes signal timing adjustments, the addition of bicycle lanes, and the installation of bus bulbs and a crosswalk at the intersection of Humboldt Avenue and Monroe Street. Raised intersection treatments are also proposed at three locations along Walnut Avenue.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$5,796,000	–	–	$5,796,000
Non-Federal Funds	–	–	$644,000	–	–	$644,000
Total Funds	–	–	$2,737,728	–	–	$2,737,728



BOSTON: GALLIVAN BOULEVARD (ROUTE 203) SAFETY IMPROVEMENTS, FROM WASHINGTON STREET TO GRANITE AVENUE

Proponent: MassDOT
ID Number: 610650
Project Type: Safety Improvements
Cost: $6,440,000
Funding Source: Statewide Highway Funds

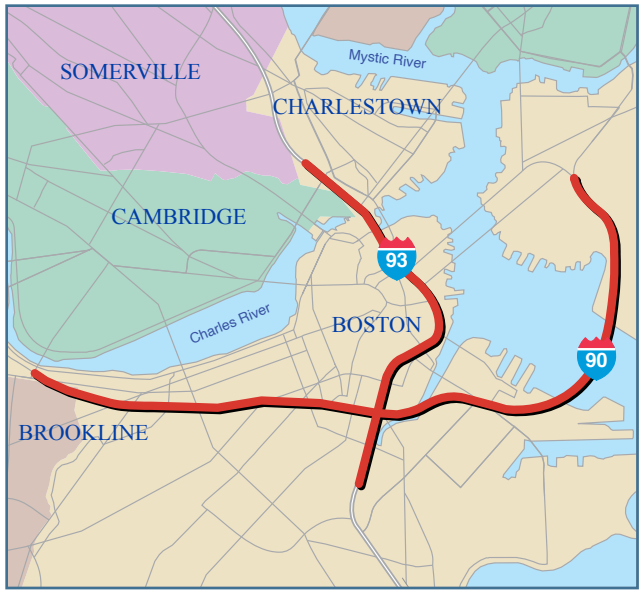
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

his project will implement safety measures for all users along Route 203, Gallivan Boulevard from Washington Street to Granite Avenue in Boston.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$5,796,000	–	$5,796,000
Non-Federal Funds	–	–	–	$644,000	–	$644,000
Total Funds	–	–	–	$6,440,000	–	$6,440,000



BOSTON: GUIDE AND TRAFFIC SIGN REPLACEMENT ON I-90/I-93 WITHIN CENTRAL ARTERY/TUNNEL SYSTEM

Proponent: MassDOT
ID Number: 611954
Project Type: Safety Improvements
Cost: $2,423,736
Funding Source: Statewide Highway Funds

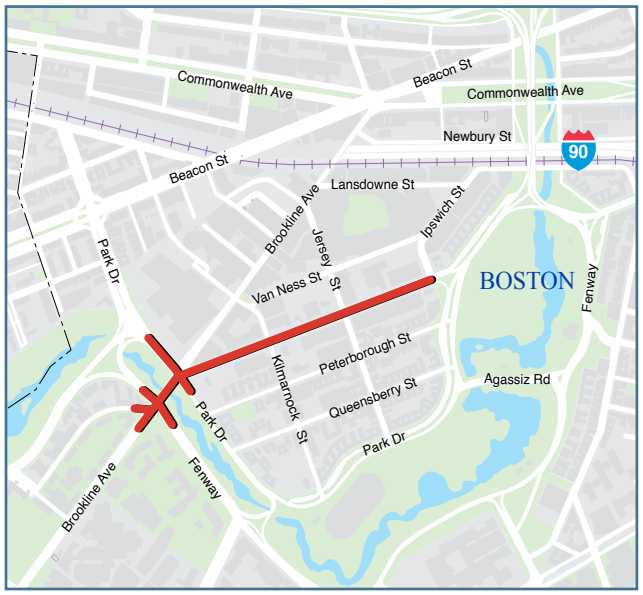
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project involves the replacement of guide and traffic signs on Interstate 93 and Interstate 90 within the Central Artery/Tunnel system, including applicable signing on intersecting secondary roadways. The project covers approximately six miles along Interstate 90 (mile markers 132 to 138) and five miles along Interstate 93 (mile markers 15 to 20). The project area includes the Ted Williams Tunnel from the Interstate 90 terminus in East Boston westbound to the Brookline/Boston city line east of St. Mary's Street. The project area along Interstate 93 runs between Southampton Street north to the Mystic Avenue off ramp.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$2,181,362	–	–	$2,181,362
Non-Federal Funds	–	–	$242,374	–	–	$242,374
Total Funds	–	–	$2,423,736	–	–	$2,423,736



BOSTON: IMPROVEMENTS ON BOYLSTON STREET, FROM INTERSECTION OF BROOKLINE AVENUE & PARK DRIVE TO IPSWICH STREET

Proponent: Boston
ID Number: 606453
Project Type: Complete Streets
Cost: $8,665,052
Funding Source: Regional Target Funds

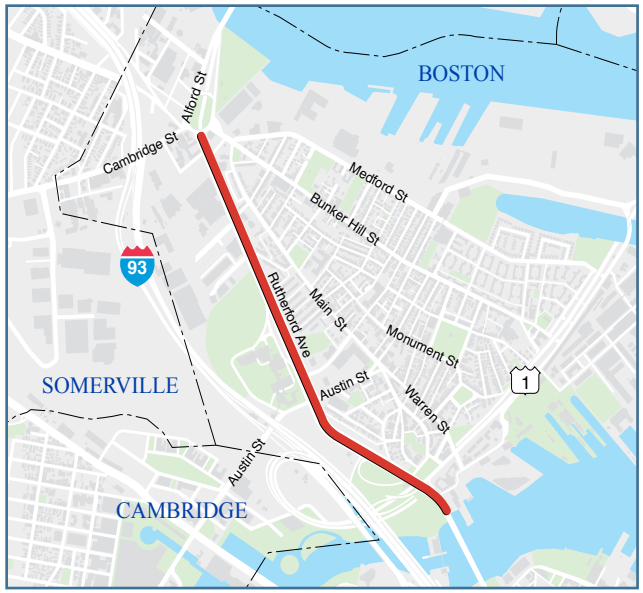
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	7 out of 30	6 out of 29	15 out of 29	12 out of 16	8 out of 12	12 out of 18	60 out of 134

PROJECT DESCRIPTION

This roadway improvement project will enhance safety and mobility for people walking and biking along the Boylston Street corridor. Short-term improvements are planned by the City of Boston in the fall of 2021 to provide a mix of buffered and parking-protected bicycle lanes on Boylston Street between Park Drive and Ipswich Street. This project will formalize these improvements while also improving traffic signals and crosswalks, replacing street lighting, and reconstructing sidewalks and ramps to achieve ADA compliance throughout the corridor. This project will also construct additional improvements to the Muddy River crossing at the western end of the corridor, including along Park Drive to the Landmark Center driveway and at the intersection of Brookline Avenue and Pilgrim Road. These improvements will include the addition of segments of separated bicycle lanes and cycle track, improved signals and crosswalks, and reconstructed sidewalks to shorten pedestrian crossings.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$6,932,042	–	–	–	$6,932,042
Non-Federal Funds	–	$1,733,010	–	–	–	$1,733,010
Total Funds	–	$8,665,052	–	–	–	$8,665,052



BOSTON: RECONSTRUCTION OF RUTHERFORD AVENUE, FROM CITY SQUARE TO SULLIVAN SQUARE

Proponent: Boston
ID Number: 606226
Project Type: Major Infrastructure
Cost: $197,759,449
Funding Source: Regional Target Funds

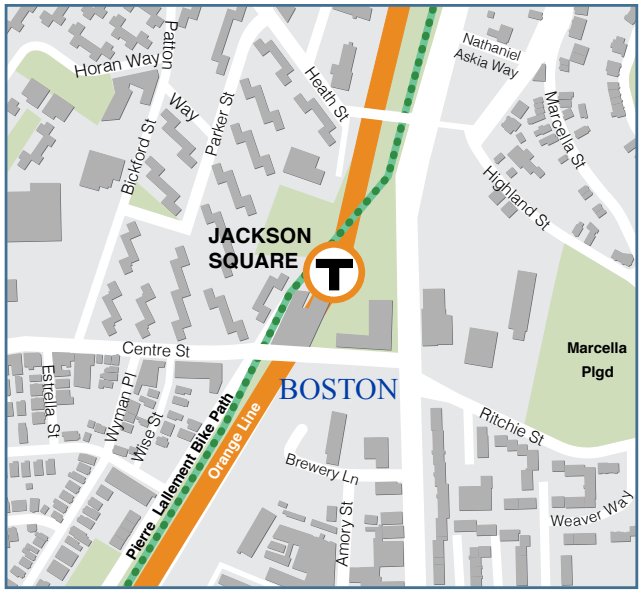
SCORING SUMMARY

This project is funded using Regional Target funds, but was not scored using the MPO's TIP project selection criteria. The project was evaluated through the MPO's Long-Range Transportation Plan process.

PROJECT DESCRIPTION

The reconstruction of Rutherford Avenue from City Square to Sullivan Square will make the road a multimodal urban boulevard corridor. This project will be funded over five years, starting in FFY 2027. The total project cost is estimated to be $197,759,449 and the total funding in the FFYs 2024-28 TIP is $42,100,000. The City of Boston will contribute $25,000,000 in local funding towards the project.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$6,880,000	$33,680,000	$33,680,000
Non-Federal Funds	–	–	–	$1,720,000	$8,420,000	$8,420,000
Total Funds	–	–	–	$8,600,000	$33,500,000	$42,100,000



BOSTON: JACKSON SQUARE STATION ACCESSIBILITY IMPROVEMENTS

Proponent: MBTA
ID Number: S12819
Project Type: Transit Modernization
Cost: $26,250,000
Funding Source: Regional Target Funds

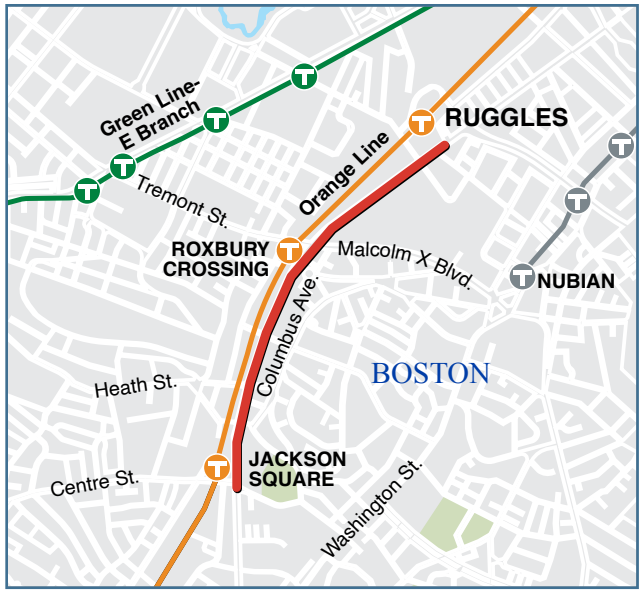
SCORING SUMMARY

No projects have yet been scored using the Transit Modernization criteria. Projects will be evaluated by the MPO in future TIP cycles for funding within this investment program.

PROJECT DESCRIPTION

Includes construction of new elevator, modernization of existing elevator, lighting improvements, and various state-of- good-repair improvements to the station.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$9,800,000	$11,200,000	–	–	–	$21,000,000
Non-Federal Funds	$2,450,000	$2,800,000	–	–	–	$5,250,000
Total Funds	$12,250,000	$14,000,000	–	–	–	$26,250,000



BOSTON: COLUMBUS AVE BUS LANE PHASE II

Proponent: MBTA
ID Number: S12822
Project Type: Transit Modernization
Cost: $11,750,000
Funding Source: Regional Target Funds

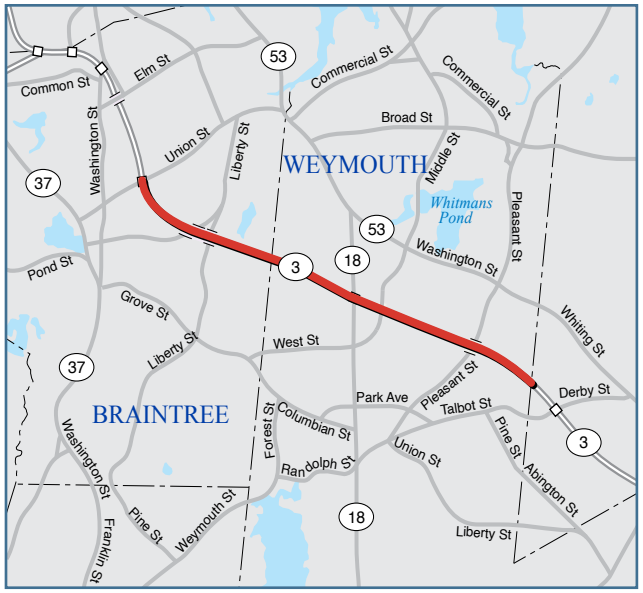
SCORING SUMMARY

No projects have yet been scored using the Transit Modernization criteria. Projects will be evaluated by the MPO in future TIP cycles for funding within this investment program.

PROJECT DESCRIPTION

Building on Phase 1, Phase 2 of the Columbus Avenue Bus Lanes project includes bus-only lanes, transit signal priority, improvements to bus stops and shelters along Columbus Avenue and Tremont Street, and enhanced pedestrian and bicycle connections into MBTA Orange Line stations at Jackson Square, Roxbury Crossing, and Ruggles. New project elements include green infrastructure to promote traffic calming and reduce impervious surfaces.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$9,400,000	–	–	–	–	$9,400,000
Non-Federal Funds	$2,350,000	–	–	–	–	$2,350,000
Total Funds	$11,750,000	–	–	–	–	$11,750,000



BRAINTREE-WEYMOUTH: RESURFACING AND RELATED WORK ON ROUTE 3

Proponent: MassDOT
ID Number: 612050
Project Type: Non-Interstate Pavement
Cost: $8,277,930
Funding Source: Statewide Highway Funds

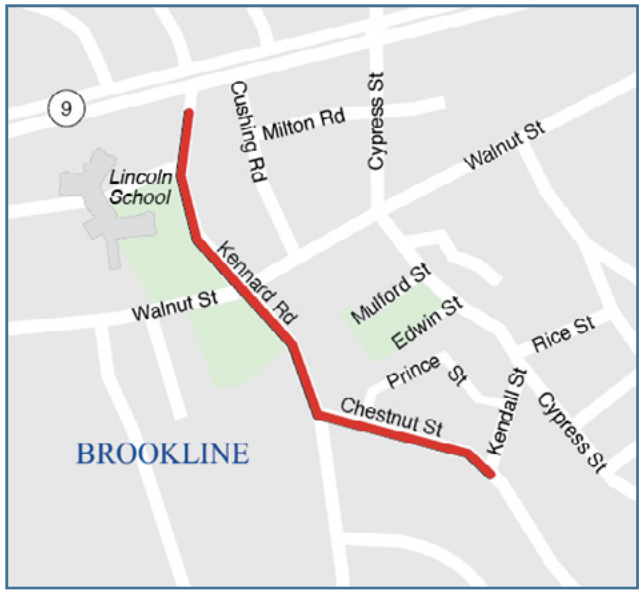
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project includes resurfacing and related work on Route 3 in Braintree and Weymouth. The project's extents run from mile marker 37.7 to mile marker 41.8 for a total of 4.1 miles, or from the Weymouth/Hingham town line to Union Street in Braintree.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	-	-	$6,622,344	-	-	$6,622,344
Non-Federal Funds	-	-	$1,655,586	-	-	$1,655,586
Total Funds	–	–	$8,277,930	–	–	$8,277,930



BROOKLINE: IMPROVEMENTS AT WILLIAM H. LINCOLN SCHOOL (SRTS)

Proponent: MassDOT
ID Number: 612816
Project Type: Safe Routes to School
Cost: $886,526
Funding Source: Statewide Highway Funds

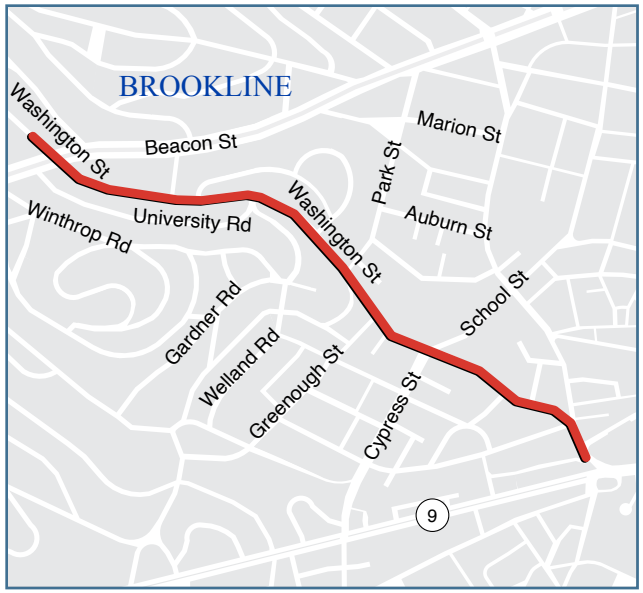
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make upgrades to promote safety along the roadways surrounding William H. Lincoln School in Brookline through the Safe Routes to School program. The Project will improve pedestrian and bicycle safety and access improvements on the one-way portion of Chestnut Street, including the installation of a two-way protected bike lane, new sidewalks, new ADA-compliant wheelchair ramps, related pavement markings, and signage. On Kennard Road, the project will construct a new raised intersection, crosswalks, ADA-compliant wheelchair ramps, related pavement markings, and signage at the school driveway to reduce motor vehicle speed and improve pedestrian safety and access.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$709,221	–	–	$709,221
Non-Federal Funds	–	–	$177,305	–	–	$177,305
Total Funds	–	–	$886,526	–	–	$886,526



BROOKLINE: REHABILITATION OF WASHINGTON STREET

Proponent: Brookline
ID Number: 610932
Project Type: Complete Streets
Cost: $28,995,267
Funding Source: Regional Target Funds

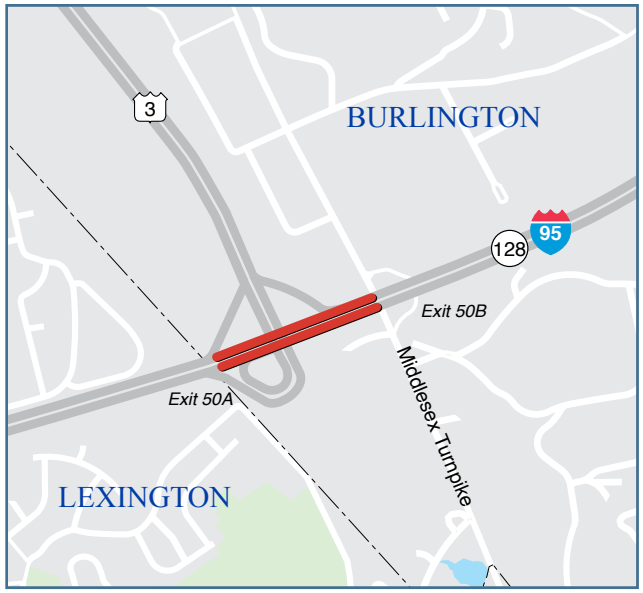
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	14 out of 18	13 out of 20	11 out of 18	7 out of 12	7.4 out of 20	10 out of 12	62.4 out of 100

PROJECT DESCRIPTION

This project will reconstruct Washington Street in Brookline between Boylston Street and Beacon Street. Washington Street is currently constrained, with a narrow right of way that accommodates two lanes of traffic, on-street parking in both directions, bicycling, and significant volumes of pedestrians. Sidewalks are currently in poor condition, and the area contains two HSIP bicycle crash clusters and one pedestrian crash cluster. The project will reconstruct sidewalks along both sides of the entire corridor and will provide protected bicycle facilities in both directions that are separated from vehicular traffic for a vast majority of the corridor. Other multimodal improvements include the provision of dedicated bus pull-out space outside of the travel lanes. The project will also replace the existing signals along Washington Street's length and will reconstruct the roadway surface.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$23,196,214	–	$23,196,214
Non-Federal Funds	–	–	–	$5,799,053	–	$5,799,053
Total Funds	–	–	–	$28,995,267	–	$28,995,267



BURLINGTON: IMPROVEMENTS AT I-95 (ROUTE 128)/ROUTE 3 INTERCHANGE

Proponent: MassDOT
ID Number: 609516
Project Type: Complete Streets
Cost: $3,498,560
Funding Source: Statewide Highway Funds

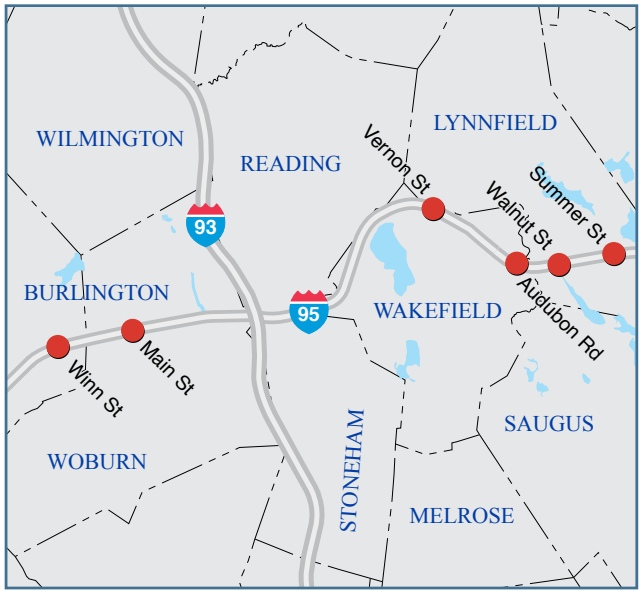
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make improvements to the interchange at Interstate 95 (Route 128) and Route 3 in Burlington.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$2,798,848	–	–	–	$2,798,848
Non-Federal Funds	–	$699,712	–	–	–	$699,712
Total Funds	–	$3,498,560	–	–	–	$3,498,560



BURLINGTON-LYNNFIELD-WAKEFIELD-WOBURN: BRIDGE PRESERVATION OF 10 BRIDGES CARRYING I-95

Proponent: MassDOT
ID Number: 613196
Project Type: Bridge
Cost: $3,999,600
Funding Source: Statewide Highway Funds

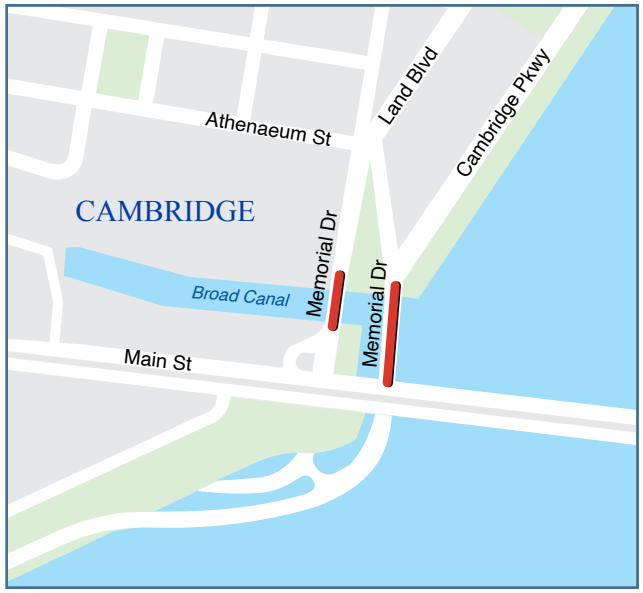
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

Bridge preservation of 10 reinforced concrete frame bridges in Burlington, Lynnfield, Wakefield, and Woburn to include concrete patching and railing upgrades.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$3,199,680	–	–	–	–	$3,199,680
Non-Federal Funds	$799,920	–	–	–	–	$799,920
Total Funds	$3,999,600	–	–	–	–	$3,999,600



CAMBRIDGE: BRIDGE REPLACEMENT, FIRST STREET BRIDGE AND LAND BOULEVARD BRIDGE/BROAD CANAL BRIDGE

Proponent: MassDOT
ID Number: 606449
Project Type: Bridge
Cost: $14,364,000
Funding Source: Statewide Highway Funds

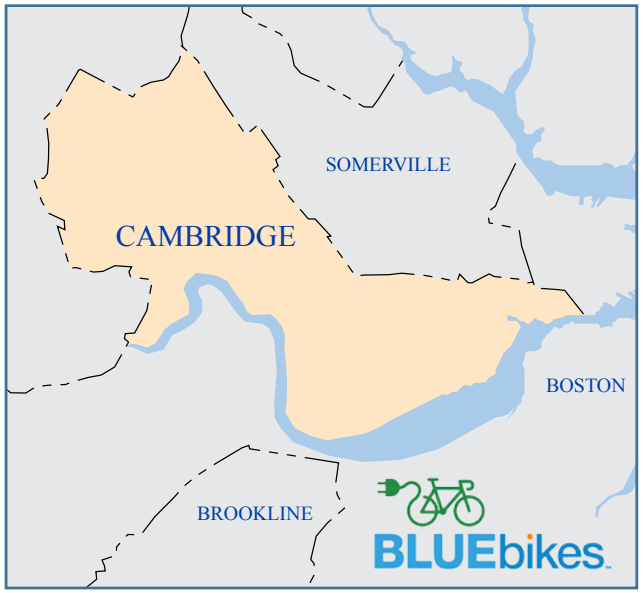
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will replace bridge C-01-008, which carries First Street over Broad Canal, and bridge C-01-040, which carries Land Boulevard over Broad Canal, in Cambridge. Both bridges are currently listed as structurally deficient and has posted load restrictions due to their poor condition.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$11,491,200	–	–	$11,491,200
Non-Federal Funds	–	–	$2,872,800	–	–	$2,872,800
Total Funds	–	–	$14,364,000	–	–	$14,364,000



CAMBRIDGE: ELECTRIC BLUEBIKES ADOPTION

Proponent: Cambridge
ID Number: S12824
Project Type: Community Connections
Cost: $440,719
Funding Source: Regional Target Funds

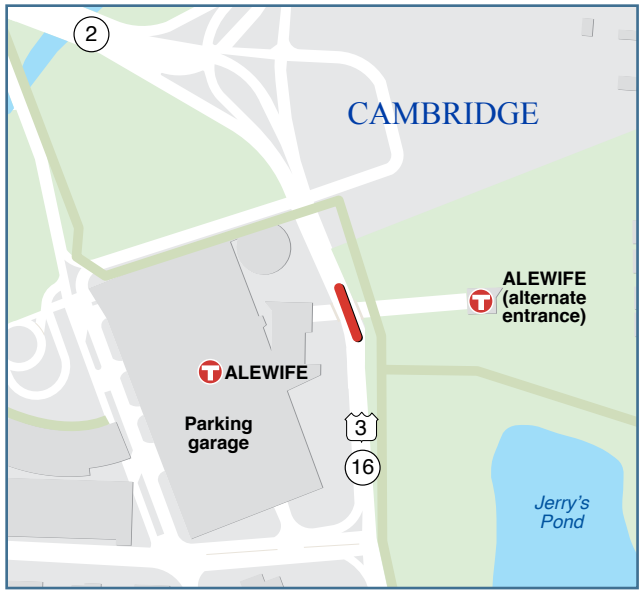
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	14 out of 18	9 out of 15	12 out of 15	6 out of 18	21 out of 24	10 out of 10	72 out of 100

PROJECT DESCRIPTION

Purchase of 90 new e-bikes and 45 spare batteries for the City of Cambridge's Bluebikes network.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$352,575	–	–	–	–	$282,060
Non-Federal Funds	$88,144	–	–	–	–	$70,515
Total Funds	$440,719	–	–	–	–	$352,575



CAMBRIDGE: SUPERSTRUCTURE REPLACEMENT, C-01-031, US ROUTE 3/ROUTE 16/ROUTE 2 OVER MBTA REDLINE

Proponent: MassDOT
ID Number: 610776
Project Type: Bridge
Cost: $6,604,208
Funding Source: Statewide Highway Fundss

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will rehabilitate bridge C-01-031 in Cambridge.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$5,283,366	–	–	–	$5,283,366
Non-Federal Funds	–	$1,320,842	–	–	–	$1,320,842
Total Funds	–	$6,604,208	–	–	–	$6,604,208

CANTON: BRIDGE REPLACEMENT, C-02-042, REVERE COURT OVER WEST BRANCH OF THE NEPONSET RIVER

Proponent: MassDOT
ID Number: 609438
Project Type: Bridge
Cost: $2,328,651
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will replace bridge C-02-042, which carries Revere Court over the west branch of the Neponset River.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$1,862,921	–	–	–	–	$1,862,921
Non-Federal Funds	$465,730	–	–	–	–	$465,730
Total Funds	$2,328,651	–	–	–	–	$2,328,651

CANTON CENTER: BICYCLE RACKS

Proponent: Canton
ID Number: S12806
Project Type: Community Connections
Cost: $10,000
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	6 out of 18	2 out of 15	9 out of 15	59 out of 18	22 out of 24	10 out of 10	58 out of 100

PROJECT DESCRIPTION

This project will purchase and install bicycle racks in downtown Canton to provide for additional bicycle parking near MBTA commuter rail facilities.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$8,000	–	–	–	–	$8,000
Non-Federal Funds	$2,000	–	–	–	–	$2,000
Total Funds	$10,000	–	–	–	–	$10,000

CANTON: CANTON PUBLIC SCHOOLS BIKE PROGRAM

Proponent: Canton
ID Number: S12805
Project Type: Community Connections
Cost: $22,500
Funding Source: Regional Target Funds

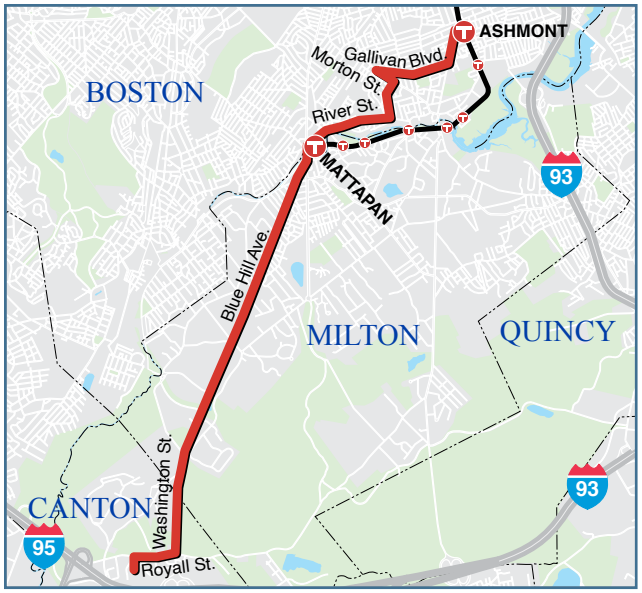
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	6 out of 18	2 out of 15	9 out of 15	9 out of 18	22 out of 24	10 out of 10	58 out of 100

PROJECT DESCRIPTION

This project will install new bicycle racks at three public elementary schools, one middle school, and one high school in Canton.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$18,000	–	–	–	–	$18,000
Non-Federal Funds	$4,500	–	–	–	–	$4,500
Total Funds	$22,500	–	–	–	–	$22,500



CANTON: ROYALL STREET SHUTTLE

Proponent: Canton
ID Number: S12114
Project Type: Community Connections
Cost: $534,820
Funding Source: Regional Target Funds

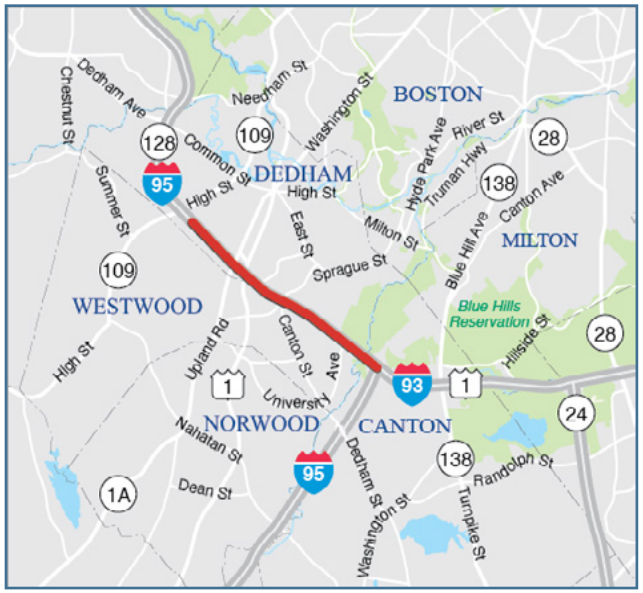
SCORING SUMMARY

This project received a total score of 51 points when evaluated using the criteria for the pilot round of the MPO's Community Connections Program. These criteria are listed in Table A-11.

PROJECT DESCRIPTION

This project will establish a shuttle service connecting Canton's Royall Street employment cluster with the MBTA Route 128 commuter rail station and Ashmont, Mattapan Trolley, and Quincy Adams rapid transit stations. The goal of the project is to improve access to employment centers and major transit hubs by providing peak hour shuttle services for commuters and residents. The map above shows one of three planned routes for the shuttle, the precise details of which are under development. Funding for this project began in FFYs 2022 and continued into 2023 with $386,278 allocated in prior TIP years for allocation.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$118,834	–	–	–	–	$118,834
Non-Federal Funds	$29,708	–	–	–	–	$29,708
Total Funds	$148,542	–	–	–	–	$148,542



CANTON-DEDHAM-WESTWOOD: INTERSTATE MAINTENANCE AND RELATED WORK ON I-95

Proponent: MassDOT
ID Number: 612094
Project Type: Interstate Pavement
Cost: $8,731,030
Funding Source: Statewide Highway Funds

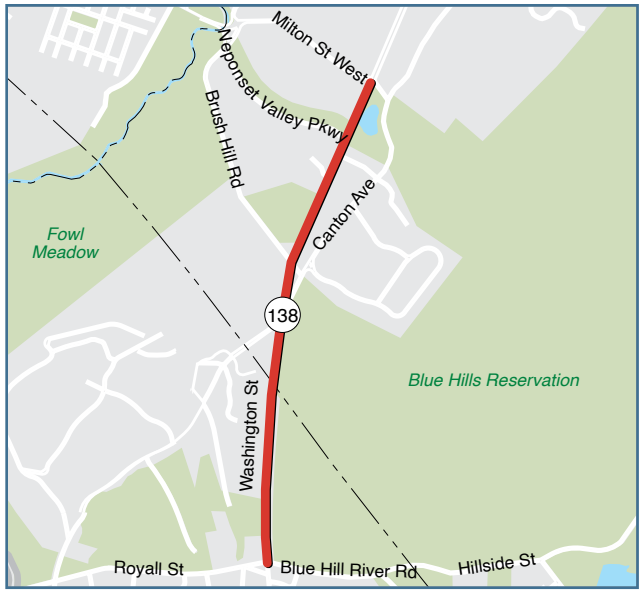
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project is an interstate maintenance resurfacing project on Interstate 95 / Route 128. A preservation treatment or thin-bonded overlay is proposed to extend the useful service life of the pavement and improve safety.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$7,857,927	$7,857,927
Non-Federal Funds	–	–	–	–	$873,103	$873,103
Total Funds	–	–	–	–	$8,731,030	$8,731,030



CANTON-MILTON: ROADWAY RECONSTRUCTION ON ROUTE 138, FROM ROYALL STREET TO DOLLAR LANE

Proponent: MassDOT
ID Number: 612615
Project Type: Intersection Improvements
Cost: $19,435,808
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make improvements to a 1.7-mile segment of Route 138 between Royall Street in Canton and Dollar Lane in Milton. The primary focus of the project is the addition of a shared-use path along the eastern side of the roadway, along with the reconstructing of existing sidewalks along the western side of the corridor. The intersection at Route 138 and Dollar Lane will be reconstructed to improve turn lanes and signals in an effort to enhance safety, as this location was identified as a top-200 crash location (statewide) in 2017-19.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$15,548,646	–	$15,548,646
Non-Federal Funds	–	–	–	$3,887,162	–	$3,887,162
Total Funds	–	–	–	$19,435,808	–	$19,435,808

CANTON-MILTON-RANDOPLH: INTERSTATE MAINTENANCE AND RELATED WORK ON I-93

Proponent: MassDOT
ID Number: 612051
Project Type: Interstate Pavement
Cost: $16,146,000
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will conduct pavement maintenance on Interstate 93 in Canton, Milton, and Randolph. The project will resurface the roadway between the Interstate 93/Interstate 95 interchange in Canton and the Interstate 93/Route 24 interchange in Randolph, a distance of approximately three miles.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$14,531,400	–	–	$14,531,400
Non-Federal Funds	–	–	$1,614,600	–	–	$1,614,600
Total Funds	–	–	$16,146,000	–	–	$16,146,000

CHELSEA: IMPROVEMENTS AT MARY C. BURKE ELEMENTARY (SRTS)

Proponent: MassDOT
ID Number: 612884
Project Type: Safe Routes to School
Cost: $1,617,667
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make upgrades to promote safety along the roadways surrounding Mary C. Burke Elementary School in Chelsea through the Safe Routes to School program. The project will serve the immediate needs of the students and staff by drastically improving pedestrian safety along Eastern Avenue, Stockton Street, and Spencer Avenue. Improvements include the addition of pedestrian signals, rehabilitation of pavement markings and roadway surfaces, construction of new ADA-compliant ramps, and reconstruction of existing traffic signal components. The project will also reduce the number of travel lanes on Eastern Avenue to add a pedestrian refuge. The roadway network will be simplified through the formal closure of a rarely used roadway in the project area, allowing for the creation of new open space in its place.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$1,294,134	–	–	$1,294,134
Non-Federal Funds	–	–	$323,533	–	–	$323,533
Total Funds	–	–	$1,617,667	–	–	$1,617,667

CHELSEA: PARK STREET & PEARL STREET RECONSTRUCTION

Proponent: Chelsea
ID Number: 611983
Project Type: Complete Streets
Cost: $11,705,708
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	14 out of 18	14 out of 20	11 out of 18	6 out of 12	14.9 out of 20	10 out of 12	69.9 out of 100

PROJECT DESCRIPTION

This project will improve safety along Park and Pearl Streets for all users, with a specific emphasis on improving conditions for people walking and bicycling. Smart signalization and geometric reconstruction will mitigate vehicular congestion while providing clear pedestrian paths of travel and shorter crosswalk distances via newly constructed ramps and sidewalks. This project may implement a priority bus and bike lane, beginning along Park Street at Williams Street up to the eventual surface renovation of Upper Broadway to the Revere City Line, an MPO-funded project in FFY 2022. Signals will allow for preferential movements of safety vehicles and MBTA buses through each intersection.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$9,364,566	–	$9,364,566
Non-Federal Funds	–	–	–	$2,341,142	–	$2,341,142
Total Funds	–	–	–	$11,705,708	–	$11,705,708

CHELSEA: RECONSTRUCTION OF SPRUCE STREET, FROM EVERETT AVENUE TO WILLIAMS STREET

Proponent: MassDOT
ID Number: 610675
Project Type: Safety Improvements
Cost: $5,841,153
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will reconstruct Spruce Street in Chelsea from Everett Avenue to Williams Street.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$5,257,038	–	–	$5,257,038
Non-Federal Funds	–	–	$584,115	–	–	$584,115
Total Funds	–	–	$5,841,153	–	–	$5,841,153

CHELSEA: TARGETED SAFETY IMPROVEMENTS AND RELATED WORK ON BROADWAY, FROM WILLIAMS STREET TO CITY HALL AVENUE

Proponent: MassDOT
ID Number: 609532
Project Type: Intersection Improvements
Cost: $16,091,139
Funding Source: Regional Target Funds

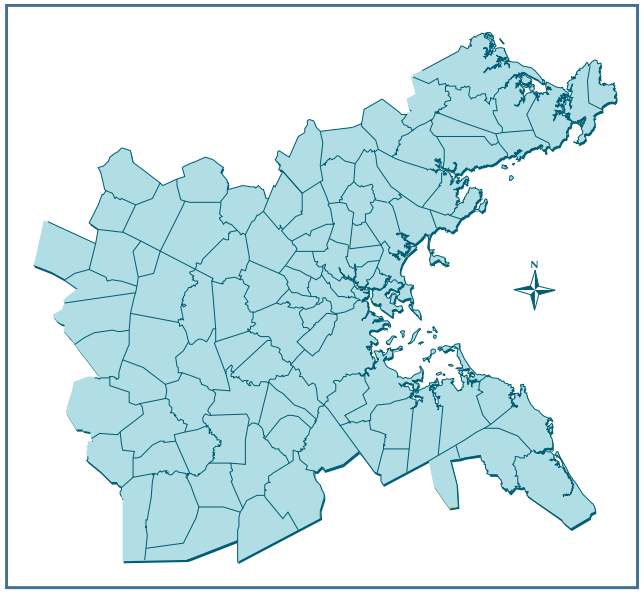
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	23 out of 30	18 out of 29	14 out of 29	4 out of 16	10 out of 12	14 out of 18	83 out of 134

PROJECT DESCRIPTION

The project will include corridor wide safety improvements targeted at reducing incidents for all users. Standard safety countermeasures such as improved signage, lighting, traffic calming streetscape elements, curb extensions, signal upgrades (where applicable) and other countermeasures may be incorporated. In addition, it is expected that the corridor's pavement, sidewalks and bus transit amenities will be improved or replaced.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$5,052,010	–	–	–	$5,052,010
Non-Federal Funds	–	$1,263,003	–	–	–	$1,263,003
Total Funds	–	$6,315,013	–	–	–	$6,315,013



COMMUNITY CONNECTIONS PROGRAM

Proponent: Regionwide
ID Number: S12124
Project Type: Community Connections
Cost: $8,334,827
Funding Source: Regional Target Funds

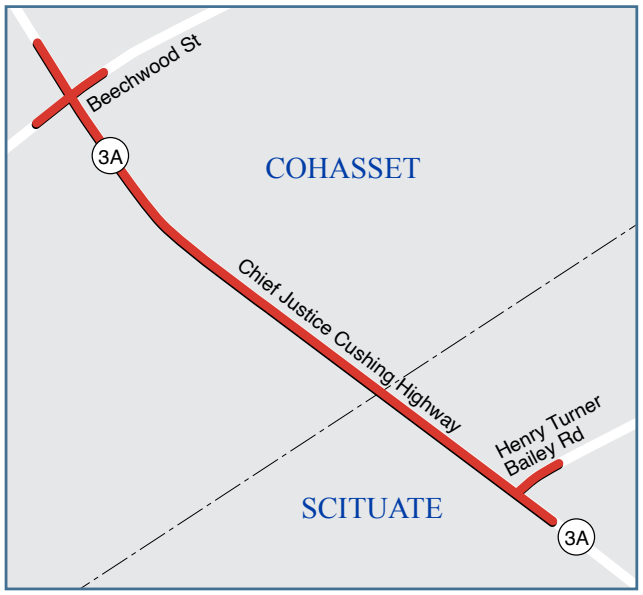
SCORING SUMMARY

The scoring criteria for the Community Connections Program are listed in Appendix A. Scores for projects funded in the FFYs 2023-27 TIP through this program are available on those projects' pages within this chapter.

PROJECT DESCRIPTION

The Community Connections Program is the MPO's funding program for first- and last-mile solutions, community transportation, and other small, nontraditional transportation projects such as those that update transit technology and improve bicycle and pedestrian facilities. The Community Connections Program is one of the investment programs included in the MPO's current Long-Range Transportation Plan, Destination 2040. The program was originally funded at a level of $2 million per year in Regional Target funds beginning in FFY 2021. With the increase in funds available to the MPO through the Bipartisan Infrastructure Law, the funding level for this program has been increased to $2.5 million annually beginning in FFY 2023. Thirteen projects were funded in the FFYs 2023-27 TIP through this program. Remaining funding in FFYs 2024 through 2027 will be allocated during future TIP cycles.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$942,804	$2,392,023	$2,500,000	$2,500,000	$8,334,827
Non-Federal Funds	–	–	–	–	–	–
Total Funds	–	$942,804	$2,392,023	$2,500,000	$2,500,000	$8,334,827



COHASSET AND SCITUATE: CORRIDOR IMPROVEMENTS AND RELATED WORK ON JUSTICE CUSHING HIGHWAY (ROUTE 3A), FROM BEECHWOOD STREET TO HENRY TURNER BAILEY ROAD

Proponent: MassDOT
ID Number: 608007
Project Type: Complete Streets
Cost: $15,496,957
Funding Source: Regional Target Funds

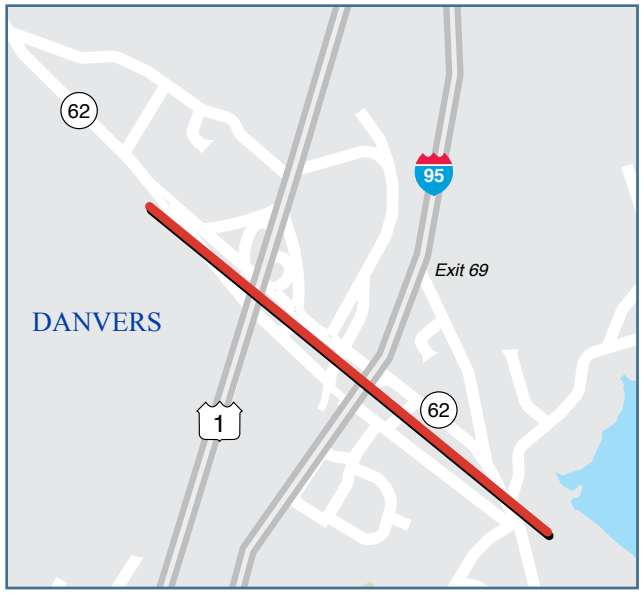
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	16 out of 30	4 out of 29	8 out of 29	5 out of 16	1 out of 12	3 out of 18	37 out of 134

PROJECT DESCRIPTION

Work on this project includes corridor improvements from the Beechwood Street intersection to the Cohasset/Scituate town line. The Route 3A/Beechwood Street intersection will be upgraded with new traffic signal equipment as well as minor geometric improvements. The Route 3A/ Henry Turner Bailey Road intersection will be reviewed for meeting requirements for traffic signals as well as geometric improvements. Pedestrian and bicycle accommodation will be included along the corridor.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$12,397,566	–	–	–	–	$12,397,566
Non-Federal Funds	$3,099,391	–	–	–	–	$3,099,391
Total Funds	$15,496,957	–	–	–	–	$15,496,957



DANVERS: RAIL TRAIL WEST EXTENSION (PHASE 3)

Proponent: MassDOT
ID Number: 612607
Project Type: Bicycle and Pedestrian
Cost: $3,406,050
Funding Source: Statewide Highway Funds

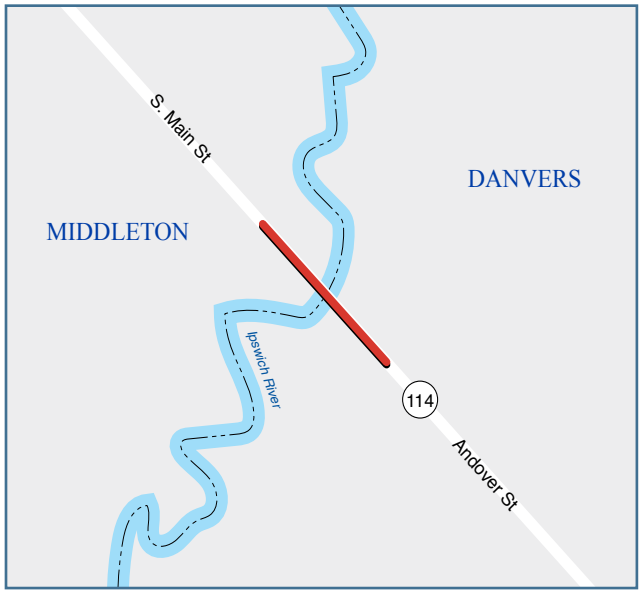
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will construct a 0.8-mile segment of the Danvers Rail Trail from Spring Street in the east to just west of Maple Street. The eastern end of this project will connect to earlier phases of the Danvers Rail Trail and to the larger Border to Boston Trail system further east.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$2,724,840	$2,724,840
Non-Federal Funds	–	–	–	–	$681,210	$681,210
Total Funds	–	–	–	–	$3,406,050	$3,406,050



DANVERS-MIDDLETON: BRIDGE REPLACEMENT, D-03-009=M-20-005, ANDOVER STREET (SR 114) OVER IPSWICH RIVER

Proponent: MassDOT
ID Number: 610782
Project Type: Bridge
Cost: $5,703,371
Funding Source: Statewide Highway Funds

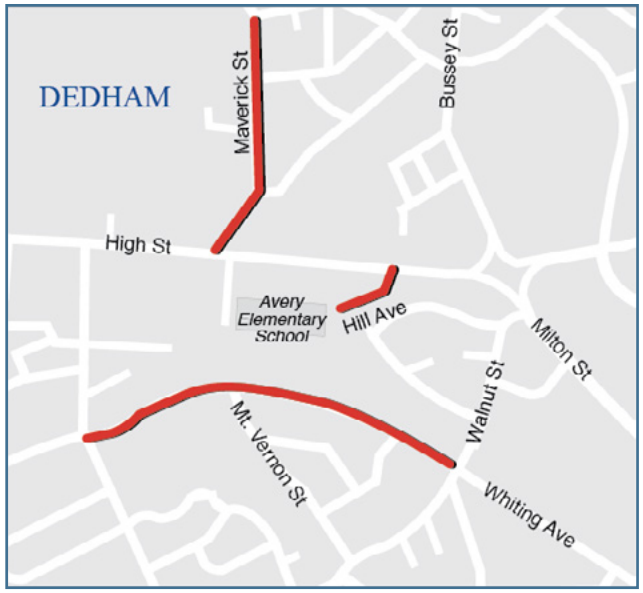
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will fund the replacement of bridge D-03-009=M-20-005, which carries Andover Street over the Ipswich River between Danvers and Middleton.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$4,562,697	–	–	–	$4,562,697
Non-Federal Funds	–	$1,140,674	–	–	–	$1,140,674
Total Funds	–	$5,703,371	–	–	–	$5,703,371



DEDHAM: IMPROVEMENTS AT AVERY ELEMENTARY (SRTS)

Proponent: MassDOT
ID Number: 612804
Project Type: Safe Routes to School
Cost: $1,626,334
Funding Source: Statewide Highway Funds

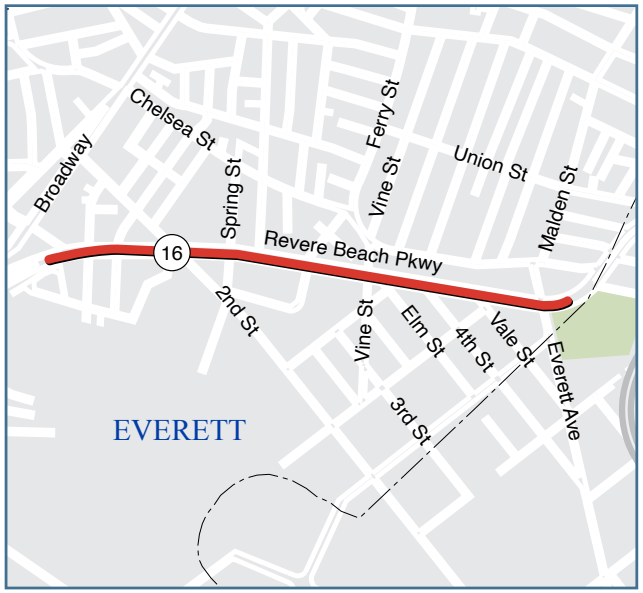
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make upgrades to promote safety along the roadways surrounding Avery Elementary School in Dedham through the Safe Routes to School program. The project includes three areas of improvement designed to facilitate safe walking to the Avery campus. The project proposes adding sidewalks and granite curbing on Maverick Street, along with adding new granite curbing along Whiting Avenue. A new crosswalk with rectangular-rapid-flashing beacons is also proposed for installation on Whiting Avenue at Recreation Road. Finally, Hill Avenue is frequently used as a cut-through for students who live East of Avery Elementary, but this route is currently a dead-end road ending in a wooded area with steep grade, a ledge, and fencing. This project proposes formalizing this connection with an ADA-accessible pedestrian walkway ramp to facilitate safe passage in what is currently an unmaintained student made path that is unsafe especially in winter months.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$1,301,067	–	–	$1,301,067
Non-Federal Funds	–	–	$325,267	–	–	$325,267
Total Funds	–	–	$1,626,334	–	–	$1,626,334



EVERETT: INTERSECTION IMPROVEMENTS ON ROUTE 16

Proponent: MassDOT
ID Number: 611969
Project Type: Intersection Improvements
Cost: $17,748,000
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make safety improvements at seven intersections along Route 16 in Everett, from Gladstone Street to Everett Avenue. This key regional roadway features three 2017–19 all-mode crash clusters and three of the state's top-200 crash locations, making it high-priority safety improvement location. This project includes rehabilitating or reconstructing the traffic signals at each intersection, adding pedestrian signal phases, and making improvements to sidewalks, ramps, crosswalks, and curbing. This project will also explore the feasibility of improved bicycle accommodations during the design phase.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$14,198,400	$14,198,400
Non-Federal Funds	–	–	–	–	$3,549,600	$3,549,600
Total Funds	–	–	–	–	$17,748,000	$17,748,000

EVERETT: RECONSTRUCTION OF BEACHAM STREET

Proponent: Everett
ID Number: 609257
Project Type: Complete Streets
Cost: $10,168,416
Funding Source: Regional Target Funds

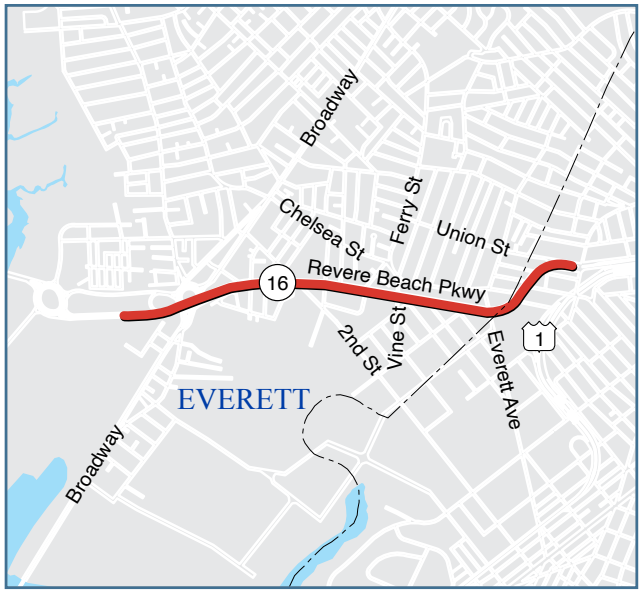
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	19 out of 18	10 out of 29	13 out of 29	4 out of 16	7 out of 12	1 out of 18	54 out of 134

PROJECT DESCRIPTION

This Complete Streets project involves the reconstruction of Beacham Street to reduce vehicular collisions and improve bicycle travel. This project also includes the implementation of a shared-use bike path with a buffer along 0.65 miles of the Beacham Street corridor, a major connection between Boston, Somerville, and Cambridge, and Chelsea and East Boston. To promote pedestrian safety, upgrades to traffic signals, pavement markings, and sidewalk conditions will be incorporated to reduce conflict with vehicular traffic and provide an ADA-compliant travel route.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$8,439,142	–	–	–	$8,439,142
Non-Federal Funds	–	$1,933,683	–	–	–	$1,933,683
Total Funds	–	$10,168,416	–	–	–	$10,168,416



EVERETT: TARGETED MULTI-MODAL AND SAFETY IMPROVEMENTS ON ROUTE 16

Proponent: MassDOT
ID Number: 613121
Project Type: Intersection Improvements
Cost: $5,246,920
Funding Source: Regional Target Funds

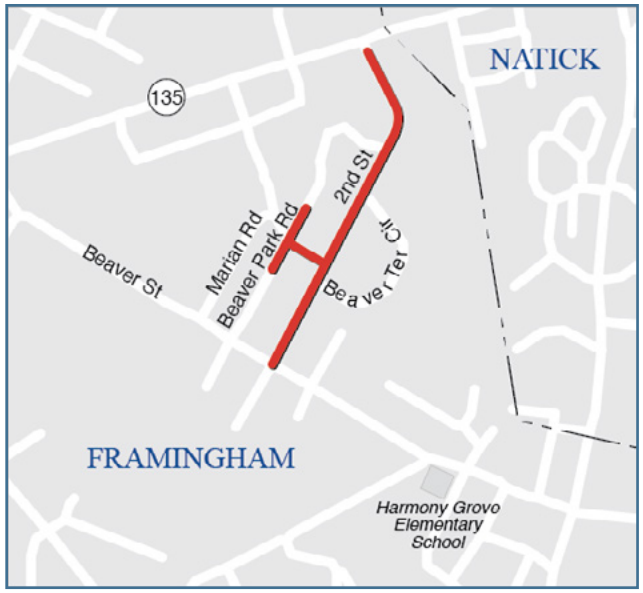
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make targeted safety enhancements along Route 16 in Everett with a focus on enhanced multimodal accessibility along the corridor.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$4,197,536	–	$4,197,536
Non-Federal Funds	–	–	–	$1,049,384	–	$1,049,384
Total Funds	–	–	–	$5,246,920	–	$5,246,920



FRAMINGHAM: IMPROVEMENTS AT HARMONY GROVE ELEMENTARY SCHOOL (SRTS)

Proponent: MassDOT
ID Number: 612894
Project Type: Safe Routes to School
Cost: $1,370,066
Funding Source: Statewide Highway Funds

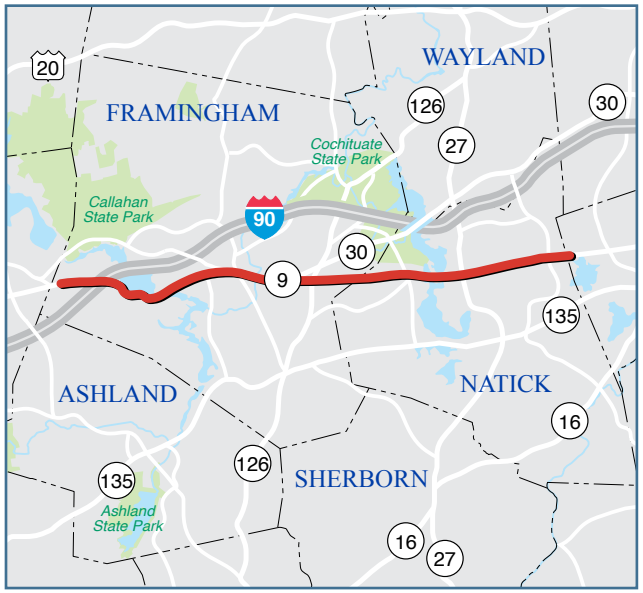
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make upgrades to promote safety along the roadways surrounding Harmony Grove Elementary School in Framingham through the Safe Routes to School program. This project includes installing new and reconstructing existing sidewalk and curbing on Second Street, from Beaver Street to Waverly Street, and Taralli Terrace, from Second Street to Beaver Park Road. The project will also realign the intersection of Beaver Park Road and Taralli Terrace and install new pavement markings, ADA-compliant curb cuts, crosswalks, and shared bike lanes on Second Street.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$1,096,053	–	–	$1,096,053
Non-Federal Funds	–	–	$274,013	–	–	$274,013
Total Funds	–	–	$1,370,066	–	–	$1,370,066



FRAMINGHAM-NATICK: RESURFACING AND RELATED WORK ON ROUTE 9

Proponent: MassDOT
ID Number: 609402
Project Type: Non-Interstate Pavement
Cost: $48,665,364
Funding Source: Statewide Highway Funds

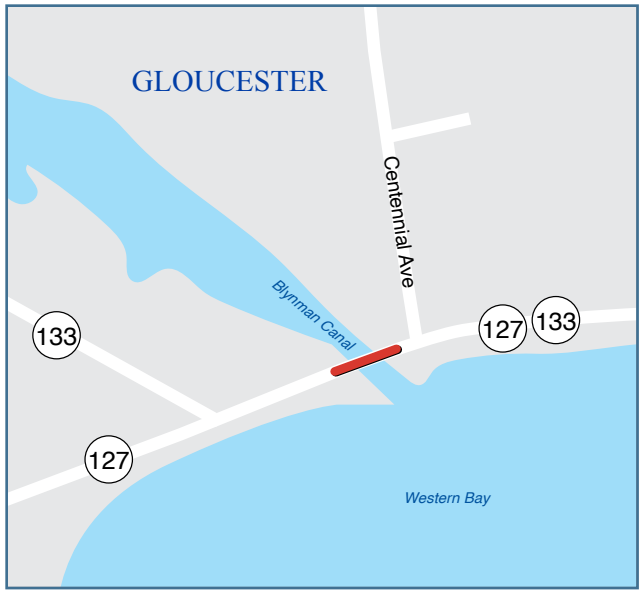
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project consists of resurfacing and related work on Route 9.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$38,932,291	$38,932,291
Non-Federal Funds	–	–	–	–	$9,733,073	$9,733,073
Total Funds	–	–	–	–	$48,665,364	$48,665,364



GLOUCESTER: BRIDGE RECONSTRUCTION, G-05-002, WESTERN AVENUE OVER BLYNMAN CANAL

Proponent: MassDOT
ID Number: 608397
Project Type: Bridge
Cost: $64,960,000
Funding Source: Statewide Highway Funds

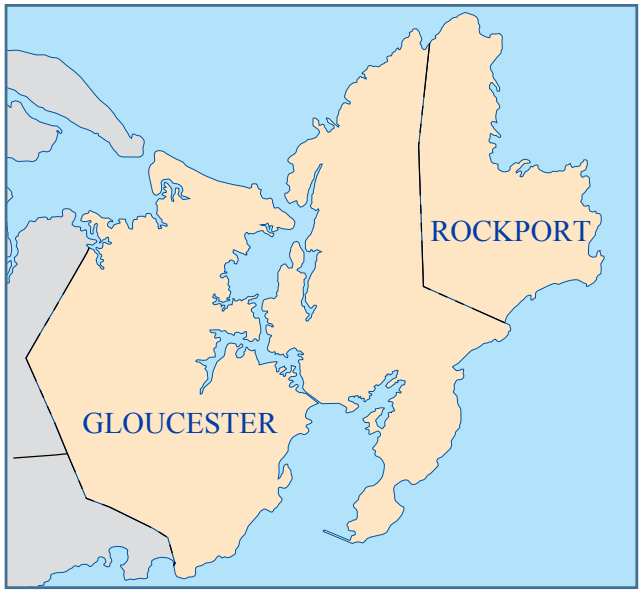
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will reconstruct bridge G-05-002, which carries Route 127, Western Avenue, over the Blynman Canal in Gloucester.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$51,968,000	$51,968,000
Non-Federal Funds	–	–	–	–	$12,992,000	$12,992,000
Total Funds	–	–	–	–	$64,960,000	$64,960,000



GLOUCESTER AND ROCKPORT: CATA ON DEMAND MICROTRANSIT SERVICE EXPANSION

Proponent: CATA
ID Number: S12700
Project Type: Community Connections
Cost: $813,291
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	11 out of 18	6 out of 15	9 out of 15	6 out of 18	20 out of 24	10 out of 10	62 out of 100

PROJECT DESCRIPTION

This project will expand the existing CATA On Demand microtransit service in Gloucester to include Rockport and the Lanesville neighborhood of Gloucester. The existing operating zone includes two MBTA commuter rail stations, two industrial parks, a hospital, and the waterfront district. The original purpose of CATA On Demand was to address the first- and last-mile gaps for commuters between existing transit and employment centers. The service has evolved, however, to serve a broader group of riders, including students, families, people with disabilities, and older adults. The expansion of the service to include new locations aims to continue to broaden the appeal of CATA On Demand to this wider audience and to better meet their needs when accessing school, medical appointments, grocery stores, and other essential destinations. This project is funded through the third round of grants available through the MPO's Community Connections Program.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$212,052	$171,821	–	–	–	$383,873
Non-Federal Funds	$53,013	$42,955	–	–	–	$95,968
Total Funds	$53,013	$214,776	–	–	–	$479,841

HAMILTON-IPSWICH: SUPERSTRUCTURE REPLACEMENT, H-03-002=I-01-006, WINTHROP STREET OVER IPSWICH RIVER

Proponent: MassDOT
ID Number: 609467
Project Type: Bridge
Cost: $3,386,585
Funding Source: Statewide Highway Funds

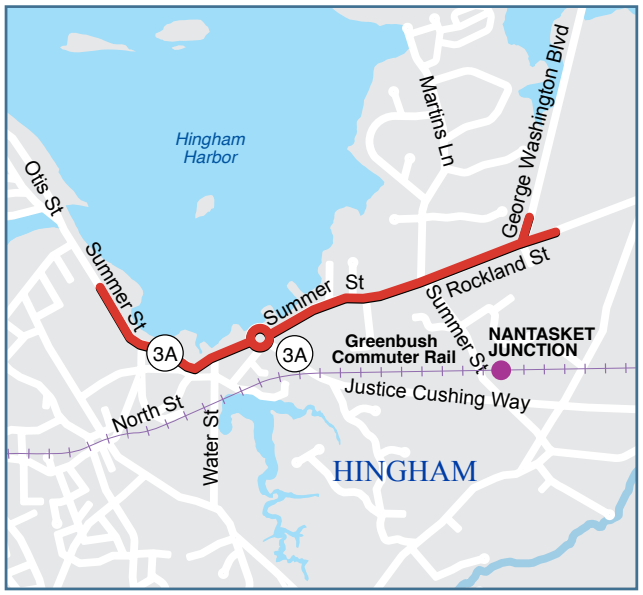
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will replace bridge H-03-002=I-01-006, which carries Winthrop Street over the Ipswich River.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$2,709,268	–	–	–	$2,709,268
Non-Federal Funds	–	$677,317	–	–	–	$677,317
Total Funds	–	$3,386,585	–	–	–	$3,386,585



HINGHAM: IMPROVEMENTS ON ROUTE 3A FROM OTIS STREET/ COLE ROAD, INCLUDING SUMMER STREET AND ROTARY; ROCKLAND STREET TO GEORGE WASHINGTON BOULEVARD

Proponent: Hingham
ID Number: 605168
Project Type: Complete Streets
Cost: $15,018,900
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	10 out of 30	16 out of 29	17 out of 29	10 out of 16	0 out of 12	2 out of 18	55 out of 134

PROJECT DESCRIPTION

The project improves multimodal access between Hingham Center, residential areas, and Hingham Harbor by extending the existing buffered, shared-use bike path from Rockland Street to the Hingham inner harbor. In addition, improvements to reduce vehicular accidents will be incorporated through the establishment of turn lanes and a small roundabout at the intersection of Route 3A and Summer Street.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$12,015,120	–	–	–	$12,015,120
Non-Federal Funds	–	$3,003,780	–	–	–	$3,003,780
Total Funds	–	$15,018,900	–	–	–	$15,018,900

HOPKINTON AND WESTBOROUGH: RECONSTRUCTION OF INTERSTATE 90/ INTERSTATE 495 INTERCHANGE

Proponent: MassDOT
ID Number: 607977
Project Type: Roadway Reconstruction
Cost: $300,942,837
Funding Source: Statewide Highway Funds

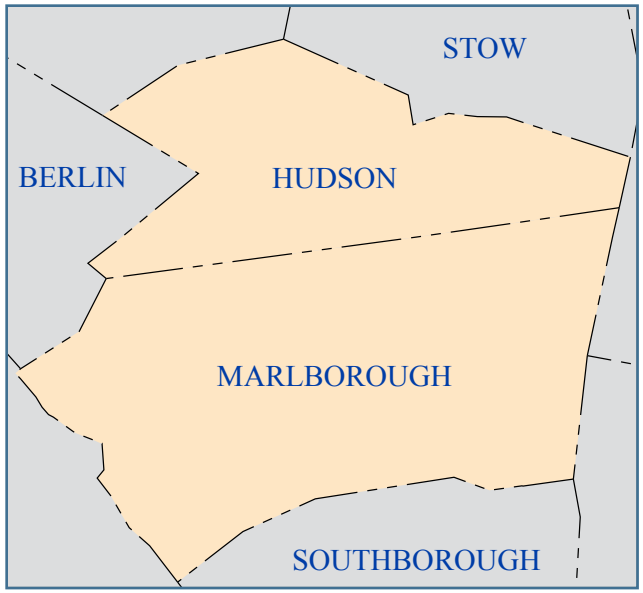
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

The project will improve the interchange of Interstate 90 and Interstate 495. This project is funded over six federal fiscal years (FFYs 2022-27) for a total cost of $300,942,837.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$40,245,712	$53,808,640	$43,279,477	$39,214,382	$699,358	$177,247,569
Non-Federal Funds	$6,351,475	$9,312,071	$4,708,830	$4,357,153	$77,706	$25,907,235
Total Funds	$46,659,187	$60,120,711	$47,988,307	$43,571,535	$43,571,535	$203,154,804



HUDSON AND MARLBOROUGH: MWRTA CATCHCONNECT MICROTRANSIT SERVICE EXPANSION

Proponent: MWRTA
ID Number: S12701
Project Type: Community Connections
Cost: $450,163
Funding Source: Regional Target Funds

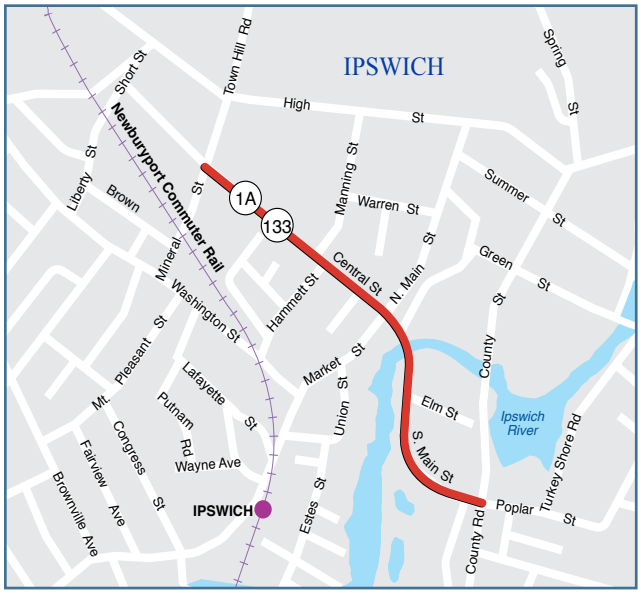
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	12 out of 18	3 out of 15	9 out of 15	9 out of 18	16 out of 24	10 out of 10	59 out of 100

PROJECT DESCRIPTION

This project will expand MetroWest RTA's existing CatchConnect microtransit service in Framingham, Natick, and Wellesley to include the municipalities of Hudson and Marlborough. This added service region will allow consumers to connect to MWRTA fixed-route services in the area, including the Route 7 traveling north and south to Framingham and the Route 7C travelling east and west through downtown Marlborough. CatchConnect service allows riders to book on-demand trips via an existing mobile application or telephone. The first year of funding for this project was in Federal Fiscal Year 2023 with $141,250 in funding.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$119,540	$127,590	–	–	–	$247,130
Non-Federal Funds	$29,885	$31,898	–	–	–	$61,783
Total Funds	$149,425	$159,488	–	–	–	$308,913



IPSWICH: RESURFACING AND RELATED WORK ON CENTRAL AND SOUTH MAIN STREETS

Proponent: Ipswich
ID Number: 605743
Project Type: Complete Streets
Cost: $11,728,698
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	11 out of 30	10 out of 29	10 out of 29	6 out of 16	2 out of 12	8 out of 18	47 out of 134

PROJECT DESCRIPTION

In Ipswich, the project will reconstruct the roadway between Mineral Street and Poplar Street (3,200 feet) to improve the roadway surface. Minor geometric improvements at intersection and pedestrian crossings will be included. Sidewalks and wheelchair ramps will be improved in selected areas for ADA compliance. The drainage system is undersized and will be upgraded.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	-	-	$4,561,661	$4,821,298	-	$9,382,959
Non-Federal Funds	-	-	$1,140,415	$1,205,324	-	$2,345,739
Total Funds	–	–	$5,702,076	$6,026,622	–	$11,728,698

LITTLETON: RECONSTRUCTION OF FOSTER STREET

Proponent: Littleton
ID Number: 609054
Project Type: Complete Streets
Cost: $5,164,375
Funding Source: Regional Target Funds

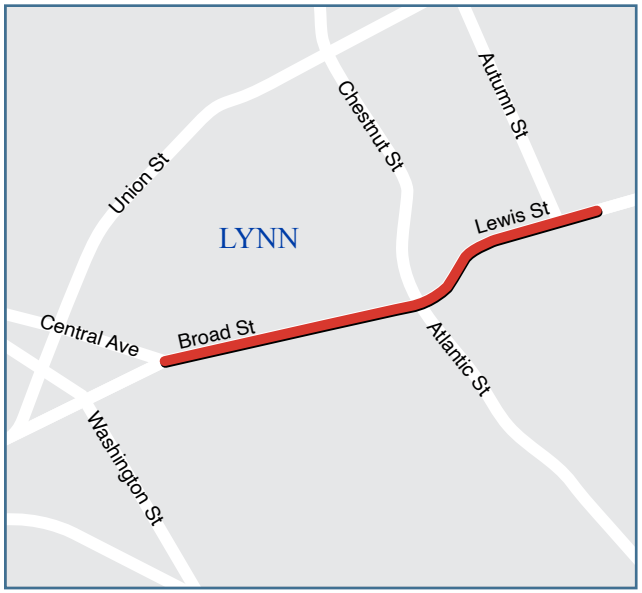
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	12 out of 30	3 out of 29	11 out of 29	5 out of 16	1 out of 12	6 out of 18	38 out of 134

PROJECT DESCRIPTION

This project involves improvements to address traffic congestion and the safety of pedestrians and bicyclists through the addition of turning lanes and the reduction and consolidation of curb cuts. Full accommodations for vehicular, bicycle, and pedestrian travel and upgraded signage and wayfinding will also be established to improve accessibility for all users who travel to and from the nearby businesses.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$4,131,500	–	–	–	–	$4,131,500
Non-Federal Funds	$1,032,875	–	–	–	–	$1,032,875
Total Funds	$5,164,375	–	–	–	–	$5,164,375



LYNN: BROAD STREET CORRIDOR TRANSIT SIGNAL PRIORITY

Proponent: Lynn
ID Number: S12802
Project Type: Community Connections
Cost: $297,800
Funding Source: Regional Target Funds

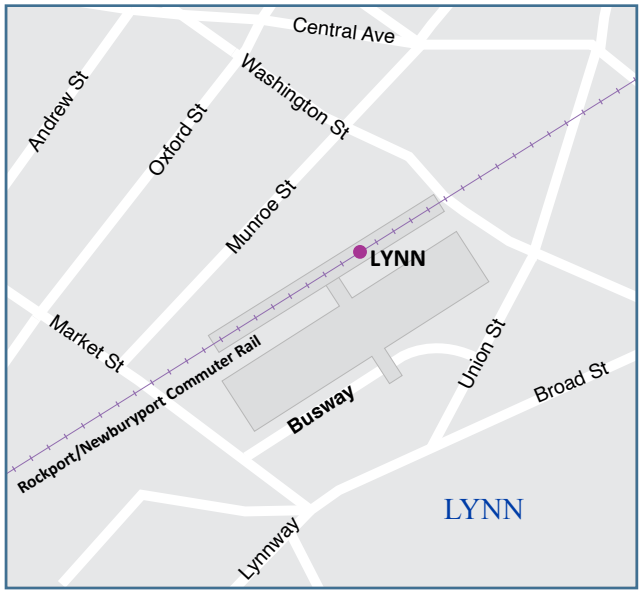
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	17.5 out of 18	12 out of 15	13.5 out of 15	12 out of 18	23 out of 24	10 out of 10	88 out of 100

PROJECT DESCRIPTION

Upgrades to traffic signal equipment at seven signalized intersections on Broad Street in Lynn to facilitate the efficiency of all modes of transportation on a key transportation corridor. The Lynn Transit Action Plan identified the corridor as a priority area for improvement with 5,100 daily passenger trips via several MBTA bus routes.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$238,240	–	–	–	–	$297,800
Non-Federal Funds	$59,560	–	–	–	–	$217,000
Total Funds	$297,800	–	–	–	–	$297,800



LYNN: LYNN STATION IMPROVEMENTS PHASE II

Proponent: MBTA
ID Number: S12705
Project Type: Transit Modernization
Cost: $48,100,000
Funding Source: Regional Target Funds

SCORING SUMMARY

This is a MBTA prioritized project and is not subject to TIP scoring criteria

PROJECT DESCRIPTION

This project will make a range of improvements to the MBTA commuter rail station in Lynn, addressing the existing deterioration within the station to bring it into a state of good repair. The project will reconstruct the existing platform, construct two new elevators, and rehabilitate existing stairways and lighting throughout the station, among other upgrades. This project also includes waterproofing and structural repairs to the viaduct northeast of the station. In FFY 2023, the MPO funded this project with $34,500,000. The funding for this project continues into the current TIP with $13,600,000 for a total allocation of $48,100,000.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$10,880,000	–	–	–	–	$10,880,000
Non-Federal Funds	$2,720,000	–	–	–	–	$2,720,000
Total Funds	$13,600,000	–	–	–	–	$13,600,000

LYNN: REHABILITATION OF ESSEX STREET

Proponent: Lynn
ID Number: 609252
Project Type: Complete Streets
Cost: $19,698,640
Funding Source: Regional Target Funds

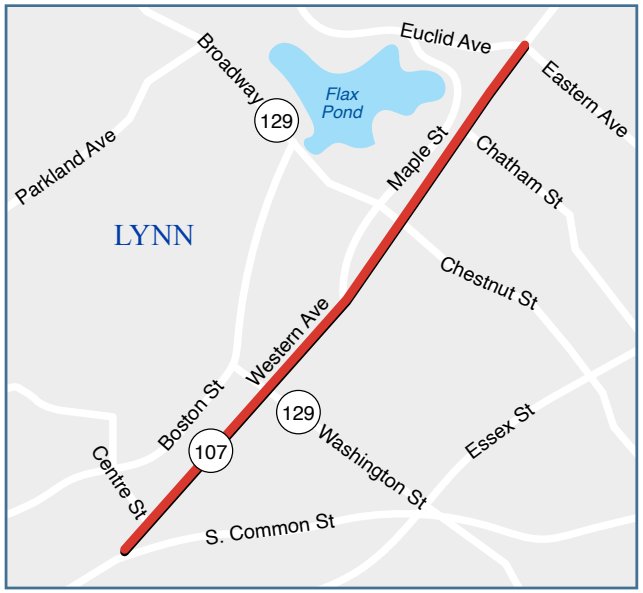
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	19 out of 30	17 out of 29	9 out of 29	8 out of 16	10 out of 12	3 out of 18	66 out of 134

PROJECT DESCRIPTION

This project is focused on making key safety improvements for pedestrians and bicyclists. Existing sidewalks on Essex Street will be reconstructed to ADA/AAB standards and will be complemented by the addition of new on-street bicycle facilities. Pedestrian safety will be improved through the construction of curb bump-outs at intersections to reduce crosswalk length. In addition, operational improvements such as signal updates and pavement markings will be established to enhance safety.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$15,758,912	–	–	–	$15,758,912
Non-Federal Funds	–	$3,939,728	–	–	–	$3,939,728
Total Funds	–	$19,698,640	–	–	–	$19,698,640



LYNN: REHABILITATION OF WESTERN AVENUE (ROUTE 107)

Proponent: Lynn
ID Number: 609246
Project Type: Complete Streets
Cost: $45,897,600
Funding Source: Regional Target Funds

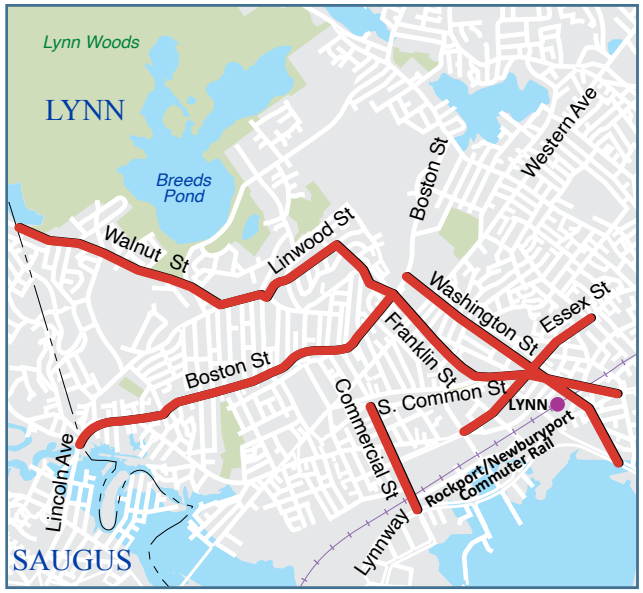
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	18 out of 18	14 out of 20	10 out of 18	11 out of 12	11.9 out of 20	10 out of 12	74.9 out of 100

PROJECT DESCRIPTION

This project will reconstruct 1.9 miles of Western Avenue (Route 107) in Lynn between Centre Street and Eastern Avenue. Work will include roadway pavement reconstruction, drainage improvements, improved design for traffic operations and safety, new signs and pavement markings, and bicycle and ADA-compliant pedestrian improvements. This project includes improvements to bus stop locations throughout the corridor and bus-priority elements will be considered during the design phase. A key goal of this project is to enhance safety along the corridor, as this segment of Western Avenue has three 2017–19 top-200 crash clusters, four 2017–19 all-mode crash clusters, one 2010–19 bicycle crash cluster, and one 2010-19 pedestrian crash cluster, making it a high-priority safety improvement location statewide. This project is anticipated to be funded over three fiscal years, with funding beginning in FFY 2027.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$12,300,000	$16,000,000	$28,300,000
Non-Federal Funds	–	–	–	$2,700,000	$4,000,000	$6,700,000
Total Funds	–	–	–	$15,000,000	$20,000,000	$35,000,000



LYNN: TARGETED SAFETY AND MULTIMODAL IMPROVEMENTS (PLAYBOOK PRIORITY CORRIDORS)

Proponent: MassDOT
ID Number: 612599
Project Type: Safety Improvements
Cost: $8,321,400
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will implement targeted safety improvements at key locations in Lynn as identified in the Lynn Safe Streets for People Playbook. This multimodal safety plan was created by the City of Lynn in partnership with MassDOT and identified priority streets for improvement and developed strategies to support the creation of a safe network for all users, with an emphasis on walking, biking, and taking transit. The project will involve the implementation of both corridor- and intersection-level treatments and amenities for street users on a systemic basis. The street corridors in this phase will include Walnut Street, Franklin Street, Linwood Street, Washington Street, Boston Street, Essex Street, Liberty Street, Tremont Street, Central Avenue, Exchange Street, and Commercial Street. Corridor treatments will include the installation of protected bicycle lanes, shared streets treatments, and traffic-calming measures such as speed cushions or humps. Intersection treatments will include curb ramps and extensions, geometric adjustments, raised crosswalks, installation of rectangular-rapid-flashing beacons, and signal equipment and timing upgrades. Amenities for street users will include the installation of bicycle parking, improved bus shelters, signage, and benches, floating bus stops, and bus bulbs.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$7,157,120	–	–	$7,157,120
Non-Federal Funds	–	–	$1,164,280	–	–	$1,164,280
Total Funds	–	–	$8,321,400	–	–	$8,321,400

LYNNFIELD AND PEABODY: INTERSTATE MAINTENANCE AND RELATED WORK ON I-95

Proponent: MassDOT
ID Number: 612033
Project Type: Interstate Pavement
Cost: $8,575,451
Funding Source: Statewide Highway Funds

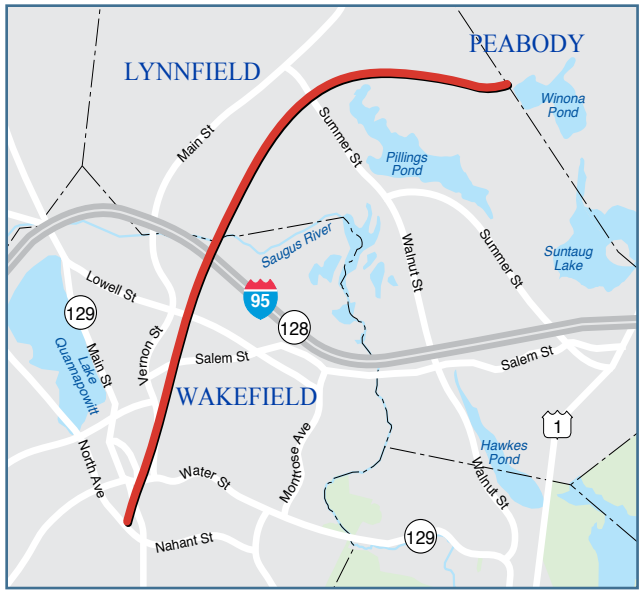
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will maintain Interstate 95 in Lynnfield and Peabody from Hawkes Brook to Proctor Brook.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$7,717,906	$7,717,906
Non-Federal Funds	–	–	–	–	$857,545	$857,545
Total Funds	–	–	–	–	$8,575,451	$8,575,451



LYNNFIELD AND WAKEFIELD:
LYNNFIELD- RAIL TRAIL EXTENSION, FROM THE GALVIN MIDDLE SCHOOL TO LYNNFIELD/ PEABODY TOWN LINE

Proponent: MassDOT
ID Number: 607329
Project Type: Bicycle and Pedestrian
Cost: $24,543,047
Funding Source: Statewide Highway Funds

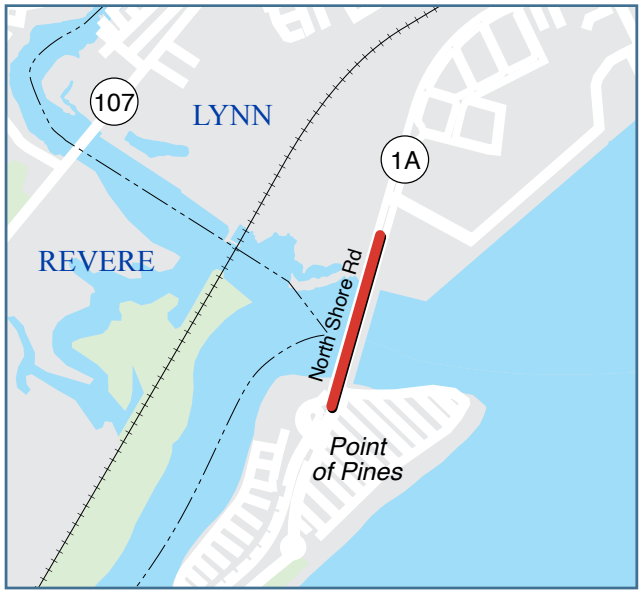
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

The proposed Wakefield/Lynnfield Rail Trail extends from the Galvin Middle School in Wakefield north to the Lynnfield/Peabody town line, a distance of approximately 4.4 miles. Approximately 1.9 miles of the trail is located within Wakefield and 2.5 miles in Lynnfield. The corridor is the southern section of the former Newburyport Railroad and will connect to Peabody and the regional Border to Boston Trail.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$8,480,000	$11,154,438	$19,634,438
Non-Federal Funds	–	–	–	$2,120,000	$2,788,609	$4,908,609
Total Funds	–	–	–	$10,600,000	$13,943,047	$24,543,047



LYNN-REVERE: BRIDGE RECONSTRUCTION, L-18-015=R-05-008, ROUTE 1A OVER SAUGUS RIVER

Proponent: MassDOT
ID Number: 608396
Project Type: Bridge
Cost: $105,560,000
Funding Source: Regional Target Funds

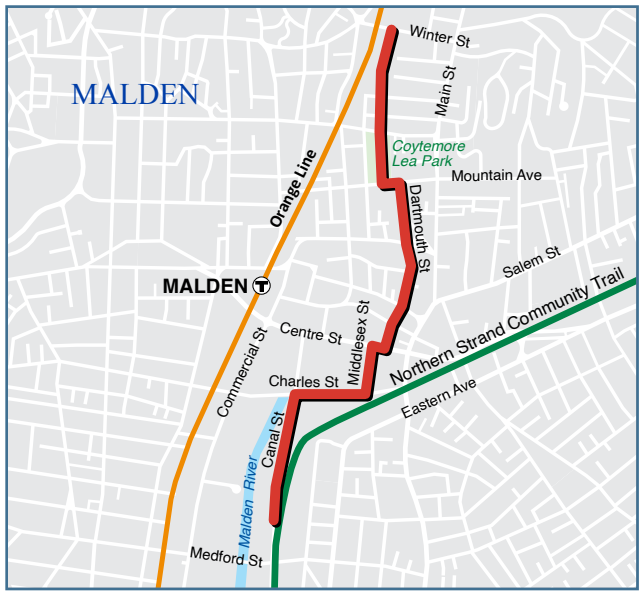
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will perform substructure and superstructure repairs and construction for the General Edwards Bridge carrying the Route 1A Lynnway over the Saugus River between Revere and Lynn.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$43,348,579	$43,348,579
Non-Federal Funds	–	–	–	–	$10,837,145	$10,837,145
Total Funds	–	–	–	–	$54,185,724	$54,185,724



MALDEN: SPOT POND BROOK GREENWAY

Proponent: Malden

ID Number: 613088

Project Type: Bicycle Network and Pedestrian Connections

Cost: $4,858,127

Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	16.5 out of 30	10 out of 29	18 out of 29	5 out of 16	12 out of 12	11.5 out of 18	73 out of 134

PROJECT DESCRIPTION

This project will construct a 1.1 mile shared-use path connecting Coytemore Lea Park in Malden's Oak Grove neighborhood with the Northern Strand Community Trail and Malden River via downtown Malden. The project will replace existing sidewalk infrastructure and adjust roadway widths to accomodate a new 11 foot shared-use facility within the existing right-of-way.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$3,886,502	–	$3,886,502
Non-Federal Funds	–	–	–	$971,625.40	–	$971,625
Total Funds	–	–	–	$4,858,127	–	$4,858,127

MALDEN-REVERE: IMPROVEMENTS AT ROUTE 1 (NB) (PHASE 1)

Proponent: MassDOT
ID Number: 610543
Project Type: Roadway Reconstruction
Cost: $8,363,600
Funding Source: Statewide Highway Fundss

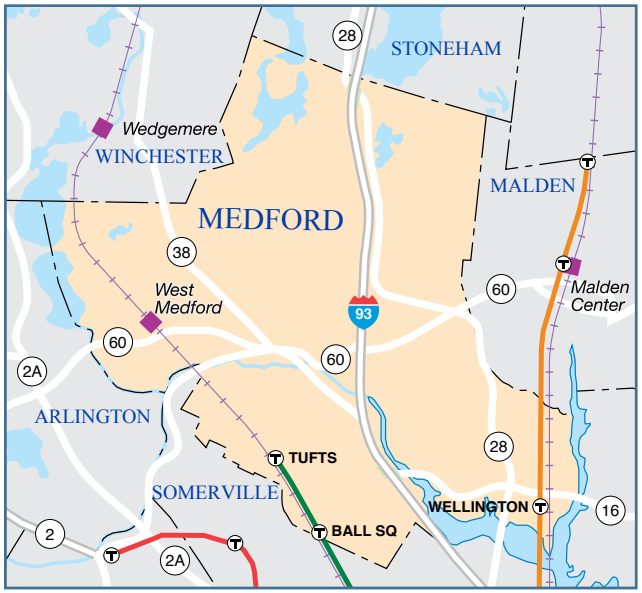
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make improvements along Route 1 northbound in Malden and Revere over a distance of approximately 0.8 miles north of Squire Road.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$6,690,880	$6,690,880
Non-Federal Funds	–	–	–	–	$1,672,720	$1,672,720
Total Funds	–	–	–	–	$8,363,600	$8,363,600



MEDFORD: MEDFORD BICYCLE PARKING - TIER 1

Proponent: Medford
ID Number: S12803
Project Type: Community Connections
Cost: $29,600
Funding Source: Regional Target Funds

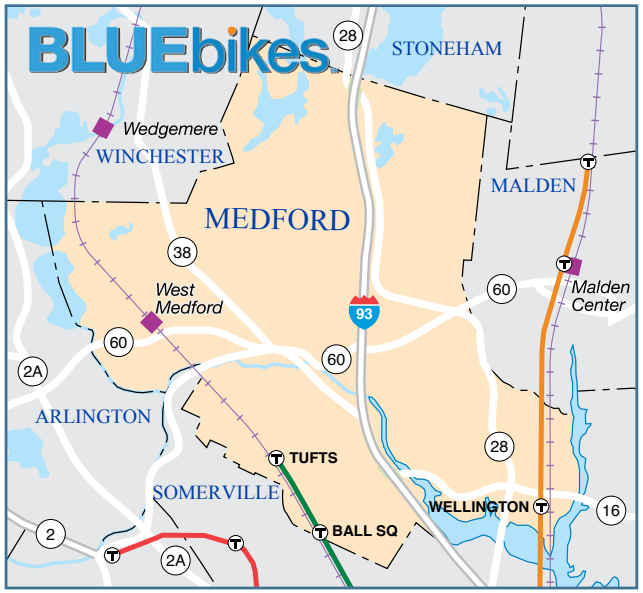
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	6 out of 18	2 out of 15	9 out of 15	59 out of 18	22 out of 24	10 out of 10	58 out of 100

PROJECT DESCRIPTION

This project will purchase and install 40 bicycle racks to create 80 additional bicycle parking stations at priority areas throughout the City of Medford. These priority areas include West Medford (including the commuter rail station), Medford Square, Tufts Square, South Medford, Wellington Station, and Haines Square. The racks will also serve stops along MBTA bus routes, including Routes 80, 94, 95, 96, 101, 108, and 134.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$23,680	–	–	–	–	$23,680
Non-Federal Funds	$5,920	–	–	–	–	$5,920
Total Funds	$29,600	–	–	–	–	$29,600



MEDFORD: MEDFORD BLUEBIKES EXPANSION

Proponent: Medford
ID Number: S12804
Project Type: Community Connections
Cost: $118,643
Funding Source: Regional Target Funds

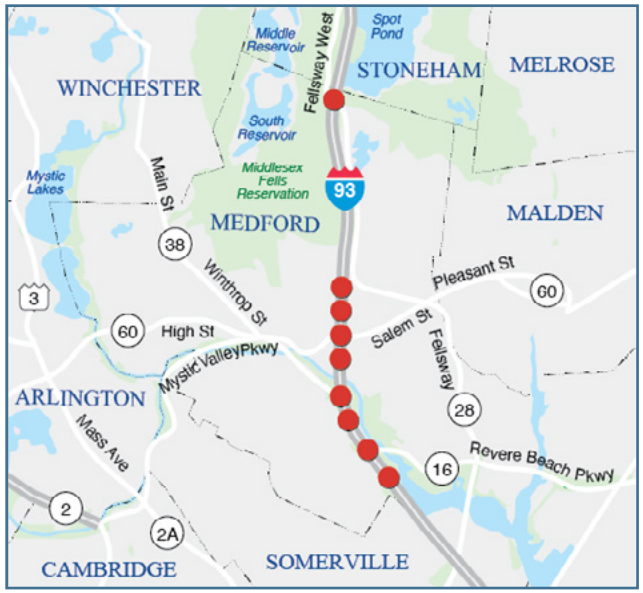
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	6 out of 18	2 out of 15	9 out of 15	59 out of 18	22 out of 24	10 out of 10	58 out of 100

PROJECT DESCRIPTION

This project will expand the existing Bluebikes system in Medford through the purchase and installation of four Bluebikes docks and an additional 25 bikes. The locations of these docks may be Condon Shell, Glenwood, Lawrence Estates, and West Medford.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$94,914	–	–	–	–	$94,914
Non-Federal Funds	$23,729	–	–	–	–	$23,729
Total Funds	$118,643	–	–	–	–	$118,643



MEDFORD: BRIDGE PRESERVATION OF 10 BRIDGES CARRYING I-93

Proponent: MassDOT
ID Number: 613211
Project Type: Bridge
Cost: $1,746,000
Funding Source: Statewide Highway Funds

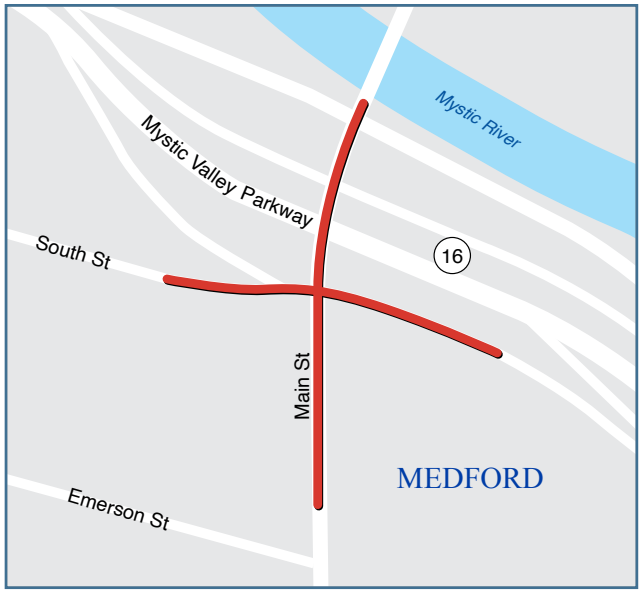
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

Bridge preservation of substructures requiring patching in Medford. Topside repairs being completed by other contract this will maintain state of good repair.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$1,396,800	–	–	–	–	$1,396,800
Non-Federal Funds	$349,200	–	–	–	–	$349,200
Total Funds	$1,746,000	–	–	–	–	$1,746,000



MEDFORD: INTERSECTION IMPROVEMENTS AT MAIN STREET/SOUTH STREET, MAIN STREET/MYSTIC VALLEY PARKWAY RAMPS, AND MAIN STREET/MYSTIC AVENUE

Proponent: MassDOT
ID Number: 611974
Project Type: Intersection Improvements
Cost: $9,177,840
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make safety improvements to the intersection of Main Street and South Street in Medford. This location has a 2010–19 pedestrian crash cluster and a 2017–19 top-200 crash location (statewide), making it a high-priority safety improvement location. The scope of this project involves reconstruction of the intersection either by constructing a roundabout or reconstructing and updating the signal control system and lane assignments. A detailed alternatives analysis will be conducted to identify the preferred traffic control for the intersection, in addition to improvements to accessibility, and bicycle and pedestrian accommodations. This project will build upon the analysis done in the Medford Square Priority Roadways Improvement Study published by the Boston Region MPO in December 2018.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$8,260,056	–	–	$8,260,056
Non-Federal Funds	–	–	$917,784	–	–	$917,784
Total Funds	–	–	$9,177,840	–	–	$9,177,840

MEDFORD: MILTON FULLER ROBERTS ELEMENTARY SCHOOL (SRTS)

Proponent: MassDOT
ID Number: 612001
Project Type: Safe Routes to School
Cost: $1,020,484
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project includes pedestrian improvements at three key intersections for students approaching Roberts Elementary School. Improvements include the following: a full pedestrian signal, curb extensions, and improved lighting at the intersection of Fellsway with Paris Street and Fern Road, and sidewalk improvements from this intersection to the Roberts School along Park Street; pedestrian realignment, curb bump-outs, and pedestrian rapid-flashing beacons at the intersection of Salem Street and Hadley Place; and pedestrian rapid-flashing beacons, curb extensions, and improved lighting at the intersection of Fellsway and Grant Avenue.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$816,387	–	–	–	$816,387
Non-Federal Funds	–	$204,097	–	–	–	$204,097
Total Funds	–	$1,020,484	–	–	–	$1,020,484

MEDFORD: SHARED USE PATH CONNECTION AT THE ROUTE 28/WELLINGTON UNDERPASS

Proponent: MassDOT
ID Number: 611982
Project Type: Bicycle and Pedestrian
Cost: $4,560,833
Funding Source: Statewide Highway Funds

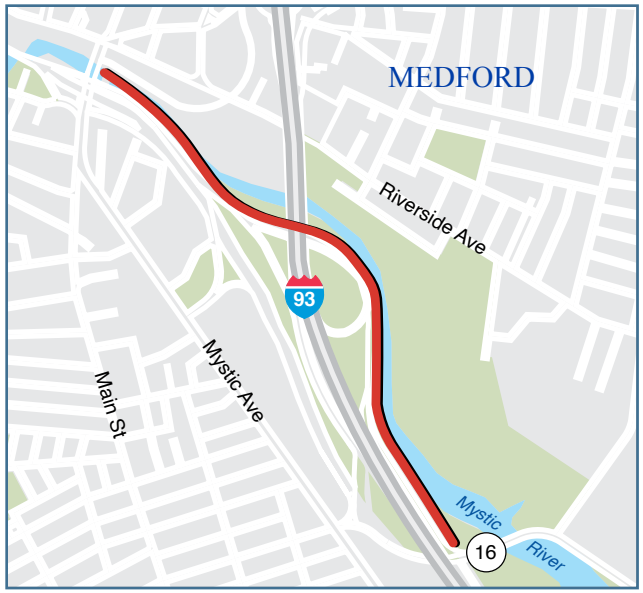
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will enhance bicycle and pedestrian travel in Medford by creating a shared-use path connection under Route 28 (Fellsway) along the Mystic River. This connection will be similar to a shared-use boardwalk on the opposite side of the Mystic River in Somerville, which also runs under Route 28. Once complete, this project will be a critical connection between existing riverfront pathways along the Mystic River in Medford, including the Wellington Greenway on the east side of Route 28 and the path system within the Mystic River State Reservation on the west side of Route 28.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$3,648,666	–	–	–	$3,648,666
Non-Federal Funds	–	$912,167	–	–	–	$912,167
Total Funds	–	$4,560,833	–	–	–	$4,560,833



MEDFORD: SOUTH MEDFORD CONNECTOR BIKE PATH

Proponent: MassDOT
ID Number: 612499
Project Type: Bicycle and Pedestrian
Cost: $7,903,743
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will enhance bicycle and pedestrian connectivity in Medford by creating a shared-use path along the south side of the Mystic River. This project aims to provide a critical link in the regional transportation network by connecting two existing Department of Conservation and Recreation paths and supporting bicycle commuter access throughout the region. This project will construct an 8- to 10-foot wide pathway approximately one mile long primarily within the existing right of way of Route 16.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$6,322,994	–	$6,322,994
Non-Federal Funds	–	–	–	$1,580,749	–	$1,580,749
Total Funds	–	–	–	$7,903,743	–	$7,903,743

MIDDLETON: BRIDGE REPLACEMENT, M-20-003, ROUTE 62 (MAPLE STREET) OVER IPSWICH RIVER

Proponent: MassDOT
ID Number: 608522
Project Type: Bridge
Cost: $3,635,960
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

The project will replace the bridge that carries Route 62 (Maple Street) over the Ipswich River in Middleton.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$2,908,768	–	–	–	–	$2,908,768
Non-Federal Funds	$727,192	–	–	–	–	$727,192
Total Funds	$3,635,960	–	–	–	–	$3,635,960

MILTON: INTERSECTION IMPROVEMENTS AT ROUTE 28 (RANDOLPH AVENUE) & CHICKATAWBUT ROAD

Proponent: MassDOT
ID Number: 607342
Project Type: Intersection Improvements
Cost: $9,112,736
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This intersection ranked second in the 2008–10 Statewide Top 200 Intersection Crash List. This project addresses the high number and severity of crashes that occur at this intersection.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$7,251,041	–	–	–	–	$7,251,041
Non-Federal Funds	$1,590,456	–	–	–	–	$1,590,456
Total Funds	$9,112,736	–	–	–	–	$9,112,736

MILFORD: REHABILITATION ON ROUTE 16, FROM ROUTE 109 TO BEAVER STREET

Proponent: Milford
ID Number: 608045
Project Type: Complete Streets
Cost: $9,758,201
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	20 out 20	7 out of 29	9 out of 29	-1 out of 16	3 out of 12	5 out of 18	43 out of 134

PROJECT DESCRIPTION

This project supports enhanced vehicular safety and traffic flow through the implementation of a road diet, additional roadway reconstruction, and enhanced signalization on the Route 16 (East Main Street) corridor from Route 109 (Medway Road) to Beaver Street. In addition, the project also addresses pedestrian and bicyclist safety through the addition of pavement markings for shared-use bike lanes and the construction of new six-foot sidewalks along both sides of the roadway.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$7,806,561	–	–	$1,951,640
Non-Federal Funds	–	–	$1,951,640	–	–	$1,951,640
Total Funds	–	–	$9,758,201	–	–	$9,758,201

MWRTA: CATCHCONNECT MICTROTRANSIT SERVICE EXPANSION PHASE 2

Proponent: MWRTA
ID Number: S12807
Project Type: Community Connections
Cost: $380,477
Funding Source: Regional Target Funds

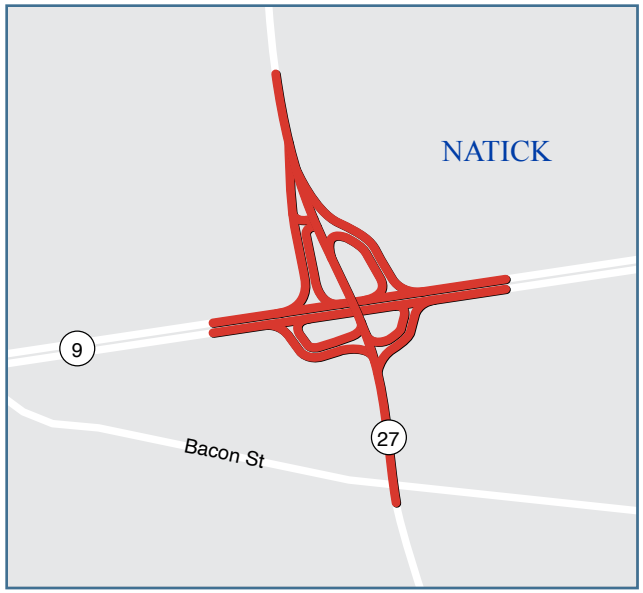
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	6 out of 18	2 out of 15	9 out of 15	9 out of 18	22 out of 24	10 out of 10	58 out of 100

PROJECT DESCRIPTION

This project will expand the MetroWest Regional Transit Authority's (MWRTA) CatchConnect mictrotransit program within the municipalities of Framingham and Natick. The expanded service will improve weeknight mobility in evening hours between 7:30 PM and 10:30 PM Monday through Friday to provide a supplemental public transportation resource following the conclusion of tradtional fixed-route service.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$112,000	$106,000	$86,382	–	–	$304,382
Non-Federal Funds	$28,000	$26,500	$21,595	–	–	$76,095
Total Funds	$140,000	$132,500	$107,977	–	–	$380,477



NATICK: BRIDGE REPLACEMENT, ROUTE 27 OVER ROUTE 9 AND INTERCHANGE IMPROVEMENTS

Proponent: MassDOT
ID Number: 605313
Project Type: Bridge
Cost: $75,677,350
Funding Source: Statewide Highway Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	13 out of 18	13 out of 20	11 out of 18	8 out of 12	6.7 out of 20	6 out of 12	57.7 out of 100

PROJECT DESCRIPTION

This project will completely reconfigure and reconstruct the bridge that carries Route 27 over Route 9, creating a modified diverging diamond layout that aims to improve traffic flow and roadway geometry while enhancing safety for all users. There are currently no ADA-compliant sidewalks or bike lanes on the bridge. Only one side of the bridge has sidewalks, which are in poor condition. This project will create a dedicated bicycle and pedestrian bridge along with off-road facilities throughout the project area, providing a pedestrian and bicycle link between the neighborhoods north of Route 9 with Natick Center and the Cochituate Rail Trail. Additionally, the Route 27 bridge was built in 1931 and is currently listed as structurally deficient, so this project supports a return of this overpass to a state of good repair. This project was evaluated using the MPO's scoring criteria because it was considered for funding using Regional Target Funds. MassDOT funded the project, however.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$72,301,364	–	–	–	–	$72,301,364
Non-Federal Funds	$3,375,986	–	–	–	–	$3,375,986
Total Funds	$75,677,350	–	–	–	–	$75,677,350

NATICK: COCHITUATE RAIL TRAIL EXTENSION, FROM MBTA STATION TO MECHANIC STREET

Proponent: Natick
ID Number: 610691
Project Type: Bicycle Network and Pedestrian Connections
Cost: $7,760,451
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	12 out of 30	11 out of 29	18 out of 29	5 out of 16	8 out of 12	13 out of 18	67 out of 134

PROJECT DESCRIPTION

This project will extend the Cochituate Rail Trail in Natick from its current terminus at Mechanic Street southward via a shared-use bridge to connect to the Natick Center Commuter Rail Station and Route 27.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$6,208,360	$6,208,361
Non-Federal Funds	–	–	–	–	$1,552,090	$1,552,090
Total Funds	–	–	–	–	$7,760,451	$7,760,451

NATICK: LAKE COCHITUATE PATH

Proponent: MassDOT
ID Number: 610680
Project Type: Bicycle and Pedestrian
Cost: $3,428,355
Funding Source: Statewide Highway Funds

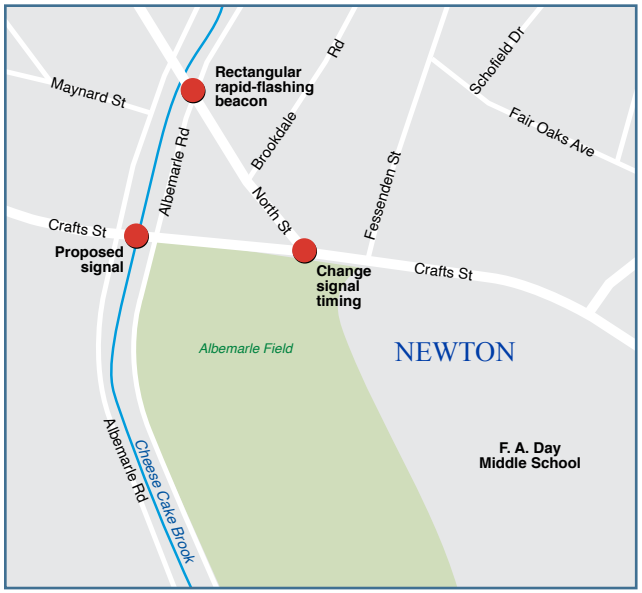
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project includes a 0.4-mile segment of shared-used path along Route 9 in Natick. The project limits are from Archer Drive to the Cochituate Rail Trail. No roadway crossings are proposed and the shared-use path will provide a bicycle and pedestrian connection between the Cochituate Rail Trail and the robust residential and commercial area that is located in close proximity to the project's western terminus, filling a critical gap in the multimodal network.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$2,742,684	–	–	–	$2,742,684
Non-Federal Funds	–	$685,671	–	–	–	$685,671
Total Funds	–	$3,428,355	–	–	–	$3,428,355



NEWTON: HORACE MANN ELEMENTARY SCHOOL IMPROVEMENTS (SRTS)

Proponent: MassDOT
ID Number: 611997
Project Type: Safe Routes to School
Cost: $861,238
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will upgrade the intersections of Crafts Street and Albemarle Road and Albemarle Road and North Street, to improve bicycle and pedestrian accommodations near the Horace Mann Elementary School, FA Day Middle School, and the Newton Early Childhood Program. The project as proposed includes installing a fully actuated traffic signal at the Crafts Street and Albemarle Road intersection and a rapid-flashing-beacon crosswalk system at the Albemarle Road and North Street intersection. It will also require signal modifications to the existing traffic signal at Crafts Street at North Street.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$688,990	–	–	–	$688,990
Non-Federal Funds	–	$172,247	–	–	–	$172,247
Total Funds	–	$861,238	–	–	–	$861,238

NEWTON: INTERSECTION IMPROVEMENTS AT ROUTE 16 AND QUINOBEQUIN ROAD

Proponent: MassDOT
ID Number: 612613
Project Type: Intersection Improvements
Cost: $4,872,000
Funding Source: Statewide Highway Funds

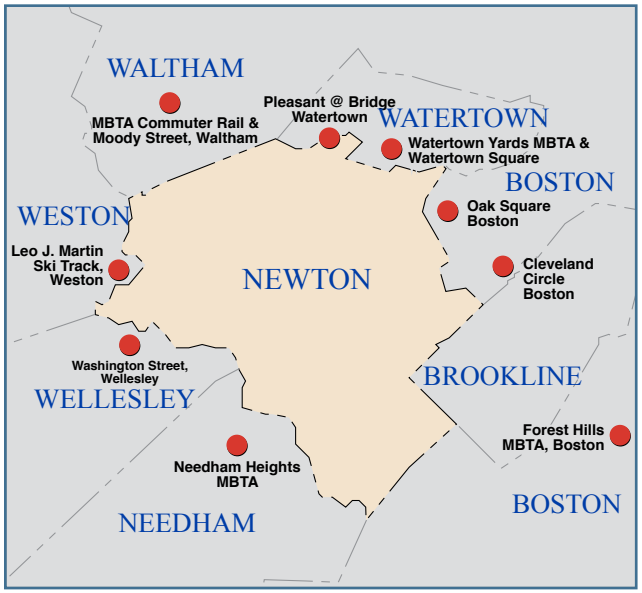
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make safety improvements to the intersection of Route 16, Washington Street and Quinobequin Road in Newton near the Route 16 and Route 128/I-95 Interchange.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$4,384,800	–	$4,384,800
Non-Federal Funds	–	–	–	$487,200	–	$487,200
Total Funds	–	–	–	$4,872,000	–	$4,872,000



NEWTON: NEWMO MICROTRANSIT SERVICE EXPANSION PHASE 1

Proponent: Newton
ID Number: S12694
Project Type: Community Connections
Cost: $890,574
Funding Source: Regional Target Funds

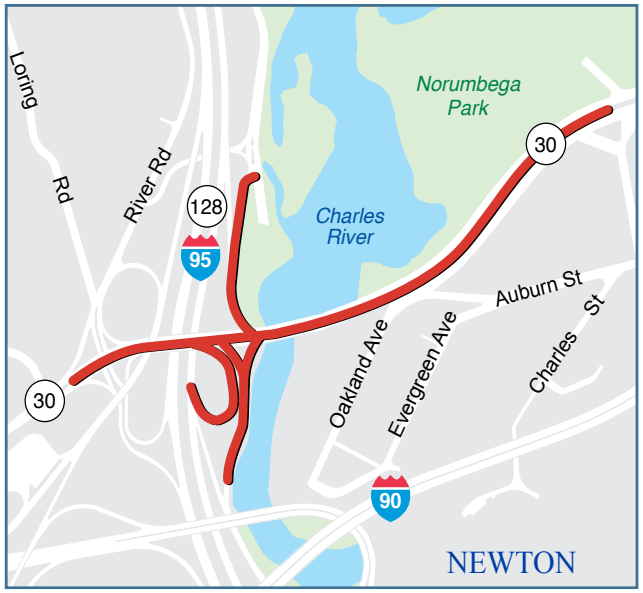
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	18 out of 18	14 out of 15	12 out of 15	9 out of 18	24 out of 24	10 out of 10	87 out of 100

PROJECT DESCRIPTION

This project will expand Newton's existing city-wide microtransit service to include stops in Watertown, Waltham, Weston, Wellesley, Needham, and Boston, with the goal of connecting riders to an expanded network of employment centers, activity hubs, and public transportation options. NewMo is Newton's on-demand rideshare system, operated by Via. The system uses state-of-the-art technology to cost-effectively deliver dynamically routed, shared rides using microtransit technology. The system is on track to provide 50,000 trips in its first year and sees significant ridership by low-income individuals, commuters, seniors, and students. The Boston Region MPO contributed funding to NewMo's initial launch, with $727,000 allocated to the project's first phase in FFYs 2021–23. This second phase is funded through the third round of grants available through the MPO's Community Connections Program.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$214,597	–	–	–	–	$53,649
Non-Federal Funds	$80,500	–	–	–	–	$53,649
Total Funds	$268,246	–	–	–	–	$268,246



NEWTON AND WESTON: BRIDGE REHABILITATION, N-12-010=W-29-005, COMMONWEALTH AVENUE (ROUTE 30) OVER THE CHARLES RIVER

Proponent: MassDOT
ID Number: 110980
Project Type: Intersection Improvements
Cost: $21,851,750
Funding Source: Regional Target Funds

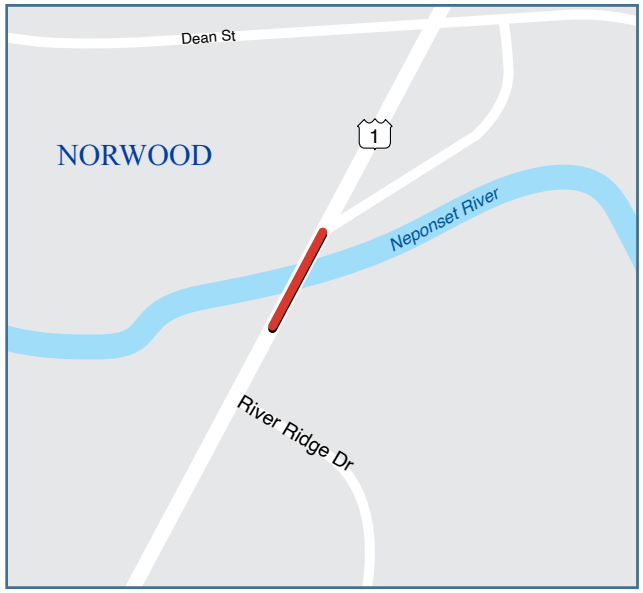
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will replace bridge N-12-010=W-29-005 which carries Commonwealth Avenue (Route 30) over the Charles River between Newton and Weston. The project aims to improve the existing poor condition of the bridge and improve safety at the interchange while adding new bicycle and pedestrian accommodations to the corridor. These new facilities for people walking and bicycling will connect to facilities being constructed as a part of adjacent projects on Route 30, including improvements in Newton that are funded by MassDOT in FFY 2023 (project number 610674) and the reconstruction of Route 30 in Weston, funded by the MPO in FFY 2026 (project number 608954).

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$17,481,400	–	–	–	–	$17,481,400
Non-Federal Funds	$4,370,350	–	–	–	–	$4,370,350
Total Funds	$21,851,750	–	–	–	–	$21,851,750



NORWOOD: BRIDGE PRESERVATION, PROVIDENCE HIGHWAY (STATE ROUTE 1) OVER THE NEPONSET RIVER

Proponent: MassDOT
ID Number: 605321
Project Type: Bridge
Cost: $3,460,268
Funding Source: Statewide Highway Funds

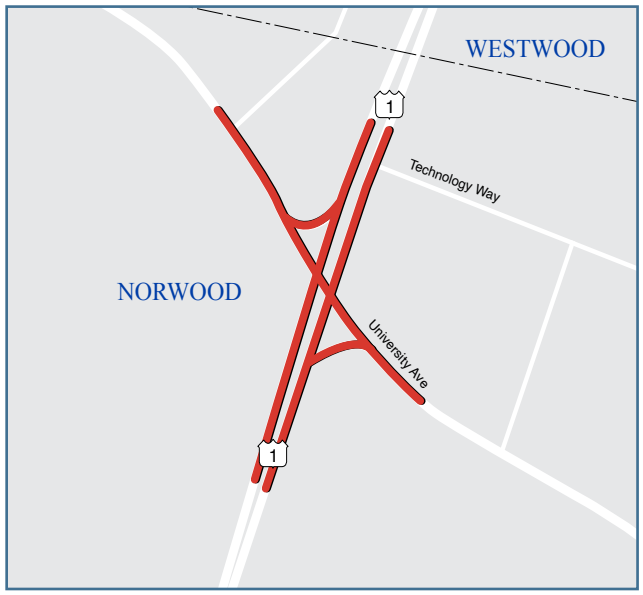
SCORING SUMMARY

This project received a total score of 53 points when evaluated using the criteria for the pilot round of the MPO's Community Connections Program. These criteria are listed in table A-11.

PROJECT DESCRIPTION

This project will rehabilitate bridge N-25-026, which carries Providence Highway (State Route 1) over the Neponset River in Norwood.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$2,768,214	–	–	$2,768,214
Non-Federal Funds	–	–	$692,054	–	–	$692,054
Total Funds	–	–	$3,460,268	–	–	$3,460,268



NORWOOD: INTERSECTION IMPROVEMENTS AT ROUTE 1 AND UNIVERSITY AVENUE/ EVERETT STREET

Proponent: Norwood
ID Number: 605857
Project Type: Intersection Improvements
Cost: $28,699,272
Funding Source: Regional Target Funds

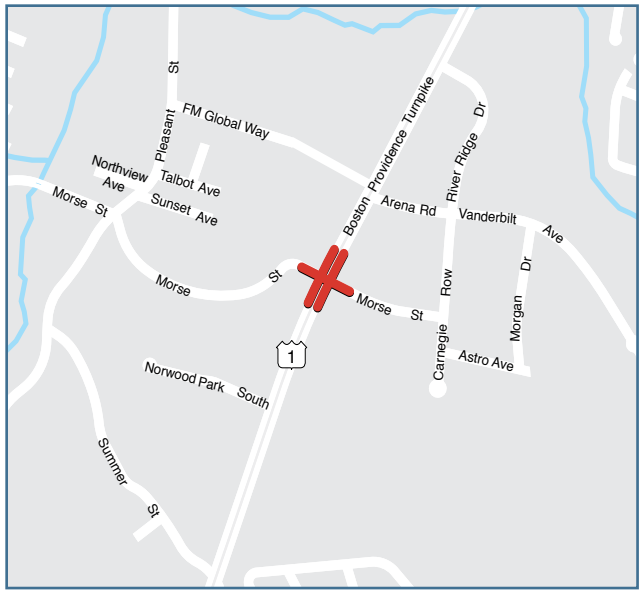
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	11 out of 30	12 out of 29	15 out of 29	11 out of 16	2 out of 12	4 out of 18	55 out of 134

PROJECT DESCRIPTION

This project includes traffic signal upgrades and associated geometric improvements at the intersection of Route 1 with University Avenue and Everett Street. Related improvements include constructing an additional travel lane in each direction on Route 1, upgrading of traffic signals, lengthening of left-turn lanes on Route 1, upgrading of pedestrian crossings at each leg of the intersection, and upgrading of bicycle amenities (loop detectors) at the intersection. Rehabilitation of sidewalks, curbing, median structures, lighting, and guard rails are also proposed.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$8,900,698	$14,058,720	–	$22,959,418
Non-Federal Funds	–	–	$2,225,174	$3,514,680	–	$5,739,854
Total Funds	–	–	$11,125,872	$17,573,400	–	$28,699,272



NORWOOD: INTERSECTION & SIGNAL IMPROVEMENTS AT US 1 (PROVIDENCE HIGHWAY) & MORSE STREET

Proponent: MassDOT
ID Number: 608052
Project Type: Intersection Improvements
Cost: $1,727,573
Funding Source: Statewide Highway Funds

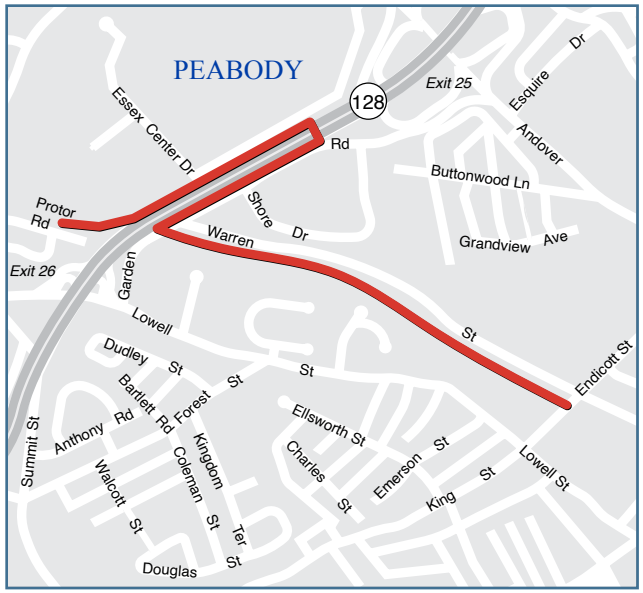
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will rehabilitate bridge N-25-026, which carries Providence Highway (State Route 1) over the Neponset River in Norwood.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$1,554,816	$1,554,816
Non-Federal Funds	–	–	–	–	$172,757	$172,757
Total Funds	–	–	–	–	$1,727,573	$1,727,573



PEABODY: INDEPENDENCE GREENWAY EXTENSION

Proponent: Peabody
ID Number: 609211
Project Type: Bicycle and Pedestrian
Cost: $7,524,204
Funding Source: Regional Target Funds

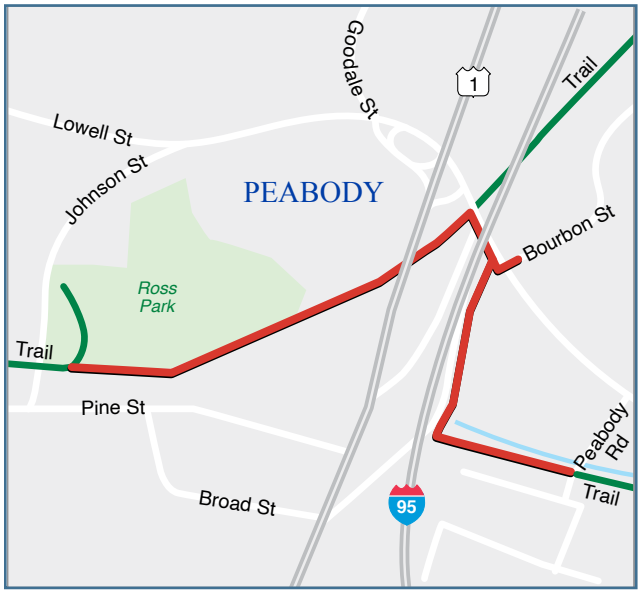
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	9 out of 30	4 out of 29	9 out of 29	4 out of 16	4 out of 12	4 out of 18	34 out of 134

PROJECT DESCRIPTION

This project will extend the Independence Greenway 1.3 miles east from its present terminus at the North Shore Mall to the intersection of the Warren Street Extension and Endicott Street in central Peabody. When complete, the project will bring the greenway's total length to eight miles. This project makes use of an existing rail corridor as it runs parallel to Lowell Street.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$6,019,363	–	–	–	–	$6,019,363
Non-Federal Funds	$1,504,840	–	–	–	–	$1,504,840
Total Funds	$7,524,204	–	–	–	–	$7,524,204



PEABODY: MULTI-USE PATH CONSTRUCTION OF INDEPENDENCE GREENWAY AT INTERSTATE 95 AND ROUTE 1

Proponent: Peabody
ID Number: 610544
Project Type: Bicycle and Pedestrian
Cost: 6,334,200
Funding Source: Regional Target Funds

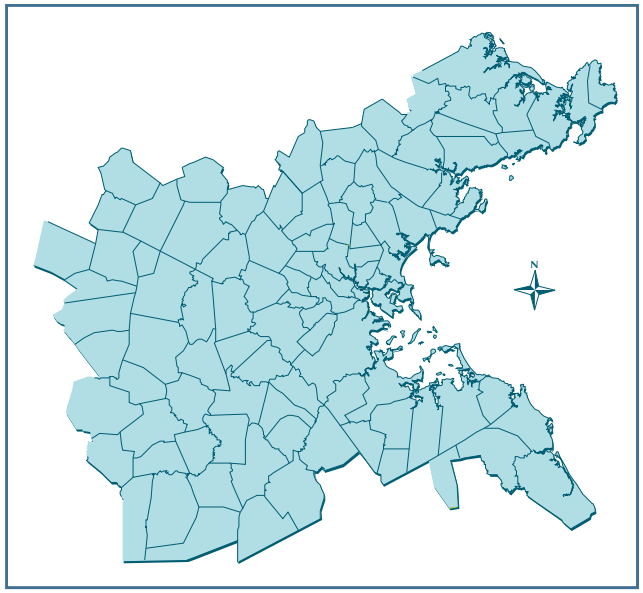
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	15 out of 30	14 out of 29	11 out of 29	4 out of 16	4 out of 12	6 out of 18	53 out of 134

PROJECT DESCRIPTION

The project includes construction of a new 12-foot wide multi-use paved path along the abandoned railbed between two existing segments of the Independence Greenway in Peabody. The project also includes a connection to the existing Border to Boston trailhead at Lowell Street. The work includes full-depth pavement construction, minor drainage improvements, vegetative privacy screening, new and reset granite curb, new cement concrete sidewalk and hot mix asphalt, signal upgrades at the intersections of Lowell and Bourbon Streets and Route 1 northbound and Lowell Street, a new two-span steel pedestrian bridge, and various curb, walking, and parking improvements to the existing parking lot at 215 Newbury Street.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$5,067,360	–	–	–	$5,067,360
Non-Federal Funds	–	$1,266,840	–	–	–	$1,266,840
Total Funds	–	$6,334,200	–	–	–	$6,334,200



PROJECT DESIGN SUPPORT PILOT

Proponent: CTPS
ID Number: S12825
Project Type: Project Design Support Pilot
Cost: $4,000,000
Funding Source: Regional Target Funds

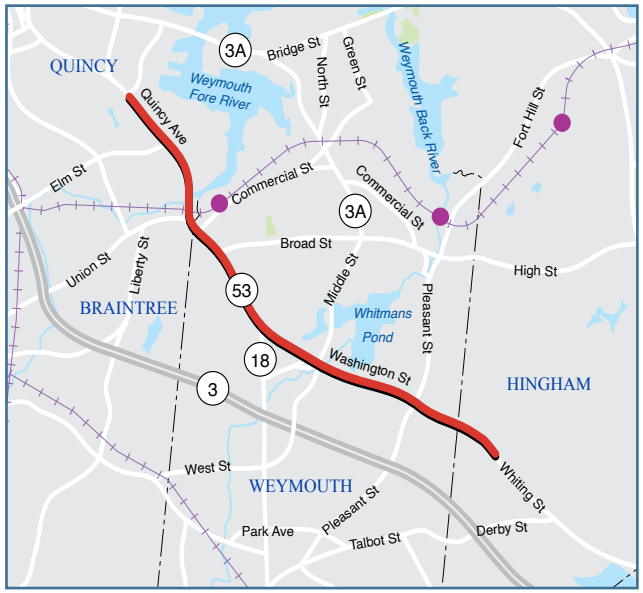
SCORING SUMMARY

This is an administrative line item. Design pilot projects that are awarded through this line item will be subject to separate scoring and evaluation in the development of the FFY 2025-2029 TIP.

PROJECT DESCRIPTION

Set-aside funding to support the Project Design Support Pilot program, which is planned to launch in the FFY 2025-29 TIP.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$4,000,000	–	–	–	$4,000,000
Non-Federal Funds	–	–	–	–	–	–
Total Funds	–	$4,000,000	–	–	–	$4,000,000



QUINCY-WEYMOUTH-BRAINTREE: RESURFACING AND RELATED WORK ON ROUTE 53

Proponent: MassDOT
ID Number: 608498
Project Type: Complete Streets
Cost: $6,635,050
Funding Source: Statewide Highway Funds

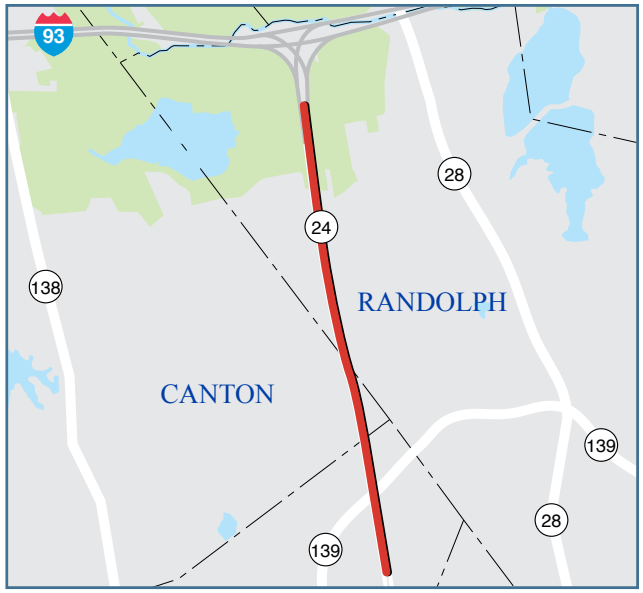
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project involves traffic and safety improvements for all users along Sea Street through the reconstruction of sidewalks with ADA-compliant ramps, the provision of bicycle accommodations, and the construction of median islands. Geometric modifications of the roadway and upgraded traffic signal systems will also be established to enhance safety.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$5,308,040	–	–	–	$5,308,040
Non-Federal Funds	–	$1,327,010	–	–	–	$1,327,010
Total Funds	–	$6,635,050	–	–	–	$6,635,050



RANDOLPH: RESURFACING AND RELATED WORK ON ROUTE 24

Proponent: MassDOT
ID Number: 612049
Project Type: Non-Interstate Pavement
Cost: $9,128,700
Funding Source: Statewide Highway Funds

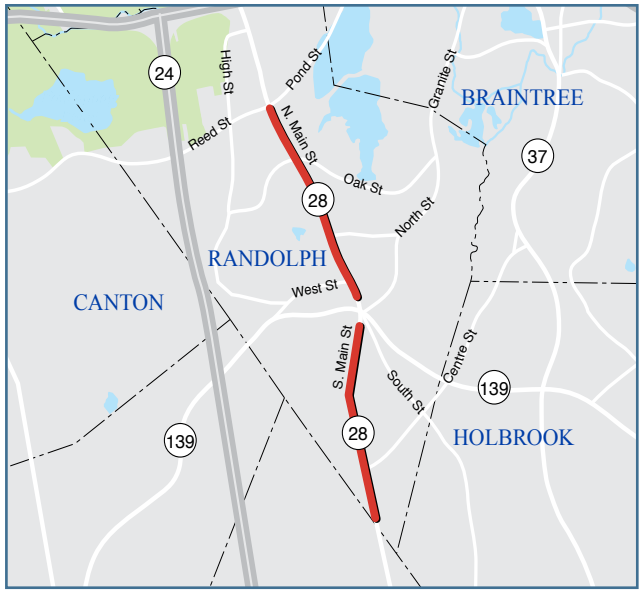
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will improve the pavement condition and make other associated improvements on Route 24 in Randolph between the Route 24 and Interstate 93 interchange and Page Street, a distance of approximately four miles.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$7,302,960	–	–	$7,302,960
Non-Federal Funds	–	–	$1,825,740	–	–	$1,825,740
Total Funds	–	–	$9,128,700	–	–	$9,128,700



RANDOLPH: RESURFACING AND RELATED WORK ON ROUTE 28

Proponent: MassDOT
ID Number: 609399
Project Type: Complete Streets
Cost: $7,194,377
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project involves the resurfacing of 13.2 lane miles of Route 28 in Randolph. The project includes two sections of Route 28, from mile marker 105.8 to 107.4 and from mile marker 107.6 to 109.3.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$5,755,502	–	–	–	$5,755,502
Non-Federal Funds	–	$1,438,875	–	–	–	$1,438,875
Total Funds	–	$7,194,377	–	–	–	$7,194,377

READING/WOBURN: RAIL TRANSFORMATION-EARLY ACTION ITEMS - READING STATION AND WILBUR INTERLOCKING

Proponent: MBTA

ID Number: S12821

Project Type: Transit Modernization

Cost: $14,000,000

Funding Source: Regional Target Funds

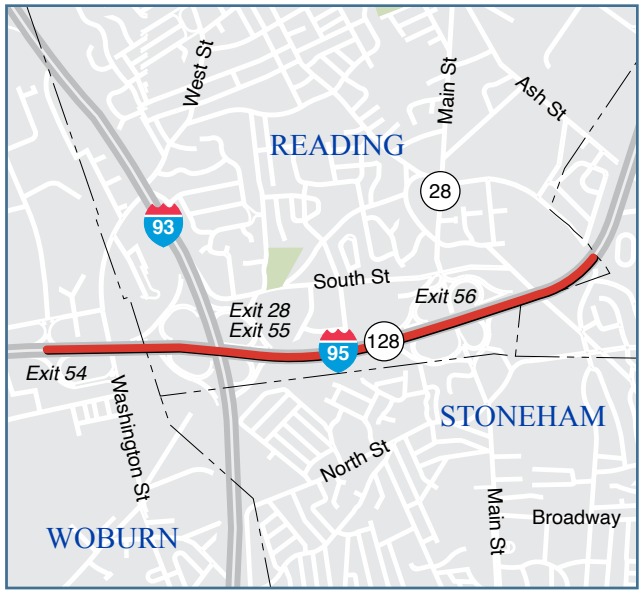
SCORING SUMMARY

No projects have yet been scored using the Transit Modernization criteria. Projects will be evaluated by the MPO in future TIP cycles for funding within this investment program.

PROJECT DESCRIPTION

This project includes the addition of a turn track at Reading Station and improvements to the siding at Wilbur Interlocking on the Lowell Line to enable 30 minute headways in the short term and higher frequencies with electrified rolling stock. Improvements would reduce conflicts with freight traffic and the Amtrak Downeaster while facilitating bus integration.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$11,200,000	–	–	–	–	$11,200,000
Non-Federal Funds	$2,800,000	–	–	–	–	$2,800,000
Total Funds	$14,000,000	–	–	–	–	$14,000,000



READING: IMPROVEMENTS ON I-95

Proponent: MassDOT
ID Number: 609527
Project Type: Complete Streets
Cost: $17,376,800
Funding Source: Statewide Highway Funds

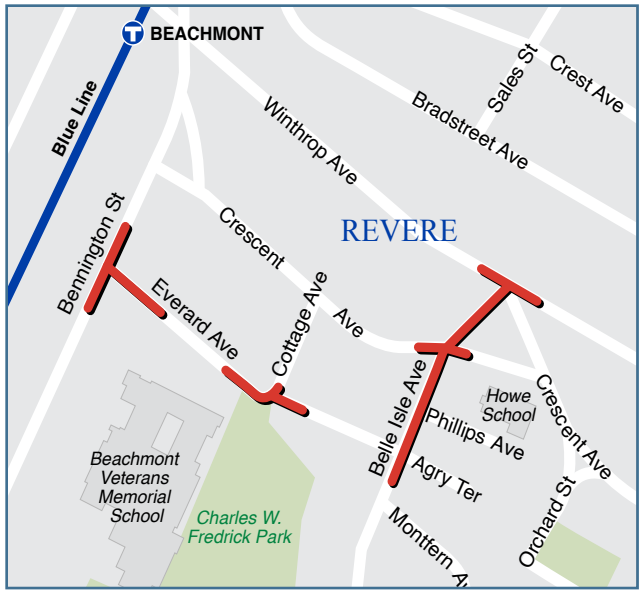
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will improve Interstate 95 in between Commerce Way in Woburn and Ash Street in Reading, a distance of approximately two miles.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$13,901,440	$13,901,440
Non-Federal Funds	–	–	–	–	$3,475,360	$3,475,360
Total Funds	–	–	–	–	$17,376,800	$17,376,800



REVERE: IMPROVEMENTS AT BEACHMONT VETERANS ELEMENTARY (SRTS)

Proponent: MassDOT
ID Number: 612100
Project Type: Safe Routes to School
Cost: $338,329
Funding Source: Statewide Highway Funds

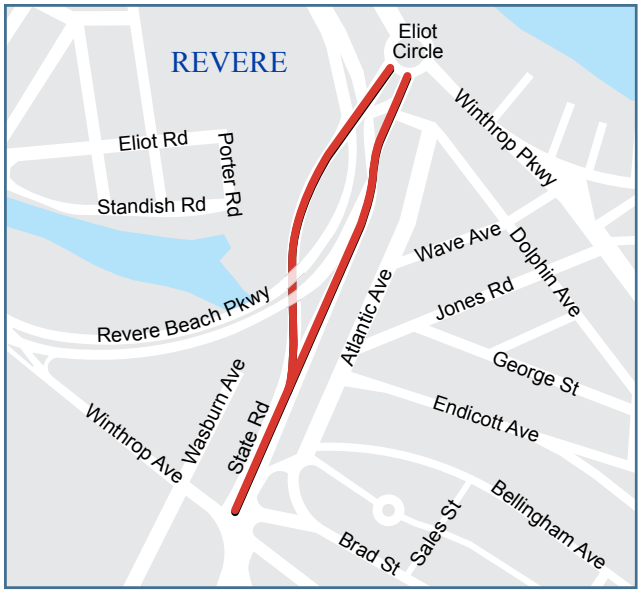
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This Safe Routes to School project proposes pedestrian improvements at several intersections surrounding Beachmont Veterans Elementary School in Revere. This project will reconstruct sections of sidewalk and curbing, improve markings at several crosswalks, and add tactile warning panels at some locations.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$270,663	–	–	–	$270,663
Non-Federal Funds	–	$67,666	–	–	–	$67,666
Total Funds	–	$338,329	–	–	–	$338,329



REVERE: STATE ROAD BEACHMONT CONNECTOR

Proponent: MassDOT
ID Number: 612523
Project Type: Bicycle and Pedestrian
Cost: $5,417,093
Funding Source: Statewide Highway Funds

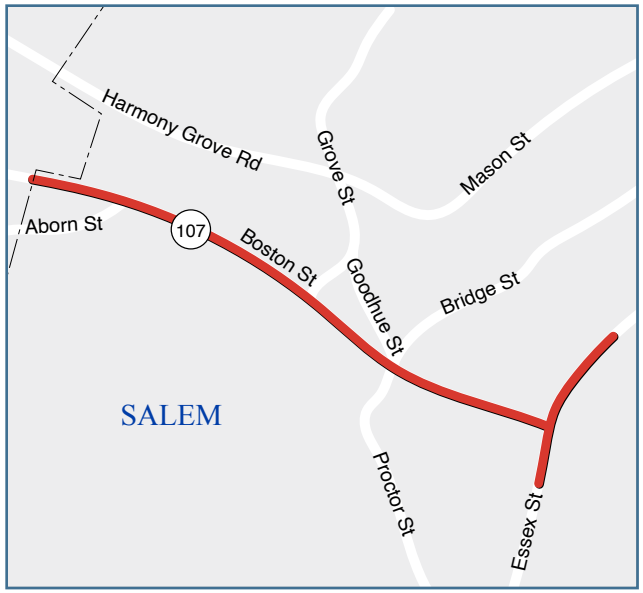
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

The primary goal of this project is to provide a safe path for bicyclists and improve pedestrian and vehicular safety along State Road between Donnelly Square and Eliot Circle in Revere. The proposed scope will reduce both northbound and southbound travel on State Road from two lanes to a single lane to provide bicycle and pedestrian facilities, including a two-way separated bicycle lane on the west side of the corridor and a one-way parking-protected bicycle lane along the east side of the corridor. This project will improve the sidewalk along both sides of State Road, providing a direct connection for pedestrians to the Beachmont MBTA Blue Line station that is comfortable, safe, and accessible. Crosswalks with accessible ramps are proposed across all side streets and there is a proposed crossing of State Road just south of Ocean Avenue that will connect proposed facilities to the existing sidewalk on Revere Beach Parkway.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$4,333,674	–	–	$4,333,674
Non-Federal Funds	–	–	$1,083,419	–	–	$1,083,419
Total Funds	–	–	$5,417,093	–	–	$5,417,093



SALEM: BOSTON STREET IMPROVEMENTS

Proponent: Salem
ID Number: 609437
Project Type: Complete Streets
Cost: $14,172,868
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	12 out of 18	15 out of 20	11 out of 18	8 out of 12	11 out of 20	11 out of 12	68 out of 100

PROJECT DESCRIPTION

This project aims to improve mobility for vehicles, bicycles, and pedestrians between Salem and Peabody and create separated bicycle facilities between the two municipalities that do not currently exist today. In addition to off-street bicycle facilities, major improvements to the corridor include incorporating Complete Streets design elements such as ADA/AAB-compliant sidewalks, pedestrian ramps, and crosswalks. This project will add a new traffic signal at the intersection of Boston Street and Aborn Street and will upgrade existing traffic signals at the intersections of Boston Street and Essex Street, Boston Street and Bridge Street/Proctor Street/Goodhue Street, and Boston Street and Grove Street/Nichols Street.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$11,338,294	–	–	$11,338,294
Non-Federal Funds	–	–	$2,834,574	–	–	$2,834,574
Total Funds	–	–	$14,172,868	–	–	$14,172,868

SALEM: BRIDGE REPLACEMENT, S-01-024, JEFFERSON AVENUE OVER PARALLEL STREET

Proponent: MassDOT
ID Number: 612075
Project Type: Bridge
Cost: $3,123,360
Funding Source: Statewide Highway Funds

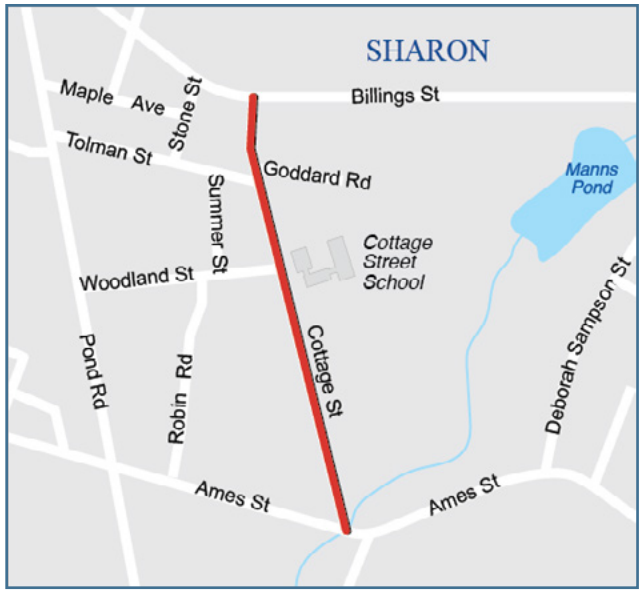
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will replace bridge S-01-024, which carries Jefferson Avenue over Parallel Street in Salem.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$2,498,688	–	–	$2,498,688
Non-Federal Funds	–	–	$624,672	–	–	$624,672
Total Funds	–	–	$3,123,360	–	–	$3,123,360



SHARON: COTTAGE STREET SCHOOL IMPROVEMENTS (SRTS)

Proponent: MassDOT
ID Number: 612889
Project Type: Safe Routes to School
Cost: $1,497,906
Funding Source: Statewide Highway Funds

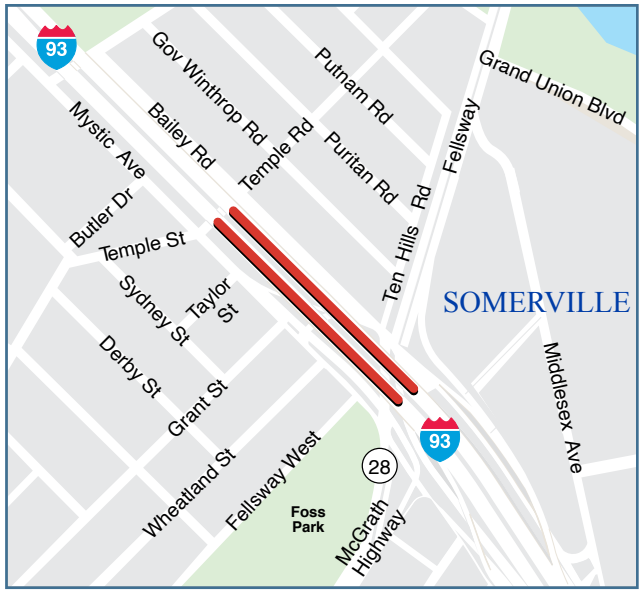
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make upgrades to promote safety along the roadways surrounding Cottage Street Elementary School in Sharon through the Safe Routes to School program. This project proposes to create continuous sidewalks along the entirety of Cottage Street, from Billings Street to Ames Street. Work will involve reconstructing all existing sidewalks and adding new sidewalks where none exist today. The project also proposes the addition of rectangular-rapid-flashing beacons at five crosswalks along Cottage Street.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$1,198,325	–	–	$1,198,325
Non-Federal Funds	–	–	$299,581	–	–	$299,581
Total Funds	–	–	$1,497,906	–	–	$1,497,906



SOMERVILLE: BRIDGE PRESERVATION, S-17-031, I-93 (NB & SB) FROM ROUTE 28 TO TEMPLE STREET (PHASE 2)

Proponent: MassDOT
ID Number: 612496
Project Type: Bridge
Cost: $196,000,001
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will rehabilitate bridge S-17-031, which carries an elevated portion of Interstate 93 between Route 28 and Temple Street in Somerville. This is a continuation of a bridge preservation project on the same portion of Interstate 93 (project number 606528), which began construction in late 2021.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$156,800,001	–	–	$156,800,001
Non-Federal Funds	–	–	$39,200,000	–	–	$39,200,000
Total Funds	–	–	$196,000,001	–	–	$196,000,001

SOMERVILLE: MCGRATH BOULEVARD CONSTRUCTION

Proponent: MassDOT
ID Number: 607981
Project Type: Major Infrastructure
Cost: $98,840,000
Funding Source: Regional Target Funds

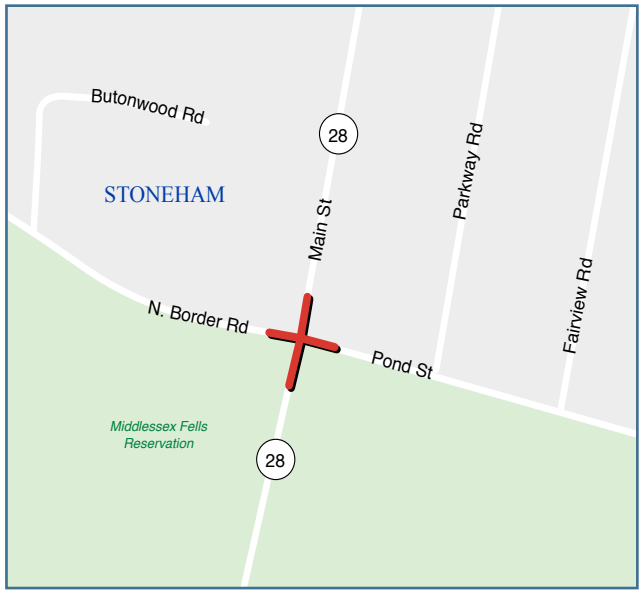
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	13 out of 18	19 out of 20	13 out of 18	8 out of 12	9.2 out of 20	10 out of 12	72.2 out of 100

PROJECT DESCRIPTION

This project will remove the existing McCarthy Viaduct along McGrath Boulevard in Somerville and replace it with an at-grade urban boulevard, approximately 1.5 miles long, from Broadway in the north to Third Street in the south. The project will result in more conventional intersection configurations at Washington Street and Somerville Avenue, which are currently under or next to the viaduct. Removing the viaduct will physically reconnect the neighborhoods of Somerville with more direct vehicle, pedestrian, bicycle, and transit networks. The project will enhance transit access along the corridor, improving bus operations and the bus rider experience with the installation of floating/in-lane bus stops, transit signal priority, and bus queue-jump lanes at key intersections. New sidewalks and bicycle facilities will be provided for the length of the proposed McGrath Boulevard and will connect with the extended Somerville Community Path, creating access to the regional bicycle network. The proposed facilities will provide direct intermodal connections to existing bus routes and the new Green Line station in East Somerville. This project is anticipated to be funded over four fiscal years, with the first year of funding in FFY 2027.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$28,000,000	$24,000,000	$52,000,000
Non-Federal Funds	–	–	–	$7,000,000	$6,000,000	$13,000,000
Total Funds	–	–	–	$35,000,000	$30,000,000	$65,000,000



STONEHAM: INTERSECTION IMPROVEMENTS AT ROUTE 28 (MAIN STREET), NORTH BORDER ROAD AND SOUTH STREET

Proponent: MassDOT
ID Number: 610665
Project Type: Intersection Improvements
Cost: $4,698,001
Funding Source: Statewide Highway Funds

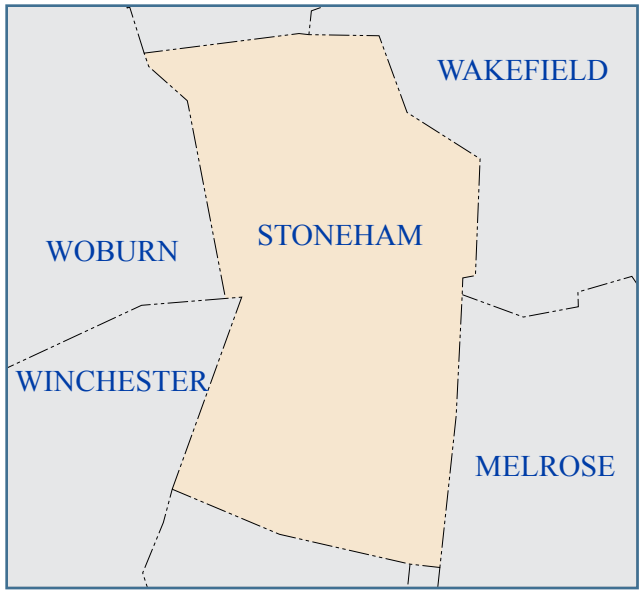
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make intersection improvements at Route 28 (Main Street), North Border Road, and South Street in Stoneham.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$4,228,201	–	–	$4,228,201
Non-Federal Funds	–	–	$469,800	–	–	$469,800
Total Funds	–	–	$4,698,001	–	–	$4,698,001



STONEHAM: STONEHAM SHUTTLE SERVICE

Proponent: Stoneham
ID Number: S12699
Project Type: Community Connections
Cost: $796,817
Funding Source: Regional Target Funds

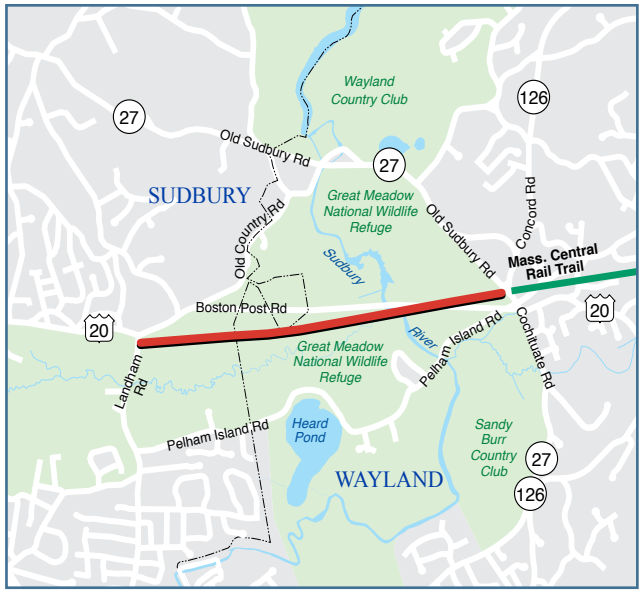
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	15 out of 18	12 out of 15	12 out of 15	6 out of 18	17 out of 24	10 out of 10	72 out of 100

PROJECT DESCRIPTION

This project will create a local shuttle service that, will connect Stoneham residents and employees of Stoneham businesses to transportation options in surrounding communities during peak hours and within Stoneham during non-peak hours. The primary goal of this project is to fill gaps in the existing MBTA service network by creating an east-west connection across Stoneham where only north-south MBTA bus service exists today. The Town plans to use a 24-passenger bus that would operate on a 12-hour/day schedule Monday-Friday, with shorter hours on Saturday. During peak hours, the shuttle would stop at defined destinations along the route. During off-peak hours, the shuttle could go off-route based on the needs of riders. This project is funded through the third round of grants available through the MPO's Community Connections Program and was funded for $330,189 in FFY 23 in the FFY 2023-27 TIP.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$209,151	$164,151	–	–	–	$373,302
Non-Federal Funds	$52,288	$41,038	–	–	–	$93,326
Total Funds	$261,439	$205,189	–	–	–	$466,628



SUDBURY-WAYLAND: MASS CENTRAL RAIL TRAIL (MCRT)

Proponent: MassDOT
ID Number: 610660
Project Type: Bicycle and Pedestrian
Cost: $4,061,413
Funding Source: Statewide Highway Funds

SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will extend the Mass Central Rail Trail from its existing terminus at Andrew Road in Wayland to Landham Road in Sudbury, a distance of approximately 1.6 miles.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	$3,249,130	–	$3,249,130
Non-Federal Funds	–	–	–	$812,283	–	$812,283
Total Funds	–	–	–	$4,061,413	–	$4,061,413

SWAMPSCOTT: RAIL TRAIL CONSTRUCTION

Proponent: Swampscott
ID Number: 610666
Project Type: Bicycle and Pedestrian
Cost: $8,932,000
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	13 out of 20	5 out of 14	18 out of 18	12 out of 14	7.4 out of 20	11 out of 14	66.4 out of 100

PROJECT DESCRIPTION

This project will construct a new 2.1-mile-long multi-use linear park running the length of Swampscott and connecting with the existing Marblehead Rail Trail and the larger East Coast Greenway. This project will provide safe, accessible connections to the Town's schools, recreation areas, MBTA commuter rail station, and natural resources for people walking and bicycling. The project will feature a 10-foot-wide trail with a two-foot sloping shoulder on each side. The trail will cross Paradise Road (Route 1A) with a pedestrian bridge using the existing railroad abutments from the former rail line. Trail amenities will be located at the Swampscott Middle School, including bathrooms, vehicle parking for trail users, bicycle parking, and a public bike repair station.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$7,145,600	$7,145,600
Non-Federal Funds	–	–	–	–	$1,786,400	$1,786,400
Total Funds	–	–	–	–	$8,932,000	$8,932,000

TOPSFIELD: BRIDGE REPLACEMENT, T-06-013, PERKINS ROW OVER MILE BROOK

Proponent: MassDOT
ID Number: 612076
Project Type: Bridge
Cost: $3,141,758
Funding Source: Statewide Highway Funds

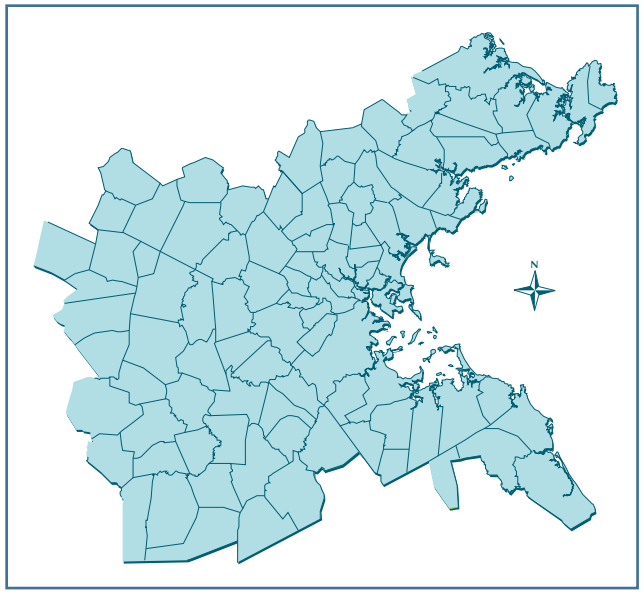
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will replace bridge T-06-013, which carries Perkins Row over Mile Brook in Topsfield.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$2,513,406	–	–	$2,513,406
Non-Federal Funds	–	–	$628,352	–	–	$628,352
Total Funds	–	–	$3,141,758	–	–	$3,141,758



TRANSIT MODERNIZATION PROGRAM

Proponent: Regionwide
ID Number: S12113
Project Type: Transit Modernization
Cost: $21,500,000
Funding Source: Regional Target Funds

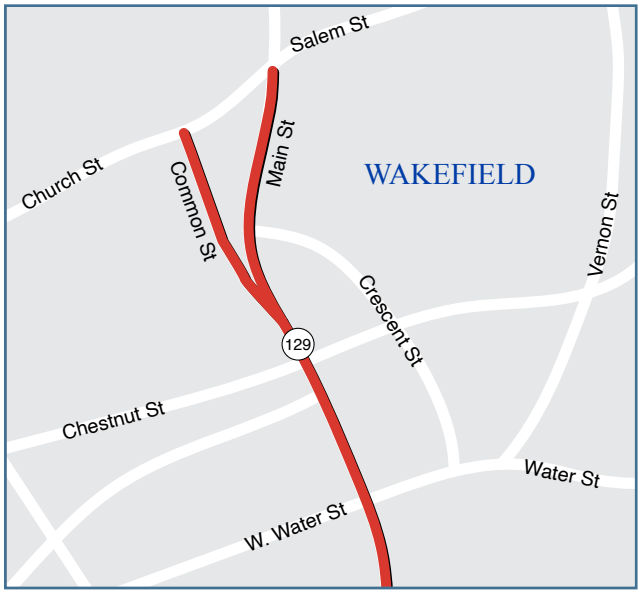
SCORING SUMMARY

This is an administrative line item and is not subject to project scoring and evaluation. Projects funded through the Transit Modernization program starting in FFY 2025 will be subject to separate evaluations.

PROJECT DESCRIPTION

The MPO's Transit Modernization Program was established in Destination 2040, the MPO's current Long-Range Transportation Plan. This program will allocate a portion of the MPO's Regional Target Highway funds to transit projects that advance the MPO's goals in the region, including upgrades to stations and facilities and the purchase of vehicles for transit providers. The MPO has begun allocating approximately five percent of its annual funding, or $6,500,000 annually, to this program beginning in FFY 2025. Specific projects will be funded using these reserved funds in future TIP cycles.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$2,500,000	$6,500,000	$6,500,000	$6,500,000	$21,500,000
Non-Federal Funds	–	–	–	–	–	–
Total Funds	–	$2,500,000	$6,500,000	$6,500,000	$6,500,000	$21,500,000



WAKEFIELD: COMPREHENSIVE DOWNTOWN MAIN STREET RECONSTRUCTION

Proponent: Wakefield
ID Number: 613145
Project Type: Complete Streets
Cost: $16,581,200
Funding Source: Regional Target Funds

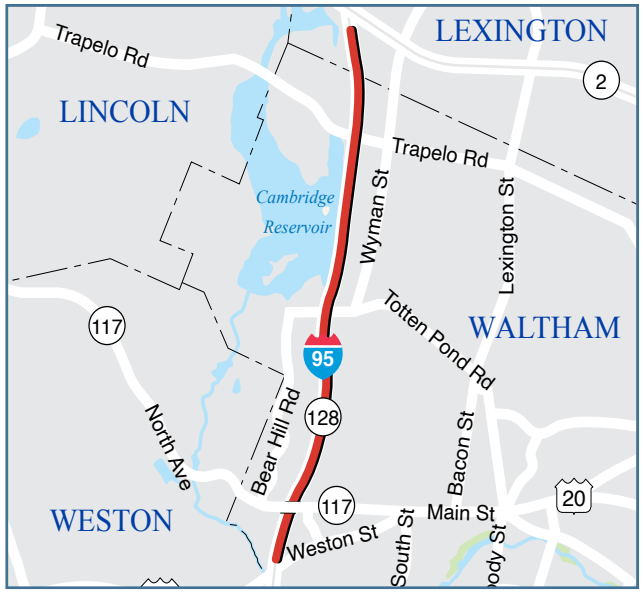
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	13 out of 30	13 out of 29	10 out of 29	6 out of 16	8.8 out of 12	11 out of 18	61.8 out of 134

PROJECT DESCRIPTION

This Complete Streets project redesigns Route 129 Main Street in downtown Wakefield to integrate comprehensive multimodal facilities through the addition of shared-use-paths, median refuges, curb bump outs, and other geometric improvements. The project improves safety for all users with upgrades to lighting and turn radii, including for emergency response vehicles.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$13,264,960	$13,264,960
Non-Federal Funds	–	–	–	–	$3,316,240	$3,316,240
Total Funds	–	–	–	–	$16,581,200	$16,581,200



WALTHAM: INTERSTATE MAINTENANCE AND RELATED WORK ON I-95

Proponent: MassDOT
ID Number: 612048
Project Type: Interstate Pavement
Cost: $16,039,175
Funding Source: Statewide Highway Funds

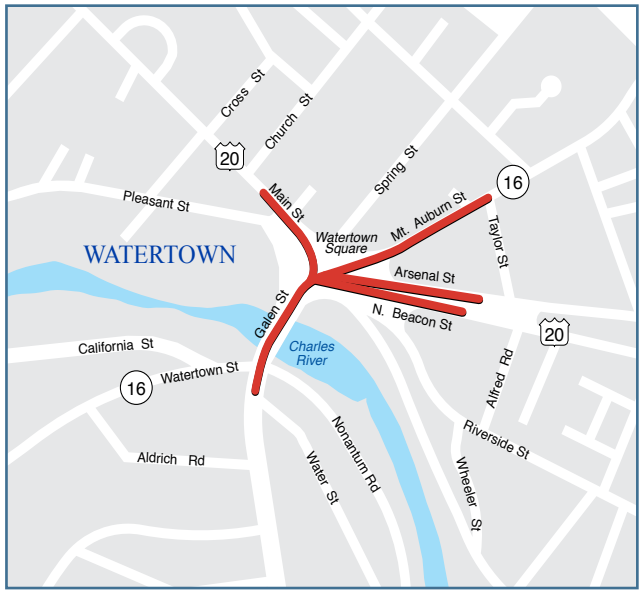
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will resurface Interstate 95 in Waltham between Route 2 and Route 20, a distance of approximately four miles.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$14,435,258	–	–	–	–	$14,435,258
Non-Federal Funds	$1,603,918	–	–	–	–	$1,603,918
Total Funds	$16,039,175	–	–	–	–	$16,039,175



WATERTOWN: INTERSECTION IMPROVEMENTS AT ROUTE 16 AND GALEN STREET

Proponent: MassDOT
ID Number: 608564
Project Type: Intersection Improvements
Cost: $3,449,261
Funding Source: Statewide Highway Funds

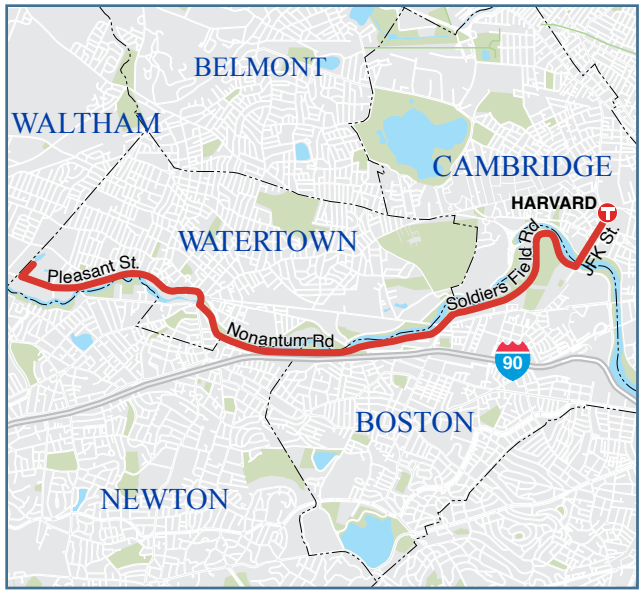
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project will make safety improvements to the intersection of Route 16 and Galen Street in Watertown. This location features a 2010–19 pedestrian crash cluster and a 2017–19 all-mode crash cluster, making it a high-priority safety improvement location.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$3,104,335	–	–	$3,104,335
Non-Federal Funds	–	–	$344,926	–	–	$344,926
Total Funds	–	–	$3,449,261	–	–	$3,449,261



WATERTOWN: PLEASANT STREET SHUTTLE SERVICE EXPANSION

Proponent: Watertown
ID Number: S12697
Project Type: Community Connections
Cost: $1,002,198
Funding Source: Regional Target Funds

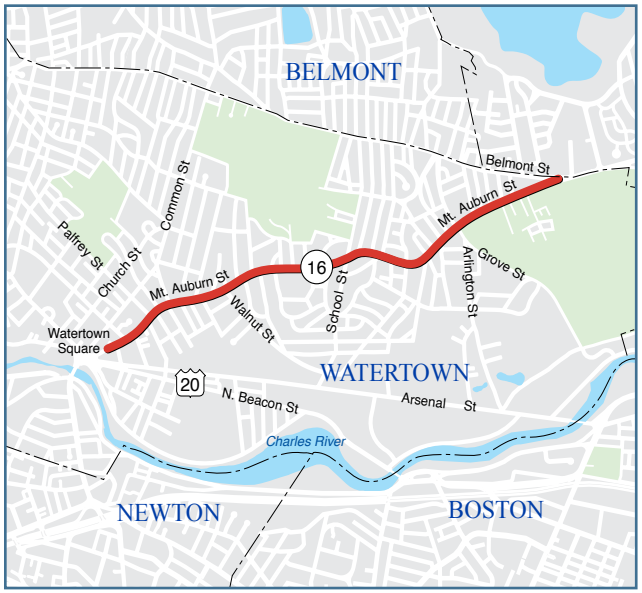
SCORING SUMMARY

Category	Conn	Coord	Plan	TE	MS/DP	FS	Total
Score	18 out of 18	12 out of 15	9 out of 15	9 out of 18	20 out of 24	10 out of 10	78 out of 100

PROJECT DESCRIPTION

This project will expand upon the existing Pleasant Street Shuttle in Watertown, which launched in September 2021 as a partnership between the Town of Watertown and the Watertown TMA. The service runs along a 1.5-mile stretch of Pleasant Street that has no transit service. The primary goal of the project is to provide peak-hour shuttle services connecting businesses and residential locations to major transit hubs in Watertown and Cambridge. This expansion will allow the existing 60-minute headways to be reduced to 30 minutes and will support the transition of the service to an all-electric vehicle fleet. This project is funded through the third round of grants available through the MPO's Community Connections Program.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$268,347	$183,151	-	-	-	$451,498
Non-Federal Funds	$67,087	$45,788	-	-	-	$112,875
Total Funds	$335,434	$228,939	–	–	–	$564,373



WATERTOWN: REHABILITATION OF MOUNT AUBURN STREET (ROUTE 16)

Proponent: Watertown
ID Number: 607777
Project Type: Complete Streets
Cost: $27,899,345
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	18 out of 30	14 out of 29	18 out of 29	12 out of 16	3 out of 12	10 out of 18	75 out of 134

PROJECT DESCRIPTION

The project will reconstruct approximately 9,300 feet of Mount Auburn Street, from the Cambridge city line to the intersection with Summer Street, just east of Watertown Square. The project involves revisions to the roadway geometry, including a roadway diet to reduce the number of lanes; safety improvements; multimodal accommodations, including shared or exclusive bike lanes; improvements to the existing traffic signal equipment; and improved ADA amenities at intersections.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$2,787,399	–	–	–	–	$2,787,399
Non-Federal Funds	$696,840	–	–	–	–	$696,840
Total Funds	$3,484,249	–	–	–	–	$3,484,249

WESTON: INTERSECTION IMPROVEMENTS AT BOSTON POST ROAD (ROUTE 20) AT WELLESLEY STREET

Proponent: Weston
ID Number: 608940
Project Type: Intersection Improvements
Cost: $2,185,303
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	15 out of 21	9 out of 17	10 out of 18	8 out of 12	5.6 out of 20	3 out of 12	50.6 out of 100

PROJECT DESCRIPTION

This project aims to address the safety concerns and crash incidents that contribute to the intersection's inclusion on the state's HSIP eligibility list as a high-crash location while also seeking to alleviate traffic congestion in the area. The project scope includes the installation of a new traffic signal system, reconfiguring the intersection to address documented safety issues, consolidating pavement area, and the simplification of turning movements. Proposed pedestrian improvements include replacement of sidewalks along the north side of Route 20 and the east side of Boston Post Road. New sidewalk is proposed on the south side of Route 20, the west side of Boston Post Road, and on both sides of Wellesley Street within the immediate intersection limits. The proposed traffic signal system includes protected pedestrian crossings and crosswalks are proposed on all approaches to the intersection. The project also includes the addition of bicycle lanes and improvements to a school bus stop on adjacent Windsor Way.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$1,748,242	–	–	$1,748,242
Non-Federal Funds	–	–	$437,061	–	–	$437,061
Total Funds	–	–	$2,185,303	–	–	$2,185,303

WESTON: RECONSTRUCTION ON ROUTE 30

Proponent: Weston
ID Number: 608954
Project Type: Complete Streets
Cost: $16,420,119
Funding Source: Regional Target Funds

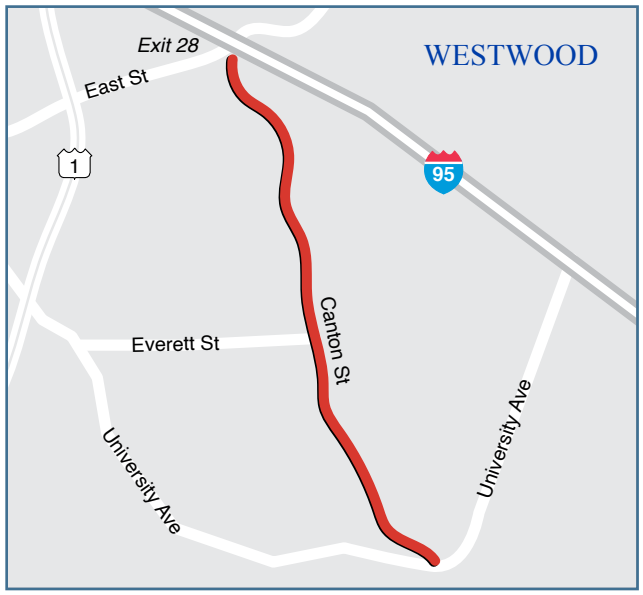
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	11 out of 18	10 out of 20	10 out of 18	9 out of 12	6.2 out of 20	3 out of 12	49.2 out of 100

PROJECT DESCRIPTION

This project will improve pavement and roadway conditions along a 3.7-mile segment of Route 30 and make geometric and safety improvements at intersections along the corridor. A key goal of the project is to create a corridor that better serves all users, especially those who are walking and bicycling. To that end, this project will construct a 10-foot off-road shared-use path along the full length of the project. The path will run along the south side of the roadway from the Natick town line to the intersection at Newton Street, crossing to the north side at Newton Street to continue to the end of the project limits. This path will connect with other proposed bicycle and pedestrian accommodations in the area, including on the Route 30 bridge over the Charles River (project number 110980, funded by the MPO in FFY 2024) and on Route 30 in Newton (project number 610674, funded by MassDOT in FFY 2023).

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$13,136,095	–	–	$13,136,095
Non-Federal Funds	–	–	$3,284,024	–	–	$3,284,024
Total Funds	–	–	$16,420,119	–	–	$16,420,119



WESTWOOD-NORWOOD: RECONSTRUCTION OF CANTON STREET TO UNIVERSITY DRIVE, INCLUDING REHAB OF N-25-032=W-31-018

Proponent: Westwood
ID Number: 608158
Project Type: Complete Streets
Cost: $22,094,875
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	12 out of 30	14.5 out of 29	9 out of 29	3.75 out of 16	5 out of 12	9 out of 18	53.3 out of 134

PROJECT DESCRIPTION

This project will reconstruct the roadway and install pedestrian and bicycle facilities where none currently exist. A sidewalk will be constructed along the southbound side of the roadway, with a shared-use path constructed along the northbound side. The project improves visibility at five curves along the corridor to improve stopping sight distances, and includes the addition of apron turn lanes and medians for improved navigation. High visibility cross-walks and beacons will be added at seven locations.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	–	–	$17,675,900	$17,675,900
Non-Federal Funds	–	–	–	–	$4,418,975	$4,418,975
Total Funds	–	–	–	–	$22,094,875	$22,094,875

WILMINGTON: BRIDGE REPLACEMENT, W-38-029 (2KV), ST 129 LOWELL STREET OVER I-93

Proponent: MassDOT
ID Number: 608703
Project Type: Bridge
Cost: $16,592,888
Funding Source: Statewide Highway Funds

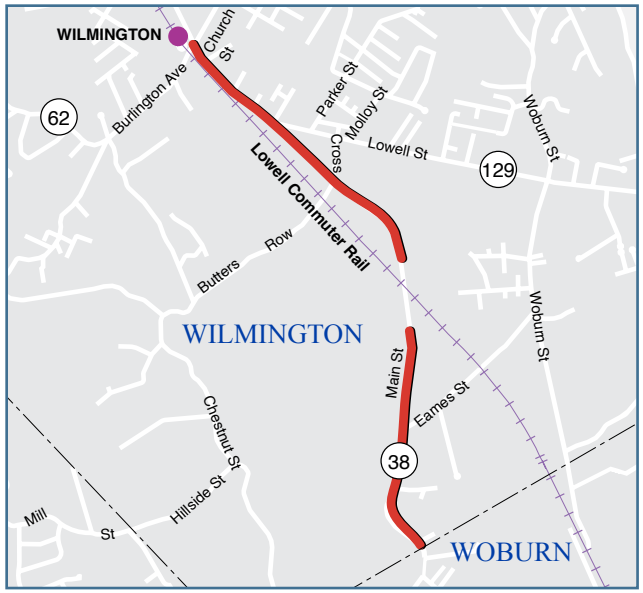
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project includes the addition of five-foot bicycle lanes along both sides of the roadway along the Route 38 corridor. Sidewalks will also be provided along both sides of the roadway between Route 62 and Route 129. In addition, improved traffic signals and the reconstruction of turn lanes will enhance pedestrian safety and improve vehicular flow. This project is bisected at its midpoint by project number 607327, Bridge Replacement, W-38-002, Route 38 (Main Street) over the B&M Railroad. This project is funded using $12,662,437 in statewide highway funds in FFY 2023.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$18,985,143	–	–	–	$18,985,143
Non-Federal Funds	–	$4,746,286	–	–	–	$4,746,286
Total Funds	–	$23,731,429	–	–	–	$23,731,429



WILMINGTON: RECONSTRUCTION ON ROUTE 38 (MAIN STREET), FROM ROUTE 62 TO THE WOBURN CITY LINE

Proponent: MassDOT
ID Number: 608051
Project Type: Complete Streets
Cost: $24,644,177
Funding Source: Regional Target Funds

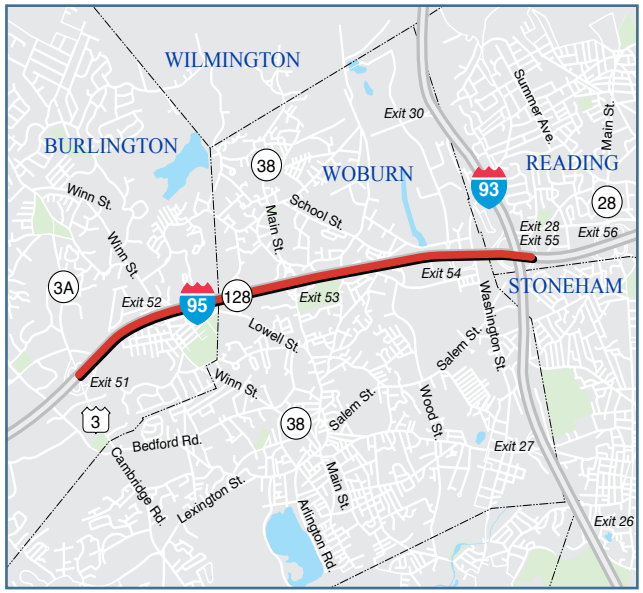
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	15 out of 30	12 out of 29	13 out of 29	10 out of 16	1 out of 12	8 out of 18	59 out of 134

PROJECT DESCRIPTION

This project includes the addition of five-foot bicycle lanes along both sides of the roadway along the Route 38 corridor. Sidewalks will also be provided along both sides of the roadway between Route 62 and Route 129. In addition, improved traffic signals and the reconstruction of turn lanes will enhance pedestrian safety and improve vehicular flow. This project is bisected at its midpoint by project number 607327, Bridge Replacement, W-38-002, Route 38 (Main Street) over the B&M Railroad. This project is funded using $12,662,437 in statewide highway funds in FFY 2023.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$19,815,342	–	–	–	$19,815,342
Non-Federal Funds	–	$4,828,835	–	–	–	$4,828,835
Total Funds	–	$24,644,177	–	–	–	$24,644,177



WOBURN: INTERSTATE PAVEMENT PRESERVATION AND RELATED WORK ON I-95

Proponent: MassDOT
ID Number: 612034
Project Type: Interstate Pavement
Cost: $7,849,699
Funding Source: Statewide Highway Funds

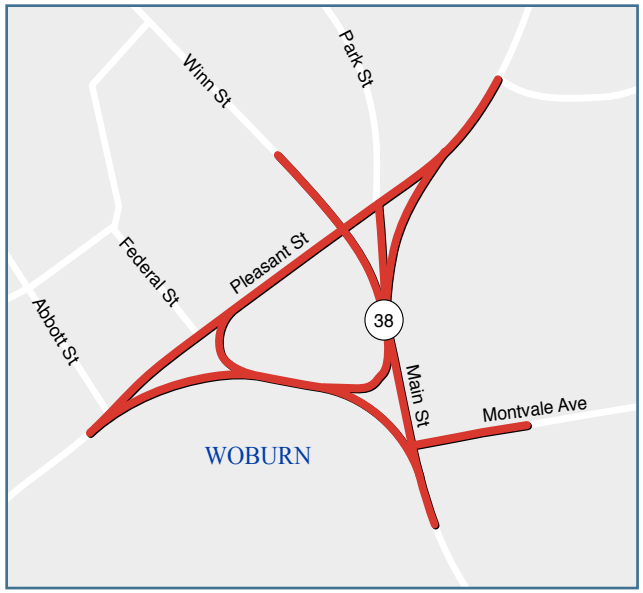
SCORING SUMMARY

This is a MassDOT-prioritized project and is therefore not directly evaluated using the MPO's TIP scoring criteria.

PROJECT DESCRIPTION

This project is a pavement maintenance project that will repave 4.1 miles of Interstate 95 northbound and southbound between the Cambridge Street interchange in Burlington and the Interstate 93 interchange in Woburn.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$7,064,729	–	–	–	–	$7,064,729
Non-Federal Funds	$784,970	–	–	–	–	$784,970
Total Funds	$7,849,699	–	–	–	–	$7,849,699



WOBURN: ROADWAY AND INTERSECTION IMPROVEMENTS AT WOBURN COMMON, ROUTE 38 (MAIN STREET), WINN STREET, PLEASANT STREET, AND MONTVALE AVENUE

Proponent: Woburn
ID Number: 610662
Project Type: Complete Streets
Cost: $17,382,600
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	22 out of 30	15 out of 29	16 out of 29	10 out of 16	4 out of 12	8 out of 18	75 out of 134

PROJECT DESCRIPTION

This project will improve improve safety and congestion within the Woburn Common area by making safety and operational improvements, reconfiguring the Woburn Common rotary, and reconstructing and realigning roadways. The project will also reconstruct sidewalks, add bike lanes, and upgrade or add signals in the area.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	–	$13,906,080	–	–	$13,906,080
Non-Federal Funds	–	–	$3,476,520	–	–	$3,476,520
Total Funds	–	–	$17,382,600	–	–	$17,382,600

WOBURN AND BURLINGTON: INTERSECTION RECONSTRUCTION AT ROUTE 3 (CAMBRIDGE ROAD) AND BEDFORD ROAD AND SOUTH BEDFORD STREET

Proponent: MassDOT
ID Number: 608067
Project Type: Intersection Improvements
Cost: $1,978,080
Funding Source: Regional Target Funds

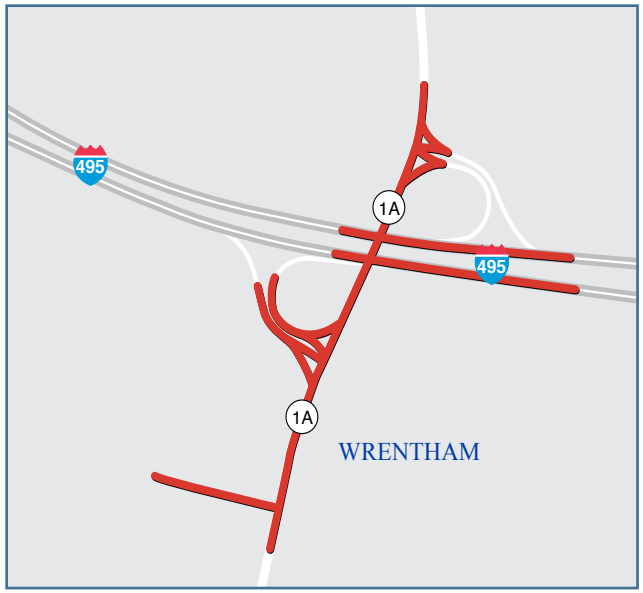
SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	9 out of 30	11 out of 29	19 out of 29	7 out of 16	2 out of 12	4 out of 18	52 out of 134

PROJECT DESCRIPTION

The intersection of U.S. Route 3 (Cambridge Street) at South Bedford Street and Bedford Road has been identified as a high-crash location in the Boston region. The existing geometry and traffic operations can often present challenges for motorists, pedestrians, and bicyclists. This project will reconstruct the intersection and all traffic signal equipment. Geometry enhancements will be made to accommodate exclusive turn lanes for all approaches to the intersection. The project will include reconstruction of the sidewalk along the east side of Cambridge Street and both sides of the Bedford Road westbound approach, and new sidewalk will be constructed on the south side of South Bedford Street. Bicycle accommodations consisting of five-foot wide bicycle lanes (with two-foot wide buffers where feasible) will be provided, as will ADA-compliant MBTA bus stops on Cambridge Street.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	–	$1,582,464	–	–	–	$1,582,464
Non-Federal Funds	–	$395,616	–	–	–	$395,616
Total Funds	–	$1,978,080	–	–	–	$1,978,080



WRENTHAM: CONSTRUCTION OF INTERSTATE 495/ROUTE 1A RAMPS

Proponent: MassDOT
ID Number: 603739
Project Type: Major Infrastructure
Cost: $17,994,890
Funding Source: Regional Target Funds

SCORING SUMMARY

Category	Safety	Sys Pres	CM/M	CA/SC	EQUITY	EV	Total
Score	23 out of 30	11 out of 29	12 out of 29	9 out of 16	0 out of 12	0 out of 18	55 out of 134

PROJECT DESCRIPTION

This project consists of the construction of ramps at the interchange of Route 1A and Interstate 495 to accommodate increased volumes resulting from development at the interchange. The design may proceed by developers and, depending on cost and scale of development proposals, MassDOT may incorporate ramp construction into a highway project. Future mitigation packages for developers may involve a median island to meet MassDOT's and the Town of Wrentham's long-range plan for the interchange.

Source	(FFY) 2024	2025	2026	2027	2028	Total
Federal Funds	$14,395,912	–	–	–	–	$14,395,912
Non-Federal Funds	$3,598,978	–	–	–	–	$3,598,978
Total Funds	$17,994,890	–	–	–	–	$17,994,890


1MLY

CHAPTER 4

PERFORMANCE ANALYSIS

PERFORMANCE-BASED PLANNING AND PROGRAMMING

Performance-based planning and programming (PBPP) applies data and performance management principles to inform transportation decision-making. The purpose of PBPP is to ensure that transportation investment decisions are oriented toward meeting established goals. PBPP activities include:

- Setting goals and objectives for the transportation system
- Selecting performance measures and setting performance targets
- Gathering data and information to monitor and analyze trends
- Using performance measures and data to make investment decisions
- Monitoring, analyzing, and reporting performance outcomes

The Boston Region MPO's PBPP process is shaped by both federal transportation performance management requirements and the MPO's goals and objectives, which are established as part of the MPO's Long-Range Transportation Plan (LRTP). This chapter discusses how these two frameworks shape the MPO's PBPP process and describes the MPO's current set of performance measures and targets. It also explains how the MPO anticipates the projects funded in the Federal Fiscal Years (FFYs) 2024–28 Transportation Improvement Program (TIP) will support improvements in various performance areas and make progress toward performance targets.

FEDERAL PERFORMANCE MANAGEMENT REQUIREMENTS

PBPP requirements originated with the enactment of the Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2012. MAP-21 directed states, MPOs, and public transportation providers to carry out a performance and outcome-based surface transportation program. (MAP-21 identified seven national goals for the nation's highway system, which are described in Appendix E.) Table 4-1 shows the relationship between these national goal areas and the MPO's goal areas. The MPO's goals and related objectives in the 2019 LRTP, Destination 2040, are described in more detail in Chapter 1 of this document. The MPO is currently developing its next LRTP, Destination 2050. Once it is adopted, the goals and objectives described there-in will shape the development of MPO processes, including the PBPP process.

TABLE 4-1

National and Boston Region MPO Goal Areas

National Goal Area	Boston Region MPO Goal Areas
Safety	Safety
Infrastructure Condition	System Preservation and Modernization
System Reliability	Capacity Management and Mobility
Congestion Reduction	Capacity Management and Mobility
Environmental Sustainability	Clean Air and Sustainable Communities
Freight Movement/Economic Vitality	Capacity Management and Mobility, Economic Vitality
Reduced Project Delivery Delays	Not Applicable
Not Applicable	Transportation Equity

Source: Boston Region MPO staff.

The US Department of Transportation (USDOT) has established performance measures in areas relevant to the national goals. Table 4-2 lists these measures for the transit system and Table 4-3 for the roadway system.

TABLE 4-2

Federally Required Transit Performance Measures

National Goal Area	Transit Performance Area or Asset Category	Performance Measures	Relevant MPO Goal Area
Safety	Fatalities	• Total number of reportable fatalities • Fatality rate per total VRM by mode	Safety
Safety	Injuries	• Total number of reportable injuries • Injury rate per total VRM by mode	Safety
Safety	Safety Events	• Total number of reportable safety events • Safety event rate per total VRM by	Safety
Safety	System Reliability	• Mean distance between major mechanical failures by mode	Safety
Infrastructure Condition	Equipment	• Percent of vehicles that have met or exceeded their ULB	System Preservation and Modernization
Infrastructure Condition	Rolling Stock	• Percent of revenue vehicles within a particular asset class that have met or exceeded their ULB	System Preservation and Modernization
Infrastructure Condition	Infrastructure	• Percent of track segments with performance restrictions	System Preservation and Modernization
Infrastructure Condition	Facilities	• Percent of facilities within an asset class rated below 3.0 on the FTA Transit Economic Requirements Model scale	System Preservation and Modernization

FTA = Federal Transit Administration. MPO = metropolitan planning organization. ULB = useful life benchmark. VRM = vehicle-revenue miles.

Sources: National Public Transportation Safety Plan (January 2017), the Public Transportation Agency Safety Plan Rule (49 CFR Part 673), and the Transit Asset Management Rule (49 CFR Part 625).

TABLE 4-3

Federally Required Roadway Performance Measures

National Goal Area	Transit Performance Area or Asset Category	Performance Measures	Relevant MPO Goal Area
Safety	Injuries and Fatalities	• Number of fatalities • Fatality rate per 100 million vehicle-miles traveled • Number of serious injuries • Serious injury rate per 100 million vehicle-miles traveled • Number of non-motorized fatalities and non-motorized serious injuries	Safety
Infrastructure Condition	Pavement Condition	• Percent of pavements on the Interstate System in good condition • Percent of pavements on the Interstate System in poor condition • Percent of pavements on the non-Interstate NHS in good condition • Percent of pavements on the non-Interstate NHS in poor condition	System Preservation and Modernization
Infrastructure Condition	Bridge Condition	• Percent of NHS bridges by deck area classified as in good condition • Percent of NHS bridges by deck area classified as in poor condition	System Preservation and Modernization
System Reliability	Performance of the National Highway System	• Percent of the person-miles traveled on the Interstate System that are reliable • Percent of the person-miles traveled on the non-Interstate NHS that are reliable	Capacity Management/ Mobility
System Reliability, Freight Movement and Economic Vitality	Freight Movement on the Interstate System	• Truck Travel Time Reliability Index (for truck travel on Interstate highways)	Capacity Management/ Mobility, Economic Vitality
Congestion Reduction	Congestion Mitigation and Air Quality	• Annual hours of peak hour excessive delay per capita (for travel on NHS roadways) • Percentage of non-single-occupant vehicle travel	Capacity Management/ Mobility
Environmental Sustainability	Congestion Mitigation and Air Quality	• Total emissions reduction for applicable pollutants and precursors for CMAQ-funded projects in designated nonattainment and maintenance areas*	Clean Air/Sustainable Communities

**As of April 2022, the MPO was no longer in maintenance for carbon monoxide. However, the MPO must fulfill these performance requirements at least until the FHWA issues an updated applicability determination related to CMAQ performance requirements (expected in October 2023).*

CMAQ = Congestion Mitigation and Air Quality Improvement Program. MPO = metropolitan planning organization. NHS = National Highway System.

Sources: Highway Safety Improvement Program Rule (23 CFR 924), National Performance Management Measures Rule (23 CFR 490), and the Boston Region MPO staff.

OTHER PERFORMANCE-BASED PLANNING AND PROGRAMMING ACTIVITIES

The MPO's PBPP framework is also used to inform decision-making in other areas that relate to its federally mandated responsibilities or to the MPO's goals and objectives. For example, the MPO has established a transportation equity goal and objectives that states that all people receive comparable benefits from, and are not disproportionately burdened by, MPO investments, regardless of race, color, national origin, age, income, ability, or sex. The MPO's work in this area includes assessing the equity implications of the projects proposed and funded in the TIP. Regular equity performance monitoring enables the MPO to better understand how transportation equity populations may be affected by transportation investment decisions, so that it can decide whether and how to adjust its investment approach. These activities for the FFYs 2024–28 TIP are described in Chapter 6.

PERFORMANCE-BASED PLANNING AND PROGRAMMING PHASES

Setting federally-required performance measures involves three phases: (1) planning, (2) investing, and (3) monitoring and evaluating performance outcomes.

PLANNING PHASE

In the planning phase, agencies set goals and objectives for the transportation system, identify performance measures, and set performance targets. They identify and acquire data and conduct analyses needed to support these processes. They also outline the frameworks they will use to make decisions in key planning documents.

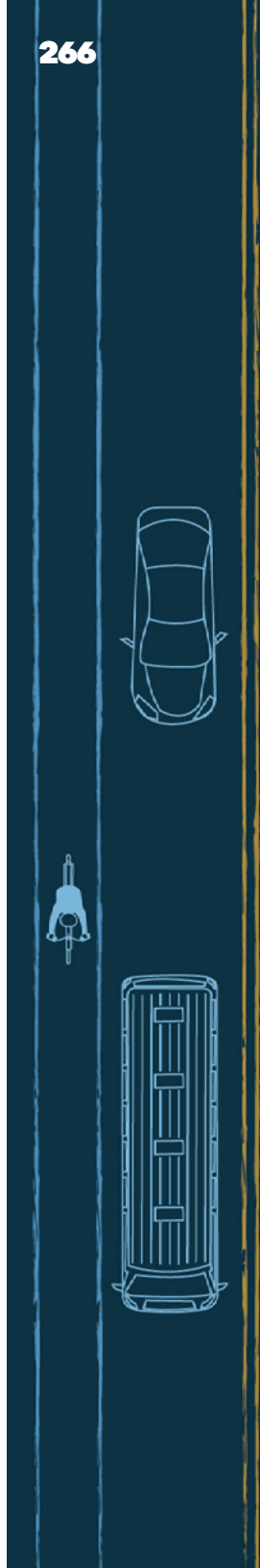
The Commonwealth of Massachusetts creates performance-based plans, such as the Strategic Highway Safety Plan (SHSP) for improving roadway safety and the Transportation Asset Management Plan (TAMP) for improving infrastructure condition, particularly for NHS roads and bridges. Similarly, transit providers create Transit Asset Management (TAM) plans and Public Transportation Agency Safety Plans (PTASPs) that describe the data and processes these agencies will use to address transit state of good repair and safety needs. The Commonwealth is responsible for setting performance targets for the federally required roadway performance measures described in Table 4-3, while transit agencies must set targets for the measures described in Table 4-2.

The MPO's activities in the planning phase include creating a goals-and-objectives framework in its LRTP and other performance-based plans—such as Congestion Mitigation and Air Quality Improvement (CMAQ) Program Performance Plans—as necessary. The MPO also establishes targets for federally required performance measures. It may support performance targets set by the Massachusetts Department of Transportation (MassDOT) or public transit providers, or it may set separate targets for the MPO's planning area.

INVESTING PHASE

In the investing phase, agencies use the framework established in the planning phase to create strategies for investing transportation funds. When updating the LRTP, the MPO creates investment programs and funding guidelines to help direct project investments. In each TIP cycle, the MPO selects projects to fund in these programs. MPO members rely on several sets of information when selecting projects:

- TIP Project Evaluation Criteria: Project evaluations help the MPO understand the potential benefits and performance of projects that are candidates for funding.
- Supporting Performance Information: Other information includes how projects relate to federally required performance measures, how the MPO has distributed Regional Target funds to MPO municipalities in prior TIP's, and how projects address location-specific issues, such as those identified in the MPO's LRTP Needs Assessment.



Meanwhile, MassDOT, the Massachusetts Bay Transportation Authority (MBTA), Cape Ann Transportation Authority (CATA), and MetroWest Regional Transit Authority (MWRTA) follow their respective processes to select projects and programs for inclusion in the MassDOT Capital Investment Plan (CIP). The federally funded investments that are included in the CIP are also documented in the MPO's TIP.

MONITORING AND EVALUATING PHASE

After making plans and investments, agencies report on performance outcomes. This reporting includes tracking trends, collecting data to understand the results of investment decisions, and comparing targets to actual performance. Going forward, the MPO plans to conduct before-and-after studies to learn how the actual outcomes of TIP projects compare to expectations.

In addition, the MPO describes performance on various transportation metrics through its Congestion Management Process (CMP) and tools such as the MPO's Performance Dashboard. MassDOT reports on performance targets and progress to the Federal Highway Administration (FHWA) and posts the information on the MassDOT Performance Management Tracker website. Public transit providers report their targets and performance progress to the Federal Transit Administration (FTA).

COORDINATION

Federal transportation agencies require states, public transit operators, and MPOs to share information to ensure consistency across processes. In Massachusetts, these coordination responsibilities are outlined in the 2019 Performance-Based Planning and Programming Agreement between MassDOT, Massachusetts MPOs and transportation planning organizations, the MBTA, and regional transit authorities (RTAs) operating in Massachusetts.

Staff from Massachusetts MPOs, MassDOT staff, and other stakeholders coordinate on PBPP implementation through the Transportation Program Managers Group, including through its subcommittee on performance measures. For performance measures that states and MPOs track at the Boston MA-NH-RI Urbanized Area (UZA) level, coordination responsibilities are documented in the 2018 Boston MA-NH-RI UZA Memorandum of Understanding (MOU).[1] The Boston Region MPO is also a signatory to the Providence RI-MA UZA and the Worcester MA-CT UZA memoranda of understanding—these agreements define intergovernmental coordination responsibilities and activities that may support PBPP.

1 Urbanized areas are defined by the US Census Bureau to represent the urban cores of metropolitan areas. The Boston MA-NH-RI UZA includes the 97 municipalities in the Boston Region MPO and includes portions of neighboring MPOs in eastern Massachusetts and New Hampshire.

FFYs 2024–28 PERFORMANCE ANALYSIS

This section discusses investments in the FFYs 2024–28 TIP and how they relate to elements of the MPO's PBPP framework.[2]

SAFETY PERFORMANCE

Relevant Goals, Policies, and Plans

Through its Safety goal area, MPO has committed to investing in projects and programs that aim to reduce the number and severity of crashes for all modes, and the number of serious injuries and fatalities occurring on the transportation system. Similarly, the Massachusetts SHSP and National Roadway Safety Strategy include a long-term "Vision Zero" goal to move "towards zero deaths" by eliminating fatalities and serious injuries, and they provide a comprehensive framework for improving safety on all public roads in the Commonwealth.[3] The Commonwealth's Bicycle Transportation and Pedestrian Transportation Plans also include initiatives and actions intended to make walking and biking safer.[4]

The MBTA, MWRTA, and CATA produce PTASPs that describe how they will implement safety management systems (SMS).[5] Transit providers support SMS through safety management policies, safety risk management strategies, safety assurance methods (which include performance monitoring), and safety promotion. PTASPs also describe the performance targets these agencies set for measures outlined in the National Public Transportation Safety Plan.

Roadway Safety Performance Measures and Targets

For each calendar year (CY), the Commonwealth and the MPO must set targets for five federally required roadway safety performance measures:

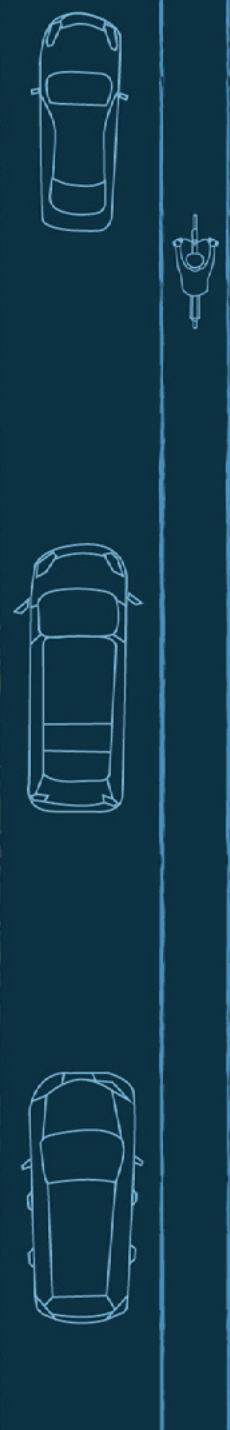
- Number of fatalities
- Fatality rate per 100 million vehicle-miles traveled (VMT)
- Number of serious injuries
- Serious injury rate per 100 million VMT
- Number of nonmotorized fatalities and nonmotorized serious injuries

[2] *MPO memoranda describing the Commonwealth's safety targets from prior years are available at www.bostonmpo.org/performance-archive.*

[3] *Massachusetts Department of Transportation, Massachusetts Strategic Highway Safety Plan (2023), pg. I, accessed February 21, 2023. https://www.mass.gov/doc/massachusetts-shsp-2023/download.*

[4] *The Commonwealth of Massachusetts' 2019 Bicycle Transportation Plan is available at www.mass.gov/service-details/bicycle-plan, and the 2019 Pedestrian Transportation Plan is available www.mass.gov/service-details/pedestrian-plan.*

[5] *MBTA, CATA, and MWRTA 2023 PTASPs are available on the March 16, 2023, page of the MPO meeting calendar. See https://www.ctps.org/calendar/day/20230316; SMS is a data-driven approach to managing safety risks. See MBTA, MBTA Transit Safety Plan (December 2022), pg. 14.*



Values are expressed as five-year rolling annual averages and are tracked using information from the Massachusetts Crash Data System and the National Highway Traffic Safety Administration's (NHTSA's) Fatality Analysis and Reporting System (FARS).

The most current set of roadway safety performance targets reflect a CY 2019–23 rolling annual average, as required by FHWA. The Commonwealth considered the following factors when setting these targets:

- Historic trends for these measures and their component metrics (such as annual VMT)
- Draft 2020 and 2021 values for these measures and 2021 year-to-date estimates of these measures at the time of target setting (spring and summer 2022)
- Changes in travel behavior and traffic volumes related to the increase in in-person activity, which was considered in VMT projections for CYs 2022
- Implementation of safety-related policies and strategies, including those pertaining to engineering, enforcement, education, awareness, data collection, and emergency response.
- The Commonwealth's long-term goals of eliminating fatalities and serious injuries on Massachusetts' roadways

Table 4-4 shows the CY 2023 roadway safety performance targets and the Commonwealth's long-term targets.

TABLE 4-4

Massachusetts Safety Performance Targets

Performance Measure	CY 2023 Target (2019–23 Average)*	MA Long-Term Target
Number of Fatalities	355.00	0.00
Fatality Rate (per 100M VMT)	0.59	0.00
Number of Serious Injuries	2,569.00	0.00
Serious Injury Rate (per 100M VMT)	4.25	0.00
Number of Nonmotorized Fatalities and Serious Injuries	437.00	0.00

** These targets are expressed as five-year rolling annual averages.*

CY = calendar year. M = million. MA = Massachusetts. VMT = vehicle-miles traveled.

Sources: Federal Highway Administration, Commonwealth of Massachusetts, and Boston Region MPO staff.

Figures 4-1 through 4-5 display actual and draft data, projections, and CY 2023 targets for Massachusetts for each roadway safety performance measure. The figures are based on data that were available in spring and summer 2022, when the Commonwealth was setting CY 2022 targets. In February 2023, the MPO endorsed the Commonwealth's CY 2023 roadway safety performance targets as the targets for the region. This approach reflects the way the MPO collaborates with the Commonwealth on safety strategies to reduce fatalities and injuries in the Boston region.

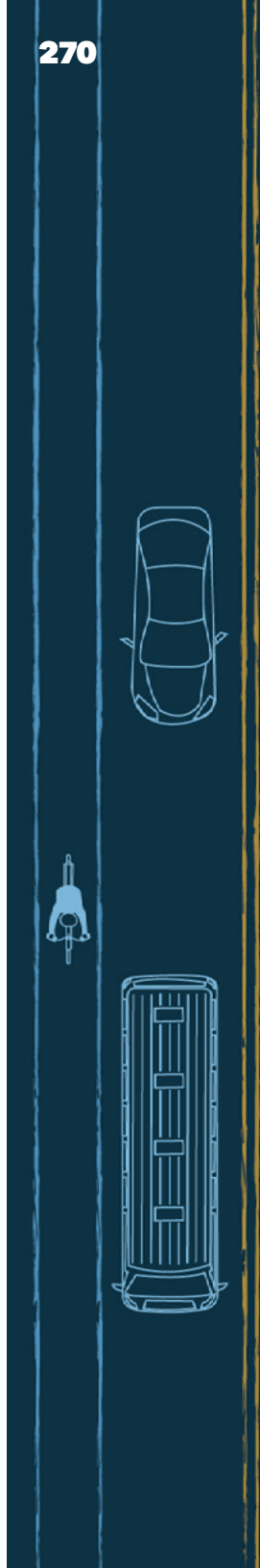
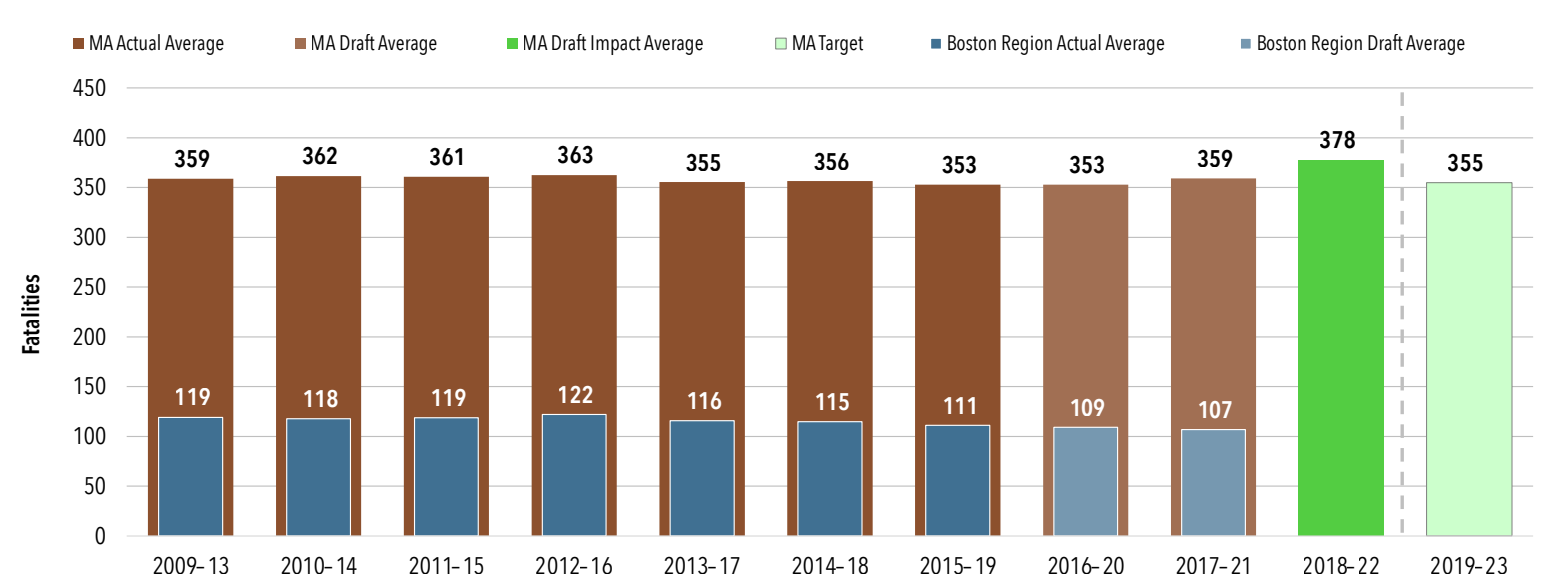


Figure 4-1 shows five-year rolling averages for fatalities for Massachusetts and the Boston region, both of which increased in 2021. Because total fatalities declined between 2017 and 2020, the 2021 increase still produces a five-year rolling average that is lower than that of 2016 and earlier. However, given the implementation of the Commonwealth's speed management campaigns and other safety measures, as well as the decrease in fatalities between 2016 and 2019, the number of expected fatalities in 2023 is lower than the number of fatalities in the years since 2020. The Commonwealth set a target that anticipates an average of 355 fatalities for 2019–23, which the MPO also accepted. The Commonwealth continues to have an overarching goal of zero fatalities and injuries on Massachusetts' roadways.

FIGURE 4-1

Number of Fatalities



Notes: Values reflect five-year rolling annual averages and have been rounded to the nearest integer. The 2016–20 and 2017–21 averages were calculated in spring 2022 using draft data for 2020 and 2021.

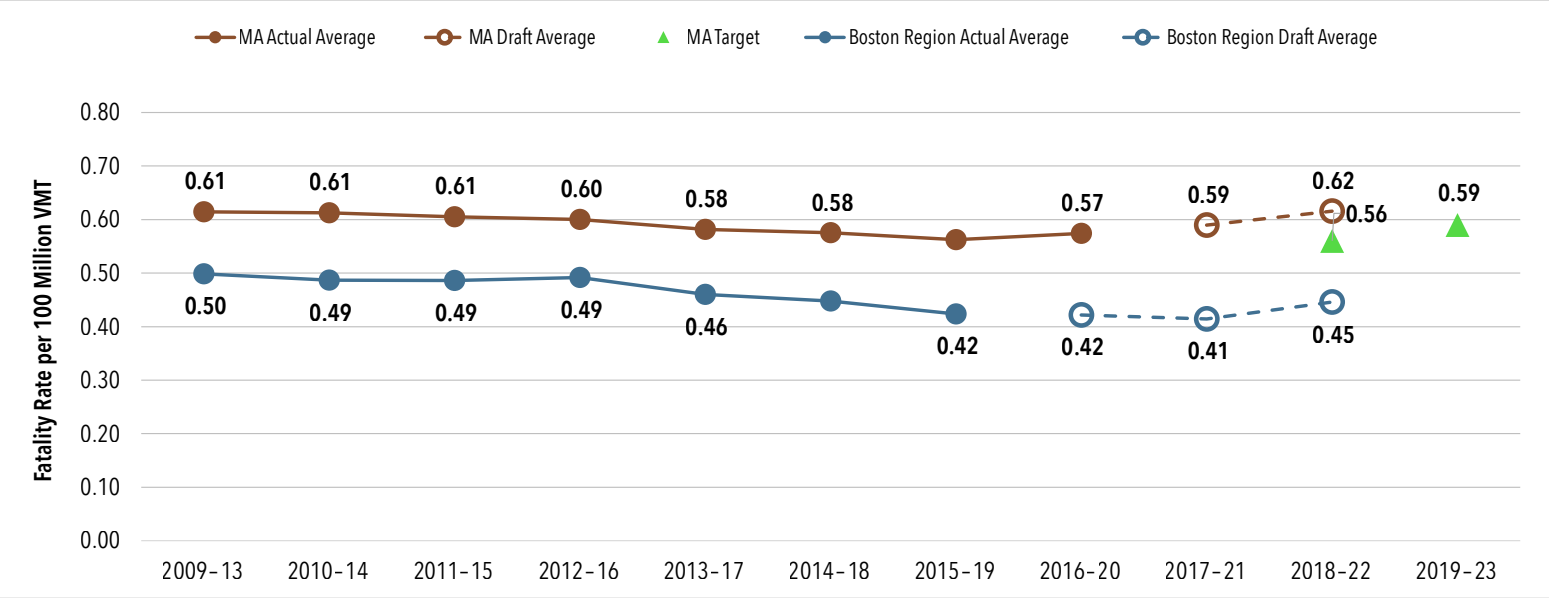
MA = Massachusetts.

Sources: National Highway Traffic Safety Administration Fatality Analysis and Reporting System, Massachusetts Department of Transportation, and Boston Region MPO staff.

Figure 4-2 shows past trends, projections, and the Commonwealth's CY 2022 target for the fatality rate per 100 million VMT. Because of the COVID-19 pandemic, VMT decreased in 2020 compared to prior years but rebounded in 2021. The Commonwealth estimates that 2022 VMT values will be higher, reflecting a gradual return to pre-pandemic levels of travel. Based on these trends, the Commonwealth set a target for the 2019–23 rolling average of 0.596 fatalities per 100 million VMT, which the MPO also accepted.

FIGURE 4-2

Fatality Rate per 100 Million VMT



Notes: Values reflect five-year rolling annual averages and have been rounded to the hundredths decimal place. The 2016–20 and 2017–21 averages were calculated in spring 2022 using draft data for 2020 and 2021.

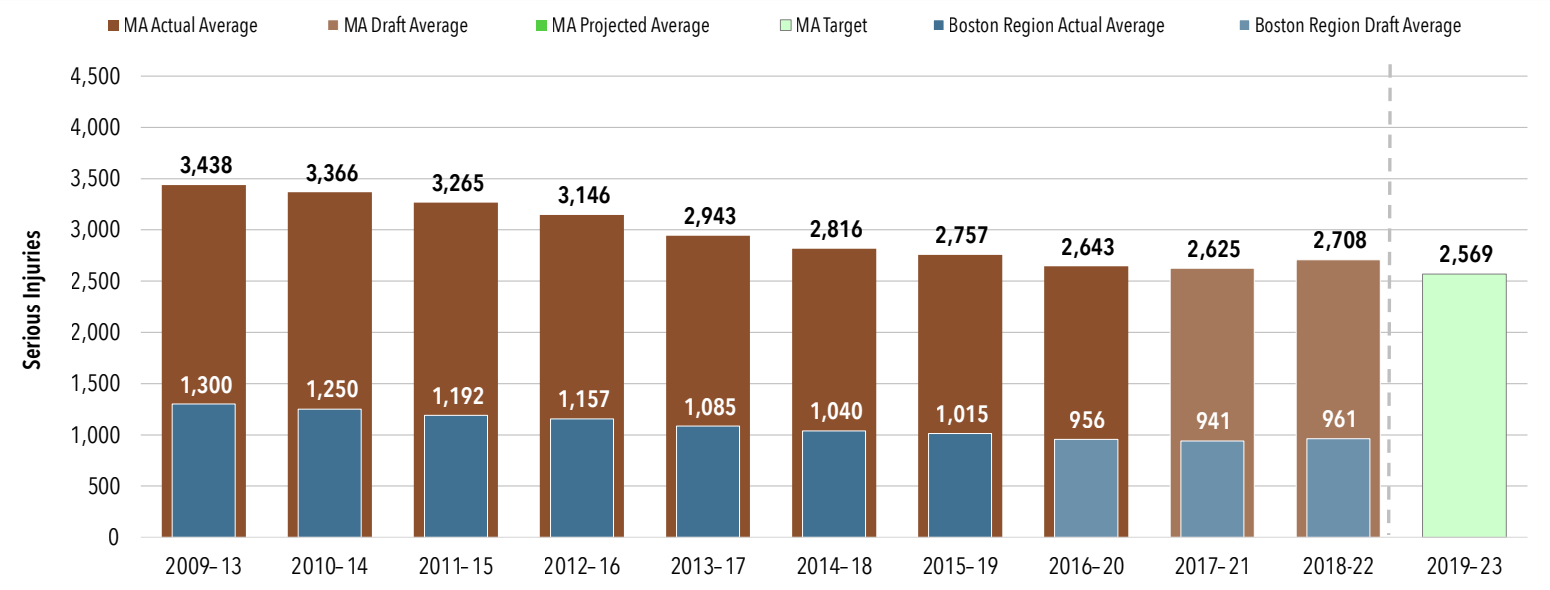
MA = Massachusetts. VMT = vehicle-miles traveled.

Sources: National Highway Traffic Safety Administration Fatality Analysis and Reporting System, Massachusetts Department of Transportation, and Boston Region MPO staff.

Figure 4-3 shows past trends, projections, and the Commonwealth's CY 2022 target for the number of serious injuries. Five-year rolling averages for the serious injury-oriented measures have decreased over time in both Massachusetts and the Boston region. The number of serious injuries that occurred in 2020 was lower than previous years, likely affected by the pandemic and related travel behavior changes. However, serious injuries increased in 2021 to the highest levels since 2016. Given the decreases in serious injuries between 2016 and 2020, the five-year rolling target for 2023 assumes a two percent decrease from the 2021 performance. Based on these calculations, the Commonwealth set a target that anticipates an average of 2,569 serious injuries in 2019–23, which the MPO also accepted.

FIGURE 4-3

Number of Serious Injuries



Notes: Values reflect five-year rolling annual averages and have been rounded to the nearest integer. The 2016–20 and 2017–21 averages were calculated in spring 2022 using draft data for 2020 and 2021.

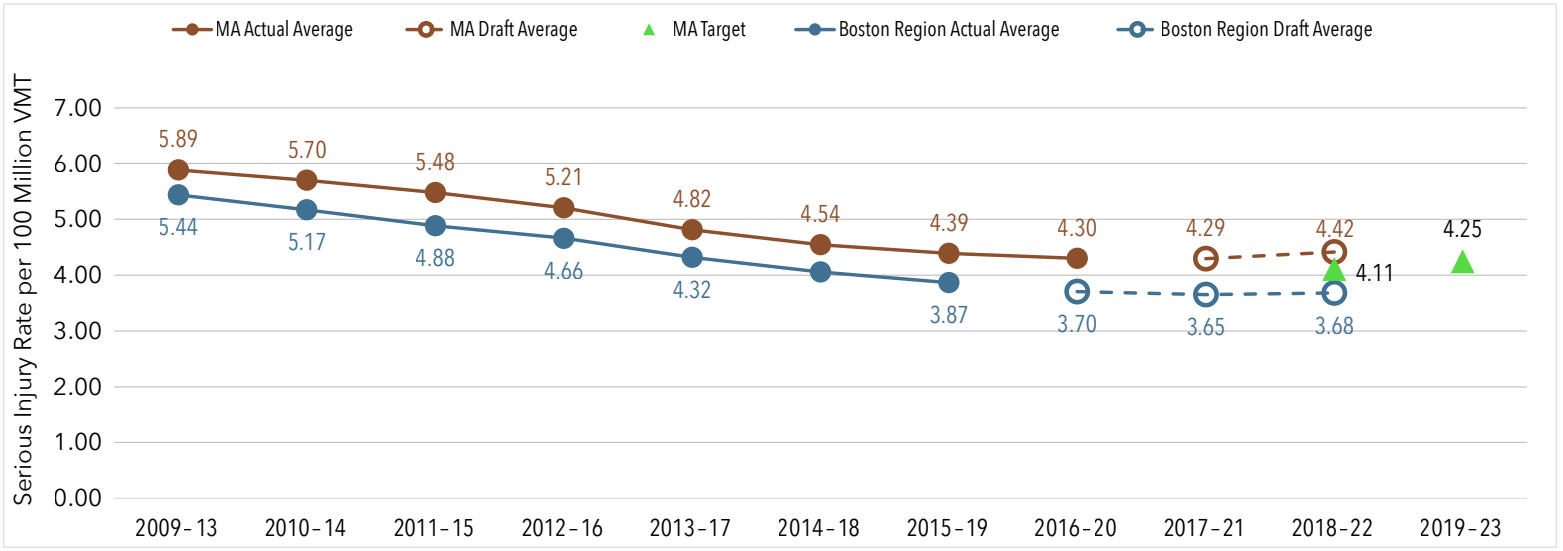
MA = Massachusetts.

Sources: Massachusetts Department of Transportation and Boston Region MPO Staff.

Figure 4-4 shows past trends and projections pertaining to the serious injury rate per 100 million VMT, as well as the Commonwealth's target 2019–23 average of 4.25 serious injuries per 100 million vehicle-miles traveled, which the MPO also accepted.

FIGURE 4-4

Serious Injury Rate per 100 Million VMT



Notes: Values reflect five-year rolling annual averages and have been rounded to the nearest integer. The 2016–20 and 2017–21 averages were calculated in spring 2022 using draft data for 2020 and 2021.

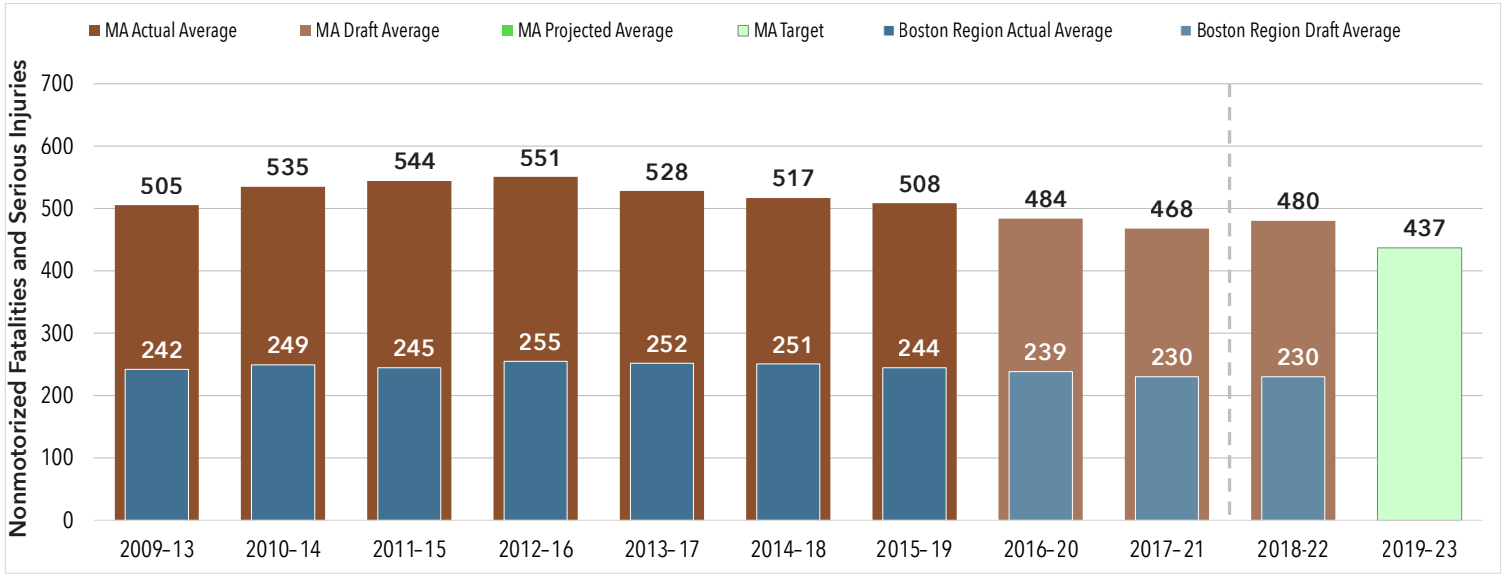
MA = Massachusetts. VMT = vehicle-miles traveled.

Sources: Massachusetts Department of Transportation and Boston Region MPO staff.

Figure 4-5 shows past trends, projections, and the CY 2023 target for the number of nonmotorized fatalities and serious injuries for both Massachusetts and the Boston region. These figures include fatalities and serious injuries of people who walk, bicycle, skate, or use wheelchairs or other mobility devices. When developing this target, the Commonwealth considered fluctuations in the annual number of nonmotorized fatalities and serious injuries, including the reduction in these crash outcomes that occurred in 2020 and the increase in 2021. The Commonwealth assumed that the number of nonmotorized fatalities and serious injuries in 2023 would decrease by six percent from the five-year rolling average for 2021. Using these calculations, the Commonwealth set a target average for 2019–23 of 437 nonmotorized fatalities and serious injuries, which the MPO accepted.

FIGURE 4-5

Number of Nonmotorized Fatalities and Serious Injuries



Notes: Values reflect five-year rolling annual averages and have been rounded to the nearest integer. The 2016–20 and 2017–21 averages were calculated in spring 2022 using draft data for 2020 and 2021.

MA = Massachusetts. VMT = vehicle-miles traveled.

Sources: Massachusetts Department of Transportation and Boston Region MPO staff.

TIP Investments Supporting Roadway Safety Performance

By endorsing the Commonwealth's roadway safety targets for the Boston region, the MPO agreed to program projects that help achieve those targets. When selecting projects to fund, the MPO identifies projects likely to improve safety outcomes through its TIP project selection criteria. Criteria account for crash activity within the project area and the types of safety countermeasures included in the proposed project.

All projects funded by the MPO include safety countermeasures or features that are expected to improve safety for motorists, bicyclists, and pedestrians. Projects in the Intersection Improvement, Complete Streets, and Major Infrastructure programs are expected to improve safety on roadways for multiple travel modes, while its Bicycle Network and Pedestrian Connections projects will improve safety for those traveling by nonmotorized means.

Table 4-5 lists performance metrics that assess how FFYs 2024–28 corridor, intersection, and bicycle and pedestrian projects may improve safety.[6] The information shown indicates the number of projects that have safety countermeasures and improvements focused on high-crash locations. Table A-2 in Appendix A summarizes the impacts each Regional Target project is expected to have on performance areas discussed throughout this chapter, including safety performance.

[6] The content of these tables is based on the project design information that was available to MPO staff when the FFYs 2024–28 TIP document was developed. Project extents and features may change as projects advance through the design development and review process.

TABLE 4-5

FFYs 2024–28 Projects: Roadway Safety Performance Metrics

Metric	Value
Regional Target projects that address all-mode HSIP clusters[1]	14 projects
All-mode HSIP cluster locations addressed by Regional Target projects[1]	25 locations
Regional Target projects that address HSIP Pedestrian clusters[2]	9 projects
HSIP pedestrian cluster locations addressed by Regional Target projects[2]	13 projects
Regional Target projects that address HSIP bicycle clusters[2]	6 projects
HSIP bicycle cluster locations addressed by Regional Target projects[2]	7 projects
Project areas where fatal crashes have occurred[3]	0 areas
Project areas where injury crashes have occurred[3]	35 areas

Note: The group of projects reflected in this table does not include Community Connections investments or Transit Modernization investments.

[1] All-mode HSIP clusters are based on crash data from 2017 to 2019.

[2] HSIP bicycle clusters and HSIP pedestrian clusters are based on data from 2010 to 2019.

[3] Analysis of crashes in Regional Target project areas is based on crash data from 2017 to 2020

HSIP = Highway Safety Improvement Program.

Sources: Massachusetts Crash Data System, Massachusetts Department of Transportation, and the Boston Region MPO.

The projects in the FFYs 2024–28 TIP funded by MassDOT will also improve safety and are expected to reduce fatalities and serious injuries on the region's roadways. MassDOT's Intersection Improvements, Roadway Improvements, Roadway Reconstruction, Safe Routes to School, and Safety Improvements programs most directly address safety considerations. In addition, the Reliability and Modernization programs focus on maintaining and upgrading infrastructure, which help make roadway travel safer. The various bridge and pavement improvement programs may also improve safety by supporting asset maintenance and state of good repair. The Bicycle and Pedestrian projects may reduce nonmotorized fatalities and injuries by improving separated facilities for bicyclists and pedestrians.

Transit System Safety Performance Measures and Targets

The National Public Transportation Safety Plan details performance measures for which transit agencies subject to the PTASP rule must set targets. Transit agencies revisit their performance targets when updating their PTASPs each year. Required performance measures include the following include the following: [7]

- The total number of reportable fatalities and the fatality rate per vehicle revenue-miles (VRM), by mode
- The total number of reportable injuries and the injury rate per VRM, by mode
- The total number of reportable safety events and the safety event rate per VRM, by mode
- System reliability, which is measured by the distance between major mechanical failures, by mode

MPOs have their own responsibilities pertaining to transit safety measures. MPOs must set regional targets for these transit safety performance measures in coordination with transit agencies and states. MPOs document these targets in the LRTPs and TIPs and consider proposed transit investments in the context of how they may improve transit safety. The Boston Region MPO updated its set of transit safety performance targets on March 2, 2023. This update includes the MBTA's, MWRTA's, and CATA's safety targets. Each agency's targets are presented separately to reflect the local context, including the characteristics of the local operating environments and planned investments, policies, and safety-management activities.

MBTA Safety Targets

The MBTA sets targets for four modes: heavy rail (Red, Orange, and Blue Lines), light rail (Green Line and the Mattapan High Speed Line), bus, and The RIDE paratransit system. Based on CY 2019–21 averages, the MBTA runs approximately 1,897,000 VRM of service on its heavy rail system; 463,000 VRM on its light rail system; 1,925,000 VRM on its bus network; and 11,475,000 VRM for The RIDE. The MBTA's commuter rail network and ferry service are not subject to these FTA requirements and are addressed outside of the PTASP process.

Table 4-6 shows averages for the transit safety measures for MBTA heavy rail, light rail, bus, and The RIDE from CYs 2019 to 2021.

[7] *For more information about the definitions of these performance measures—including deaths, injuries, or events that may be excluded from totals—see Boston Region MPO staff, "Transit Safety Performance Requirements and Targets" (March 16, 2023). https://www.ctps.org/data/calendar/pdfs/2023/0316_MPO_Transit_Safety_Targets.pdf.*

TABLE 4-6

Past Safety Performance Data for MBTA Transit Services (CYs 2019–21 Averages)

MBTA Mode	Average Fatalities	Average Fatality Rate[1]	Average Injuries	Average Injury Rate[1]	Average Safety Events	Average Safety Event Rate[1]	Average System Reliability Value[2]
Heavy Rail	0.33	0.01	184.00	8.16	25.00	1.09	43,713.00
Light Rail	0.00	0.00	81.00	14.64	28.00	5.04	7,515.00
Bus	1.00	0.05	292.00	12.48	100.00	4.29	29,099.00
The RIDE	0.00	0.00	27.00	2.31	21.00	1.77	61,231.00

Notes: This table reflects data available at the time the MBTA developed its targets.

[1] Fatality, injury, and safety event rates are expressed per one million VRM. Rate values have been rounded to the nearest hundredth.

[2] The system reliability measure is expressed as mean VRM traveled per major mechanical failure.

CY = calendar year. MBTA = Massachusetts Bay Transportation Authority. VRM = vehicle revenue-miles.

Source: MBTA and the Boston Region MPO staff.

The MBTA's safety performance targets for CY 2023 are shown in Table 4-7. When setting targets, the MBTA varied its approach by measure:

- **Fatalities and Fatality Rates:** The MBTA notes that fatality rates vary across modes due to the distinct operating environments and the inherent safety risk exposure associated with each mode. The MBTA is committed to reducing the number of fatalities across its system to zero and continues to invest in proactive solutions to achieve this goal.
- **Injuries and Injury Rates:** The MBTA set its targets for these two injury measures by assuming a two percent decrease in the injury rate from the CYs 2019–21 average for each mode.
- **Safety Events and Safety Event Rates:** The MBTA established targets for these two measures by assuming a two percent decrease in the safety event rate from the CYs 2019–21 average. The MBTA uses both proactive and reactive safety risk management strategies to reduce the rate of safety events on its system.
- **System Reliability:** Transit system reliability is measured by the mean VRM traveled between major mechanical failures. The MBTA plans to introduce new vehicles into its fleets on multiple modes over the next few years. As these new vehicles are brought into revenue service, the MBTA will continue to monitor them. During this additional "burn-in" period, there may be a decrease in reliability. With this possibility in mind, the MBTA will strive to maintain the highest level of system reliability in CY 2023.[9]

[8] *MBTA, MBTA Transit Safety Plan, pg. 37.*

[9] *MBTA, MBTA Transit Safety Plan, pg. 40.*

TABLE 4-7

MBTA CY 2023 Safety Performance Targets

MBTA Mode	Fatalities Target	Fatality Rate Target[1]	Injuries Target	Injury Rate Target[1]	Safety Events Target	Safety Event Rate Target[1]	System Reliability Target[2]
Heavy Rail	0.0	0.0	180.0	7.99	24.0	1.07	44,500
Light Rail	0.0	0.0	79.0	14.35	27.0	4.94	7,650
Bus	0.0	0.0	286	12.23	98.0	4.21	29,500
The RIDE[3]	0.0	0.0	27.0	2.27	20.0	1.74	62,500

[1] Fatality, injury, and safety event rates are expressed per one million VRM. Rate values have been rounded to the nearest tenth.

[2] The system reliability measure is expressed as mean VRM traveled per major mechanical failure.

[3] The injuries target for The RIDE remains the same as past averages due to rounding.

CY = calendar year. MBTA = Massachusetts Bay Transportation Authority. VRM = vehicle revenue-miles.

Source: MBTA and the Boston Region MPO staff.

CATA Safety Targets

CATA monitors safety performance and sets targets for its fixed-route bus service and its demand response service. According to averages calculated using state fiscal years (SFYs) 2018–22 data, CATA's demand response system runs about 136,000 VRM annually, and its fixed-route bus system runs about 279,000 VRM annually.[10] Table 4-8 provides SFY 2018–22 averages for the fatality, injury, safety event, and system reliability measures for CATA's fixed-route bus and demand response systems.[11]

[10] MPO staff calculated these VRM estimates using the National Transit Database's January 2023 Monthly Module Adjusted Data release, available at www.transit.dot.gov/ntd/data-product/monthly-module-adjusted-data-release.

[11] Specific data sources include the March 6, 2023, Monthly Modal Time Series file (available at https://data.transportation.gov/Public-Transit/Monthly-Modal-Time-Series/5ti2-5uiv), the March 6, 2023, Major Safety Events file (available at https://data.transportation.gov/Public-Transit/Major-Safety-Events/9ivb-8ae9), the 2017-21 Annual Database Vehicle Maintenance files (available at www.transit.dot.gov/ntd/ntd-data), and the January 2023 Monthly Module Adjusted Data Release file (available at www.transit.dot.gov/ntd/data-product/monthly-module-adjusted-data-release).

TABLE 4-8

Past Safety Performance Data for CATA Transit Services

CATA Mode	Average Fatalities	Average Fatality Rate[1]	Average Injuries	Average Injury Rate[1]	Average Safety Events	Average Safety Event Rate[1]	Average System Reliability Value[2]
Fixed-Route Bus	0.0	0.0	0.2	0.1	2.4	0.2	73,603
Demand Response	0.0	0.0	0.2	0.2	1.2	0.8	133,848

Note: Values have been rounded to the nearest tenth.

[1] Fatality, injury, and safety event rates are expressed per one hundred thousand VRM.

[2] The system reliability measure is expressed as mean VRM traveled per major mechanical failure.

CATA = Cape Ann Transportation Authority. CY = calendar year. VRM = vehicle revenue-miles.

Sources: CATA, the National Transit Database, and the Boston Region MPO staff.

Table 4-9 provides a summary of CATA's SFY 2023 performance targets, which cover the period from July 2022 to June 2023. Targets are expressed per one hundred thousand VRM. In general, CATA used past data and averages as the basis for determining its transit safety performance targets for SFY 2023. When CATA set targets, it reviewed data for years when injuries or safety events did take place. CATA also accounted for the number of preventable accidents that occurred on its systems, in addition to incidents reported to the National Transit Database (NTD).

TABLE 4-9

CATA SFY 2023 Safety Performance Targets

CATA Mode	Fatalities Target	Fatality Rate Target[1]	Injuries Target	Injury Rate Target[1]	Safety Events Target	Safety Event Rate Target[1]	System Reliability Target[2]
Fixed-Route Bus	0.0	0.0	1.0	0.5	2.5	1.5	70,000.0
Demand Response	0.0	0.0	1.0	0.5	1.5	1.0	135,000.0

Note: Values have been rounded to the nearest tenth.

[1] Fatality, injury, and safety event rates are expressed per one hundred thousand VRM.

[2] The system reliability measure is expressed as mean VRM traveled per major mechanical failure.

CATA = Cape Ann Transportation Authority. SFY = state fiscal year. VRM = vehicle revenue-miles.

Source: CATA and the Boston Region MPO staff.

MWRTA Safety Targets

MWRTA monitors performance and sets targets for fixed-route bus service and demand response services. According to averages calculated using SFYs 2018–22 data, MWRTA's demand response system runs about 843,000 VRM annually, and its fixed-route bus system runs about 1,124,000 VRM annually.[12] Table 4-10 shows SFY 2018–22 averages for the transit safety measures for MWRTA's transit services.[13] MWRTA's rate values are expressed in 100,000 VRM.

[12] MPO staff calculated these VRM estimates using the National Transit Database's January 2022 Monthly Module Adjusted Data release, available at www.transit.dot.gov/ntd/data-product/monthly-module-adjusted-data-release.

[13] Specific data sources include the March 6, 2023, Monthly Modal Time Series file (available at https://data.transportation.gov/Public-Transit/Monthly-Modal-Time-Series/5ti2-5uiv , the March 67, 20232, Major Safety Events file (available at https://data.transportation.gov/Public-Transit/Major-Safety-Events/9ivb-8ae9), the 2017-21 Annual Database Vehicle Maintenance files (available at www.transit.dot.gov/ntd/ntd-data), and the January 2023 Monthly Module Adjusted Data Release file (available at www.transit.dot.gov/ntd/data-product/monthly-module-adjusted-data-release).

TABLE 4-10

Past Safety Performance Data for MWRTA Transit Services (SFYs 2018–22 Averages)

MWRTA Mode	Average Fatalities	Average Fatality Rate[1]	Average Injuries	Average Injury Rate[1]	Average Safety Events	Average Safety Event Rate[1]	Average System Reliability Value[2]
Fixed-Route Bus	0.0	0.0	0.6	0.05	1.4	0.13	128,551
Demand Response	0.0	0.0	0.6	0.07	1.6	0.20	67,468

Note: Values have been rounded to the nearest tenth.

[1] Fatality, injury, and safety event rates are expressed per one hundred thousand VRM.

[2] The system reliability measure is expressed as mean VRM traveled per major mechanical failure.

MWRTA = MetroWest Regional Transit Authority. VRM = vehicle revenue-miles.

Sources: MWRTA, the National Transit Database, and the Boston Region MPO staff.

Table 4-11 provides a summary of MWRTA's SFY 2022 performance targets, which include fatality, injury, and safety event rates expressed per one hundred thousand VRM. MWRTA set its transit safety performance targets by reviewing historic safety data for its fleet and by planning to operate as safely as possible and by proactively addressing hazards as they are identified.

TABLE 4-11

MWRTA SFY 2023 Safety Performance Targets

MWRTA Mode	Fatalities Target	Fatality Rate Target[1]	Injuries Target	Injury Rate Target[1]	Safety Events Target	Safety Event RateTarget[1]	System Reliability Target[2]
Fixed-Route Bus	0.00	0.00	12.0	1.0	15.0	1.25	75,000
Demand Response	0.00	0.00	8.0	1.0	10.0	1.25	75,000

Note: Values have been rounded to the nearest tenth

[1] Fatality, injury, and safety event rates are expressed per one hundred thousand VRM.

[2] The system reliability measure is expressed as mean VRM traveled per major mechanical failure.

MWRTA = MetroWest Regional Transit Authority. VRM = vehicle revenue-miles.

Source: MWRTA and the Boston Region MPO.

TIP Investments Supporting Transit Safety Performance

MassDOT and the transit agencies in the Boston region account for safety when selecting transit projects for capital investment programs, including the TIP. Safety is part of MassDOT's Reliability priority area and investment programs are sized to support MBTA and RTA asset condition. Safety issues are also considered at the level of individual investments. For example, members of the MBTA Safety team review all candidate projects to determine whether they may address documented existing or potential safety hazards.

TABLE 4-12

TIP Projects Supporting Safety Performance

TIP Project	Regional Transit Agency	Type
Lynn Station Improvements Phase 2	MBTA	Station upgrades
Jackson Square Accessibility Improvements	MBTA	Accessibility upgrades
Reading Station and Wilbur Interlocking	MBTA	Rail Transformation–Interlocking turn track upgrades
Columbus Avenue Bus Lanes Phase 2	MBTA	Bus lanes

MPO-funded corridor and intersection projects can also help improve safety outcomes for bus and paratransit services by making the region's roadways safer. The MPO has also set aside $5.5 million per year in its Transit Modernization investment program starting in FFY 2025. While the MPO continues to work with MassDOT and the region's transit agencies to define the scope of this program, in October 2020 the MPO established baseline transit safety evaluation criteria for this program, which mirror the evaluation criteria used by the MBTA.

The MBTA's planned capital investments are intended to improve safety outcomes, asset condition, and system reliability. The MBTA plans to improve a number of its stations, while Blue Line improvements will include rebuilding the Long Wharf emergency egress and improving track and tunnel infrastructure and communication rooms.

CATA and MWRTA also plan to make investments that will support safety. CATA will continue to use its federal and state dollars to fund preventative maintenance activities, improve its administration and maintenance facility, and purchase new revenue vehicles to replace those that have reached the end of their useful life. Similarly, MWRTA will continue to purchase replacement vehicles and invest in improvements to its Blandin terminal facility and the intermodal center at the commuter rail station in Framingham. MWRTA's planned facilities investments during the FFYs 2024–28 include a new body shop to support efficient and cost-effective repair of its vehicles. Transit agency investments are also discussed in the System Preservation and Modernization Performance section of this chapter and additional details about these investments are available in Chapter 3.

Future Activities to Improve and Monitor Safety Performance

In 2023, the MPO was awarded a federal Safe Streets and Roads for All discretionary grant for $2.1 million. The MPO will use this grant money to create an action plan, and the MPO will continue to work with its planning partners and other stakeholders to better understand roadway and transit risk, measure safety outcomes, and invest in projects that will reduce fatalities and injuries.

SYSTEM PRESERVATION AND MODERNIZATION PERFORMANCE

Relevant Goals, Policies, and Plans

Another of the MPO's goals is to maintain and modernize the transportation system and plan for its resiliency. There is a need to address existing maintenance and state-of-good-repair needs for roads, sidewalks, and transit assets, update infrastructure to meet customer needs, and prepare for existing or future extreme conditions such as sea level rise and flooding.

Projects funded in the FFYs 2024–28 TIP support asset condition improvements, which complement MassDOT's and transit agencies' more extensive state-of-good-repair and modernization projects. MassDOT uses information from its asset management systems to guide decisions about asset maintenance and modernization and considers roadway investment priorities from its TAMP.[14] Similarly, transit agencies that receive FTA funding must produce TAM plans that describe transit system assets and their condition, along with the tools and investment strategies these agencies will use to improve these assets.

Roadway Asset Condition Performance Measures and Targets

Bridge Condition Measures and Targets

To meet federal performance monitoring requirements, states and MPOs must track and set performance targets for the condition of bridges on the National Highway System (NHS). Bridge condition performance measures include the following:

- Percent of NHS bridges by deck area classified as in good condition
- Percent of NHS bridges by deck area classified as in poor condition

[14] *The TAMP is a federally required risk-based asset management plan that includes asset inventories, condition assessments, and investment strategies to improve the condition and performance of the NHS, particularly its bridges and pavements. Massachusetts Department of Transportation, Transportation Asset Management Plan (September 2019), accessed March 1, 2023. See: www.mass.gov/doc/2019-transportation-asset-management-plan/download*

NHS bridge condition is classified based on the condition ratings of three bridge components: the deck, the superstructure, and the substructure. The lowest rating of the three components determines the overall bridge condition. The measures express the share of NHS bridges in a certain condition by deck area, divided by the total deck area of NHS bridges in the MPO region or state.

Table 4-13 shows performance baselines for NHS bridge condition in Massachusetts and the Boston region. MassDOT determined that Massachusetts has 2,246 NHS bridges and analyzed those bridges to understand their current condition with respect to the federal bridge-condition performance measures. In 2022, MassDOT analyzed the 844 NHS bridges in the region at that time. According to these baseline values, the Boston region had a smaller share of NHS bridge deck area considered to be in good condition and a slightly larger share of NHS bridge deck area considered to be in poor condition, compared to Massachusetts overall.

TABLE 4-13

NHS Bridge Condition Baselines for Massachusetts and the Boston Region

Geographic Area	Total NHS Bridges	Total NHS Bridge Deck Area (square feet)	Percent of NHS Bridge Deck Area in Good Condition	Percent of NHS Bridge Deck Area in Poor Condition
Massachusetts[1]	2,246	28,689,888	16.9%	11.2%
Boston Region	844	13,916,199	15.7%	12.9%

1 Massachusetts baseline data is based on a MassDOT analysis conducted in 2022.
NHS = National Highway System.

Sources: Massachusetts Department of Transportation and the Boston Region MPO staff.

States must set performance targets for NHS bridge and pavement condition measures at two-year and four-year intervals. Table 4-14 shows the baseline Massachusetts value calculated in 2022 and MassDOT's current NHS bridge performance targets established in 2023. The two-year target reflects conditions as of the end of CY 2023, and the four-year target reflects conditions as of the end of CY 2025. These targets reflect the bridge condition MassDOT anticipated based on historic trends and planned bridge investments. As shown in the table, MassDOT anticipated that the share of NHS bridge deck area in good condition and poor condition would be nearly identical to the baseline.

[15] *MassDOT continues to measure pavement quality and to set statewide short-term and long-term targets in the MassDOT Performance Management Tracker using the Pavement Serviceability Index (PSI), which is a different index than IRI.*

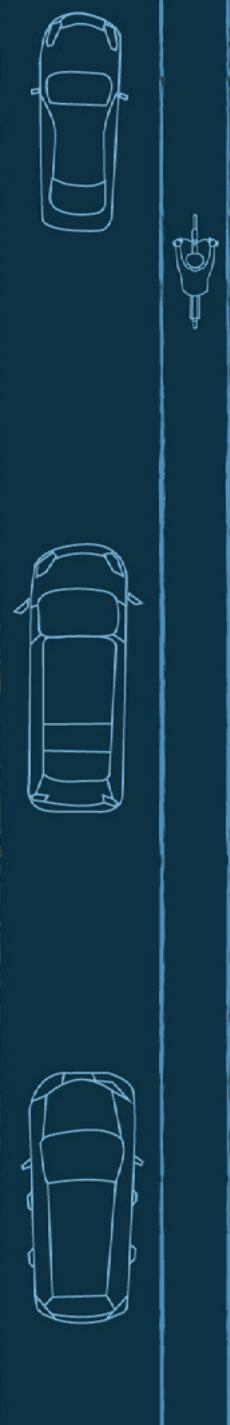


TABLE 4-14

Massachusetts NHS Bridge Condition Targets

Federally Required Bridge Condition Performance Measure	Baseline (CY 2022)	Two-Year Target (CY 2023)	Four-Year Target (CY 2025)	MA Long Term Target
Percent of NHS Bridges [by deck area] that are in good condition	16%	16%	16%	>18%
Percent of NHS Bridges [by deck area] that are in poor condition	12%	16%	12%	< 10%

MA = Massachusetts. MassDOT = Massachusetts Department of Transportation. NHS = National Highway System.

Sources: MassDOT and the Boston Region MPO staff.

The Boston Region MPO elected to support MassDOT's four-year bridge performance targets in February 2023. This approach reflects the ways that each entity supports bridge improvements in the Boston region. The MPO's Regional Target program typically makes modest contributions to bridge improvements in the Boston region, while the MassDOT Bridge Program remains the region's primary funding source for replacement or rehabilitation of substandard bridges.

Pavement Condition Performance and Targets

As with NHS bridges, USDOT's performance-management framework requires states and MPOs to monitor and set targets for the condition of pavement on NHS roadways. According to the 2020 Massachusetts' Road Inventory Year End Report, 10,409 lane-miles (about 14 percent of statewide lane mileage) are part of the NHS. This figures includes 3,206 lane-miles on the Interstate System and 7,203 lane miles of non-Interstate NHS roadways. All Interstate roadways in Massachusetts are owned by MassDOT, which also owns 4,433 lane-miles (62 percent) of non-Interstate NHS roadways.

Within the Boston region, 3,706 lane-miles (16 percent all of roadway lane miles) are part of the NHS. Of these, 1,170 lane miles (37 percent) are on the Interstate System, which is owned by MassDOT. Of the 2,536 non-Interstate NHS roadway lane-miles, 1,224 lane-miles (48 percent) are owned by MassDOT.

Federal NHS pavement performance measures include the following:

- Percent of pavements on the Interstate System in good condition
- Percent of pavements on the Interstate System in poor condition
- Percent of pavements on the non-Interstate NHS in good condition
- Percent of pavements on the non-Interstate NHS in poor condition

Interstate pavement is classified as in good or poor condition using the International Roughness Index (IRI) and one or more pavement distress metrics (cracking and/or rutting and faulting) depending on the pavement type (asphalt, jointed concrete, or continuous concrete). FHWA sets thresholds for each metric that determine whether the metric value is good, fair, or poor, along with thresholds that determine whether the pavement segment as a whole is in good or poor condition.

In 2023, MassDOT established performance targets for NHS pavement condition performance measures. The two-year target reflects conditions as of the end of CY 2023, and the four-year target reflects conditions as of the end of CY 2025. The other types of distress data have not previously been required as part of MassDOT pavement-monitoring programs. At the time of target setting, MassDOT noted that setting targets for these pavement-condition measures is challenging given the lack of complete historic data. MassDOT's approach when setting targets was to use past pavement indicators to identify trends and to set conservative targets. Table 4-15 shows MassDOT's performance targets for these measures along with baseline data as of 2021.

TABLE 4-15

Massachusetts NHS Pavement Condition Targets

Federally Required Pavement Condition Performance Measure[1]	Baseline	Two-Year Target (CY 2023)	Four-Year Target
Percent of Interstate Highway System pavements that are in good condition[2]	72%	70%	70%
Percent of Interstate Highway System pavements that are in poor condition	0%	2%	2%
Percent of non-Interstate NHS pavements that are in good condition	33.9%	30%	30%
Percent of non-Interstate NHS pavements that are in poor condition	2.9%	5%	5%

[1] The 2021 values for pavement condition are as of January 1, 2021.

[2] These values reflect the International Roughness Index only.

CY = calendar year. NHS = National Highway System.

Sources: MassDOT and the Boston Region MPO staff.

MPOs are required to set four-year Interstate and non-Interstate NHS pavement-condition performance targets by either supporting state targets or setting separate quantitative targets for the region. The Boston Region MPO elected to support MassDOT's four-year targets for these NHS pavement-condition measures in March 2023. This approach reflects the ways that each entity supports NHS and other pavement improvements in the Boston region. The MPO's policy has been to not use Regional Target funds for projects that only resurface pavement. MassDOT's pavement-improvement programs, along with its other corridor and intersection improvement programs, provide the majority of funding for pavement improvements in the Boston region. However, the MPO does fund roadway reconstruction projects that include pavement improvements in addition to other design elements, and through this process the MPO will work with MassDOT to make progress towards these NHS pavement-condition targets.

TIP Investments Supporting Roadway Asset Condition

When prioritizing capital investments for the TIP, the MPO uses its project evaluation criteria to assess how well each project funded with Regional Target dollars may help maintain or modernize the Boston region's roadway infrastructure. The MPO's criteria prioritize projects that improve poor condition bridges, pavement, sidewalks, and signals, or that improve the network's ability to support emergency response and respond to extreme conditions.[16] In October 2020, the MPO adopted an updated set of project selection criteria that

- are tailored to each of the MPO's investment programs;
- use refined subcriteria to award points to projects that incorporate resiliency elements or that improve transit-supporting infrastructure at intersections or along corridors;
- award points to projects that improve NHS bridges or pavements; and
- award one or more points to projects that improve signage, lighting, guardrails, pavement markings, or structures, in addition to signals.

More information about the MPO's current TIP criteria is available in Appendix A.

Table 4-16 displays metrics and information about how the MPO's FFYs 2024–28 Regional Target projects are expected to improve infrastructure on the region's roadways. MPO staff developed estimated values for these metrics using available data from MassDOT's Bridge Inventory and Road Inventory files; project proponent information such as functional design reports; results from TIP project evaluations; and other sources. The MPO expects that these FFYs 2024–28 investments will help make progress towards statewide NHS bridge and pavement condition targets, help improve the overall condition of the region's roadways and bridges, and address resiliency needs.

[16] Under the TIP project selection criteria used before October 2020, staff awarded points to projects that were expected to improve a facility's ability to function in instances of flooding; protect a facility from sea level rise; strengthen infrastructure against seismic activity; address critical transportation infrastructure; protect freight network elements; or implement hazard mitigation or climate adaptation plans. Staff also awarded points to projects that were expected to improve evacuation or diversion routes or to improve access routes to or near emergency support locations. The MPO's current TIP evaluation criteria, which are described in Appendix A, also include elements focused on emergency response and resiliency. These criteria increase the emphasis on regional coordination and nature-based solutions, and maintaining connections to an expanded set of critical facilities.

TABLE 4-16

Regional Target Projects: Roadway System Preservation and Modernization Performance Metrics

Metric	Value
Bridge structures improved	8 structures
NHS bridge structures improved	7 structures
New bridge structures to be constructed	6 structures
Lane miles of substandard pavement improved[1]	68.39 lane miles
Lane miles of substandard NHS pavement improved[1]	41.4 lane miles
Miles of substandard sidewalk improved	27.46 miles
Projects that improve emergency response	25 projects
Projects that improve the ability to respond to extreme weather or climate conditions	17 projects
Transit stations improved	4 stations

Note: Community Connections projects do not include system preservation and modernization elements and are not included in this table.

[1] Substandard pavement and sidewalk designations are based on data provided by MassDOT and project proponents and on MPO assessments conducted for TIP evaluations. The estimated lane miles of substandard NHS pavement improved is based on the pavement condition assessment for the project and the MPO's assessment of the portion of the project on the NHS. The IRI thresholds used to classify pavement are based on TIP criteria approved in October 2020: less than 95 (good), 95 to 170 (fair or substandard), greater than 170 (poor or substandard).

FFY = federal fiscal year. IRI = International Roughness Index. MassDOT = Massachusetts Department of Transportation. MPO = metropolitan planning organization. NHS = National Highway System.

Source: MassDOT and the Boston Region MPO staff.

Transit System Asset Condition Performance Measures and Targets

Transit agencies must update performance targets for federally required TAM performance measures. These targets relate to transit rolling stock, nonrevenue service vehicles, facilities, and rail fixed-guideway infrastructure. They are developed based on the agencies' most recent asset inventories and condition assessments, and capital investment and procurement expectations, which are informed by the agencies' TAM plans. MBTA, MWRTA, and CATA share their asset inventory and condition data and their performance targets with the Boston Region MPO so that the MPO can monitor and set TAM targets for the Boston region. The MPO revisits its targets in these performance areas each year when updating its TIP.

The following sections discuss the MPO's current performance targets (adopted in March 2023) for each of the TAM performance measures. They reflect the MBTA's, CATA's, and MWRTA's SFY 2022 TAM performance targets (for July 2022 through June 2023). After consulting with the MBTA, CATA, and MWRTA, MPO staff has aggregated or reorganized some target information for particular asset subgroups. When compared to SFY 2021 performance, the SFY 2022 TAM targets described in Tables 4-17 through 4-20 may reflect changes in the overall number of assets in each transit category, past or planned asset replacement or repair, other factors depending on the asset type, or a combination of these factors. They may also reflect some recent updates to data or the reclassification of assets into different categories.

Rolling Stock and Equipment Vehicles

FTA's TAM performance measure for evaluating whether rolling stock and equipment vehicles are in a state of good repair is the percent of vehicles that meet or exceed their useful life benchmark (ULB). This measure uses vehicle age as a proxy for state of good repair, with the goal being to bring this value as close to zero as possible. FTA defines ULB as "the expected lifecycle of a capital asset for a particular transit provider's operating environment, or the acceptable period of use in service for a particular transit provider's operating environment."[17]

For its SFY 2023 targets, the MBTA used FTA default ULBs for all vehicle types except for paratransit autos and vans, some articulated buses, and some light rail vehicles, which are measured using MBTA-defined ULBs. The MWRTA uses FTA default ULBs for vans and equipment vehicles (excluding automobiles) and ULBs from MassDOT's Fully Accessible Vehicle Guide for its cutaway vehicles and automobiles. [18] CATA uses useful life criteria as defined in FTA Circular 5010.1E for ULB values for its vehicles.[19]

Table 4-17 describes SFY 2022 baselines and the MPO's SFY 2023 targets for rolling stock. The MBTA, CATA, and MWRTA are improving performance for a variety of rolling-stock-vehicle classes. Transit agencies can make improvements on this measure by expanding their rolling-stock fleets or replacing vehicles within those fleets.

[17] *Federal Transit Administration, "Performance Management" (January 2023), accessed March 7, 2023. www.transit.dot.gov/PerformanceManagement*

[18] *Massachusetts Department of Transportation, MassDOT Fully Accessible Vehicle Guide: An Overview of Accessible Vehicle Specifications (April 2022), accessed March 2, 2023. www.mass.gov/doc/massdot-fully-accessible-vehicle-guide/download*

[19] *FTA, FTA Circular 5010.E "Award Management Requirements" (July 16, 2018), accessed March 2, 2023. www.transit.dot.gov/regulations-and-guidance/fta-circulars/award-management-requirements-circular-50101e*

TABLE 4-17

TAM Performance Values and SFY 2023 Targets for Transit Rolling Stock
SFY 2022 Performance(as of June 30, 2022)

Agency	Asset Type	Number of Vehicles	Number of Vehicles Meeting or Exceeding ULB	Percent of Vehicles Meeting or Exceeding ULB	Target Percent of Vehicles Meeting or Exceeding ULB
MBTA	Buses[1]	952	307	32%	32%
MBTA	Light Rail Vehicles	227	0	0%	0%
MBTA	Vintage Trolleys[1]	7	7	100%	100%
MBTA	Heavy Rail Vehicles[2]	472	252	53%	39%*
MBTA	Commuter Rail Locomotives	81		23%	23%*
MBTA	Commuter Rail Coaches	393	30	8%	7%
MBTA	Ferry Boats	4	0	0%	0%
MBTA	Paratransit Vehicles[3]	704	0	0%	0%
CATA	Buses	16	4	25%	30%
CATA	Cutaway Vehicles[4]	16	10	63%	5%
MWRTA	Automobiles	2	2	100%	100%*
MWRTA	Vans[5]	3	0	0%	0%
MWRTA	Cutaway vehicles[6]	108	9	8%	25%

** The SFY 2022 target anticipates improved performance compared to SFY 2021 performance.*

1 MBTA vintage trolleys are used on the Ashmont-Mattapan High Speed Line.

2 The targets account for Red and Orange Line vehicle delivery.

3 The MBTA's The RIDE paratransit vehicle data and target reflect automobiles and vans.

4 The NTD defines a cutaway vehicle as a vehicle in which a bus body is mounted on a van or light-duty truck chassis, which may be reinforced or extended. CATA uses these vehicles to provide fixed-route and demand response service.

5 MWRTA's vans are used to provide demand response service.

6 MWRTA uses cutaway vehicles to provide fixed-route and demand response service.

CATA = Cape Ann Transportation Authority. MBTA = Massachusetts Bay Transportation Authority. MWRTA = MetroWest Regional Transit Authority. NTD = National Transit Database. SFY = state fiscal year. TAM = Transit Asset Management ULB = Useful Life Benchmark.

Source: CATA, MBTA, MWRTA, and Boston Region MPO staff.

The MBTA's planned SFY 2023 investments in revenue vehicles include ongoing replacements for the bus fleet commuter rail locomotive and coach overhauls, and continued procurement of Red and Orange Line (heavy rail) vehicles and Green Line Type 9 vehicles.

Table 4-18 shows SFY 2022 baselines and the MPO's SFY 2023 targets for transit-equipment vehicles. Transit agencies can make progress by expanding their fleets or replacing vehicles within those fleets. The MBTA notes that some of its equipment vehicles are stored indoors and used sporadically, and therefore can perform adequately even well beyond their ULBs. Also, the MBTA's nonrevenue vehicle program focuses on replacing the vehicles that have the highest impact on service, including those used for winter response and track maintenance, which may not always be the oldest vehicles in the fleet.

TABLE 4-18

SFY 2022 Performance and SFY 2023 Targets for Equipment (Nonrevenue Vehicles)
SFY 2022 Performance (as of June 30, 2022)

Agency	Asset Type	Number of Vehicles	Number of Vehicles Meeting or Exceeding ULB	Percent of Vehicles Meeting or Exceeding ULB	Target Percent of Vehicles Meeting or Exceeding ULB
MBTA	All Equipment	1,417	315	22%	25%
CATA	All Equipment	3	3	100%	100%
MWRTA	All Equipment	11	4	36%	50%

CATA = Cape Ann Transportation Authority. MBTA = Massachusetts Bay Transportation Authority. MWRTA = MetroWest Regional Transit Authority. SFY = state fiscal year. ULB = Useful Life Benchmark.

Source: CATA, MBTA, MWRTA, and Boston Region MPO staff.

Facilities

FTA assesses the condition for passenger stations, parking facilities, and administrative and maintenance facilities to determine if they are in a state of good repair by using the FTA Transit Economic Requirements Model (TERM) scale, which generates a composite score based on assessments of facility components. Facilities with scores below three are considered to be in marginal or poor condition (though this score is not a measure of facility safety or operational performance). The goal is to bring the share of facilities that meet this criterion to zero. Infrastructure projects focused on individual systems may improve performance gradually, while more extensive facility improvement projects may have a more dramatic effect on a facility's TERM scale score.

Table 4-19 shows SFY 2022 measures and the MPO's SFY 2023 targets for MBTA, CATA, and MWRTA facilities.

TABLE 4-19

SFY 2022 Performance and SFY 2023 Targets for Facilities

SFY 2022 Performance (as of June 30, 2022)

Agency	Asset Type	Number of Facilities	Number of Facilities Rated < 3.0 on the FTA's Term Scale	Percent of Facilities Rated < 3.0 on the FTA's Term Scale	Target Percent of Facilities Rated < 3.0 on the FTA's Term Scale
MBTA	Passenger/Parking Facilities[1], [2]	386	22	6%	7%
MBTA	Administrative/ Maintenance Facilities[1]	427	149	35%	35%
CATA	Administrative/ Maintenance Facilities[1]	1	0	0%	0%
MWRTA	Administrative/ Maintenance Facilities[1]	1	0	0%	0%

1 The MBTA reports performance targets for facilities with a baseline consistent assessment and continues to undertake physical condition assessments for all facilities.

2 The FY 2023 target for passenger and parking facilities reflects the likelihood that five commuter rail assets will receive lower condition ratings this year: South Attleboro, West Newton, Newtonville, Lynn Garage, and Lynn Station.

CATA = Cape Ann Transportation Authority. FTA = Federal Transit Administration. MBTA = Massachusetts Bay Transportation Authority. MWRTA = MetroWest Regional Transit Authority. SFY = State Fiscal Year.

Source: CATA, MBTA, MWRTA, and Boston Region MPO staff.

Fixed-Guideway Infrastructure

Table 4-20 describes SFY 2022 baselines and SFY 2023 targets for rail fixed-guideway condition. The MBTA is the only transit agency in the Boston region with this asset type. Rail fixed-guideway condition is measured by the percentage of track that is subject to performance or speed restrictions. Performance restrictions reflect the condition of track, signal, and other supporting systems, which the MBTA can improve through maintenance, upgrades, and replacement and renewal projects. The goal is to bring the share of MBTA track systems subject to performance restrictions to zero.

TABLE 4-20

SFY 2022 Performance and SFY 2023 MBTA Targets for Infrastructure (Fixed Guideway)
SFY 2022 Performance (as of June 30, 2022)

Asset Type	Number of Miles	Number of Miles with Performance Restrictions	Percent of Miles with Performance Restrictions	Target Percent of Miles with Performance Restrictions
MBTA Transit Fixed Guideway[1]	127	6	5%	2%
MBTA Commuter Rail Fixed Guideway	641	22	3%	4%

Note: For this performance measure, the term "miles" refers to "directional route miles," which represents the miles managed and maintained by the MBTA with respect to each direction of travel (for example, northbound and southbound), and excludes non-revenue tracks such as yards, turnarounds, and storage tracks. The baseline and target percentages represent the annual average number of miles meeting this criterion over the 12-month reporting period.

1 The MBTA's Transit Fixed Guideway information reflects light rail and heavy rail fixed guideway networks.

MBTA = Massachusetts Bay Transportation Authority. SFY = State Fiscal Year.

Source: MBTA and Boston Region MPO staff.

The MBTA transit targets for SFY 2023 are more aggressive than those of SFY 2022, which reflect a commitment to improving the condition of track assets and reducing the number of speed restrictions for heavy and light rail.

TIP Investments Supporting Transit System Asset Condition

Many types of transit investments may affect the TAM vehicle, facility, and fixed-guideway performance measures described in the previous section, because these investments may either improve or replace assets already included in transit agency inventories, or because they may expand those inventories. These investments may improve assets gradually over time by upgrading specific asset subsystems, or they may generate more dramatic changes in performance by overhauling or replacing assets.

The FFYs 2024–28 TIP includes a variety of transit infrastructure improvement initiatives, funded both by the MPO's Regional Targets and dollars that the MBTA, MWRTA, and CATA program in coordination with MassDOT. Many of the MBTA and CATA investments appear in the priority investment lists these agencies include in their TAM plans. Because of the timing of these investments, they are not expected to affect the MPO's current (SFY 2022) TAM performance targets; however, they are expected to help improve performance on the TAM measures over time.

Vehicles

During FFYs 2024 to 2028, the MBTA will be investing in vehicles to replace or expand its fleets through its Vehicles program. These procurements will support more efficient, reliable, and sustainable operations and include the following:

- Type 10 Green Line light-rail vehicles to replace existing Type 7 and Type 8 fleets
- Buses, including hybrid and battery electric models, and supporting infrastructure
- Bi-level commuter rail coaches

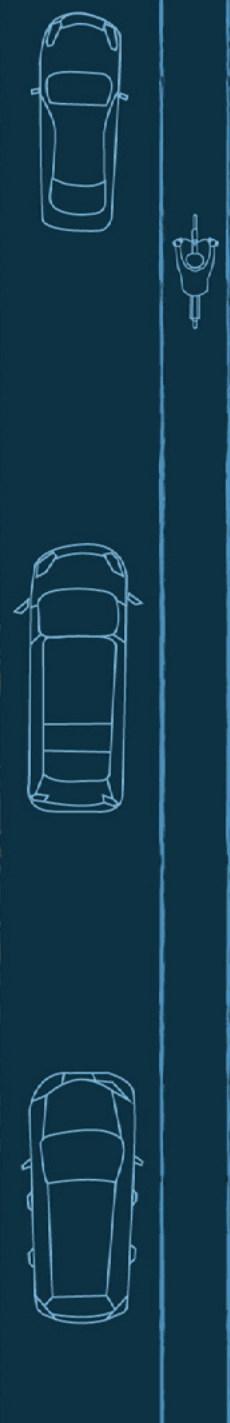
The MBTA will also overhaul catamarans, hybrid and compressed-natural-gas (CNG) buses, Blue Line vehicles, and vintage trolleys that serve the Mattapan Line. It will also fund activities and procurements to ensure that existing fleets are resilient and in a state of good repair. Finally, the MBTA will allocate funds to planning for future fleet procurements.

Meanwhile, CATA plans to purchase several buses, including both body-on-chassis and low-floor buses, to replace those that have reached the end of their useful life. The MWRTA plans to purchase cutaway vehicles to replace vehicles that have reached the end of their useful life. Expected purchases include CNG-powered vehicles and electric vehicles. MWRTA will also continue pursuing opportunities to migrate its fleet to fully electric vehicles. Collectively, these investments will help improve the condition of the fleets and make progress with respect to the TAM rolling stock performance measure.

Facilities

During FFYs 2024 to 2028, the MPO will provide Regional Target funding to support improvements to the Jackson Square, Lynn, and Reading MBTA stations. The Jackson Square Station Accessibility Improvements Project will make state-of-good-repair improvements to the facility on the MBTA's Orange Line, including repairs to its existing elevator, the addition of a new elevator, and improvements to lighting and wayfinding signage. Many elements of the Lynn Station project will improve its state of good repair, including reconstruction of the existing rail platform, construction of two new elevators, new stairways, and upgraded lighting. This project also includes repairs to the viaduct to the northeast of the station. The Rail Transformation Project will improve track on the Haverhill commuter rail line, including Reading Station, and the Lowell line to accommodate increased service and improve operational safety.

While MWRTA's and CATA's administration and maintenance facilities are currently in a state of good repair, these agencies will continue to maintain and upgrade those facilities during FFYs 2024 to 2028. CATA plans to repave the parking lot of its maintenance and operations facility. MWRTA is exploring the feasibility of making significant enhancements to improve safety, reliability, and amenities at its Blandin Hub facility. MWRTA plans to make significant



investments in electrification infrastructure for its fleet, with a focus on renewable energy, through phased investments in solar infrastructure and battery electric storage systems. Renewable energy will be used for charging electric vehicles (EVs), as well as facility operations.

Fixed-Guideway Infrastructure

The MBTA's investments in track signals and systems through its Signals and System Upgrade Program during FFYs 2024 to 2028 will, over time, help reduce the need for performance restrictions on fixed guideways. Projects that address this area include the following:

- Framingham/Worcester commuter rail line track improvements
- Green Line Central Tunnel signal, track, and power system upgrades
- Track and system improvements on the B and E Branches of the Green Line
- Red and Orange Line signal improvements
- Track replacements on the Southwest Corridor of the Orange Line
- Replacement of duct bank systems providing energy to the Red, Orange, Blue, and Green Lines
- Mattapan Line transformation, including power infrastructure improvements
- Improvements to track and track support systems for the Ashmont and Braintree branches of the Red Line and at the Longfellow Approach Viaduct
- Upgrades to traction power and unit substations supporting the rapid transit network
- Replacement of duct banks and cables which carry alternating-current (AC) power from the South Boston power complex to Forest Hills

MPO Investment in Transit Asset Improvements

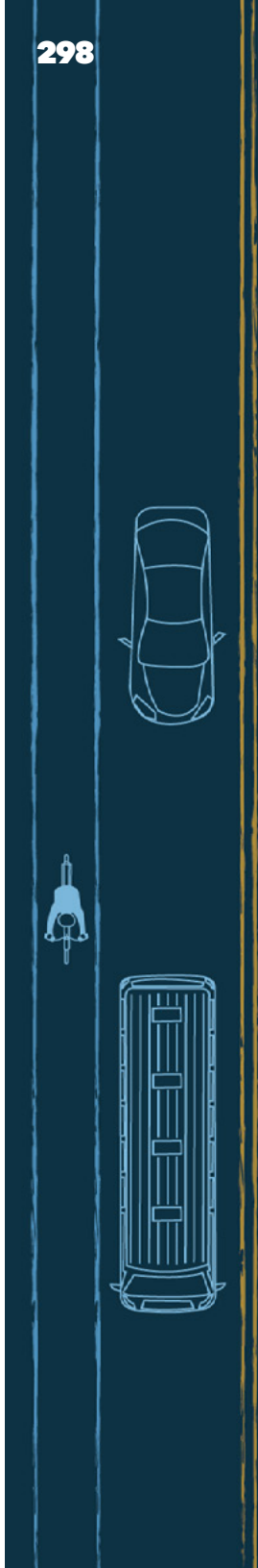
In addition to investing in the Jackson Square, Lynn, and Reading Stations, the MPO has set aside $6.5 million per year in its Transit Modernization investment program starting in FFY 2025. While the MPO continues to work with MassDOT and the region's transit agencies to define the scope of this program, in October 2020 the MPO established baseline transit system preservation and modernization evaluation criteria for this program. These include criteria that award points for

- bringing assets (including those covered by the TAM performance measures) into a state of good repair;
- modernizing transit system assets;
- improving safety-critical, operations-critical, or climate-sensitive assets;
- incorporating resilience elements into transit projects; and
- improving pedestrian elements at transit stations.

Future Activities to Improve and Monitor System Preservation and Modernization Performance

The MPO will continue to work to improve the links between transportation investments and system preservation and modernization, and will coordinate with MassDOT, the MBTA, MWRTA, and CATA, and other stakeholders on that process. This work may include the following activities:

- Continue to implement the MPO's updated TIP project selection criteria pertaining to system preservation and modernization, and further integrate these criteria into the MPO's performance monitoring activities.
- Continue to refine the MPO's Transit Modernization investment program and to identify links between this program and improving the condition of the region's transit assets.
- Work with MassDOT and the region's transit agencies to better estimate the impacts of TIP investments on federally required and other performance measures and targets.



CAPACITY MANAGEMENT AND MOBILITY PERFORMANCE

Relevant Goals, Policies, and Plans

The MPO's capacity management and mobility goal focuses on using existing facility capacity more efficiently and increasing transportation options. The MPO's objectives in this area encompass a variety of modes and aspects of mobility, including access to and the accessibility of different transportation modes, connectivity between modes and systems, and support for reliable travel and congestion mitigation. Much of the Boston region is densely developed, which creates both opportunities and challenges to addressing these access, reliability, and congestion mitigation needs.

Several different planning processes come together to address capacity management and mobility performance, issues, and needs. Through its CMP, the MPO does extensive analysis of congestion and mobility constraints in the region. The MPO also produces periodic CMAQ Performance Plans and progress reports to address requirements related to the federal Congestion Mitigation and Air Quality Improvement Program; these describe other congestion-oriented measures and targets.[20] The MPO combines this work with ongoing system-level analyses that support its long-range planning, which are documented in its LRTP Needs Assessment. MassDOT conducts its own analyses of mobility performance and needs, which it documents in modal plans such as its Freight Plan, Bicycle Transportation Plan, and Pedestrian Transportation Plan, its Congestion in the Commonwealth reports and accompanying studies, and its MassDOT Performance Management Tracker tool.[21] Meanwhile, the MBTA tracks and analyzes mobility metrics and uses these to support planning processes, such as Focus40, its current long-term investment plan.[22] The exchange and integration of these plans help agencies in the Boston region coordinate to improve mobility across modes.

[20] *The MPO's CMAQ Performance Plans and progress reports are available at bostonmpo.org/performance.*

[21] *The 2017 Massachusetts Freight Plan is available at www.mass.gov/service-details/freight-plan. MassDOT's 2019 Congestion in the Commonwealth report and accompanying studies are available at www.mass.gov/service-details/congestion-in-the-commonwealth.*

[22] *The MBTA's Focus40 plan is available at www.mbtafocus40.com.*

Capacity Management and Mobility Performance Measures and Targets

The MPO examines a variety of different metrics to understand congestion and mobility issues, several of which are discussed below.

Travel Time Reliability

FHWA requires states and MPOs to monitor and set targets for two performance measures that pertain to all travelers on NHS roadways:

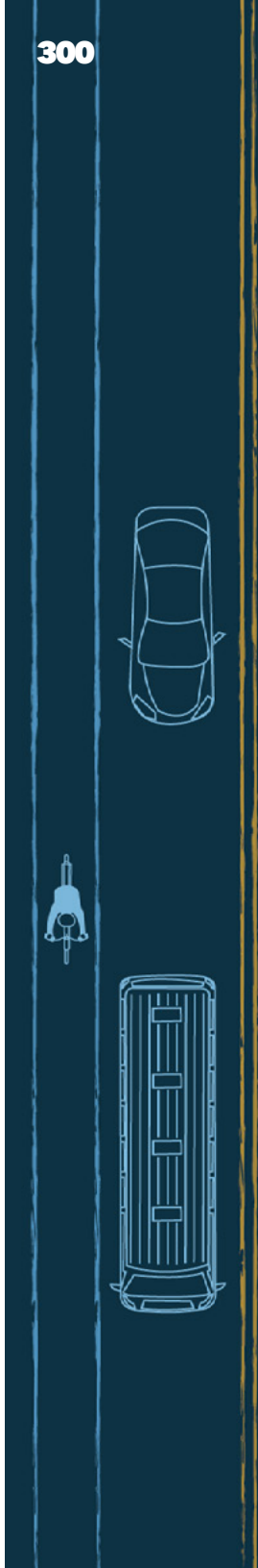
- Percent of the person-miles traveled on the Interstate System that are reliable
- Percent of the person-miles traveled on the non-Interstate NHS that are reliable

These measures capture (1) whether travel times on an NHS segment are consistent (reliability); and (2) the extent to which NHS users' travel may be affected by those conditions (percent of person miles). Several component metrics make up this measure:

- Level of Travel Time Ratio (LOTTR). This ratio compares longer (80th percentile) travel times to average (50th percentile) travel times on an NHS segment. FHWA has determined that LOTTR values less than 1.5 indicate reliable travel on the NHS for a particular time period. Larger LOTTR values indicate greater differences between the 80th and 50th percentiles and, thus, less reliable travel times. An NHS segment must have LOTTR values of less than 1.5 for four designated day-and-time periods to be considered reliable.[23]
- Annual Number of Travelers. States and MPOs calculate this figure using vehicle volumes and average vehicle-occupancy factors.
- NHS segment length. States and MPOs use this value and data on the annual number of travelers to estimate person-miles traveled on the NHS.

States and MPOs identify the person-miles of travel for each NHS segment and divide the total person-miles on the relevant NHS network that are reliable by the total person-miles on the relevant NHS network. To support this analysis, FHWA provides travel-time and traffic-volume data as part of the National Performance Management Research Data Set (NPMRDS), in which travel-time data are reported by traffic messaging channel (TMC) segments. These data, along with a set of analysis tools, are available through the Regional Integrated Transportation Information System (RITIS), which is developed and maintained by the Center for Advanced Transportation Technology Laboratory at the University of Maryland. MassDOT has obtained access to the RITIS platform and grants access to MPOs and transportation planning organizations in the Commonwealth.

[23] States and MPOs must calculate LOTTR values for four time periods: weekdays from 6:00 AM to 10:00 AM, weekdays from 10:00 AM to 4:00 PM, weekdays from 4:00 PM to 8:00 PM, and weekend days from 6:00 AM to 8:00 PM.



States are required to set two-year and four-year targets for these measures. In 2022, MassDOT calculated baselines and established targets for these measures for the Massachusetts Interstate and non-Interstate NHS networks. MassDOT considered FHWA guidance and recommendations for establishing initial targets with this limited historic data, and it set initial targets for Massachusetts equal to CY 2021 baseline values.[24]

Table 4-21 shows MassDOT's CY 2021 baselines and two-year and four-year targets for these measures. The Boston Region MPO, like all MPOs, was required to establish four-year targets for these measures by either supporting state targets or setting its own quantitative targets for the Boston region. In 2023, the MPO board voted to support the state's four-year targets. As noted in previous sections, MassDOT owns and manages the Interstate network in Massachusetts and implements strategies to improve its performance. As with the roadway safety performance targets previously discussed, this approach reflects the way the Commonwealth and the MPO will need to collaborate to make and keep the non-Interstate NHS in the region reliable. Relevant strategies may include designing and funding roadway infrastructure improvements and supporting signal retiming, which fall under the purview of both the MPO and MassDOT. Others include regulating vehicle volumes using approaches such as ramp metering or managed lanes, which would fall under the Commonwealth's purview.

Table 4-21 also shows CY 2021 baselines for the Boston region's Interstate and non-Interstate NHS networks for comparison. As the table shows, the Boston region's share of reliable person-miles traveled on its Interstate and non-Interstate NHS networks was lower than statewide values for Massachusetts in 2021.

[24] *FHWA, "Frequently Asked Questions: Target Setting," accessed March 7, 2023. www.fhwa.dot.gov/tpm/faq.cfm#targ.*

TABLE 4-21

Baseline Values and Targets for Travel Time Reliability

Network	Measure	2021 Measure Value (Baseline)	Two-Year Target (CY 2023)	Four-Year Target (CY 2025)
Massachusetts—Interstate Highway System	Percent of person-miles on the Interstate Highway System that are reliable	84.2%	74.0%	76.0%
Massachusetts—Non-Interstate NHS System	Percent of person-miles on the non-Interstate NHS that are reliable	87.9%	85.0%	87.0%
Boston Region—Interstate Highway System[1]	Percent of person-miles on the Interstate Highway System that are reliable	71.4%	N/A	N/A
Boston Region—Non-Interstate NHS System[1]	Percent of person-miles on the non-Interstate NHS that are reliable	81.7%	N/A	N/A

Note: The two-year target reflects conditions as of the end of CY 2023, and the four-year target reflects conditions as of the end of CY 2025.

1 The baseline values for the Boston region that are shown in this table were calculated in 2022.

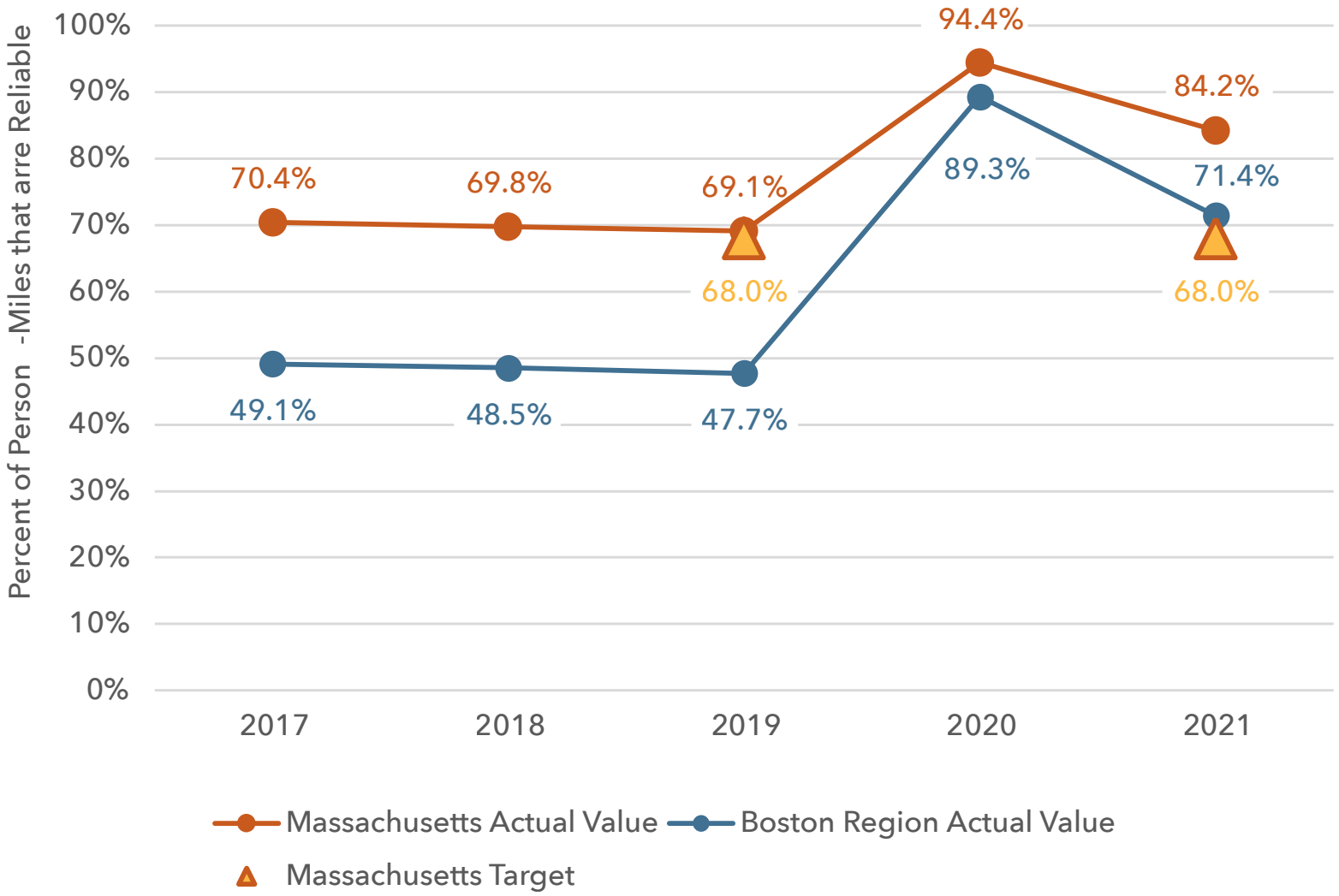
CY = calendar year. MPO = metropolitan planning organization. N/A = not applicable. NHS = National Highway System.

Sources: National Performance Management Research Data Set, Cambridge Systematics, Massachusetts Department of Transportation, and the Boston Region MPO staff.

Figure 4-6 shows the change in the percent of person-miles on the Interstate Highway System that were reliable for both Massachusetts and the Boston region between 2017 and 2022. Figure 4-7 shows the change in the percent of person-miles on the non-Interstate NHS for the same time period and geographies. As shown in the charts, the travel time reliability measures for the Interstate Highway System and the non-Interstate NHS in Massachusetts were better than the Commonwealth's two-year and four-year targets. The share of reliable person-miles on the NHS network increased significantly in 2020 for both the Boston region and Massachusetts as a whole, primarily because of reduced travel in response to the COVID-19 pandemic, though the percentage of reliable person-miles dropped for both geographies in 2021 and 2022 as travel increased. As the region and the Commonwealth adjust to post-pandemic travel patterns and levels of demand, the MPO will work with the Commonwealth, municipalities, and other stakeholders to support reliable travel on the NHS and other roadways.

FIGURE 4-6

Performance Values and Targets for the Percent of Person-Miles that are Reliable on the Interstate Highway System



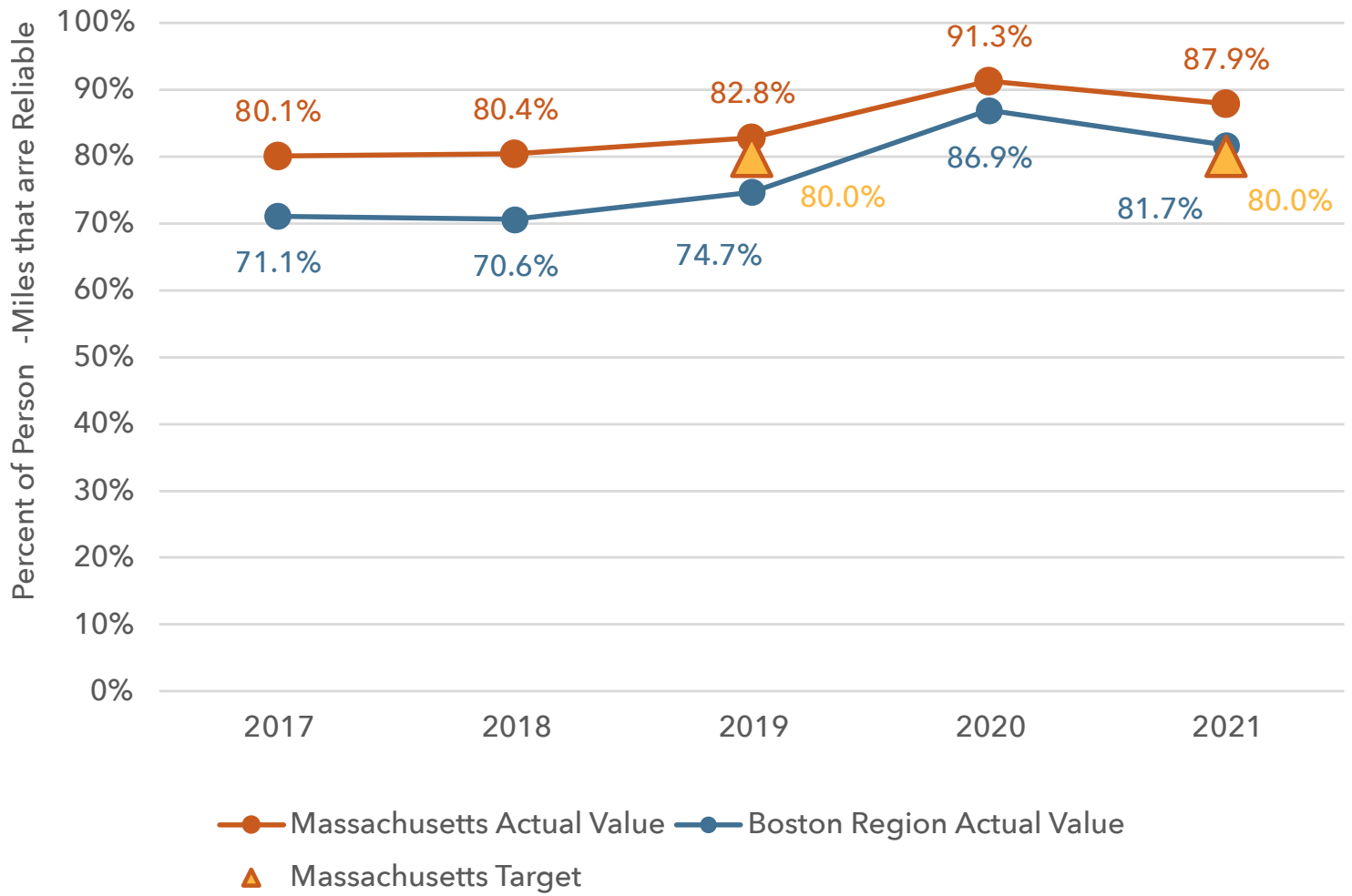
Note: The number of municipalities in the Boston Region MPO area decreased from 101 to 97 in 2018. This change may have affected 2017 values calculated using the RITIS platform in April 2022 as compared to baselines determined when targets were initially set in 2018.

MPO = metropolitan planning organization. RITIS = Regional Integrated Transportation Information System.

Sources: National Performance Management Research Data Set and the Boston Region MPO staff.

FIGURE 4-7

Performance Values and Targets for the Percent of Person-Miles that are Reliable on the Non-Interstate NHS



Note: The number of municipalities in the Boston Region MPO area decreased from 101 to 97 in 2018. This change may have affected 2017 values calculated using the RITIS platform in April 2022 as compared to baselines determined when targets were initially set in 2018.

MPO = metropolitan planning organization. NHS = National Highway System. RITIS = Regional Integrated Transportation Information System.

Sources: National Performance Management Research Data Set, Massachusetts Department of Transportation, and the Boston Region MPO staff.

Truck Travel Time Reliability

FHWA requires states and MPOs to track truck travel time reliability on the Interstate System to better understand the performance of the nation's freight system. The applicable measure in this case is the Truck Travel Time Reliability Index (TTTR). Like the LOTTR, this measure compares longer (95th percentile) truck travel times to average (50th percentile) truck travel times. The greater the difference between these two travel times on an Interstate segment, the less reliable truck travel on that segment is considered to be. For each Interstate segment, states and MPOs calculate TTTR values for different day-and-time periods and weight the segment length by the maximum applicable TTTR value.[25] They then sum these weighted segment lengths for all Interstate segments and divide that total value by the length of the full Interstate network for the applicable geographic area. Like segment-specific TTTR values, the greater this aggregate value is, the more unreliable the network is with respect to truck travel.

In 2022, MassDOT calculated baseline TTTR Index values and established performance targets using CY 2021 truck travel-time data included in the NPMRDS. As with the all-vehicle travel time reliability targets, MassDOT set its two-year and four-year targets equal to the CY 2021 baseline. Table 4-22 displays these values. MPOs are required to set four-year targets for this measure, and the Boston Region MPO board voted to support MassDOT's four-year TTTR Index target in January 2023. Table 4-22 also includes the Boston region's CY 2021 baseline index value. As the table shows, the Boston region's TTTR baseline value is higher than the one for Massachusetts, indicating that truck travel times on the region's Interstate highway network have been generally less reliable than on Massachusetts's full Interstate network.

[25] *States and MPOs must calculate TTTR Index values for five time periods: weekdays from 6:00 AM to 10:00 AM, weekdays from 10:00 AM to 4:00 PM, weekdays from 4:00 PM to 8:00 PM, weekend days from 6:00 AM to 8:00 PM, and all days from 8:00 PM to 6:00 AM.*

TABLE 4-22

Baseline Values and Targets for Truck Travel Time Reliability

Network	Measure	2021 Measure Value (Baseline)	Two-Year Target (CY 2023)	Four-Year Target (CY 2025)
Massachusetts—Interstate Highway System	Truck Travel Time Reliability Index	1.61	1.80	1.75
Boston Region—Interstate Highway System[1]	Truck Travel Time Reliability Index	2.03	N/A	N/A

Note: The two-year target reflects conditions as of the end of CY 2023, and the four-year target reflects conditions as of the end of CY 2025.

1 The baseline values for the Boston region that are shown in this table were calculated in 2022.

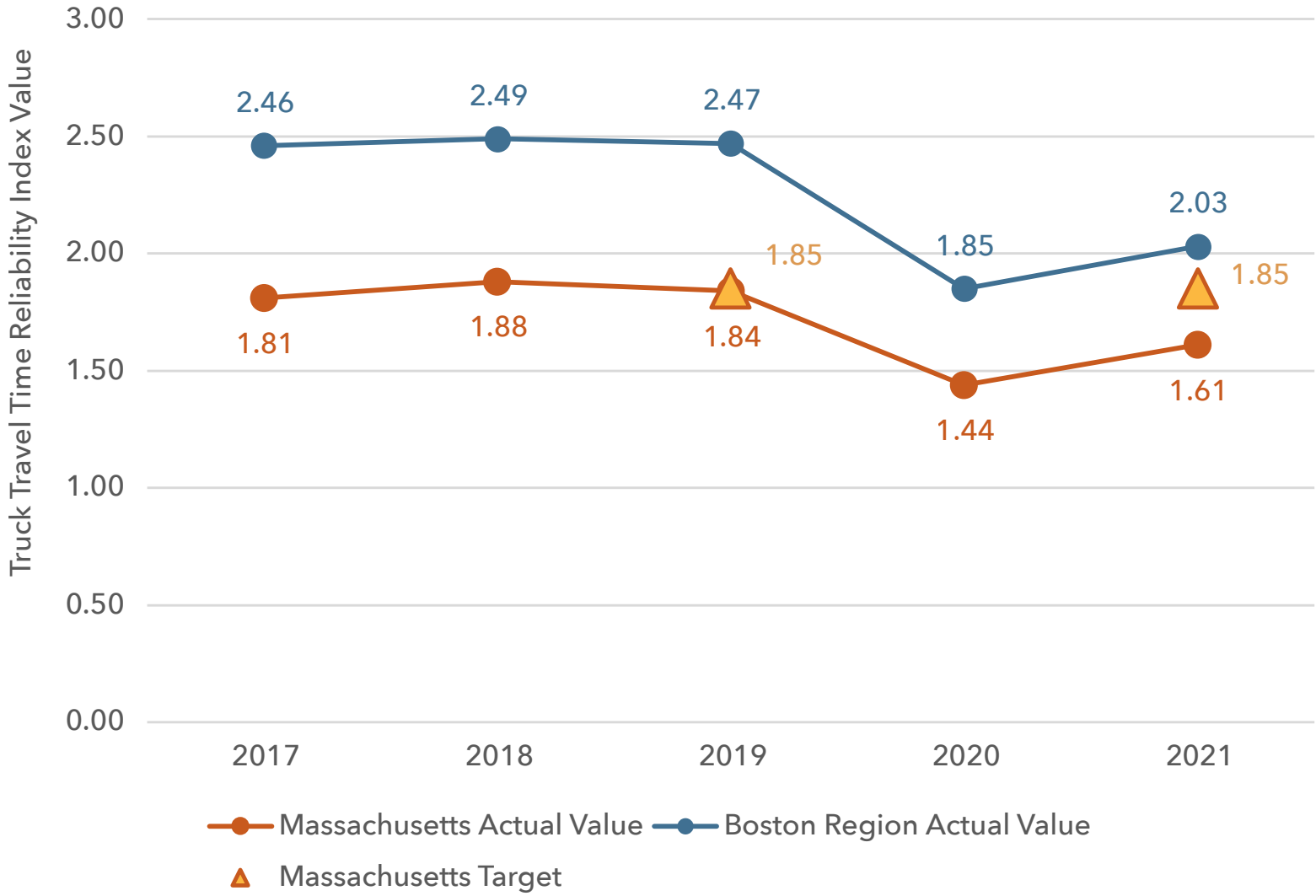
CY = calendar year. MPO = metropolitan planning organization. N/A = not applicable. RITIS = Regional Integrated Transportation Information System.

Sources: National Performance Management Research Data Set, RITIS, the Massachusetts Department of Transportation, and the Boston Region MPO staff.

Figure 4-8 shows the change in TTTR Index values for Interstate Highway System for both Massachusetts and the Boston region between 2017 and 2022. As shown in the charts the TTTR values measures for the Interstate Highway System in Massachusetts were better than the Commonwealth's two-year and four-year targets. As with the metrics capturing the share of reliable person-miles on the NHS, TTTR values improved for both Massachusetts and the Boston region in 2020, although values increased for both geographies in 2021 and 2022. Performance monitoring will enable the Commonwealth, the MPO, and other stakeholders to respond to post-pandemic changes in truck travel time reliability.

FIGURE 4-8

Performance Values and Targets for Truck Travel Time Reliability on the Interstate Highway System



Note: The number of municipalities in the Boston Region MPO area decreased from 101 to 97 in 2018. This change may have affected 2017 values calculated using the RITIS platform in April 2022 as compared to baselines determined when targets were initially set in 2018.

MPO = metropolitan planning organization. RITIS = Regional Integrated Transportation Information System.

Sources: National Performance Management Research Data Set, Massachusetts Department of Transportation, and the Boston Region MPO staff.

Peak Hours of Excessive Delay Per Capita

MassDOT and the Boston Region MPO also examine mobility using measures they must monitor to meet CMAQ requirements. These measures are designed to help FHWA, states, and MPOs better understand the impacts of CMAQ investments, which are intended to contribute to air quality improvements and provide congestion relief. CMAQ performance measures related to traffic congestion apply to urbanized areas (UZAs) that contain geographic areas designated as nonattainment areas because they do not meet the US Environmental Protection Agency (EPA) standards for criteria air pollutants and precursors from mobile sources.[26] The measures also apply to geographic areas, designated as maintenance areas, that have a history of being in nonattainment and are thus required to maintain air quality monitoring and standard conformity processes.

States must be involved in setting targets for CMAQ traffic performance measures if (1) they have mainline highways on the NHS that cross part of a UZA with a population of more than one million; and (2) that UZA contains part of a nonattainment or maintenance area for relevant criteria pollutants. Similarly, MPOs must participate in target setting for the traffic congestion measures if (1) the region contains mainline highways on the NHS that cross part of a UZA with a population of more than one million; and (2) the part of the MPO area that overlaps the UZA contains part of a nonattainment or maintenance area for relevant criteria pollutants. Massachusetts and the Boston Region MPO each meet these respective criteria and, therefore, must be involved in monitoring and setting targets for traffic congestion performance measures for the Boston MA-NH-RI UZA, which encompasses several MPO areas in eastern Massachusetts, New Hampshire, and Rhode Island.

The Boston region included an area (Waltham, Massachusetts) designated as being in maintenance for air pollutant standards in 2021. This designation expired in April 2022; however, the Boston Region MPO must fulfill these performance requirements at least until the FWHA issues an applicability determination related to CMAQ performance requirements (expected in October 2023). Agencies in each UZA that are responsible for these traffic congestion measures set two-year and four-year targets.

[26] *A precursor is a chemical compound that reacts with other chemical compounds in the presence of solar radiation to form pollutants.*

The first of these CMAQ traffic congestion measures is annual hours of peak hour excessive delay (PHED) per capita, which estimates the excessive delay experienced by a UZA's population from travel on the NHS during peak periods. States and MPOs calculate this measure using several component metrics:

- Hours of excessive delay during peak periods. For each NHS segment, states and MPOs determine a threshold speed and use this value and the segment length to establish an excessive delay threshold travel time (EDTTT).[27] They determine the amount of travel time for all vehicles that exceeded the EDTTT during weekday peak periods.[28] This remainder is the excessive delay for that NHS segment. Travel-time data for NHS segments must be derived by this calculation; these data are provided by the NPMRDS. This excessive delay value is calculated for peak periods for all NHS segments for a full year.
- Number of travelers during peak periods. To calculate this figure, states and MPOs use average annual daily traffic (AADT) estimates for NHS segments and then apply factors to adjust these estimates to reflect weekday peak hours and average vehicle occupancies.
- UZA Population. Population figures are provided by the US Census Bureau.

The PHED per capita measure is calculated at the Boston MA-NH-RI UZA level by multiplying *the hours of excessive delay during peak periods by the number of travelers during peak periods*, and then dividing that total by the *UZA population*.

When proposing targets, MassDOT and New Hampshire Department of Transportation (NH DOT) reviewed NPMRDS travel time data, speed data, and AADT information for NHS roadways. These agencies also reviewed population data from the ACS and the 2020 Decennial Census. As previously discussed, changes in travel patterns in response to the COVID-19 pandemic and related public and private sector responses caused fluctuations in annual hours of PHED. When creating projections for this measure, MassDOT and NH DOT created an initial trend line based on a five percent growth rate, which reflects half of the rate of increase in PHED per capita between 2018 and 2019 (prior to the COVID-19 pandemic). This five percent growth rate accounts for the fact that traffic has not yet returned to pre-pandemic levels. However, MassDOT and NH DOT acknowledge the large degree of uncertainty surrounding future demand for travel, including on the NHS. Travel activity for 2021, the most recent full year of data, is still heavily influenced by the pandemic and public and private sector responses, and the future growth rate of PHED per capita may be larger than anticipated. Table 4-23 summarizes the proposed target values.

[27] *FHWA requires state DOTs and MPOs to use 60 percent of the posted speed limit for the segment or 20 miles per hour, whichever is greater, for the threshold speed.*

[28] *FHWA requires states and MPOs to use the period from 6:00 AM to 10:00 AM to represent the morning peak period, but it allows these agencies to choose either 3:00 PM to 7:00 PM or 4:00 PM to 8:00 PM to represent the evening peak period. MassDOT and NH DOT selected the period from 3:00 PM to 7:00 PM to represent the evening peak period for the Boston MA-NH-RI UZA.*

TABLE 4-23

Baseline Value and Targets for Annual Hours of Peak Hour Excessive Delay Per Capita in the Boston MA-NH-RI UZA

Geographic Area	2017 Measure Value (Baseline)	Two-Year Target (CY 2022–23)	Four-Year Target (CY 2022–25)
Boston Urbanized Area	18.0	24.0	22.0

CY = calendar year. FHWA = Federal Highway Administration. MA = Massachusetts. MPO = metropolitan planning organization. NH = New Hampshire. PHED = peak hours of excessive delay. RI = Rhode Island. UZA = urbanized area.

Sources: National Performance Management Research Data Set, US Census Bureau, FHWA, the Massachusetts Department of Transportation, the New Hampshire Department of Transportation, Cambridge Systematics, and the Boston Region MPO staff.

MassDOT's 2018 and 2019 estimates of PHED per capita in the Boston MA-NH-RI UZA show increases compared to the baseline value of 18.3 hours of delay per capita from 2017 (22.9 hours per person in 2018 and 25.2 in 2019). As previously mentioned, the initial value and targets for this measure were calculated with a limited amount of historic data, given differences between the NPMRDS data that were available for 2017 compared to 2016 and earlier. Also, MassDOT staff notes that several data-related factors may affect these more recent estimates. For example, the segments included on the NHS network in the NPMRDS vary from set to set, which affects the amount of excessive delay that states and MPOs can account for in their calculations.

While congestion may have increased in the Boston MA-NH-RI UZA in 2018 and 2019, the aforementioned data issues complicate any analysis of trends. Also, the COVID-19 pandemic, along with related public and private sector responses, has impacted travel behavior on all modes since spring 2020. Given these circumstances and uncertainty, when revisiting targets in 2020, the agencies in the Boston MA-NH-RI UZA maintained the existing four-year performance target of 18.3 hours of PHED per capita.

Percent of Non-Single-Occupant-Vehicle Travel

States and MPOs that meet applicability criteria for CMAQ performance requirements must also monitor and set targets for the share of non-single-occupant-vehicle (non-SOV) travel. This measure is calculated at the UZA level. The percent of non-SOV travel performance measure describes the extent to which people are using alternatives to single-occupancy vehicles to travel and, thus, helping to reduce traffic congestion and air pollution from mobile sources.

In 2018, MassDOT, NH DOT, the Boston Region MPO, and NMCOG (the Northern Middlesex MPO) worked collaboratively to set initial targets for this performance measure for the Boston MA-NH-RI UZA using American Community Survey (ACS) five-year period estimates. At that time, these agencies examined changes in the percentage of workers using non-SOV commuting options in the Boston MA-NH-RI UZA between 2012 (2008–12 ACS estimate) and 2016 (2012–16 ACS estimate). These data showed an increase in use of non-SOV commuting options over time. MassDOT calculated a linear trend line for the Boston MA-NH-RI UZA and used that trend line to project expected values as of the end of calendar year (CY) 2019 (the expected 2015–19 ACS estimate) and CY 2021 (the expected 2017–21 ACS estimate).

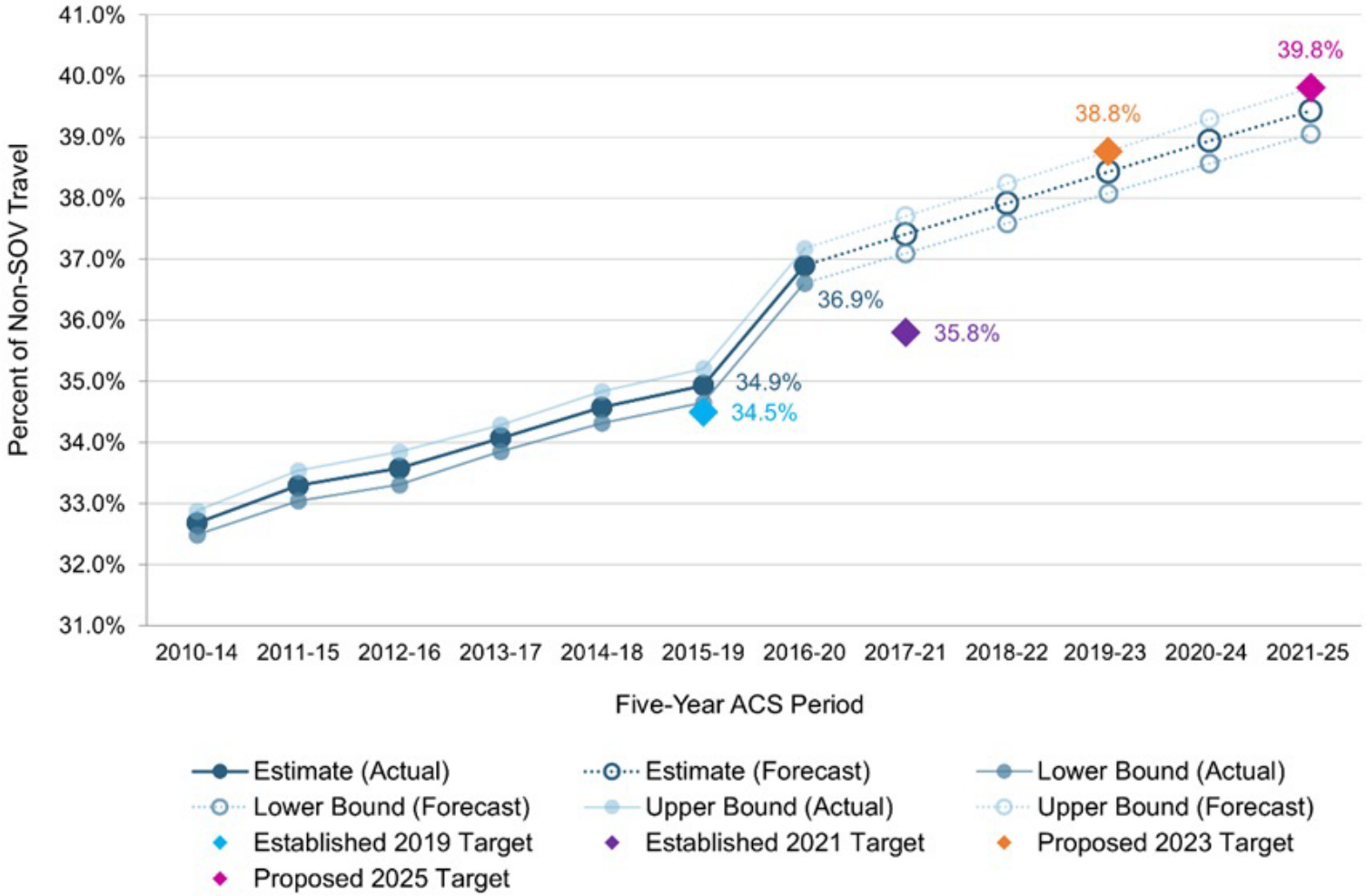
In 2020, MassDOT, NH DOT, the Boston Region MPO, and NMCOG revisited the targets for the percent of non-SOV travel measure. These agencies examined 2013–17 and 2014–18 ACS data and found that the values reported in the data for these years were higher than the projections they made when setting initial targets. Because of this, they suggested that averages for CY 2019 and CY 2021 would exceed the performance targets established in 2018 and worked to collaboratively adjust the CY 2021 target (which reflects a 2017–21 estimate).

The COVID-19 pandemic, along with related public and private sector responses, created noticeable impacts on travel patterns in 2020 and sparked uncertainty about future travel patterns in the UZA. For example, in spring 2020, telework rates in Massachusetts increased considerably while transit ridership and traffic volumes experienced a sharp decrease. Throughout the remainder of 2020, 2021, and early 2022, traffic volumes and transit ridership began to increase, although patterns fluctuated in response to changes in COVID-19 cases, outcomes, and related policies from government agencies and employers. Some uncertainty remains regarding the share of people that will be teleworking in the future as employers implement and adjust remote and hybrid workplace policies. However, based on their recent research into remote work activity, MassDOT staff anticipates a general trend towards higher rates of teleworking in the future.

Figure 4-9 shows past non-SOV travel estimates, projections based on a trend line reflecting an approximately seven percent increase in non-SOV travel in the UZA between 2020 and 2025, and proposed targets. This figure also reflects upper and lower-bound estimates and projections, based on estimated margins of error from the ACS. Based on this trend line, staff from these agencies propose a 2023 non-SOV travel target (reflecting a 2019–23 ACS estimate) of 38.8 percent and a 2025 target (reflecting a 2021–25 ACS estimate) of 39.8 percent.

FIGURE 4-9

Performance Values and Targets for the Percent of Non-SOV Travel in the Boston MA-NH-RI UZA



Notes: Values in this figure reflect five-year rolling averages for the percent of non-SOV travel to work for workers ages 16 and older.

ACS = American Community Survey. MA = Massachusetts. MPO = metropolitan planning organization. NH = New Hampshire. Non-SOV = non-single-occupancy vehicle. RI = Rhode Island. UZA = urbanized area.

Sources: US Census Bureau, ACS Five-Year Estimates (Table DP03, "Selected Economic Characteristics"); the Massachusetts Department of Transportation; the New Hampshire Department of Transportation; and the Boston Region MPO staff.

Table 4-24 lists the baseline and performance targets for the percent of non-SOV travel measure.

TABLE 4-24

Performance Values and Targets for the Percent of Non-SOV Travel in the Boston MA-NH-RI UZA

Geographic Area	Baseline Value (CYs 2016–20 average)	Two-Year Target (CYs 2019–23 average)	Projected Two-Year Target (CYs 2021–25 average)
Boston Urbanized Area	36.9%	38.8%	39.8%

Note: Values in this table reflect five-year rolling averages for the percent of non-SOV travel to work.

CY = calendar year. MA = Massachusetts. NH = New Hampshire. Non-SOV = non-single-occupancy vehicle. RI = Rhode Island. UZA = urbanized area.

Sources: US Census Bureau, ACS Five-Year Estimates (Table DP03, "Selected Economic Characteristics"); the Massachusetts Department of Transportation; the New Hampshire Department of Transportation; and the Boston Region MPO staff.

TIP Projects Supporting Capacity Management and Mobility Performance

The MPO seeks to make investments that help manage capacity on the transportation network and improve mobility options for travelers in a variety of ways, including the following:

- Providing alternatives to SOV travel, such as by expanding transit service or adding new bicycle and pedestrian facilities
- Improving roadway design or adding capacity at bottleneck locations
- Implementing traffic and operational improvements along congested or unreliable corridors

When prioritizing projects for funding with Regional Target dollars, the MPO uses evaluation criteria to assess how well each project expands transportation options and mode choice and how it supports mobility. These sets of criteria include items that award points to projects that enhance bicycle and pedestrian accommodations and connections to transit, and that support truck movement. The MPO's criteria prior to October 2020 granted points to projects that reduced vehicle congestion and delay for transit vehicles. In October 2020, the MPO adopted an updated set of project selection criteria that

- includes criteria tailored to each of the MPO's investment programs;
- transitions from an emphasis on reducing vehicle congestion to supporting reliability, which is measured using travel time information available in the RITIS platform; and
- awards points for reducing transit passenger delay, as opposed to transit vehicle delay.

The MPO's Community Connections investment program, which funds first- and last-mile solutions, community transportation, and other related projects, has its own set of evaluation criteria. These criteria focus on connectivity to transit and key destinations and supporting shifts in travel to non-SOV modes.

By electing to support the Commonwealth's targets for federally required reliability measures and agreeing to the Boston MA-NH-RI UZA targets for the federally required annual hours of PHED per capita and non-SOV travel measures, the MPO agrees to plan and program projects so that they contribute to achieving those targets. It can be challenging to anticipate how transportation projects may affect these performance measures, as they track outcomes that are not only affected by transportation investments but also traveler choices and demand, among other factors.

MPO staff-identified project-related metrics to determine how its Regional Target-funded roadway projects could improve the transportation system in ways that contribute to more reliable, less congested travel on the NHS or that encourage more non-SOV travel. The following project types are recognized:

- Projects that improve roadway geometry or signalization on the NHS, particularly on segments considered to be unreliable, might improve overall travel time reliability on that system.
- Projects that reduce vehicle hours of delay, particularly on the NHS, may also reduce annual hours of PHED per capita.
- Projects that add to the region's sidewalk or bicycle and pedestrian facility networks, that support access to transit, or that provide new non-SOV options might encourage use of non-SOV modes. These projects also help to create connectivity in the bicycle and pedestrian networks identified in the Massachusetts Bicycle Transportation and Pedestrian Transportation Plans.

Table 4-25 summarizes these metrics and expected results for Regional Target corridor, intersection, bicycle and pedestrian, and Community Connections projects. MPO staff developed estimated values for these metrics using available data from functional design reports and other materials provided by project proponents; results from the MPO's TIP evaluations; 2019 NPMRDS data available in the RITIS platform; and other sources. These estimates aggregate changes in vehicle hours of delay using project-level information on vehicle volumes and changes in delay times at intersections from project improvements.

TABLE 4-25

Regional Target Projects: Capacity Management and Mobility Performance Metrics

Metric	Value
Projects that overlap unreliable NHS segments and that will improve roadway signalization or geometry[1]	9 projects
Projects that overlap any NHS segments and that will improve roadway signalization or geometry[1],[2]	23 projects
Miles of new sidewalks added	14.23 miles
Lane miles of new bicycle accommodations and shared-use paths	46.87 lane miles
Number of new transit services[3]	0 transit services
Number of expanded transit services[3]	1 transit services
Number of new bikeshare stations	4 stations
Projects that improve intermodal connections or access to transit	49 projects

[1] The MPO staff identified reliable and unreliable segments on the NHS using the 2019 NPMRDS data in the RITIS platform and federal travel time reliability performance thresholds.

[2] These metrics exclude Community Connections and Transit Modernization projects.

[3] The NewMo Microtransit Service Expansion project is counted separately from Project S10784–Newton Microtransit Service.

MPO = metropolitan planning organization. NHS = National Highway System. NPMRDS = National Performance Management Research Data Set. RITIS = Regional Integrated Transportation Information System.

Source: Boston Region MPO staff.

MassDOT, MBTA, and RTA projects, which are described in Chapter 3, also address capacity management and mobility in the Boston region and may also support improvements on federally required reliability, congestion, and non-SOV travel performance measures.

Future Activities to Improve and Monitor Capacity Management and Mobility Performance

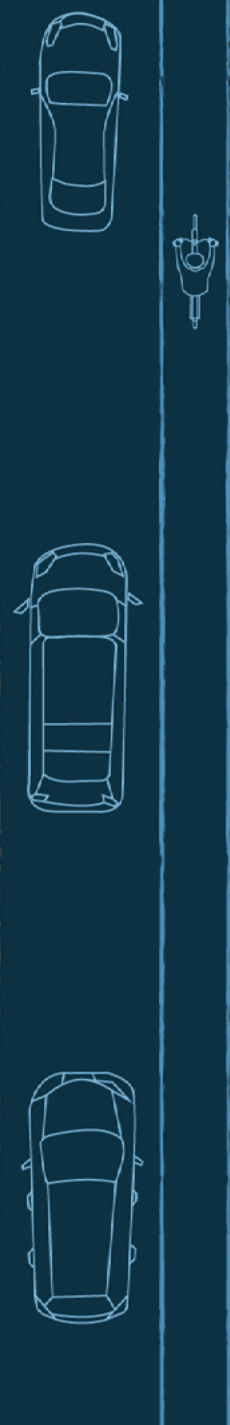
The MPO will continue to work with MassDOT, the MBTA, the region's RTAs, other transit service providers, and other stakeholders in the region to improve capacity management and mobility performance. These activities may include the following:

- Continue to implement the MPO's updated TIP project selection criteria pertaining to capacity management and mobility, and further integrate these criteria into the MPO's performance monitoring activities.
- Continue to seek out and improve data to help the MPO better analyze capacity management and mobility issues for all modes.
- Continue to refine the MPO's Community Connections and Transit Modernization programs and strengthen links between these programs and the region's performance in various capacity management and mobility areas.
- Improve methods for understanding the impacts transportation projects may have on reliability, congestion, and non-SOV travel performance measures.
- Explore ways to integrate the monitoring of federally required performance measures more fully into the MPO's CMP.
- Explore other mobility performance measures, including measures specific to destination access, travel by non-SOV modes, or freight movement.

CLEAN AIR AND SUSTAINABLE COMMUNITIES PERFORMANCE

Relevant Goals, Policies, and Plans

The MPO aims to support clean air and sustainable communities in the Boston region by creating an environmentally friendly transportation system. It pursues this goal by investing in projects that reduce greenhouse gases (GHGs) and other pollutants generated by the transportation sector and minimizing negative environmental impacts from the system.



The MPO recognizes that GHG emissions contribute to climate change. If climate change trends continue as projected, the conditions in the Boston region will include a rise in sea level coupled with storm-induced flooding, and warmer temperatures that would affect the region's infrastructure, economy, human health, and natural resources. The Commonwealth of Massachusetts is responding to this challenge by taking action to reduce the GHGs produced in the state, including those generated by the transportation sector. To that end, Massachusetts passed its Global Warming Solutions Act (GWSA), which requires reductions of GHGs by 2020, and further reductions by 2050, relative to 1990 baseline conditions. To meet GWSA requirements, the MPO works with MassDOT and other stakeholders to anticipate the GHG impacts of projects included in the TIP, specifically by examining additions or reductions in carbon dioxide (CO2). More details on the MPO's GHG tracking and evaluation processes are included in Appendix B.

Transportation projects may also help reduce other air pollutants and precursors and support reductions in CO2, volatile organic compounds (VOCs), nitrogen oxides (NOx) and carbon monoxide (CO) by improving traffic flow and bicycle and pedestrian travel. -More detailed information about the MPO's air quality status and related requirements is available in Chapter 5.

The MPO tracks the air quality benefits of transportation projects to identify projects that may be eligible for CMAQ funds. It describes these CMAQ-funded projects in its CMAQ Performance plans and progress reports; these documents include performance targets for the annual PHED per capita and share of non-SOV travel measures described in the previous section, along with targets for the amount of applicable emissions the MPO expects will be reduced because of CMAQ-funded projects in air quality non-attainment or maintenance areas in the region. The MPO must note how it expects its CMAQ-funded projects to support improvements with respect to relevant performance measures, which reinforces the connection between planning, investments, and expected performance outcomes.

Emissions Reduction Performance Measure and Targets

The federally required CMAQ emissions reduction measure, identified in Table 4-26, is the total emissions reduction for applicable pollutants and precursors for CMAQ-funded projects in designated nonattainment and maintenance areas. The FHWA requires states and MPOs to establish a baseline value for this measure by identifying the emissions reductions for applicable pollutants and precursors that are associated with CMAQ-funded projects obligated for funding in nonattainment or maintenance areas between FFYs 2018 and 2021. For the Boston Region MPO, applicable projects would include obligated CMAQ-funded projects in or overlapping the MPO's CO limited maintenance area in Waltham. The Boston Region MPO and MassDOT have not programmed any CMAQ-funded projects in Waltham in the TIP and State Transportation Improvement Program (STIP), respectively, between FFYs 2018 and 2021. As a result, the baseline amount of CO reduced by CMAQ-funded projects in this limited maintenance area during this period is zero kilograms per day.

To set targets MPO staff reviewed the MPO's FFYs 2022–26 and FFYs 2023–27 TIPs to identify any projects that

- will be partially or fully funded with CMAQ dollars;
- are expected to be obligated between FFYs 2022–25; and
- will be in or that will serve Waltham.

MPO Staff identified one project that meets these three criteria: the NewMo Microtransit Service Expansion Project, which is funded through the MPO's Community Connections program and is scheduled to receive funding in FFYs 2023–25.

NewMo uses on-demand, dynamically routed microtransit technology operated by Via to serve residents, students, and employees in Newton The City of Newton's first application to the Community Connections program focused on building on an existing microtransit service for seniors to provide shared first- and last-mile rides between the Wells Avenue Business District and three MBTA lines (including access to the Needham Heights commuter rail station in Needham), before expanding citywide.

MPO staff recommend that the MPO adopt this value—0.354 kilograms of CO reduced per day in Waltham—for both its two-year and four-year emissions reduction target, as shown in Table 4-26.

TABLE 4-26

Baseline Value and Targets for Emissions Reduction from CMAQ Projects in the Boston Region

Performance Measure	FFYs 2014–17 Measure Value (Baseline)	Two-Year Target (FFYs 2018–19)	Four-Year Target (FFYs 2018–21)
Daily kilograms of carbon monoxide emissions reduction from CMAQ projects in Boston region nonattainment or maintenance areas	0	0.354	0.354

CMAQ = Congestion Mitigation and Air Quality Improvement. FFY = federal fiscal year. MPO = metropolitan planning organization.

Source: Boston Region MPO staff.

TIP Projects Supporting Clean Air and Sustainable Communities Performance

The MPO uses evaluation criteria to assess the projected transportation-related emissions from each project that is a candidate for Regional Target funding, both for CO2 and other air quality pollutants and precursors, among other environmental considerations. Transportation projects can support reductions in CO2, VOCs, NOx, and CO by improving traffic flow and providing alternatives to SOV travel, including bicycle, walking, and transit options.

Table 4-27 displays the CO2 and other emissions reductions the MPO expects from projects it has programmed using its Regional Target funds. MPO staff estimates emissions for projects using MassDOT's air quality analysis worksheets for each project type and the EPA's Motor Vehicle Emission Simulator (MOVES) emission factors.

TABLE 4-27

Regional Target Projects: Clean Air and Sustainable Communities Performance Metrics

Metric	Value
Annual kilograms of CO2 reduced	11,206,000 kilograms
Annual kilograms of other emissions (VOCs, NOx, and CO) reduced	26,000 kilograms

Note: These aggregate emission reduction estimates exclude Project 606226–Reconstruction of Rutherford Avenue in Boston, and 607981–McGrath Boulevard Construction. These two projects were included in the air quality modeling results for the Destination 2040 recommended plan. These estimates also exclude Project 110980–Commonwealth Avenue (Route 30) project in Newton and Weston. These aggregate estimates are based on projected future conditions for project locations and have been rounded to the nearest hundred.

CO = carbon monoxide. CO2 = carbon dioxide. MPO = metropolitan planning organization. NOx = nitrogen oxide. VOC = volatile organic compounds.

Source: Boston Region MPO staff.

Starting in FFY 2025, the Transit Modernization Program will include projects that will help reduce emissions by encouraging non-SOV travel or by changing the amount or type of energy these assets use. Similarly, future projects in the Community Connections program will encourage non-SOV travel and emissions reductions by addressing first- and last-mile needs. During the development of the FFY 2024-28 TIP, the MPO voted to program several MBTA projects that fell within the Transit Modernization Program and support non-SOV travel.

MassDOT, MBTA, and RTA projects and programs also support improvements to air quality and the environment. For example, as described in Chapter 3, both the MBTA and MWRTA's capital programs include capital investments in fleet electrification and EV charging facilities. Appendix B provides more detailed information and assessments of the GHG impacts of MassDOT, MBTA, CATA, and MWRTA projects and programs. MassDOT sets separate CMAQ emissions reduction performance targets and tracks the relationship between its projects and those targets.[30]

Future Activities to Improve and Monitor Clean Air and Sustainable Communities Performance

The GWSA and FHWA's CMAQ performance management requirements create frameworks that reinforce coordination between the MPO, MassDOT, and the region's transit providers as they make investments to support clean air and sustainable communities. Future performance activities in this area may include the following:

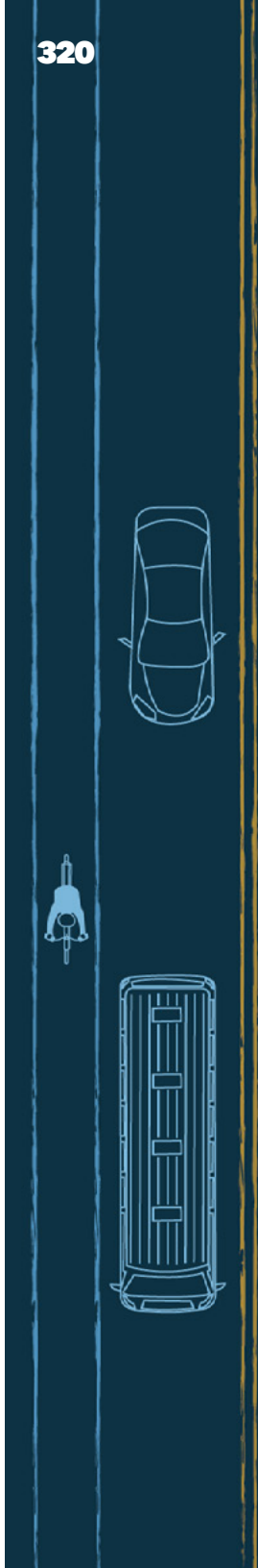
- Improve methods for understanding how transportation projects may improve air quality and other environment-related outcomes.
- Continue to implement the MPO's updated TIP project selection criteria pertaining to clean air and sustainable communities, and further integrate these criteria into the MPO's performance monitoring activities.
- Explore other performance measures related to air quality and the environment.

ECONOMIC VITALITY PERFORMANCE

Relevant Goals, Policies, and Plans

The MPO seeks to ensure that the Boston region's transportation network provides a strong foundation for economic vitality. Transportation investments can support economic vitality in a variety of ways, such as by supporting freight movement, improving connections to key economic activity sites, and supporting compact development. The MPO's approach to addressing freight needs is guided in large part by MassDOT's Freight Plan, which identifies key freight facilities and needs, strategies to improve freight movement, and priority projects.

[30] *An On-Road Mobile Source Emissions Reductions Report for Massachusetts is available at www.fhwa.dot.gov/tpm/reporting/state/emissions.cfm?state=Massachusetts.*



The Metropolitan Area Planning Council's (MAPC) regional plan also shapes the MPO's approach to pursuing economic vitality goals. The recently adopted MetroCommon 2050 plan outlines MAPC's mobility goal for the region in 2050, which is that "Traveling around Metro Boston is safe, affordable, convenient, and enjoyable."[31] Several subgoals are relevant to economic vitality:

- The transportation system is designed and operated to ensure access to opportunity for everyone, with a particular emphasis on neighborhoods historically underserved by high-quality transit.
- State and local governments work together with businesses and property owners and advocates to create seamless travel throughout the region, including "first mile, last mile" connections.

MAPC's 2020–25 Comprehensive Economic Development Strategy also outlines the goal that "everyone in the region is able to access jobs, goods, and services close to their homes via affordable transportation options, with shorter commutes and fewer transfers." [32]

MAPC has worked with its state-level partners at the Executive Office of Housing and Economic Development (EOHED) and the Executive Office of Energy and Environmental Affairs (EOEEA), as well as municipalities, to identify locations throughout the region appropriate for building housing stock and siting employers. These agencies have identified improvements needed to support the outcomes planned for these local, regional, and state-level priority development areas, and this work helps MAPC, the MPO, and state agencies to respond with their investments and technical assistance.

Economic Vitality Performance Measure

States and MPOs track the federally required truck travel time reliability measure for the Interstate Highway System by using the Truck Travel Time Reliability Index. This measure has the most direct implications for the MPO's capacity management and mobility goal area; however, this measure is also relevant to the Boston region's economic vitality. For more details about this measure and associated targets, see the Capacity Management and Mobility Performance section of this chapter.

[31] *For more information about MetroCommon 2050, visit metrocommon.mapc.org.*

[32] *Metropolitan Area Planning Council, 2020-2025 Comprehensive Economic Development Strategy, 2021, page 5. Accessed on March 7, 2023, at www.mapc.org/wp-content/uploads/2021/02/Final-CEDS-022521.pdf.*

TIP Projects Supporting Economic Vitality

When evaluating projects that are candidates for Regional Target funding, the MPO assesses how well each project serves areas identified for economic development by state, regional, and local planning entities, such as priority sites designated under Massachusetts Chapter 43D, Massachusetts Opportunity Zones, and transit stations. The MPO also examines whether and how projects in its Complete Streets, Intersection Improvements, Major Infrastructure, and Transit Modernization programs serve areas with a relatively high density of existing development or that provide affordable housing. These assessments are based on MAPC-provided information on targeted development sites and project relationships to areas of concentrated development, along with Commonwealth data and project data from functional design reports and other sources. For the Community Connections program, MPO staff award some points to projects based on the extent to which they connect to activity hubs and residential developments, addressing first- and last-mile needs. Table 4-27 provides some highlights of how Regional Target-funded projects in this TIP address economic vitality.

TABLE 4-28

Regional Target Projects: Economic Vitality Performance Metrics

Metric	Value
Projects that improve access to sites targeted for development	33 projects
Projects that serve existing employment and population centers[1]	32 projects
Community Connections projects that connect to activity hubs and residential developments	13 projects

[1] This metric excludes projects in the MPO's Community Connections program.

Source: Boston Region MPO staff.

Future Activities to Improve and Monitor Economic Vitality Performance

MAPC's regional land use plan and economic vitality initiatives, USDOT's freight directives, and MassDOT's freight planning will all influence strategies that the MPO uses to monitor economic vitality performance going forward. The MPO's ongoing freight planning work will also play an important role in this process. Future activities may include the fExplore other performance measures related to freight and economic vitality.

- Improve methods for understanding how transportation projects may affect economic vitality performance.

SUMMARY: REGIONAL TARGET-FUNDED PROJECTS SUPPORTING MPO GOAL AREAS

Table 4-28 highlights some of the ways that the MPO's FFYs 2024–28 Regional Target-funded projects support improved performance in the MPO's various goal areas.

TABLE 4-29

FFYs 2024–28 TIP Target Program: Projects by the Numbers

Total	Type	Impact
68	Lane miles of substandard pavement	Improve pavement condition
59	Regional target projects	Improve performance in MPO goal areas including safety, mobility, congestion, and bridge and pavement conditions
8	Bridge structures	Improve bridge conditions
4	Transit stations	Improve transit asset conditions
49	Projects that improve intermodal connections or access to transit	Improve mobility for transit riders
47	New lane miles to bike and shared use path network	Improve mobility for bicyclists
33	Projects that improve access to targeted development areas	Increase access to economic opportunity
14	New miles to sidewalk network	Improve mobility for pedestrians
4	New bikeshare stations	Increase mobility access
1	Expanded transit service	Increase mobility for transit riders
11.2 million kg	CO_2 reduced per year	Improve air quality
	Reduced delay	Decrease congestion
38	These projects will occur in 38 cities and towns	Shared benefits throughout the region

CO2 = carbon dioxide. kg = kilograms.

Source: Boston Region MPO staff.

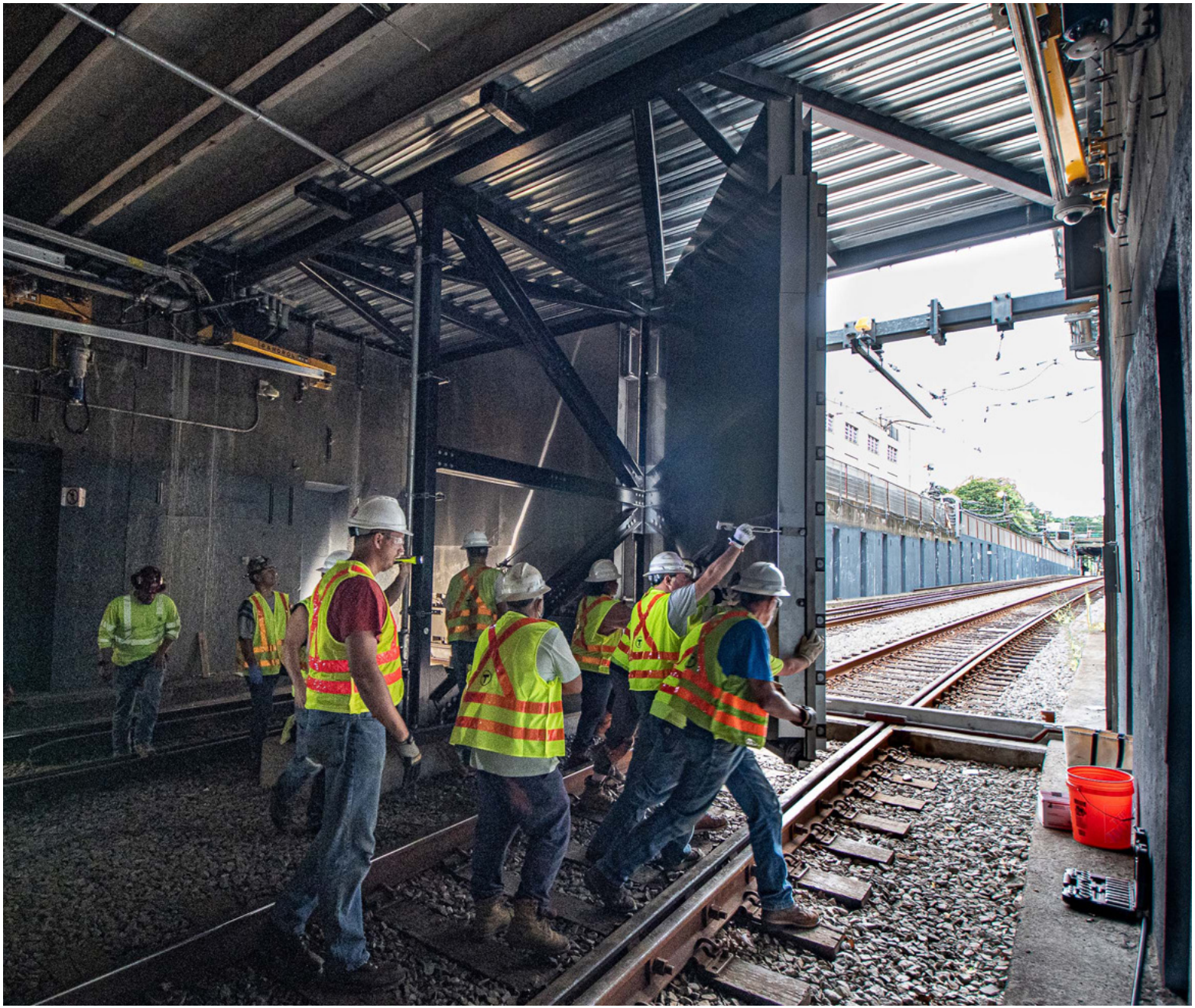
PERFORMANCE MONITORING, REPORTING, AND EVALUATION

The three key phases in the MPO's PBPP process—planning, investing, and monitoring and evaluating—were discussed earlier in this chapter. Within this framework, the MPO's TIP relates primarily to the first two phases, focusing on the relationship between the goals and objectives and performance requirements in the MPO's planning framework and ways the MPO will invest its capital dollars in upcoming federal fiscal years. Other MPO activities relate more directly to the monitoring and evaluation phase of PBPP:

- The MPO's current LRTP, Destination 2040, contains a systems performance report that describes the MPO's performance measures and targets as of August 2019. This report includes an assessment of the Boston region's current performance with respect to baseline data and, where feasible, past performance targets. When developing the performance report for Destination 2050, the MPOs next LRTP, the MPO will expand this report to include information about progress the MPO has made with respect to its performance measures and targets.
- The MPO will also report on its progress through federally required performance plans and reports, such as its CMAQ performance plans and progress reports.
- The MPO also describes progress on its PBPP web page (bostonmpo.org/performance). This web page provides ongoing updates about the MPO's target-setting activities for federally required performance measures, as well as a link to the MPO's Performance Dashboard, which provides visualizations of the performance of the Boston region's transportation system on a variety of transportation-related metrics. The MPO supplements these monitoring and reporting activities with specific evaluation studies—such as TIP Before-and-After studies—that it conducts through its Unified Planning Work Program to better understand the outcomes of MPO investments.

The Commonwealth and the region's transit agencies also have reporting and evaluation responsibilities. MassDOT and the Commonwealth's Executive Office of Public Safety and Security report roadway safety target information annually to FHWA and NHTSA. MassDOT reports other statewide performance targets and related information to FHWA on a biennial basis via FHWA's Performance Management Form. The MBTA, MWRTA, and CATA must report their asset inventory and condition data to the NTD and provide information about the progress that has been made with respect to performance measures and targets as compared to previous reports. These transit agencies also regularly report data about safety outcomes to the NTD, and their annual reviews of their PTASPs and safety targets also create opportunities for them to evaluate their performance.

Going forward, the MPO will incorporate the results of these reports and evaluations to use in its future planning and investment activities. These activities may include identifying new ways to bring information about performance into the MPO's LRTP and TIP development processes, such as by updating project selection criteria or providing information through other means. This work would help the MPO develop scenarios to explore how various transportation investments made through the LRTP could support various goals and performance areas. Over time, the MPO expects that activities like these will help ensure that the MPO's investments are helping to meet its vision and goals for the region's transportation system.



CHAPTER 5

DETERMINATION OF AIR QUALITY CONFORMITY

BACKGROUND

This chapter documents the latest Transportation Improvement Program (TIP) air quality conformity determination for the 1997 Ozone National Ambient Air Quality Standards (NAAQS) and carbon monoxide (CO) NAAQS in the Boston Region Metropolitan Planning Organization (MPO) area. It covers the applicable conformity requirements according to the latest regulations, regional designation status, legal considerations, and federal guidance.

INTRODUCTION

The 1990 Clean Air Act Amendments (CAAA) require MPOs within nonattainment and maintenance areas to perform air quality conformity determinations prior to the approval of Long-Range Transportation Plans (LRTPs) and TIPs, and at such other times as required by regulation. CAAA Section 176(c) (Title 42, United States Code [USC], Section 7506 [c]) requires that federally funded or approved highway and transit activities are consistent with ("conform to") the purpose of the State Implementation Plan (SIP). Conformity to the purpose of the SIP means that Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding and approvals are given to highway and transit activities that

- will not cause or contribute to new air quality violations;
- worsen existing violations; or
- delay the timely attainment of the relevant NAAQS or any interim milestones (42 USC 7506[c][1]).

The United States Environmental Protection Agency's (EPA) transportation conformity rules establish the criteria and procedures for determining whether metropolitan transportation plans, TIPs, and federally supported highway and transit projects conform to the SIP (Title 40, Code of Federal Regulations [CFR], Parts 51.390 and 93).

A nonattainment area is one that the EPA has designated as not meeting certain air quality standards. A maintenance area is a nonattainment area that now meets the standards and has been redesignated as maintaining the standard. A conformity determination is a demonstration that plans, programs, and projects are consistent with the SIP for attaining the air quality standards. The CAAA requirement to perform a conformity determination ensures that federal approval and funding go to transportation activities that are consistent with air quality goals.

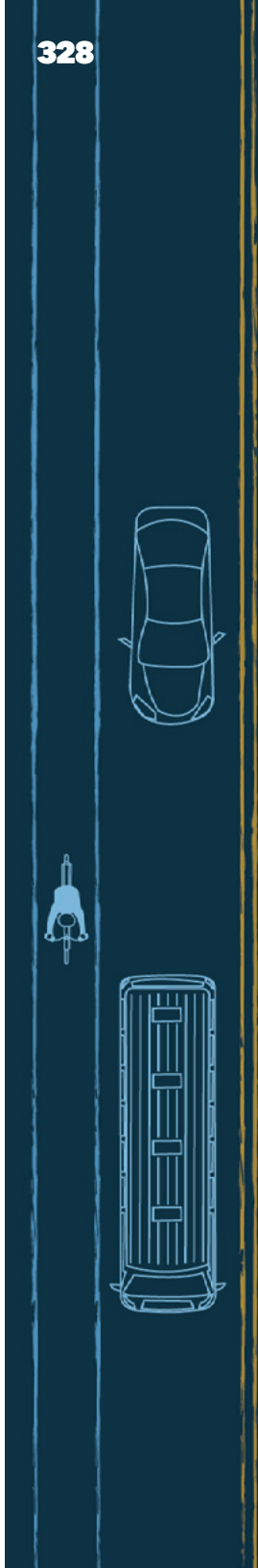
LEGISLATIVE AND REGULATORY BACKGROUND

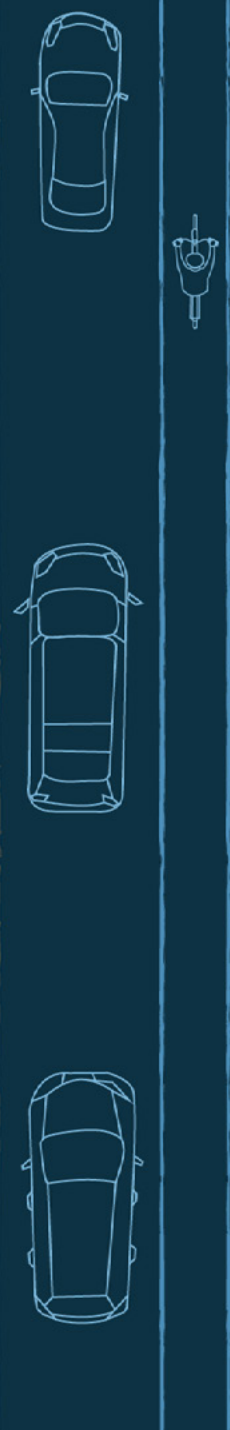
The Commonwealth of Massachusetts was previously classified as a nonattainment area for ozone and was divided into two nonattainment areas. The Eastern Massachusetts ozone nonattainment area included Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester counties. The Western Massachusetts ozone nonattainment area included Berkshire, Franklin, Hampden, and Hampshire counties. With these classifications, the 1990 CAAA required the Commonwealth to reduce its emissions of volatile organic compounds (VOCs) and nitrogen oxides (NOx), the two major precursors to ozone formation, to achieve attainment of the ozone standard.

The 1970 Clean Air Act defined a one-hour NAAQS for ground-level ozone. The 1990 CAAA further classified degrees of nonattainment of the one-hour standard based on the severity of the monitored levels of the pollutant. The Commonwealth of Massachusetts was classified as being in serious nonattainment of the one-hour ozone standard and was required to achieve attainment by 1999. The attainment date was later extended, first to 2003 and a second time to 2007.

In 1997, the EPA proposed a new eight-hour ozone standard that replaced the one-hour standard, effective June 15, 2005. Scientific research had shown that ozone could affect human health at lower levels and over longer exposure times than one hour. The new standard was challenged in court, and after a lengthy legal battle the courts upheld it. The new standard was finalized in June 2004. The new eight-hour standard is 0.08 parts per million (ppm) averaged over eight hours, and this level is not to be exceeded more than once per year. With this new standard, nonattainment areas were again further classified based on the severity of the eight-hour values. Massachusetts was classified as being in moderate nonattainment for the eight-hour standard and again was separated into two nonattainment areas—Eastern Massachusetts and Western Massachusetts.

In March 2008, the EPA published revisions to the eight-hour ozone NAAQS, establishing a level of 0.075 ppm (Volume 73, Federal Register [FR], page 16438; March 27, 2008). In 2009, EPA announced it would reconsider this standard because it fell outside of the range recommended by the Clean Air Scientific Advisory Committee. However,





EPA did not take final action on the reconsideration, keeping the standard as 0.075 ppm.

After reviewing data from Massachusetts monitoring stations, EPA sent a letter on December 16, 2011, proposing that only Dukes County be designated as nonattainment for the new proposed 0.075 ppm ozone standard. The Commonwealth of Massachusetts concurred with these findings.

On May 21, 2012, the final rule (77 FR 30088) was published in the Federal Register. This rule defined the 2008 NAAQS as 0.075 ppm, the standard that was promulgated in March 2008. A second rule (77 FR 30160) published on May 21, 2012, revoked the 1997 ozone NAAQS effective one year after the July 20, 2012, effective date of the 2008 NAAQS.

Also, on May 21, 2012, the Federal Register published the air quality designation areas for the 2008 NAAQS. Dukes County was the only area in Massachusetts designated as a nonattainment area. All other Massachusetts counties were designated as attainment/unclassified for the 2008 standard.

On March 6, 2015, EPA published the final rulemaking, "Implementation of the 2008 National Ambient Air Quality Standards (NAAQS) for Ozone: State Implementation Plan Requirements; Final Rule" (80 FR 12264), effective April 6, 2015. This rulemaking confirmed the removal of transportation conformity to the 1997 ozone NAAQS and the replacement with the 2008 ozone NAAQS, which actually set a stricter level of allowable ozone concentration than the 1997 standards and classified Massachusetts (except for Dukes County) as attainment/unclassifiable.

However, on February 16, 2018, the United States Court of Appeals for the District of Columbia Circuit in South Coast Air Quality Mgmt. District v. EPA ("South Coast II," 882 F.3d 1138) held that transportation conformity determinations must be made in areas that were designated either as nonattainment or maintenance areas for the 1997 ozone NAAQS and attainment for the 2008 ozone NAAQS when the 1997 ozone NAAQS was revoked.

On November 29, 2018, EPA issued Transportation Conformity Guidance for the South Coast II Court Decision (EPA-420-B-18-050, November 2018), which addressed how transportation conformity determinations could be made in these areas. According to the guidance, both Eastern and Western Massachusetts, along with several other areas across the country, were defined as orphan nonattainment areas—areas that were designated as nonattainment areas for the 1997 ozone NAAQS at the time of its revocation (80 FR 12264, March 6, 2015) and as attainment areas for the 2008 ozone NAAQS in EPA's original designation rule for this NAAQS (77 FR 30160, May 21, 2012). As of February 16, 2019, conformity determinations are required in these areas.

CONFORMITY DETERMINATION

OZONE

After February 16, 2019, as a result of the court ruling and the subsequent federal guidance, transportation conformity for the 1997 NAAQS—intended as an anti-backsliding measure—now applies to both Massachusetts orphan areas. Therefore, a conformity determination was made for the 1997 ozone NAAQS in all of the Massachusetts MPOs' FFYs 2020–40 LRTPs. This conformity determination was finalized in July 2019, following all of the MPOs' endorsements of their LRTPs, and approved by the Massachusetts Divisions of FHWA and FTA on October 15, 2019. This conformity determination continues to be valid for the Boston Region MPO's FFYs 2024–28 TIP, and Massachusetts' 2024–28 State Transportation Improvement Program, as each is developed from the conforming 2020–40 LRTPs.

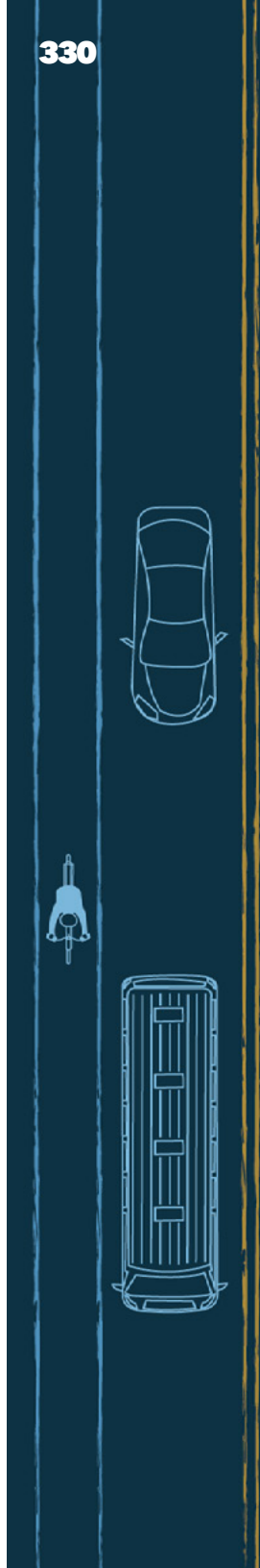
The transportation conformity regulation in 40 CFR § 93.109 sets forth the criteria and procedures for determining conformity. The conformity criteria for TIPs and LRTPs include a demonstration of fiscal constraint (§ 93.108), a basis on the latest planning assumptions (§ 93.110), use of the latest emissions model (§ 93.111), consultation (§ 93.112), provision for the timely implementation of transportation control measures (TCMs) (§ 93.113[b] and [c]), and consistency with an emissions budget and/or interim emissions tests (§ 93.118 and/or § 93.119).

For the 1997 ozone NAAQS areas, transportation conformity for TIPs and LRTPs for the 1997 ozone NAAQS can be demonstrated without a regional emissions analysis, per 40 CFR § 93.109(c). This provision states that the regional emissions analysis requirement applies one year after the effective date of EPA's nonattainment designation for a NAAQS and until the effective date of revocation of such NAAQS for an area. The 1997 ozone NAAQS revocation was effective on April 6, 2015, and the court for South Coast II upheld the revocation. As no regional emission analysis is required for this conformity determination, there is no requirement to use the latest emissions model, budget, or interim emissions tests.

Therefore, transportation conformity for the 1997 ozone NAAQS for the Boston Region MPO's FFYs 2024–28 TIP can be demonstrated by showing that the remaining requirements in 40 CFR § 93.109 have been met. The following requirements regarding the use of the latest planning assumptions, consultation, timely implementation of TCMs, and fiscal constraint are defined in Section 2.4 of that guidance and are addressed in the following sections.

Latest Planning Assumptions

The requirement to use the latest planning assumptions in 40 CFR § 93.110 generally applies to regional emissions analyses. In the areas subject to the 1997 ozone NAAQS, the use of latest planning assumptions requirement applies to assumptions about TCMs in an approved SIP. (See the section titled Timely Implementation of Transportation Control Measures below).



Consultation

The consultation requirements in 40 CFR § 93.112 for interagency consultation and public consultation were addressed. Interagency consultation was conducted with FHWA, FTA, EPA Region 1, the Massachusetts Department of Environmental Protection (DEP), and the other Massachusetts MPOs on March 6, 2019, to discuss the latest conformity-related court rulings and resulting federal guidance. Regular and recurring interagency consultations have been held on (at least) an annual schedule, with the most recent conformity consultation held on March 13, 2023. Ongoing consultation is conducted in accordance with the following items:

- The Commonwealth of Massachusetts' Air Pollution Control Regulations 310 CMR 60.03, "Conformity to the State Implementation Plan of Transportation Plans, Programs, and Projects Developed, Funded, or Approved Under Title 23 USC or the Federal Transit Act"
- The Commonwealth of Massachusetts' Memorandum of Understanding (MOU) between DEP, the Massachusetts Department of Transportation (MassDOT), and Massachusetts MPOs, and Regional Transit Authorities, titled "The Conduct of Air Quality Planning and Coordination for Transportation Conformity" (dated September 16, 2019)

Public consultation was conducted consistent with planning rule requirements in 23 CFR § 450. Title 23 CFR § 450.324 and 310 CMR 60.03(6)(h) requires that the development of the TIP, LRTP, and related certification documents provide an adequate opportunity for public review and comment. Section 450.316(b) also establishes the outline for MPOs' public engagement programs.

The Boston Region MPO's current Public Engagement Plan was endorsed by the MPO board in October 2021 and amended in September 2022. The Public Engagement Plan ensures that the public will have access to the TIP and LRTP and all supporting documentation, provides for public notification of the availability of the TIP and LRTP and the public's right to review the document and comment thereon, and provides a 21-day public review and comment period prior to the adoption of the TIP and LRTP and related certification documents. The plan is available at https://www.bostonmpo.org/public-engagement.

The public comment period for this conformity determination will commence on or about April 20, 2023. During the 21-day public comment period, any comments received will be incorporated into this TIP. This process will allow sufficient opportunity for public comment and for the MPO board to review the draft document. The public comment period will close on or about May 11, 2023, and the Boston Region MPO is expected to endorse this air quality conformity determination on June 1, 2023. These procedures comply with the associated federal requirements.

Timely Implementation of Transportation Control Measures

Transportation control measures were required in the SIP in revisions submitted to EPA in 1979 and 1982. All of these TCMs have been accomplished through construction projects or through implementation of ongoing programs. All of the projects have been included in the Boston Region MPO's TIPs (present and past) as recommended projects or projects requiring further study. Information on the Green Line Extension to Somerville and Medford, which was completed between this and last year's TIP, is as follows:

Green Line Extension to Somerville and Medford Project—SIP Required Completion by December 2014

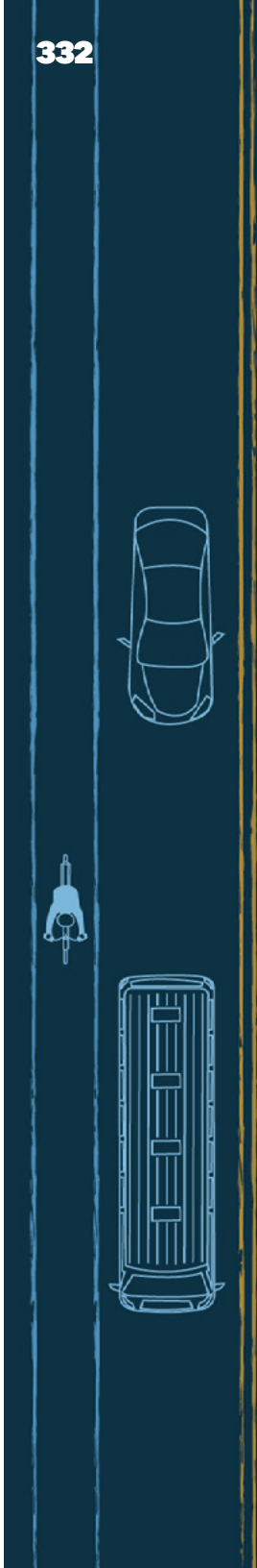
The Green Line Extension is a 4.7-mile light rail line, which extended the current Green Line service from a relocated Lechmere Station in East Cambridge to a terminus at College Avenue in Medford, with a spur to Union Square in Somerville. This project had a cost estimate of $2.289 billion. Funding came from a combined $1.99 billion in federal and state funds and pledged contributions totaling approximately $296 million from the Cities of Cambridge and Somerville ($75 million), the Boston Region MPO ($157.1 million), and MassDOT ($64.3 million through Special Obligation Bonds). Cambridge and Somerville were refunded their full $75 million in November 2021.

In early 2017, the MBTA initiated a procurement process for a design-build entity to design and construct the project. In November 2017, approval was received to execute a design-build contract with Green Line Extension contractors. The notice to proceed under the contract was issued in December 2017. The FTA obligated an initial portion ($100 million) of the Capital Investment Grant funds for the project in December 2017, under the 2015 Full Funding Grant Agreement. Additional funds followed. The contract with Green Line Extension contractors was in the amount of $999.7 million.

The primary goals of the project were to improve corridor mobility, boost transit ridership, improve regional air quality, ensure equitable distribution of transit services, and support opportunities for sustainable development in Cambridge, Somerville, and Medford. In addition to the light rail service on two new branches extending from Lechmere Station to Union Square Station and College Avenue Station, the project included the construction of a vehicle maintenance facility and a multiuse path.

SIP Requirement Status

By filing an Expanded Environmental Notification Form, procuring multiple design consultants, and publishing both Draft and Final Environmental Impact Reports, MassDOT met the first four interim milestones associated with the Green Line Extension project. Since those filings, MassDOT committed substantial resources to the Green Line Extension project, a top transportation priority of the Commonwealth and the largest expansion of the MBTA rapid



transit system in decades. The project then transitioned from the planning and environmental review phases to the design, engineering, and construction phases, and the tasks associated with programming federal funding began.

The timeline for overall project completion, however, was substantially delayed. In the 2011 SIP Status Report, MassDOT reported that the Green Line Extension project would not meet the legal deadline for completion by December 31, 2014. The delay triggered the requirement to provide interim emission reduction offset projects and measures for the period of the delay (beginning January 1, 2015). Working with the Central Transportation Planning Staff, MassDOT and the MBTA calculated the value for reductions of non-methane hydrocarbons, CO, and NOx that would be equal to or greater than the reductions projected to result from the operation of the Green Line Extension during the period of the delay, as specified in the SIP regulation.

In June 2012, MassDOT released a list of potential mitigation ideas received from the public that could be used as offset measures. In the summer and fall of 2012, MassDOT elicited public comments on these potential measures. Then the MBTA created an internal working group to determine a final portfolio of interim mitigation measures to implement by December 31, 2014, the legal deadline for the implementation of the Green Line Extension.

This work resulted in a recommendation to implement the following three interim mitigation measures, which collectively would meet the emissions reduction target for the project:

- Additional off-peak service along existing routes serving the corridor, including the Green Line, and MBTA bus Routes 80, 88, 91, 94, and 96
- Purchase of 142 new hybrid-electric vehicles for the MBTA's paratransit service, The RIDE
- Additional park and ride spaces at the Salem and Beverly intermodal facilities

The Petition to Delay was submitted to the DEP on July 22, 2014, and expanded further on the analysis and determination of the interim offset measures. In a letter dated July 16, 2015, the DEP conditionally approved MassDOT's request to delay the Green Line Extension project and the implementation of the above interim mitigation measures. Both the 2014 Petition to Delay and the July 2015 Conditional Approval are available on MassDOT's website.

The Green Line Extension to Union Square opened for service on March 21, 2022, and the extension to Medford opened on December 12, 2022.

Funding Source: The Commonwealth, FTA via the Full Funding Grant Agreement, and the Boston Region MPO

Fiscal Constraint

Transportation conformity requirements in 40 CFR § 93.108 state that TIPs and LRTPs must be fiscally constrained so as to be consistent with the United States Department of Transportation's metropolitan planning regulations (23 CFR part 450). The Boston Region MPO's FFYs 2024–28 TIP is consistent with the required fiscal constraints, as demonstrated in this document.

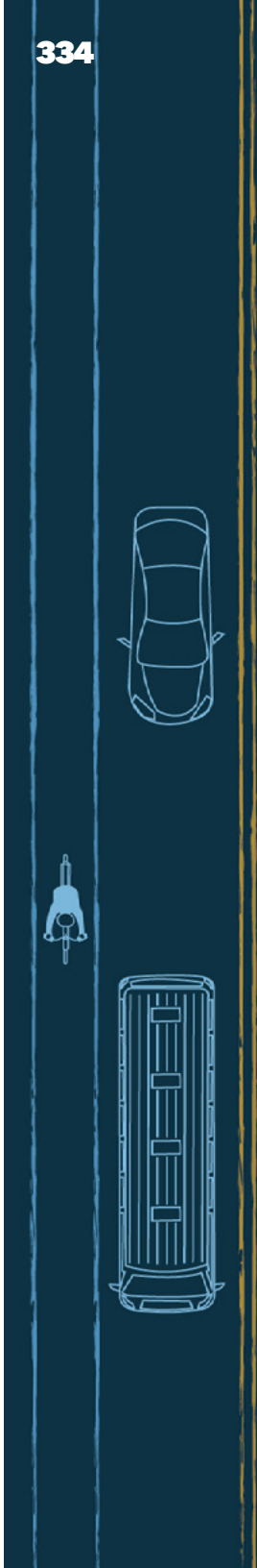
CARBON MONOXIDE

The requirement to perform a conformity determination for CO for the city of Waltham has expired. On April 22, 2002, the EPA classified Waltham as being in attainment for CO emissions. Subsequently, an EPA-approved CO limited maintenance plan was set up through the Massachusetts SIP to ensure that emission levels did not increase. While the maintenance plan was in effect, past TIPs and LRTPs included an air quality conformity determination against a "budget test" (using "hot spot" analyses as needed at the project level) for Waltham. As of April 22, 2022, however, the 20-year maintenance period for this CO area expired and transportation conformity is no longer required for this pollutant in this municipality. This ruling is documented in a letter from EPA dated April 26, 2022.

CONCLUSION

In summary and based on the entire process described above, the Boston Region MPO has prepared this conformity determination for the 1997 ozone NAAQS in accordance with EPA's and the Commonwealth of Massachusetts' latest conformity regulations and guidance. This conformity determination process demonstrates that the FFYs 2024–28 TIP meets the Clean Air Act and Transportation Conformity Rule requirements for the 1997 ozone NAAQS and has been prepared following all the guidelines and requirements of these rules during this period.

Therefore, the implementation of the Boston Region MPO's FFYs 2024–28 TIP is consistent with the air quality goals of, and in conformity with, the Massachusetts SIP.



CHAPTER 6

TRANSPORTATION EQUITY PERFORMANCE REPORT

The Boston Region Metropolitan Planning Organization (MPO) monitors how the transportation projects it funds affect the region's most vulnerable populations and those who have been disproportionately affected by the region's transportation system. This monitoring helps ensure these populations are not disproportionately burdened by or receive disproportionately fewer benefits from MPO projects. This chapter provides the results of analyses conducted for monitoring projects funded with Regional Target funds in the federal fiscal years (FFYs) 2024–28 Transportation Improvement Program (TIP). It also includes an overview of the transportation equity (TE) component of the project evaluation process.

Transportation Equity Populations

In response to federal mandates, the MPO considers six demographic groups to be TE populations—populations that are covered by federal directives and that have been disproportionately underserved and burdened by the transportation system. These mandates are Title VI of the Civil Rights Act of 1964; the Americans with Disabilities Act of 1990; Executive Order 13166—Improving Access to Services for Persons with Limited English Proficiency; and the Age Discrimination Act of 1975. (More information on these mandates can be found in Appendix E.) TE populations include people who identify as a minority, people with low-incomes, people with limited English proficiency (LEP), older adults, young people, and people with disabilities.

The MPO's TE goal, established in the most recent Long-Range Transportation Plan (LRTP), Destination 2040, shapes the MPO's approach to improving transportation outcomes for TE populations. The TE goal is to ensure that all people receive comparable benefits from, and are not disproportionately burdened by, MPO investments, regardless of race, color, national origin, age, income, ability, or sex. The MPO's practices to achieve this goal are guided by the various federal nondiscrimination and environmental justice laws and regulations. In addition, the MPO strives to go beyond these federal requirements to meet the transportation needs and address disproportionately high and adverse effects of existing transportation investments experienced by TE populations in the Boston region.

As part of this work, the MPO staff analyzes projects that are candidates to receive TIP Regional Target funding individually during the MPO's annual project evaluation process. Then staff conduct equity analyses on the group of projects that are selected for funding. These reviews allow the MPO to assess how the projects perform relative to the MPO's TE goal, as well as progress in improving transportation outcomes for TE populations. The remainder of this chapter describes the review processes for Regional Target-funded projects in the FFYs 2024–28 TIP.

Note On Demographics

The analyses for the FFYs 2024–28 TIP were based on demographic data from the 2020 Decennial Census and the 2017–21 American Community Survey (ACS). Census block groups were the geographic unit of analysis. Results of analyses from previous TIP cycles are also presented in this chapter for comparison. Transportation analysis zones were the geographic unit of analysis in the previous TIPs.

Transportation Equity Evaluation Criteria

The MPO's TE evaluation criteria assess the impacts of projects on TE populations and give higher scores to projects that are expected to provide greater benefits to these populations. This structure allows the MPO to assess transportation outcomes for TE populations, which aligns with the MPO's equity goal. The TE score as a percentage of a project's maximum possible score is about 20 percent. For individual project scores, see Appendix A.

Transportation Equity Analyses

As required by federal regulations, the MPO assesses the impacts of all Regional Target-funded projects, as a group, on TE populations. These analyses help the MPO to better understand the extent to which investments meet its TE goal and inform decision-making.

In keeping with its standard practice, the MPO reserved some Regional Target funds in the FFYs 2024–28 TIP to allow flexibility to support projects in certain program areas when projects are identified. Specifically, $8.3 million for the Community Connections and $26 million for the Transit Modernization investment programs, $4 million for Project Design Support, and $6 million for a Bikeshare State-of-Good-Repair Set-Aside have been left unprogrammed. Some of the equity analyses in this chapter do not account for these funds, where noted. Additionally, the analyses in this chapter include only projects funded by the MPO and not projects in the Boston region that are funded by other entities such as Massachusetts Department of Transportation.

Geographical Analyses

Transportation Equity Populations in the Boston Region

Table 6-1 shows the total number of people in the Boston region who belong to each TE population, as well as the percentage of each TE population relative to the Boston region's population. Values from the FFYs 2023–27 TIP are also shown as a comparison.

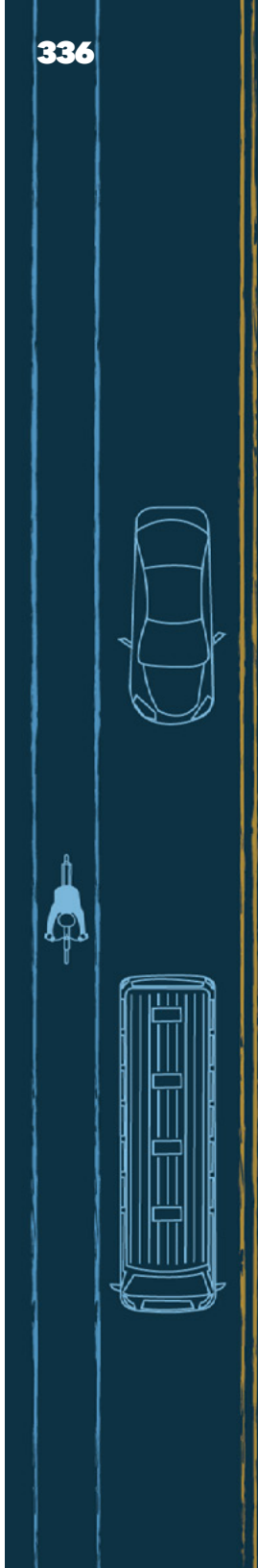


TABLE 6-1

Transportation Equity Populations in the Boston Region

TE Population	FFYs 2023–27 TIP	FFYs 2024–28 TIP	FFYs 2023–27 TIP	FFYs 2024–28 TIP
Minority population	1,223,835	1,223,835	36.5%	36.5%
Low-income population	674,215	673,276	20.1%	20.1%
People with LEP	375,848	382,182	11.2%	11.2%
People with disabilities	342,552	337,229	10.2%	10.2%
Older adult population	232,286	224,306	6.9%	6.9%
Youth population	634,550	634,153	18.9%	18.9%

Note: To calculate the TE population values, the population in each block group was controlled to the total 2020 census population count and then summed to calculate the total TE population in the Boston region.

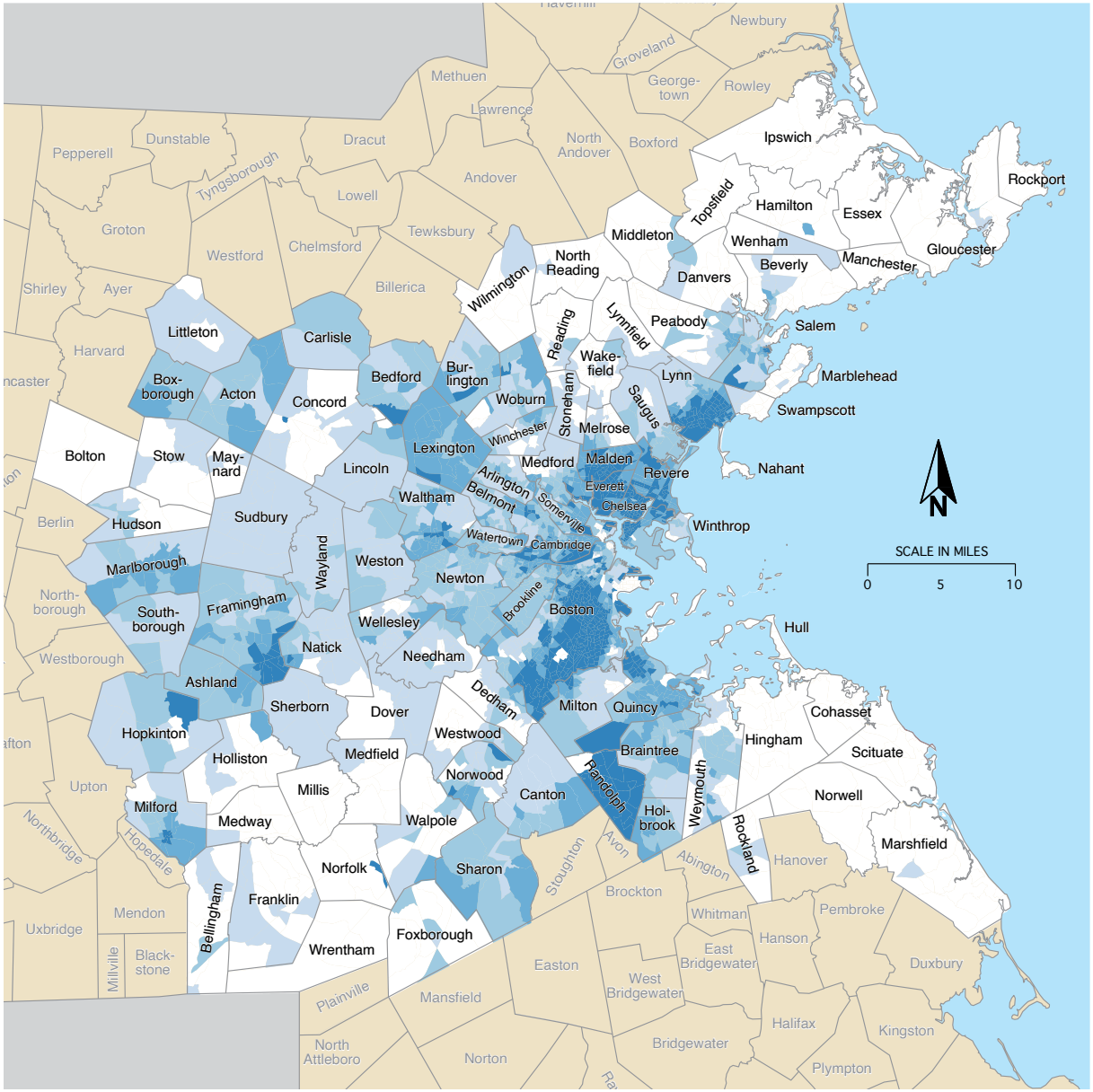
FFY = federal fiscal year. LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.

Source: US Census Bureau.

Figures 6-1 to 6-6 show the percent of each TE population in communities throughout the Boston region. In general, the minority population, people with low incomes, and people with limited English proficiency tend to live closer to or in Boston. On the other hand, people age 75 or older, people age 17 or younger, and people with disabilities are dispersed throughout the region.

FIGURE 6-1

Percentage of the Minority Population in the Boston Region



LEGEND

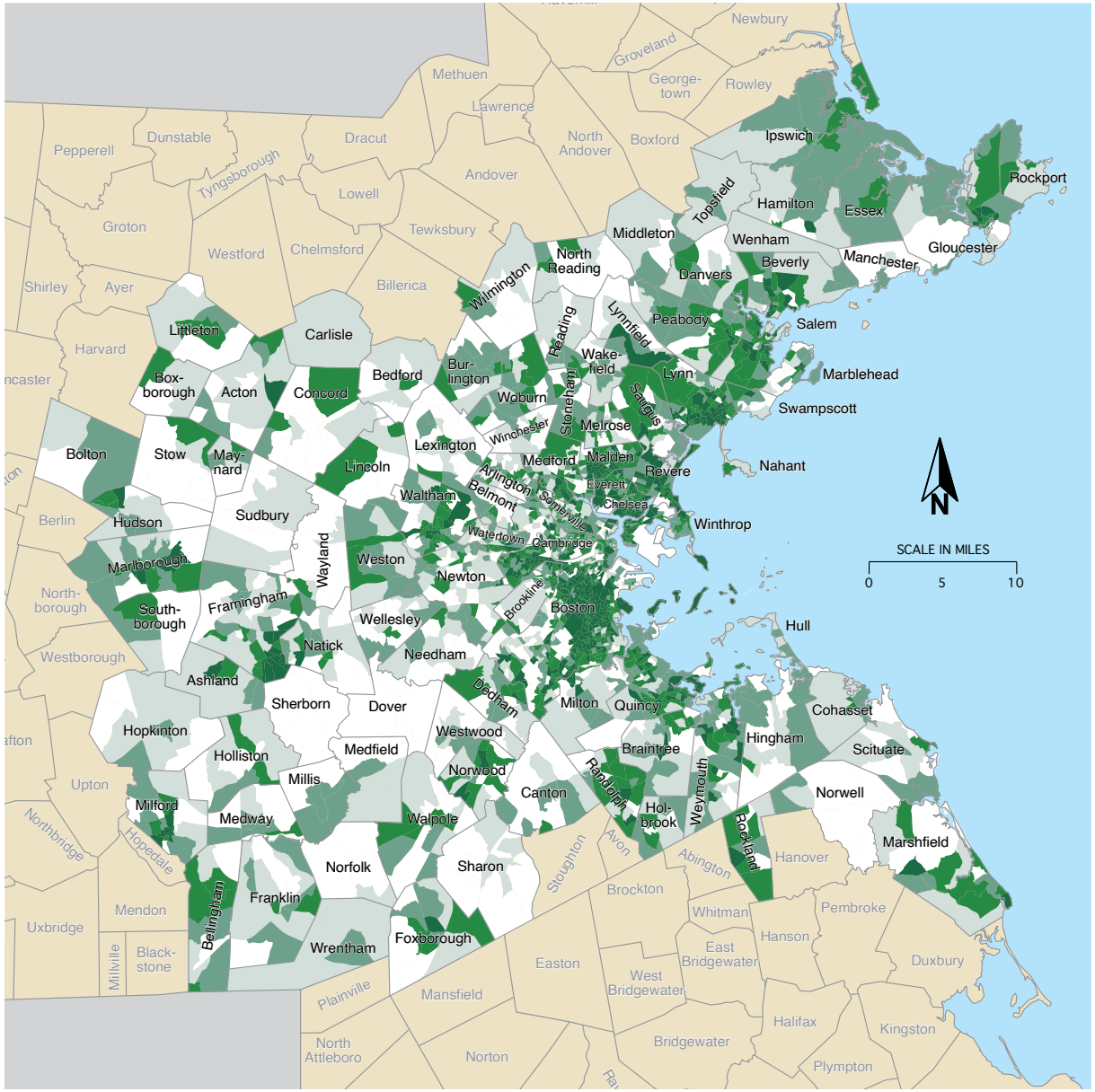
Percent Minority Population

- 0.0% - 15.5%
- 15.6% - 24.5%
- 24.6% - 35.4%
- 35.5% - 57.6%
- 57.7% - 100.0%

Source: 2020 Decennial Census.
Note: The percent of the minority population within each block group is calculated by dividing the minority population count by the total population count.

FIGURE 6-2

Percentage of the Low-income Population in the Boston Region



LEGEND

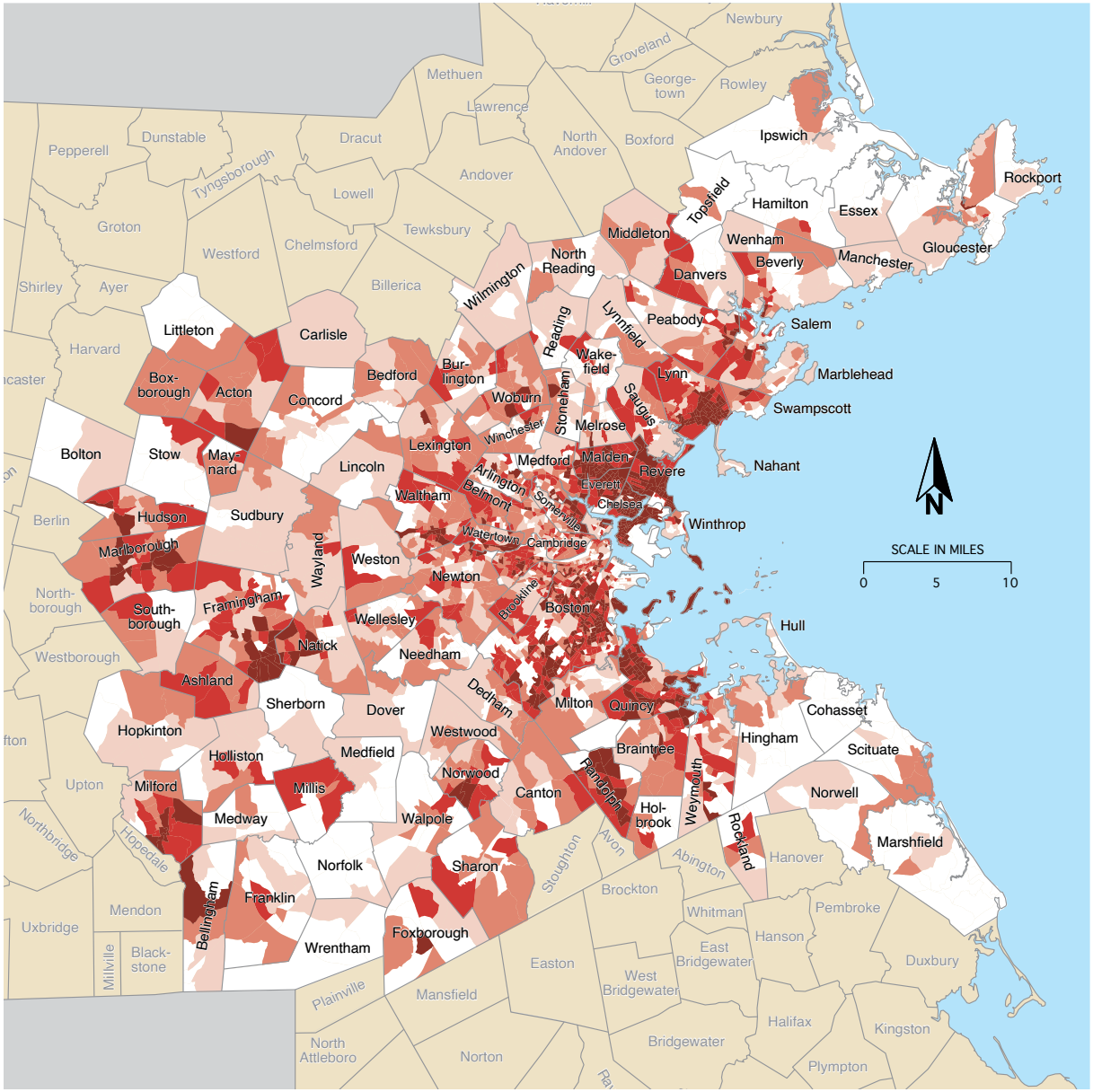
Percent Low-income Population

- 0.0% - 5.0%
- 5.1% - 10.7%
- 10.8% - 18.9%
- 19.0% - 33.0%
- 33.1% - 100.0%

Source: 2017-21 American Community Survey.
Note: The low-income population is defined as people whose incomes are less than or equal to 200% of the federal poverty level.
The percent of the low-income population within each block group is calculated by dividing the low-income population estimate by the total family population estimate.

FIGURE 6-3

Percentage of People with Limited English Proficiency in the Boston Region



LEGEND

Percent of People with LEP

- 0.0% - 1.2%
- 1.3% - 4.3%
- 4.4% - 9.2%
- 9.3% - 19.3%
- 19.4% - 100.0%

Source: 2017-21 American Community Survey.
Note: The percent of people with LEP within each block group is calculated by dividing the LEP population estimate by the population estimate for people ages five estimate by the population estimate for people ages five and older.

FIGURE 6-4

Percentage of People with Disabilities in the Boston Region

LEGEND

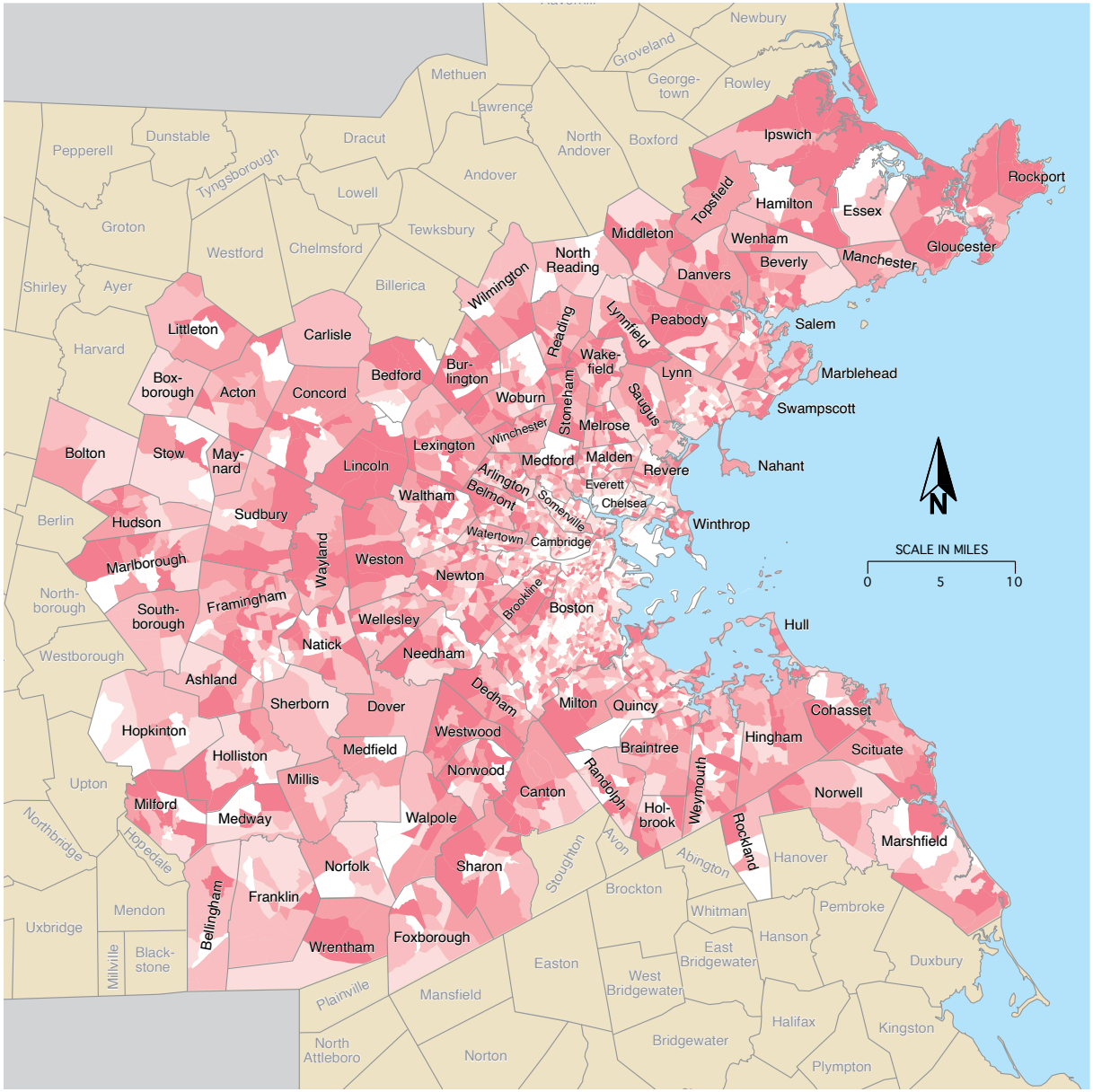
Percent Population with Disabilities

- Less than 6.0%
- 6.1% - 8.3%
- 8.4% - 10.2%
- 10.3% - 13.2%
- 13.3% - 100%

Source: 2017-21 American Community Survey.
Note: The percent of people with disabilities within each census tract is calculated by dividing the population with disabilities estimate by the total non-institutionalized population.

FIGURE 6-5

Percentage of Older Adults in the Boston Region



LEGEND

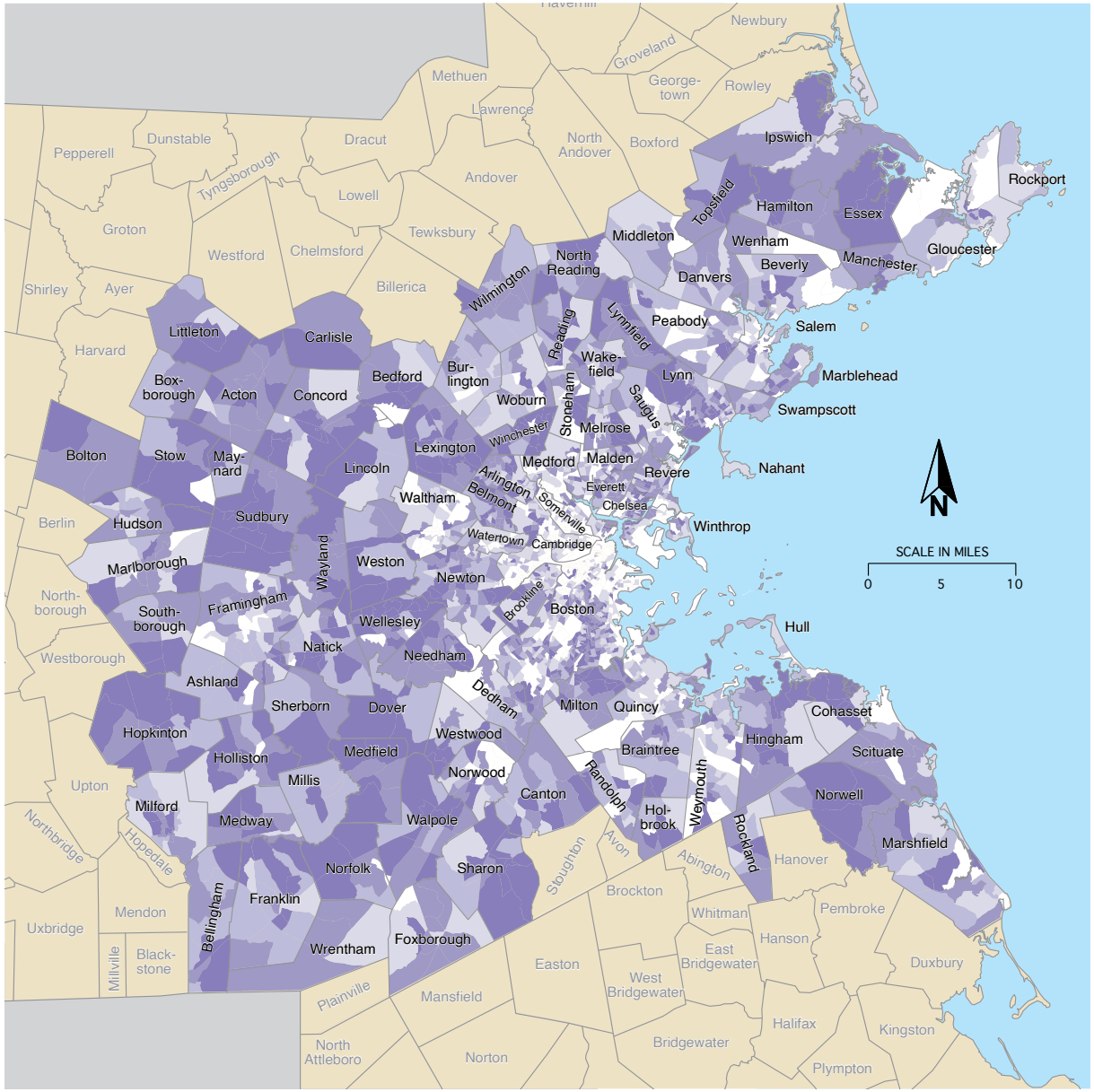
Percent Older Adults Population

- 0.0% - 1.9%
- 2.0% - 4.0%
- 4.1% - 6.3%
- 6.4% - 10.2%
- 10.3% - 100.0%

Source: 2017-21 American Community Survey.
Note: Older adults are defined as people ages 75 and older. The percent of older adults within each block group is calculated by dividing the older adults population estimate by the total population estimate.

FIGURE 6-6

Percentage of the Youth Population in the Boston Region



LEGEND

Percent Youth Population

- 0.0% - 9.7%
- 9.8% - 15.9%
- 16.0% - 21.1%
- 21.2% - 26.8%
- 26.9% - 100.0%

Source: 2017-21 American Community Survey.
Note: The youth population is defined as people ages 17 and younger. The percent of the youth population within each block group is calculated by dividing the youth population estimate by the total population estimate.

Transportation Equity Populations Served or Impacted by Regional Target-funded Projects

The analyses described in this section assessed which TE populations are likely to be served or impacted by Regional Target-funded projects. Affected populations are considered those who live nearby, defined as one-half mile, from project extents. Geographic proximity is an approximation that helps determine who is likely to use and be impacted by a project. For some projects, such as those in the Bicycle Network and Pedestrian Connections and Complete Streets Programs, this measure is a reasonable representation as these projects are often designed and located in such a way to serve local residents. For other projects, such as those in the Major Infrastructure Program, this may be a less accurate representation given that many users of these types of roadways or public transit lines live outside of the half-mile boundary. Some impacts, however, are local regardless of investment program, such as pollution from carbon monoxide and other transportation-related emissions. Despite drawbacks, geographical analyses are a readily available approximation of who may be most served and affected by projects funded by the MPO.

Table 6-2 shows the number of each TE population served or impacted by Regional Target-funded projects and the percentage of the total population served, compared to the regionwide population and percent. For the minority population, low-income population, people with LEP, and people with disabilities, the percent of the population served exceeds the regionwide average, indicating projects are serving these populations at least as well as their non-TE counterparts.

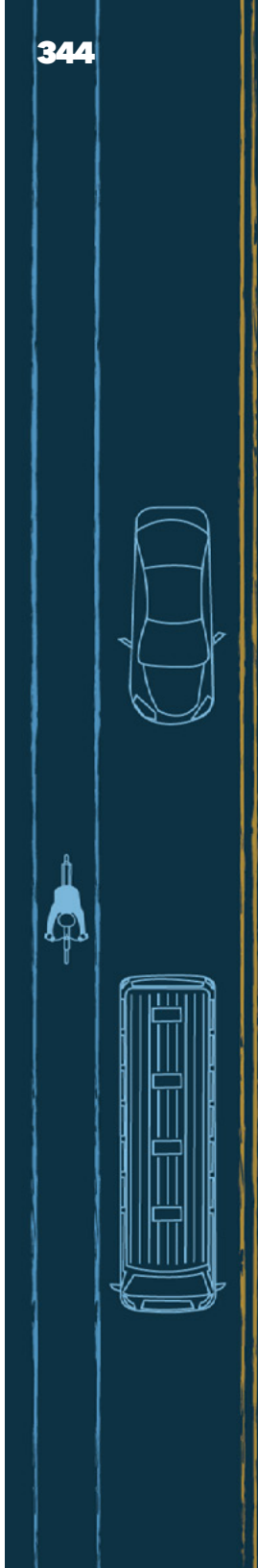


TABLE 6-2

Transportation Equity Populations Served or Impacted by Regional Target Projects

TE Population	Regionwide Population	Percentage of Regionwide Population	Population Served	Percentage of Total Population Served
Minority population	1,223,835	36.5%	708,233	48.3%
Low-income population	673,276	20.1%	367,534	25.3%
People with LEP	382,182	11.2%	206,899	14.2%
People with disabilities	337,229	10.2%	155,721	10.6%
Older adult population	224,306	6.9%	80,414	5.5%
Youth population	634,153	18.9%	248,759	17.0%
Total	**3,357,194**	**N/A**	**1,767,560**	**52.6%**

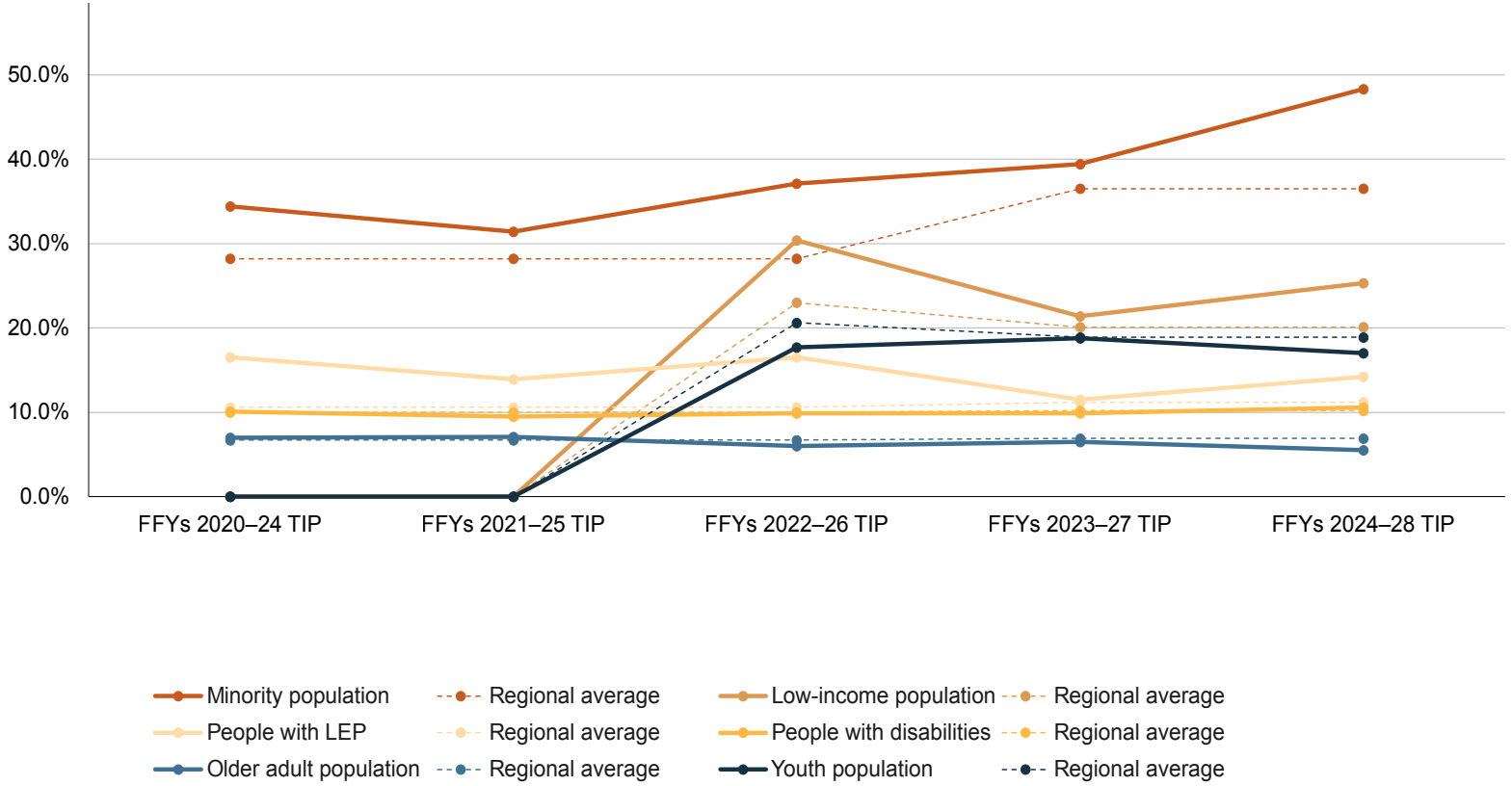
LEP = limited English proficiency. N/A = not available. TE = transportation equity.

Sources: US Census Bureau and 2015–17 MBTA Systemwide Passenger Survey.

Figure 6-7 shows the percentage of TE populations served or impacted (out of the entire population served or impacted) by Regional Target projects in the last five TIPs. The results show that for most TE populations the percent of the population served or impacted has continued to be above the regional average, demonstrating MPO-funded projects are equitably investing in transportation for these populations. It also indicates that the MPO is progressing toward its goal of prioritizing investments for these TE populations—minority population, low-income population, older adult population, and people with limited English proficiency. In the future, the MPO could invest in more projects that serve youth and people with disabilities, which would help further meet this goal.

FIGURE 6-7

Change in the Percentage of Transportation Equity Populations Served or Impacted by Regional Target Projects



Notes: People age 17 or younger were not considered among the TE population in the MPO's analyses until the FFYs 2022–26 TIP cycle. Additionally, starting in the FFYs 2022–26 TIP cycle, the low-income population was defined based on poverty status.

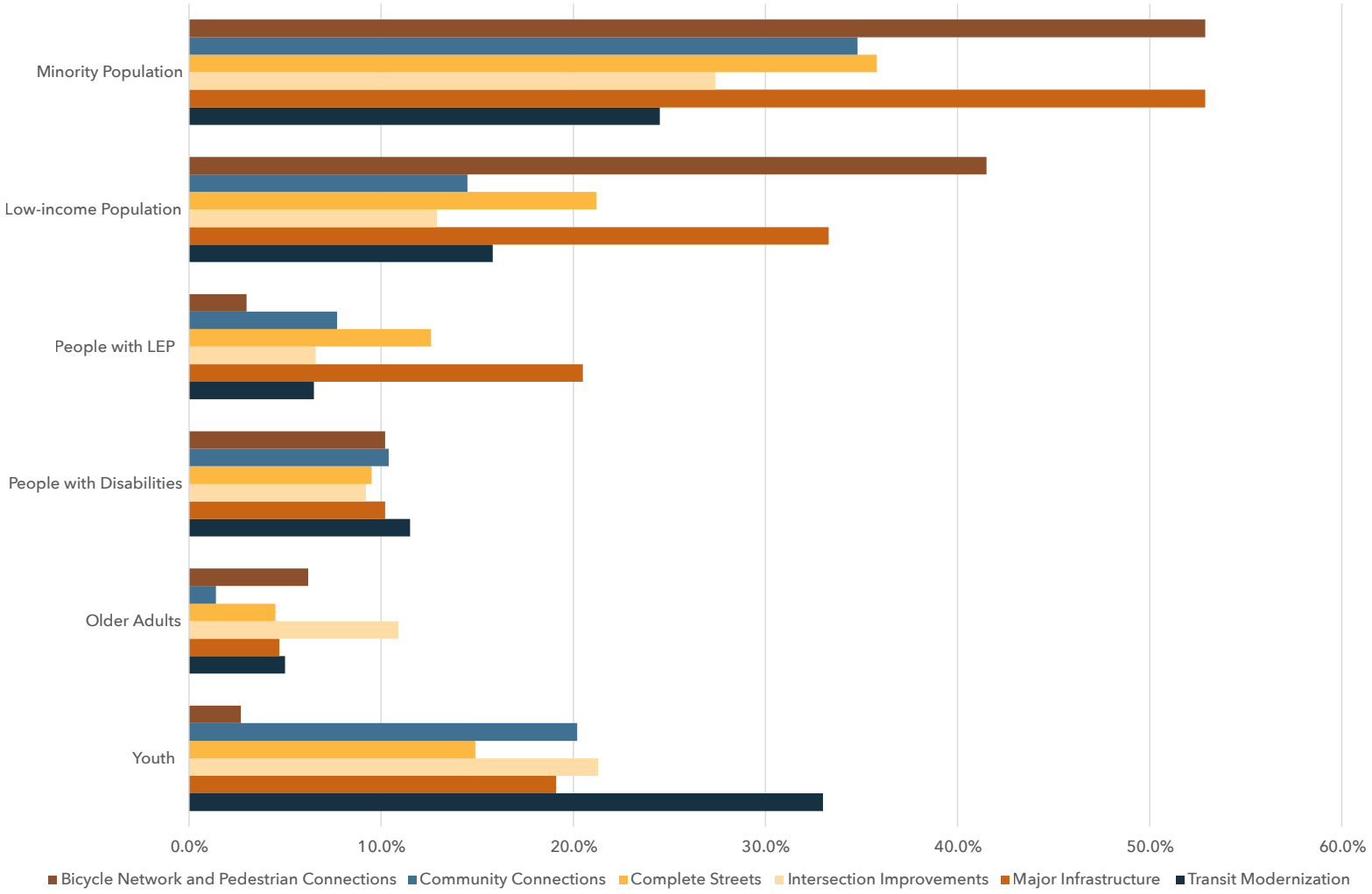
FFY = federal fiscal year. LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.

Sources: US Census Bureau and 2015–17 MBTA Systemwide Passenger Survey.

Figure 6-8 shows the percentage of TE populations served or impacted (out of the entire population served or impacted) for each investment program in the FFYs 2024–28 TIP. Some TE populations are likely to benefit from or be impacted by projects in certain investment programs. The results show that the minority and low-income populations are served better by projects in the Bicycle Network and Pedestrian Connections program and the Major Infrastructure investment program, while people with limited English proficiency are better served by Major Infrastructure and Complete Streets projects. By contrast, the youth population is far better served by Transit Modernization projects and older adults by Intersection Improvement projects. For people with disabilities, they are served fairly equally across all investment programs.

FIGURE 6-8

Percent of Transportation Equity Populations Served or Impacted by Regional Target Projects by Investment Program



LEP = limited English proficiency.

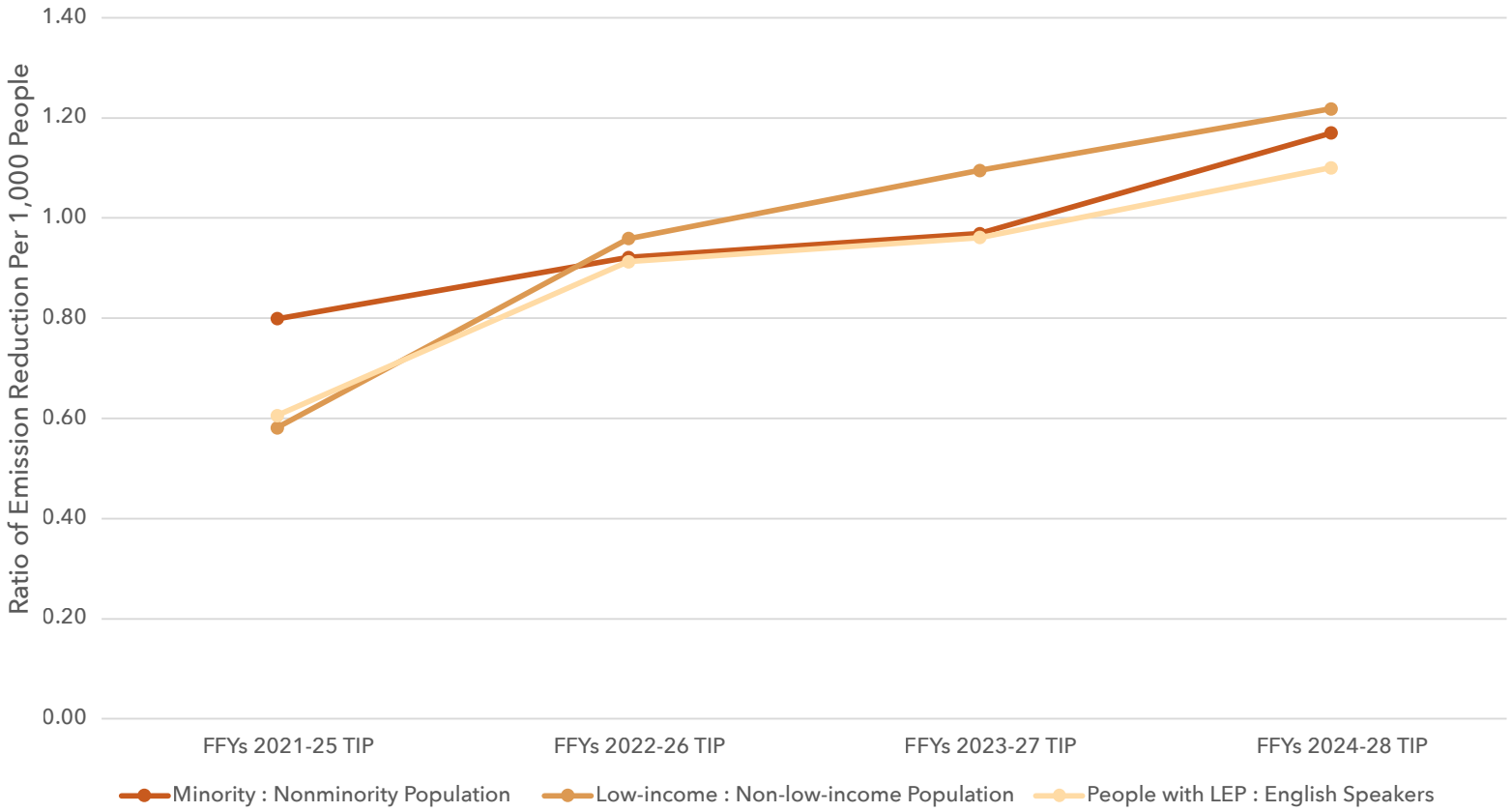
Sources: US Census Bureau and 2015–17 MBTA Systemwide Passenger Survey.

Transportation Emission Impacts Analysis

Figures 6-9a and 6-9b compare the projected emissions reduction that would result from the implementation of Regional Target-funded projects between TE and non-TE populations. The charts show the ratio of the emissions reduction between each TE population and the respective non-TE population and are shown for the FFYs 2021–25, 2022–26, 2023–27, and 2024–28 TIPs. Ratios above one indicates that the TE population would receive greater air quality benefits than the non-TE population. Emissions measured for these figures and Table 6-3 include carbon monoxide, volatile organic compounds, and nitrogen oxide.

FIGURE 6-9A

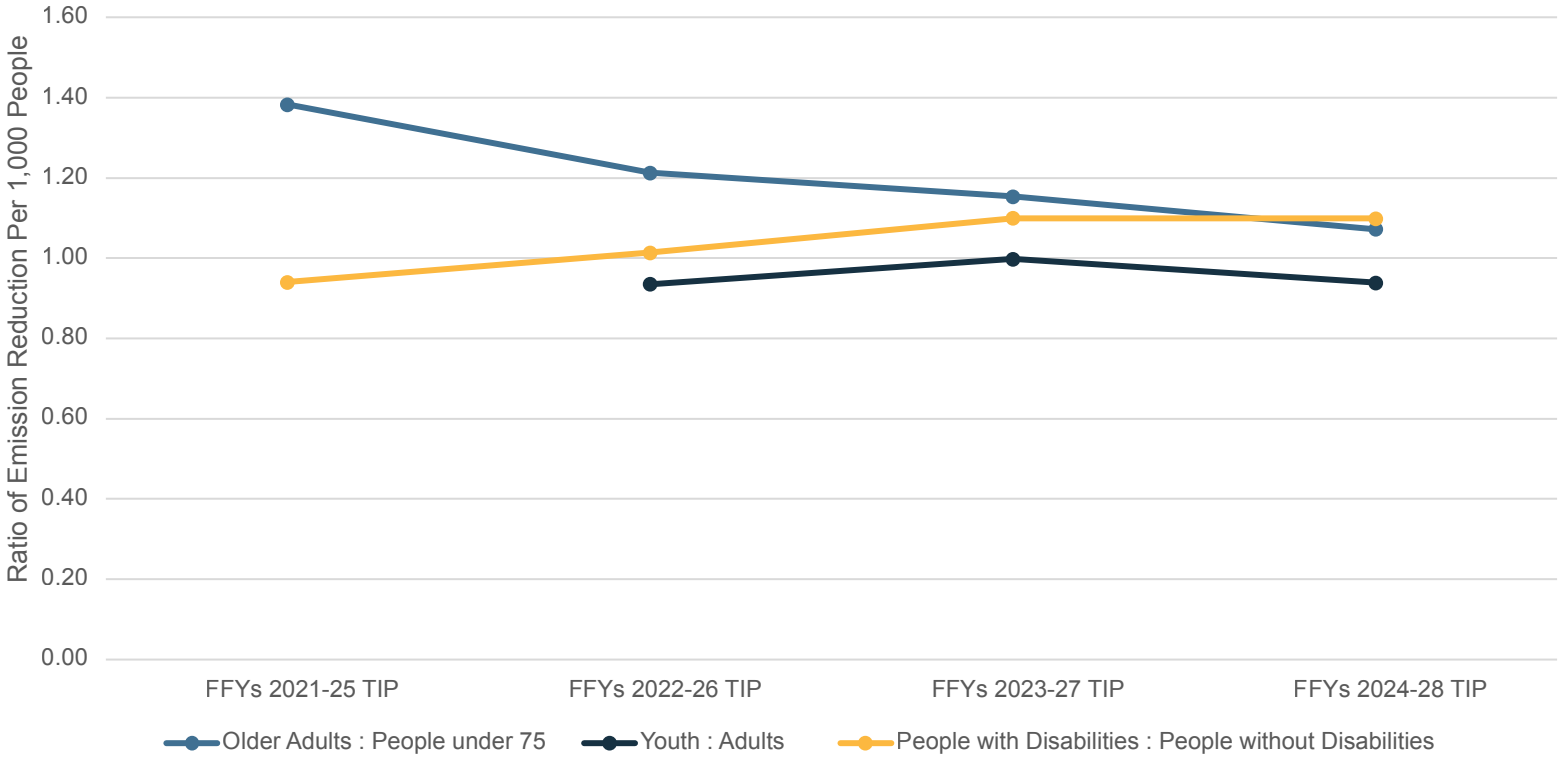
Reduction in Carbon Monoxide, Volatile Organic Compounds, and Nitrogen Oxide Emissions per 1,000 People



Note: The youth population was not considered a TE population in the FFYs 2021–25 TIP.
FFY = federal fiscal year. LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.
Source: US Census Bureau and Boston Region MPO's Congestion Mitigation and Air Quality analyses.

FIGURE 6-9B

Reduction in Carbon Monoxide, Volatile Organic Compounds, and Nitrogen Oxide Emissions per 1,000 People



FFY = federal fiscal year. LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.

Source: US Census Bureau and Boston Region MPO's Congestion Mitigation and Air Quality analyses.

Table 6-3 shows projected emissions reductions for TE and non-TE populations resulting the MPO-funded projects in the TIP. Reductions are reported in kilograms per 1,000 people and are shown for the FFYs 2021–25, 2022–26, 2023–27, and 2024–28 TIPs. The changes shown are for each TIP and are not cumulative across all TIPs.

TABLE 6-3

Combined Reduction in Carbon Monoxide, Volatile Organic Compounds, and Nitrogen Oxide Emissions per 1,000 People

Population Groups	FFYs 2021-25 TIP	FFYs 2022-26 TIP	FFYs 2023–27 TIP	FFYs 2024–28 TIP
Minority population	-22.8	-47.6	-32.2	-59.2
Nonminority population	-28.5	-51.6	-33.3	-50.6
Low-income population	-21.9	-51.2	-36.3	-63.3
Non-low-income population	-37.7	-53.4	-33.1	-52.0
People with LEP	-18.0	-49.1	-32.3	-59.2
People who speak English very well	-29.7	-53.8	-33.6	-53.7
Older adult population	-36.0	-60.0	-37.6	-56.9
Older adult population	-26.0	-49.5	-32.6	-53.0
Youth population	N/A	-47.4	-32.9	-50.7
Adult population	N/A	-50.7	-32.9	-54.0
People with disabilities	-25.5	-51.2	-35.9	-58.1
People without disabilities	-27.1	-50.5	-32.6	-52.9

FFY = federal fiscal year. LEP = limited English proficiency. N/A = not applicable. TIP = Transportation Improvement Program.

Source: US Census Bureau and Boston Region MPO's Congestion Mitigation and Air Quality analyses.

Funding Distribution Analysis

The results of the analyses reported in this section show how Regional Target funds are distributed to projects serving TE populations based on the percentage of the population served by the Regional Target-funded projects. The MPO has programmed approximately $6.7 million in Regional Target funding in the FFYs 2024–28 TIP, approximately $5.6 million of which are included in this analysis. Like the geographical analyses shown above, this funding distribution analysis assumes that funds allocated to projects near TE populations indicate a benefit.

Table 6-4 shows the percent of funding allocated in the FFYs 2024–28 TIP to Regional Target projects, in the aggregate, that are expected to serve or impact TE populations compared to the share of each TE population within the Boston region. The results show that the percentage of funding allocated is approximately equal to the share of the population in the region for all TE populations, indicating an equitable distribution of funding.

TABLE 6-4

Percent of Funding Allocated to Transportation Equity Populations

TE Population	Percentage of Funding Allocated	Percentage of Regionwide Population
Minority population	35.1%	36.5%
Low-income population	21.0%	20.1%
People with LEP	11.6%	11.2%
People with disabilities	10.1%	10.2%
Older adult population	7.7%	6.9%
Youth population	18.4%	18.9%

LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.
Sources: US Census Bureau, 2015–17 MBTA Systemwide Passenger Survey, and Boston Region MPO.

Figure 6-10 shows the percentage of funding allocated in the last five TIPs to Regional Target projects that are expected to serve or impact TE populations. These data are shown relative to each TE population's share of their population in the Boston region. The results show that the percent of funding for the minority populations continues to be less than its respective regionwide percentages, although it has improved over the previous year's TIP. The percent of funding allocated to the other TE populations continues to be approximately equal to their respective regionwide percentages.

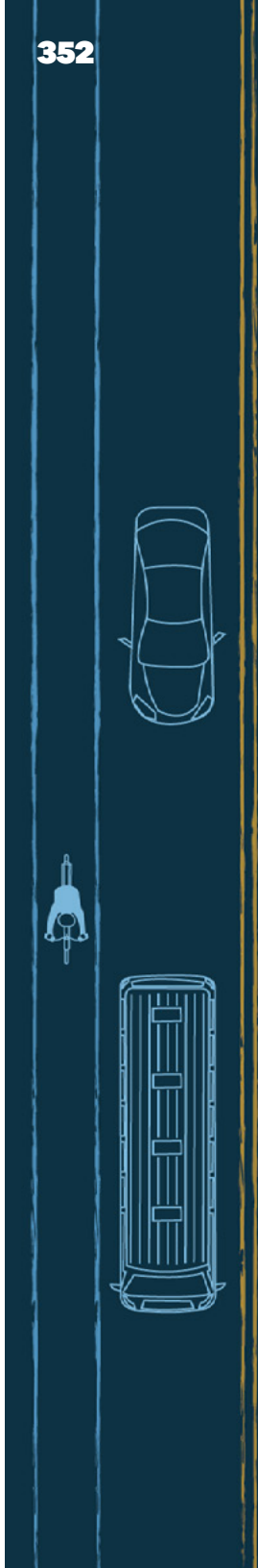
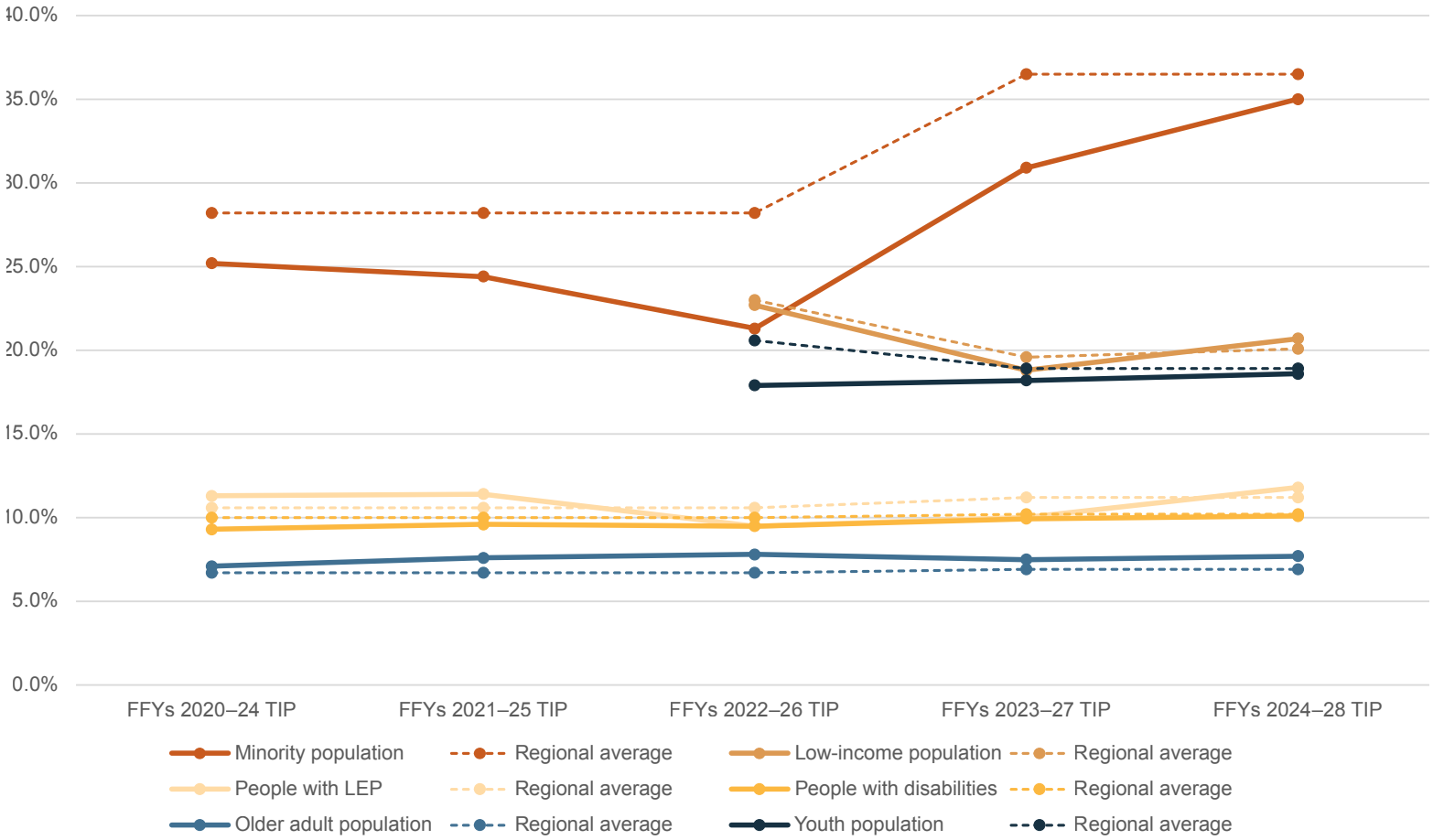


FIGURE 6-10

Change in the Percentage of Funding Allocated to Transportation Equity Populations



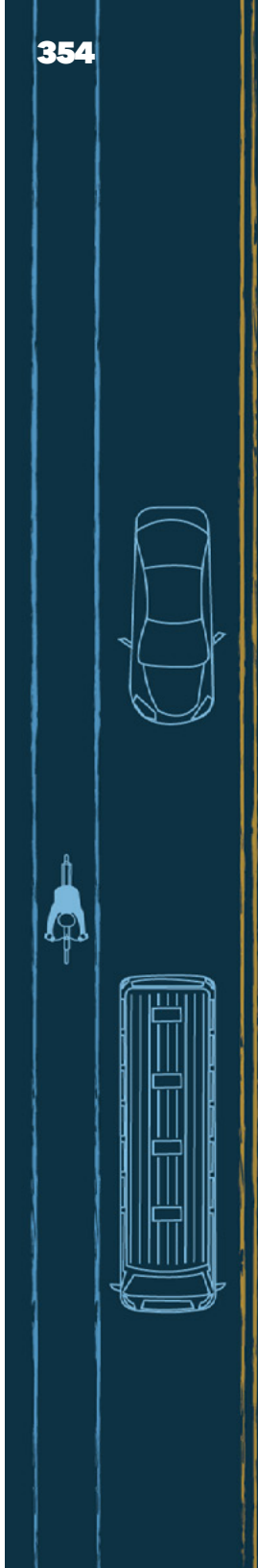
Notes: People age 17 or younger were not considered as a TE population in the MPO's analyses until the FFYs 2022–26 TIP cycle. Additionally, starting in the FFYs 2022–26 TIP cycle, the low-income population was defined based on poverty status.

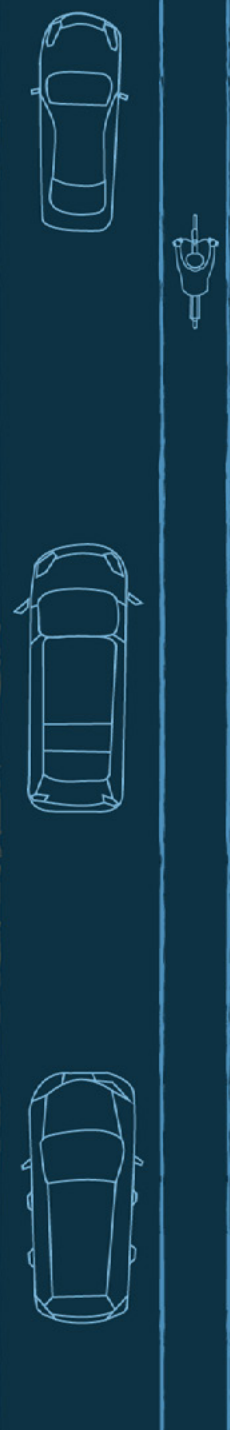
FFY = federal fiscal year. LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.

Sources: US Census Bureau, 2015–17 MBTA Systemwide Passenger Survey, and Boston Region MPO.

Future Activities to Improve Monitoring of Transportation Equity Performance

The MPO will continue to explore more sophisticated methods of identifying specific impacts of projects funded with Regional Target dollars and evaluating, as a group, their benefits and burdens on TE populations. MPO staff has developed a similar analysis for the MPO's LRTP and will continue to use it to inform updates and refinements to the equity analyses in the TIP. The MPO has completed several studies that will inform the development of these metrics, including Identifying Transportation Inequities in the Boston Region. Analyses developed for the Needs Assessment of the new LRTP, Destination 2050, will also be informative. MPO staff will explore ways to expand these metrics and apply them to equity analyses for other aspects of the MPO's work.





APPENDIX A

PROJECT PRIORITIZATION AND SCORING

INTRODUCTION

As described in Chapter 2, the Transportation Improvement Program (TIP) development and project prioritization and funding process consists of numerous phases and is supported by several different funding sources. This appendix includes information about transportation projects that the Boston Region Metropolitan Planning Organization (MPO) considered for funding through the Highway Discretionary (Regional Target) Program in the federal fiscal years (FFYs) 2024–28 TIP.

To be considered for funding by the MPO, a project must fulfill certain basic criteria. Projects evaluated through the MPO's Bicycle Network and Pedestrian Connections, Complete Streets, Intersection Improvements, and Major Infrastructure investment programs must meet these criteria:

- The Massachusetts Department of Transportation's Project Review Committee must have approved the project or must plan to review it.
- The project proponent must be a municipality or state agency.
- The project must be at the 25-percent design stage or demonstrate the level of detail of a project near this threshold (for example, through the submission of functional design reports, project locus maps and designs, operations analyses, or Highway Capacity Manual data sheets showing future build and no-build scenarios).

For projects evaluated through the MPO's Community Connections Program, the following criteria apply:

- The project proponent must submit a complete application for funding to MPO staff, along with supporting documentation such as geographic files depicting the project area and budgeting worksheets.
- The proponent must be a municipality, transportation management association (TMA), or regional transit authority (RTA). Other entities, such as nonprofit organizations, may apply in partnership with a municipality, TMA, or RTA that has agreed to serve as a project proponent and fiscal manager.
- The proponent must demonstrate that the project will have a positive impact on air quality, as this program is funded using federal Congestion Mitigation and Air Quality funds.
- The proponent must demonstrate readiness and institutional capacity to manage the project sustainably.

If a project meets the above criteria, it is presented to the MPO board in the Universe of Projects (Table A-1) to be considered for funding. This project list is presented to the MPO board in November and provides a snapshot of information available on projects at that stage in the TIP development. Some projects that get evaluated for funding may not appear in the Universe, as more project information may become available following the compilation of the Universe. In addition, some projects that appear on the Universe list may not be evaluated each year if these projects are not actively being advanced by municipal or state planners or if they are not at the minimum required level of design for evaluation. Community Connections projects are not typically included in the Universe because proponents of those projects apply for funding through a discrete application process, the submission deadline for which is after the presentation of the Universe to the MPO board.

Once a proponent provides sufficient design documentation for a project in the Universe and the municipality or state is actively prioritizing the project for funding, the project can be evaluated by MPO staff. The evaluation criteria used to score projects are based on the MPO's goals and objectives. After the projects are evaluated, the scores are shared with project proponents, posted on the MPO's website, and presented to the MPO board for review and discussion. The scores for projects evaluated during development of the FFYs 2024–28 TIP for programming in the MPO's Bicycle Network and Pedestrian Connections, Complete Streets, and Intersection Improvements programs are summarized in Table A-3. No projects were evaluated for inclusion in the Major Infrastructure investment program during the development of the FFY 2024-28 TIP. Scores for projects that applied for funding through the MPO's Community Connections Program during the FFYs 2024–28 TIP cycle are summarized in Table A-4.

The MPO board approved a suite of changes to the TIP project selection criteria in October 2020. One of the central goals was to create distinct criteria for each investment program to allow for evaluations to be conducted in ways that better reflect the nuances of different types of transportation projects. For this reason, the project selection criteria for each investment program are shown in separate tables in this appendix as follows: Bicycle Network and Pedestrian Connections (Table A-5); Community Connections (Table A-6); Complete Streets (Table A-7); Intersection Improvements (Table A-8); and Major Infrastructure (Table A-9). Archived project evaluation criteria for all investment programs, which were discontinued in October 2020 after the FFYs 2021–25 TIP cycle, are shown in Tables A-10 and A-11.

In addition to project scores, several other factors are taken into consideration by the MPO when selecting projects for funding. Table A-2 describes many of these elements, including the relationships between the MPO's FFYs 2024–28 Regional Target projects and the MPO's Long-Range Transportation Plan (LRTP), studies and technical assistance conducted by MPO staff through the Unified Planning Work Program (UPWP), the federally required performance measures discussed in Chapter 4, and Massachusetts' modal plans. These projects are listed by MPO investment program. More details about each of these projects are available in the funding tables and project descriptions included in Chapter 3. Performance-related information for the FFYs 2024–28 Regional Target projects is included in Chapter 4, and information about greenhouse gas (GHG) emissions for these projects is available in Appendix B.

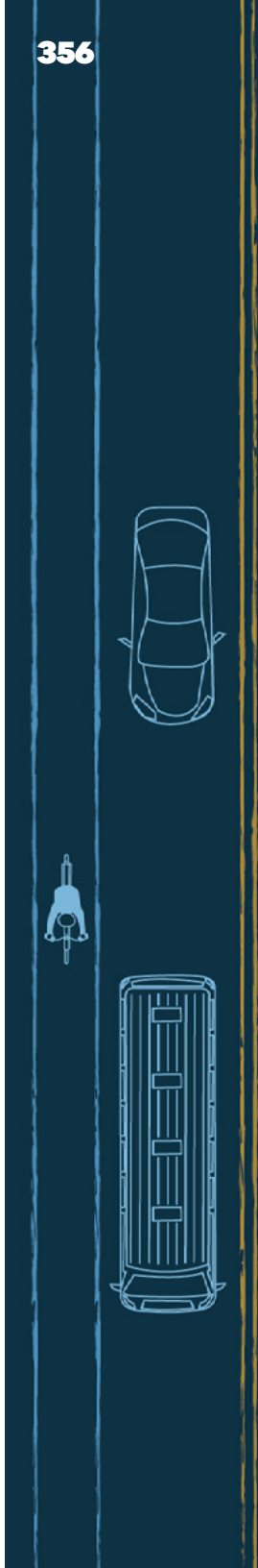


TABLE A-1

FFYs 2024–28 TIP Universe of Projects

KEY

Evaluated for FFYs 2023-27 TIP | New project in TIP universe for FFYs 2024-28 TIP | In 2023-27 universe, not evaluated

Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
Inner Core									
Complete Streets									
Boston	Boston	Reconstruction of Albany Street	N/A	Pre-PRC	2021	N/A	6	Pursuing 2022 PRC approval.	N/A
Boston	MassDOT	Reconstruction on Gallivan Boulevard (Route 203), from Neponset Circle to East of Morton Street Intersection	606896	PRC approved (2012)	2018	$11,500,000	6	Resulted from FFY 2012 Addressing Priority Corridors MPO Study	N/A
Boston	MassDOT	Improvements on Morton Street (Route 203), from West of Gallivan Boulevard to Shea Circle	606897	PRC approved (2012)	2018	$11,500,000	6	Resulted from FFY 2012 Addressing Priority Corridors MPO Study	N/A
Boston	Boston	Roadway Improvements along Commonwealth Avenue (Route 30), from Alcorn Street to Warren/Kelton Streets (Phase 3 & Phase 4)	608449	"25% submitted (9/28/2017)"	2017 or earlier	$31,036,006	6	Last scored for FFYs 2020-24 TIP.	56
Boston	MassDOT	Intersection & Signal Improvements at VFW Parkway and Spring Street	607759	25% Package Received - R1 (3/09/2022)	2022	$4,526,907	6		N/A
Boston	MassDOT	Gallivan Boulevard (Route 203) Safety Improvements, from Washington Street to Granite Avenue	610650	PRC approved (2019)	2019	$5,750,000	6	Priority for District 6. Road safety audit being initiated.	N/A
Brookline	Brookline	Boylston Street (High Street to Brington Road) Complete Streets Improvements	N/A	Pre-PRC	2022	$3,500,000	6	Ped crossings, bike lanes, street trees. Design through Toole with some facilitation from MassDOT. Three options were pushed through and endorsed by the Select Board. Town met with District 6 to run through this. Should be in PRC soon.	N/A
Brookline	Brookline	Davis Street Path Restoration and Reconstruction of the Davis Street Path Bridge over MBTA	N/A	Pre-PRC	2022	$12,000,000	6	Conceptual stage. Brookline is investigating avenues to use federal discretionary grant funding to advance this project. Potential for bundling with Boylston Street work above.	N/A
Chelsea	Chelsea	Reconstruction of Spruce Street, from Everett Avenue to Williams Street	610675	PRC approved (2019)	2019	$5,408,475	6		N/A
Chelsea	Chelsea	Reconstruction of Everett Avenue and 3rd Street, from Broadway to Ash Street	N/A	Pre-PRC	2020	N/A	6		N/A
Chelsea	Chelsea	Reconstruction of Marginal Street	N/A	Pre-PRC	2019	N/A	6		N/A
Lynn, Salem	MassDOT	Reconstruction of Route 107	608927	PRC approved (2017)	2020	$38,155,000	4		N/A

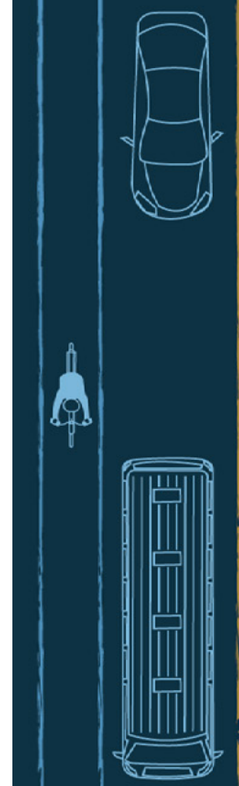
Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
Malden	Malden	Broadway Corridor Reconstruction	N/A	Pre-PRC	2022	N/A	4	Malden is currently holding community meetings to discuss this project, with the most recent one being held 10.25.2022.	N/A
Melrose	Melrose	Reconstruction of Lebanon Street, from Lynde Street to Malden City Line	612534	PRC approved (2/10/2022)	2020	$3,742,432	4		N/A
Newton	Newton	Reconstruction of Washington Street, from Church Street to Chestnut Street	N/A	Pre-PRC	2020	N/A	6		N/A
Revere	Revere	Reconstruction of Ocean Ave, Revere Street, and Revere Beach Boulevard	N/A	Pre-PRC	2020	N/A	4	Project at conceptual stage with schematics, needs full design - investigating roundabout. Key East/West connection.	N/A
Winthrop	Winthrop	Reconstruction & Improvements on Route 145	N/A	PRC approved (2019)	2019	$7,565,512	6		N/A
Intersection Improvements									
Boston, Brookline	Boston, Brookline	Mountfort St. & Commonwealth Ave. Connection	608956	PRC approved (2017)	2018	$916,883	6	Preliminary design.	N/A
Medford	Medford	Intersection Improvements at Main Street and South Street	611974	PRC approved (2021)	2019	$8,498,000	4	Project location studied by CTPS. Priority for municipality. Design is in progress, and eventually the City will work with MassDOT to fund construction.	N/A
Newton	MassDOT	Route 16 at Quinobequin Road	612613	PRC approved (2/10/2022)	2022	$4,350,000	6	Reconfiguration of the interchange may result in consideration of this project for the LRTP.	N/A
Quincy	MassDOT	Intersection Improvements at Route 3A (Southern Artery) and Broad Street	608569	PRC approved (2016)	2020	$2,900,000	6	Priority for District 6.	N/A
Quincy	Quincy	Intersection Improvements at Willard Street and Ricciuti Drive	610823	25% Package Received (9/28/2022)	2020	$1,544,650	6	25% design complete. PM is Kathy Dougherty.	N/A
Quincy	Quincy	Merrymount Parkway Phase II	N/A	Pre-PRC	2022	N/A	6	December PRC.	N/A
Bicycle and Pedestrian									
Boston	Boston	Fenway Multi-Use Path Phase III	N/A	Pre-PRC	2021	N/A	6	Project at conceptual stage.	N/A
Brookline	Brookline	Beacon Street Bridle Pathway	N/A	Pre-PRC	2022	N/A	6	Project in conceptual design through Toole, receipt of a MassTrails grant in 2020 for feasibility study. Limits would be Audubon Circle to Cleveland Circle.	N/A
Everett, Somerville	DCR	Mystic River Bicycle and Pedestrian Crossing	612004	PRC approved (2021)	2021	$38,218,334	4		N/A
Lynn, Nahant	Lynn, Nahant	Northern Strand Extension	610919	DPH (11/17/2021)	2020	$9,363,750	4		N/A
Medford	Medford	Wellington Phase 4 Shared Use Path	613082	Pre-PRC	2022	$1,195,000	4	Project in conceptual design through Toole, receipt of a MassTrails grant in 2020 for feasibility study. Limits would be Audubon Circle to Cleveland Circle.	N/A

Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
Medford	Medford	MacDonald Park Pedestrian Bridge	N/A	Pre-PRC	2022	$800,000	4	In DCR park, City is requesting expansion of bridge to 10-12feet in width to coordinate with shared use pathway.	N/A
Major Infrastructure									
Boston, Chelsea	Boston	Bridge Rehabilitation and Fender Pier Replacement, Meridian Street Over Chelsea Creek (Andrew P. McArdle Bridge)	600637	PRC Approved (2/10/2022)	2021	$97,538,787	6		N/A
Cambridge	DCR	Intersection Improvements at Fresh Pond Parkway/Gerry's Landing Road, from Brattle Street to Memorial Drive	609290	PRC approved (2018)	2019	$7,000,000	6	Short-term improvements being initiated.	N/A
Revere, Malden	MassDOT	Improvements on Route 1 (NB) Add-A-Lane	610543	PRC approved (2019)	2019	$7,210,000	4	Project is not programmed in Destination 2040. It is located on a regionally significant roadway. If this work includes capacity-adding elements, and it is programmed in the TIP, it will need to be included in Destination 2050.	N/A
Newton	MassDOT	Traffic Signal and Safety Improvements at Interchange 127 (Newton Corner)	609288	PRC approved (2018)	2019	$14,000,000	6		N/A
Medford	Medford	Roosevelt Circle Interchange Reconfiguration	N/A	Pre-PRC	2022	TBD	4	As discussed on 11.4.2022 with the City of Medford, the City is looking to reconfigure the ramps and adjacent local roadways to improve traffic safety following the results of a RSA along this corridor. Includes improvements for bicycle, pedestrian, and transit access. Given the state of repair on the bridges, this may be coordinated with bridge rehabilitation work for these structures over I-93.	N/A
Boston	Boston	Cambridge Street Bridge Replacement - Charlestown	N/A	Pre-PRC	2022	N/A	6	City wants this programmed to advertise this before Rutherford Avenue enters construction. This is a difficult bridge under I-93 and next to Sullivan Square.	N/A
Revere	Revere	Route 1A Improvement and Reconfiguration	N/A	Pre-PRC	2022	$9-12,000,000	4	Project is in conceptual design stage. The priority is to reconfigure the loop ramps at the General Edwards Bridge to facilitate redevelopment of the area, for which there are already parcel developments planned. The reconfiguration will entail construction of a new roundabout and improved pedestrian crossings to improve access to the riverfront and Point of Pines area along Revere. Per the City, this reconfiguration is intended to work with the Lynnway Multimodal Corridor improvements, but will also not impact construction for the General Edwards Bridge replacement.	N/A

Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
Revere, Saugus	Revere, Saugus	Roadway Widening on Route 1 North (Phase 2)	611999	PRC approved (2021)	2021	$2,397,600	4	"Project is not programmed in Destination 2040. It Is on a regionally-significant roadway and would add roadway capacity. If programmed in the TIP, this project will also need to be included in Destination 2050. Robins Road to Route 99 interchange are the limits."	N/A
Minuteman Advisory Group on Interlocal Coordination									
Complete Streets									
Bedford	Bedford	Roadway Reconstruction of Route 4/225 (The Great Road)	612739	PRC approved (5/12/2022)	2022	$10,899,448	4	Limits appear to go from North Road to match line near Loomis Street. SRTS project completed in the area under 608000.	N/A
Intersection Improvements									
Littleton	Littleton	Intersection Improvements at Route 119/Beaver Brook Road	610702	PRC approved (2020)	2020	$3,120,110	3	MassDOT agreed to fund design after 25% design approved. As of October 2022, the project remains in preliminary design.	N/A
Bicycle and Pedestrian									
Bedford	Bedford	Minuteman Bikeway Extension, From Loomis Street to Concord Road (Route 62)	607738	47	2022	$11,218,186	4	Local concerns about permitting. Previously programmed in FY23-27, dropped due to public opposition. Failed to achieve 2/3rds majority in town meeting on 11.14.2022.	N/A
Concord	Concord	Assabet River Multi-Use Trail and Bridge Construction	612870	PRC approved (8/29/2022)	2020	$8,280,000	4	"Project was originally a new Pedestrian Bridge with a $2-3.6M price range. Scope has increased to include improvements for a multi-use trail alongside the bridge. Cost has increased accordingly, and is now in preliminary design. Project location runs between the West Concord MBTA Station and the Concord Meadows Corporate Center with a hookup to the Southern Terminus of the Bruce Freeman."	N/A
Major Infrastructure									
Acton	MassDOT	Intersection Improvements at Route 2 and Route 27 Ramps	610553	PRC approved (2019)	2020	$3,480,000	3	"Project not programmed in LRTP (meets MPO roadway classification requirement). Priority for District 3 and Town of Acton. Project has had surveying and MSA design contracts opened for it. MassDOT appears to be tracking as a Traffic Safety improvement."	N/A
Concord	Concord	Reconstruction & Widening on Route 2, from Sandy Pond Road to Bridge over MBTA/B&M Railroad	608015	PRC approved (2014)	2019	$8,000,000	4	Project is not programmed in Destination 2040. It is on a regionally significant roadway and includes roadway widening elements. If programmed in the TIP, this project should also be included in Destination 2050.	N/A

Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
Lexington	Lexington	Route 4/225 (Bedford Street) and Hartwell Avenue	N/A	Pre-PRC	2019	$30,557,000	4	Project is programmed in Destination 2040 (FFYs 2030-34). The project is expected to include work on the I-95 Interchange with Route 4/225. If this work includes capacity-adding elements, it will need to be included in Destination 2050.	N/A
MetroWest Regional Collaborative									
Complete Streets									
Wellesley	Wellesley	Route 135 Reconstruction (Natick Town Line to Weston Road)	N/A	Pre-PRC	N/A	TBD	6		N/A
Holliston	Holliston	Reconstruction of Concord Street (Route 126)	N/A	Pre-PRC	2021	N/A	3	"Added through subregional outreach. Project is municipal priority, as it's tied to necessary below-grade sewer work. 10/12/22: MaPIT is showing that a project was initiated back on 7.14.2020 for this stretch for resurfacing and related work, assuming $600K in total cost (likely lowball). "	N/A
Intersection Improvements									
Framingham	MassDOT	Roundabout Construction at Salem End Road, Badger Road and Gates Street	609280	PRC approved (2018)	2019	$2,520,000	3		N/A
Weston	Weston	Intersection Improvements - Signalization of Route 20 at Highland Street	N/A	Pre-PRC	2021	N/A	6	Added through subregional outreach.	N/A
Bicycle and Pedestrian									
Weston	MassDOT	Weston - Shared Use Path Construction on Route 30	612602	PRC Approved (2/10/2022)	2022	$1,050,000	6	Meant to connect into Project 608954. District 6 priority to ensure that the shared-use-path there ties in to the rest of the bicycle network and concludes at a logical terminus.	N/A
Natick		Cochituate Rail Trail Extension, from MBTA Station to Mechanic Street	610691	PRC approved (4/30/2020)	2020	$5,778,069	3	"Final section of Cochituate Rail Trail Extension. Imminent 25% design submittal."	N/A
Major Infrastructure									
Framingham	Natick	Intersection Improvements at Route 126/135/MBTA and CSX Railroad	606109	PRC approved (2010)	2019	$115,000,000	3	"Project is programmed in Destination 2040 (FFYs 2030-34). May need to be pushed back with LRTP rewrite. Consultant said that depressing Route 135 may be the solution."	N/A
North Suburban Planning Council									
Complete Streets									

Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
Burlington	Burlington	Town Center Complete Streets Improvements	N/A	Pre-PRC	2021	N/A	4	Complete Streets upgrades along Route 3A from Bedford Street to Arthur Woods Avenue. The scope of work would be additive to existing resurfacing planned under 610704, and would focus mostly on paint. There is potential for widening if the town's design includes a multimodal path while maintaining the current number and width of vehicle lanes.	N/A
Lynnfield	Lynnfield	Reconstruction of Summer Street	609381	PRC approved (2019)	2019	$21,521,921	4		N/A
Reading	Reading	Reading Downtown Improvement Project	N/A	Pre-PRC	2020	$7-$8 million	4	Project at conceptual stage.	N/A
Stoneham	Stoneham	Reconstruction of South Main Street, from Town Center to South Street	N/A	Pre-PRC	2021	N/A	4		N/A
Wakefield	Wakefield	Main Street Reconstruction (Water St. to Salem St.)	610545	25% Design Complete	2020	$26,382,000	4	"Main St (Nahant to Water) and Water Street (Main to Cyrus) removed from project and bundled in 607329. 25% design incorporates some retention of angled parking in order to appease older public, but focus is on bike parking. Strong public input from youth during town meetings led to approval."	41.8
Winchester	Winchester	Town Center Complete Streets Improvements	N/A	Pre-PRC	2021	N/A	4		N/A
Intersection Improvements									
Stoneham	Stoneham	Intersection Improvements at Main Street (Route 28), Franklin Street, and Central Street	N/A	Pre-PRC	2020	N/A	4	Project at conceptual stage.	N/A
Bicycle and Pedestrian									
Stoneham, Wakefield	Stoneham, Wakefield	Mystic Highlands Greenway Project	N/A	Pre-PRC	2021	N/A	4		N/A
Community Connections									
North Reading	North Reading								
North Shore Task Force									
Complete Streets									
Beverly, Manchester-by-the-Sea	MassDOT	Resurfacing and Related Work on Route 127	607707	PRC approved (2013)	2018	$2,300,000	4	Still in preliminary design.	N/A
Danvers	Danvers	Reconstruction on Collins Street, from Sylvan Street to Centre and Holten Streets	602310	75% submitted (3/5/2010)	2017 or earlier	$5,183,121	4	Updated 75% design submission needed for project to move forward. Last scored for FFYs 2020-24 TIP.	46



Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
Ipswich	Ipswich	Reconstruction of County Road, from South Main Street to East Street	611975	PRC approved (2021)	2020	$5,653,500	4	On 10/7/2022, Ipswich DPW mentioned that a bridge within the project limits has had a lane closed by MassDOT. Structure IDs are I01005, main concern is Ipswich - 2PN which is an 1861-built historic stone arch mill bridge.	45.4
Ipswich	Ipswich	Argilla Roadway Reconstruction and Adaptation	612738	PRC Approved (5/12/2022)	2021	$4,628,419	4	Municipal priority for funding.	N/A
Marblehead	Marble-head	Bridge Replacement, M-04-001, Village Street over Marblehead Rail Trail (Harold B. Breare Bridge)	612947	PRC approved (9/15/2022)	2019	N/A	4	"Per 10.11 email with C Quigley, the project received a PRC and a PROJIS ID in September 2022 after a PNF was submitted 8/2022. "	N/A
Manchester-by-the-Sea	Manches-ter-by-the-Sea	Pine Street - Central Street (Route 127) to Rockwood Heights Road	N/A	Pre-PRC; PNF submitted (12/27/16)	2017 or earlier	N/A	4		N/A
Manchester-by-the-Sea	Manches-ter-by-the-Sea	Bridge Replacement, M-02-001 (8AM), Central Street (route 127) over Saw Mill Brook	610671	PRC approved (2019)	2019	$4,350,000	4		34.8
Salem	MassDOT	Reconstruction of Bridge Street, from Flint Street to Washington Street	5399	25% submitted (8/20/2004)	2017 or earlier	$24,810,211	4	Project is not programmed in Destination 2040. It is on a regionally significant roadway and would add roadway capacity. If it is programmed in the TIP, it will need to be programmed in Destination 2050.	N/A
Wenham	Wenham	Safety Improvements on Route 1A	609388	25% Approved (9/10/2021)	2019	$3,629,036	4		N/A
Wenham	Wenham	Roadway Reconstruction on Larch Row and Dodges Row	N/A	Pre-PRC	2019	$800,000	4	Project at conceptual stage.	N/A
Intersection Improvements									
Essex	Essex	Targeted Safety Improvements on Route 133 (John Wise Avenue)	609315	PRC approved (2019)	2019	$2,135,440	4		N/A
Bicycle and Pedestrian									
Peabody, Salem	Peabody, Salem	Riverwalk Project	N/A	Pre-PRC	2021	N/A	4	MVP grant issued for project design.	N/A
Marblehead	Marble-head	B2B Bikeway Design - Marblehead	N/A	Pre-PRC	2022	$140,000	4	Earmark. May be added via amendment.	
Peabody, Salem	Peabody, Salem	B2B Bikeway Design - Peabody/ Salem	N/A	Pre-PRC	2022	$600,000	4	Earmark. May be added via amendment.	
Major Infrastructure									
Beverly	Beverly	Interchange Reconstruction at Route 128/Exit 19 at Brimbal Avenue (Phase II)	607727	PRC Approved (2014)	2021	N/A	4	Project is not programmed in Destination 2040. Is on a regionally-significant roadway, and would expand the interchange. If this project is programmed in the TIP and adds roadway capacity, this project will need to be included in Destination 2050.	N/A

Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
South Shore Coalition									
Complete Streets									
Holbrook	Holbrook	Corridor Improvements and Related Work on South Franklin Street (Route 37) from Snell Street to King Road	608543	PRC approved (2017)	2018	$4,000,200	5		N/A
Rockland	Rockland	Corridor Improvements on VFW Drive/Weymouth Street	612605	PRC approved (2/10/2022)	2021	$13,047,281	5	PNF entered in Jan 2022	N/A
Weymouth	MassDOT	Reconstruction on Route 3A, Including Pedestrian and Traffic Signal Improvements	608231	PRC approved (2016)	2017 or earlier	$10,780,100	6	Pre-25% package submitted in July 2021.	N/A
Weymouth	MassDOT	Resurfacing and Related Work on Route 3A	608483	PRC approved (2016)	2018	$2,400,000	6		N/A
Intersection Improvements									
Cohasset	Cohasset	Intersection Improvements at Route 3A and King Street	N/A	Pre-PRC	2021	N/A	5	Added through subregional outreach.	N/A
Hull	Hull	Intersection Improvements at George Washington Boulevard and Barnstable Road/ Logan Avenue	N/A	Pre-PRC	2021	N/A	5	Added through subregional outreach.	N/A
South West Advisory Planning Committee									
Complete Streets									
Bellingham	Bellingham	South Main Street (Route 126) - Elm Street to Douglas Drive Reconstruction	N/A	Pre-PRC; PNF submitted (3/13/17)	2017 or earlier	N/A	3	Project would dovetail ongoing project 608887, rehab on Route 126 from Douglas Drive to Route 140.	N/A
Franklin	MassDOT	Resurfacing and Intersection Improvements on Route 140, from Beaver Street to I-495 Ramps	607774	PRC approved (2014)	2018	$4,025,000	3		N/A
Medway	Medway	Improvements on Route 109 West of Highland Street	N/A	Pre-PRC	2021	N/A	3	Project at conceptual stage.	N/A
Milford	MassDOT	Resurfacing and Related Work on Route 16	612091	PRC approved (2021)	2021	$4,192,500	3		N/A
Millis	Millis	Town Center Improvements	N/A	Pre-PRC	2020	N/A	3	Project at conceptual stage.	N/A
Wrentham	Wrentham	Resurfacing and Related Work on Route 1	608497	PRC approved (2016)	2020	N/A	5	25% design anticipated July 2022.	N/A
Intersection Improvements									
Medway	Medway	Traffic Signalization at Trotter Drive and Route 109	N/A	Pre-PRC	2021	N/A	3	Project at conceptual stage.	N/A
Sherborn	Sherborn	Intersection Improvements at Route 16 and Maple Street	N/A	Pre-PRC	2021	N/A	3	Project at conceptual stage.	N/A

Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
Wrentham	Wrentham	Intersection Improvements on Route 1A at North and Winter Street	610676	PRC Approved (12/19/2019)	2020	$2,649,000	5		N/A
Wrentham	Wrentham	Intersection Improvements at Randall Road and Route 1A	N/A	Pre-PRC	2020	$2,649,000	5	Project at conceptual stage.	N/A
Wrentham	Wrentham	Intersection Improvements at Route 1A and Route 140	N/A	Pre-PRC	2020	N/A	5	Project at conceptual stage.	N/A
Bicycle and Pedestrian									
Franklin	Franklin	Southern New England Trunk Trail (SNETT) Extension, from Grove Street to Franklin Town Center	N/A	Pre-PRC	2021	N/A	3	Project at conceptual stage.	
Hopkinton	Hopkinton	Campus Trail Connector, Shared Use Trail Construction	611932	PRC approved (2020)	2020	$1,750,700	3		N/A
Norfolk, Walpole, and Wrentham	Norfolk	Metacomet Greenway	N/A	Pre-PRC	2021	N/A	5	Project at conceptual stage.	N/A
Sherborn	Sherborn	Upper Charles River Trail Extension to Framingham City Line	N/A	Pre-PRC	2021	N/A	3	Project at conceptual stage.	N/A
Major Infrastructure									
Bellingham	MassDOT	Ramp Construction & Relocation, I-495 at Route 126 (Hartford Avenue)	604862	PRC approved (2006)	2017 or earlier	$13,543,400	3	High priority for District 3	N/A
Three Rivers Interlocal Council									
Complete Streets									
Canton, Milton	MassDOT	Roadway Improvements on Route 138	608484	PRC approved (2016)	2020	$18,467,500	6	"Milton also in ICC subregion. Project a high priority for the TRIC subregion. District is working to refine scope. ."	N/A
Medfield	Medfield	Reconstruction of Route 109	N/A	Pre-PRC	2021	N/A	3	Added through subregional outreach.	N/A
Milton	MassDOT	Reconstruction on Granite Avenue, from Neponset River to Squantum Street	608406	25% submitted (2/10/2017)	2017 or earlier	$3,665,146	6	Milton also in ICC subregion.	N/A
Milton	Milton	Adams Street Improvements, from Randolph Avenue to Eliot Street	610820	PRC approved (4/30/2020)	2020	$1,799,330	6	Milton also in ICC subregion.	N/A
Needham	Needham	Reconstruction of Highland Avenue, from Webster Street to Great Plains Avenue	612536	PRC approved (10/21/2021)	2021	$10,402,402	6	Needham also in ICC subregion.	N/A
Dover, Needham	Dover, Needham	Centre Street Bridge Replacement	N/A	Pre-PRC	2022	N/A	6	Historic-eligible, needs replacement as it is 1850's era.	N/A

Municipality	Project Proponent	Project Name	PROJIS	Design Status (as of 10/6/21)	Year Added to Universe	Cost Estimate	Highway District	Notes	Previous Evaluation Score
Westwood	Westwood	Reconstruction of Canton Street	608158	25% Package Received (2/18/2022)	2017 or earlier	$19,047,306	6	"Priority for municipality. MassDOT expresses concerns regarding project readiness due to scope fluctuations. New shapefile is in development for MapIT, there is not one available right now."	N/A
Intersection Improvements									
Foxborough	Foxborough	Intersection Signalization at Route 140/Walnut Street and Route 140/I-95 (SB Ramp)	612740	PRC Approved (5/12/2022)	2021	$11,902,600	5	Added through subregional outreach. Town has advanced design outside of TIP process. District supports project. Budget has increased from original $5M estimate in 2021.	N/A
Medfield	Medfield	Intersection Improvements at Route 27 and West Street	612807	PRC Approved (5/12/2022)	2021	$3,987,500	3	Added through subregional outreach.	N/A
Bicycle and Pedestrian									
Canton	Canton	Warner Trail Extension, from Sharon to Blue Hills Reservation	N/A	Pre-PRC	2021	N/A	6	Added through subregional outreach. Feasibility study currently underway.	N/A
Major Infrastructure									
Canton, Westwood	MassDOT	Interchange Improvements at I-95 / I-93 / University Avenue / I-95 Widening	87790	25% submitted (7/25/14)	2017 or earlier	$202,205,994	6	"Project not programmed in Destination 2040. IIt is on a regionally-significant roadway and adds roadway capacity. If programmed in the TIP, this project would also need to be included in Destination 2050. Last scored for FFYs 2020-24 TIP. Regional priority, potential discretionary grant project via MassDOT for State Highway funding."	47

TABLE A-2

FFYs 2024–28 Regional Target Projects and Their Relationships to Plans and Performance Measures

ID	Project Name	MPO Investment Program	Project Description	MPO Muncipalities	Programming Year (FFY)	Planning Relationships	Relationoships to Performance Measures
609211	Peabody Independence Greenway Extension	Bicycle and Pedestrian	Extend the Independence Greenway from the North Shore Mall to central Peabody.	Peabody	02024	This project will extend the MassDOT Off-Street High Comfort Bike Network, as identified in the 2019 Massachusetts Bicycle Plan.	This project is expected to improve safety for bicyclists and pedestrians. It will create more than a mile of bike trail network and bring the Independence Greenway's total length to eight miles. By extending the region's bicycle network, this project is expected to increase non-SOV travel. It is also expected to reduce CO2 and other transportation-related emissions.
610544	Peabody–Multi-Use Path Construction of Independence Greenway at Interstate 95 and Route 1	Bicycle and Pedestrian	Construct a new multi-use paved path along the abandoned railbed between two existing segments of the Independence Greenway in Peabody and create a connection to the existing Border to Boston trailhead at Lowell Street.	Peabody	02025	This project will extend the MassDOT Off-Street High Comfort Bike Network, as identified in the 2019 Massachusetts Bicycle Plan.	This project wzill create nearly two miles of multi-use trail, connect other segments of the Independence Greenway, and create a link to the Border to Boston trail. By connecting these sections of the regional bike network, this project is expected to increase non-SOV travel. Improved signalization near ramps to Route 1 may help facilitate motorized and nonmotorized traffic flow and reduce PHED on this NHS corridor. This project is also expected to improve safety for bicyclists and pedestrians and to reduce CO2 and other transportation-related emissions.
S12114	Canton–Royall Street Shuttle	Community Connections	Establish a shuttle service connecting Canton's Royall Street employment cluster with the MBTA Route 128 commuter rail station and Ashmont, Mattapan Trolley, and Quincy Adams rapid transit stations.	Canton	2023–24	N/A	This project may increase non-SOV travel by providing a new transit option. It may reduce PHED and improve reliability on the NHS by providing an alternative to SOV travel on NHS routes in Canton. It is expected to reduce CO2 and other transportation-related emissions.
S12700	Cape Ann Transportation Authority (CATA)–CATA On Demand Microtransit Service Expansion	Community Connections	Expand existing CATA On Demand microtransit service to Rockport and to an additional neighborhood in Gloucester, and to help customers reach a wider array of essential destinations.	Gloucester, Rockport	2023–25	N/A	This project may increase non-SOV travel by expanding CATA's microtransit service to new areas and supporting its ability to serve customers beyond those commuting to transit or specific employment centers. It may reduce PHED and improve reliability on the NHS by providing an alternative to SOV travel on NHS routes in Gloucester and Rockport. This project is expected to reduce CO2 and other transportation-related emissions.
S12701	MetroWest Regional Transit Authority (MWRTA) –CatchConnect Microtransit Service Expansion	Community Connections	Expand MWRTA's CatchConnect microtransit service to Hudson and Marlborough, which will support connections to MWRTA's fixed-route network.	Hudson, Marlborough	2023–25	N/A	This project may increase non-SOV travel by expanding microtransit service to new areas. It may reduce PHED and improve reliability on the NHS by providing an alternative to SOV travel on NHS routes in Hudson and Marlborough. This project is expected to help reduce CO2 emissions.
S12703	Montachusett Regional Transit Authority (MART) –MART Microtransit Service	Community Connections	Establish an on-demand microtransit service that will serve Bolton, Boxborough, Littleton, and Stow.	Bolton, Boxborough, Littleton, and Stow	2023–25	N/A	This project may increase non-SOV travel by providing a new transit option. It may reduce PHED and improve reliability on the NHS by providing an alternative to SOV travel on NHS routes in Boxborough, Bolton, Littleton, and Stow. It is expected to reduce CO2 and other transportation-related emissions.
S12694	Newton–NewMo Microtransit Service Expansion	Community Connections	Expand an existing Newton-wide microtransit service (see project S12125) to include stops in six neighboring municipalities.	Newton [adding service to Boston, Needham, Waltham Watertown, Wellesley, and Weston]	2023–25	N/A	This project may increase non-SOV travel by expanding the reach of Newton's existing microtransit service. It may reduce PHED and improve reliability on the NHS by providing an alternative to SOV travel on NHS routes in multiple MPO communities. This project is expected to reduce CO2 and other transportation-related emissions.

ID	Project Name	MPO Investment Program	Project Description	MPO Muncipalities	Programming Year (FFY)	Planning Relationships	Relationoships to Performance Measures
606453	Boston–Improvements on Boylston Street	Complete Streets	Improve the roadway cross section, signals, and bicycle and pedestrian accommodations in the project corridor.	Boston	02025	N/A	The project area overlaps a 2017–19 HSIP all-mode crash cluster location, a 2010–19 HSIP bicycle crash cluster location, and a 2010–19 HSIP pedestrian crash cluster location. The project is expected to improve safety performance, including for bicyclists and pedestrians. It will improve more than two lane miles of substandard NHS pavement, will address reliability needs on an unreliable NHS segment, and may also reduce PHED on that segment. It will improve substandard sidewalks and add bicycle lanes in the project corridor; these features are expected to increase non-SOV travel. The project is also expected to reduce CO2 and other transportation-related emissions.
610932	Brookline–Rehabilitation of Washington Street	Complete Streets	Replace signals, reconstruct sidewalks and pavement, and provide protected bicycle facilities and dedicated bus pull-out spaces in the Washington Street corridor between Washington Square and Brookline Village.	Brookline	02027	N/A	The project area overlaps two 2010–19 HSIP bicycle crash cluster locations and a 2010–19 HSIP pedestrian crash cluster location. The project is expected to improve safety performance, including for bicyclists and pedestrians. It will improve substandard sidewalks, implement bicycle lanes, upgrade signals to include TSP, and add bus shelters to the corridor; these features are expected to increase non-SOV travel. The project is expected to reduce CO2 and other transportation-related emissions.
611983	Chelsea–Park and Pearl Street Reconstruction	Complete Streets	Improve safety and mobility on Park and Pearl Street by improving signals and roadway geometry, reconstructing sidewalks, and adding bicycle facilities.	Chelsea	02027	N/A	The project area overlaps a 2017–19 HSIP all-mode crash cluster location, a 2010–19 HSIP bicycle crash cluster location, and two 2010–19 HSIP pedestrian crash cluster locations. The project is expected to improve safety performance, including for bicyclists and pedestrians. The project will reconstruct sidewalks, improve bicycle amenities, and implement TSP; these features are expected to increase non-SOV travel. The project is expected to reduce CO2 and other transportation-related emissions.
608007	Cohasset, Scituate– Corridor Improvements and Related Work on Justice Cushing Highway (Route 3A) from Beechwood Street to Henry Turner Bailey Road	Complete Streets	Improve the corridor from the Beechwood Street intersection to the Cohasset/ Scituate town line. Upgrade traffic signal equipment, make geometric modifications at intersections, and provide bicycle and pedestrian accommodations.	Cohasset, Scituate	02024	This project location was studied in "Route 3A Subregional Priority Roadway Study in Cohasset and Scituate" (CTPS, 2014).	The project area overlaps a 2017–19 HSIP all-mode crash cluster location and the project is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to add sidewalks and bicycle lanes in the project corridor, which may encourage non-SOV travel. The project is expected to reduce CO2 and other transportation-related emissions.
609257	Everett– Rehabilitation of Beacham Street, from Route 99 to Chelsea City Line	Complete Streets	Reconstruct Beacham Street to reduce vehicular collisions and improve bicycle and pedestrian travel.	Everett	02025	N/A	This project is expected to improve transportation safety, including for bicyclists and pedestrians. It will improve substandard sidewalks and include a shared-use path—both features may encourage non-SOV travel and improve safety performance. The project is expected to reduce CO2 and other transportation-related emissions.
605168	Hingham–Intersection Improvements at Route 3A/ Summer Street Rotary	Complete Streets	Improve multimodal access between Hingham Center, residential areas, and Hingham Harbor and make safety improvements, including by establishing a small roundabout at the intersection of Route 3A and Summer Street.	Hingham	02025	This project location was studied in "Summer Street/ George Washington Boulevard Subregional Priority Roadway Study in Hingham and Hull" (CTPS, 2016).	The project is expected to improve safety performance, including for bicyclists and pedestrians. It will improve more than a lane mile of substandard pavement on the NHS, and the geometric improvements included in the project are expected to help reduce delay and potentially PHED on the NHS. The project is expected to improve substandard sidewalks, add new sidewalks, and add bicycle accommodations, including a shared-use path. These features may support increases in non-SOV travel. The project is also expected to reduce CO2 and other transportation-related emissions.
605743	Ipswich–Resurfacing and Related Work on Central and South Main Streets	Complete Streets	Reconstruct the roadway between Mineral Street and Poplar Street to improve the roadway surface. Make minor geometric improvements at intersections, include pedestrian crossings, and improve sidewalks.	Ipswich	02026	N/A	The project is expected to improve safety performance, including for bicyclists and pedestrians. It will improve more than a lane mile of substandard pavement on the NHS. It will upgrade substandard sidewalks, and it is expected to add bicycle lanes; both features may encourage non-SOV travel. The project is also expected to reduce CO2 and other transportation-related emissions.

ID	Project Name	MPO Invest-ment Program	Project Description	MPO Muncipalities	Programming Year (FFY)	Planning Relationships	Relationoships to Performance Measures
609054	Littleton–Reconstruction of Foster Street	Complete Streets	Add turning lanes, consolidate curb cuts, and improve bicycle, pedestrian, and vehicular accommodations in the project corridor.	Littleton	02024	N/A	The project is expected to improve safety performance, including for bicyclists and pedestrians. It will include a shared-use path, which is expected to increase non-SOV travel. This project is also expected to reduce CO2 and other transportation-related emissions.
609252	Lynn–Rehabilitation of Essex Street	Complete Streets	Make key bicycle and pedestrian safety improvements and operational improve-ments, such as signal upgrades, in the project corridor.	Lynn	02025	N/A	The project area overlaps five 2017–19 all-mode HSIP crash cluster locations and three 2010–19 HSIP pedestrian crash cluster locations. The project is expected to improve safety performance, including for bicyclists and pedestrians. Planned improvements to signals and roadway geometry in the corridor may help improve reliability on nearby unreliable NHS segments and may also reduce PHED on those segments. It is expected to reconstruct substandard sidewalks and add bicycle lanes; these features are expected to increase non-SOV travel. This project is also expected to reduce CO2 and other transportation-related emissions.
609246	Lynn– Reconstruction of Western Avenue	Complete Streets	Reconstruct Western Avenue between Centre Street and Eastern Avenue. Improve signal timing, intersection design, and bus stop locations. Implement bicycle and ADA-compliant pedestrian improvements.	Lynn	2027-2028	N/A	The project area overlaps five 2017–19 all-mode HSIP crash cluster locations, two 2010–19 HSIP pedestrian crash cluster locations and one 2010–19 HSIP bicycle crash cluster location. The project is expected to improve safety performance, includ-ing for bicyclists and pedestrians, and it will improve nearly 4 lane miles of substandard pavement on the NHS. The signal improvements included in the project are expected reduce delay and may help reduce PHED and improve reliability on the NHS. It will reconstruct sidewalks and add bike lanes, TSP, and bus amenities; these features are expected to increase non-SOV travel. This project is also expected to reduce CO2 and other transportation-related emissions.
608045	Milford–Rehabilitation on Route 16, from Route 109 to Beaver Street	Complete Streets	Improve vehicular safety and traffic flow through the implementation of a road diet, additional roadway reconstruction, bicycle and pedestrian accommodations, and enhanced signalization on Route 16 (East Main Street) from Route 109 (Medway Road) to Beaver Street.	Milford	02026	N/A	The project area overlaps a 2017–19 all-mode HSIP crash cluster location, and the project is expected to improve safety performance, including for bicyclists and pedestrians. The project is also expected to upgrade substandard sidewalks, add new sidewalks, and add shared-use paths; these features are expected to increase non-SOV travel.
110980	Newton, Weston–Commonwealth Avenue (Route 30) over the Charles River	Complete Streets	Replace a deteriorated bridge over the Charles River. Reconstruct the Route 30 corridor in the vicinity of the I-95 and I-90 interchange, including several I-95 on-ramps. Improve sidewalks and pedestrian amenities, add a bike lane, and develop a segment of shared-use path along the Charles River.	Newton, Weston	02024	N/A	The project area overlaps a 2017–19 all-mode HSIP crash cluster locations and the project is expected to improve safety performance, including for bicyclists and pedestrians. It will replace a deteriorated NHS bridge structure and will improve one lane mile of substandard pavement on the NHS. Signal and geometric improvements on Route 30 and reconfiguration of the I-95 ramps may reduce PHED and improve reliability on the NHS. The shared-use path, sidewalk improvements, and bike lane included in the project are expected to increase non-SOV travel. This project is expected to reduce CO2 and other transportation-related emissions.
609432	Salem–Boston Street Improvements	Complete Streets	Incorporate complete streets elements and a separated bicycle path into the corridor. Add a new signal at Boston Street and Aborn Street and upgrade existing signals at other intersections along the corridor.	Salem	02026	N/A	The project area overlaps a 2010–19 HSIP pedestrian crash cluster location, and the project is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to improve more than a lane mile of substandard NHS pavement. The project includes signal and geometry improvements and is expected to reduce delay, which may reduce PHED and improve reliability on the NHS. It will implement sidewalks on both sides of the corridor and add separated bicycle facilities; these features are expected to increase non-SOV travel. This project is expected to reduce CO2 and other transportation-related emissions.

ID	Project Name	MPO Investment Program	Project Description	MPO Muncipalities	Programming Year (FFY)	Planning Relationships	Relationoships to Performance Measures
609437	SALEM- PEABODY- BOSTON STREET IMPROVEMENTS	Complete Streets	Incorporate complete streets elements and a separated bicycle path into the corridor. Add a new signal at Boston Street and Aborn Street and upgrade existing signals at other intersections along the corridor.	Salem	02026	N/A	The project area overlaps a 2010–19 HSIP pedestrian crash cluster location, and the project is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to improve more than a lane mile of substandard NHS pavement. The project includes signal and geometry improvements and is expected to reduce delay, which may reduce PHED and improve reliability on the NHS. It will implement sidewalks on both sides of the corridor and add separated bicycle facilities; these features are expected to increase non-SOV travel. This project is expected to reduce CO2 and other transportation-related emissions.
610662	Woburn–Roadway and Intersection Improvements at Woburn Common, Route 38 (Main Street), Winn Street, Pleasant Street, and Montvale Avenue	Complete Streets	Improve safety and congestion within the Woburn Common area by making safety and operational improvements, reconfiguring the Woburn Common rotary, and reconstructing and realigning roadways. The project will also reconstruct sidewalks, add bike lanes, and upgrade or add signals in the area.	Woburn	02026	N/A	The project area overlaps a 2017–19 all-mode HSIP crash cluster location and a 2010–19 HSIP pedestrian crash cluster location. The project is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to improve nearly two lane miles of substandard pavement on the NHS. Signal and geometric improvements included in the project may improve reliability on unreliable NHS segments within the project area and potentially reduce PHED. The project will reconstruct sidewalks to support pedestrian safety and mobility. It is also expected to include bicycle accommodations and to reduce CO2 and other transportation-related emissions.
603739	Wrentham (MassDOT)– Construction of Interstate 495/ Route 1A Ramps	Complete Streets	Construct ramps at the interchange of Route 1A and Interstate 495 to accommodate increased traffic volumes resulting from nearby development.	Wrentham	02024	This project area was studied as part of "Route 1A Corridor Study in Wrentham" (CTPS, 2017).	The project area overlaps two 2017–19 all-mode HSIP crash cluster locations and the project is expected to improve safety performance, including for bicyclists and pedestrians. The project is expected to reduce vehicle delay and may support reductions of PHED on nearby NHS roadways. It will add sidewalks and bicycle lanes, which may support non-SOV travel. It is also expected to reduce CO2 and other transportation-related emissions.
608436	Ashland–Rehabilitation and Rail Crossing Improvements on Cherry Street	Intersection Improvements	Improve the safety features on Cherry Street and Main Street to establish a Federal Railroad Administration Quiet Zone surrounding the railroad crossings on those two roadways. Install roadway medians, enhance existing railroad crossing signals and gates, reconstruct pavement, construct sidewalks, and improve drainage in the project area.	Ashland	02025	N/A	The project is expected to improve safety performance at a railroad crossing location, including for bicyclists and pedestrians.
608067	Woburn–Intersection Reconstruction at Route 3 (Cambridge Road) and Bedford Road and South Bedford Street	Intersection Improvements	Reconstruct the intersection and all traffic signal equipment. Enhance roadway geometry to provide exclusive turn lanes for intersection approaches. Reconstruct existing sidewalks, construct new sidewalks, and add bicycle lanes and ADA-compliant bus stops, where feasible.	Woburn	02025	N/A	The project is expected to improve safety performance, including for bicyclists and pedestrians. The project is expected to improve existing sidewalks and add new sidewalks at the intersection, as well as add new bike lanes; all of these features may encourage non-SOV travel. The geometric improvements included in the project are expected to help reduce delay and potentially PHED on nearby NHS routes. The project is expected to reduce CO2 and other transportation-related emissions.
605857	Norwood–Intersection Improvements at Route 1 and University Avenue/ Everett Street	Intersection Improvements	Upgrade traffic signals and make associated geometric improvements at the intersection of Route 1, University Avenue and Everett Street. Construct an additional travel lane in each direction on Route 1, lengthen left-turn lanes, upgrade pedestrian crossings and bicycle amenities, and rehabilitate sidewalks.	Norwood, Westwood	2026-2027	The Route 1 corridor in Norwood is identified as a priority bottleneck in the Destination 2040 Needs Assessment. This location was studied in "Route 1 at Everett Street and University Avenue" (CTPS, 2014).	The project area overlaps a 2017–19 all-mode HSIP crash cluster location and the project is expected to improve safety performance, including for bicyclists and pedestrians. It is expected to improve nearly three lane miles of pavement on the NHS. Signal and geometric improvements included in the project may improve reliability on unreliable NHS segments within the project area and potentially reduce PHED. The project will improve substandard sidewalks and add new sidewalks and bicycle accommodations, all of which may encourage non-SOV travel. It is expected to reduce CO2 and other transportation-related emissions.

ID	Project Name	MPO Invest-ment Program	Project Description	MPO Muncipalities	Programming Year (FFY)	Planning Relationships	Relationoships to Performance Measures
608940	Weston–Intersection Improvements at Boston Post Road (Route 20) at Wellesley Street	Intersection Improvements	Address safety, congestion, and connectivity concerns at the intersection of Route 20, Boston Post Road, and Wellesley Street by installing a new signal system, implementing geometric improvements, replacing and adding sidewalks, and adding bicycle lanes.	Weston	02026	This project intersects a priority bottleneck location identified in the Destination 2040 Needs Assessment.	The project area overlaps a 2017–19 all-mode HSIP crash cluster location and the project is expected to improve safety performance, including for bicyclists and pedestrians. Signal and geometric improvements included in the project may improve reliability on unreliable NHS segments within the project area and potentially reduce PHED. The project will improve and add sidewalks and add bicycle lanes; these features may encourage non-SOV travel. It is expected to reduce CO2 and other transportation-related emissions.
607981	Somerville–McGrath Boulevard Reconstruction	Major Infrastructure: Roadway	Remove the existing McCarthy Viaduct and replace it with an at-grade urban boulevard. Rationalize intersections, improve signalization, and create off-street pedestrian and bicycle facilities. Improve bus operations by installing floating/in-lane bus stops, transit signal priority, and bus queue-jump lanes at key intersections.	Somerville	2027-2028	This project is included in Destination 2040, the MPO's LRTP. This project changes network capacity and is considered regionally significant for air quality modeling.	The project area overlaps a 2017–19 all-mode HSIP crash cluster location, a 2010–19 HSIP pedestrian crash cluster location, and a 2010–19 HSIP bicycle crash cluster location. It is expected to improve safety performance, including for bicyclists and pedestrians. It will improve one NHS bridge and improve more than four lane miles of substandard pavement on the NHS. The geometric and signal improvements included in the project may reduce PHED and improve reliability on this portion of the NHS network. The project will improve bus operations and amenities, reconstruct and reconfigure sidewalks, and add off-street bicycle and pedestrian facilities; these features are expected to increase non-SOV travel. It was analyzed as part of a set of recommended LRTP projects, and MPO staff estimate that this set will decrease CO2 emissions in the region compared to a no-build scenario.
613088	MALDEN - SPOT POND BROOK GREENWAY	Bicycle Network and Pedestrian Connections	The Spot Pond Brook Greenway is a proposed shared-use path connecting Malden's Oak Grove neighborhood with the Northern Strand Community Trail and Malden River via downtown Malden. The 1.1 mile, 11 foot wide shared-use path will replace existing sidewalk infrastructure and narrow roadway widths to accommodate the new bicycle/pedestrian facility on existing right-of-way. The project will also install wayfinding signage on existing roadway facilities to connect the northern terminus of the path at Coytemore Lea Park with the Oak Grove MBTA station.	MALDEN	02027	This project includes sections of the Mystic Highlands Greenway, a regional trail connection initiative.	This project includes a 2017-19 bicycle HSIP crash cluster location and will improve the safety of bicyclists and pedestrians throughout the project area. The project will also improve connectivity to MBTA bus and rail transit facilities.
610691	NATICK- COCHITUATE RAIL TRAIL EXTENSION, FROM MBTA STATION TO MECHANIC STREET	Bicycle Network and Pedestrian Connections	Construction of a shared-use bridge to connect the Cochituate Rail Trail to Route 27. Improvements to multimodal connectivity at Natick Center commuter rail station. Project would be the final extension of the Cochituate Rail Trail.	NATICK	02028	This project finalizes the Cochituate Rail Trail with a direct connection into a new MBTA Natick Center Commuter Rail Station. The development of the project coordinated with the MBTA and with MassDOT, which at the time of project evaluation was implementing additional bicycle network enhancements as part of its Route 27 reconstruction.	This project constructs a new grade-separated facility as part of the Cochituate Rail Trail to establish safe pedestriana nd bicycle connections between MBTA Commuter Rail facilities and downtown Natick into the Cochituate Rail Trail.

ID	Project Name	MPO Investment Program	Project Description	MPO Muncipalities	Programming Year (FFY)	Planning Relationships	Relationoships to Performance Measures
608158	WESTWOOD- NORWOOD- RECONSTRUCTION OF CANTON STREET TO UNIVERSITY DRIVE, INCLUDING REHAB OF N-25-032=W-31-018	Complete Streets	The project will install new pedestrian sidewalks on the west side of the roadway and a shared-use path on the east side of the roadway. These facilities are being constructed where no dedicated facilities currently exist to improve multimodal accessibility to area residences, employment centers, and open space. Bridge N25032 will be replaced for improved multimodal access and freight rail clearance beneath. The project improves roadway geometry for all vehicles, including visibility improvements on five curves for stopping sight distance, the addition of truck apron turn lanes, and median installation. High-visibility crosswalks and rectangular rapid flashing beacons (RRFBs) will be added in seven locations. New medians will function as pedestrian refuges. New or relocated street lighting will be mounted on utility poles. Reflective signing and markers will be improved.	WESTWOOD	02027	N/A	This project replaces the deck of an NHS bridge structure and improves the clearance of the superstructure to facilitate freight movement. The project creates safe pedestrian and bicycle facilities along Canton Street, which lacks any facilities at the time of project programming. These multimodal facilities improve access to nearby transit facilities at the Route 128 / University Park MBTA and Amtrak station.
612989	BOSTON- BRIDGE PRESERVATION, B-16-066 (38D), CAMBRIDGE STREET OVER MBTA	Complete Streets	Replace superstructure of a major bridge over the MBTA Orange Line, commuter rail, Amtrak lines, and Interstate 93. Pursue state-of-good-repair investments to avoid closures and limit impacts to nearby projects (for example, projects on Mystic Avenue, Maffa Way, Rutherford Avenue, and McGrath Highway). Enhance multimodal accessibility for a key link to Sullivan Square MBTA station, including expanding bus facility access.	BOSTON	02026	This project is consistent with the City of Boston's Sullivan Square Design Project.	This project replaces the deck and superstructure of an NHS bridge structure over MBTA, Amtrak, and freight rail and beneath Interstate 93. The new bridge will support a westbound bus lane to facilitate improved transit connectivity between Boston's Charlestown neighborhood and Somerville.
613145	WAKEFIELD- COMPREHENSIVE DOWNTOWN MAIN STREET RECONSTRUCTION	Complete Streets	Complete Streets enhancements to improve pedestrian and bicycle safety along a major local economic generator. Traffic signal upgrade at the intersection of Church and Salem Streets with geometry adjustments to improve turn radii and reduce emergency response times. Pedestrian signal upgrades, new crosswalks, pedestrian refuge islands, installation of a shared-use-path, and new pedestrian lighting. Partial closure of Common Street to thru-traffic to improve pedestrian accessibility for Upper and Lower Common open space.	WAKEFIELD	02028	This project includes sections of the Mystic Highlands Greenway, a regional trail connection initiative.	This project implements complete streets enhancements and traffic calming measures along a section of NHS roadway to complement investments in transit-oriented-development in Wakefield. These investments are also part of a larger regional investment in trails and bicycle paths for the Mystic Highlands Greenway, and the project provides for connectivity into the future Wakefield-Lynnfield Rail Trail.
S12807	MWRTA CATCHCONNECT MICTROTRANSIT SERVICE EXPANSION PHASE 2	Community Connections	Expansion of the CatchConnect microtransit program within the municipalities of Framingham and Natick on weeknights during evening hours. CatchConnect would be available within these communities between approximately 7:30 PM and 10:30 PM Monday through Friday, providing a supplemental public transportation resource following the conclusion of traditional fixed-route service.	MWRTA	2024-2026	Expansion of microtransit services in underserved transit areas is highlighted in the MPO's Coordinated Public Transit and Human Services Transportation (HST) Plan. CTPS has also conducted studies regarding MicroTransit with favorable recommendations for MWRTA in the past.	This project will reduce CO2 emissions by reducing SOV travel by providing for expanded service hours and area for microtransit.

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S12802	LYNN- BROAD STREET CORRIDOR TRANSIT SIGNAL PRIORITY	Community Connections	Upgrade traffic signal equipment at seven signalized intersections to improve safety and efficiency for all modes of transporta-tion along one of the busiest corridors in Lynn.	LYNN	02024	Destination 2040 cites Downtown Lynn as a priority area for reducing pedestrian crash-cluster incidents (Page 4). Parts of Broad Street are included in the ongoing MBTA North Shore Busway Study, programmed in FFY 2023 of the UPWP.	This project will reduce SOV travel and CO2 emissions by making transit improvements that improve the reliability and operability of multiple MBTA bus routes along a high-priority bus transit corridor in Lynn.
S12803	MEDFORD BICYCLE PARKING - TIER 1	Community Connections	Purchase and install 40 bicycle racks to create 80 additional bicycle parking spaces	MEDFORD	02024	Destination 2040 Vision, Goals, and Objectives cities supporting funding bicycle networks with the aim to create a connected network of bicycle facilities to achieve the goal of Capacity Management and Mobility. (Needs Assesment 6-83)	This project implements additional bicycle parking at numerous areas throughout Medford to facilitate active transportation usage at key public spaces and commercial centers.
S12804	MEDFORD BLUEBIKES EXPANSION	Community Connections	Purchase and installation of four Bluebikes docks and 25 Bluebikes for the City of Medford's Bluebikes network	MEDFORD	02024	N/A	This project invests in the expansion of the regional bikeshare network, including additional expansion of Medford's Bluebikes facilities to provide for additional connections in MBTA rapid transit facilities.
S12805	CANTON PUBLIC SCHOOLS BIKE PROGRAM	Community Connections	Installation of bidirectional bicycle lanes on Dedham Street. Purchase and installation of bicycle racks at three elementary schools, one middle school, and one high school.	CANTON	02024	N/A	This project will reduce CO2 emissions by providing for new bicycle storage facilities for students of Canton's public schools to encourage mode shift and complement additional municipal investments in the bicycle network to provide for safe travel for vulnerable roadway users.
S12806	CANTON CENTER BICYCLE RACKS	Community Connections	Purchase and installation of bicycle racks in downtown Canton and at the Canton Center MBTA station.	CANTON	02024	Destination 2040 Vision, Goals, and Objectives cities supporting funding bicycle networks with the aim to create a connected network of bicycle facilities to achieve the goal of Capacity Management and Mobility. Bicycle Parking Capacity and Utilization: 2009-10 Inventory, Boston Region MPO/ CTPS noted that bicycle parking is provided at both commuter rail stations. At Canton Center the small bicycle parking is at full utilization, while at Canton Junction the large bicycle parking is not utilized.	This project reduces CO2 emissions by adding new bicycle parking facilities at key commuter rail facilities in downtowon Canton to better accomodate intermodal connectivity.
S12823	BOSTON ELECTRIC BLUEBIKES ADOPTION	Community Connections	Purchase of 272 electric bikes (e-bikes) and 136 spare batteries for the City of Boston's Bluebikes network	Boston	02024	N/A	This project is part of a larger regional investment in modernizing and expanding the regional Bluebikes bikeshare system and network, in addition to integrating electric vehicles to improve the accessibility and versatility of the network for all users.
S12824	CAMBRIDGE ELECTRIC BLUEBIKES ADOPTION	Community Connections	Purchase of 90 new e-bikes and 45 spare batteries for the City of Cambridge's Bluebikes network.	Cambridge	02024	N/A	This project is part of a larger regional investment in modernizing and expanding the regional Bluebikes bikeshare system and network, in addition to integrating electric vehicles to improve the accessibility and versatility of the network for all users.

ID	Project Name	MPO Investment Program	Project Description	MPO Muncipalities	Programming Year (FFY)	Planning Relationships	Relationoships to Performance Measures
613121	EVERETT- TARGETED MULTI-MODAL AND SAFETY IMPROVEMENTS ON ROUTE 16	Intersection Improvements	This project will make targeted safety enhancements along Route 16 in Everett with a focus on enhanced multimodal accessibility along the corridor.	MassDOT	02027	N/A	This project makes specific and targeted investments in multimodal accessibility along a major NHS facility with significant usage for the Inner Core of the region.
S12818	ACTON PARKING MANAGEMENT SYSTEM	Community Connections	This project will implement digital parking management products to improve the efficiency of permitting and enforcement processes at five commuter parking lots surrounding the MBTA South Acton commuter rail station. These highly utilized lots provide nearly 500 parking spaces. The project will support the transition from a paper-based parking management system to a cloud-based one that will be more convenient for commuters and Acton's parking management team.	Acton	02024	N/A	This project leverages intelligent transportation systems to better utilize and manage the existing capacity of parking facilities in Acton to better connect residents with parking opportunities at Commuter Rail facilities and facilitate mode shift.
609532	CHELSEA- TARGETED SAFETY IMPROVEMENTS AND RELATED WORK ON BROADWAY, FROM WILLIAMS STREET TO CITY HALL AVENUE	Intersection Improvements	The project will include corridor wide safety improvements targeted at reducing incidents for all users. Standard safety countermeasures such as improved signage, lighting, traffic calming streetscape elements, curb extensions, signal upgrades (where applicable) and other countermeasures may be incorporated. In addition, it is expected that the corridor's pavement, sidewalks and bus transit amenities will be improved or replaced.	MassDOT	02025	N/A	This project is located at a Top 200 crash location and will implement safety improvements for all users of the roadway. The project will reduce CO2 emissions.
S12819	JACKSON SQUARE STATION ACCESSIBILITY IMPROVEMENTS	Transit Modernization	Includes construction of new elevator, modernization of existing elevator, lighting improvements, and various state of good repair improvements to the station.	MBTA	2024-2025	This project is part of the MBTA's larger System-Wide Accessibility project portfolio.	This project provides for the maintenance and modernization of existing rapid transit facilities to encourage mode shift and support system reliability for the MBTA's Orange Line.
S12821	RAIL TRANSFORMATION - EARLY ACTION ITEMS - READING STATION AND WILBUR INTERLOCKING	Transit Modernization	Addition of a turn track at Reading Station and improvements to the siding at Wilbur Interlocking on the Lowell Line to enable 30 minute headways in the short term and higher frequencies with electrified rolling stock. • Improvements would reduce conflicts with freight and the Amtrak Downeaster while facilitating bus integration.	MBTA	02024	This project implements early term action items for a new program in the MBTA's 2024-2028 Capital Investment Plan.	This project maintains commuter rail facilities and provides for additional signal and track improvements to increase the capacity of rail infrastructure. These capacity enhancements allow for reductions in headways and establish a foundation for future electrification efforts for the rail network.
S12822	COLUMBUS AVE BUS LANE PHASE II	Transit Modernization	Building on Phase 1, Phase 2 of the project includes bus-only lanes, transit signal priority, improvements to bus stops and shelters along Columbus Ave. and Tremont St., and enhanced pedestrian and bicycle connections. • New project elements include green infrastructure to promote traffic calming and reduce impervious surfaces.	MBTA	02024	This project builds upon completed Phase 1 work along Columbus Avenue that was performed by the MBTA and City of Boston.	The project improves bus transit along Columbus Avenue in Boston to provide for rapid and reliable connectivity for bus routes running parralel to the MBTA's Orange Line facilities. This project also establishes connections into those facilities for buses, and improves bicycle and pedestrian safety along the route.
S12820	BIKESHARE STATE OF GOOD REPAIR SET-ASIDE	Community Connections	This line item sets aside funding to support Bikeshare investments within the Community Connections program. Example uses of this set-aside include bikeshare system expansion, as well as replacement and upgrades to existing stations.	CTPS	2025-2028	This funding implements a recommendation that will be made in the MPO's upcoming LRTP, Destination 2050, regarding the establishment of dedicated funding to support Bikeshare investment throughout the region.	This line item will ensure the maintenance and modernization of existing bikeshare infrastructure within the Boston Region while providing additional funding resources for expansion into neighboring municipalities.

ID	Project Name	MPO Invest-ment Program	Project Description	MPO Muncipalities	Programming Year (FFY)	Planning Relationships	Relationoships to Performance Measures
S12825	PROJECT DESIGN SUPPORT PILOT	Project Design Support Pilot	Set-aside funding to support the Project Design Support Pilot program, which is planned to launch in the FFY 202529 TIP.	CTPS	02025	In tandem with previous MPO discussions, namely the TIP Project Cost Ad Hoc Committee, this line item will empower municipalities to reach the 25% design threshold for projects by allocating additional resources to fund project design.	This line item will ensure the readiness and sustainability of project delivery by providing municipalities with a competitive opportunity to utilize additional resources to fund project design and development.

Notes: HSIP cluster locations are identified by MassDOT. Substandard pavement and sidewalk designations are based on data provided by MassDOT and project proponents and on MPO assessments conducted for TIP evaluations. The estimated lane miles of substandard NHS pavement improved is based on MPO staff's assessment of pavement condition in the project area and their assessment of the portion of the project on the NHS. The IRI thresholds used to classify pavement are based on the TIP criteria the MPO adopted in 2020: less than 95 is good, 95 to 170 is fair, and greater than 170 is poor.

* The MPO is contributing funds to this project, which is generally funded by MassDOT or the MBTA.

AAB = Architectural Access Board. ADA = Americans with Disabilities Act. CO_2 = carbon dioxide. CTPS = Central Transportation Planning Staff. FFY = federal fiscal year. HSIP = Highway Safety Improvement Program. IRI = International Roughness Index. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority. MCRT = Mass Central Rail Trail. MPO = metropolitan planning organization. N/A = not applicable. NHS = National Highway System. PHED = peak hours of excessive delay. SOV = single-occupancy vehicle. TSP = transit signal priority.

Source: Boston Region MPO staff.

TABLE A-3

FFYs 2024–28 TIP Project Evaluation Results: Multiple MPO Investment Programs

Bicycle Network and Pedestrian Connections Program																	
Proponent	Project Number	Project Name	MAPC Subregion	Project Status	Project Cost	Cost / Road Mile	**Total Score**	Total Base Score	Total Scaled Equity Score	Safety	Safety Equity Score	System Preservation and Modernization	System Preservation Equity Score	Capacity Management and Mobility	Capacity Management Equity Score	Clean Air and Sustainable Communities	Clean Air Equity Score	Economic Vitality
Malden	613088	Spot Pond Brook Greenway	ICC	PRC-Approved (12/20/2022)	$3,250,000	$8,362,573	**73**	61	12	16.5	3.6	10	2.4	18	5.4	5	0.6	11.5
Natick	610691	Cochituate Rail Trail Extension	MWRC	25% Received (11/21/2022)	$6,690,043	$79,289,399	**67**	59	8	12	2	11	2.2	18	3.6	5	0.2	13
						Possible Points	**100**	80	20	20	5.6	14	4.8	18	7.2	14	2.4	14
Complete Streets Program																		
Proponent	Project Number	Project Name	MAPC Subregion	Project Status	Project Cost	Cost / Road Mile	**Total Score**	Total Base Score	Total Equity Score	Safety	Safety Equity Score	System Preservation and Modernization	System Preservation Equity Score	Capacity Management and Mobility	Capacity Management Equity Score	Clean Air and Sustainable Communities	Clean Air Equity Score	Economic Vitality
Bellingham	612963	Roadway Rehabilitation of Route 126 (Hartford Road) from 800 feet North of the I-495 NB off ramp to Medway T/L (including Bridge B-06-017).	SWAP	PRC-Approved (9/15/2022)	$10,950,000	$22,383,275	**51.8**	46.5	5.3	13	1.55	15	2.1	7.5	1.4	5	0.25	6
Boston	612989	Bridge Preservation, B-16-066 (38D), Cambridge Street Over MBTA	ICC	PRC -Approved (12/21/2022)	$15,400,000	$0	**53.1**	47.25	5.9	5	0.77	15	1.8	12.5	2.56	4.5	0.77	10.25

Ipswich	612738	Argilla Roadway Reconstruction and Adaptation (Crane Estate to Crane Beach)	NSTF	PRC-Approved (5/12/2022)	$5,500,000	$33,689,095	**37.1**	34	3.1	6	0.5	14	1.3	4	1	5	0.3	5
Wakefield	610545	Envision Wakefield - Main Street Complete Streets Improvements	NSPC	PRC-Approved (12/19/2019)	$16,581,200	$43,691,354	**61.8**	53	8.8	13	2.6	13	2.7	10	3.1	6	0.4	11
Westwood	608158	Reconstruction of Canton Street (East Street Rotary and University Avenue) Including Bridge N25032	TRIC	25% Received (2/18/2022)	$19,047,306	$29,106,536	**53.3**	48.25	5	12	1.54	14.5	1.67	9	1.54	3.75	0.25	9
						Possible Points	**100**	80	20	18	4.6	20	5.6	18	7.2	12	2.6	12

Intersection Improvements Program

Proponent	Project Number	Project Name	MAPC Subregion	Project Status	Project Cost	Cost / Road Mile	Total Score	Total Base Score	Total Equity Score	Safety	Safety Equity Score	System Preservation and Modernization	System Preservation Equity Score	Capacity Management and Mobility	Capacity Management Equity Score	Clean Air and Sustainable Communities	Clean Air Equity Score	Economic Vitality
Canton**	N/A	Randolph and York Street Intersection Signalization	TRIC	Pre-PRC	$500,000	$25,882,353	**N/A***	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
						Possible Points	**100**	80	20	21	5.4	17	5.4	18	6.8	12	2.4	12

**This project was not recommended for moving forward at TIP Readiness Days until the project is formally intiated through MassDOT's system and goes through the Project Review Committee. Staff are actively working with the project proponent and MassDOT District 6 to initiate this project.*

MWRTA = MetroWest Regional Transit Authority. N/A = not applicable. PRC = MassDOT's Project Review Committee. Metropolitan Area Planning Council (MAPC) Subregions: ICC = Inner Core Committee. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MWRC = MetroWest Regional Collaborative. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. SSC = South Shore Coalition. SWAP = SouthWest Advisory Planning Committee. TRIC = Three Rivers Interlocal Council.

TABLE A-4

FFYs 2024–28 TIP Project Evaluation Results: Community Connections Program

Community Connections Program												
Proponent	Project Name	MAPC Subregion	Project Cost	Cost/Monthly Passenger Trip	Cost/Point	Total Score	Connectivity	Coordination	Plan Implementation	Transportation Equity	Mode Shift and Demand Projection	Fiscal Sustainability
Concord	Concord Workforce Shuttle*	MAGIC	$369,911	$155	$5,210	71	13	15	6	6	21	10
MWRTA	CatchConnect Microtransit Expansion Phase 2*	MWRC	$402,500	$93	$4,472	90	17	15	15	9	24	10
North Reading	North Reading Demand Response Shuttle Pilot Program*	NSPC	$77,637	$348	$1,005	77.25	16.25	15	9	9	18	10
Revere	Revere On Demand Shuttle Service*	ICC	$980,976	$30	$17,210	57	17	0	3	12	15	10
Boston	Boston Electric BlueBikes Adoption	ICC	$1,020,000	$21	$12,143	84	17	15	6	12	24	10
Cambridge	Cambridge Electric BlueBikes Adoption	ICC	$352,575	$13	$4,353	81	17	15	6	9	24	10
Canton	Canton Center Bicycle Racks	TRIC	$10,000	$12	$139	72	14	9	12	6	21	10
Canton	Canton Public Schools Bike Program	TRIC	$22,500	$4	$592	38	13	0	6	6	3	10
Lynn	Broad Street Corridor TSP	ICC	$297,800	$2	$3,384	88	17.5	12	13.5	12	23	10
Medford	Medford Bicycle Parking - Tier 1	ICC	$29,600	$12	$352	84	17	12	12	9	24	10
Medford	Medford Bluebikes Expansion	ICC	$118,643	$53	$1,521	78	17	15	3	9	24	10
Possible Points				**Possible Points**		**100**	**18**	**15**	**15**	**18**	**24**	**10**

TABLE A-5

FFYs 2024–28 TIP Evaluation Criteria: Bicycle Network and Pedestrian Connections Program

MPO Goal Area	Safety: Transportation by all modes will be safe. (Up to 20 points)		
Criterion	"Project improves bicycle safety (up to 5 points) **+5** High total effectiveness of bicycle safety improvements **+3** Medium total effectiveness of bicycle safety improvements +1 Low total effectiveness of bicycle safety improvements **+0** Project does not implement bicycle safety improvements"	"Project improves pedestrian safety (up to 5 points) **+5** High total effectiveness of pedestrian safety improvements **+3** Medium total effectiveness of pedestrian safety improvements **+1** Low total effectiveness of pedestrian safety improvements **+0** Project does not implement pedestrian safety improvements"	"Project improves safety for all users (up to 3 points) **+3** Project includes three or more eligible multimodal safety improvements **+2** Project includes two eligible multimodal safety improvements **+1** Project includes one eligible multimodal safety improvement **+0** Project does not include any eligible multimodal safety improvements"
Bonus/Penalty (if applicable)	"Bonus (up to 2 points) **+2** Improves bicycle safety at bicycle HSIP cluster"	"Bonus (up to 2 points) **+2** Improves pedestrian safety at pedestrian HSIP cluster"	"Bonus (up to 3 points) **+3** Addresses safety at multiple all-mode HSIP clusters OR a top-200 crash location **+2** Addresses safety at one all-mode HSIP cluster"
Equity Multiplier?	Yes	Yes	No
MPO Goal Area	**System Preservation: Maintain and modernize the transportation system and plan for its resiliency. (Up to 14 points)**		
Criterion	"Project incorporates resiliency elements into its design (up to 5 points) **+1** Project implements recommendation(s) as identified in a Hazard Mitigation Plan, Municipal Vulnerability Plan, or climate adaptation plan **+1** Project improves stormwater infrastructure **+1** Project implements innovative resiliency solutions **+1** Project designed to meet a range of future climate projections **+1** Project demonstrates regional coordination on resiliency"	"Project improves connectivity to critical facilities (up to 2 points) **+2** Project improves access to critical facilities"	"Project improves existing pedestrian facilities (up to 5 points) **+5** Existing pedestrian facilities are in poor condition and improvements are included in the project **+3** Existing pedestrian facilities are in fair condition and improvements are included in the project **+1** Existing pedestrian facilities are in good condition and improvements are included in the project **+0** Project does not improve existing pedestrian facilities"
Bonus/Penalty (if applicable)	"Penalty **-1** Project is located in an existing or projected flood zone and doesn't specify how the project will address future flooding"	N/A	N/A
Equity Multiplier?	Yes	Yes	Yes

MPO Goal Area	Capacity Management/Mobility: Use existing facility capacity more efficiently and increase healthy transportation options. (Up to 18 points)		
Criterion	"Project improves pedestrian network and ADA accessibility (up to 5 points) **+5** Project adds new shared-use path **+3** Project adds new high-quality sidewalks **+1** Project adds new standard sidewalks **+0** Project does not improve pedestrian network"	"Project improves bicycle network (up to 5 points) **+5** Project adds new separated bicycle facility (including shared-use paths) **+3** Project adds new buffered bicycle facility **+1** Project adds new standard bicycle facility **+0** Project does not improve bicycle network"	
Bonus/Penalty (if applicable)	"Bonus (up to 4 points) **+4** Project closes a gap in the pedestrian network **+3** Project improves ADA accessibility beyond minimum required standards **+2** Project creates or improves a pedestrian connection to transit **+1** Project extends existing pedestrian network "	"Bonus (up to 4 points) **+4** Project closes a gap in the bicycle network **+2** Project creates or improves a bicycle connection to transit **+2** Project extends existing bicycle network **+1** Project makes accommodations for bicycle parking or a bicycle share station"	
Equity Multiplier?	Yes	Yes	
MPO Goal Area	**Clean Air/Sustainable Communities: Create an environmentally friendly transportation system. (Up to 14 points)**		
Criterion	"Project reduces CO2 (up to 4 points) **+4** 300 or more annual tons of CO2 reduced **+3** 100–299 annual tons of CO2 reduced **+2** 50–99 annual tons of CO2 reduced **+1** Less than 50 annual tons of CO2 reduced **0** No expected impact **-1** Less than 50 annual tons of CO2 increased **-4** 50 or more annual tons of CO2 increased"	"Project reduces other transportation-related emissions (up to 4 points) **+4** 1,500 or more total annual kilograms of other emissions reduced **+3** 750–1499 total annual kilograms of other emissions reduced **+2** 250–749 total annual kilograms of other emissions reduced **+1** Less than 250 total annual kilograms of other emissions reduced **0** No impact **-1** Less than 250 total annual kilograms of other emissions increased **-4** 250 or more total annual kilograms of other emissions increased"	"Enhances Natural Environment (up to 4 points) **+1** Project improves water quality **+1** Project selects a design alternative that avoids impacts to sensitive natural areas **+1** Project reduces urban heat island effect **+1** Project increases access to parks, open space, or other natural assets"
Bonus/Penalty (if applicable)	N/A	"Bonus/Penalty (up to 2 points) **+2** Project reduces NOx emissions in area in top 20% of regional NOx levels **-2** Project increases NOx emissions in area in top 20% of regional NOx levels"	"Penalty **-1** Project is anticipated to lead to negative environmental outcomes"
Equity Multiplier?	No	Yes	No

MPO Goal Area	Economic Vitality: Ensure our transportation network provides a strong foundation for economic vitality. (Up to 14 points)		
Criterion	"Project serves sites targeted for future development (up to 4 points) **+2** Project improves bicycle access to or within a site **+2** Project improves pedestrian access to or within a site"	"Project serves existing employment and population centers (up to 4 points) **+4** Project mostly serves an existing area of concentrated development **+2** Project partly serves an existing area of concentrated development **+0** Project does not serve an existing area of concentrated development "	"Project demonstrates proponent investment (up to 2 points) **+2** 20 percent or more of the project cost is provided **+1** Less than 20 percent of the project cost is provided **+0** No non-TIP funding is provided by the project proponent"
Bonus/Penalty (if applicable)	N/A	N/A	"Bonus (up to 1 point) **+1** Project proponent supports design process through pilot project OR robust community outreach process"
Equity Multiplier?	No	No	No
Total Base Points Possible		**80**	
Total Equity Points Possible		**20**	
Total Possible Points		**100**	

TABLE A-6

Evaluation Criteria for FFYs 2024 Community Connections Program

OBJECTIVE	CRITERIA	DATA TO USE	SUBCRITERIA/SCORING
SCORING CRITERIA (90 possible points)			
Network or connectivity value (18 points)			
The primary purpose of the Community Connections Program is to close gaps in the transportation network, especially those in the first or last mile between transit and a destination. Projects will be awarded points based on how effectively a proposed project closes different types of gaps and makes travel easier or more efficient.	Connection to existing activity hubs and residential developments (9/6 points)	Application materials, CTPS GIS layers reflecting relevant destinations and employment and population density	Projects can earn points for any combination of conditions, up to the noted overall maximum. Area projects (up to 9 points) **0** If the project area includes* no dense employment concentrations, or dense residential concentrations, or Major Civic Destinations. **+2** for each dense employment concentration OR dense residential concentration included in the project area, up to a maximum of 6 points **+1** if the project targets a specific dense employment concentration, OR dense residential concentration, or Major Civic Destination **+.25** points for each Major Civic Destination included in the project area, up to a maximum of 2 points Point projects (up to 6 points) **0** points if the project has no locations/stops within** ½ mile of a dense employment concentration OR a dense residential concentration **+1** point for each location/stop within ½ mile of a dense employment concentration OR a dense residential concentration, up to a maximum of 4 points **+2** points for each location/stop within ¼ mile of a dense employment concentration OR a dense residential concentration, up to a maximum of 4 points **+.25** points for each location/stop within a ½ mile of a Major Civic Destination, up to a maximum of 1 point **+.5** points for each location/stop within a ¼ mile of a Major Civic Destination, up to a maximum of 1 point A project area includes a dense employment or residential concentration if it contains more than 50% of a transportation analysis zone (TAZ) that meets employment or residential density thresholds **For dense employment or residential concentrations, "Within" is defined as the location being within the specified distance of the centroid of the relevant TAZs
	Connection to existing transit hubs (6 points)	Application materials, CTPS GIS layers reflecting transit stops and routes	Projects can earn points for any combination of conditions, up to the noted overall maximum. Area Projects (up to 9 points) **0** if the project area does not include any transit stops for any mode **+1** for each bus stop with infrequent service in the project area, up to a maximum of 4 points **+2** for each commuter rail station in the project area, up to a maximum of 4 points **+3** for each bus stop with frequent service in the project area, up to a maximum of 6 points **+4** for each rapid transit stop in the project area, up to a maximum of 8 points Point Projects (up to 6 points) **0** If none of the project locations are within 1/2 mile of any transit stations/routes **+1** if there is one bus stop with infrequent service within ½ mile of a project location **+2** if there are multiple instances of a bus stop with infrequent service within ½ mile of a project location **+3** if there is a commuter rail station within ½ mile of a project location **+4** if there is a bus stop with frequent service within ¼ mile of a project location **+5** if there are multiple instances of bus stops with frequent service within ¼ mile of a project location **+6** if there is at least one rapid transit stop within ¼ mile of a project location
	Connection to other transportation infrastructure (6 points)	Application materials, CTPS GIS layers including bicycle infrastructure (derived from MAPC trailmap and other sources) and MassDOT road inventory with enhanced sidewalk data	Area Projects (not eligible for points in this subcriterion) n/a Point Projects (up to 6 points) **0** if none of the project locations are within 250 feet of sidewalks or protected bicycle infrastructure **+1** for each project location within 250 feet of a sidewalk, up to a maximum of 2 points **+1** for each project location within 250 feet of protected bicycle infrastructure, up to a maximum of 2 points **+2** if any project location is within 250 feet of BOTH a sidewalk and protected bicycle infrastructure
Coordination or cooperation between multiple entities (15 points)			
The MPO prioritizes collaboration among different entities in the transportation planning process. Cooperative project planning and execution is particularly important for first-mile and last-mile connections of the type that the Community Connections Program is intended to facilitate. The cooperation can involve actors from both the public and private sectors.	Number of collaborating entities (15 points)	Application materials	**+3** for each collaborating entity beyond the sponsor, up to a maximum of 9 points **-15** for Bus Lane, TSP, or E-Ink projects that do not have a letter of support from the MBTA Additionally **+3** If the project consists of collaborators from multiple sectors (i.e., public and private, or public and nonprofit) **+3** If each listed collaborator has provided a formal letter of support to the MPO

OBJECTIVE	CRITERIA	DATA TO USE	SUBCRITERIA/SCORING
Inclusion in and consistency with local and regional plans (15 points)			
A comprehensive planning process is important to ensure that projects occur in an environment of collaboration and careful consideration rather than independently. This criterion proposes to award points based on the extent to which a proposed project has been included in prior plans at both the local and regional levels, and whether it meets the goals of those plans.	Inclusion in local plans (6 points)	Application materials, local plans	Project is scored based on the best condition it meets. **+3** if the project supports a theme, idea, or concept in a local comprehensive plan or equivalent document. **+6** If the project is specifically included as a need or priority in a local comprehensive plan or equivalent document
	Inclusion in MPO plans (6 points)	Application materials, LRTP Needs Assessment, UPWP Database, MAPC plans	Project earns points for each condition met. **+3** If the project is identified as a need in a current or previous LRTP Needs Assessment or another regional plan **+3** if the project or a large element thereof is recommended in MPO/MAPC technical studies
	Inclusion in statewide plans (3 point)	Application materials, LRTP Needs Assessment	**+3** If the project is included as a need or priority in MassDOT or other statewide planning studies
Transportation equity (18 points)			
The MPO seeks to prioritize investments that benefit equity populations, while minimizing any burdens associated with MPO-funded projects for these populations.	Serves one or more transportation equity demographics, as identified by the MPO (18 points)	Application materials, CTPS GIS layers	See detailed scoring criteria handout: https://docs.google.com/document/d/1YXBvJoj2FM2UJp0qd88Ew_n_KR5OscyS/edit?usp=sharing&ouid=110620465990841651473&rtpof=true&sd=true
Generation of mode shift (12 points)			
Another primary purpose of the Community Connection Program is to enable modal shift from SOV to transit or other modes. This criterion awards points based on the project's effectiveness at creating mode shift and/or enabling trips that were previously impossible by non-SOV modes.	Allow new trips that would not be otherwise possible without a car (12 points)	Application materials	This criterion will be scored by MPO staff based on materials and narrative provided in the project application, considering factors such as: •Whether the project competes with or complements existing transit service •If the project brings non-SOV transportation options to an area that previously had few or none •Whether the project provides complementary connections to existing non-SOV transportation services and infrastructure •Whether the project serves a particular, identified transportation purpose that includes or facilitates mode shift •If relevant, whether the project shows it has a viable path to fiscal independence at the end of the MPO grant period •Reliability of projected local or other non-MPO financial contributions •If the project serves a population that travels through the project area but does not live adjacent to or within it •The quality and innovation of the project's marketing plan, when relevant
Demand projection (12 points)			
Gaining an understanding of how many transportation network users a project will reach is crucial for understanding its cost-effectiveness.	Overall demand estimate (6 points)	Application materials	**0** If the application contains no estimates of demand or usage **+3** If the application contains estimates of demand or usage, but no documentation of methods used to create them or background information **+6** If the application contains estimates of demand or usage that are backed by extensive documentation of methods used to create the estimates and/or other relevant background information
	Staff evaluation of demand estimate (6 points)	Application materials	**0** If staff judge that demand/usage projections are unrealistic or not present **+3** if staff judge that demand/usage projections are somewhat realistic **+6** If staff judge that demand/usage projections are realistic
Budget sheet (10 points)			
	Quality of information provided (10 points)	Application materials	**0** if there is no budget sheet present or the budget sheet does not contain useful information **+5** if the budget sheet is incomplete or inaccurate, but usable with work **+10** if the budget sheet is completed with all necessary information

ADA = Americans with Disabilities Act. CMAQ = Congestion Mitigation and Air Quality Improvement Program. CTPS = Central Transportation Planning Staff. FFY = federal fiscal year. GIS = geographic information systems. GTFS = general transit feed specification. LRTP = Long-Range Transportation Plan. MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority. MPO = Metropolitan Planning Organization. MVP = Municipal Vulnerability Program. SOV = single occupancy vehicle. TAD = Traffic and Design. TAZ = transportation analysis zone. TIP = Transportation Improvement Program.

TABLE A-7

FFYs 2024-28 TIP Evaluation Criteria: Complete Streets Program

MPO Goal Area	Safety: Transportation by all modes will be safe. (Up to 18 points)							
Criterion	Project addresses severe-crash location (up to 3 points) **+3** EPDO value of 1000 or more **+1** EPDO value of less than 250 **+0** No EPDO value	Project addresses severe-crash location (up to 3 points) **+3** Crash rate of 6.45 or greater **+2** Crash rate betweewn 4.25 and 6.45 **+1** Crash rate between 2.05 and 4.25 **+0** Crash rate below 2.05	Project addresses truck-related safety issue (up to 2 points) **+2** High total effectiveness of truck safety improvements **+1** Medium total effectiveness of truck safety improvements **+0** Low total effectiveness or no implementation of truck safety improvements	Project improves bicycle safety (up to 2 points) **+2** High total effectiveness of bicycle safety improvements **+1** Medium total effectiveness of bicycle safety improvements **+0** Low total effectiveness or no inclusion of bicycle safety improvements	Project improves pedestrian safety (up to 2 points) **+2** High total effectiveness of pedestrian safety improvements **+1** Medium total effectiveness of pedestrian safety improvements **+0** Low total effectiveness or no inclusion of pedestrian safety improvements	Project improves safety for all users (up to 2 points) **+2** Project includes three or more eligible multimodal safety improvements **+1** Project includes one or two eligible multimodal safety improvements **+0** Project does not include any eligible multimodal safety improvements		
Bonus/Penalty (if applicable)	N/A	N/A	N/A	Bonus (up to 1 point) **+1** Improves bicycle safety at bicycle HSIP cluster	Bonus (up to 1 point) **+1** Improves pedestrian safety at pedestrian HSIP cluster	Bonus (up to 2 points) **+2** Addresses safety at multiple all-mode HSIP clusters OR a top-200 crash location **+1** Addresses safety at one all-mode HSIP cluster		
Equity Multiplier?	Yes	No	No	Yes	Yes	No		
MPO Goal Area	**System Preservation: Maintain and modernize the transportation system and plan for its resiliency. (Up to 20 points)**							
Criterion	Project incorporates resiliency elements into its design (up to 5 points) **+1** Project implements recommendation(s) as identified in a Hazard Mitigation Plan, Municipal Vulnerability Plan, or climate adaptation plan **+1** Project improves stormwater infrastructure **+1** Project implements innovative resiliency solutions **+1** Project designed to meet a range of future climate projections **+1** Project demonstrates regional coordination on resiliency	Improves evacuation route (up to 1 point) **+1** Project improves an evacuation route, diversion route, or alternate diversion route	Improves connectivity to critical facilities (up to 1 point) **+1** Project improves access to critical facilities	Project improves existing transit assets (up to 2 points) **+2** Project makes significant improvements to existing transit assets **+1** Project makes moderate improvements to existing transit assets **+0** Project does not modernize or improve the condition of existing transit assets	Project improves existing pedestrian facilities (up to 3 points) **+3** Existing pedestrian facilities are in poor condition and improvements are included in the project **+2** Existing pedestrian facilities are in fair condition and improvements are included in the project **+1** Existing pedestrian facilities are in good condition and improvements are included in the project **+0** Project does not improve existing pedestrian facilities	Project improves existing bridges (up to 2 points) **+2** Project improves existing bridge(s) from poor to good condition through rehabilitation or replacement **+1** Current roadway condition is fair and pavement improvements are included in the project **+0** Current roadway condition is good	Project improves existing pavement condition (up to 2 points) **+2** Current roadway condition is poor and pavement improvements are included in the project **+1** Project improves existing bridge(s) from fair to good condition through rehabilitation or replacement **+0** Project does not include bridge improvements	Project improves other existing assets (up to 2 points) **+2** Project improves three or more other assets **+1** Project improves one or two other assets **+0** Project does not meet or address criteria
Bonus/Penalty (if applicable)	Penalty **-1** Project is located in an existing or projected flood zone and doesn't specify how the project will address future flooding	N/A	N/A	N/A		Bonus (up to 1 point) **+1** Project reduces or removes vehicle weight/height restrictions OR improves bridge on a key roadway	Bonus (up to 1 point) **+1** Project improves pavement on a key corridor OR improves roadway substructure	N/A
Equity Multiplier?	Yes	No	Yes	Yes	Yes	No	No	No

MPO Goal Area	Capacity Management/Mobility: Use existing facility capacity more efficiently and increase healthy transportation options. (Up to 18 points)							
Criterion	Project reduces transit passenger delay (up to 3 points) **+3** Project results in significant passenger delay reductions **+2** Project results in moderate passenger delay reductions **+1** Project results in limited passenger delay reductions **+0** Project does not make meaningful reductions in passenger delay	Project invests in New Transit Assets (up to 2 points) **+2** Project makes significant investments in new transit assets **+1** Project makes moderate investments in new transit assets **+0** Project does not invest in new transit assets	Project improves pedestrian network and ADA accessibility (up to 3 points) **+3** Project adds new sidewalks on high-utility link **+2** Project adds new sidewalks on medium-utility link **+1** Project adds new sidewalks on low-utility link **+0** Project does not improve pedestrian network	Project improves bicycle network (up to 3 points) **+3** Project adds new separated bicycle facility (including shared-use paths) **+2** Project adds new buffered bicycle facility **+1** Project adds new standard bicycle facility **+0** Project does not improve bicycle network	Project improves truck movement (up to 2 points) **+2** Project significantly improves truck movement **+1** Project somewhat improves truck movement **+0** Project makes minimal improvements to truck movement or does not address criteria	Project addresses unreliable corridor (up to 1 point) **+1** Project addresses a corridor with a level of travel time reliability above 1.25 **+0** Project does not meet or address criteria		
Bonus/Penalty (if applicable)	Bonus/Penalty (+/- up to 1 point) **+1** Project invests in bus-priority infrastructure on MPO-identified priority corridor **-1** Project increases transit vehicle delays or negatively impacts transit vehicle movement	N/A	Bonus (up to 1 point) **+1** Project closes a gap in the pedestrian network **+1** Project enhances ADA accessibility beyond minimum required standards **+1** Project creates or improves pedestrian connection to transit	Bonus (up to 1 point) **+1** Project closes a gap in the bicycle network **+1** Project creates or improves a bicycle connection to transit **+1** Project makes accommodations for bicycle parking or bicycle share station **+1** Project is on a high-utility link	Bonus (up to 1 point) **+1** Project addresses key freight corridor or makes accommodations for freight deliveries	N/A		
Equity Multiplier?	Yes	Yes	Yes	Yes	No	No		
MPO Goal Area	**Clean Air/Sustainable Communities: Create an environmentally friendly transportation system. (Up to 12 points)**							
Criterion	Project reduces CO2 (up to 3 points) **+3** 750 or more annual tons of CO2 reduced **+2** 250-749 annual tons of CO2 reduced **+1** Less than 250 annual tons of CO2 reduced **+0** No impact **-1** Less than 250 annual tons of CO2 increased **-3** 250 or more annual tons of CO2 increased	Project reduces CO2 (up to 3 points) **+3** 750 or more annual tons of CO2 reduced **+2** 250-749 annual tons of CO2 reduced **+1** Less than 250 annual tons of CO2 reduced **+0** No impact **-1** Less than 250 annual tons of CO2 increased **-3** 250 or more annual tons of CO2 increased	Enhances Natural Environment (up to 4 points) **+1** Project improves water quality **+1** Project selects a design alternative that avoids impacts to sensitive natural areas **+1** Project reduces urban heat island effect **+1** Project increases access to parks, open space, or other natural assets					
Bonus/Penalty (if applicable)	N/A	Bonus/Penalty (up to 2 points) **+2** Project reduces NOx emissions in area in top 20% of regional NOx levels **-2** Project increases NOx emissions in area in top 20% of regional NOx levels	Penalty **-1** Project is anticipated to lead to negative environmental outcomes					
Equity Multiplier?	No	Yes	No					

MPO Goal Area	Economic Vitality: Ensure our transportation network provides a strong foundation for economic vitality. (Up to 12 points)							
Criterion	Project serves sites targeted for future development (up to 3 points) **+1** Project improves bicycle access to or within a site **+1** Project improves pedestrian access to or within a site **+1** Project improves transit access to or within a site	Project serves existing employment and population centers (up to 3 points) **+3** Project mostly serves an existing area of concentrated development **+1** Project partly serves an existing area of concentrated development **+0** Project does not serve an existing area of concentrated development	Project demonstrates proponent investment (up to 2 points) **+2** 20 percent or more of the project cost is provided **+1** Less than 20 percent of the project cost is provided **+0** No non-TIP funding is provided by the project proponent	Project promotes access to affordable housing opportunities (up to 3 points) **+3** 10.4% or more of housing units are affordable in project area **+2** 6.6-10.3% of housing units are affordable in project area **+1** 1-6.5% of housing units are affordable in project area **+0** Less than 1% of housing units are affordable in project area				
Bonus/Penalty (if applicable)	N/A	N/A	Bonus (up to 1 point) **+1** Project proponent supports design process through pilot project OR robust community outreach process	N/A				
Equity Multiplier?	No	No	No	No				
Total Base Points Possible	80							
Total Equity Points Possible	20							
Total Possible Points	100							

TABLE A-8

FFYs 2024–28 TIP Evaluation Criteria: Intersection Improvements Program

MPO Goal Area	Safety: Transportation by all modes will be safe. (Up to 21 points)						
Criterion	Project addresses severe-crash location (up to 3 points) **+3** EPDO value of 300 or more **+2** EPDO value of 100 to 299 **+1** EPDO value of less than 100 **+0** No EPDO value	Project addresses high-crash location (up to 3 points) Signalized Intersection: **+3** Crash rate of 1.69 or greater **+2** Crash rate between 1.02 and 1.69 **+1** Crash rate between 0.35 and 1.02 **+0** Crash rate below 0.35 Unsignalized Intersection: **+3** Crash rate of 1.36 or greater **+2** Crash rate between 0.78 and 1.36 **+1** Crash rate between 0.20 and 0.78 **+0** Crash rate below 0.20	Project addresses truck-related safety issue (up to 2 points) **+2** High total effectiveness of truck safety improvements **+1** Medium total effectiveness of truck safety improvements **+0** Low total effectiveness or no implementation of truck safety improvements	Project improves bicycle safety (up to 3 points) **+3** High total effectiveness of bicycle safety improvements **+2** Medium total effectiveness of bicycle safety improvements **+1** Low total effectiveness of bicycle safety improvements **+0** Project does not include bicycle safety improvements	Project improves pedestrian safety (up to 3 points) **+3** High total effectiveness of pedestrian safety improvements **+2** Medium total effectiveness of pedestrian safety improvements **+1** Low total effectiveness of pedestrian safety improvements **+0** Project does not include pedestrian safety improvements	Project improves safety for all users (up to 3 points) **+3** Project includes three or more eligible multimodal safety improvements **+2** Project includes two eligible multimodal safety improvements **+1** Project includes one eligible multimodal safety improvement **+0** Project does not include any eligible multimodal safety improvements	
Bonus/Penalty (if applicable)	N/A	N/A	N/A	Bonus (up to 1 point) **+1** Improves bicycle safety at bicycle HSIP cluster	Bonus (up to 1 point) **+1** Improves pedestrian safety at pedestrian HSIP cluster	Bonus (up to 2 points) **+2** Addresses safety at multiple all-mode HSIP clusters OR a top-200 crash location **+1** Addresses safety at one all-mode HSIP cluster	
Equity Multiplier?	Yes	No	No	Yes	Yes	No	
MPO Goal Area	**System Preservation: Maintain and modernize the transportation system and plan for its resiliency. (Up to 17 points)**						
Criterion	Project incorporates resiliency elements into its design (up to 5 points) **+1** Project implements recommendation(s) as identified in a Hazard Mitigation Plan, Municipal Vulnerability Plan, or climate adaptation plan **+1** Project improves stormwater infrastructure **+1** Project implements innovative resiliency solutions **+1** Project designed to meet a range of future climate projections **+1** Project demonstrates regional coordination on resiliency	Improves evacuation route (up to 1 point) **+1** Project improves an evacuation route, diversion route, or alternate diversion route	Improves connectivity to critical facilities (up to 1 point) **+1** Project improves access to critical facilities	Project improves existing transit assets (up to 2 points) **+2** Project makes significant improvements to existing transit assets **+1** Project makes moderate improvements to existing transit assets **+0** Project does not modernize or improve the condition of existing transit assets	Project improves existing pedestrian facilities (up to 3 points) **+3** Existing pedestrian facilities are in poor condition and improvements are included in the project **+2** Existing pedestrian facilities are in fair condition and improvements are included in the project **+1** Existing pedestrian facilities are in good condition and improvements are included in the project **+0** Project does not improve existing pedestrian facilities	Project improves existing pavement condition (up to 2 points) **+2** Current roadway condition is poor and pavement improvements are included in the project **+1** Current roadway condition is fair and pavement improvements are included in the project **+0** Current roadway condition is good	Project improves other existing assets (up to 2 points) **+2** Project improves three or more other assets **+1** Project improves one or two other assets **+0** Project does not meet or address criteria
Bonus/Penalty (if applicable)	Penalty **-1** Project is located in an existing or projected flood zone and doesn't specify how the project will address future flooding	N/A	N/A	N/A		Bonus (up to 1 point) **+1** Project improves pavement on a key corridor OR improves roadway substructure	N/A
Equity Multiplier?	Yes	No	Yes	Yes	Yes	No	No

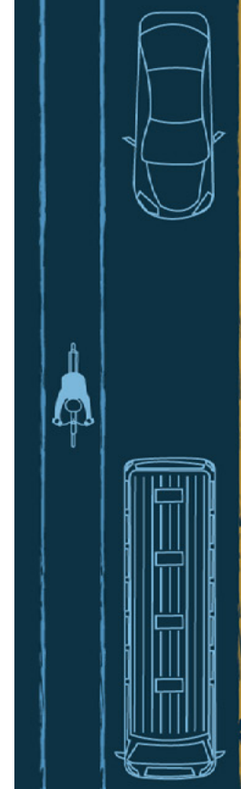
MPO Goal Area	Capacity Management/Mobility: Use existing facility capacity more efficiently and increase healthy transportation options. (Up to 18 points)						
Criterion	Project reduces transit passenger delay (up to 3 points) **+3** Project results in significant passenger delay reductions **+2** Project results in moderate passenger delay reductions **+1** Project results in limited passenger delay reductions **+0** Project does not make meaningful reductions in passenger delay	Project invests in New Transit Assets (up to 2 points) **+2** Project makes significant investments in new transit assets **+1** Project makes moderate investments in new transit assets **+0** Project does not invest in new transit assets	Project improves pedestrian network and ADA accessibility (up to 3 points) **+3** Project adds new sidewalks on high-utility link **+2** Project adds new sidewalks on medium-utility link **+1** Project adds new sidewalks on low-utility link **+0** Project does not improve pedestrian network	Project improves bicycle network (up to 3 points) **+3** Project adds new separated bicycle facility (including shared-use paths) **+2** Project adds new buffered bicycle facility **+1** Project adds new standard bicycle facility **+0** Project does not improve bicycle network	Project improves truck movement (up to 2 points) **+2** Project significantly improves truck movement **+1** Project somewhat improves truck movement **+0** Project makes minimal improvements to truck movement or does not address criteria	Project addresses unreliable corridor (up to 1 point) **+1** Project addresses a corridor with a level of travel time reliability above 1.25 **+0** Project does not meet or address criteria	
Bonus/Penalty (if applicable)	Bonus/Penalty (+/- up to 1 point) **+1** Project invests in bus-priority infrastructure on MPO-identified priority corridor **-1** Project increases transit vehicle delays or negatively impacts transit vehicle movement	N/A	Bonus (up to 1 point) **+1** Project closes a gap in the pedestrian network **+1** Project enhances ADA accessibility beyond minimum required standards **+1** Project creates or improves pedestrian connection to transit	Bonus (up to 1 point) **+1** Project closes a gap in the bicycle network **+1** Project creates or improves a bicycle connection to transit **+1** Project makes accommodations for bicycle parking or bicycle share station **+1** Project is on a high-utility link	Bonus (up to 1 point) **+1** Project addresses key freight corridor or makes accommodations for freight deliveries	N/A	
Equity Multiplier?	Yes	Yes	Yes	Yes	No	No	
MPO Goal Area	**Clean Air/Sustainable Communities: Create an environmentally friendly transportation system. (Up to 12 points)**						
Criterion	Project reduces CO2 (up to 3 points) **+3** 750 or more annual tons of CO2 reduced **+2** 250-749 annual tons of CO2 reduced **+1** Less than 250 annual tons of CO2 reduced **0** No impact **-1** Less than 250 annual tons of CO2 increased **-3** 250 or more annual tons of CO2 increased	Project reduces other transportation-related emissions (up to 3 points) **+3** 1,000 or more total kilograms of VOC, NOx, CO reduced **+2** 250-999 total kilograms of VOC, NOx, CO reduced **+1** Less than 250 total kilograms of VOC, NOx, CO reduced **0** No impact **-1** Less than 250 total kilograms of VOC, NOx, CO increased **-3** 250 or more total kilograms of VOC, NOx, CO increased	Enhances Natural Environment (up to 4 points) **+1** Project improves water quality **+1** Project selects a design alternative that avoids impacts to sensitive natural areas **+1** Project reduces urban heat island effect **+1** Project increases access to parks, open space, or other natural assets				
Bonus/Penalty (if applicable)	N/A	Bonus/Penalty (up to 2 points) **+2** Project reduces NOx emissions in area in top 20% of regional NOx levels **-2** Project increases NOx emissions in area in top 20% of regional NOx levels	Penalty **-1** Project is anticipated to lead to negative environmental outcomes				
Equity Multiplier?	No	Yes	No				

MPO Goal Area	Economic Vitality: Ensure our transportation network provides a strong foundation for economic vitality. (Up to 12 points)						
Criterion	Project serves sites targeted for future development (up to 3 points) **+1** Project improves bicycle access to or within a site **+1** Project improves pedestrian access to or within a site **+1** Project improves transit access to or within a site	Project serves existing employment and population centers (up to 3 points) **+3** Project mostly serves an existing area of concentrated development **+1** Project partly serves an existing area of concentrated development **+0** Project does not serve an existing area of concentrated development	Project demonstrates proponent investment (up to 2 points) **+2** 20 percent or more of the project cost is provided **+1** Less than 20 percent of the project cost is provided **+0** No non-TIP funding is provided by the project proponent	Project promotes access to affordable housing opportunities (up to 3 points) **+3** 10.4% or more of housing units are affordable in project area **+2** 6.6-10.3% of housing units are affordable in project area **+1** 1-6.5% of housing units are affordable in project area **+0** Less than 1% of housing units are affordable in project area			
Bonus/Penalty (if applicable)	N/A	N/A	Bonus (up to 1 point) **+1** Project proponent supports design process through pilot project OR robust community outreach process	N/A			
Equity Multiplier?	No	No	No	No			
Total Base Points Possible	80						
Total Equity Points Possible	20						
Total Possible Points	100						

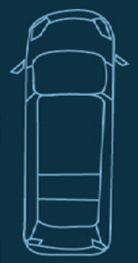
TABLE A-9

FFYs 2024–28 TIP Evaluation Criteria: Major Infrastructure Program

MPO Goal Area	Safety: Transportation by all modes will be safe. (Up to 18 points)							
Criterion	Project addresses severe-crash location (up to 3 points) **+3** EPDO value of 1000 or more **+2** EPDO value of 250 to 999 **+1** EPDO value of less than 250 **+0** No EPDO value	Project addresses high-crash location (up to 3 points For corridor projects: **+3** Crash rate of 6.45 or greater **+2** Crash rate between 4.25 and 6.45 **+1** Crash rate between 2.05 and 4.25 **+0** Crash rate below 2.05 For intersection and inter-change projects: Signalized Intersection: **+3** Crash rate of 1.69 or greater **+2** Crash rate between 1.02 and 1.69 **+1** Crash rate between 0.35 and 1.02 **+0** Crash rate below 0.35 Unsignalized Intersection: **+3** Crash rate of 1.36 or greater **+2** Crash rate between 0.78 and 1.36 **+1** Crash rate between 0.20 and 0.78 **+0** Crash rate below 0.20	Project addresses truck-related safety issue (up to 2 points) **+2** High total effectiveness of truck safety improvements **+1** Medium total effectiveness of truck safety improvements **+0** Low total effectiveness or no implementation of truck safety improvements	Project improves bicycle safety (up to 2 points) **+2** High total effectiveness of bicycle safety improvements **+1** Medium total effectiveness of bicycle safety improvements **+0** Low total effectiveness or no inclusion of bicycle safety improvements	Project improves pedestrian safety (up to 2 points) **+2** High total effectiveness of pedestrian safety improve-ments **+1** Medium total effectiveness of pedestrian safety improve-ments **+0** Low total effectiveness or no inclusion of pedestrian safety improvements	Project improves safety for all users (up to 2 points) **+2** Project includes three or more eligible multimodal safety improvements **+1** Project includes one or two eligible multimodal safety improvements **+0** Project does not include any eligible multimodal safety improvements		
Bonus/Penalty (if applicable)	N/A	N/A	N/A	Bonus (up to 1 point) **+1** Improves bicycle safety at bicycle HSIP cluster	Bonus (up to 1 point) **+1** Improves pedestrian safety at pedestrian HSIP cluster	Bonus (up to 2 points) **+2** Addresses safety at multiple all-mode HSIP clusters OR a top-200 crash location **+1** Addresses safety at one all-mode HSIP cluster		
Equity Multiplier?	Yes	No	No	Yes	Yes	No		
MPO Goal Area	System Preservation: Maintain and modernize the transportation system and plan for its resiliency. (Up to 20 points)							








Criterion	Project incorporates resiliency elements into its design (up to 5 points) **+1** Project implements recommendation(s) as identified in a Hazard Mitigation Plan, Municipal Vulnerability Plan, or climate adaptation plan **+1** Project improves stormwater infrastructure **+1** Project implements innovative resiliency solutions **+1** Project designed to meet a range of future climate projections **+1** Project demonstrates regional coordination on resiliency	Improves evacuation route (up to 1 point) **+1** Project improves an evacuation route, diversion route, or alternate diversion route	Improves connectivity to critical facilities (up to 1 point) **+1** Project improves access to critical facilities	Project improves existing transit assets (up to 2 points) **+2** Project makes significant improvements to existing transit assets **+1** Project makes moderate improvements to existing transit assets **+0** Project does not modernize or improve the condition of existing transit assets	Project improves existing pedestrian facilities (up to 3 points) **+3** Existing pedestrian facilities are in poor condition and improvements are included in the project **+2** Existing pedestrian facilities are in fair condition and improvements are included in the project **+1** Existing pedestrian facilities are in good condition and improvements are included in the project **+0** Project does not improve existing pedestrian facilities	Project improves existing bridges (up to 2 points) **+2** Project improves existing bridge(s) from poor to good condition through rehabilitation or replacement **+1** Project improves existing bridge(s) from fair to good condition through rehabilitation or replacement **0** Project does not include bridge improvements	Project improves existing pavement condition (up to 2 points) **+2** Current roadway condition is poor and pavement improvements are included in the project **+1** Current roadway condition is fair and pavement improvements are included in the project **+0** Current roadway condition is good	Project improves other existing assets (up to 2 points) **+2** Project improves three or more other assets **+1** Project improves one or two other assets **+0** Project does not meet or address criteria
Bonus/Penalty (if applicable)	Penalty -1 Project is located in an existing or projected flood zone and doesn't specify how the project will address future flooding	N/A	N/A	N/A		Bonus (up to 1 point) +1 Project reduces or removes vehicle weight/height restrictions OR improves bridge on a key roadway	Bonus (up to 1 point) +1 Project improves pavement on a key corridor OR improves roadway substructure	N/A
Equity Multiplier?	Yes	No	Yes	Yes	Yes	No	No	No
MPO Goal Area	**Capacity Management/Mobility: Use existing facility capacity more efficiently and increase healthy transportation options. (Up to 18 points)**							
Criterion	Project reduces transit passenger delay (up to 3 points) **+3** Project results in significant passenger delay reductions **+2** Project results in moderate passenger delay reductions **+1** Project results in limited passenger delay reductions **+0** Project does not make meaningful reductions in passenger delay	Project invests in New Transit Assets (up to 2 points) **+2** Project makes significant investments in new transit assets **+1** Project makes moderate investments in new transit assets **+0** Project does not invest in new transit assets	Project improves pedestrian network and ADA accessibility (up to 3 points) **+3** Project adds new sidewalks on high-utility link **+2** Project adds new sidewalks on medium-utility link **+1** Project adds new sidewalks on low-utility link **+0** Project does not improve pedestrian network	Project improves bicycle network (up to 3 points) **+3** Project adds new separated bicycle facility (including shared-use paths) **+2** Project adds new buffered bicycle facility **+1** Project adds new standard bicycle facility **+0** Project does not improve bicycle network	Project improves truck movement (up to 2 points) **+2** Project significantly improves truck movement **+1** Project somewhat improves truck movement **+0** Project makes minimal improvements to truck movement or does not address criteria	Project addresses unreliable corridor (up to 1 point) **+1** Project addresses a corridor with a level of travel time reliability above 1.25 **+0** Project does not meet or address criteria		
Bonus/Penalty (if applicable)	Bonus/Penalty (+/- up to 1 point) **+1** Project invests in bus-priority infrastructure on MPO-identified priority corridor **-1** Project increases transit vehicle delays or negatively impacts transit vehicle movement	N/A	Bonus (up to 1 point) **+1** Project closes a gap in the pedestrian network **+1** Project enhances ADA accessibility beyond minimum required standards **+1** Project creates or improves pedestrian connection to transit	Bonus (up to 1 point) **+1** Project closes a gap in the bicycle network **+1** Project creates or improves a bicycle connection to transit **+1** Project makes accommodations for bicycle parking or bicycle share station **+1** Project is on a high-utility link	Bonus (up to 1 point) **+1** Project addresses key freight corridor or makes accommodations for freight deliveries	N/A		
Equity Multiplier?	Yes	Yes	Yes	Yes	No	No		

MPO Goal Area	Clean Air/Sustainable Communities: Create an environmentally friendly transportation system. (Up to 12 points)							
Criterion	Project reduces CO2 (up to 3 points) **+3** 750 or more annual tons of CO2 reduced **+2** 250-749 annual tons of CO2 reduced **+1** Less than 250 annual tons of CO2 reduced **0** No impact **-1** Less than 250 annual tons of CO2 increased **-3** 250 or more annual tons of CO2 increased	Project reduces other transportation-related emissions (up to 3 points) **+3** 1,000 or more total kilograms of VOC, NOx, CO reduced **+2** 250-999 total kilograms of VOC, NOx, CO reduced **+1** Less than 250 total kilograms of VOC, NOx, CO reduced **0** No impact **-1** Less than 250 total kilograms of VOC, NOx, CO increased **-3** 250 or more total kilograms of VOC, NOx, CO increased	Enhances Natural Environment (up to 4 points) **+1** Project improves water quality **+1** Project selects a design alternative that avoids impacts to sensitive natural areas **+1** Project reduces urban heat island effect **+1** Project increases access to parks, open space, or other natural assets					
Bonus/Penalty (if applicable)	N/A	Bonus/Penalty (up to 2 points) **+2** Project reduces NOx emissions in area in top 20% of regional NOx levels **-2** Project increases NOx emissions in area in top 20% of regional NOx levels	Penalty **-1** Project is anticipated to lead to negative environmental outcomes					
Equity Multiplier?	No	Yes	No					
MPO Goal Area	**Economic Vitality: Ensure our transportation network provides a strong foundation for economic vitality. (Up to 12 points)**							
Criterion	Project serves sites targeted for future development (up to 3 points) **+1** Project improves bicycle access to or within a site **+1** Project improves pedestrian access to or within a site **+1** Project improves transit access to or within a site	Project serves existing employment and population centers (up to 3 points) **+3** Project mostly serves an existing area of concentrated development **+1** Project partly serves an existing area of concentrated development **+0** Project does not serve an existing area of concentrated development	Project demonstrates proponent investment (up to 2 points) **+2** 20 percent or more of the project cost is provided **+1** Less than 20 percent of the project cost is provided **+0** No non-TIP funding is provided by the project proponent	Project promotes access to affordable housing opportunities (up to 3 points) **+3** 10.4% or more of housing units are affordable in project area **+2** 6.6-10.3% of housing units are affordable in project area **+1** 1-6.5% of housing units are affordable in project area **+0** Less than 1% of housing units are affordable in project area				
Bonus/Penalty (if applicable)	N/A	N/A	Bonus (up to 1 point) **+1** Project proponent supports design process through pilot project OR robust community outreach process	N/A				
Equity Multiplier?	No	No	No	No				
Total Base Points Possible	80							
Total Equity Points Possible	20							
Total Possible Points	100							

TABLE A-10

Evaluation Criteria for FFYs 2021-25 TIP and Prior TIP Cycles (Archived)

<table>
<tr><th>OBJECTIVES</th><th>CRITERIA</th><th>SUBCRITERIA/SCORING</th></tr>
<tr><td colspan="3">SAFETY: Transportation by all modes will be safe.</td></tr>
<tr><td rowspan="6">Reduce the number and severity of crashes and safety incidents for all modes

Reduce serious injuries and fatalities from transportation

Make investments and support initiatives that help protect transportation customers, employees, and the public from safety and security threats</td><td>Crash severity value: EPDO index (0-5 points)</td><td>+5 EPDO value of 300 or more
+4 EPDO value between 200 and 299
+3 EPDO value between 100 and 199
+2 EPDO value between 50 and 99
+1 EPDO value less than 50
+0 No EPDO value</td></tr>
<tr><td>Crash rate (intersections and corridors) (0-5 points)</td><td>
<table>
<tr><th>Intersection Evaluation Score</th><th>Signalized</th><th>Unsignalized</th></tr>
<tr><td>+5</td><td>≥ 1.69</td><td>≥ 1.36</td></tr>
<tr><td>+4</td><td>1.31–1.69</td><td>1.03–1.36</td></tr>
<tr><td>+3</td><td>0.93–1.31</td><td>0.70–1.03</td></tr>
<tr><td>+2</td><td>0.55–0.93</td><td>0.37–0.70</td></tr>
<tr><td>+1</td><td>0.36–0.55</td><td>0.21–0.37</td></tr>
<tr><td>+0</td><td>< 0.36</td><td>< 0.21</td></tr>
</table>
<table>
<tr><th>Corridor Evaluation Score</th><th>Interstate Other Freeways Expressways</th><th>Principal Arterials or Other Minor Arterials Major-Minor Collectors</th></tr>
<tr><td>+5</td><td>≥ 1.81</td><td>≥ 6.45</td></tr>
<tr><td>+4</td><td>1.40–1.81</td><td>5.35–6.45</td></tr>
<tr><td>+3</td><td>1.00–1.40</td><td>4.25–5.35</td></tr>
<tr><td>+2</td><td>0.59–1.00</td><td>3.15– 4.25</td></tr>
<tr><td>+1</td><td>0.40–0.59</td><td>2.05–3.15</td></tr>
<tr><td>+0</td><td>< 0.40</td><td>< 2.05</td></tr>
</table>
</td></tr>
<tr><td>Improves truck-related safety issue (0-5 points)</td><td>+3 High total effectiveness of truck safety countermeasures
+2 Medium total effectiveness of truck safety countermeasures
+1 Low total effectiveness of truck safety countermeasures
+0 Does not implement truck safety countermeasures

If project scores points above, then it is eligible for additional points below:
+2 Improves truck safety at HSIP Cluster</td></tr>
<tr><td>Improves bicycle safety (0-5 points)</td><td>+3 High total effectiveness of bicycle safety countermeasures
+2 Medium total effectiveness of bicycle safety countermeasures
+1 Low total effectiveness of bicycle safety countermeasures
+0 Does not implement bicycle safety countermeasures

If project scores points above, then it is eligible for additional points below:
+2 Improves bicycle safety at HSIP Bicycle Cluster
+1 Improves bicycle safety at HSIP Cluster</td></tr>
<tr><td>Improves pedestrian safety (0-5 points)</td><td>+3 High total effectiveness of pedestrian safety countermeasures
+2 Medium total effectiveness of pedestrian safety countermeasures
+1 Low total effectiveness of pedestrian safety countermeasures
+0 Does not implement pedestrian safety countermeasures

If project scores points above, then it is eligible for additional points below:
+2 Improves pedestrian safety at HSIP Pedestrian Cluster
+1 Improves pedestrian safety at HSIP Cluster</td></tr>
<tr><td>Improves safety or removes an at-grade railroad crossing (0-5 points)</td><td>+5 Removes an at-grade railroad crossing
+3 Significantly improves safety at an at-grade railroad crossing
+1 Improves safety at an at-grade railroad crossing
+0 Does not include a railroad crossing</td></tr>
</table>

SAFETY (30 possible points)		
SYSTEM PRESERVATION AND MODERNIZATION: Maintain and modernize the transportation system and plan for its resiliency.		
Maintain the transportation system, including roadway, transit, and active transportation infrastructure, in a state of good repair Modernize transportation infrastructure across all modes Prioritize projects that support planned response capability to existing or future extreme conditions (sea level rise, flooding, and other natural and security-related man-made impacts)	Improves substandard roadway bridge(s) **(0–3 points)**	**+3** Condition is structurally deficient and improvements are included in the project **+1** Condition is functionally obsolete and improvements are included in the project **+0** Does not improve substandard bridge or does not include a bridge
	Improves substandard pavement **(0–6 points)**	**+6** IRI rating greater than 320: Poor condition and pavement improvements are included in the project **+4** IRI rating between 320 and 191: Fair condition and pavement improvements are included in the project **+0** IRI rating less than 190: Good or better condition
	Improves substandard traffic signal equipment **(0–6 points)**	**+6** Poor condition and improvements are included in the project **+4** Fair condition and improvements are included in the project **+0** Does not meet or address criteria
	Improves transit asset(s) **(0–3 points)**	**+2** Brings transit asset into state of good repair **+1** Meets an identified-need in an asset management plan **+0** Does not meet or address criteria
	Improves substandard sidewalk(s) **(0–3 points)**	**+3** Poor condition and sidewalk improvements are included in the project **+2** Fair condition and sidewalk improvements are included in the project **+0** Sidewalk condition is good or better
	Improves emergency response **(0–2 points)**	**+1** Project improves an evacuation route, diversion route, or alternate diversion route
		+1 Project improves an access route to or in proximity to an emergency support location
	Improves ability to respond to extreme conditions **(0–6 points)**	**+2** Addresses flooding problem and/or sea level rise and enables facility to function in such a condition
		+1 Brings facility up to current seismic design standards
		+1 Addresses critical transportation infrastructure
		+1 Protects freight network elements
		+1 Implements hazard mitigation or climate adaptation plans
SYSTEM PRESERVATION AND MODERNIZATION (29 possible points)		
CAPACITY MANAGEMENT AND MOBILITY: Use existing facility capacity more efficiently and increase transportation options.		

Improve access to and accessibility of all modes, especially transit and active transportation Support roadway management and operations strategies to improve travel reliability, mitigate congestion, and support non-single-occupant-vehicle travel Emphasize capacity management through low-cost investments; prioritize projects that focus on lower-cost operations/ management-type improvements such as intersection improvements, transit priority, and Complete Streets solutions Improve reliability of transit Increase percentage of population and employment within one-quarter mile of transit stations and stops Support community-based and private-initiative services to meet first- and last-mile, reverse commute, and other non-traditional transportation needs, including those of people 75 years old or older and people with disabilities Support strategies to better manage automobile and bicycle parking capacity and usage at transit stations Fund improvements to bicycle and pedestrian networks aimed at creating a connected network of bicycle and accessible sidewalk facilities by expanding existing facilities and closing gaps Increase percentage of population and places of employment with access to facilities on the bicycle network Eliminate bottlenecks on the freight network, improve freight reliability, and enhance freight intermodal connections	Reduces transit vehicle delay **(0–4 points)**	**+3** 5 hours or more of daily transit vehicle delay reduced **+2** 1–5 hours of daily transit vehicle delay reduced **+1** Less than one hour of daily transit vehicle delay reduced **+0** Does not reduce transit delay
		If project scores points above, then it is eligible for additional points below: **+1** Improves one or more key bus route(s)
	Improves pedestrian network and ADA accessibility **(0–5 points)**	**+2** Adds new sidewalk(s) (including shared-use paths)
		+2 Improves ADA accessibility
		+1 Closes a gap in the pedestrian network
		+0 Does not improve pedestrian network
	Improves bicycle network **(0–4 points)**	**+3** Adds new physically separated bicycle facility (including shared-use paths) **+2** Adds new buffered bicycle facility **+1** Adds new standard bicycle facility
		+1 Closes a gap in the bicycle network **+0** Does not improve bicycle network
	Improves intermodal accommodations/ connections to transit **(0–6 points)**	**+6** Meets or addresses criteria to a high degree **+4** Meets or addresses criteria to a medium degree **+2** Meets or addresses criteria to a low degree **+0** Does not meet or address criteria
	Improves truck movement **(0–4 points)**	**+3** Meets or addresses criteria to a high degree **+2** Meets or addresses criteria to a medium degree **+1** Meets or addresses criteria to a low degree **+0** Does not meet or address criteria
		If project scores points above, then it is eligible for additional points below: **+1** Addresses MPO-identified bottleneck location
	Reduces vehicle congestion **(0–6 points)**	**+6** 400 hours or more of daily vehicle delay reduced **+4** 100–400 hours of daily vehicle delay reduced **+2** Less than 100 hours of daily vehicle delay reduced **+0** Does not meet or address criteria

CAPACITY MANAGEMENT AND MOBILITY (29 possible points)		
CLEAN AIR/SUSTAINABLE COMMUNITIES: Create an environmentally friendly transportation system.		
Reduce greenhouse gases generated in the Boston region by all transportation modes Reduce other transportation-related pollutants Minimize negative environmental impacts of the transportation system Support land use policies consistent with smart, healthy, and resilient growth	Reduces CO2 **(-5-5 points)**	**+5** 1,000 or more annual tons of CO2 reduced **+4** 500–999 annual tons of CO2 reduced **+3** 250–499 annual tons of CO2 reduced **+2** 100–249 annual tons of CO2 reduced **+1** Less than 100 annual tons of CO2 reduced **0** No impact **-1** Less than 100 annual tons of CO2 increased **-2** 100–249 annual tons of CO2 increased **-3** 250–499 annual tons of CO2 increased **-4** 500–999 annual tons of CO2 increased **-5** 1,000 or more annual tons of CO2 increased
	Reduces other transportation-related emissions (VOC, NOx, CO) **(-5–5 points)**	**+5** 2,000 or more total kilograms of VOC, NOx, CO reduced **+4** 1,000–1999 total kilograms of VOC, NOx, CO reduced **+3** 500–999 total kilograms of VOC, NOx, CO reduced **+2** 250–499 total kilograms of VOC, NOx, CO reduced **+1** Less than 250 total kilograms of VOC, NOx, CO reduced **0** No impact **-1** Less than 250 total kilograms of VOC, NOx, CO increased **-2** 250–499 total kilograms of VOC, NOx, CO increased **-3** 500–999 total kilograms of VOC, NOx, CO increased **-4** 1,000–1999 total kilograms of VOC, NOx, CO increased **-5** 2,000 or more total kilograms of VOC, NOx, CO increased
	Addresses environmental impacts**(0–4 points)**	**+1** Addresses water quality
		+1 Addresses cultural resources/open space
		+1 Addresses wetlands/resource areas
		+1 Addresses wildlife preservation/protected habitats
		+0 Does not meet or address criteria
	Is in an EOEEA-certified "Green Community" **(0–2 points)**	**+2** Project is located in a "Green Community" **+0** Project is not located in a "Green Community"
CLEAN AIR/SUSTAINABLE COMMUNITIES (16 possible points)		
TRANSPORTATION EQUITY: Ensure that all people receive comparable benefits from, and are not disproportionately burdened by, MPO investments, regardless of race, color, national origin, age, income, ability, or sex.		
Prioritize MPO investments that benefit equity populations Minimize potential harmful environmental, health, and safety effects of MPO funded projects for all equity populations Promote investments that support transportation for all ages (age-friendly communities) Promote investments that are accessible to all people regardless of ability	Serves Title VI/non-discrimination populations **(-10–12 points)**	**+2** Serves minority (high concentration) population (>2,000 people) **+1** Serves minority (low concentration) population (≤ 2,000 people)
		+2 Serves low-income (high concentration) population (>2,000 people) **+1** Serves low-income (low concentration) population (≤ 2,000 people)
		+2 Serves limited-English proficiency (high concentration) population (>1,000 people) **+1** Serves limited-English proficiency (low concentration) population (≤ 1,000 people)
		+2 Serves elderly (high concentration) population (>2,000 people) **+1** Serves elderly (low concentration) population (≤ 2,000 people)
		+2 Serves zero vehicle households (high concentration) population (>1,000 people) **+1** Serves zero vehicle households (low concentration) population (≤ 1,000 people)
		+2 Serves persons with disabilities (high concentration) population (>1,000 people) **+1** Serves persons with disabilities (low concentration) population (≤ 1,000 people)
		+0 Does not serve Title VI or non-discrimination populations **-10** Creates a burden for Title VI/non -discrimination populations




TRANSPORTATION EQUITY (12 possible points)		
ECONOMIC VITALITY: Ensure our transportation network provides a strong foundation for economic vitality.		
Respond to mobility needs of the workforce population Minimize the burden of housing and transportation costs for residents in the region Prioritize transportation investments that serve residential, commercial, and logistics targeted development sites and "Priority Places" identified in the MBTA's Focus 40 plan Prioritize transportation investments consistent with compact-growth strategies of the regional transportation plan	Serves targeted development site **(0–6 points)**	**+2** Provides new transit access to or within site **+1** Improves transit access to or within site **+1** Provides for bicycle access to or within site **+1** Provides for pedestrian access to or within site **+1** Provides for improved road access to or within site **+0** Does not provide any of the above measures
	Provides for development consistent with the compact growth strategies of MetroFuture **(0–5 points)**	**+2** Mostly serves an existing area of concentrated development **+1** Partly serves an existing area of concentrated development **+1** Supports local zoning or other regulations that are supportive of smart growth development **+2** Complements other local financial or regulatory support that fosters economic revitalization in a manner consistent with smart growth development principles **+0** Does not provide any of the above measures
	Provides multimodal access to an activity center **(0–4 points)**	**+1** Provides transit access (within a quarter mile) to an activity center
		+1 Provides truck access to an activity center
		+1 Provides bicycle access to an activity center
		+1 Provides pedestrian access to an activity center
		+0 Does not provide multimodal access
	Leverages other investments (non-TIP funding) **(0–3 points)**	**+3** Meets or addresses criteria to a high degree (>30 percent of the project cost) **+2** Meets or addresses criteria to a medium degree (10–30 percent of the project cost) **+1** Meets or addresses criteria to a low degree (< 10 percent of the project cost) **+0** Does not meet or address criteria
ECONOMIC VITALITY (18 possible points)		
TOTAL SCORE (134 possible points)		

TABLE A-11

Evaluation Criteria for FFY 2021 Community Connections Program (Archived)

Key		
Blue = Criteria that apply to all projects		
Green = Criteria for capital projects		
Red/Pink = Criteria for operating projects		
OBJECTIVE	**CRITERIA**	**FACTORS**
PROJECT ELIGIBILITY VERIFICATION		
Each project funded through this program must show an air quality benefit when analyzed through the MPO's air quality analysis process. Projects must be ready to begin construction or operation by October 2020. Project sponsors or proponents must demonstrate that they have gained support from stakeholders and have the institutional capacity to carry out the project within the MPO timeframe.	Air Quality Analysis	Projects must pass a spreadsheet-based air quality benefit test based on a variety of data inputs customized to the type of project.
	Proponent's Project Management Capacity	Names, experience, and time commitment of project management staff, as provided by the proponent.
GENERAL SCORING CRITERIA (30 possible points)		
Network or connectivity value (6 points)		
The primary purpose of the Community Connections Program is to close gaps in the transportation network, especially those in the first or last mile between transit and a destination. Projects will be awarded points based on how effectively a proposed project closes different types of gaps and makes travel easier or more efficient.	Connection to existing activity hubs and residential developments (2 points)	Proximity of the project or service to employment, residential, and civic activity hubs, such as dense areas of employment or housing.
	Connection to existing transit hubs (2 points)	Proximity of the project to transit service, with added incentive for connecting to frequent or high-quality service.
	Connection to other transportation infrastructure (2 points	Proximity of the project to sidewalk or protected or off-road bicycle infrastructure
Coordination or cooperation between multiple entities (5 points)		

Key		
Blue = Criteria that apply to all projects		
Green = Criteria for capital projects		
Red/Pink = Criteria for operating projects		
OBJECTIVE	**CRITERIA**	**FACTORS**
The MPO prioritizes collaboration among different entities in the transportation planning process. Cooperative project planning and execution is particularly important for first-mile and last-mile connections of the type that the Community Connections Program is intended to facilitate. The cooperation can involve actors from both the public and private sectors.	Number of collaborating entities (5 points)	Number and variety (judged by sector of origin) of entities collaborating to support the project.
Inclusion in and consistency with local and regional plans (5 points)		
A comprehensive planning process is important to ensure that projects occur in an environment of collaboration and careful consideration rather than independently. This criterion proposes to award points based on the extent to which a proposed project has been included in prior plans at both the local and regional levels, and whether it meets the goals of those plans.	Inclusion in local plans (2 points)	Whether the project is included as a need or priority in a local comprehensive plan.
	Inclusion in MPO plans (2 points)	Whether the project is identified as a need in the LRTP Needs Assessment or recommended in an MPO or MAPC study.
	Inclusion in statewide plans (1 point)	Whether the project is included as a need or priority in a MassDOT or other statewide study.
Transportation equity (5 points)		
The MPO seeks to target investments to areas that benefit a high percentage of low-income and minority populations; minimize any burdens associated with MPO-funded projects in low-income and minority areas; and break down barriers to participation in MPO-decision making.	Serves a demographic of transportation equity concern, as identified by the MPO (5 points)	The extent to which the project serves equity populations.
Generation of mode shift (4 points)		

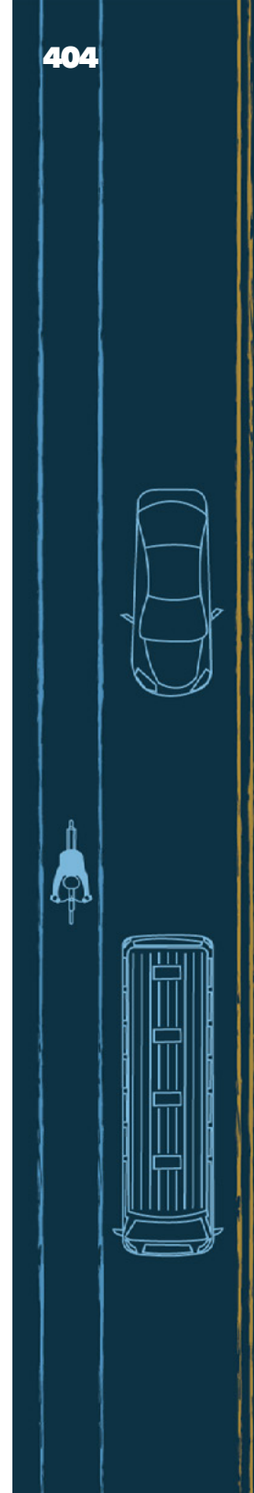
Key		
Blue = Criteria that apply to all projects		
Green = Criteria for capital projects		
Red/Pink = Criteria for operating projects		
OBJECTIVE	**CRITERIA**	**FACTORS**
Another primary purpose of the Community Connection Program is to enable modal shift from SOV to transit or other modes. This criterion would award points based on the project's effectiveness at creating mode shift and/or enabling trips that were previously impossible by non-SOV modes.	Allow new trips that would not be otherwise possible without a car (4 points)	Whether the project adds to overall non-automotive mobility by creating new connections or making trips possible that were not previously, without detracting from or competing with existing transit options.
Demand projection (4 points)		
Gaining an understanding of how many transportation network users a project will reach is crucial for understanding its cost-effectiveness.	Overall demand estimate (2 points)	Presence of demand/usage estimates and quality of analysis used to support them in the application materials.
	Staff evaluation of demand estimate (2 points	Whether staff judge the demand/usage projections realistic.
TYPE-SPECIFIC EVALUATION CRITERIA: CAPITAL PROJECTS (30 points)		
SAFETY BENEFITS (12 points)		
Bicycle safety (6 points)		
Improving safety on the regional transportation network is one of the MPO's key goals. This criterion would award points to projects that improve safety for the most vulnerable users of the network – people walking and people riding bicycles. An overall score of the effectiveness of bicycle safety countermeasures will be made through professional judgement comparing existing facilities, safety issues, use, and desired/anticipated use to the proposed bicycle safety countermeasures planned to be implemented as part of the project.	Total effectiveness of bicycle safety countermeasures (6 points)	Existing and potential bicyclist usage of the infrastructure and effectiveness of the expected safety improvements.
Pedestrian safety (6 points)		

Key		
Blue = Criteria that apply to all projects		
Green = Criteria for capital projects		
Red/Pink = Criteria for operating projects		
OBJECTIVE	**CRITERIA**	**FACTORS**
An overall score of the effectiveness of pedestrian safety countermeasures will be made through professional judgement comparing existing facilities, safety issues, use, and desired/anticipated use to the proposed pedestrian safety countermeasures planned to be implemented as part of the project.	Total effectiveness of pedestrian safety countermeasures (6 points)	Existing and potential pedestrian usage of the infrastructure and effectiveness of the expected safety improvements.
Lifecycle cost-effectiveness (10 points)		
In addition to the initial construction costs, the MPO is concerned that projects funded through the Community Connection Program remain fiscally sustainable after MPO-awarded funding runs out. Projects proposed to the program should be cost-effective compared to potential alternatives, and proponents should demonstrate that local maintenance budgets will be able to accommodate the increased costs of maintaining the project.	Lifecycle Alternatives Analysis (5 Points)	Presence of a cost-effectiveness analysis in the application and whether the analysis is qualitative or quantitative.
	Maintenance budget and plan (5 Points)	Identification of a maintenance plan for the project, including the entity responsible for it and a source of funds.
Resilience to weather and environmental hazards (8 points)		
Resilience in the face of increasingly destructive storms and weather hazards is a growing concern in the Boston region, and is codified in the MPO's System Preservation goal. Project proponents should demonstrate that their project will not cause damage to a sensitive ecosystem and that it will be able to resist damage from extreme weather events.	Impact on areas of environmental concern (6 points)	Magnitude of the project's environmental impact, positive or negative.
	Relationship to resilience plans (2 points)	Whether the project is included in local resilience plans.
TYPE-SPECIFIC CRITERIA: OPERATIONAL PROJECTS		
Long-Term Financial Plan (12 points)		
	Annual operating costs (2 points)	Whether the estimate of operating costs is present and realistic.
	Annual maintenance costs (1 point)	Whether the estimate of maintenance costs is present and realistic.
	All other costs (1 point)	Whether the estimate of other costs is present and realistic.

Key		
Blue = Criteria that apply to all projects		
Green = Criteria for capital projects		
Red/Pink = Criteria for operating projects		
OBJECTIVE	**CRITERIA**	**FACTORS**
	Fare structure (2 points)	Presence of a detailed description of the proposed fare structure and explanation thereof.
	Plan for fiscal sustainability (6 points)	Whether the application identifies full funding for the project (reflecting a local match to MPO funds) for 0, 1, 2, 3 or more years.
Service Plan (10 points)		
	Service Plan (4 points)	Presence of details on: • Plans for ADA compliance • Frequency and routing of service • How the service plans meet the need of projected riders
	Operational/contracting plan (4 points)	Presence of details on administrative and/or contracting plans and the background of the operator.
	Marketing plan (2 points)	Presence of a detailed description of a marketing plan.
Performance Monitoring Plan (8 points)		
	Data management plan (3 points)	Inclusion of plans for data collection, analysis for monitoring service, and sharing the data with the MPO.
	Passenger survey (2 points)	Whether the application describes plans for a ridership survey and the frequency with which it will be administered.
	Trip-level boarding counts (1 point)	Presence of plans for trip-level data collection.
	Stop-level data collection (1 point)	Presence of plans for stop-level data collection.

Key		
Blue = Criteria that apply to all projects		
Green = Criteria for capital projects		
Red/Pink = Criteria for operating projects		
OBJECTIVE	**CRITERIA**	**FACTORS**
	Marketing evaluation (1 point)	Presence of plans for an evaluation of the marketing effort.

ADA = Americans with Disabilities Act. CMAQ = Congestion Mitigation and Air Quality Improvement Program. CTPS = Central Transportation Planning Staff. FFY = federal fiscal year. GIS = geographic information systems. GTFS = general transit feed specification. LRTP = Long-Range Transportation Plan. MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority. MPO = Metropolitan Planning Organization. MVP = Municipal Vulnerability Program. SOV = single occupancy vehicle. TAD = Traffic and Design. TAZ = transportation analysis zone. TIP = Transportation Improvement Program.



APPENDIX B

GREENHOUSE GAS MONITORING AND EVALUATION

BACKGROUND

The Global Warming Solutions Act of 2008 (GWSA) required statewide reductions in greenhouse gas (GHG) emissions of 25 percent below 1990 levels by the year 2020, and 80 percent below 1990 levels by 2050. As part of the GWSA, the Executive Office of Energy and Environmental Affairs developed the Massachusetts Clean Energy and Climate Plan (CECP), which outlined programs to attain the 25 percent reduction by 2020—including a 7.6 percent reduction attributed to the transportation sector.

The Commonwealth's 13 metropolitan planning organizations (MPOs) are integrally involved in helping to achieve GHG emissions reductions mandated under the GWSA. The MPOs work closely with the Massachusetts Department of Transportation (MassDOT) and other involved agencies to develop common transportation goals, policies, and projects that will help to reduce GHG emissions levels statewide, and meet the specific requirements of the GWSA regulation, Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation (310 CMR 60.05). The purpose of this regulation is to assist the Commonwealth in achieving its adopted GHG emissions reduction goals by requiring the following:

- MassDOT must demonstrate that its GHG emissions reduction commitments and targets are being achieved.
- Each MPO must evaluate and track the GHG emissions and impacts of both its Long Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP).
- Each MPO, in consultation with MassDOT, must develop and use procedures to prioritize and select projects for its LRTP and TIP based on factors that include GHG emissions and impacts.

The Commonwealth's MPOs are meeting the requirements of this regulation through the transportation goals and policies contained in their LRTPs, the major projects planned in their LRTPs, and the mix of new transportation projects that are programmed and implemented through their TIPs.

The GHG tracking and evaluation processes enable the MPOs and MassDOT to identify the anticipated GHG impacts of the planned and programmed projects, and to use GHG impacts as criteria to prioritize transportation projects. This approach is consistent with the GHG emissions reduction policies that promote healthy transportation modes through prioritizing and programming an appropriate balance of roadway, transit, bicycle, and pedestrian investments, as well as policies that support smart growth development patterns by creating a balanced multimodal transportation system.

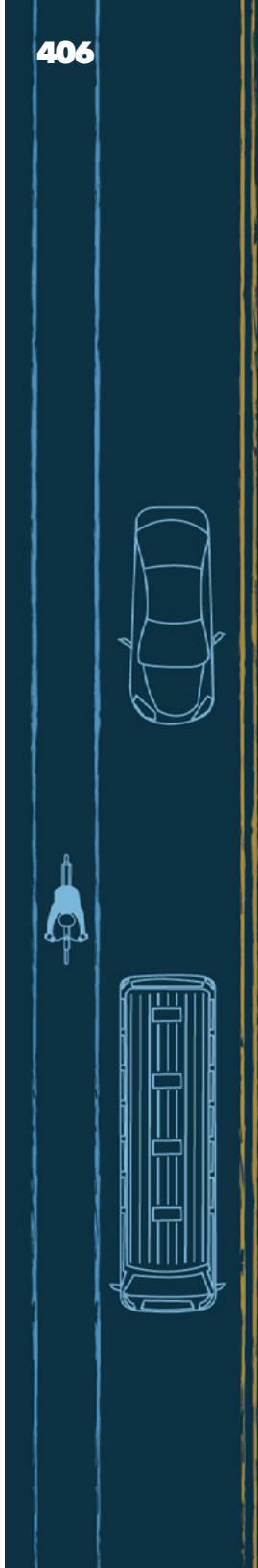
REGIONAL TRACKING AND EVALUATING LONG-RANGE TRANSPORTATION PLANS

MassDOT coordinated with MPOs and regional planning agencies to implement GHG tracking and to evaluate projects during the development of the LRTPs that were adopted in September 2011. This collaboration continued during the development of the LRTPs and amendments adopted in 2016, and for the TIPs produced for federal fiscal years (FFYs) 2016–19, 2017–21, 2018–22, 2019–23, 2020–24, 2021–25, and 2022–26. Working together, MassDOT and the MPOs have attained the following milestones:

- As a supplement to the 2016 LRTPs and Amendment One to the Boston Region MPO's LRTP, Charting Progress to 2040, the MPOs have completed modeling and developed long-range statewide projections for GHG emissions produced by the transportation sector. The Boston Region MPO's travel demand model and the statewide travel demand model were used to project GHG emissions levels for 2018, 2019, and 2020 No-Build (base conditions). These projections were developed as part of amendments to 310 CMR 60.05 (adopted in August 2017 by the Massachusetts Department of Environmental Protection) to demonstrate that aggregate transportation GHG emissions reported by MassDOT will meet established annual GHG emissions targets.
- All of the MPOs have discussed climate change, addressed GHG emissions reduction projections in their LRTPs, and prepared statements affirming their support for reducing GHG emissions as a regional goal.

TRACKING AND EVALUATING THE TRANSPORTATION IMPROVEMENT PROGRAM

In addition to monitoring the GHG impacts of projects in the LRTP that will add capacity to the transportation system, it also is important to monitor and evaluate the GHG impacts of all transportation projects that are programmed in the TIP. The TIP includes both the larger, capacity-adding projects from the LRTP and smaller projects, which are not included in the LRTP but that may affect GHG emissions. The principal objective of this tracking is to enable the MPOs to evaluate the expected GHG impacts of different projects and to use this information as criteria to prioritize and program projects in future TIPs.



In order to monitor and evaluate the GHG impacts of TIP projects, MassDOT and the MPOs have developed approaches for identifying anticipated GHG emissions impacts of different types of projects. Since carbon dioxide (CO_2) is the largest component of GHG emissions overall and is the focus of regulation 310 CMR 60.05, CO_2 has been used to measure the GHG emissions impacts of transportation projects in the TIP and LRTP.

All TIP projects have been sorted into two categories for analysis: 1) projects with quantified CO_2 impacts, and 2) projects with assumed CO_2 impacts. Projects with quantified impacts consist of capacity-adding projects from the LRTP and projects from the TIP that underwent a Congestion Mitigation and Air Quality Improvement (CMAQ) program spreadsheet analysis. Projects with assumed impacts are those that would be expected to produce a minor decrease or increase in emissions, and those that would be assumed to have no CO_2 impact.

TRAVEL DEMAND MODEL

Projects with quantified impacts include capacity-adding projects in the LRTP that were analyzed using the Boston Region MPO's travel demand model set. No independent calculations were done for these projects during the development of the TIP.

OFF-MODEL METHODS

MassDOT's Office of Transportation Planning provided spreadsheets that are used to determine projects' eligibility for funding through the CMAQ program. Typically, MPO staff uses data from projects' functional design reports, which are prepared at the 25-percent design phase, to conduct these calculations. Staff used these spreadsheets to calculate estimated projections of CO_2 for each project, in compliance with GWSA regulations. These estimates are shown in Tables B-1 and B-2. A note of "to be determined" is shown for those projects for which a functional design report was not yet available.

As part of the development of the FFYs 2024–28 TIP, analyses were done for the types of projects described below. A summary of steps performed in the analyses is provided.

TRAFFIC OPERATIONAL IMPROVEMENT

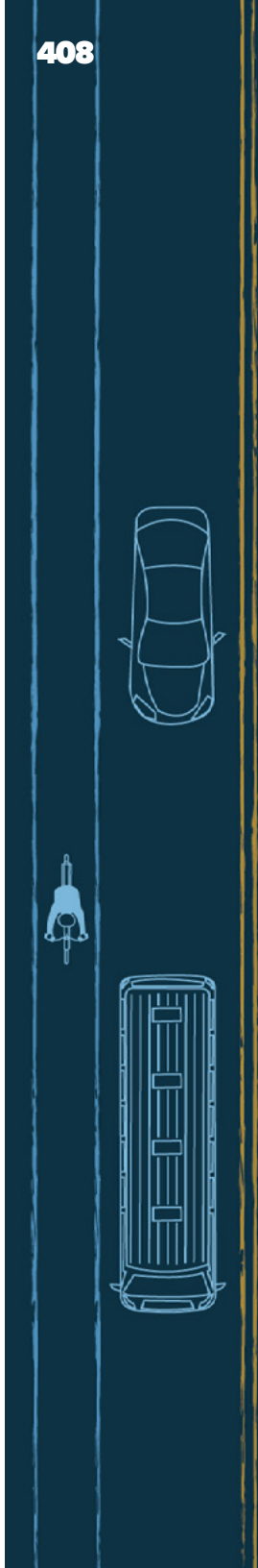
For an intersection reconstruction or signalization project that typically reduces delay and, therefore, idling, the following steps are taken:

- Step 1: Calculate the AM peak hour total intersection delay (seconds)
- Step 2: Calculate the PM peak hour total intersection delay (seconds)
- Step 3: Select the peak hour with the longer intersection delay
- Step 4: Calculate the selected peak hour total intersection delay with improvements
- Step 5: Calculate the vehicle delay in hours per day (assumes peak hour delay is 10 percent of daily delay)
- Step 6: Input the emissions factors for arterial idling speed from the US Environmental Protection Agency's Motor Vehicle Emission Simulator (MOVES)
- Step 7: Calculate the net emissions change in kilograms per day
- Step 8: Calculate the net emissions change in kilograms per year (seasonally adjusted)
- Step 9: Calculate the cost effectiveness (first year cost per kilogram of emissions reduced)

PEDESTRIAN AND BICYCLE INFRASTRUCTURE

For a shared-use path that would enable more walking and biking trips and reduce automobile trips, the following steps are taken:

- Step 1: Calculate the estimated number of one-way trips based on the percentage of workers residing in the communities served by the facility and the communities' bicycle and pedestrian commuter mode share
- Step 2: Calculate the reduction in vehicle-miles traveled per day and per year (assumes each trip is the length of the facility and that the facility operates 200 days per year)
- Step 3: Input the MOVES emissions factors for the average commuter travel speed (assumes 35 miles per hour)
- Step 4: Calculate the net emissions change in kilograms per year (seasonally adjusted)
- Step 5: Calculate the cost effectiveness (first year cost per kilogram of emissions reduced)



BUS REPLACEMENT

For a program that replaces old buses with new buses that reduce emissions or run on cleaner fuel, the following steps are taken:

- Step 1: Input the MOVES emissions factors for the average bus travel speed (assumes 18 miles per hour) for both the old model year bus and the new model year bus
- Step 2: Calculate the fleet vehicle-miles per day based on the vehicle revenue-miles and operating days per year
- Step 3: Calculate the net emissions change in kilograms per year (seasonally adjusted)
- Step 4: Calculate the cost effectiveness (first-year cost per kilogram of emissions reduced)

OTHER TYPES OF PROJECTS

Calculations may be performed on the project types listed below:

- New and Additional Transit Service: A new bus or shuttle service that reduces automobile trips
- Park-and-Ride Lot: A facility that reduces automobile trips by encouraging high-occupancy vehicle (HOV) travel via carpooling or transit
- Alternative Fuel Vehicles: New vehicle purchases that replace traditional gas or diesel vehicles with alternative fuel or advanced technology vehicles
- Anti-Idling Strategies: Strategies that include incorporating anti-idling technology into fleets and using light-emitting diode (LED) lights on trucks for the purpose of illuminating worksites
- Bike-share Projects: Programs in which bicycles are made available for shared use to individuals on a short-term basis, allowing each bicycle to serve several users per day
- Induced Travel: Projects associated with a roadway capacity change that gives rise to new automobile trips
- Speed Reduction Projects: Projects that result in slower vehicle travel speeds and, therefore, reduced emissions
- Transit Signal Priority Projects: Technology at signalized intersections or along corridors that affect bus travel times
- Truck Stop Electrification: Provides truck drivers with necessary services, such as heating, air conditioning, or appliances, without requiring them to idle their engines

ANALYZING PROJECTS WITH ASSUMED IMPACTS

QUALITATIVE DECREASE OR INCREASE IN CARBON DIOXIDE EMISSIONS

Projects with assumed CO2 impacts are those that could produce a minor decrease or increase in emissions, but the change in emissions cannot be calculated with any precision. Examples include a bicycle rack installation, Safe Routes to School project, or transit marketing or customer service improvement. These projects are categorized as producing an assumed nominal increase or decrease in emissions.

NO CARBON DIOXIDE IMPACT

Projects that do not change the capacity or use of a facility—for example, a resurfacing project that restores a roadway to its previous condition, or a bridge rehabilitation or replacement that restores the bridge to its previous condition—are assumed to have no CO2 impact. More details about these projects are discussed in Chapter 3. The following tables display the GHG impact analyses of projects funded in the FFYs 2023–27 Highway Program (Table B-1) and Transit Program (Table B-2). Table B-3 summarizes the GHG impact analyses of highway projects completed before FFY 2024. Table B-4 summarizes the GHG impact analyses of transit projects completed before FFY 2024. A project is considered completed when the construction contract has been awarded or the transit vehicles have been purchased.

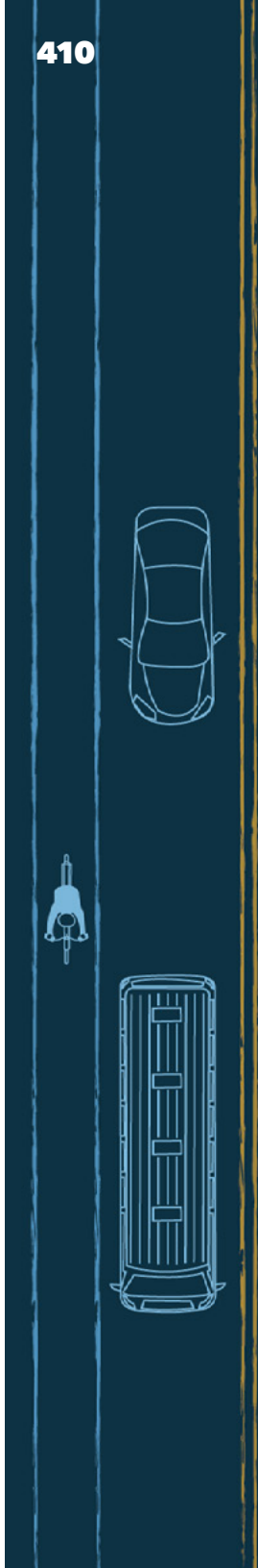


TABLE B-1

Greenhouse Gas Regional Highway Project Tracking: FFYs 2024-28 Programmed Projects

Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
Federal Fiscal Year 2024				
110980	NEWTON- WESTON- BRIDGE REHABILITATION, N-12-010=W-29-005, COMMONWEALTH AVENUE (ROUTE 30) OVER THE CHARLES RIVER	Qualitative		No assumed impact/negligible impact on emissions
603739	WRENTHAM- CONSTRUCTION OF ROUTE I-495/ROUTE 1A RAMPS	Quantified	1,233,486	Quantified Decrease in Emissions from Traffic Operational Improvement
605313	NATICK- BRIDGE REPLACEMENT, N-03-020, ROUTE 27 (NORTH MAIN STREET) OVER ROUTE 9 (WORCESTER STREET) AND INTERCHANGE IMPROVEMENTS	Qualitative		No assumed impact/negligible impact on emissions
606496	BOSTON- BRIDGE REHABILITATION, B-16-052, BOWKER OVERPASS OVER MASS PIKE, MBTA/CSX, & IPSWICH STREET AND RAMPS (BINS 4FD, 4FG, 4FE, 4FF & 4FJ)	Qualitative		No assumed impact/negligible impact on emissions
606901	BOSTON- BRIDGE REPLACEMENT, B-16-109, RIVER STREET BRIDGE OVER MBTA/AMTRAK	Qualitative		No assumed impact/negligible impact on emissions
606902	BOSTON- BRIDGE REPLACEMENT, B-16-181, WEST ROXBURY PARKWAY OVER MBTA	Qualitative		No assumed impact/negligible impact on emissions
607342	MILTON- INTERSECTION IMPROVEMENTS AT ROUTE 28 (RANDOLPH AVENUE) & CHICKATAWBUT ROAD	Quantified	1,148,459	Quantified Decrease in Emissions from Traffic Operational Improvement
607777	WATERTOWN- REHABILITATION OF MOUNT AUBURN STREET (ROUTE 16)	Quantified	536,769	Quantified Decrease in Emissions from Complete Streets Project
607977	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	Quantified		RTP project included in the statewide model
608007	COHASSET- SCITUATE- CORRIDOR IMPROVEMENTS AND RELATED WORK ON JUSTICE CUSHING HIGHWAY (ROUTE 3A), FROM BEECHWOOD STREET TO HENRY TURNER BAILEY ROAD	Quantified	5,849	Quantified Decrease in Emissions from Complete Streets Project
608522	MIDDLETON- BRIDGE REPLACEMENT, M-20-003, ROUTE 62 (MAPLE STREET) OVER IPSWICH RIVER	Qualitative		No assumed impact/negligible impact on emissions
608562	SOMERVILLE- SIGNAL AND INTERSECTION IMPROVEMENT ON I-93 AT MYSTIC AVENUE AND MCGRATH HIGHWAY (TOP 200 CRASH LOCATION)	Qualitative		Qualitative Decrease in Emissions
609054	LITTLETON- RECONSTRUCTION OF FOSTER STREET	Quantified	1,140	Quantified Decrease in Emissions from Complete Streets Project
609211	PEABODY- INDEPENDENCE GREENWAY EXTENSION	Quantified	36,612	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
609438	CANTON- BRIDGE REPLACEMENT, C-02-042, REVERE COURT OVER WEST BRANCH OF THE NEPONSET RIVER	Qualitative		No assumed impact/negligible impact on emissions
612034	WOBURN- INTERSTATE PAVEMENT PRESERVATION AND RELATED WORK ON I-95	Qualitative		Qualitative Decrease in Emissions
612048	WALTHAM- INTERSTATE MAINTENANCE AND RELATED WORK ON I-95	Qualitative		Qualitative Decrease in Emissions
613196	BURLINGTON- LYNNFIELD- WAKEFIELD- WOBURN- BRIDGE PRESERVATION OF 10 BRIDGES CARRYING I-95	Qualitative		No assumed impact/negligible impact on emissions
613209	BOSTON- BRIDGE PRESERVATION, B-16-236 (39M, 39P, 39U, 39W, 39Y), 5 BRIDGES CARRYING STATE ROUTE 1A (EAST BOSTON EXPRESSWAY NB/SB) AND RAMPS	Qualitative		No assumed impact/negligible impact on emissions
613211	MEDFORD- BRIDGE PRESERVATION OF 10 BRIDGES CARRYING I-93	Qualitative		No assumed impact/negligible impact on emissions

Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
S12114	ROYALL STREET SHUTTLE	Quantified	409,583	Quantified Decrease in Emissions from New/Additional Transit Service
S12694	NEWMO MICROTRANSIT SERVICE EXPANSION	Quantified	91,800	Quantified Decrease in Emissions from New/Additional Transit Service
S12697	PLEASANT STREET SHUTTLE SERVICE EXPANSION	Quantified	183,575	Quantified Decrease in Emissions from New/Additional Transit Service
S12699	STONEHAM SHUTTLE SERVICE	Quantified	41,707	Quantified Decrease in Emissions from New/Additional Transit Service
S12700	CATA ON DEMAND MICROTRANSIT SERVICE EXPANSION	Quantified	33,400	Quantified Decrease in Emissions from New/Additional Transit Service
S12701	MWRTA CATCHCONNECT MICROTRANSIT SERVICE EXPANSION	Quantified	11,936	Quantified Decrease in Emissions from New/Additional Transit Service
S12703	MONTACHUSETT RTA MICROTRANSIT SERVICE	Quantified	24,602	Quantified Decrease in Emissions from New/Additional Transit Service
S12705	LYNN STATION IMPROVEMENTS PHASE II	Qualitative		Qualitative Decrease in Emissions
S12802	LYNN - BROAD STREET CORRIDOR TRANSIT SIGNAL PRIORITY	Quantified	1,328,755	Quantified Decrease in Emissions from Traffic Operational Improvement
S12803	MEDFORD - BICYCLE PARKING (TIER 1)	Qualitative		Qualitative Decrease in Emissions
S12804	MEDFORD - BLUEBIKES EXPANSION	Quantified	4,561	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
S12805	CANTON PUBLIC SCHOOLS BIKE PROGRAM	Qualitative		Qualitative Decrease in Emissions
S12806	CANTON CENTER BICYCLE RACKS	Qualitative		Qualitative Decrease in Emissions
S12807	MWRTA CATCHCONNECT MICROTRANSIT EXPANSION PHASE 2	Quantified	102,845	Quantified Decrease in Emissions from New/Additional Transit Service
S12818	ACTON PARKING MANAGEMENT SYSTEM	Qualitative		Qualitative Decrease in Emissions
S12819	JACKSON SQUARE STATION ACCESSIBILITY IMPROVEMENTS	Qualitative		Qualitative Decrease in Emissions
S12821	RAIL TRANSFORMATION - EARLY ACTION ITEMS - READING STATION AND WILBUR INTERLOCKING	Qualitative		Qualitative Decrease in Emissions
S12822	COLUMBUS AVENUE BUS LANES PHASE 2	Qualitative		Qualitative Decrease in Emissions
S12823	BOSTON - ELECTRIC BLUEBIKES ADOPTION	Quantified	160,925	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
S12824	CAMBRIDGE - ELECTRIC BLUEBIKES ADOPTION	Quantified	66,559	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
Federal Fiscal Year 2025				
604564	MAYNARD- BRIDGE REPLACEMENT, M-10-004, ROUTE 62 (MAIN STREET) OVER THE ASSABET RIVER	Qualitative		No assumed impact/negligible impact on emissions
605168	HINGHAM- IMPROVEMENTS ON ROUTE 3A FROM OTIS STREET/COLE ROAD INCLUDING SUMMER STREET AND ROTARY; ROCKLAND STREET TO GEORGE WASHINGTON BOULEVARD.	Quantified	284,736	Quantified Decrease in Emissions from Complete Streets Project
606453	BOSTON- IMPROVEMENTS ON BOYLSTON STREET, FROM INTERSECTION OF BROOKLINE AVENUE & PARK DRIVE TO IPSWICH STREET	Quantified	1,920,790	Quantified Decrease in Emissions from Complete Streets Project
607684	BRAINTREE- BRIDGE REPLACEMENT, B-21-017, WASHINGTON STREET (ST 37) OVER MBTA/CSX RAILROAD	Qualitative		No assumed impact/negligible impact on emissions
607977	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTER-CHANGE	Quantified		RTP project included in the statewide model
608051	WILMINGTON- RECONSTRUCTION ON ROUTE 38 (MAIN STREET), FROM ROUTE 62 TO THE WOBURN C.L.	Quantified	492,167	Quantified Decrease in Emissions from Complete Streets Project
608067	WOBURN- INTERSECTION RECONSTRUCTION AT ROUTE 3 (CAMBRIDGE ROAD) & BEDFORD ROAD AND SOUTH BEDFORD STREET	Quantified	168,263	Quantified Decrease in Emissions from Traffic Operational Improvement
608197	BOSTON- BRIDGE REHABILITATION, B-16-107, CANTERBURY STREET OVER AMTRAK RAILROAD	Qualitative		No assumed impact/negligible impact on emissions

Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
608436	ASHLAND- REHABILITATION AND RAIL CROSSING IMPROVEMENTS ON CHERRY STREET	Qualitative		No assumed impact/negligible impact on emissions
608498	QUINCY- WEYMOUTH- BRAINTREE- RESURFACING AND RELATED WORK ON ROUTE 53	Qualitative		Qualitative Decrease in Emissions
608703	WILMINGTON- BRIDGE REPLACEMENT, W-38-029 (2KV), ST 129 LOWELL STREET OVER I 93	Qualitative		No assumed impact/negligible impact on emissions
608952	CHELSEA- BRIDGE SUPERSTRUCTURE REPLACMENT C-09-013, WASHINGTON AVENUE, CARTER STREET & COUNTY ROAD/ROUTE 1	Qualitative		No assumed impact/negligible impact on emissions
609252	LYNN- REHABILITATION OF ESSEX STREET	Quantified	411,006	Quantified Decrease in Emissions from Complete Streets Project
609257	EVERETT- RECONSTRUCTION OF BEACHAM STREET	Quantified	4,038	Quantified Decrease in Emissions from Complete Streets Project
609399	RANDOLPH- RESURFACING AND RELATED WORK ON ROUTE 28	Qualitative		Qualitative Decrease in Emissions
609467	HAMILTON- IPSWICH- SUPERSTRUCTURE REPLACEMENT, H-03-002=I-01-006, WINTHROP STREET OVER IPSWICH RIVER	Qualitative		No assumed impact/negligible impact on emissions
609516	BURLINGTON- IMPROVEMENTS AT I-95 (ROUTE 128)/ROUTE 3 INTERCHANGE	Qualitative		No assumed impact/negligible impact on emissions
609531	ARLINGTON- STRATTON SCHOOL IMPROVEMENTS (SRTS)	Qualitative		Qualitative Decrease in Emissions
609532	CHELSEA- TARGETED SAFETY IMPROVEMENTS AND RELATED WORK ON BROADWAY, FROM WILLIAMS STREET TO CITY HALL AVENUE	Qualitative		Qualitative Decrease in Emissions
610544	PEABODY- MULTI-USE PATH CONSTRUCTION OF INDEPENDENCE GREENWAY AT I-95 AND ROUTE 1	Quantified	24,423	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
610680	NATICK- LAKE COCHITUATE PATH	Quantified	2,844	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
610722	ACTON- BOXBOROUGH- LITTLETON- PAVEMENT PRESERVATION ROUTE 2	Qualitative		Qualitative Decrease in Emissions
610776	CAMBRIDGE- SUPERSTRUCTURE REPLACEMENT, C-01-031, US ROUTE 3/ ROUTE 16/ROUTE 2 OVER MBTA REDLINE	Qualitative		No assumed impact/negligible impact on emissions
610782	DANVERS- MIDDLETON- BRIDGE REPLACEMENT, D-03-009=M-20-005, ANDOVER STREET (SR 114) OVER IPSWICH RIVER	Qualitative		No assumed impact/negligible impact on emissions
611982	MEDFORD- SHARED USE PATH CONNECTION AT THE ROUTE 28/WELLINGTON UNDERPASS	Quantified	4,309	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
611997	NEWTON- HORACE MANN ELEMENTARY SCHOOL IMPROVEMENTS (SRTS)	Qualitative		Qualitative Decrease in Emissions
612001	MEDFORD- MILTON FULLER ROBERTS ELEMENTARY SCHOOL (SRTS)	Qualitative		Qualitative Decrease in Emissions
612028	STONEHAM- DECK REPLACEMENT & SUPERSTRUCTURE REPAIRS, S-27-006 (2L2), (ST 28) FELLSWAY WEST OVER I-93	Qualitative		No assumed impact/negligible impact on emissions
612100	REVERE- IMPROVEMENTS AT BEACHMONT VETERANS ELEMENTARY (SRTS)	Qualitative		Qualitative Decrease in Emissions
612173	BELLINGHAM- BRIDGE REPLACEMENT, B-06-022, MAPLE STREET OVER I-495	Qualitative		No assumed impact/negligible impact on emissions
612178	NATICK- BRIDGE REPLACEMENT, N-03-010, SPEEN STREET OVER RR MBTA/ CSX	Qualitative		No assumed impact/negligible impact on emissions
612182	NEWTON- BRIDGE REPLACEMENT, N-12-040, BOYLSTON STREET OVER GREEN LINE D	Qualitative		No assumed impact/negligible impact on emissions
612184	REVERE- BRIDGE REPLACEMENT, R-05-015, REVERE BEACH PARKWAY OVER BROADWAY	Qualitative		No assumed impact/negligible impact on emissions
612196	BRAINTREE- BRIDGE REPLACEMENT, B-21-067, JW MAHER HIGHWAY OVER MONATIQUOT RIVER	Qualitative		No assumed impact/negligible impact on emissions

Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
S12113	TRANSIT MODERNIZATION PROGRAM	Qualitative		No assumed impact/negligible impact on emissions
S12124	COMMUNITY CONNECTIONS PROGRAM	Qualitative		No assumed impact/negligible impact on emissions
S12694	NEWMO MICROTRANSIT SERVICE EXPANSION	Quantified	91,800	Quantified Decrease in Emissions from New/Additional Transit Service
S12697	PLEASANT STREET SHUTTLE SERVICE EXPANSION	Quantified	183,575	Quantified Decrease in Emissions from New/Additional Transit Service
S12699	STONEHAM SHUTTLE SERVICE	Quantified	41,707	Quantified Decrease in Emissions from New/Additional Transit Service
S12700	CATA ON DEMAND MICROTRANSIT SERVICE EXPANSION	Quantified	33,400	Quantified Decrease in Emissions from New/Additional Transit Service
S12701	MWRTA CATCHCONNECT MICROTRANSIT SERVICE EXPANSION	Quantified	11,936	Quantified Decrease in Emissions from New/Additional Transit Service
S12703	MONTACHUSETT RTA MICROTRANSIT SERVICE	Quantified	24,602	Quantified Decrease in Emissions from New/Additional Transit Service
S12807	MWRTA CATCHCONNECT MICROTRANSIT EXPANSION PHASE 2	Quantified	102,845	Quantified Decrease in Emissions from New/Additional Transit Service
S12819	JACKSON SQUARE STATION ACCESSIBILITY IMPROVEMENTS	Qualitative		No assumed impact/negligible impact on emissions
S12820	BIKESHARE SUPPORT SET ASIDE	Not Applicable		No assumed impact/negligible impact on emissions
S12825	BOSTON MPO REGION - FFY2025 PROJECT DESIGN PILOT	Not Applicable		No assumed impact/negligible impact on emissions
Federal Fiscal Year 2026				
605321	NORWOOD- BRIDGE PRESERVATION, N-25-026, PROVIDENCE HIGHWAY (STATE ROUTE 1) OVER THE NEPONSET RIVER	Qualitative		No assumed impact/negligible impact on emissions
605743	IPSWICH- RESURFACING & RELATED WORK ON CENTRAL & SOUTH MAIN STREETS	Quantified	4,356	Quantified Decrease in Emissions from Complete Streets Project
605857	NORWOOD- INTERSECTION IMPROVEMENTS @ ROUTE 1 & UNIVERSITY AVENUE/EVERETT STREET	Quantified	1,092,131	Quantified Decrease in Emissions from Traffic Operational Improvement
606449	CAMBRIDGE- BRIDGE REPLACEMENT, C-01-008, FIRST STREET BRIDGE & C-01-040, LAND BOULEVARD/BROAD CANAL BRIDGE	Qualitative		No assumed impact/negligible impact on emissions
607977	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	Quantified		RTP project included in the statewide model
608045	MILFORD- REHABILITATION ON ROUTE 16, FROM ROUTE 109 TO BEAVER STREET	Quantified	-38,500	Quantified Increase in Emissions
608564	WATERTOWN- INTERSECTION IMPROVEMENTS AT ROUTE 16 AND GALEN STREET	Qualitative		Qualitative Decrease in Emissions
608940	WESTON- INTERSECTION IMPROVEMENTS BOSTON POST ROAD (ROUTE 20) AT WELLESLEY STREET	Quantified	102,453	Quantified Decrease in Emissions from Traffic Operational Improvement
608954	WESTON- RECONSTRUCTION ON ROUTE 30	Quantified	357,681	Quantified Decrease in Emissions from Complete Streets Project
609204	BELMONT- COMMUNITY PATH, BELMONT COMPONENT OF THE MCRT (PHASE I)	Quantified	26,347	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
609437	SALEM- PEABODY- BOSTON STREET IMPROVEMENTS	Quantified	58,773	Quantified Decrease in Emissions from Complete Streets Project
610537	BOSTON- ELLIS ELEMENTARY TRAFFIC CALMING (SRTS)	Qualitative		Qualitative Decrease in Emissions
610662	WOBURN- ROADWAY AND INTERSECTION IMPROVEMENTS AT WOBURN COMMON, ROUTE 38 (MAIN STREET), WINN STREET, PLEASANT STREET AND MONTVALE AVENUE	Quantified	736,275	Quantified Decrease in Emissions from Traffic Operational Improvement
610665	STONEHAM- INTERSECTION IMPROVEMENTS AT ROUTE 28 (MAIN STREET), NORTH BORDER ROAD AND SOUTH STREET	Qualitative		Qualitative Decrease in Emissions

Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
610675	CHELSEA- RECONSTRUCTION OF SPRUCE STREET, FROM EVERETT AVENUE TO WILLIAMS STREET	Qualitative		No assumed impact/negligible impact on emissions
611954	BOSTON- GUIDE AND TRAFFIC SIGN REPLACEMENT ON I-90/I-93 WITHIN CENTRAL ARTERY/TUNNEL SYSTEM	Qualitative		No assumed impact/negligible impact on emissions
611974	MEDFORD- INTERSECTION IMPROVEMENTS AT MAIN STREET/SOUTH STREET, MAIN STREET/MYSTIC VALLEY PARKWAY RAMPS, AND MAIN STREET/MYSTIC AVENUE	Qualitative		No assumed impact/negligible impact on emissions
612049	RANDOLPH- RESURFACING AND RELATED WORK ON ROUTE 24	Qualitative		Qualitative Decrease in Emissions
612050	BRAINTREE- WEYMOUTH- RESURFACING AND RELATED WORK ON ROUTE 3	Qualitative		Qualitative Decrease in Emissions
612051	CANTON- MILTON- RANDOLPH- INTERSTATE MAINTENANCE AND RELATED WORK ON I-93	Qualitative		Qualitative Decrease in Emissions
612075	SALEM- BRIDGE REPLACEMENT, S-01-024, JEFFERSON AVENUE OVER PARALLEL STREET	Qualitative		No assumed impact/negligible impact on emissions
612076	TOPSFIELD- BRIDGE REPLACEMENT, T-06-013, PERKINS ROW OVER MILE BROOK	Qualitative		No assumed impact/negligible impact on emissions
612099	ASHLAND- BRIDGE REPLACEMENT, A-14-006, CORDAVILLE ROAD OVER SUDBURY RIVER	Qualitative		No assumed impact/negligible impact on emissions
612496	SOMERVILLE- BRIDGE PRESERVATION, S-17-031, I-93 (NB & SB) FROM ROUTE 28 TO TEMPLE STREET (PHASE 2)	Qualitative		No assumed impact/negligible impact on emissions
612523	REVERE- STATE ROAD BEACHMONT CONNECTOR	Qualitative		Qualitative Decrease in Emissions
612599	LYNN- TARGETED SAFETY AND MULTIMODAL IMPROVEMENTS (PLAYBOOK PRIORITY CORRIDORS)	Qualitative		Qualitative Decrease in Emissions
612804	DEDHAM- IMPROVEMENTS AT AVERY ELEMENTARY (SRTS)	Qualitative		Qualitative Decrease in Emissions
612816	BROOKLINE- IMPROVEMENTS AT WILLIAM H. LINCOLN SCHOOL (SRTS)	Qualitative		Qualitative Decrease in Emissions
612884	CHELSEA- IMPROVEMENTS AT MARY C. BURKE ELEMENTARY (SRTS)	Qualitative		Qualitative Decrease in Emissions
612889	SHARON- COTTAGE STREET SCHOOL IMPROVEMENTS (SRTS)	Qualitative		Qualitative Decrease in Emissions
612894	FRAMINGHAM- IMPROVEMENTS AT HARMONY GROVE ELEMENTARY SCHOOL (SRTS)	Qualitative		Qualitative Decrease in Emissions
612989	BOSTON- BRIDGE PRESERVATION, B-16-066 (38D), CAMBRIDGE STREET OVER MBTA	Quantified	5,400	Quantified Decrease in Emissions from Traffic Operational Improvement
S12113	TRANSIT MODERNIZATION PROGRAM	Qualitative		No assumed impact/negligible impact on emissions
S12124	COMMUNITY CONNECTIONS PROGRAM	Qualitative		No assumed impact/negligible impact on emissions
S12807	MWRTA CATCHCONNECT MICROTRANSIT EXPANSION PHASE 2	Quantified	102,845	Quantified Decrease in Emissions from New/Additional Transit Service
S12820	BIKESHARE SUPPORT SET ASIDE	Not Applicable		No assumed impact/negligible impact on emissions
Federal Fiscal Year 2027				
605276	BEVERLY- SALEM- DRAWBRIDGE REPLACEMENT/REHABILITATION OF B-11-005=S-01-013, KERNWOOD AVENUE OVER DANVERS RIVER	Qualitative		No assumed impact/negligible impact on emissions
605743	IPSWICH- RESURFACING & RELATED WORK ON CENTRAL & SOUTH MAIN STREETS	Quantified	4,356	Quantified Decrease in Emissions from Complete Streets Project

Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
605857	NORWOOD- INTERSECTION IMPROVEMENTS @ ROUTE 1 & UNIVERSITY AVENUE/EVERETT STREET	Quantified	1,092,131	Quantified Decrease in Emissions from Traffic Operational Improvement
606226	BOSTON- RECONSTRUCTION OF RUTHERFORD AVENUE, FROM CITY SQUARE TO SULLIVAN SQUARE	Quantified		RTP project included in the statewide model
606728	BOSTON- BRIDGE REPLACEMENT B-16-365, STORROW DRIVE OVER BOWKER RAMPS	Qualitative		No assumed impact/negligible impact on emissions
607329	WAKEFIELD- LYNNFIELD- RAIL TRAIL EXTENSION, FROM THE GALVIN MIDDLE SCHOOL TO LYNNFIELD/PEABODY T.L.	Quantified	158,032	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
607420	NATICK- SUPERSTRUCTURE REPLACEMENT, N-03-012, BODEN LANE OVER CSX/MBTA	Qualitative		No assumed impact/negligible impact on emissions
607977	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTER-CHANGE	Quantified		RTP project included in the statewide model
607981	SOMERVILLE- MCGRATH BOULEVARD CONSTRUCTION	Quantified	136,345	Quantified Decrease in Emissions from Complete Streets Project
608514	BEVERLY- BRIDGE REPLACEMENT, B-11-001, BRIDGE STREET OVER BASS RIVER (HALL-WHITAKER DRAWBRIDGE)	Qualitative		No assumed impact/negligible impact on emissions
609246	LYNN- REHABILITATION OF WESTERN AVENUE (ROUTE 107)	Quantified	902,708	Quantified Decrease in Emissions from Complete Streets Project
610650	BOSTON- GALLIVAN BOULEVARD (ROUTE 203) SAFETY IMPROVEMENTS, FROM WASHINGTON STREET TO GRANITE AVENUE	Qualitative		Qualitative Decrease in Emissions
610660	SUDBURY- WAYLAND- MASS CENTRAL RAIL TRAIL (MCRT)	Quantified	TBD	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
610932	BROOKLINE- REHABILITATION OF WASHINGTON STREET	Quantified	36,431	Quantified Decrease in Emissions from Complete Streets Project
611983	CHELSEA- PARK STREET & PEARL STREET RECONSTRUCTION	Quantified	10,214	Quantified Decrease in Emissions from Complete Streets Project
611987	CAMBRIDGE- BRIDGE REPLACEMENT, C-01-026, MEMORIAL DRIVE OVER BROOKLINE STREET	Qualitative		No assumed impact/negligible impact on emissions
612499	MEDFORD- SOUTH MEDFORD CONNECTOR BIKE PATH	Quantified	TBD	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
612519	BOSTON- BRIDGE REPLACEMENT, B-16-165, BLUE HILL AVENUE OVER RAILROAD	Qualitative		No assumed impact/negligible impact on emissions
612613	NEWTON- INTERSECTION IMPROVEMENTS AT ROUTE 16 AND QUI-NOBEQUIN ROAD	Qualitative		Qualitative Decrease in Emissions
612615	CANTON- MILTON- ROADWAY RECONSTRUCTION ON ROUTE 138, FROM ROYALL STREET TO DOLLAR LANE	Qualitative		Qualitative Decrease in Emissions
612616	MILTON- INTERSECTION IMPROVEMENTS AT ROUTE 138 AND BRADLEE ROAD	Qualitative		Qualitative Decrease in Emissions
613088	MALDEN- SPOT POND BROOK GREENWAY	Quantified	77,012	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
613121	EVERETT- TARGETED MULTI-MODAL AND SAFETY IMPROVEMENTS ON ROUTE 16 (DESIGN ONLY)	Qualitative		Qualitative Decrease in Emissions
S12113	TRANSIT MODERNIZATION PROGRAM	Qualitative		No assumed impact/negligible impact on emissions
S12124	COMMUNITY CONNECTIONS PROGRAM	Qualitative		No assumed impact/negligible impact on emissions
S12820	BIKESHARE SUPPORT SET ASIDE	Not Applicable		No assumed impact/negligible impact on emissions

TABLE B-2

Greenhouse Gas Regional Transit Project Tracking: FFYs 2024-28 Programmed Projects

Regional Transit Authority	Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
Federal Fiscal Year 2024					
CATA	RTD0010579	CATA - Preventive Maintenance	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010583	CATA - buy misc small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010584	CATA - acquire shop equip/small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010587	CATA - repave admin/ops facility parking lot	Qualitative		No assumed impact/negligible impact on emissions
CATA	T00073	CATA - Rehab/Renovation Administration & Operations Facility	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011103	MetroWest RTA - Operating Assistance - Non Fixed Route ADA Paratransit Service	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011104	MetroWest RTA - Acquisition of Bus Support / Facilities Equipment	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011105	MetroWest RTA - Technology Support/Capital Outreach	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011106	MetroWest RTA - Blandin Intermodal	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011107	MetroWest RTA - FCRS Intermodal - Framingham Commuter Rail Station (FCRS)	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011114	MetroWest RTA - 5339 STATEWIDE - Vehicle Replacements (16 cutaways)	Quantified	807,026	Quantified Decrease in Emissions from Bus Replacement
MWRTA	RTD0011123	MetroWest RTA - 5339 STATEWIDE - 2024 EV (Electric Vehicle) Migration	Qualitative		Qualitative Decrease in Emissions
MWRTA	RTD0011130	MetroWest RTA - 5339 DISCRETIONARY - Blandin Hub Projects	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	T00037	MetroWest RTA - CNG Dispensers (2) at the Compressed Natural Gas Fueling Facility	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	T00038	MetroWest RTA - Electronic Sign Board	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA011468	Columbus Ave. Bus Lane Ph. II	Quantified	98,855	Quantified Decrease in Emissions from Other Improvements
MBTA	MBTA011470	Jackson Sq. Station Access Impr.	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA011472	Rail Transformation - Early Action	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA015	5307 Revenue Vehicle Program	Quantified	29,791,730	Quantified Decrease in Emissions from Bus Replacement
MBTA	MBTA016	5307 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA017	5307 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA018	5337 Bridge & Tunnel Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA019	5337 Revenue Vehicle Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA020	5337 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA021	5337 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA022	5339 Bus Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA024	RRIF/TIFIA Financing Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA025	Lynn Station Improvements	Qualitative		No assumed impact/negligible impact on emissions

Regional Transit Authority	Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
Federal Fiscal Year 2025					
CATA	RTD0010579	CATA - Preventive Maintenance	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010583	CATA - buy misc small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010584	CATA - acquire shop equip/small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010591	CATA - Revenue Vehicle Replacement	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
CATA	T00073	CATA - Rehab/Renovation Administration & Operations Facility	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011109	MetroWest RTA - ACQUISITION OF BUS SUPPORT EQUIP/FACILITIES	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011110	MetroWest RTA - TECHNOLOGY SUPPORT/CAPITAL OUTREACH	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011111	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - BLANDIN	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011112	MetroWest RTA - OPERATING ASSISTANCE NON FIXED ROUTE ADA PARA SERV	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011115	MetroWest RTA - 5339 COMPETITIVE REVENUE VEHICLE REPLACEMENT - DISCRETIONARY	Quantified	807,026	Quantified Decrease in Emissions from Bus Replacement
MWRTA	RTD0011121	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - Framingham Commuter Rail Station (FCRS)	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011124	MetroWest RTA - 5339 COMPETITIVE 2025 ELECTRIC VEHICLE (EV) ADDTL ELECTRIFICATION COSTS - DISCRETIONARY	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011133	MetroWest RTA - AFC TRANSITION - MOBILE FARE COLL EQUIP	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011134	MetroWest RTA - PUBLIC RESTROOMS AT BLANDIN & FCRS HUBS - DISCRETIONARY	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011137	MetroWest RTA - VEHICLE REPLACEMENT - CUTAWAYS (8) #2 of 2	Quantified	432,335	Quantified Decrease in Emissions from Bus Replacement
MBTA	MBTA011474	Jackson Sq. Station Access Impr. (CMAQ)	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA027	5307 Bridge & Tunnel Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA028	5307 Revenue Vehicle Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA029	5307 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA030	5307 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA031	5337 Bridge & Tunnel Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA032	5337 Revenue Vehicle Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA033	5337 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA034	5337 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA035	5339 Bus Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA036	RRIF Financing - PTC/ATC/Fiber	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA037	RRIF/TIFIA Financing Program	Qualitative		No assumed impact/negligible impact on emissions

Regional Transit Authority	Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
Federal Fiscal Year 2026					
CATA	RTD0010579	CATA - Preventive Maintenance	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010583	CATA - buy misc small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010584	CATA - acquire shop equip/small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010591	CATA - Revenue Vehicle Replacement	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
CATA	T00073	CATA - Rehab/Renovation Administration & Operations Facility	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011116	MetroWest RTA - OPERATING ASSISTANCE NON FIXED ROUTE ADA PARA SERV	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011117	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - BLANDIN	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011118	MetroWest RTA - TECHNOLOGY SUPPORT/CAPITAL OUTREACH	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011119	MetroWest RTA - ACQUISITION OF BUS SUPPORT EQUIP/FACILITIES	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011120	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - Framingham Commuter Rail Station	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011125	MetroWest RTA - 2026 ELECTRIC VEHICLE (EV) ADDTL ELECTRIFICATION COSTS	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011126	MetroWest RTA - 5339 COMPETITIVE REVENUE VEHICLE REPLACEMENT - DISCRETIONARY	Quantified	518,802	Quantified Decrease in Emissions from Bus Replacement
MWRTA	RTD0011138	MetroWest RTA - VEHICLE REPLACEMENT - CUTAWAYS (8) #2 of 2	Quantified	518,802	Quantified Decrease in Emissions from Bus Replacement
MBTA	MBTA040	5307 Bridge & Tunnel Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA041	5307 Revenue Vehicle Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA042	5307 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA043	5307 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA044	5337 Bridge & Tunnel Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA045	5337 Revenue Vehicle Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA046	5337 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA047	5337 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA048	5339 Bus Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA049	RRIF Financing - PTC/ATC/Fiber	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA050	RRIF/TIFIA Financing Program	Qualitative		No assumed impact/negligible impact on emissions

Regional Transit Authority	Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
Federal Fiscal Year 2027					
CATA	RTD0010579	CATA - Preventive Maintenance	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010583	CATA - buy misc small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010584	CATA - acquire shop equip/small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	T00073	CATA - Rehab/Renovation Administration & Operations Facility	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011195	MetroWest RTA - OPERATING ASSISTANCE NON FIXED ROUTE ADA PARA SERV	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011196	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - BLANDIN	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011197	MetroWest RTA - TECHNOLOGY SUPPORT/CAPITAL OUTREACH	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011198	MetroWest RTA - ACQUISITION OF BUS SUPPORT EQUIP/FACILITIES	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011199	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - Framingham Commuter Rail Station	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011200	MetroWest RTA - 5339 COMPETITIVE REVENUE VEHICLE REPLACEMENT - DISCRETIONARY	Quantified	504,391	Quantified Decrease in Emissions from Bus Replacement
MWRTA	RTD0011201	MetroWest Regional Transit Authority - ELECTRIC VEHICLE (EV) ADDTL ELECTRIFICATION COSTS	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011202	MetroWest RTA - VEHICLE REPLACEMENT - Cutaways #2 of 2	Quantified	576,447	Quantified Decrease in Emissions from Bus Replacement
MWRTA	RTD0011267	MetroWest RTA - EV - Additional Electrification for Vehicles	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA053	5307 Bridge & Tunnel Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA054	5307 Revenue Vehicle Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA055	5307 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA056	5307 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA057	5337 Bridge & Tunnel Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA058	5337 Revenue Vehicle Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA059	5337 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA060	5337 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA061	5339 Bus Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA063	RRIF/TIFIA Financing Program	Qualitative		No assumed impact/negligible impact on emissions
Federal Fiscal Year 2028					
CATA	RTD0010579	CATA - Preventive Maintenance	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010583	CATA - buy misc small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010584	CATA - acquire shop equip/small capital	Qualitative		No assumed impact/negligible impact on emissions

Regional Transit Authority	Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
CATA	T00073	CATA - Rehab/Renovation Administration & Operations Facility	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011195	MetroWest RTA - OPERATING ASSISTANCE NON FIXED ROUTE ADA PARA SERV	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011196	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - BLANDIN	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011197	MetroWest RTA - TECHNOLOGY SUPPORT/CAPITAL OUTREACH	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011198	MetroWest RTA - ACQUISITION OF BUS SUPPORT EQUIP/FACILITIES	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011199	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - Framingham Commuter Rail Station	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011200	MetroWest RTA - 5339 COMPETITIVE REVENUE VEHICLE REPLACEMENT - DISCRETIONARY	Quantified	504,391	Quantified Decrease in Emissions from Bus Replacement
MWRTA	RTD0011201	MetroWest Regional Transit Authority - ELECTRIC VEHICLE (EV) ADDTL ELECTRIFICATION COSTS	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011202	MetroWest RTA - VEHICLE REPLACEMENT - Cutaways #2 of 2	Quantified	576,447	Quantified Decrease in Emissions from Bus Replacement
MWRTA	RTD0011267	MetroWest RTA - EV - Additional Electrification for Vehicles	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA011475	5307 Bridge & Tunnel Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA011476	5307 Revenue Vehicle Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA011478	5307 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA011481	5337 Bridge & Tunnel Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA011484	5307 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA011486	5337 Revenue Vehicle Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA011487	5337 Signals/Systems Upgrade Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA011488	5337 Stations and Facilities Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA011489	5339 Bus Program	Quantified	TBD	Impact on emissions will be calculated when specific projects are chosen for funding through this program
MBTA	MBTA011490	RRIF/TIFIA Financing Program	Qualitative		No assumed impact/negligible impact on emissions

TABLE B-3

Greenhouse Gas Regional Highway Project Tracking: Completed Projects

Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
Federal Fiscal Year 2023				
603722	LEXINGTON- BRIDGE REPLACEMENT, L-10-010, ROUTE 2A (MARRETT ROAD) OVER I-95/ROUTE 128	Qualitative		No assumed impact/negligible impact on emissions
606130	NORWOOD- INTERSECTION IMPROVEMENTS AT ROUTE 1A & UPLAND ROAD/WASHINGTON STREET & PROSPECT STREET/FULTON STREET	Quantified	131,840	Quantified Decrease in Emissions from Traffic Operational Improvement
606476	BOSTON- ROADWAY, CEILING, ARCH & WALL RECONSTRUCTION AND OTHER CONTROL SYSTEMS IN SUMNER TUNNEL	Qualitative		No assumed impact/negligible impact on emissions
607244	WINTHROP- RECONSTRUCTION & RELATED WORK ALONG WINTHROP STREET & REVERE STREET CORRIDOR	Quantified	252,816	Quantified Decrease in Emissions from Complete Streets Project
607327	WILMINGTON- BRIDGE REPLACEMENT, W-38-002, ROUTE 38 (MAIN STREET) OVER THE B&M RAILROAD	Qualitative		No assumed impact/negligible impact on emissions
607342	MILTON- INTERSECTION IMPROVEMENTS AT ROUTE 28 (RANDOLPH AVENUE) & CHICKATAWBUT ROAD	Qualitative		Qualitative Decrease in Emissions
607777	WATERTOWN- REHABILITATION OF MOUNT AUBURN STREET (ROUTE 16)	Quantified	536,769	Quantified Decrease in Emissions from Complete Streets Project
607899	DEDHAM- PEDESTRIAN IMPROVEMENTS ALONG BUSSEY STREET, INCLUDING SUPERSTRUCTURE REPLACEMENT, D-05-010, BUSSEY STREET OVER MOTHER BROOK	Quantified	3,331	Quantified Decrease in Emissions from Complete Streets Project
607977	HOPKINTON- WESTBOROUGH- RECONSTRUCTION OF I-90/I-495 INTERCHANGE	Quantified		RTP project included in the statewide model
608009	BOXBOROUGH- BRIDGE REPLACEMENT, B-18-002, ROUTE 111 OVER I-495	Qualitative		No assumed impact/negligible impact on emissions
608208	QUINCY- MILTON- BOSTON- INTERSTATE MAINTENANCE & RELATED WORK ON I-93	Qualitative		No assumed impact/negligible impact on emissions
608255	STOW- BRIDGE REPLACEMENT, S-29-011, BOX MILL ROAD OVER ELIZABETH BROOK	Qualitative		No assumed impact/negligible impact on emissions
608348	BEVERLY- RECONSTRUCTION OF BRIDGE STREET	Quantified	387,153	Quantified Decrease in Emissions from Complete Streets Project
608480	FOXBOROUGH- RESURFACING AND RELATED WORK ON ROUTE 1	Qualitative		Qualitative Decrease in Emissions
608609	BOSTON- WESTWOOD- STEEL SUPERSTRUCTURE CLEANING (FULL REMOVAL) AND PAINTING OF 2 BRIDGES: B-16-118 & W-31-006	Qualitative		No assumed impact/negligible impact on emissions
608707	QUINCY- RECONSTRUCTION OF SEA STREET	Quantified	-30,437	Quantified Increase in Emissions
608818	DANVERS- MIDDLETON- RESURFACING AND RELATED WORK ON ROUTE 114	Qualitative		Qualitative Decrease in Emissions
608889	FRAMINGHAM- TRAFFIC SIGNAL INSTALLATION AT EDGELL ROAD AT CENTRAL STREET	Quantified	232,860	Quantified Decrease in Emissions from Complete Streets Project
608929	WILMINGTON- BRIDGE REPLACEMENT, W-38-003, BUTTERS ROW OVER MBTA	Qualitative		No assumed impact/negligible impact on emissions

Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
608933	PEABODY- REHABILITATION OF CENTRAL STREET	Quantified	150,913	Quantified Decrease in Emissions from Complete Streets Project
609053	CANTON- DEDHAM- NORWOOD- HIGHWAY LIGHTING IMPROVEMENTS AT I-93 & I-95/128	Qualitative		No assumed impact/negligible impact on emissions
609253	WILMINGTON- INTERSECTION IMPROVEMENTS AT LOWELL STREET (ROUTE 129) AND WOBURN STREET	Quantified	494,211	Quantified Decrease in Emissions from Traffic Operational Improvement
609254	LYNN- INTERSECTION IMPROVEMENTS AT TWO INTERSECTIONS ON BROADWAY	Quantified	73,291	Quantified Decrease in Emissions from Traffic Operational Improvement
610552	MARLBOROUGH- HUDSON- RAMP IMPROVEMENTS AND RELATED WORK AT I-495 (SB) TO I-290 (WB)	Qualitative		No assumed impact/negligible impact on emissions
610674	NEWTON- RECONSTRUCTION OF COMMONWEALTH AVENUE (ROUTE 30), FROM EAST OF AUBURN STREET TO ASH STREET	Quantified	16,846	Quantified Decrease in Emissions from Complete Streets Project
610726	MEDFORD- READING- SOMERVILLE- STONEHAM- WINCHESTER- WOBURN- INTERSTATE PAVEMENT PRESERVATION ON I-93	Qualitative		Qualitative Decrease in Emissions
610919	LYNN- NAHANT- NORTHERN STRAND EXTENSION	Qualitative		Qualitative Decrease in Emissions
612662	BOSTON- BRIDGE PRESERVATION, B-16-235 (39T & 3A0), ROUTE 1A OVER CHELSEA STREET/BREMEN STREET & RAILROAD	Qualitative		No assumed impact/negligible impact on emissions
612663	BOSTON- BRIDGE PRESERVATION, B-16-053 (4T3), BROOKLINE AVENUE OVER I-90 & RAILROAD	Qualitative		No assumed impact/negligible impact on emissions
612664	BOSTON- BRIDGE PRESERVATION, B-16-179, AUSTIN STREET OVER I-93 AND B-16-281, I-93 UPPER/LOWER DECK	Qualitative		No assumed impact/negligible impact on emissions
S12114	ROYALL STREET SHUTTLE	Quantified	409,583	Quantified Decrease in Emissions from New/Additional Transit Service
S12125	NEWTON MICROTRANSIT SERVICE	Quantified	33,103	Quantified Decrease in Emissions from New/Additional Transit Service
S12694	NEWMO MICROTRANSIT SERVICE EXPANSION	Quantified	91,800	Quantified Decrease in Emissions from New/Additional Transit Service
S12695	BLUEBIKES STATION REPLACEMENT AND SYSTEM EXPANSION	Quantified	20,484	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
S12696	BLUEBIKES SYSTEM EXPANSION	Quantified	2,637	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
S12697	PLEASANT STREET SHUTTLE SERVICE EXPANSION	Quantified	183,575	Quantified Decrease in Emissions from New/Additional Transit Service
S12698	BLUEBIKES SYSTEM EXPANSION	Quantified	460	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
S12699	STONEHAM SHUTTLE SERVICE	Quantified	41,707	Quantified Decrease in Emissions from New/Additional Transit Service
S12700	CATA ON DEMAND MICROTRANSIT SERVICE EXPANSION	Quantified	33,400	Quantified Decrease in Emissions from New/Additional Transit Service
S12701	MWRTA CATCHCONNECT MICROTRANSIT SERVICE EXPANSION	Quantified	11,936	Quantified Decrease in Emissions from New/Additional Transit Service
S12702	BICYCLE PARKING ALONG THE BRUCE FREEMAN RAIL TRAIL	Quantified	1,024	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
S12703	MONTACHUSETT RTA MICROTRANSIT SERVICE	Quantified	24,602	Quantified Decrease in Emissions from New/Additional Transit Service
S12704	CHENERY MIDDLE SCHOOL BICYCLE PARKING	Quantified	771	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
S12705	LYNN STATION IMPROVEMENTS PHASE II	Qualitative		Qualitative Decrease in Emissions
S12749	STOW - ASSABET RIVER RAIL TRAIL EXTENSION ENGINEERING AND DESIGN	Qualitative		No assumed impact/negligible impact on emissions
S12752	DOVER-NEEDHAM - CENTRE STREET / CENTRAL AVENUE BRIDGE ENGINEERING AND DESIGN	Qualitative		No assumed impact/negligible impact on emissions

TABLE B-4

Greenhouse Gas Regional Transit Project Tracking: Completed Projects

Regional Transit Authority	Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
Federal Fiscal Year 2023					
CATA	RTD0010578	CATA - -Preventive Maintenance	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010582	CATA - -buy misc small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010585	CATA - -acquire shop equip/small capital	Qualitative		No assumed impact/negligible impact on emissions
CATA	RTD0010589	CATA - -Revenue Vehicle Replacement	Quantified	1,278	Quantified decrease in emissions from bus replacement
CATA	T00072	Replacement of two replica trolleys that have reached the end of their useful life in 2011 (VIN 1C9S2HFS81W535239) and 2013 (1C9S2HSS52W535268).	Quantified	530	Quantified decrease in emissions from bus replacement
CATA	T00221	CATA - Van transportation to dialysis and medical appointments (5310)	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011099	MWRTA - OPERATING ASSISTANCE NON FIXED ROUTE ADA PARA SERV	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011100	MetroWest RTA - ACQUISITION OF BUS SUPPORT EQUIP/FACILITIES	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011101	MetroWest RTA - TECHNOLOGY SUPPORT/CAPITAL OUTREACH	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011102	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - BLANDIN	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011108	MetroWest RTA - TERMINAL, INTERMODAL (TRANSIT) - Framingham Commuter Rail Station (FCRS)	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011113	MetroWest Regional Transit Authority - 5339 COMPETITIVE REVENUE VEHICLE REPLACEMENT - DISCRETIONARY	Quantified	TBD	Quantified Decrease in Emissions from Bus Replacement
MWRTA	RTD0011122	MetroWest RTA - 2023 ELECTRIC VEHICLE (EV) MIGRATION	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011127	MetroWest Regional Transit Authority - Back Entrance Project - DISCRETIONARY	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011128	MetroWest RTA - Electronic Sign Board	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011129	MetroWest Regional Transit Authority - CRT North Framingham Bike/Pedestrian Connectivity - Cochituate Rail Trail North Framingham Feasibility Study - DISCRETIONARY	Qualitative		No assumed impact/negligible impact on emissions
MWRTA	RTD0011135	MetroWest RTA - VEHICLE REPLACEMENTs - CUTAWAYS (4 x E2s)	Quantified	TBD	Quantified Decrease in Emissions from Bus Replacement
MWRTA	T00216	MWRTA - Continued funding for MWRTA TOP (5310)	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA002	Revenue Vehicle Program 5307	Quantified	TBD	Quantified Decrease in Emissions from Bus Replacement

Regional Transit Authority	Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
MBTA	MBTA003	Signals/Systems Upgrade Program 5307	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA004	Stations and Facilities Program 5307	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA005	Bridge & Tunnel Program 5337	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA006	Revenue Vehicle Program 5337	Quantified	TBD	Quantified Decrease in Emissions from Bus Replacement
MBTA	MBTA007	Signals/Systems Upgrade Program 5337	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA008	Stations and Facilities Program 5337	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA009	Bus Program	Quantified	TBD	Quantified Decrease in Emissions from Bus Replacement
MBTA	MBTA011	RRIF/TIFIA Financing Program	Qualitative		No assumed impact/negligible impact on emissions
MBTA	MBTA012	"Lynnway Multimodal Corridor (RAISE) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00013	North Wilmington Station - CARSI	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00020	"Quincy Bus Facility Modernization (FTA) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00021	"Chelsea & Everett Route Planning (FTA) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00022	"Battery Electric Buses - Low-No (FTA) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00023	"South Elm Street Bridge Haverhill (FRA) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00024	"South Salem Comm. Rail Stop Study (FTA) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00025	"MBTA Suicide Trespass Prevention (FRA) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00027	Bridge & Tunnel Program 5307	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00028	"Blue Hill Ave. Corridor Project (RAISE) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00032	"Alewife Wayfinding Impr. (CMAQ) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00033	"MBTA Systemwide Bike Racks (CMAQ) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00034	"Columbus Ave. Bus Lane Ph. II (CMAQ) "	Qualitative		No assumed impact/negligible impact on emissions

Regional Transit Authority	Project ID Number	Project Name	GHG Analysis Type	GHG CO2 Impact (kg/yr)	GHG Impact Description
MBTA	T00035	"Lynn Station Improvements (STP) "	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00215	Greater Lynn Senior Services - Move Safe and Mobility Links Program (5310)	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00217	Mystic Valley Elder Services - Continued funding for Connect a Ride Alliance Program (5310)	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00218	SCM Community Transportation - Funding for a scheduling software (5310)	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00222	City of Newton - NewMo Operating Funds (5310)	Qualitative		No assumed impact/negligible impact on emissions
MBTA	T00234	Town of Acton - Funding for drivers/dispatch salary at CrossTown Connect (5310)	Qualitative		No assumed impact/negligible impact on emissions

APPENDIX C

PUBLIC ENGAGEMENT AND PUBLIC COMMENTS

OVERVIEW

In the course of developing the Transportation Improvement Program (TIP), the staff of the Boston Region Metropolitan Planning Organization (MPO) regularly engages with municipalities and the general public to provide information about the milestones, deadlines, and key decision points in the development process. Staff publicly shares materials and information used by the MPO board for decision-making via the TIP development web page: www.bostonmpo.org/tip-dev. This process affords the public ongoing opportunities to provide input to the MPO board during the development of the TIP and prior to the release of the draft TIP for the official public review period. This appendix documents the input received during the development of the FFYs 2024–28 TIP and comments received during the public review period.

Engagement during the development of the FFYs 2024-28 TIP was primarily conducted virtually. MPO staff used virtual public involvement (VPI) tactics such as online workshops and virtual information sessions. All Boston Region MPO board meetings throughout the FFYs 2024–28 TIP development cycle were hosted remotely, allowing project proponents and members of the public to participate via internet or telephone and provide comments without the need to travel to attend a meeting in person. These virtual engagement opportunities continue to provide a greater level of accessibility and transparency to the TIP process than is achievable through in-person meetings alone.

SUMMARY OF COMMENTS RECEIVED DURING TIP DEVELOPMENT

MPO staff initiated public engagement activities for the FFYs 2024–28 TIP in October 2022 and maintained communication with municipal, state agency, and public stakeholders throughout the TIP development process. The primary engagement events staff held were the TIP How-To virtual information sessions with municipal TIP contacts. Staff also attended subregional committee meetings hosted by the Metropolitan Area Planning Council (MAPC) and hosted Inner Core Committee Transportation group meetings to discuss the TIP. Staff also held TIP development discussions at several Regional Transportation Advisory Council meetings. These events offered individuals the opportunity to directly engage with staff to ask questions, voice concerns, provide suggestions, and propose new projects for funding.

The MPO board held a series of discussions at its regular meetings as the TIP was developed in stages that focused on project solicitation, project evaluation, and programming of funds. Staff informed the public at each stage via its standard communication channels (email, social media, and the MPO website). As a result, the MPO received a number of oral and written comments while developing the draft TIP. The comments directed to the MPO board are summarized below in Table C-1.

TABLE C-1

Public Comments Received during Development of the FFYs 2024–28 TIP

PROJECT	NAME	SUPPORT/ OPPOSE/ REQUEST/ CONCERN	COMMENT
S12803 and S12804 Medford BlueBikes Expansion and Bike Parking Tier 1	Noam Reuveni	Support	Spoke in support of additional Bluebikes stations within Medford, especially at West Medford station.
S12803 and S12804 Medford BlueBikes Expansion and Bike Parking Tier 1	Simone Alcindor	Support	"Hi, I'm just expressing my support for the Medford BlueBikes expansion and increased bicycle parking. My only note as for the BlueBikes expansion is that ideally, I think it'd be best if the Glenwood neighborhood got two Blue Bike stations, one near Riverside Ave @ Freedom Way (preferably between that and the housing development to maximize access for commuters), and one towards the north, perhaps in Haines Square, which is quite central to the Northern side of the neighborhood. The only reason for that is the fact that the Glenwood neighborhood is quite large, especially for those traveling on foot to/from a BlueBikes station, and with a single BlueBike station, I feel as if the part of Glenwood it is not near would likely be neglected. Also as for the Condon Shell station, I feel as if a station near Winthrop Street would be best to maximize walkability to both the nearby Medford Hillside neighborhood and the Condon Shell and associated bike trails on the Mystic River. I also wonder if this program could in any way support the City of Medford's attempts to redesign its road network with Complete Street principles and expand its bike network. Although the plans for its Complete Streets program as expressed in its Comprehensive Plan are broad, the city seems to struggle to gain the financial and political support to make infrastructure improvements at any quick rate."
Reconstruction of Canton Street (608158)	Steve Olanoff	Support	Spoke in support of Westwood's Canton Street project and noted that it is the first project for Westwood on the TIP in a long time. Discussed the benefits and cost effectiveness of transforming Canton Street into a Complete Street for pedestrians and other users with a planned new sidewalk and multi-use path as well as more sidewalk connections. Advocated for a scenario that includes this project to be selected and noted some additional cost and description considerations and corrections.
Envision Wakefield Main Street Improvements (610545)	Bill Renault	Support	Advocated for a scenario that includes the Envision Wakefield Complete Streets project to be selected. Briefly discussed some benefits of the project and status of design.
Envision Wakefield Main Street Improvements (610545)	Bill Renault	Support	Advocated for a scenario that includes the Envision Wakefield complete streets project to be selected. Briefly discussed some benefits of the project, community support, and status of design.
Envision Wakefield Main Street Improvements (610545)	North Suburban Planning Council	Support	Support the redesign of downtown Wakefield. Support regional/subregional coordination.
S12808 and S12809, Boston and Cambridge Electric Bluebikes Adoption	Kim Foltz	Support	Letter on behalf of Bluebikes General Council municipalities in support of Boston and Cambridge Bluebikes e-bikes projects.
S12808 and S12809, Boston and Cambridge Electric Bluebikes Adoption	Miguel Perez-Luna	Support	Advocated for a scenario that includes the introduction of e-bikes into the Bluebikes system (the Boston and Cambridge Bluebikes Community Connections projects). Discussed the benefits of e-bikes for bikeshare systems. Noted the project's support from all metro Bluebikes municipalities.

PROJECT	NAME	SUPPORT/ OPPOSE/ REQUEST/ CONCERN	COMMENT
S12808 and S12809, Boston and Cambridge Electric Bluebikes Adoption	Miguel Perez-Luna	Support	Spoke in support of Cambridge's Bluebikes project and the introduction of an MPO Bikeshare Support Program in Destination 2050 and the TIP. Discussed the benefits of expanding the Bluebikes system, including mode shift and public health.
Swampscott Rail Trail	Maura Carroll	Request	"Let me start by congratulating you on your new position. I have exchanged many emails with Matt over the years and attended many zoom meeting and the MPO does wonderful work! I do have two questions. The Swampscott rail trail project is slated for 2027 on the current TIP. Is it still on for 2027 or has it been moved? When exactly do the funds become available for the project?"
Ipswich Argilla Roadway Reconstruction and Adaptaion (612738)	Frank Ventimiglia	Support	Spoke about Ipswich Argilla Road/Crane Beach reconstruction/resiliency project. Described project background: coastal vulnerability assessment prepared by the Woods Hole Group for the Trustees regarding future flooding of Crane Beach; Town and Trustees identified a Coastal Resiliency Grant Program as a possible funding source and has so far recieved over 600,000 to combat sea level rise and enhance resiliency in the area through various measures, including roadway reconstruction/elevation and stabilization, and salt marsh expansion. Advocated for project in FFYs 2024-28 TIP.
Community Connections			
Canton Royall Street Shuttle	Tom O'Rourke	Support	Comment letter in support of Canton Royall Street shuttle (on behalf of Neponset River Regional Chamber).
Canton Royall Street Shuttle	Stephanie Monaco	Support	Spoke in support of the Canton Royall Street shuttle and noted the importance and value of the shuttle service and program.
Canton Royall Street Shuttle	Danielle DeMarco	Support	Spoke in support of the Canton Royall Street shuttle. Company owns 250 Royall Street (office building) and noted the importance of the shuttle to their business and attracting tenants to their building.
Canton Royall Street Shuttle	Yadira Martinez	Support	Spoke in support of the Royall Street shuttle. Noted its importance in incentivizing employees to return to the office and promoting mode shifts.
Canton Royall Street Shuttle	Brian McCusker	Support	Spoke in support of the Royall Street shuttle. Noted that the shuttle service was crucial in retaining and attracting employees after they moved their office.
Canton Royall Street Shuttle	Gene Manning	Support	Spoke in support of the Royall Street shuttle. Noted the shuttle's immportance to the town and its impacts on reducing congestion and its benefits to the business community.
Canton Royall Street Shuttle	Karen Dumaine	Support	Spoke in support of the Royall Street shuttle. Thanked others for speaking in support and discussed the importance of the shuttle as a transit option for residents who lack other transit access and ways to get to work.
NewMo Microtransit Service Expansion (Newton)	Josh Ostroff	Support	Spoke in support of the NewMo Microtransit service. Noted that the service is critical for providing mobility options in Newton, providing equitable mobility—especially for seniors and people with disabilities—as well as supporting the workforce, and reducing congestion. Discussed the importance of the Community Connections program funding for this service and noted that Newton is exploring options to maintain and support the service in the future.
General			
	Dan Jaffe	Request	Subject: Cambridge Street rail bridge. Third bridge in the area that needs replacement. Message: "We need to get this bridge on the list if it isn't. There is a desire to enhance it as the area around it expected to grow quite significantly! The deck needs to be a bit wider so on the Northern side can support a protected dual bike track to better connect to the other two bridges bike paths within Sullivan Sq. as well as down Cambridge St into Washington St Somerville. meeting up with the new South Somerville Green Line community pathway. Then on the South side between the 93 off ramp create a pathway down and into D St so people can walk and bike into Hood Park from a second pathway as well as offer a more direct path for the Cambridge St south side into Boston city core via North Washington bridge (which needs to get its name corrected as its the Charlestown Bridge or give the community a chance to name the bridge) The last element is a tunnel for a walkway parallel with the commuter rails on the West side so people can cross Cambridge St without competing with the traffic. Keep in mind the volume of people getting to and from Sullivan Sq T station will be increasing from the South, and this will enhance access to the MAPC pathway."
	Abigail Raymond	Concern	"I am advocating for better pedestrian infrastructure along the Fellsway (Route 28), particularly along the Malden/ Medford city line. Currently, there are no timed pedestrian lights or flashing signs to accompany crosswalks. Pedestrians must dodge traffic in order to make it across the street. A lack of lighting makes crossing Route 28 at night particularly challenging and nerve-racking. For residents who live on the west side of the Route in Medford, like me, the only way to access subway connections (e.g., the Orange Line) and many bus connections is by crossing Route 28. I am committed to seeing that this issue is heard by those who can make changes. Please let me know if there are further steps I can take (such as contacting personnel from the city of Medford or Malden) to advance this issue."

PROJECT	NAME	SUPPORT/ OPPOSE/ REQUEST/ CONCERN	COMMENT
	Dan Jaffe	Concern	Heard recently about Rutherford Avenue project delay; concerned about mobility and safety for Charlestown residents. Noted traffic flow difficulties in the area and advocated for project to be returned to 2019 design. Requested better solutions for Charlestown resident mobility (solving intra-community traffic and transportation issues) and regional traffic flow through Charlestown.
	Brad Rawson	Request	Noted Somerville's support for the TIP process and commended the MPO on TIP process improvements over the years. Noted the importance of discussing the MBTA's regional portfolio of projects. Requested that the board see and discuss those projects.
	Dan Jaffe	Request	"Charlestown residents are car-dependent, and dependent on access in and out of the community via a single pathway which is too small and busy. We need to reduce space on the street to make more room for buses and also reduce GhG emissions and improve air quality, which is an issue in Charlestown. We should reduce car use and focus on increasing microtransit to facilitate movement within the community and connections to rapid transit stops and opportunities."
	North Shore Task Force	Support	Improvements at Route 128 Exit 45 / Dunham Road Phase II to improve safety, ease congestion, and open up economic development opportunities.
	North Shore Task Force	Request	Capital projects to expand on-road bike lanes.
	North Shore Task Force	Request	Capital projects to support MBTA modernization and electrification.
	North Shore Task Force	Support	Support two major bridge projects in Beverly, Project 608514 (Hall-Whitaker Drawbridge) and 605276 (Kernwood Avenue over Danvers River).
	Inner Core Committee Transportation Group	Request	Capital projects to support multimodal infrastructure improvements in downtown central business districts and along freight corridors.
	Inner Core Committee Transportation Group	Request	Capital projects to make better commuinty connections over barriers with solutions like bicycle/pedestrian bridges.
	Inner Core Committee Transportation Group	Support	Support extension of the MBTA Silver Line, both west and east, on dedicated rights-of-way.
	Inner Core Committee Transportation Group	Support	Support North-bound bus lane on the Tobin bridge and better connections in City Square tunnel.
	Inner Core Committee Transportation Group	Support	Support reimagining Route 16 as a multimodal artery with a shared use path, dedicated transit facility, and intersection upgrades to stem air pollution.
	Minuteman Advisory Group on Interlocal Coordination	Request	Prioritize investing in alternatives to single-occupancy vehicle trips.
	South Shore Coalition	Request	Capital projects to improve/replace commuter ferry pier at Pemberton Pier.
	Three Rivers Interlocal Council	Request	Capital projects to support traffic calming along MassDOT roads that run through a community–especially where they impact residential districts.
	Three Rivers Interlocal Council	Support	Support including the Canton I-93/95 Interchange project, or an amended/phased version, in the TIP.
	Southwest Advisory Planning Council	Request	Capital projects to support Route 1 Wrentham safety improvements, including median (jersey barrier) installation along corridor.
	Southwest Advisory Planning Council	Request	Capital projects to support intersection improvements in Wrentham, including Route 140 and 1A, Route 1A, North Street and Winter Street.
	Southwest Advisory Planning Council	Request	Increase perviousness, green energy usage, electric vehicle charging stations, and improve communication with districts and municipalities.

SUMMARY OF COMMENTS RECEIVED DURING TIP PUBLIC REVIEW PERIOD

The MPO board voted to release the draft FFYs 2024–28 TIP document for public review at its April 20, 2023, meeting. This vote initiated an official 21-day public review period, which began on April 26, 2023, and closed on May 17, 2023. The comments received during this public review period are summarized in Table C-2.

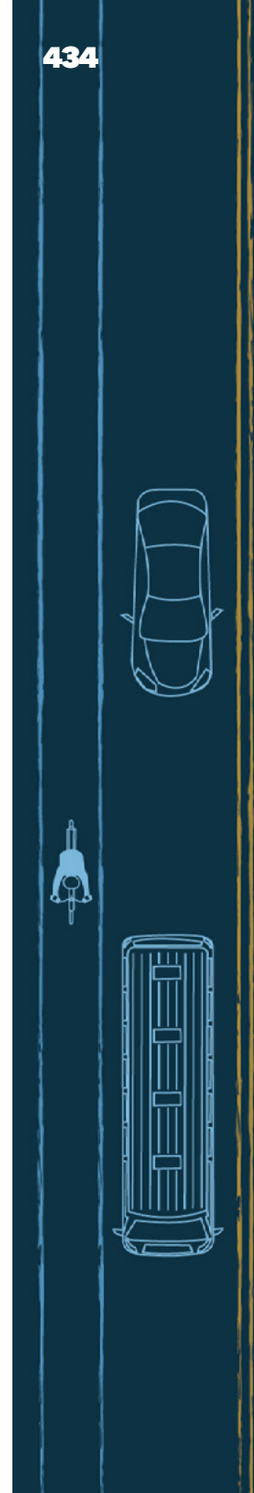
TABLE C-2

Public Comments Received during the Public Review Period for the Draft FFYs 2024–28 TIP

PROJECT	NAME	SUPPORT/ OPPOSE/ REQUEST/ CONCERN	COMMENT	RESPONSE
Projects under consideration for TIP Funding (FFYs 2024–28)				
N/A	N/A	N/A	N/A	N/A
Currently programmed projects (FFYs 2023–27)				
Project #610666 - Swampscott - Swampscott Rail Trail Construction	Maura Carroll	Request	Comment requesting additional information regarding the timing of the project and when funding would become available to further the project.	This project continues to be programmed in the FFYs 2024–28 TIP following its programming in the current, FFYs 2023–27 TIP. However, the timing of the project has been adjusted to accommodate additional permitting and right-of-way considerations along the trail. Given this schedule, funding may be available as early as October 1, 2027, for the project.
Project #609204 - Belmont - Community Path, Belmont Component of the Mass Central Rail Trail (Phase 1)	Friends of the Belmont Community Path	Support	Supports the continued programming of Phase 1 of the Belmont Community Path project and the MPO's investments in additional path infrastructure in Malden and Natick as part of new FFYs 2024–28 TIP projects. Supports additional investments through the Complete Streets and Community Connections investment programs and MPO's support of the Chenery Middle School Bicycle Parking project through the latter program (Project #S12704 in the FFYs 2023–27 TIP). Requests that the MPO continue to support Community Connections investments and encourages consideration of Phase 2 of the project.	The MPO is actively updating the current LRTP, Destination 2040, to Destination 2050 and anticipates a release of the draft LRTP for comment this June. The draft FFYs 2024–28 TIP also includes the addition of some preliminary recommendations made by Destination 2050, such as the addition of $1 million per year in FFYs 2025–26 and $2 million per year in FFYs 2027–28 for the creation of a Bikeshare Support funding program within the Community Connections Program. This program, along with other new investments for Transit Modernization and a Project Design Pilot program, are expected to launch for funding applications in fall of 2023 as part of developing the FFYs 2025–29 TIP. Staff look forward to continuing working with Belmont and other communities in the region to continue to support new projects.
Project #605857 - Norwood - Intersection Improvements at Route 1 and University Avenue/Everett Street	Norwood Department of Public Works	Request	Town DPW provided a written public comment letter requesting that Project 605857 in the TIP on Route 1 remain funded starting in FFYs 2025–26 instead of delayed to FFYs 2026–27 in the FFYs 2024–28 TIP. The project reached 25 percent design in November 2016 and is still waiting on a design public hearing, and the state has delayed the project since with funding initially programmed in FFY 2022 in the FFYs 2022–26 TIP. The FFY 2023–27 TIP delayed it to 2025, and it has been delayed once again. The project was also the subject of a 1996 CTPS study and, since then, there has been advocacy for improvements to a failed state-owned intersection.	The MPO will continue to work with project stakeholders on this effort to ensure that the project advances towards construction. The delay of the project into a start year of FFY 2026 was driven by additional complications from utility considerations within the project area.
Project #608954 - Weston - Reconstruction on Route 30	Fred Camerato	Oppose	Requests clarification on details related to Project 608954 and adjacent projects in Newton, including project #110980 (Route 30 over the Charles River). Opposes encouraging pedestrian and bicycle traffic along Route 30 due to safety concerns when crossing driveways. Opposed to any vegetative removal or addition of impervious surfaces, and expresses concern over the urbanization of Weston's woods and paving of historic roads.	Thank you very much for your interest in the FFYs 2024–28 TIP and Project #608954 - Weston- Reconstruction of Route 30. As the project continues through design, feedback like yours will be taken into consideration to deliver improvements to safety for all users of the roadway and investing in the preservation of natural space. Specifically, as part of evaluating and scoring this project for the FFYs 2023–27 TIP, the Town of Weston highlighted seven conservation parcels along the corridor that will see improved investment in stormwater drainage and management to improve water quality along the route. The MPO is actively collaborating with the Massachusetts Department of Transportation and the Town of Weston on this effort, and more details about the project can be found here on the town website.

PROJECT	NAME	SUPPORT/ OPPOSE/ REQUEST/ CONCERN	COMMENT	RESPONSE
Project #608954 - Weston - Reconstruction on Route 30	Louis Mercuri, Rebecca Mercuri, Fernanda Bourlot, Martin Bourlot, Nina Danforth, Barbara Fullerton, Burt Fullerton, Douglas Garron, Lorna Garron, Lise Revers, Becky Ames, Barbara Baker, Nick Berardinelli, Paul Brontas, Iva Brown, Ross Brown, Sara Butera, Steven Butera, Jane Bybee, Jon Chase, Frank Caine, Katty Chace, Tack Chace, Diana Chaplin, Gustav Christensen, Kathie Collman, Robert Collman, Paul Davenport, Will Davenport, Barry Davidson, Linda Davidson, Katherine Diver, Neil Diver, Margaret Ewald, Roxanne Ferreiro, Joyce Flaherty, Robert Froh, Gina Gagliardi, Michelle Garfinkle, Steve Garfinkle, Jennifer Garron, Barbara Gilman, Richard Gilman, Anne Grape, Sherwin Greenblat, Margaret Griner, Paul Griner, Christi Halb,y John Harding, Victoria Huber, Ravi Jasuj, Angad Jasuja, Komal Jasuja, Aviva Jeruchim, James Kappel, Nancy Kappel, Guneet Kaur, Deborah Khaksari, Shahriar Khaksari, David Lau, Larine Levy, Elliot Lobel, Lenore Lobel, Nancy Lukitsh, Kate McGovern, Michael McGovern, Cody Meissner, Brad Meslin, Karen Meslin, Harold V. Meyers, Nader Michael, Nanette Michael, Natalie Michael, John Micheal, Mina-Mark Micheal, Nechatt Micheal, Lilian Mikael, Marina Mikael, Monica Mikael, Nagy Mikael, Doreen Mirley, John Mirley, Isis Morgan, Hal Myers, Mona Nakhla, Rochelle Nemrow, Jack O'Donnell, David Osborne, Joan Parrish, Bruce Paster, Hugh Pearson, Connie Pinkert, Warren Pinkert, Larry Rand, John Sallay, Susan Schaefer, Amy Silverstein, Tiina Smith, Rachael Stewart, Drew Tamoney, Richard Trant, Beverly Watson, Steve Watson, Norm Weinstock, Shelia Weinstock, Ann Wiedie, Artemis Willis, Katherine Wolfthal, Greg Zacharias, and Susan Zacharias	Oppose	Opposes the two-way shared use path design for safety issues, including at two-way crossings along the design alignment. Opposes the 10-foot-wide travel path, citing that a wider bicycle path encourages bicycles on the path to move faster, including motorized bicycles. Opposes brush removal and any tree clearance. Requests more equitable consideration in project, specifically equal liability in that properties on the south side of Route 30 are at risk of causing injury to path users while property on the north side are not, given the absence of a path there.	The MPO appreciates the feedback on this project, and is actively working with MassDOT and staff of the Town of Weston to consider all public feedback as the project continues through the design process, the status of which can be followed at the Town's project website here. This includes working with all project stakeholders to ensure that the project's design delivers a robust set of safe, accessible, and sustainable outcomes for all users of the roadway; the feedback you have provided helps to further that process. The MPO and its staff look forward to working with Weston as this project moves along, and as part of broader efforts to support the regional transportation network through the Transportation Improvement Program.
Other comments				
Draft FFYs 2024–28 TIP Document, MBTA Bus Network Redesign	Organization: East Cambridge Planning Team	Request	Requests that the MPO better integrate future land uses and developments as points of consideration for project evaluation, and raises concern regarding how transit service changes may factor in future development in Cambridge.	In developing the MPO's five year capital investment plan for the Boston region, the MPO selected several new projects within the Inner Core for programming in the TIP. These projects included increased funding in the regional bikeshare network for expansion and partial electrification of Cambridge's Bluebikes stock. The TIP is developed on an annual basis, and each year municipalities apply for project funding through the TIP. Projects are scored by MPO staff, and this scoring process includes consideration for categories including, but not limited to, Transportation Equity, Connectivity, Clean Air, and Economic Vitality. The MPO's project scoring process accounts for planned expansions in affordable housing, employment centers, proximity to existing or future transit hubs (including the MBTA's Bus Network Redesign), open space, and other community assets. Further information on the MPO's project prioritization and scoring process can be found in Appendix A of the Draft TIP. While the TIP is a five year transportation planning document, it is greatly informed by the MPO's Long Range Transportation Plan (LRTP), which is currently being revised to be "Destination 2050". Destination 2050 lays out funding plans for increased investment in multimodal connectivity and transit from the MPO. In tandem with the development of the LRTP, the MPO has developed a new Travel Demand Model to account for planned developments, commuting trends, new technologies, and challenges that will inform the development of projects throughout the 97 cities and towns of the Boston Region. The draft Destination 2050 plan is expected to be released to the public in June for comment and feedback as well.

PROJECT	NAME	SUPPORT/ OPPOSE/ REQUEST/ CONCERN	COMMENT	RESPONSE
Draft FFYs 2024-28 TIP Document, MBTA Red Blue Connector, MBTA Commuter Rail Electrification, MBTA Bus Garage Reconstruction at Quincy and Arborway	Organization: Conservation Law Foundation/Massachusetts Sierra Club	Request	Requests that the MPO allocate more funding to EJ communities, that the TIP go further to protect air quality, that the MPO fully fund the Red-Blue Connector, invest further in an electric fleet for transit rolling stock, allocate funding to the MBTA Quincy and Arborway garage projects, that the MBTA procure electrification-compatible commuter rail coaches, and that the TIP include a discrete Climate Resilience scoring category.	The FFYs 2024–28 revision to the TIP is being performed in tandem with the new LRTP, Destination 2050. As part of evaluation criteria revisions included in the LRTP, staff will be reevaluating project prioritization criteria to further emphasize transportation equity and climate resilience in regional target funded projects. The next FFYs 2025–29 TIP will incorporate this criteria, and using the foundation set by the FFYs 2024–28 TIP will launch a new project design support pilot, increase investment in transit and shared micromobility, and improve the reliability and sustainability of its investments in microtransit. The MPO will continue to work with all stakeholders in the Boston region for future TIP cycles to realize the goals of the new Long-Range Transportation Plan, and implement the projects and priorities of the FFYs 2024–28 TIP.
Draft FFYs 2024–28 TIP Document, I-90 Allston Multimodal Project	Organization: A Better City	Request	"The Allston I-90 Multimodal project should be supported by the Boston MPO in the TIP. According to the Destination 2040 plan, it appears that the MPO considers this a 'Commonwealth of Massachusetts Funded Project' but not an MPO funded project. This needs to change as part of the next TIP. The Allston I-90 Multimodal project would probably have a larger impact on this MPO region than any other project you are considering. Getting this project done correctly would support mode shift, reduce traffic during the construction stages, and help improve access to jobs for residents throughout Metrowest and the entire I-90 corridor. Alternatively, if we ignore this opportunity to create an all-at-grade design, there will be increased traffic congestion in this region for many years. I-90 Allston is not just a 'Boston project' or a 'Commonwealth Project' and the MPO should make this a priority in the TIP and how you describe the project. Thank you."	Referred to the contents of the Massachusetts SFY 2023–27 Capital Investment Plan and its listing of the Allston Multimodal Project. The Boston Region TIP feeds into the broader Statewide Transportation Improvement Program, which itself feeds into the Capital Investment Plan. The Boston Region MPO will continue to work with project stakeholders to advance the project, and the MPO recognizes the investment's status as a major regional concern.



APPENDIX D

GEOGRAPHIC DISTRIBUTION OF TIP FUNDING

OVERVIEW OF CONTENTS

Appendix D provides information about the geographic distribution of federal highway funding in the Boston region in the federal fiscal years (FFYs) 2024–28 Transportation Improvement Program, as well as for all years since 2011. It includes the distribution of the Boston Region MPO's Regional Target Program funding (the MPO's discretionary funding) and funding for projects and programs prioritized by the Massachusetts Department of Transportation. Funding amounts shown include the state's matching funds that leverage the available federal funds.

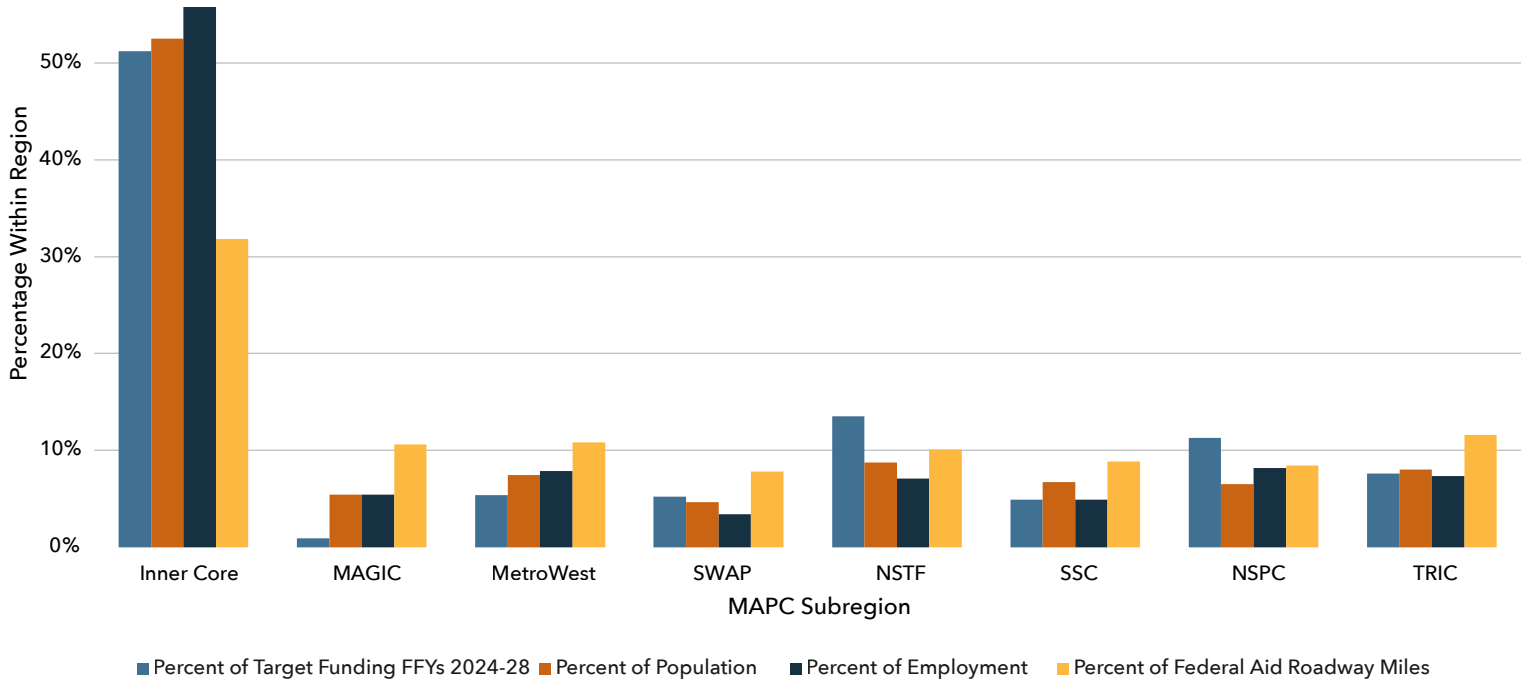
Figures D-1 through D-4 summarize the distribution of the MPO's Regional Target Program funding and all federal highway funding by subregion. Funding is shown for the time period covered by this TIP (FFYs 2024–28) and over a longer time horizon (FFYs 2011–28). Table D-1 shows the breakdown of this data for each municipality in the Boston region for FFYs 2024–28.

PURPOSE

The analysis presented here provides details about how the MPO has allocated its federal transportation highway dollars across its geographic region by showing which municipalities and areas of the Boston region have received highway funding for the construction of transportation projects. This data was first compiled for FFYs 2008-13 in response to the Boston Region MPO's 2014 Certification Review by the Federal Highway Administration and Federal Transit Administration.

FIGURE D-1

Distribution of Regional Target Funding by Subregion (FFYs 2024–28)



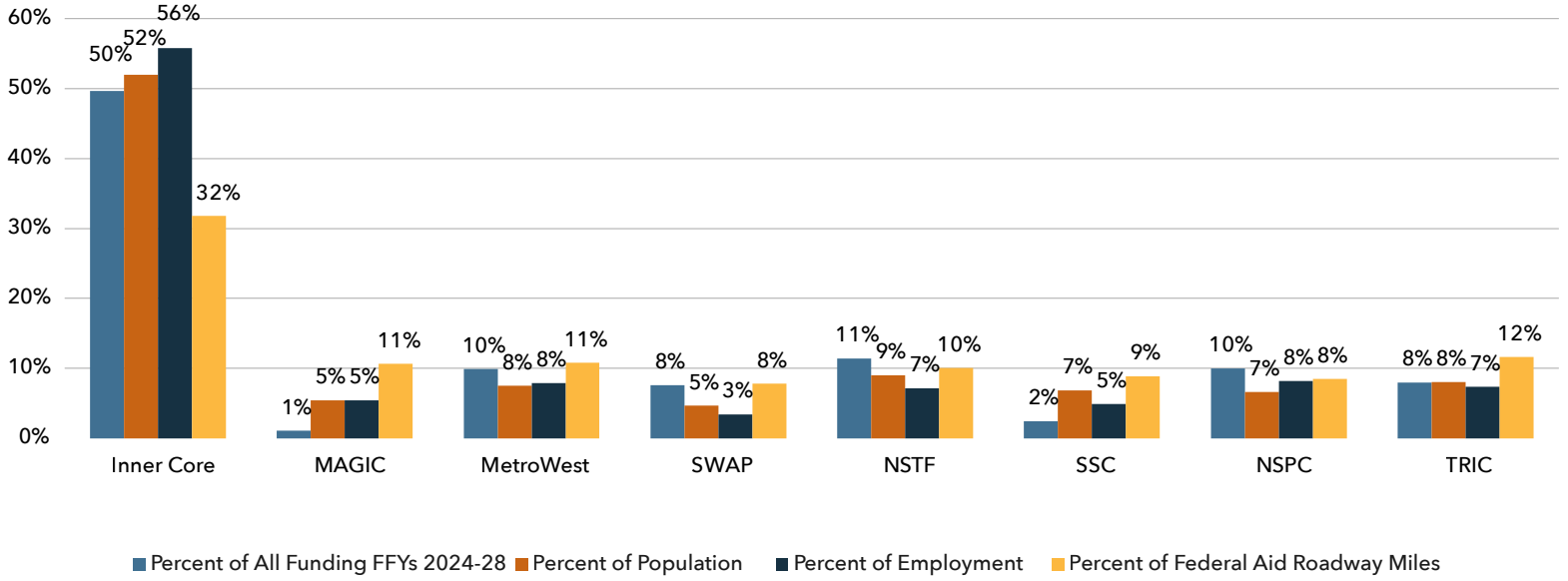
FFY = Federal Fiscal Year.

Subregions: ICC = Inner Core Committee. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MWRC = MetroWest Regional Collaborative. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. SSC = South Shore Coalition. SWAP = SouthWest Advisory Planning Committee. TRIC = Three Rivers Interlocal Council.

Source: Boston Region MPO.

FIGURE D-2

Distribution of All Federal Highway Funding in the Boston Region by Subregion (FFYs 2024–28)



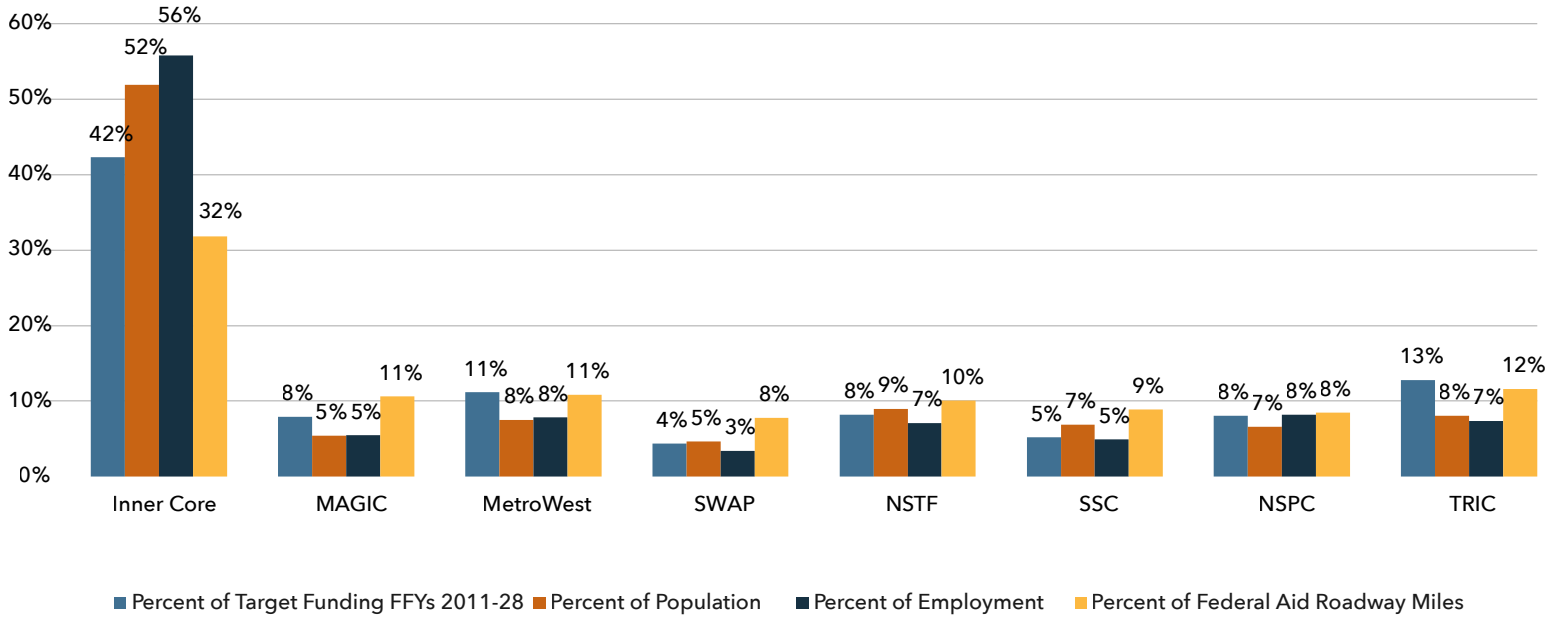
FFY = Federal Fiscal Year.

Subregions: ICC = Inner Core Committee. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MWRC = MetroWest Regional Collaborative. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. SSC = South Shore Coalition. SWAP = SouthWest Advisory Planning Committee. TRIC = Three Rivers Interlocal Council.

Source: Boston Region MPO.

FIGURE D-3

Distribution of Regional Target Funding by Subregion (FFYs 2011–28)



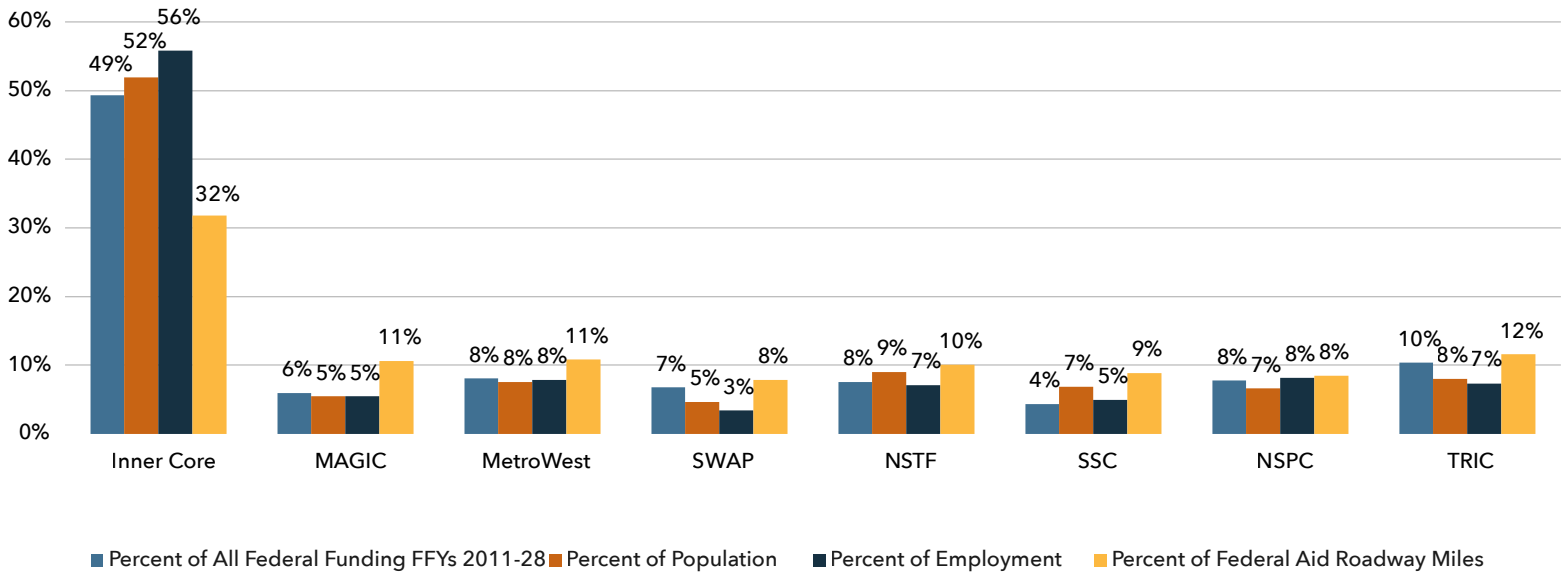
FFY = Federal Fiscal Year.

Subregions: ICC = Inner Core Committee. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MWRC = MetroWest Regional Collaborative. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. SSC = South Shore Coalition. SWAP = SouthWest Advisory Planning Committee. TRIC = Three Rivers Interlocal Council.

Source: Boston Region MPO.

FIGURE D-4

Distribution of All Federal Highway Funding in the Boston Region by Subregion (FFYs 2011–28)



FFY = Federal Fiscal Year.

Subregions: ICC = Inner Core Committee. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MWRC = MetroWest Regional Collaborative. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. SSC = South Shore Coalition. SWAP = SouthWest Advisory Planning Committee. TRIC = Three Rivers Interlocal Council.

Source: Boston Region MPO.

TABLE D-4

Distribution of All Federal Highway Funding in the Boston Region by Subregion (FFYs 2011–28)

MPO Municipality	Subregion	Community Type	Pct Pop.	Pct Empl.	Percent Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding (FFY 2024-28)	Percent Regionally Prioritized Target Funding	State Prioritized Funding	Percent State Prioritized Funding	Total Funding (Regionally Prioritized and State Prioritized)	Percent Total Funding (Regionally Prioritized and State Prioritized)
Boston	Inner Core	Inner Core	20.1%	33.3%	11.1%	$98,817,052	16.2%	$134,778,189	12.1%	$233,595,241	13.6%
Somerville	Inner Core	Inner Core	2.4%	1.5%	1.2%	$65,000,000	10.6%	$202,274,151	18.2%	$267,274,151	15.5%
Hopkinton	SWAP	Developing Suburb	0.6%	0.5%	1.0%	$0	0.0%	$101,577,402	9.2%	$101,577,402	5.9%
Beverly	NSTF	Regional Urban Center	1.3%	1.2%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Natick	MetroWest	Maturing Suburb	1.1%	1.0%	1.2%	$7,760,451	1.3%	$103,438,387	9.3%	$111,198,838	6.5%
Cambridge	Inner Core	Inner Core	3.5%	7.1%	1.8%	$352,575	0.1%	$20,968,208	1.9%	$21,320,783	1.2%
Wilmington	NSPC	Maturing Suburb	0.7%	1.1%	1.3%	$23,731,429	3.9%	$16,592,888	1.5%	$40,324,317	2.3%
Salem	NSTF	Regional Urban Center	1.3%	0.9%	0.7%	$13,464,225	2.2%	$50,815,078	4.6%	$64,279,303	3.7%
Lynn	Inner Core	Regional Urban Center	3.0%	1.3%	1.3%	$68,596,440	11.2%	$35,414,262	3.2%	$104,010,702	6.0%
Norwood	TRIC	Regional Urban Center	0.9%	1.1%	1.0%	$28,699,272	4.7%	$5,187,841	0.5%	$33,887,113	2.0%
Milton	TRIC	Maturing Suburb	0.9%	0.1%	1.3%	$0	0.0%	$27,390,255	2.5%	$27,390,255	1.6%
Peabody	NSTF	Regional Urban Center	1.6%	1.1%	1.4%	$24,009,979	3.9%	$5,145,271	0.5%	$29,155,250	1.7%
Chelsea	Inner Core	Inner Core	1.2%	0.8%	0.6%	$18,020,721	2.9%	$1,617,667	0.1%	$19,638,388	1.1%
Framingham	MetroWest	Regional Urban Center	2.2%	2.1%	2.5%	$0	0.0%	$25,702,748	2.3%	$25,702,748	1.5%
Brookline	Inner Core	Inner Core	1.9%	0.9%	1.3%	$28,995,267	4.7%	$886,526	0.1%	$29,881,793	1.7%
Watertown	Inner Core	Inner Core	1.1%	1.0%	0.6%	$4,058,622	0.7%	$3,449,261	0.3%	$7,507,883	0.4%
Medford	Inner Core	Inner Core	1.8%	1.1%	1.5%	$148,243	0.0%	$24,408,900	2.2%	$24,557,143	1.4%
Revere	Inner Core	Inner Core	1.9%	0.5%	1.3%	$0	0.0%	$42,633,696	3.8%	$42,633,696	2.5%
Woburn	NSPC	Regional Urban Center	1.2%	2.1%	1.5%	$22,360,680	3.7%	$7,849,699	0.7%	$30,210,379	1.8%
Everett	Inner Core	Inner Core	1.5%	0.8%	0.6%	$15,795,848	2.6%	$17,748,000	1.6%	$33,543,848	1.9%
Braintree	SSC	Maturing Suburb	1.2%	1.3%	1.4%	$0	0.0%	$7,171,476	0.6%	$7,171,476	0.4%
Randolph	TRIC	Maturing Suburb	1.0%	0.4%	1.0%	$0	0.0%	$24,688,177	2.2%	$24,688,177	1.4%
Quincy	Inner Core	Regional Urban Center	3.0%	2.4%	2.1%	$0	0.0%	$331,753	0.0%	$331,753	0.0%

MPO Municipality	Subregion	Community Type	Pct Pop.	Pct Empl.	Percent Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding (FFY 2024-28)	Percent Regionally Prioritized Target Funding	State Prioritized Funding	Percent State Prioritized Funding	Total Funding (Regionally Prioritized and State Prioritized)	Percent Total Funding (Regionally Prioritized and State Prioritized)
Canton	TRIC	Maturing Suburb	0.7%	1.1%	1.1%	$181,042	0.0%	$18,866,619	1.7%	$19,047,661	1.1%
Newton	Inner Core	Inner Core	2.6%	2.6%	2.6%	$11,403,784	1.9%	$5,733,237	0.5%	$17,137,021	1.0%
Belmont	Inner Core	Inner Core	0.8%	0.4%	0.6%	$21,288,202	3.5%	$0	0.0%	$21,288,202	1.2%
Lexington	MAGIC	Maturing Suburb	1.0%	1.1%	1.9%	$0	0.0%	$0	0.0%	$0	0.0%
Weston	MetroWest	Maturing Suburb	0.4%	0.3%	1.3%	$27,345,994	4.5%	$0	0.0%	$27,345,994	1.6%
Reading	NSPC	Maturing Suburb	0.8%	0.4%	0.8%	$11,000,000	1.8%	$34,753,600	3.1%	$45,753,600	2.7%
Stoneham	NSPC	Maturing Suburb	0.7%	0.3%	0.8%	$466,628	0.1%	$4,698,001	0.4%	$5,164,629	0.3%
Waltham	Inner Core	Inner Core	1.9%	3.2%	1.6%	$0	0.0%	$16,039,175	1.4%	$16,039,175	0.9%
Burlington	NSPC	Maturing Suburb	0.8%	2.4%	1.3%	$0	0.0%	$7,498,160	0.7%	$7,498,160	0.4%
Hingham	SSC	Maturing Suburb	0.7%	0.8%	1.3%	$15,018,900	2.5%	$0	0.0%	$15,018,900	0.9%
Wrentham	SWAP	Developing Suburb	0.4%	0.3%	1.0%	$17,994,890	2.9%	$0	0.0%	$17,994,890	1.0%
Boxborough	MAGIC	Developing Suburb	0.2%	0.2%	0.4%	$0	0.0%	$393,365	0.0%	$393,365	0.0%
Bellingham	SWAP	Developing Suburb	0.5%	0.3%	0.9%	$0	0.0%	$0	0.0%	$0	0.0%
Cohasset	SSC	Developing Suburb	0.2%	0.1%	0.5%	$11,258,807	1.8%	$0	0.0%	$11,258,807	0.7%
Milford	SWAP	Regional Urban Center	0.9%	0.9%	1.2%	$9,758,201	1.6%	$0	0.0%	$9,758,201	0.6%
Dedham	TRIC	Maturing Suburb	0.8%	0.8%	1.1%	$0	0.0%	$4,245,643	0.4%	$4,245,643	0.2%
Weymouth	SSC	Maturing Suburb	1.7%	1.0%	1.5%	$0	0.0%	$7,376,252	0.7%	$7,376,252	0.4%
Swampscott	NSTF	Maturing Suburb	0.5%	0.2%	0.3%	$8,932,000	1.5%	$0	0.0%	$8,932,000	0.5%
Middleton	NSTF	Developing Suburb	0.3%	0.2%	0.5%	$0	0.0%	$6,487,646	0.6%	$6,487,646	0.4%
Danvers	NSTF	Maturing Suburb	0.8%	1.3%	1.5%	$0	0.0%	$6,257,736	0.6%	$6,257,736	0.4%
Winchester	NSPC	Maturing Suburb	0.7%	0.4%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%
Ipswich	NSTF	Developing Suburb	0.4%	0.3%	0.7%	$5,702,076	0.9%	$7,719,915	0.7%	$13,421,991	0.8%
Foxborough	TRIC	Developing Suburb	0.6%	0.6%	1.3%	$0	0.0%	$0	0.0%	$0	0.0%
Acton	MAGIC	Maturing Suburb	0.7%	0.5%	1.1%	$15,000	0.0%	$8,709,343	0.8%	$8,724,343	0.5%
Winthrop	Inner Core	Inner Core	0.6%	0.1%	0.3%	$0	0.0%	$0	0.0%	$0	0.0%
Littleton	MAGIC	Developing Suburb	0.3%	0.4%	1.0%	$5,164,375	0.8%	$3,146,920	0.3%	$8,311,295	0.5%

MPO Municipality	Subregion	Community Type	Pct Pop.	Pct Empl.	Percent Federal Aid Road-way Miles (2016)	Regionally Prioritized Target Fund-ing (FFY 2024-28)	Percent Regionally Prioritized Target Funding	State Prioritized Funding	Percent State Prioritized Funding	Total Funding (Regionally Prioritized and State Prioritized)	Percent Total Funding (Re-gionally Priori-tized and State Prioritized)
Lynnfield	NSPC	Maturing Suburb	0.4%	0.3%	0.6%	$0	0.0%	$17,419,717	1.6%	$17,419,717	1.0%
Wakefield	NSPC	Maturing Suburb	0.8%	0.7%	0.9%	$16,581,200	2.7%	$10,553,510	1.0%	$27,134,710	1.6%
Ashland	MetroWest	Maturing Suburb	0.6%	0.2%	0.5%	$742,315	0.1%	$4,303,848	0.4%	$5,046,163	0.3%
Nahant	Inner Core	Maturing Suburb	0.1%	0.0%	0.2%	$0	0.0%	$0	0.0%	$0	0.0%
Malden	Inner Core	Inner Core	2.0%	0.7%	1.0%	$4,858,127	0.8%	$2,766,588	0.2%	$7,624,715	0.4%
Stow	MAGIC	Developing Suburb	0.2%	0.1%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%
Topsfield	NSTF	Developing Suburb	0.2%	0.1%	0.6%	$0	0.0%	$3,141,758	0.3%	$3,141,758	0.2%
Hudson	MAGIC	Developing Suburb	0.6%	0.5%	0.7%	$0	0.0%	$0	0.0%	$0	0.0%
Marlborough	MetroWest	Regional Urban Center	1.2%	1.6%	2.0%	$0	0.0%	$0	0.0%	$0	0.0%
Medway	SWAP	Developing Suburb	0.4%	0.2%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%
Sudbury	MAGIC	Maturing Suburb	0.6%	0.3%	1.0%	$0	0.0%	$812,283	0.1%	$812,283	0.0%
Wayland	MetroWest	Maturing Suburb	0.4%	0.2%	0.7%	$0	0.0%	$3,249,130	0.3%	$3,249,130	0.2%
Hamilton	NSTF	Developing Suburb	0.2%	0.1%	0.4%	$0	0.0%	$1,693,293	0.2%	$1,693,293	0.1%
Maynard	MAGIC	Maturing Suburb	0.3%	0.2%	0.3%	$0	0.0%	$0	0.0%	$0	0.0%
Sharon	TRIC	Maturing Suburb	0.6%	0.2%	1.1%	$0	0.0%	$1,497,906	0.1%	$1,497,906	0.1%
Arlington	Inner Core	Inner Core	1.4%	0.5%	0.8%	$0	0.0%	$1,302,209	0.1%	$1,302,209	0.1%
Scituate	SSC	Maturing Suburb	0.6%	0.2%	1.0%	$1,549,696	0.3%	$0	0.0%	$1,549,696	0.1%
Westwood	TRIC	Maturing Suburb	0.5%	0.6%	0.7%	$22,094,875	3.6%	$5,675,170	0.5%	$27,770,045	1.6%
Bedford	MAGIC	Maturing Suburb	0.4%	0.9%	0.8%	$0	0.0%	$0	0.0%	$0	0.0%
Bolton	MAGIC	Developing Suburb	0.2%	0.1%	0.7%	$0	0.0%	$0	0.0%	$0	0.0%
Carlisle	MAGIC	Developing Suburb	0.2%	0.0%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Concord	MAGIC	Maturing Suburb	0.6%	0.6%	1.1%	$0	0.0%	$0	0.0%	$0	0.0%
Dover	SWAP	Developing Suburb	0.2%	0.0%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%
Essex	NSTF	Developing Suburb	0.1%	0.1%	0.2%	$0	0.0%	$0	0.0%	$0	0.0%
Franklin	SWAP	Developing Suburb	1.0%	0.8%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Gloucester	NSTF	Regional Urban Center	0.9%	0.5%	1.0%	$0	0.0%	$64,960,000	5.9%	$64,960,000	3.8%

MPO Municipality	Subregion	Community Type	Pct Pop.	Pct Empl.	Percent Federal Aid Roadway Miles (2016)	Regionally Prioritized Target Funding (FFY 2024-28)	Percent Regionally Prioritized Target Funding	State Prioritized Funding	Percent State Prioritized Funding	Total Funding (Regionally Prioritized and State Prioritized)	Percent Total Funding (Regionally Prioritized and State Prioritized)
Holbrook	SSC	Maturing Suburb	0.3%	0.1%	0.3%	$0	0.0%	$0	0.0%	$0	0.0%
Holliston	MetroWest	Developing Suburb	0.4%	0.3%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%
Hull	SSC	Maturing Suburb	0.3%	0.1%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Lincoln	MAGIC	Maturing Suburb	0.2%	0.1%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%
Manchester	NSTF	Developing Suburb	0.2%	0.1%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Marblehead	NSTF	Maturing Suburb	0.6%	0.2%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%
Marshfield	SSC	Maturing Suburb	0.8%	0.3%	1.0%	$0	0.0%	$0	0.0%	$0	0.0%
Medfield	TRIC	Maturing Suburb	0.4%	0.2%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%
Melrose	Inner Core	Inner Core	0.9%	0.3%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Millis	SWAP	Developing Suburb	0.3%	0.1%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Needham	TRIC	Maturing Suburb	1.0%	1.1%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Norfolk	SWAP	Developing Suburb	0.3%	0.2%	0.5%	$0	0.0%	$0	0.0%	$0	0.0%
North Reading	NSPC	Maturing Suburb	0.5%	0.4%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%
Norwell	SSC	Developing Suburb	0.3%	0.5%	0.8%	$0	0.0%	$0	0.0%	$0	0.0%
Rockland	SSC	Developing Suburb	0.5%	0.4%	0.6%	$0	0.0%	$0	0.0%	$0	0.0%
Rockport	NSTF	Developing Suburb	0.2%	0.0%	0.2%	$0	0.0%	$0	0.0%	$0	0.0%
Saugus	Inner Core	Maturing Suburb	0.9%	0.5%	0.8%	$0	0.0%	$0	0.0%	$0	0.0%
Sherborn	SWAP	Developing Suburb	0.1%	0.0%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%
Southborough	MetroWest	Maturing Suburb	0.3%	0.4%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Walpole	TRIC	Developing Suburb	0.8%	0.5%	1.2%	$0	0.0%	$0	0.0%	$0	0.0%
Wellesley	MetroWest	Maturing Suburb	0.9%	0.9%	0.9%	$0	0.0%	$0	0.0%	$0	0.0%
Wenham	NSTF	Developing Suburb	0.1%	0.1%	0.4%	$0	0.0%	$0	0.0%	$0	0.0%

APPENDIX E

REGULATORY AND POLICY FRAMEWORK

This appendix contains detailed background on the regulatory documents, legislation, and guidance that shape the Boston Region Metropolitan Planning Organization's (MPO) transportation planning process.

REGULATORY FRAMEWORK

The Boston Region MPO is charged with executing its planning activities in line with federal and state regulatory guidance. Maintaining compliance with these regulations allows the MPO to directly support the work of these critical partners and ensures its continued role in helping the region move closer to achieving federal, state, and regional transportation goals. This appendix describes all of the regulations, policies, and guidance taken into consideration by the MPO during development of the certification documents and other core work the MPO will undertake during federal fiscal year (FFY) 2024.

FEDERAL REGULATIONS AND GUIDANCE

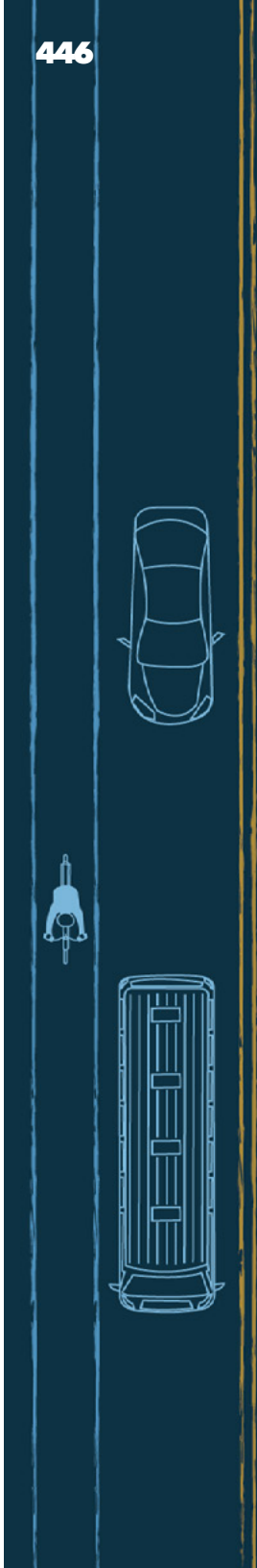
The MPO's planning processes are guided by provisions in federal transportation authorization bills, which are codified in federal statutes and supported by guidance from federal agencies. The Bipartisan Infrastructure Law (BIL), signed into law on November 15, 2021, replaced the Fixing America's Surface Transportation (FAST) Act as the nation's five-year surface transportation bill, and covers FFYs 2022–26. This section describes new provisions established in the BIL as well as items established under previous bills, such as the FAST Act.

Fixing America's Surface Transportation (FAST) Act: National Goals

The purpose of the national transportation goals, outlined in Title 23, section 150, of the United States Code (23 USC § 150), is to increase the accountability and transparency of the Federal-Aid Highway Program and to improve decision-making through performance-based planning and programming. The national transportation goals include the following:

1. **Safety:** Achieve significant reduction in traffic fatalities and serious injuries on all public roads
2. **Infrastructure condition:** Maintain the highway infrastructure asset system in a state of good repair
3. **Congestion reduction:** Achieve significant reduction in congestion on the National Highway System
4. **System reliability:** Improve efficiency of the surface transportation system
5. **Freight movement and economic vitality:** Improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
6. **Environmental sustainability:** Enhance performance of the transportation system while protecting and enhancing the natural environment
7. **Reduced project delivery delays:** Reduce project costs, promote jobs and the economy, and expedite movement of people and goods by accelerating project completion by eliminating delays in the project development and delivery process, including by reducing regulatory burdens and improving agencies' work practices

The Boston Region MPO has incorporated these national goals, where practicable, into its vision, goals, and objectives, which provide a framework for the MPO's planning processes. More information about the MPO's vision, goals, and objectives is included in Chapter 1.



FAST ACT: PLANNING FACTORS

The MPO gives specific consideration to the federal planning factors, described in Title 23, section 134, of the US Code (23 USC § 134), when developing all documents that program federal transportation funds. In accordance with the legislation, studies and strategies undertaken by the MPO shall

1. Support the economic vitality of the metropolitan area, especially by enabling global competition, productivity, and efficiency
2. Increase the safety of the transportation system for all motorized and nonmotorized users
3. Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and nonmotorized users
4. Increase accessibility and mobility of people and freight
5. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns
6. Enhance integration and connectivity of the transportation system, across and between modes, for people and freight
7. Promote efficient system management and operation
8. Emphasize preservation of the existing transportation system
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation
10. Enhance travel and tourism

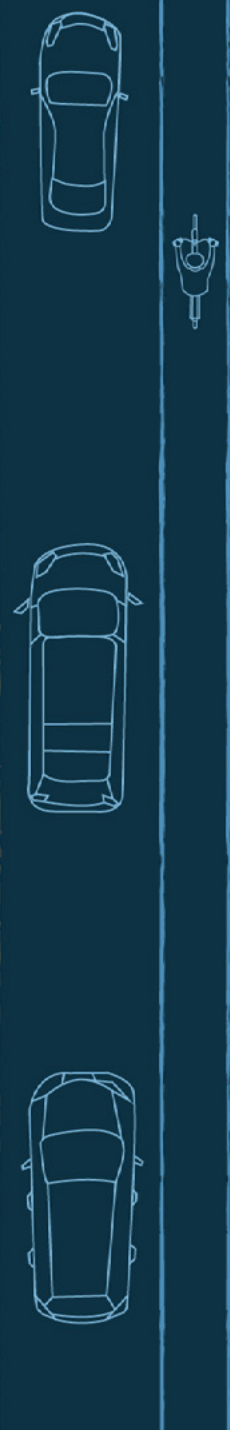
FAST ACT: PERFORMANCE-BASED PLANNING AND PROGRAMMING

The United States Department of Transportation (USDOT), in consultation with states, MPOs, and other stakeholders, established performance measures relevant to the national goals established in the FAST Act. These performance topic areas include roadway safety, transit system safety, National Highway System (NHS) bridge and pavement condition, transit asset condition, NHS reliability for both passenger and freight travel, traffic congestion, and on-road mobile source emissions. The FAST Act and related federal rulemakings require states, MPOs, and public transportation operators to follow performance-based planning and programming practices—such as setting targets—to ensure that transportation investments support progress towards these goals. See Chapter 3 for more information about how the MPO has and will continue to conduct performance-based planning and programming.

Bipartisan Infrastructure Law (BIL): Planning Emphasis Areas

On December 30, 2021, the Federal Highway Administration and Federal Transit Administration jointly issued updated planning emphasis areas for use in MPOs' transportation planning process, following the enactment of the BIL. Those planning emphasis areas include the following:

1. **Tackling the Climate Crisis–Transition to a Clean Energy, Resilient Future:** Ensure that transportation plans and infrastructure investments help achieve the national greenhouse gas (GHG) reduction goals of 50–52 percent below 2005 levels by 2030, and net-zero emissions by 2050, and increase resilience to extreme weather events and other disasters resulting from the increasing effects of climate change.
2. **Equity and Justice40 in Transportation Planning:** Ensure public involvement in the planning process and that plans and strategies reflect various perspectives, concerns, and priorities from impacted areas.
3. **Complete Streets:** Review current policies, rules, and procedures to determine their impact on safety for all road users. This effort should work to include provisions for safety in future transportation infrastructure, particularly for those outside automobiles.
4. **Public Involvement:** Increase meaningful public involvement in transportation planning by integrating virtual public involvement tools into the overall public involvement approach while ensuring continued public participation by individuals without access to computers and mobile devices.
5. **Strategic Highway Network (STRAHNET)/US Department of Defense (DOD) Coordination:** Coordinate with representatives from DOD in the transportation planning and project programming process on infrastructure needs for STRAHNET routes and other public roads that connect to DOD facilities.
6. **Federal Land Management Agency (FLMA) Coordination:** Coordinate with FLMAs in the transportation planning and project programming process on infrastructure and connectivity needs related to access routes and other public roads and transportation services that connect to Federal lands.



7. **Planning and Environment Linkages:** Use a collaborative and integrated approach to transportation decision-making that considers environmental, community, and economic goals early in the transportation planning process, and use the information, analysis, and products developed during planning to inform the environmental review process.
8. **Data in Transportation Planning:** Incorporate data sharing and consideration into the transportation planning process.

1990 Clean Air Act Amendments

The Clean Air Act, most recently amended in 1990, forms the basis of the United States' air pollution control policy. The act identifies air quality standards, and the US Environmental Protection Agency (EPA) designates geographic areas as attainment (in compliance) or nonattainment (not in compliance) areas with respect to these standards. If air quality in a nonattainment area improves such that it meets EPA standards, the EPA may redesignate that area as being a maintenance area for a 20-year period to ensure that the standard is maintained in that area.

The conformity provisions of the Clean Air Act "require that those areas that have poor air quality, or had it in the past, should examine the long-term air quality impacts of their transportation system and ensure its compatibility with the area's clean air goals." Agencies responsible for Clean Air Act requirements for nonattainment and maintenance areas must conduct air quality conformity determinations, which are demonstrations that transportation plans, programs, and projects addressing that area are consistent with a State Implementation Plan (SIP) for attaining air quality standards.

Air quality conformity determinations must be performed for capital improvement projects that receive federal funding and for those that are considered regionally significant, regardless of the funding source. These determinations must show that projects in the MPO's Long-Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP) will not cause or contribute to any new air quality violations; will not increase the frequency or severity of any existing air quality violations in any area; and will not delay the timely attainment of air quality standards in any area. The policy, criteria, and procedures for demonstrating air quality conformity in the Boston region were established in Title 40, parts 51 and 53, of the Code of Federal Regulations (40. C.F.R. 51, 40 C.F.R. 53).

On April 1, 1996, the EPA classified the cities of Boston, Cambridge, Chelsea, Everett, Malden, Medford, Quincy, Revere, and Somerville as in attainment for carbon monoxide (CO) emissions. Subsequently, the Commonwealth established a CO maintenance plan through the Massachusetts SIP process to ensure that emission levels did not increase. While the maintenance plan was in effect, past TIPs and LRTPs included an air quality conformity analysis for these communities. As of April 1, 2016, the 20-year maintenance period for this maintenance area expired and transportation conformity is no longer required for carbon monoxide in these communities. This ruling is documented in a letter from the EPA dated May 12, 2016.

On April 22, 2002, the EPA classified the City of Waltham as being in attainment for CO emissions with an EPA-approved limited-maintenance plan. In areas that have approved limited-maintenance plans, federal actions requiring conformity determinations under the EPA's transportation conformity rule are considered to satisfy the conformity test. The MPO is not required to perform a modeling analysis for a conformity determination for carbon monoxide, but it has been required to provide a status report on the timely implementation of projects and programs that will reduce emissions from transportation sources—so-called transportation control measures—which are included in the Massachusetts SIP. In April 2022, the EPA issued a letter explaining that the carbon monoxide limited maintenance area in Waltham has expired. Therefore, the MPO is no longer required to demonstrate transportation conformity for this area, but the rest of the maintenance plan requirements, however, continue to apply, in accordance with the SIP.

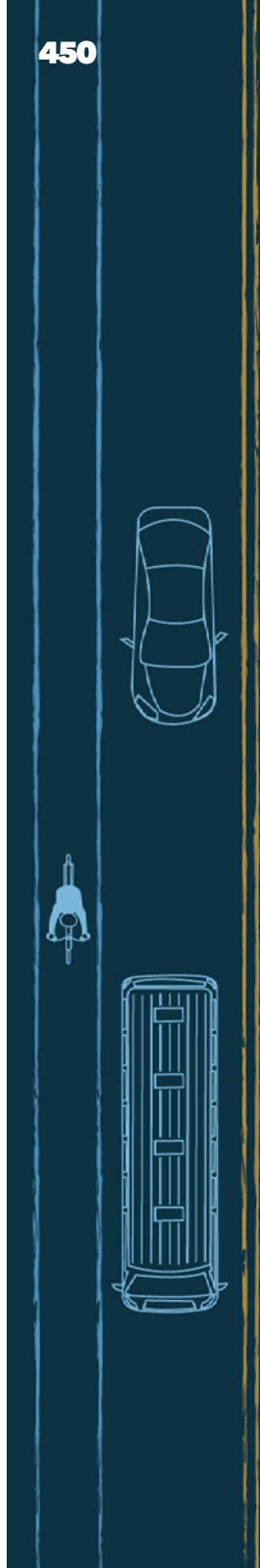
On February 16, 2018, the US Court of Appeals for the DC Circuit issued a decision in South Coast Air Quality Management District v. EPA, which struck down portions of the 2008 Ozone National Ambient Air Quality Standards (NAAQS) SIP Requirements Rule concerning the ozone NAAQS. Those portions of the SIP Requirements Rule included transportation conformity requirements associated with the EPA's revocation of the 1997 ozone NAAQS. Massachusetts was designated as an attainment area in accord with the 2008 ozone NAAQS but as a nonattainment or maintenance area as relates to the 1997 ozone NAAQS. As a result of this court ruling, MPOs in Massachusetts must once again demonstrate conformity for ozone when developing LRTPs and TIPs.

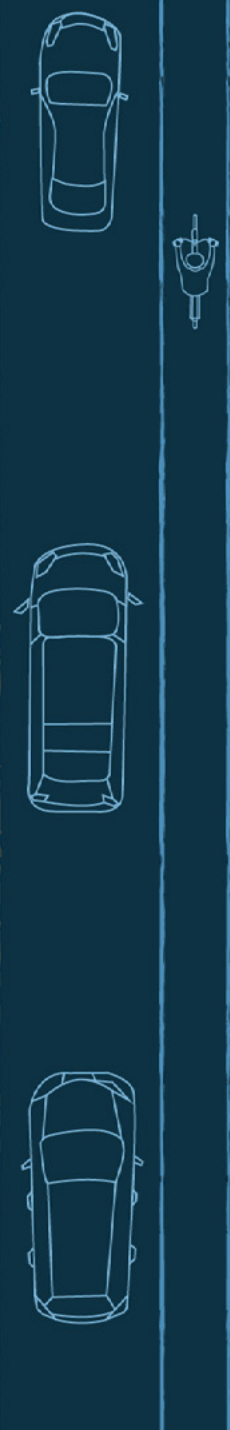
MPOs must also perform conformity determinations if transportation control measures (TCM) are in effect in the region. TCMs are strategies that reduce transportation-related air pollution and fuel use by reducing vehicle-miles traveled and improving roadway operations. The Massachusetts SIP identifies TCMs in the Boston region. SIP-identified TCMs are federally enforceable and projects that address the identified air quality issues must be given first priority when federal transportation dollars are spent. Examples of TCMs that were programmed in previous TIPs include rapid-transit and commuter-rail extension programs (such as the Green Line Extension in Cambridge, Medford, and Somerville, and the Fairmount Line improvements in Boston), parking-freeze programs in Boston and Cambridge, statewide rideshare programs, park-and-ride facilities, residential parking-sticker programs, and the operation of high-occupancy-vehicle (HOV) lanes.

In addition to reporting on the pollutants identified in the 1990 Clean Air Act Amendments, the MPOs in Massachusetts are also required to perform air quality analyses for carbon dioxide as part of the state's Global Warming Solutions Act (GWSA) (see below).

Nondiscrimination Mandates

The Boston Region MPO complies with Title VI of the Civil Rights Act of 1964, the American with Disabilities Act of 1990 (ADA), Executive Order 12898—Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations (EJ EO), and other federal and state nondiscrimination statutes and regulations in all pro-





grams and activities it conducts. Per federal and state law, the MPO does not discriminate on the basis of race, color, national origin (including limited-English proficiency), religion, creed, gender, ancestry, ethnicity, disability, age, sex, sexual orientation, gender identity or expression, veteran's status, or background. The MPO strives to provide meaningful opportunities for participation of all persons in the region, including those protected by Title VI, the ADA, the EJ EO, and other nondiscrimination mandates.

The MPO also assesses the likely benefits and adverse effects of transportation projects on equity populations (populations covered by federal regulations, as identified in the MPO's Transportation Equity program) when deciding which projects to fund. This is done through the MPO's project selection criteria. MPO staff also evaluate the projects that are selected for funding, in the aggregate, to determine their overall impacts and whether they improve transportation outcomes for equity populations. The major federal requirements pertaining to nondiscrimination are discussed below.

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

Title VI of the Civil Rights Act of 1964 requires that no person be excluded from participation in, be denied the benefits of, or be subjected to discrimination on the basis of race, color, or national origin, under any program or activity provided by an agency receiving federal financial assistance. Executive Order 13166—Improving Access to Services for Persons with Limited English Proficiency, dated August 11, 2000, extends Title VI protections to people who, as a result of their nationality, have limited English proficiency. Specifically, it calls for improved access to federally assisted programs and activities, and it requires MPOs to develop and implement a system through which people with limited English proficiency can meaningfully participate in the transportation planning process. This requirement includes the development of a Language Assistance Plan that documents the organization's process for providing meaningful language access to people with limited English proficiency who access their services and programs.

ENVIRONMENTAL JUSTICE EXECUTIVE ORDER

Executive Order 12898, dated February 11, 1994, requires each federal agency to advance environmental justice by identifying and addressing any disproportionately high and adverse human health or environmental effects, including interrelated social and economic effects, of its programs, policies, and activities on minority and low-income populations.

On April 15, 1997, the USDOT issued its Final Order to Address Environmental Justice in Minority Populations and Low-Income Populations. Among other provisions, this order requires programming and planning activities to

- explicitly consider the effects of transportation decisions on minority and low-income populations;
- provide meaningful opportunities for public involvement by members of minority and low-income populations;
- gather (where relevant, appropriate, and practical) demographic information such as race, color, national origin, and income level of populations affected by transportation decisions; and
- minimize or mitigate any adverse impact on minority or low-income populations.

The 1997 Final Order was updated in 2012 with USDOT Order 5610.2(a), which provided clarification while maintaining the original framework and procedures.

AMERICANS WITH DISABILITIES ACT

Title III of the ADA "prohibits states, MPOs, and other public entities from discriminating on the basis of disability in the entities' services, programs, or activities," and requires all transportation projects, plans, and programs to be accessible to people with disabilities. Therefore, MPOs must consider the mobility needs of people with disabilities when programming federal funding for studies and capital projects. MPO-sponsored meetings must also be held in accessible venues and be conducted in a manner that provides for accessibility. Also, MPO materials must be made available in accessible formats.

OTHER NONDISCRIMINATION MANDATES

The Age Discrimination Act of 1975 prohibits discrimination on the basis of age in programs or activities that receive federal financial assistance. In addition, the Rehabilitation Act of 1975, and Title 23, section 324, of the US Code (23 USC § 324) prohibit discrimination based on sex.

STATE GUIDANCE AND PRIORITIES

Much of the MPO's work focuses on encouraging mode shift and diminishing GHG emissions through improving transit service, enhancing bicycle and pedestrian networks, and studying emerging transportation technologies. All of this work helps the Boston region contribute to statewide progress towards the priorities discussed in this section.

Beyond Mobility

Beyond Mobility, the Massachusetts 2050 Transportation Plan, is a planning process that will result in a blueprint for guiding transportation decision-making and investments in Massachusetts in a way that advances MassDOT's goals and maximizes the equity and resiliency of the transportation system. MPO staff continue to coordinate with MassDOT staff so that Destination 2050, the MPO's next Long-Range Transportation Plan, is aligned with the Beyond Mobility plan.

Choices for Stewardship: Recommendations to Meet the Transportation Future

The Commission on the Future of Transportation in the Commonwealth—established by Massachusetts Governor Charlie Baker's Executive Order 579—published Choices for Stewardship in 2019. This report makes 18 recommendations across the following five thematic categories to adapt the transportation system in the Commonwealth to emerging needs:

1. Modernize existing transportation assets to move more people
2. Create a mobility infrastructure to capitalize on emerging transportation technology and behavior trends
3. Reduce transportation-related GHG emissions and improve the climate resiliency of the transportation network
4. Coordinate land use, housing, economic development, and transportation policy
5. Alter current governance structures to better manage emerging and anticipated transportation trends

Beyond Mobility will build upon the Commission report's recommendations. The Boston Region MPO supports these statewide goals by conducting planning work and making investment decisions that complement MassDOT's efforts and reflect the evolving needs of the transportation system in the region.

Massachusetts Strategic Highway Safety Plan

The Massachusetts 2023 Strategic Highway Safety Plan (SHSP) identifies the state's key safety needs and guides investment decisions to achieve significant reductions in highway fatalities and serious injuries on all public roads. The SHSP establishes statewide safety goals and objectives and key safety emphasis areas, and it draws on the strengths of all highway safety partners in the Commonwealth to align and leverage resources to address the state's safety challenges collectively. The Boston Region MPO considers SHSP goals, emphasis areas, and strategies when developing its plans, programs, and activities.

Massachusetts Transportation Asset Management Plan

The Massachusetts Transportation Asset Management Plan (TAMP) is a risk-based asset management plan for the bridges and pavement that are in the NHS inventory. The plan describes the condition of these assets, identifies assets that are particularly vulnerable following declared emergencies such as extreme weather, and discusses MassDOT's financial plan and risk management strategy for these assets. The Boston Region MPO considers MassDOT TAMP goals, targets, and strategies when developing its plans, programs, and activities.

MassDOT Modal Plans

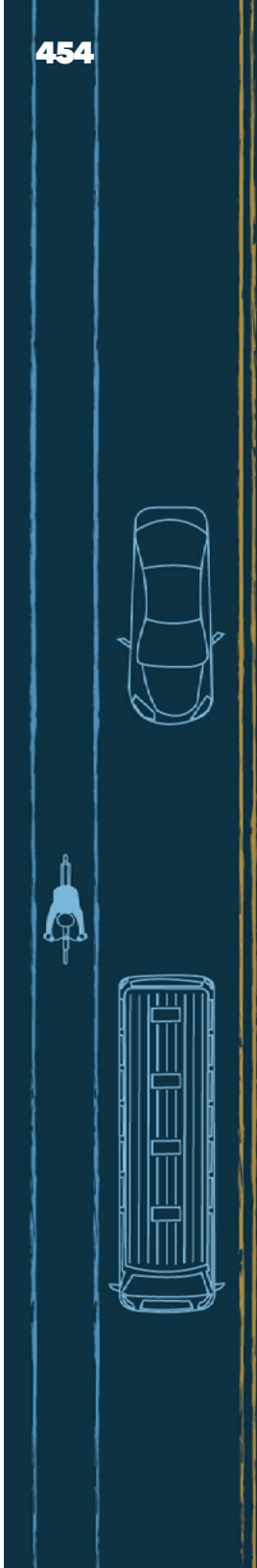
In 2017, MassDOT finalized the Massachusetts Freight Plan, which defines the short- and long-term vision for the Commonwealth's freight transportation system. In 2018, MassDOT released the related Commonwealth of Massachusetts State Rail Plan, which outlines short- and long-term investment strategies for Massachusetts' freight and passenger rail systems (excluding the commuter rail system). In 2019, MassDOT released the Massachusetts Bicycle Transportation Plan and the Massachusetts Pedestrian Transportation Plan, both of which define roadmaps, initiatives, and action plans to improve bicycle and pedestrian transportation in the Commonwealth. These plans were updated in 2021 to reflect new investments in bicycle and pedestrian projects made by MassDOT since their release. The MPO considers the findings and strategies of MassDOT's modal plans when conducting its planning, including through its Freight Planning Support and Bicycle/Pedestrian Support Activities programs.

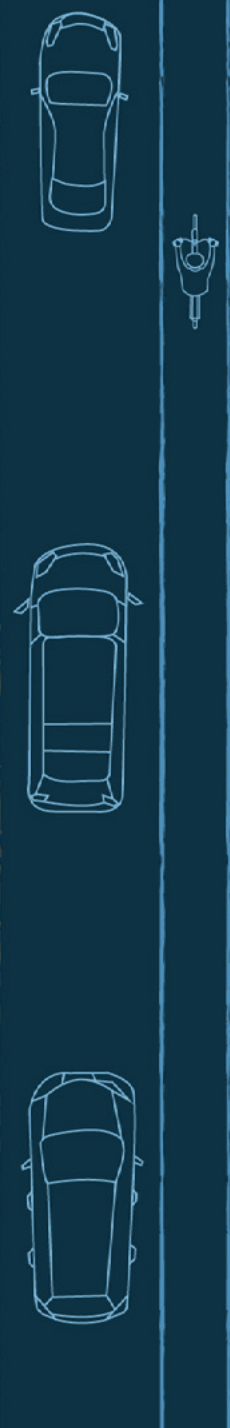
Global Warming Solutions Act

The GWSA makes Massachusetts a leader in setting aggressive and enforceable GHG reduction targets and implementing policies and initiatives to achieve these targets. In keeping with this law, the Massachusetts Executive Office of Energy and Environmental Affairs (EEA), in consultation with other state agencies and the public, developed the Massachusetts Clean Energy and Climate Plan for 2020. This implementation plan, released on December 29, 2010 (and updated in 2015), establishes the following targets for overall statewide GHG emission reductions:

- 25 percent reduction below statewide 1990 GHG emission levels by 2020
- 80 percent reduction below statewide 1990 GHG emission levels by 2050

In 2018, EEA published its GWSA 10-year Progress Report and the GHG Inventory estimated that 2018 GHG emissions were 22 percent below the 1990 baseline level.





MassDOT fulfills its responsibilities, defined in the Massachusetts Clean Energy and Climate Plan for 2020, through a policy directive that sets three principal objectives:

1. To reduce GHG emissions by reducing emissions from construction and operations, using more efficient fleets, implementing travel demand management programs, encouraging eco-driving, and providing mitigation for development projects
2. To promote healthy transportation modes by improving pedestrian, bicycle, and public transit infrastructure and operations
3. To support smart growth development by making transportation investments that enable denser, smart growth development patterns that can support reduced GHG emissions

In January 2015, the Massachusetts Department of Environmental Protection amended Title 310, section 7.00, of the Code of Massachusetts Regulations (310 CMR 60.05), Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation, which was subsequently amended in August 2017. This regulation places a range of obligations on MassDOT and MPOs to support achievement of the Commonwealth's climate change goals through the programming of transportation funds. For example, MPOs must use GHG impact as a selection criterion when they review projects to be programmed in their TIPs, and they must evaluate and report the GHG emissions impacts of transportation projects in LRTPs and TIPs.

The Commonwealth's 10 MPOs (and three non-metropolitan planning regions) are integrally involved in supporting the GHG reductions mandated under the GWSA. The MPOs seek to realize these objectives by prioritizing projects in the LRTP and TIP that will help reduce emissions from the transportation sector. The Boston Region MPO uses its TIP project evaluation criteria to score projects based on their GHG emissions impacts, multimodal Complete Streets accommodations, and ability to support smart growth development. Tracking and evaluating GHG emissions by project will enable the MPOs to anticipate GHG impacts of planned and programmed projects. See Chapter 3 for more details related to how the MPO conducts GHG monitoring and evaluation.

Healthy Transportation Policy Initiatives

On September 9, 2013, MassDOT passed the Healthy Transportation Policy Directive to formalize its commitment to implementing and maintaining transportation networks that allow for various mode choices. This directive will ensure that all MassDOT projects are designed and implemented in ways that provide all customers with access to safe and comfortable walking, bicycling, and transit options.

In November 2015, MassDOT released the Separated Bike Lane Planning & Design Guide. This guide represents the next—but not the last—step in MassDOT's continuing commitment to Complete Streets, sustainable transportation, and the creation of more safe and convenient transportation options for Massachusetts' residents. This guide may be used by project planners and designers as a resource for considering, evaluating, and designing separated bike lanes as part of a Complete Streets approach.

In the current LRTP, Destination 2040, the Boston Region MPO has continued to use investment programs—particularly its Complete Streets and Bicycle Network and Pedestrian Connections programs—that support the implementation of Complete Streets projects. The next LRTP, Destination 2050, is being developed in tandem with the FFYs 2024–28 TIP and will continue to provide similar support. In the Unified Planning Work Program, the MPO budgets to support these projects, such as the MPO's Bicycle and Pedestrian Support Activities program, corridor studies undertaken by MPO staff to make conceptual recommendations for Complete Streets treatments, and various discrete studies aimed at improving pedestrian and bicycle accommodations.

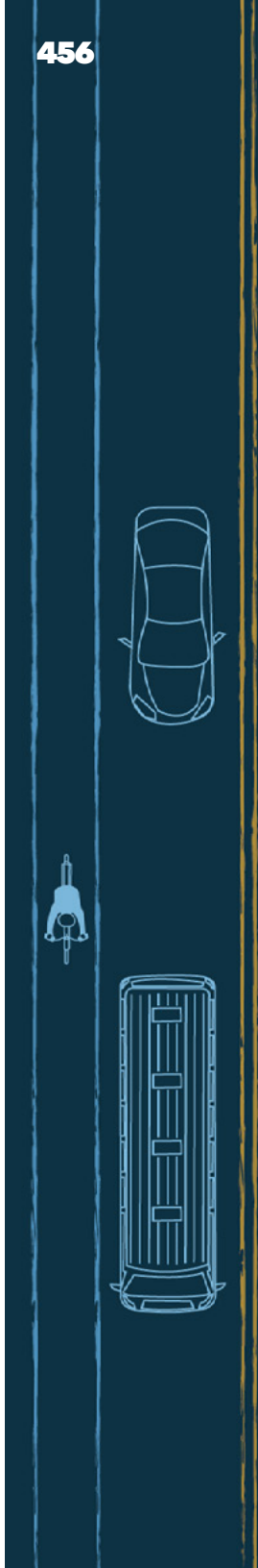
Congestion in the Commonwealth 2019

MassDOT developed the Congestion in the Commonwealth 2019 report to identify specific causes of and impacts from traffic congestion on the NHS. The report also made recommendations for reducing congestion, including addressing local and regional bottlenecks, redesigning bus networks within the systems operated by the Massachusetts Bay Transportation Authority (MBTA) and the other regional transit authorities, increasing MBTA capacity, and investigating congestion pricing mechanisms such as managed lanes. These recommendations guide multiple new efforts within MassDOT and the MBTA and are actively considered by the Boston Region MPO when making planning and investment decisions.

REGIONAL GUIDANCE AND PRIORITIES

Focus40, The MBTA's Program for Mass Transportation

On March 18, 2019, MassDOT and the MBTA released Focus40, the MBTA's Program for Mass Transportation, which is the 25-year investment plan that aims to position the MBTA to meet the transit needs of the Greater Boston region through 2040. Complemented by the MBTA's Strategic Plan and other internal and external policy and planning initiatives, Focus40 serves as a comprehensive plan guiding all capital planning initiatives at the MBTA. These initiatives include the Rail Vision plan, which will inform the vision for the future of the MBTA's commuter rail system; the Bus Network Redesign (formerly the Better Bus Project), the plan to re-envision and improve the MBTA's bus network; and other plans. The Boston Region MPO continues to monitor the status of Focus40 and related MBTA modal plans to inform its decision-making about transit capital investments, which are incorporated to the TIP and LRTP.



MetroCommon 2050

MetroCommon 2050, which was developed by the Metropolitan Area Planning Council (MAPC) and adopted in 2021, is Greater Boston's regional land use and policy plan. MetroCommon 2050 builds off of MAPC's previous plan, MetroFuture (adopted in 2008), and includes an updated set of strategies for achieving sustainable growth and equitable prosperity in the region. The MPO considers MetroCommon 2050's goals, objectives, and strategies in its planning and activities. See Chapter 7 for more information about MetroCommon 2050 development activities.

MetroCommon 2050 will serve as the foundation for land use projections in the MPO's next LRTP, Destination 2050. The MPO's next LRTP is currently in development and is anticipated to be adopted by the MPO board in the summer of 2023

The Boston Region MPO's Congestion Management Process

The purpose of the Congestion Management Process (CMP) is to monitor and analyze the mobility of people using transportation facilities and services, develop strategies for managing congestion based on the results of traffic monitoring, and move those strategies into the implementation stage by providing decision-makers in the region with information and recommendations for improving the transportation system's performance. The CMP monitors roadways, transit, and park-and-ride facilities in the Boston region for safety, congestion, and mobility, and identifies problem locations. See Chapter 3 for more information about the MPO's CMP.

Coordinated Public Transit-Human Services Transportation Plan

Every four years, the Boston Region MPO completes a Coordinated Public Transit-Human Services Transportation Plan (CPT-HST), in coordination with the development of the LRTP. The CPT-HST supports improved coordination of transportation for seniors and people with disabilities in the Boston region. This plan also guides transportation providers in the Boston region who are developing proposals to request funding from the Federal Transit Administration's Section 5310 Program. To be eligible for funding, a proposal must meet a need identified in the CPT-HST. The CPT-HST contains information about

- current transportation providers in the Boston region;
- unmet transportation needs for seniors and people with disabilities;
- strategies and actions to meet the unmet needs; and
- priorities for implementing those needs.

The MPO adopted its current CPT-HST in 2019 and is currently developing its next CPT-HST, which is expected to be adopted in 2023.

MBTA and Regional Transit Authority (RTA) Transit Asset Management (TAM) Plans

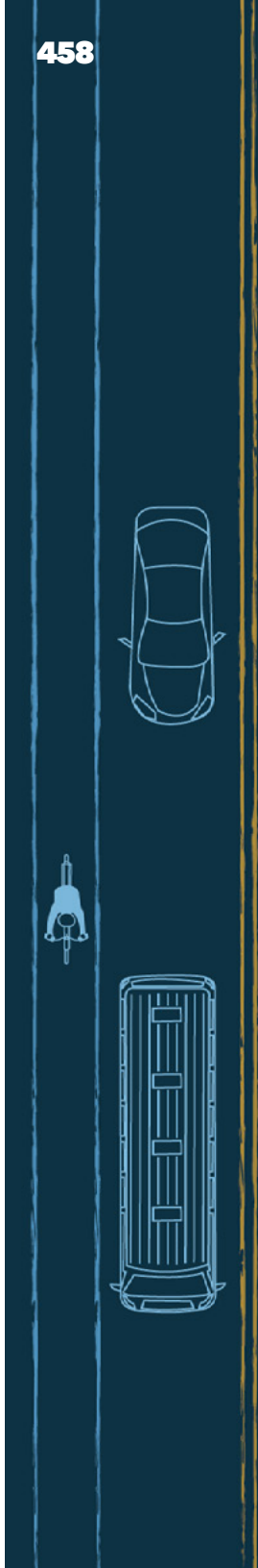
The MBTA and the region's RTAs—the Cape Ann Transportation Authority (CATA) and the MetroWest Regional Transit Authority (MWRTA)—are responsible for producing transit asset management plans that describe their asset inventories and the condition of these assets, strategies, and priorities for improving the state of good repair of these assets. The Boston Region MPO considers goals and priorities established in these plans when developing its plans, programs, and activities.

MBTA and RTA Public Transit Agency Safety Plans

The MBTA, CATA, and MWRTA are required to create and annually update Public Transit Agency Safety Plans that describe their approaches for implementing Safety Management Systems on their transit systems. The Boston Region MPO considers goals, targets, and priorities established in these plans when developing its plans, programs, and activities.

STATE AND REGIONAL COVID-19 ADAPTATIONS

The COVID-19 pandemic has radically shifted the way many people in the Boston region interact with the regional transportation system. The pandemic's effect on everyday life has had short-term impacts on the system and how people travel, and it may have lasting effects. State and regional partners have advanced immediate changes in the transportation network in response to the situation brought about by the pandemic. Some of the changes may become permanent, such as the expansion of bicycle, bus, sidewalk, and plaza networks, and a reduced emphasis on traditional work trips. As the region recovers from the impacts of the COVID-19 pandemic and the long-term effects become apparent, state and regional partners' guidance and priorities are likely to be adjusted.



APPENDIX F

BOSTON REGION METROPOLITAN PLANNING ORGANIZATION MEMBERSHIP

VOTING MEMBERS

The Boston Region Metropolitan Planning Organization (MPO) includes both permanent members and municipal members who are elected for three-year terms. Details about the MPO's members are listed below.

The **Massachusetts Department of Transportation (MassDOT)** was established under Chapter 25 (An Act Modernizing the Transportation Systems of the Commonwealth of Massachusetts) of the Acts of 2009. MassDOT has four divisions: Highway, Rail and Transit, Aeronautics, and the Registry of Motor Vehicles. The MassDOT Board of Directors, composed of 11 members appointed by the governor, oversees all four divisions and MassDOT operations and works closely with the Massachusetts Bay Transportation Authority (MBTA) Board of Directors. The MassDOT Board of Directors was expanded to 11 members by the Legislature in 2015, a group of transportation leaders assembled to review structural problems with the MBTA and deliver recommendations for improvements. MassDOT has three seats on the MPO board, including seats for the Highway Division.

The **MassDOT Highway Division** has jurisdiction over the roadways, bridges, and tunnels that were overseen by the former Massachusetts Highway Department and Massachusetts Turnpike Authority. The Highway Division also has jurisdiction over many bridges and parkways that previously were under the authority of the Department of Conservation and Recreation. The Highway Division is responsible for the design, construction, and maintenance of the Commonwealth's state highways and bridges. It is also responsible for overseeing traffic safety and engineering activities for the state highway system. These activities include operating the Highway Operations Control Center to ensure safe road and travel conditions.

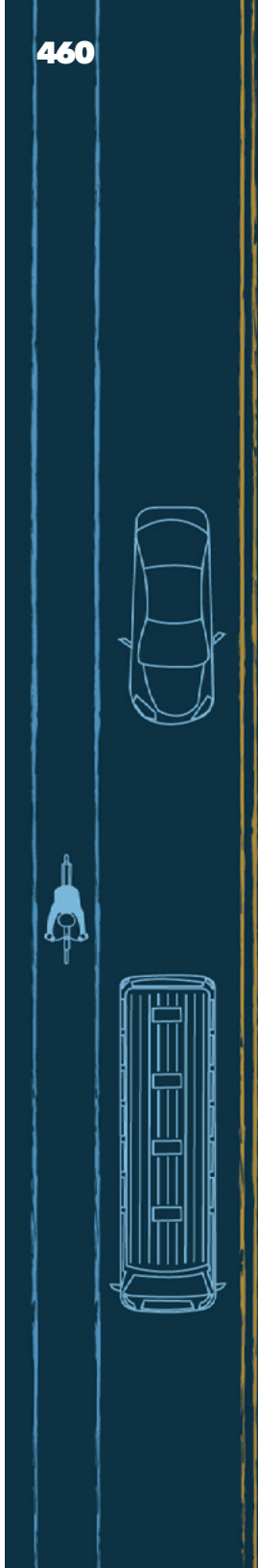
The **MBTA**, created in 1964, is a body politic and corporate, and a political subdivision of the Commonwealth. Under the provisions of Chapter 161A of the Massachusetts General Laws, it has the statutory responsibility within its district of operating the public transportation system in the Boston region, preparing the engineering and architectural designs for transit development projects, and constructing and operating transit development projects. The MBTA district comprises 175 communities, including all of the 97 cities and towns of the Boston Region MPO area.

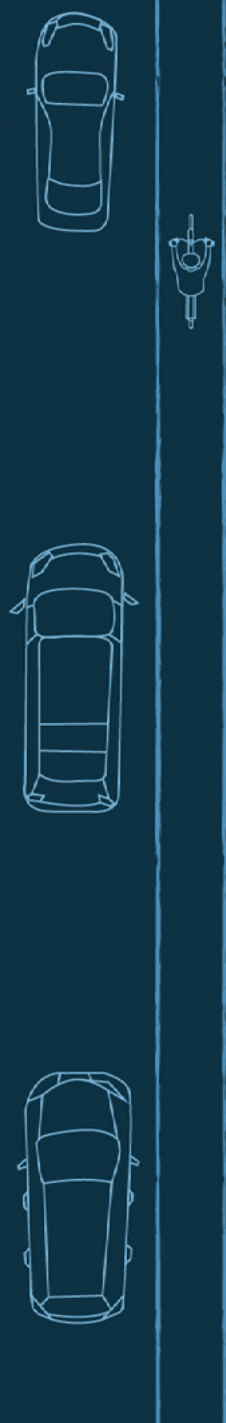
In April 2015, as a result of a plan of action to improve the MBTA, a five-member Fiscal and Management Control Board (FMCB) was created. The FMCB was created to oversee and improve the finances, management, and operations of the MBTA. The FMCB's authorizing statute called for an initial three-year term, with the option for the board to request that the governor approve a single two-year extension. In 2017, the FMCB's initial mandate, which would have expired in June 2018, was extended for two years, through June 30, 2020. In 2020, the FMCB's mandate was extended a second time for an additional period of one year, through June 30, 2021.

Following the expiration of the FMCB's extended mandate, the MBTA Board of Directors was formed as a permanent replacement to provide oversight for the agency. By statute, the board consists of seven members, including the Secretary of Transportation as an ex-officio member. The MBTA Advisory Board appoints one member who has municipal government experience in the MBTA's service area and experience in transportation operations, transportation planning, housing policy, urban planning, or public or private finance. The Governor appoints the remaining five board members, which include an MBTA rider and member of an environmental justice population, and a person recommended by the President of the American Federation of Labor and Congress of Industrial Organizations.

The **MBTA Advisory Board** was created by the Massachusetts Legislature in 1964 through the same legislation that created the MBTA. The Advisory Board consists of representatives of the 175 cities and towns that compose the MBTA's service area. Cities are represented by either the city manager or mayor, and towns are represented by the chairperson of the board of selectmen. Specific responsibilities of the Advisory Board include reviewing and commenting on the MBTA's long-range plan, the Program for Mass Transportation; proposed fare increases; the annual MBTA Capital Investment Program; the MBTA's documentation of net operating investment per passenger; and the MBTA's operating budget. The MBTA Advisory Board advocates for the transit needs of its member communities and the riding public.

The **Massachusetts Port Authority (Massport)** has the statutory responsibility under Chapter 465 of the Acts of 1956, as amended, for planning, constructing, owning, and operating such transportation and related facilities as may be necessary for developing and improving commerce in Boston and the surrounding metropolitan area. Massport owns and operates Boston Logan International Airport, the Port of Boston's Conley Terminal, Flynn Cruiseport Boston, Hanscom Field, Worcester Regional Airport, and various maritime and waterfront properties, including parks in the Boston neighborhoods of East Boston, South Boston, and Charlestown.





The **Metropolitan Area Planning Council (MAPC)** is the regional planning agency for the Boston region. It is composed of the chief executive officer (or a designee) of each of the cities and towns in the MAPC's planning region, 21 gubernatorial appointees, and 12 ex-officio members. It has statutory responsibility for comprehensive regional planning in its region under Chapter 40B of the Massachusetts General Laws. It is the Boston Metropolitan Clearinghouse under Section 204 of the Demonstration Cities and Metropolitan Development Act of 1966 and Title VI of the Intergovernmental Cooperation Act of 1968. Also, its region has been designated an economic development district under Title IV of the Public Works and Economic Development Act of 1965, as amended. MAPC's responsibilities for comprehensive planning encompass the areas of technical assistance to communities, transportation planning, and development of zoning, land use, demographic, and environmental studies. MAPC activities that are funded with federal metropolitan transportation planning dollars are documented in the Boston Region MPO's Unified Planning Work Program.

The **City of Boston**, six elected cities (currently **Beverly, Everett, Framingham, Newton, Somerville,** and **Burlington**), and six elected towns (currently **Acton, Arlington, Brookline, Hull, Medway,** and **Norwood**,) represent the 97 municipalities in the Boston Region MPO area. The City of Boston is a permanent MPO member and has two seats. There is one elected municipal seat for each of the eight MAPC subregions and four seats for at-large elected municipalities (two cities and two towns). The elected at-large municipalities serve staggered three-year terms, as do the eight municipalities representing the MAPC subregions.

The **Regional Transportation Advisory Council**, the MPO's citizen advisory group, provides the opportunity for transportation-related organizations, non-MPO member agencies, and municipal representatives to become actively involved in the decision-making processes of the MPO as it develops plans and prioritizes the implementation of transportation projects in the region. The Advisory Council reviews, comments on, and makes recommendations regarding certification documents. It also serves as a forum for providing information on transportation topics in the region, identifying issues, advocating for ways to address the region's transportation needs, and generating interest among members of the general public in the work of the MPO.

The **Federal Highway Administration (FHWA)** and **Federal Transit Administration (FTA)** participate in the Boston Region MPO in an advisory (nonvoting) capacity, reviewing the Long-Range Transportation Plan, Transportation Improvement Program, and Unified Planning Work Program, and other facets of the MPO's planning process to ensure compliance with federal planning and programming requirements. These two agencies oversee the highway and transit programs, respectively, of the United States Department of Transportation under pertinent legislation and the provisions of the Bipartisan Infrastructure Law (BIL).


22 ASHMONT
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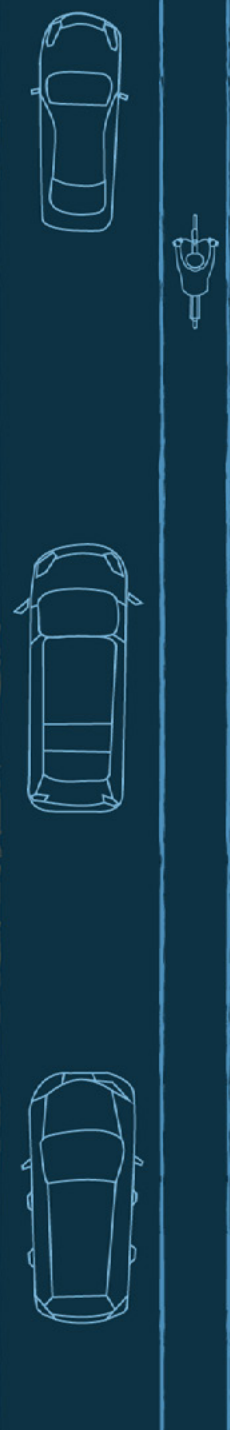

APPENDIX G

OPERATIONS AND MAINTENANCE SUMMARY

OVERVIEW

In addition to the capital programs detailed throughout this document, highway and transit agencies in the Boston region are required to submit operations and maintenance (O&M) information for FFYs 2022–27 to the Boston Region Metropolitan Planning Organization (MPO) to satisfy federal requirements for the certification of the Transportation Improvement Program (TIP). These O&M tables outline the operating revenues for each agency, including farebox collections; federal, state, and local operating funds; interest income; and other auxiliary revenues from activities such as advertising and leasing. These tables also include a summary of the operating expenses for each agency with both revenues and expenses detailed for each fiscal year. This appendix documents the FFYs 2024–28 TIP O&M information for the Massachusetts Department of Transportation (MassDOT), Massachusetts Bay Transportation Authority (MBTA), MetroWest Regional Transit Authority (MWRTA), and Cape Ann Transportation Authority (CATA).

TABLE G-1

FFYs 2024–28 TIP Operations and Maintenance Summary: MassDOT

Operating and Maintenance Expenditures as of March 2023					
Statewide and District Contracts plus Expenditures within MPO boundaries					
Program Group/Sub Group	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spend-ing	Est SFY 2026 Spending	Est SFY 2027 Spending
Part 1: Non-Federal Aid					
Section I - Non Federal Aid Maintenance Projects - State Bondfunds					
01 - ADA Retrofits					
Sidewalk Construction and Repairs	$578,675	$1,835,065	$1,712,292	$210,024	$-
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$-	$-	$-	$-	$-
03 - Bridge					
Bridge Inspections	$-	$-	$-	$-	$-
Bridge Maintenance	$47,059,926	$32,973,019	$12,653,389	$294,446	$-
Bridge Maintenance - Deck Repairs	$17,822,818	$6,025,391	$4,129,146	$750,679	$-
Bridge Maintenance - Joints	$4,538,192	$1,497,000	$-	$-	$-
Bridge Preservation	$13,690,335	$6,945,387	$2,808,182	$1,069,091	$-
Drawbridge Maintenance	$11,208,941	$6,926,247	$5,616,282	$1,517,600	$-
Painting - Structural	$2,342,316	$492,945	$415,475	$-	$-
Structures Maintenance	$384,173	$-	$-	$-	$-
04 - Capacity					
Highway Relocation	$-	$-	$-	$-	$-
Hwy Reconstr - Added Capacity	$-	$-	$-	$-	$-
Hwy Reconstr - Major Widening	$-	$-	$-	$-	$-
05 - Facilities					
Vertical Construction (Ch 149)	$12,240,086	$15,061,146	$2,483,199	$963,458	$-
07 - Intersection Improvements					
Traffic Signals	$3,372,014	$1,802,864	$-	$-	$-
08 - Interstate Pavement					
Resurfacing Interstate	$-	$-	$-	$-	$-
09 - Intelligent Transportation Systems Program					
Intelligent Transportation System	$-	$-	$-	$-	$-
10 - Non-interstate DOT Pavement Program					
Milling and Cold Planing	$1,696,450	$65,316	$-	$-	$-
Resurfacing	$8,580,527	$15,675,205	$14,333,540	$3,186,441	$-
Resurfacing DOT Owned Non-Interstate	$9,480,716	$3,277,740	$556,452	$140,348	$-

11 - Roadway Improvements					
Asbestos Removal	$-	$-	$-	$-	$-
Catch Basin Cleaning	$2,770,846	$1,397,444	$1,080,147	$222,198	$-
Contract Highway Maintenance	$5,924,953	$3,360,014	$1,483,986	$-	$-
Crack Sealing	$1,678,385	$997,442	$-	$-	$-
Culvert Maintenance	$-	$-	$-	$-	$-
Culvert Reconstruction/Rehab	$-	$-	$-	$-	$-
Drainage	$9,006,958	$5,897,263	$3,395,005	$662,851	$-
Dredging	$-	$-	$-	$-	$-
Guard Rail & Fencing	$7,013,409	$4,913,810	$1,918,876	$89,739	$-
Highway Sweeping	$2,158,651	$882,245	$613,047	$-	$-
Landscaping	$800,000	$244,014	$-	$-	$-
Mowing and Spraying	$3,124,482	$2,989,678	$1,721,246	$374,034	$-
Sewer and Water	$136,525	$261,650	$-	$-	$-
Tree Trimming	$5,497,656	$3,072,476	$1,481,148	$-	$-
12 - Roadway Reconstruction					
Hwy Reconstr - No Added Capacity	$2,000	$-	$-	$-	$-
Hwy Reconstr - Restr and Rehab	$689,151	$369,739	$496,749	$165,565	$-
Roadway - Reconstr - Sidewalks and Curbing	$1,616,313	$-	$-	$-	$-
13 - Safety Improvements					
Electrical	$250,085	$-	$-	$-	$-
Impact Attenuators	$1,861,793	$765,000	$134,201	$-	$-
Lighting	$3,584,140	$2,093,264	$1,172,202	$683,784	$-
Pavement Marking	$5,217,164	$3,914,558	$1,484,295	$75,006	$-
Safety Improvements	$22,691	$-	$-	$-	$-
Sign Installation/Upgrading	$1,530,285	$1,201,730	$290,837	$-	$-
Structural Signing	$213,951	$320,000	$98,584	$-	$-
Section I Total:	**$186,094,609**	**$125,257,651**	**$60,078,278**	**$10,405,265**	**$-**
Section II - Non Federal Aid Highway Operations - State Operating Budget Funding					
Snow and Ice Operations & Materials					
	$86,100,000	$95,000,000	$95,000,000	$95,000,000	$95,000,000
District Maintenance Payroll					
Mowing, Litter Mgmt, Sight Distance Clearing, Etc.	$35,000,000	$36,050,000	$37,140,000	$38,260,000	$39,410,000
Section II Total:	**$121,100,000**	**$131,050,000**	**$132,140,000**	**$133,260,000**	**$134,410,000**
Grand Total NFA:	**$307,194,609**	**$256,307,651**	**$192,218,278**	**$143,665,265**	**$134,410,000**

TABLE G-1

FFYs 2024–28 TIP Operations and Maintenance Summary: MassDOT (continued)

Operating and Maintenance Expenditures as of March 2023					
Statewide and District Contracts plus Expenditures within MPO boundaries					
Program Group/Sub Group	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spending	Est SFY 2026 Spending	Est SFY 2027 Spending
Part 2: Federal Aid					
Section I - Federal Aid Maintenance Projects					
01 - ADA Retrofits					
Sidewalk Construction and Repairs	$-	$-	$-	$-	$-
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$-	$-	$-	$-	$-
03 - Bridge					
Bridge Maintenance	$1,702,831	$-	$-	$-	$-
Bridge Maintenance - Deck Repairs	$-	$-	$-	$-	$-
Bridge Maintenance - Joints	$-	$-	$-	$-	$-
Bridge Preservation	$510,000	$1,260,000	$747,097	$-	$-
Bridge Reconstruction/Rehab	$-	$-	$-	$-	$-
Drawbridge Maintenance	$-	$-	$-	$-	$-
Painting - Structural	$1,068,387	$1,640,000	$213,917	$-	$-
Structures Maintenance	$5,046,803	$754,257	$-	$-	$-
04 - Capacity					
Hwy Reconstr - Added Capacity	$-	$-	$-	$-	$-
05 - Facilities					
Vertical Construction (Ch 149)	$-	$-	$-	$-	$-
07 - Intersection Improvements					
Traffic Signals	$-	$-	$-	$-	$-
08 - Interstate Pavement					
Resurfacing Interstate	$-	$-	$-	$-	$-
09 - Intelligent Transportation Systems Program					
Intelligent Transportation System	$-	$-	$-	$-	$-
10 - Non-interstate DOT Pavement Program					
Milling and Cold Planing	$-	$-	$-	$-	$-
Resurfacing	$-	$-	$-	$-	$-
Resurfacing DOT Owned Non-Interstate	$-	$-	$-	$-	$-

11 - Roadway Improvements					
Asbestos Removal	$-	$-	$-	$-	$-
Catch Basin Cleaning	$-	$-	$-	$-	$-
Contract Highway Maintenance	$-	$-	$-	$-	$-
Crack Sealing	$-	$-	$-	$-	$-
Culvert Maintenance	$-	$-	$-	$-	$-
Culvert Reconstruction/Rehab	$-	$-	$-	$-	$-
Drainage	$-	$-	$-	$-	$-
Guard Rail & Fencing	$-	$-	$-	$-	$-
Highway Sweeping	$-	$-	$-	$-	$-
Landscaping	$-	$-	$-	$-	$-
Mowing and Spraying	$-	$-	$-	$-	$-
Sewer and Water	$-	$-	$-	$-	$-
Tree Trimming	$-	$-	$-	$-	$-
12 - Roadway Reconstruction					
Hwy Reconstr - Restr and Rehab	$-	$-	$-	$-	$-
13 - Safety Improvements					
Electrical	$-	$-	$-	$-	$-
Impact Attenuators	$-	$-	$-	$-	$-
Lighting	$451,357	$1,213,925	$-	$-	$-
Pavement Marking	$-	$-	$-	$-	$-
Safety Improvements	$-	$-	$-	$-	$-
Sign Installation/Upgrading	$-	$-	$-	$-	$-
Structural Signing	$423,744	$-	$-	$-	$-
Section I Total:	**$9,203,122**	**$4,868,181**	**$961,014**	**$-**	**$-**
Grand Total Federal Aid:	**$9,203,122**	**$4,868,181**	**$961,014**	**$-**	**$-**

TABLE G-1

FFYs 2024–28 TIP Operations and Maintenance Summary: MassDOT (continued)

Operating and Maintenance Expenditures as of March 2023					
Statewide and District Contracts					
Program Group/Sub Group	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spending	Est SFY 2026 Spending	Est SFY 2027 Spending
Part 1: Non-Federal Aid					
Section I - Non Federal Aid Maintenance Projects - State Bondfunds					
01 - ADA Retrofits					
Sidewalk Construction and Repairs	$578,675	$1,835,065	$1,712,292	$210,024	$-
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$-	$-	$-	$-	$-
03 - Bridge					
Bridge Maintenance	$42,711,481	$30,581,188	$12,653,389	$294,446	$-
Bridge Maintenance - Deck Repairs	$17,822,818	$6,025,391	$4,129,146	$750,679	$-
Bridge Maintenance - Joints	$4,538,192	$1,497,000	$-	$-	$-
Bridge Preservation	$2,148,597	$1,790,000	$670,000	$-	$-
Drawbridge Maintenance	$11,208,941	$6,926,247	$5,616,282	$1,517,600	$-
Painting - Structural	$1,457,297	$530,000	$415,475	$-	$-
Structures Maintenance	$384,173	$-	$-	$-	$-
04 - Capacity					
Highway Relocation	$-	$-	$-	$-	$-
Hwy Reconstr - Added Capacity	$-	$-	$-	$-	$-
Hwy Reconstr - Major Widening	$-	$-	$-	$-	$-
05 - Facilities					
Vertical Construction (Ch 149)	$7,302,206	$5,415,780	$2,483,199	$963,458	$-
07 - Intersection Improvements					
Traffic Signals	$3,372,014	$1,802,864	$-	$-	$-
08 - Interstate Pavement					
Resurfacing Interstate	$-	$-	$-	$-	$-
09 - Intelligent Transportation Systems Program					
Intelligent Transportation System	$-	$-	$-	$-	$-
10 - Non-interstate DOT Pavement Program					
Milling and Cold Planing	$1,696,450	$65,316	$-	$-	$-
Resurfacing	$8,580,527	$15,675,205	$14,333,540	$3,186,441	$-
Resurfacing DOT Owned Non-Interstate	$9,480,716	$3,277,740	$556,452	$140,348	$-

11 - Roadway Improvements					
Asbestos Removal	$-	$-	$-	$-	$-
Catch Basin Cleaning	$2,770,846	$1,397,444	$1,080,147	$222,198	$-
Contract Highway Maintenance	$5,313,213	$3,017,059	$1,483,986	$-	$-
Crack Sealing	$1,678,385	$997,442	$-	$-	$-
Culvert Maintenance	$-	$-	$-	$-	$-
Culvert Reconstruction/Rehab	$-	$-	$-	$-	$-
Drainage	$8,134,212	$5,823,287	$3,395,005	$662,851	$-
Dredging	$-	$-	$-	$-	$-
Guard Rail & Fencing	$7,013,409	$4,913,810	$1,918,876	$89,739	$-
Highway Sweeping	$2,158,651	$882,245	$613,047	$-	$-
Landscaping	$800,000	$244,014	$-	$-	$-
Mowing and Spraying	$2,901,606	$2,864,639	$1,721,246	$374,034	$-
Sewer and Water	$136,525	$261,650	$-	$-	$-
Tree Trimming	$5,497,656	$3,072,476	$1,481,148	$-	$-
12 - Roadway Reconstruction					
Hwy Reconstr - No Added Capacity	$2,000	$-	$-	$-	$-
Hwy Reconstr - Restr and Rehab	$689,151	$369,739	$496,749	$165,565	$-
Roadway - Reconstr - Sidewalks and Curbing	$1,616,313	$-	$-	$-	$-
13 - Safety Improvements					
Electrical	$250,085	$-	$-	$-	$-
Impact Attenuators	$1,861,793	$765,000	$134,201	$-	$-
Lighting	$3,584,140	$2,093,264	$1,172,202	$683,784	$-
Pavement Marking	$5,217,164	$3,914,558	$1,484,295	$75,006	$-
Safety Improvements	$22,691	$-	$-	$-	$-
Sign Installation/Upgrading	$1,204,949	$1,020,815	$290,837	$-	$-
Structural Signing	$213,951	$320,000	$98,584	$-	$-
Section I Total:	**$162,348,827**	**$107,379,238**	**$57,940,096**	**$9,336,174**	**$-**
Section II - Non Federal Aid Highway Operations - State Operating Budget Funding					
Snow and Ice Operations & Materials					
	$86,100,000	$95,000,000	$95,000,000	$95,000,000	$95,000,000
District Maintenance Payroll					
Mowing, Litter Mgmt, Sight Distance Clearing, Etc.	$35,000,000	$36,050,000	$37,140,000	$38,260,000	$39,410,000
Section II Total:	**$121,100,000**	**$131,050,000**	**$132,140,000**	**$133,260,000**	**$134,410,000**
Grand Total NFA:	**$283,448,827**	**$238,429,238**	**$190,080,096**	**$142,596,174**	**$134,410,000**

TABLE G-1

FFYs 2024–28 TIP Operations and Maintenance Summary: MassDOT (continued)

Operating and Maintenance Expenditures as of March 2023					
Statewide and District Contracts					
Program Group/Sub Group	Est SFY 2023 Spending	Est SFY 2024 Spending	Est SFY 2025 Spending	Est SFY 2026 Spending	Est SFY 2027 Spending
Part 2: Federal Aid					
Section I - Federal Aid Maintenance Projects					
01 - ADA Retrofits					
Sidewalk Construction and Repairs	$-	$-	$-	$-	$-
02 - Bicycles and pedestrians program					
Bikeway/Bike Path Construction	$-	$-	$-	$-	$-
03 - Bridge					
Bridge Maintenance	$1,678,476	$-	$-	$-	$-
Bridge Maintenance - Deck Repairs	$-	$-	$-	$-	$-
Bridge Maintenance - Joints	$-	$-	$-	$-	$-
Bridge Preservation	$-	$-	$-	$-	$-
Bridge Reconstruction/Rehab	$-	$-	$-	$-	$-
Drawbridge Maintenance	$-	$-	$-	$-	$-
Painting - Structural	$478,387	$-	$-	$-	$-
Structures Maintenance	$-	$-	$-	$-	$-
04 - Capacity					
Hwy Reconstr - Added Capacity	$-	$-	$-	$-	$-
05 - Facilities					
Vertical Construction (Ch 149)	$-	$-	$-	$-	$-
07 - Intersection Improvements					
Traffic Signals	$-	$-	$-	$-	$-
08 - Interstate Pavement					
Resurfacing Interstate	$-	$-	$-	$-	$-
09 - Intelligent Transportation Systems Program					
Intelligent Transportation System	$-	$-	$-	$-	$-
10 - Non-interstate DOT Pavement Program					
Milling and Cold Planing	$-	$-	$-	$-	$-
Resurfacing	$-	$-	$-	$-	$-
Resurfacing DOT Owned Non-Interstate	$-	$-	$-	$-	$-

11 - Roadway Improvements					
Asbestos Removal	$-	$-	$-	$-	$-
Catch Basin Cleaning	$-	$-	$-	$-	$-
Contract Highway Maintenance	$-	$-	$-	$-	$-
Crack Sealing	$-	$-	$-	$-	$-
Culvert Maintenance	$-	$-	$-	$-	$-
Culvert Reconstruction/Rehab	$-	$-	$-	$-	$-
Drainage	$-	$-	$-	$-	$-
Guard Rail & Fencing	$-	$-	$-	$-	$-
Highway Sweeping	$-	$-	$-	$-	$-
Landscaping	$-	$-	$-	$-	$-
Mowing and Spraying	$-	$-	$-	$-	$-
Sewer and Water	$-	$-	$-	$-	$-
Tree Trimming	$-	$-	$-	$-	$-
12 - Roadway Reconstruction					
Hwy Reconstr - Restr and Rehab	$-	$-	$-	$-	$-
13 - Safety Improvements					
Electrical	$-	$-	$-	$-	$-
Impact Attenuators	$-	$-	$-	$-	$-
Lighting	$-	$-	$-	$-	$-
Pavement Marking	$-	$-	$-	$-	$-
Safety Improvements	$-	$-	$-	$-	$-
Sign Installation/Upgrading	$-	$-	$-	$-	$-
Structural Signing	$423,744	$-	$-	$-	$-
Section I Total:	**$2,580,607**	**$-**	**$-**	**$-**	**$-**
Grand Total Federal Aid:	**$2,580,607**	**$-**	**$-**	**$-**	**$-**

TABLE G-2

FFYs 2024–28 TIP Operations and Maintenance Summary: MBTA

Category	FY24-FY28	FY24	FY25	FY26	FY27	FY28
Operations and Maintenance Revenues ($M)						
Fare Revenue	2,347	443	458	467	482	498
Non-Fare Revenue	498	93	96	99	103	107
Sales Tax and Local Assessments	8,379	1,589	1,632	1,675	1,719	1,765
Additional State Assistance	935	187	187	187	187	187
Federal Relief & One-Time Revenue	31	31				
Total Revenue	12,190	2,343	2,373	2,427	2,491	2,556
Operations and Maintenance Costs ($M)						
Wages, Materials, and Services and Contracts	11,549	2,116	2,232	2,319	2,402	2,480
Debt Service	2,803	497	531	575	583	618
Total Costs	14,352	2,613	2,763	2,894	2,985	3,098
Difference Between Revenues and Costs	(2,163)	(270)	(390)	(467)	(494)	(542)

1. FY24-FY28 spending and revenue estimates based on Scenario 3 ridership projections as of the Annual Pro Forma presentation to the Board in November 2022. FY24 budget figures pending board approval, expected in June 2023

2. Different between revenues and expenses resolved in the near-term through transfers from the MBTA's Deficiency Fund. Additional state assistance displayed as part of total revenue

3. Federal relief & One-Time Revenue includes FEMA reimbursement revenues for COVID-19 expenses

4. Sales Tax: The dedicated revenues from the state sales tax are equal to whichever is greater, the amount of actual sales tax receipts generated from the statewide sales tax dedicated to the MBTA, or a base revenue amount. The annual amount of dedicated sales tax revenues that the MBTA receives is subject to annual upward adjustment to a maximum 3 percent increase based on a comparison of the percentage increase of inflation to the increase in actual sales tax receipts. Legislation enacted in 2014 increased the base revenue amount in SFY 2015 to $970.6 million and increased the dedicated sales tax revenue amount for the MBTA by an additional $160 million annually.

TABLE G-3

FFYs 2024–28 TIP Operations and Maintenance Summary: MWRTA

Table G-3: FFYs 2024–28 TIP Operations and Maintenance Summary: MWRTA									
Operating Revenue	actual	actual	per approved budget	projected	projected	projected	projected	projected	projected
	FY20	FY21	FY 22	FY 23	FY24	FY25	FY26	FY27	FY28
Farebox	$479,129	$20,701	$172	$455,989	$600,000	$637,440	$653,376	$669,710	$686,453
Section 5339									
Section 5307	$922,968					$2,514,930	$2,395,392	$2,395,392	$2,395,392
Section 5311									
CMAQ/TDM									
CARES/CRRSA/ARPA	$825,000	$2,550,000	$2,453,706	$4,277,394	$3,021,989				
Advertising	$80,250	$78,425	$83,794	$96,425	$98,836	$101,307	$103,839	$106,435	$109,096
Interest Income	$5,307	$882	$875	$1,321	$1,354				
Rental Income	$108,364	$84,257	$108,000	$84,419	$86,530	$118,000	$118,000	$118,000	$118,000
Parking Revenue	$206,328	$200,075	$252,270	$195,873	$200,770	$205,789	$210,934	$216,208	$221,613
State Operating Assistance	$3,474,631	$3,514,840	$3,939,264	$3,192,206	$3,672,011	$3,763,811	$3,857,907	$3,954,354	$4,053,213
Local Assessment	$3,876,600	$3,036,067	$4,072,853	$3,599,300	$3,689,283	$3,781,515	$3,876,053	$3,972,954	$4,072,278
Other: (Define)	$534,505	$391,202	$421,987	$232,805	$238,625	$244,591	$250,705	$256,973	$256,973
TOTAL	**$10,513,083**	**$9,876,449**	**$11,332,921**	**$12,135,734**	**$11,609,398**	**$11,367,383**	**$11,466,206**	**$11,690,027**	**$11,913,018**
Other - Operating (examples)									
Ins. Recoveries, misc.	$10,624	$3,391	$3,400	$2,258	$2,314	$2,372	$2,431	$2,492	$2,554
Gain on Sale of Fixed Assets									
ID Income									
Miscellaneous	$4,283								
Vending	$4,687	$3,333	$5,254	$2,078	$2,130	$2,183	$2,237	$2,293	$2,351
Fuel Tax Rebate	$31,334	$19,937	$20,000	$18,848	$19,319	$19,802	$20,297	$20,805	$21,325
Vehicle Repair Reimbursement	$74,162	$49,501	$68,892	$48,943	$50,166	$51,420	$52,706	$54,023	$55,374

MAPC Reimbursement									
HST Revenue									
CDL Workforce Development									
Hudson Shuttle									
Mass Bay Community College Shuttle	$176,674		$212,789		$-	$-	$-	$-	$-
Travel Training Initiative	$76,048	$78,594	$48,867	$100,000	$102,500	$105,063	$107,689	$110,381	$113,141
5310 ADA Above and Beyond									
Solar Renew Energy Credit Rev	$52,770	$50,762	$52,284	$49,361	$50,595	$51,860	$53,156	$54,485	$55,847
First Mile Last Mile Operating Grant									
Rte 20 Operating Grant									
Mass Dot Shuttle Reimbursement	$66,375								
COA Training Revenue	$11,548	$8,843	$10,500	$11,318	$11,601	$11,891	$12,188	$12,493	$12,805
Rebate Income									
MW Health Foundation Training Grant	$26,000								
MAPC Grant Revenue		$176,842							
Other Operating Revenue	**$534,505**	**$391,202**	**$421,987**	**$232,805**	**$238,625**	**$244,591**	**$250,705**	**$256,973**	**$263,397**
Operating Expenses	**$10,513,083**	**$9,876,449**	**$11,332,921**	**$12,135,734**	**$11,609,398**	**$11,367,383**	**$11,466,206**	**$11,690,027**	**$11,913,018**

TABLE G-4

FFYs 2024–28 TIP Operations and Maintenance Summary: CATA

Operations and Maintenance Summary for the Cape Ann Transportation Authority						
The numbers below represent actual numbers for the previous year, the current year budget/forecast as approved by the RTA Advisory Board and Projections for the out-years. The figures provided in the below table are estimates and a forecast of projected funds necessary to meet the operating needs of the regional transit authority.						
	Previous	Current	Year Two	Year Three	Year Four	Year Five
	2022	2023	2024	2025	2026	2027
Farebox	$120,000	$154,000	$191,985	$191,985	$191,985	$191,985
Section 5307	$250,992	$1,129,726	$1,157,969	$1,186,918	$1,216,591	$1,247,006
Section 5311	$-	$-	$-	$-	$-	$-
CMAQ/TDM	$-	$-	$-	$-	$-	$-
Fully Funded	$-	$-	$-	$-	$-	$-
MassDOT Discretionary Grant	$96,680	$-	$-	$-	$-	$-
Community Transit Grant	$97,024	$82,388	$61,320	$61,320	$61,320	$61,320
Auxiliary Revenues *	$762,156	$446,634	$300,000	$300,000	$300,000	$300,000
Interest Income	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
State Contract Assistance **	$1,506,637	$1,544,303	$1,582,911	$1,622,483	$1,663,045	$1,704,622
Local Assessment	$795,480	$815,367	$835,751	$856,645	$878,061	$900,013
Total	$3,630,969	$4,174,418	$4,131,936	$4,221,352	$4,313,003	$4,406,946
Operating Expenses ***	**Previous**	**Current**	**Year Two**	**Year Three**	**Year Four**	**Year Five**
	2022	2023	2024	2025	2026	2027
	$3,630,969	$4,174,418	$4,131,936	$4,221,352	$4,313,003	$4,406,946

** Auxiliary Revenues include contract transportation (HST, Beverly Shuttle, adult day care, etc), rental income, advertising*

*** Operating Assistance provided by the state*

**** Description of Operating Expenses: Salaries and wages; fringe benefit; legal, accounting, and professional services; promotional/marketing; insurance; equipment; non-capitalized maintenace/ repair; fuel costs; tire costs; office supplies and equipment; interest expense; management fees; travel and training; an dother miscellaneous expense items*